

## ANALYTICAL REPORT

Job Number: 180-46875-1

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  
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8/28/2015 10:07 AM

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08/28/2015

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

### 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.

### General Chemistry

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.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: 180-46875-1**

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 08/15/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0° C and 1.1° C.

### **VOLATILES**

Tetrachloroethene and Trichloroethene failed the recovery criteria low for the MS/MSD of sample HD-COD-SW-17-0/1-0 (180-46875-12) in batch 180-151188. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

### **METALS**

Calcium, Magnesium, Potassium and Sodium were detected in method blank MB 180-150950/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

### **GENERAL CHEMISTRY**

Bicarbonate Alkalinity as CaCO<sub>3</sub> and Total Alkalinity as CaCO<sub>3</sub> to pH 4.5 were detected in method blank MB 180-151534/2 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloride failed the recovery criteria high for the MS of sample HD-COD-SW-17-0/1-0 (180-46875-12) in batch 180-150875. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-6-0/1-0

## Lab Sample ID: 180-46875-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	89		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	47000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	58000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-7-0/1-0

## Lab Sample ID: 180-46875-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J	5.0	2.5	ug/L	1		8260C	Total/NA
Trichloroethene	0.20	J	1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	2.0		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	69		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	63		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	38000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8300	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	67000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-8-0/1-0

## Lab Sample ID: 180-46875-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.27	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.25	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.23	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.0		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	71		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	56		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	41000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8100	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	64000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-9-0/1-0

## Lab Sample ID: 180-46875-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.1	J	5.0	2.5	ug/L	1		8260C	Total/NA
Trichloroethene	0.23	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.16	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.6		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.21	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-9-0/1-0 (Continued)

Lab Sample ID: 180-46875-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	72000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	17000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	14000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	84000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-10-0/1-0

Lab Sample ID: 180-46875-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.37	J	1.0	0.24	ug/L	1		8260C	Total/NA
Nitrate as N	2.7		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	9400	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	54000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-11-0/1-0

Lab Sample ID: 180-46875-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.20	J	1.0	0.17	ug/L	1		8260C	Total/NA
Nitrate as N	4.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	69		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	21		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	73000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	2500	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	33000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-12-0/1-0

Lab Sample ID: 180-46875-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.8	J	5.0	2.5	ug/L	1		8260C	Total/NA
Toluene	0.18	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.3		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	48		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	76000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	22000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	12000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	96000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-13-0/1-0

## Lab Sample ID: 180-46875-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.33	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.49	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.47	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	76		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	56		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	46000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8300	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	65000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-15-0/1-0

## Lab Sample ID: 180-46875-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.63	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.18	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	12		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.25	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.52	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	12		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	7.8		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	32		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	91000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6100	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	64000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-16-0/1-0

## Lab Sample ID: 180-46875-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.37	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.44	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.61	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.0		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	72		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	59		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	41000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9900	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	63000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-QC1-0/1-2

## Lab Sample ID: 180-46875-11

No Detections.

## Client Sample ID: HD-COD-SW-17-0/1-0

## Lab Sample ID: 180-46875-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.88	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.59	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.22	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.7		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	19	F1	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	42		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.2		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	94000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6100	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	21000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	61000	B	500	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-COD-SW-20-0/1-0

## Lab Sample ID: 180-46875-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.4		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	100		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	57000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3300	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	12000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	48000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-26-0/1-0

## Lab Sample ID: 180-46875-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.26	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.89	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	0.34	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	3.9		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	4.0		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	190		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	27		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3700	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	91000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-27-0/1-0

## Lab Sample ID: 180-46875-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.0		5.0	2.5	ug/L	1		8260C	Total/NA
Carbon disulfide	0.23	J	1.0	0.21	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.79	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.19	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	0.76	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.39	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	73		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	57		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	44000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7900	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	63000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-28-0/1-0

## Lab Sample ID: 180-46875-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	J	5.0	2.5	ug/L	1		8260C	Total/NA
Nitrate as N	2.5		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	41		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	77000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	18000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	14000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	82000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

## Client Sample ID: HD-COD-SW-29-0/1-0

## Lab Sample ID: 180-46875-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.28	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.24	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.15	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.1		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	74		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	58		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	43000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	8900	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	66000	B	500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

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

## Lab Sample ID: 180-46875-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.65	J	1.0	0.30	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-QC1-0/1-1 (Continued)

Lab Sample ID: 180-46875-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.21	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	12		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.20	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.55	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	7.7		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.3		0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	34		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	92000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6200	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000	B	500	1.2	ug/L	1		6020A	Total/NA
Sodium	65000	B	500	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-QC2-0/1-2

Lab Sample ID: 180-46875-19

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Date Collected: 08/14/15 10:30**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 19:13	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 19:13	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 19:13	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 19:13	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 19:13	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 19:13	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 19:13	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 19:13	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 19:13	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 19:13	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 19:13	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 19:13	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 19:13	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 19:13	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 19:13	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 19:13	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 19:13	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 19:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 19:13	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 19:13	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 19:13	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 19:13	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 19:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 19:13	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 19:13	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 19:13	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 19:13	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 19:13	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 19:13	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 19:13	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 19:13	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 19:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 19:13	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 19:13	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 19:13	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 19:13	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 19:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 19:13	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 19:13	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 135		08/18/15 19:13	1
Toluene-d8 (Surr)	89		71 - 118		08/18/15 19:13	1
4-Bromofluorobenzene (Surr)	82		70 - 118		08/18/15 19:13	1
Dibromofluoromethane (Surr)	110		70 - 128		08/18/15 19:13	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-7-0/1-0**

**Date Collected: 08/14/15 11:15**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 19:37	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 19:37	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 19:37	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 19:37	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 19:37	1
<b>Acetone</b>	<b>2.5</b>	<b>J</b>	5.0	2.5	ug/L			08/18/15 19:37	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 19:37	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 19:37	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 19:37	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 19:37	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 19:37	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 19:37	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 19:37	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 19:37	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 19:37	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 19:37	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 19:37	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 19:37	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 19:37	1
<b>Trichloroethene</b>	<b>0.20</b>	<b>J</b>	1.0	0.14	ug/L			08/18/15 19:37	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 19:37	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 19:37	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 19:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 19:37	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 19:37	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 19:37	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 19:37	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 19:37	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 19:37	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 19:37	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 19:37	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 19:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 19:37	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 19:37	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 19:37	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 19:37	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 19:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 19:37	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 19:37	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		08/18/15 19:37	1
Toluene-d8 (Surr)	91		71 - 118		08/18/15 19:37	1
4-Bromofluorobenzene (Surr)	80		70 - 118		08/18/15 19:37	1
Dibromofluoromethane (Surr)	111		70 - 128		08/18/15 19:37	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-8-0/1-0**

**Date Collected: 08/14/15 08:55**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 20:01	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 20:01	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 20:01	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 20:01	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 20:01	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 20:01	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 20:01	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 20:01	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 20:01	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 20:01	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 20:01	1
<b>cis-1,2-Dichloroethene</b>	<b>0.27</b>	<b>J</b>	1.0	0.24	ug/L			08/18/15 20:01	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 20:01	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 20:01	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 20:01	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 20:01	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 20:01	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 20:01	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 20:01	1
<b>Trichloroethene</b>	<b>0.25</b>	<b>J</b>	1.0	0.14	ug/L			08/18/15 20:01	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 20:01	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 20:01	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 20:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 20:01	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 20:01	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 20:01	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 20:01	1
<b>Tetrachloroethene</b>	<b>0.23</b>	<b>J</b>	1.0	0.15	ug/L			08/18/15 20:01	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 20:01	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 20:01	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 20:01	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 20:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 20:01	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 20:01	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 20:01	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 20:01	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 20:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 20:01	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 20:01	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 135		08/18/15 20:01	1
Toluene-d8 (Surr)	88		71 - 118		08/18/15 20:01	1
4-Bromofluorobenzene (Surr)	79		70 - 118		08/18/15 20:01	1
Dibromofluoromethane (Surr)	107		70 - 128		08/18/15 20:01	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-9-0/1-0**

**Date Collected: 08/14/15 12:15**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 20:26	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 20:26	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 20:26	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 20:26	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 20:26	1
<b>Acetone</b>	<b>3.1</b>	<b>J</b>	5.0	2.5	ug/L			08/18/15 20:26	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 20:26	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 20:26	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 20:26	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 20:26	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 20:26	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 20:26	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 20:26	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 20:26	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 20:26	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 20:26	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 20:26	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 20:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 20:26	1
<b>Trichloroethene</b>	<b>0.23</b>	<b>J</b>	1.0	0.14	ug/L			08/18/15 20:26	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 20:26	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 20:26	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 20:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 20:26	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 20:26	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 20:26	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 20:26	1
<b>Tetrachloroethene</b>	<b>0.16</b>	<b>J</b>	1.0	0.15	ug/L			08/18/15 20:26	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 20:26	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 20:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 20:26	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 20:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 20:26	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 20:26	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 20:26	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 20:26	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 20:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 20:26	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 20:26	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		08/18/15 20:26	1
Toluene-d8 (Surr)	93		71 - 118		08/18/15 20:26	1
4-Bromofluorobenzene (Surr)	80		70 - 118		08/18/15 20:26	1
Dibromofluoromethane (Surr)	111		70 - 128		08/18/15 20:26	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-10-0/1-0**

**Date Collected: 08/14/15 09:25**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 20:50	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 20:50	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 20:50	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 20:50	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 20:50	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 20:50	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 20:50	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 20:50	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 20:50	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 20:50	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 20:50	1
<b>cis-1,2-Dichloroethene</b>	<b>0.37</b>	<b>J</b>	1.0	0.24	ug/L			08/18/15 20:50	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 20:50	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 20:50	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 20:50	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 20:50	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 20:50	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 20:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 20:50	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 20:50	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 20:50	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 20:50	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 20:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 20:50	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 20:50	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 20:50	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 20:50	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 20:50	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 20:50	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 20:50	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 20:50	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 20:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 20:50	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 20:50	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 20:50	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 20:50	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 20:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 20:50	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 20:50	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 135		08/18/15 20:50	1
Toluene-d8 (Surr)	91		71 - 118		08/18/15 20:50	1
4-Bromofluorobenzene (Surr)	79		70 - 118		08/18/15 20:50	1
Dibromofluoromethane (Surr)	107		70 - 128		08/18/15 20:50	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-11-0/1-0**

**Date Collected: 08/14/15 12:35**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 21:38	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 21:38	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 21:38	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 21:38	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 21:38	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 21:38	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 21:38	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 21:38	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 21:38	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 21:38	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 21:38	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 21:38	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 21:38	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 21:38	1
<b>Chloroform</b>	<b>0.20</b>	<b>J</b>	1.0	0.17	ug/L			08/18/15 21:38	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 21:38	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 21:38	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 21:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 21:38	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 21:38	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 21:38	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 21:38	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 21:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 21:38	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 21:38	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 21:38	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 21:38	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 21:38	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 21:38	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 21:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 21:38	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 21:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 21:38	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 21:38	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 21:38	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 21:38	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 21:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 21:38	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 21:38	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		64 - 135		08/18/15 21:38	1
Toluene-d8 (Surr)	92		71 - 118		08/18/15 21:38	1
4-Bromofluorobenzene (Surr)	80		70 - 118		08/18/15 21:38	1
Dibromofluoromethane (Surr)	114		70 - 128		08/18/15 21:38	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Date Collected: 08/14/15 12:50**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 22:02	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 22:02	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 22:02	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 22:02	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 22:02	1
<b>Acetone</b>	<b>2.8</b>	<b>J</b>	5.0	2.5	ug/L			08/18/15 22:02	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 22:02	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 22:02	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 22:02	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 22:02	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 22:02	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 22:02	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 22:02	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 22:02	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 22:02	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 22:02	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 22:02	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 22:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 22:02	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 22:02	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 22:02	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 22:02	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 22:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 22:02	1
<b>Toluene</b>	<b>0.18</b>	<b>J</b>	1.0	0.15	ug/L			08/18/15 22:02	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 22:02	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 22:02	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 22:02	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 22:02	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 22:02	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 22:02	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 22:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 22:02	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 22:02	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 22:02	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 22:02	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 22:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 22:02	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 22:02	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 22:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		08/18/15 22:02	1
Toluene-d8 (Surr)	91		71 - 118		08/18/15 22:02	1
4-Bromofluorobenzene (Surr)	83		70 - 118		08/18/15 22:02	1
Dibromofluoromethane (Surr)	112		70 - 128		08/18/15 22:02	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-13-0/1-0**

**Date Collected: 08/14/15 09:20**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-8**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 22:26	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 22:26	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 22:26	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 22:26	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 22:26	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 22:26	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 22:26	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 22:26	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 22:26	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 22:26	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 22:26	1
<b>cis-1,2-Dichloroethene</b>	<b>0.33</b>	<b>J</b>	1.0	0.24	ug/L			08/18/15 22:26	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 22:26	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 22:26	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 22:26	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 22:26	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 22:26	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 22:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 22:26	1
<b>Trichloroethene</b>	<b>0.49</b>	<b>J</b>	1.0	0.14	ug/L			08/18/15 22:26	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 22:26	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 22:26	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 22:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 22:26	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 22:26	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 22:26	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 22:26	1
<b>Tetrachloroethene</b>	<b>0.47</b>	<b>J</b>	1.0	0.15	ug/L			08/18/15 22:26	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 22:26	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 22:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 22:26	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 22:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 22:26	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 22:26	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 22:26	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 22:26	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 22:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 22:26	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 22:26	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		08/18/15 22:26	1
Toluene-d8 (Surr)	91		71 - 118		08/18/15 22:26	1
4-Bromofluorobenzene (Surr)	81		70 - 118		08/18/15 22:26	1
Dibromofluoromethane (Surr)	112		70 - 128		08/18/15 22:26	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-15-0/1-0**

**Date Collected: 08/14/15 13:05**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 22:50	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 22:50	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 22:50	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 22:50	1
<b>1,1-Dichloroethene</b>	<b>0.63</b>	<b>J</b>	1.0	0.30	ug/L			08/18/15 22:50	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 22:50	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 22:50	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 22:50	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 22:50	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 22:50	1
<b>1,1-Dichloroethane</b>	<b>0.18</b>	<b>J</b>	1.0	0.12	ug/L			08/18/15 22:50	1
<b>cis-1,2-Dichloroethene</b>	<b>12</b>		1.0	0.24	ug/L			08/18/15 22:50	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 22:50	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 22:50	1
<b>Chloroform</b>	<b>0.25</b>	<b>J</b>	1.0	0.17	ug/L			08/18/15 22:50	1
<b>1,1,1-Trichloroethane</b>	<b>0.52</b>	<b>J</b>	1.0	0.29	ug/L			08/18/15 22:50	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 22:50	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 22:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 22:50	1
<b>Trichloroethene</b>	<b>12</b>		1.0	0.14	ug/L			08/18/15 22:50	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 22:50	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 22:50	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 22:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 22:50	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 22:50	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 22:50	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 22:50	1
<b>Tetrachloroethene</b>	<b>7.8</b>		1.0	0.15	ug/L			08/18/15 22:50	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 22:50	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 22:50	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 22:50	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 22:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 22:50	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 22:50	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 22:50	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 22:50	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 22:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 22:50	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 22:50	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 22:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 135		08/18/15 22:50	1
Toluene-d8 (Surr)	91		71 - 118		08/18/15 22:50	1
4-Bromofluorobenzene (Surr)	78		70 - 118		08/18/15 22:50	1
Dibromofluoromethane (Surr)	110		70 - 128		08/18/15 22:50	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-16-0/1-0**

**Date Collected: 08/14/15 09:50**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-10**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 23:38	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 23:38	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 23:38	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 23:38	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 23:38	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 23:38	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 23:38	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 23:38	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 23:38	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 23:38	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 23:38	1
<b>cis-1,2-Dichloroethene</b>	<b>0.37</b>	<b>J</b>	1.0	0.24	ug/L			08/18/15 23:38	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 23:38	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 23:38	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 23:38	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 23:38	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 23:38	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 23:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 23:38	1
<b>Trichloroethene</b>	<b>0.44</b>	<b>J</b>	1.0	0.14	ug/L			08/18/15 23:38	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 23:38	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 23:38	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 23:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 23:38	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 23:38	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 23:38	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 23:38	1
<b>Tetrachloroethene</b>	<b>0.61</b>	<b>J</b>	1.0	0.15	ug/L			08/18/15 23:38	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 23:38	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 23:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 23:38	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 23:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 23:38	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 23:38	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 23:38	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 23:38	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 23:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 23:38	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 23:38	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 23:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		08/18/15 23:38	1
Toluene-d8 (Surr)	93		71 - 118		08/18/15 23:38	1
4-Bromofluorobenzene (Surr)	82		70 - 118		08/18/15 23:38	1
Dibromofluoromethane (Surr)	112		70 - 128		08/18/15 23:38	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-QC1-0/1-2**

**Date Collected: 08/14/15 12:00**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/18/15 23:14	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/18/15 23:14	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 23:14	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 23:14	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 23:14	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 23:14	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 23:14	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 23:14	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 23:14	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 23:14	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 23:14	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 23:14	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 23:14	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 23:14	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 23:14	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 23:14	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 23:14	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 23:14	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 23:14	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 23:14	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 23:14	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 23:14	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 23:14	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 23:14	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 23:14	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 23:14	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 23:14	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 23:14	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 23:14	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 23:14	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 23:14	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 23:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 23:14	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 23:14	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 23:14	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 23:14	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 23:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 23:14	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 23:14	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		08/18/15 23:14	1
Toluene-d8 (Surr)	92		71 - 118		08/18/15 23:14	1
4-Bromofluorobenzene (Surr)	78		70 - 118		08/18/15 23:14	1
Dibromofluoromethane (Surr)	114		70 - 128		08/18/15 23:14	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Date Collected: 08/14/15 10:00**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-12**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 14:27	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 14:27	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 14:27	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 14:27	1
<b>1,1-Dichloroethene</b>	<b>0.88</b>	<b>J</b>	1.0	0.30	ug/L			08/19/15 14:27	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 14:27	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 14:27	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 14:27	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 14:27	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 14:27	1
<b>1,1-Dichloroethane</b>	<b>0.59</b>	<b>J</b>	1.0	0.12	ug/L			08/19/15 14:27	1
<b>cis-1,2-Dichloroethene</b>	<b>15</b>		1.0	0.24	ug/L			08/19/15 14:27	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 14:27	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 14:27	1
<b>Chloroform</b>	<b>0.22</b>	<b>J</b>	1.0	0.17	ug/L			08/19/15 14:27	1
<b>1,1,1-Trichloroethane</b>	<b>2.7</b>		1.0	0.29	ug/L			08/19/15 14:27	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 14:27	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 14:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 14:27	1
<b>Trichloroethene</b>	<b>19</b>	<b>F1</b>	1.0	0.14	ug/L			08/19/15 14:27	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 14:27	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 14:27	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 14:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 14:27	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 14:27	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 14:27	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 14:27	1
<b>Tetrachloroethene</b>	<b>42</b>		1.0	0.15	ug/L			08/19/15 14:27	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 14:27	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 14:27	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 14:27	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 14:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 14:27	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 14:27	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 14:27	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 14:27	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 14:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 14:27	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 14:27	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		64 - 135		08/19/15 14:27	1
Toluene-d8 (Surr)	94		71 - 118		08/19/15 14:27	1
4-Bromofluorobenzene (Surr)	81		70 - 118		08/19/15 14:27	1
Dibromofluoromethane (Surr)	106		70 - 128		08/19/15 14:27	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-20-0/1-0**

**Date Collected: 08/14/15 10:35**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-13**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND	^c	1.0	0.28	ug/L			08/19/15 00:03	1
Vinyl chloride	ND	^c	1.0	0.23	ug/L			08/19/15 00:03	1
Bromomethane	ND		1.0	0.31	ug/L			08/19/15 00:03	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 00:03	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 00:03	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 00:03	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 00:03	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 00:03	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 00:03	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 00:03	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 00:03	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/19/15 00:03	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 00:03	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 00:03	1
Chloroform	ND		1.0	0.17	ug/L			08/19/15 00:03	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 00:03	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 00:03	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 00:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 00:03	1
Trichloroethene	ND		1.0	0.14	ug/L			08/19/15 00:03	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 00:03	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 00:03	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 00:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 00:03	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 00:03	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 00:03	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 00:03	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/19/15 00:03	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 00:03	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 00:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 00:03	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 00:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 00:03	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 00:03	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 00:03	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 00:03	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 00:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 00:03	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 00:03	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 00:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		64 - 135		08/19/15 00:03	1
Toluene-d8 (Surr)	90		71 - 118		08/19/15 00:03	1
4-Bromofluorobenzene (Surr)	80		70 - 118		08/19/15 00:03	1
Dibromofluoromethane (Surr)	111		70 - 128		08/19/15 00:03	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-26-0/1-0**

**Date Collected: 08/14/15 10:55**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-14**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 20:27	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 20:27	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 20:27	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 20:27	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 20:27	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 20:27	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 20:27	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 20:27	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 20:27	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 20:27	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 20:27	1
<b>cis-1,2-Dichloroethene</b>	<b>0.26</b>	<b>J</b>	1.0	0.24	ug/L			08/19/15 20:27	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 20:27	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 20:27	1
<b>Chloroform</b>	<b>0.89</b>	<b>J</b>	1.0	0.17	ug/L			08/19/15 20:27	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 20:27	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 20:27	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 20:27	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 20:27	1
<b>Trichloroethene</b>	<b>0.34</b>	<b>J</b>	1.0	0.14	ug/L			08/19/15 20:27	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 20:27	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 20:27	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 20:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 20:27	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 20:27	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 20:27	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 20:27	1
<b>Tetrachloroethene</b>	<b>3.9</b>		1.0	0.15	ug/L			08/19/15 20:27	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 20:27	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 20:27	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 20:27	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 20:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 20:27	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 20:27	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 20:27	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 20:27	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 20:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 20:27	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 20:27	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		64 - 135		08/19/15 20:27	1
Toluene-d8 (Surr)	92		71 - 118		08/19/15 20:27	1
4-Bromofluorobenzene (Surr)	81		70 - 118		08/19/15 20:27	1
Dibromofluoromethane (Surr)	112		70 - 128		08/19/15 20:27	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-27-0/1-0**

**Date Collected: 08/14/15 13:15**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-15**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 20:52	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 20:52	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 20:52	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 20:52	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 20:52	1
<b>Acetone</b>	<b>5.0</b>		5.0	2.5	ug/L			08/19/15 20:52	1
<b>Carbon disulfide</b>	<b>0.23</b>	<b>J</b>	1.0	0.21	ug/L			08/19/15 20:52	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 20:52	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 20:52	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 20:52	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 20:52	1
<b>cis-1,2-Dichloroethene</b>	<b>0.79</b>	<b>J</b>	1.0	0.24	ug/L			08/19/15 20:52	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 20:52	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 20:52	1
<b>Chloroform</b>	<b>0.19</b>	<b>J</b>	1.0	0.17	ug/L			08/19/15 20:52	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 20:52	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 20:52	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 20:52	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 20:52	1
<b>Trichloroethene</b>	<b>0.76</b>	<b>J</b>	1.0	0.14	ug/L			08/19/15 20:52	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 20:52	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 20:52	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 20:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 20:52	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 20:52	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 20:52	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 20:52	1
<b>Tetrachloroethene</b>	<b>0.39</b>	<b>J</b>	1.0	0.15	ug/L			08/19/15 20:52	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 20:52	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 20:52	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 20:52	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 20:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 20:52	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 20:52	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 20:52	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 20:52	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 20:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 20:52	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 20:52	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 135		08/19/15 20:52	1
Toluene-d8 (Surr)	91		71 - 118		08/19/15 20:52	1
4-Bromofluorobenzene (Surr)	81		70 - 118		08/19/15 20:52	1
Dibromofluoromethane (Surr)	114		70 - 128		08/19/15 20:52	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-28-0/1-0**

**Date Collected: 08/14/15 12:25**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-16**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 21:15	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 21:15	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 21:15	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 21:15	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 21:15	1
<b>Acetone</b>	<b>2.6</b>	<b>J</b>	5.0	2.5	ug/L			08/19/15 21:15	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 21:15	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 21:15	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 21:15	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 21:15	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 21:15	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/19/15 21:15	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 21:15	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 21:15	1
Chloroform	ND		1.0	0.17	ug/L			08/19/15 21:15	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 21:15	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 21:15	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 21:15	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 21:15	1
Trichloroethene	ND		1.0	0.14	ug/L			08/19/15 21:15	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 21:15	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 21:15	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 21:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 21:15	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 21:15	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 21:15	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 21:15	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/19/15 21:15	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 21:15	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 21:15	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 21:15	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 21:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 21:15	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 21:15	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 21:15	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 21:15	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 21:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 21:15	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 21:15	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 21:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		64 - 135		08/19/15 21:15	1
Toluene-d8 (Surr)	94		71 - 118		08/19/15 21:15	1
4-Bromofluorobenzene (Surr)	85		70 - 118		08/19/15 21:15	1
Dibromofluoromethane (Surr)	114		70 - 128		08/19/15 21:15	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-COD-SW-29-0/1-0**

**Date Collected: 08/14/15 08:45**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-17**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 16:51	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 16:51	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 16:51	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 16:51	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 16:51	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 16:51	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 16:51	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 16:51	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 16:51	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 16:51	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 16:51	1
<b>cis-1,2-Dichloroethene</b>	<b>0.28</b>	<b>J</b>	1.0	0.24	ug/L			08/19/15 16:51	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 16:51	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 16:51	1
Chloroform	ND		1.0	0.17	ug/L			08/19/15 16:51	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 16:51	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 16:51	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 16:51	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 16:51	1
<b>Trichloroethene</b>	<b>0.24</b>	<b>J</b>	1.0	0.14	ug/L			08/19/15 16:51	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 16:51	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 16:51	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 16:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 16:51	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 16:51	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 16:51	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 16:51	1
<b>Tetrachloroethene</b>	<b>0.15</b>	<b>J</b>	1.0	0.15	ug/L			08/19/15 16:51	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 16:51	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 16:51	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 16:51	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 16:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 16:51	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 16:51	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 16:51	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 16:51	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 16:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 16:51	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 16:51	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		64 - 135		08/19/15 16:51	1
Toluene-d8 (Surr)	93		71 - 118		08/19/15 16:51	1
4-Bromofluorobenzene (Surr)	84		70 - 118		08/19/15 16:51	1
Dibromofluoromethane (Surr)	102		70 - 128		08/19/15 16:51	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

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

**Date Collected: 08/14/15 08:00**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-18**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 20:04	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 20:04	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 20:04	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 20:04	1
<b>1,1-Dichloroethene</b>	<b>0.65</b>	<b>J</b>	1.0	0.30	ug/L			08/19/15 20:04	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 20:04	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 20:04	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 20:04	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 20:04	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 20:04	1
<b>1,1-Dichloroethane</b>	<b>0.21</b>	<b>J</b>	1.0	0.12	ug/L			08/19/15 20:04	1
<b>cis-1,2-Dichloroethene</b>	<b>12</b>		1.0	0.24	ug/L			08/19/15 20:04	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 20:04	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 20:04	1
<b>Chloroform</b>	<b>0.20</b>	<b>J</b>	1.0	0.17	ug/L			08/19/15 20:04	1
<b>1,1,1-Trichloroethane</b>	<b>0.55</b>	<b>J</b>	1.0	0.29	ug/L			08/19/15 20:04	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 20:04	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 20:04	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 20:04	1
<b>Trichloroethene</b>	<b>11</b>		1.0	0.14	ug/L			08/19/15 20:04	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 20:04	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 20:04	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 20:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 20:04	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 20:04	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 20:04	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 20:04	1
<b>Tetrachloroethene</b>	<b>7.7</b>		1.0	0.15	ug/L			08/19/15 20:04	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 20:04	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 20:04	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 20:04	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 20:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 20:04	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 20:04	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 20:04	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 20:04	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 20:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 20:04	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 20:04	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		64 - 135		08/19/15 20:04	1
Toluene-d8 (Surr)	94		71 - 118		08/19/15 20:04	1
4-Bromofluorobenzene (Surr)	82		70 - 118		08/19/15 20:04	1
Dibromofluoromethane (Surr)	112		70 - 128		08/19/15 20:04	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Client Sample ID: HD-QC2-0/1-2**

**Date Collected: 08/14/15 12:01**

**Date Received: 08/15/15 09:20**

**Lab Sample ID: 180-46875-19**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 14:03	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 14:03	1
Bromomethane	ND	^c	1.0	0.31	ug/L			08/19/15 14:03	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 14:03	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 14:03	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 14:03	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 14:03	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 14:03	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 14:03	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 14:03	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 14:03	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/19/15 14:03	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 14:03	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 14:03	1
Chloroform	ND		1.0	0.17	ug/L			08/19/15 14:03	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 14:03	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 14:03	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 14:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 14:03	1
Trichloroethene	ND		1.0	0.14	ug/L			08/19/15 14:03	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 14:03	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 14:03	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 14:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 14:03	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 14:03	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 14:03	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 14:03	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/19/15 14:03	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 14:03	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 14:03	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 14:03	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 14:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 14:03	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 14:03	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 14:03	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 14:03	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 14:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 14:03	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 14:03	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 14:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		64 - 135		08/19/15 14:03	1
Toluene-d8 (Surr)	91		71 - 118		08/19/15 14:03	1
4-Bromofluorobenzene (Surr)	84		70 - 118		08/19/15 14:03	1
Dibromofluoromethane (Surr)	109		70 - 128		08/19/15 14:03	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-6-0/1-0

Date Collected: 08/14/15 10:30

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1		0.10	0.0062	mg/L			08/15/15 13:44	1
Chloride	89		1.0	0.20	mg/L			08/15/15 13:44	1
Sulfate	34		1.0	0.21	mg/L			08/15/15 13:44	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-7-0/1-0

Date Collected: 08/14/15 11:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.0		0.10	0.0062	mg/L			08/15/15 14:36	1
Chloride	69		1.0	0.20	mg/L			08/15/15 14:36	1
Sulfate	63		1.0	0.21	mg/L			08/15/15 14:36	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-8-0/1-0

Date Collected: 08/14/15 08:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.0		0.10	0.0062	mg/L			08/15/15 14:53	1
Chloride	71		1.0	0.20	mg/L			08/15/15 14:53	1
Sulfate	56		1.0	0.21	mg/L			08/15/15 14:53	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-9-0/1-0

Date Collected: 08/14/15 12:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.6		0.10	0.0062	mg/L			08/15/15 15:11	1
Chloride	130		1.0	0.20	mg/L			08/15/15 15:11	1
Sulfate	42		1.0	0.21	mg/L			08/15/15 15:11	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-10-0/1-0

Date Collected: 08/14/15 09:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.7		0.10	0.0062	mg/L			08/15/15 15:28	1
Chloride	130		1.0	0.20	mg/L			08/15/15 15:28	1
Sulfate	33		1.0	0.21	mg/L			08/15/15 15:28	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-11-0/1-0

Date Collected: 08/14/15 12:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.1		0.10	0.0062	mg/L			08/15/15 15:45	1
Chloride	69		1.0	0.20	mg/L			08/15/15 15:45	1
Sulfate	21		1.0	0.21	mg/L			08/15/15 15:45	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-12-0/1-0

Date Collected: 08/14/15 12:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3		0.10	0.0062	mg/L			08/15/15 16:37	1
Chloride	150		1.0	0.20	mg/L			08/15/15 16:37	1
Sulfate	48		1.0	0.21	mg/L			08/15/15 16:37	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-13-0/1-0

Date Collected: 08/14/15 09:20

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1		0.10	0.0062	mg/L			08/15/15 16:55	1
Chloride	76		1.0	0.20	mg/L			08/15/15 16:55	1
Sulfate	56		1.0	0.21	mg/L			08/15/15 16:55	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-15-0/1-0

Date Collected: 08/14/15 13:05

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.1		0.10	0.0062	mg/L			08/15/15 17:12	1
Chloride	130		1.0	0.20	mg/L			08/15/15 17:12	1
Sulfate	32		1.0	0.21	mg/L			08/15/15 17:12	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-16-0/1-0

Date Collected: 08/14/15 09:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.0		0.10	0.0062	mg/L			08/15/15 17:29	1
Chloride	72		1.0	0.20	mg/L			08/15/15 17:29	1
Sulfate	59		1.0	0.21	mg/L			08/15/15 17:29	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-17-0/1-0

Date Collected: 08/14/15 10:00

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.2		0.10	0.0062	mg/L			08/15/15 17:46	1
Chloride	130		1.0	0.20	mg/L			08/15/15 17:46	1
Sulfate	33		1.0	0.21	mg/L			08/15/15 17:46	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-20-0/1-0

Date Collected: 08/14/15 10:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4		0.10	0.0062	mg/L			08/15/15 18:38	1
Chloride	100		1.0	0.20	mg/L			08/15/15 18:38	1
Sulfate	16		1.0	0.21	mg/L			08/15/15 18:38	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-26-0/1-0

Date Collected: 08/14/15 10:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.0		0.10	0.0062	mg/L			08/15/15 18:56	1
Chloride	190		1.0	0.20	mg/L			08/15/15 18:56	1
Sulfate	27		1.0	0.21	mg/L			08/15/15 18:56	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-27-0/1-0

Date Collected: 08/14/15 13:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1		0.10	0.0062	mg/L			08/15/15 19:13	1
Chloride	73		1.0	0.20	mg/L			08/15/15 19:13	1
Sulfate	57		1.0	0.21	mg/L			08/15/15 19:13	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-28-0/1-0

Date Collected: 08/14/15 12:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.5		0.10	0.0062	mg/L			08/15/15 20:05	1
Chloride	130		1.0	0.20	mg/L			08/15/15 20:05	1
Sulfate	41		1.0	0.21	mg/L			08/15/15 20:05	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-29-0/1-0

Date Collected: 08/14/15 08:45

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1		0.10	0.0062	mg/L			08/15/15 20:22	1
Chloride	74		1.0	0.20	mg/L			08/15/15 20:22	1
Sulfate	58		1.0	0.21	mg/L			08/15/15 20:22	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC1-0/1-1  
Date Collected: 08/14/15 08:00  
Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-18  
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.3		0.10	0.0062	mg/L			08/15/15 20:39	1
Chloride	130		1.0	0.20	mg/L			08/15/15 20:39	1
Sulfate	34		1.0	0.21	mg/L			08/15/15 20:39	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-6-0/1-0

Date Collected: 08/14/15 10:30

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:30	1
Potassium	5000	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:18	1
Magnesium	11000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:30	1
Sodium	58000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:18	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-7-0/1-0

Date Collected: 08/14/15 11:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	38000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:35	1
Potassium	8300	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:23	1
Magnesium	10000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:35	1
Sodium	67000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:23	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-8-0/1-0

Date Collected: 08/14/15 08:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:40	1
Potassium	8100	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:28	1
Magnesium	11000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:40	1
Sodium	64000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:28	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-9-0/1-0

Date Collected: 08/14/15 12:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	72000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:45	1
Potassium	17000	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:33	1
Magnesium	14000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:45	1
Sodium	84000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:33	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-10-0/1-0

Date Collected: 08/14/15 09:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:50	1
Potassium	9400	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:38	1
Magnesium	19000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:50	1
Sodium	54000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:38	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-11-0/1-0

Date Collected: 08/14/15 12:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	73000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 15:55	1
Potassium	2500	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:44	1
Magnesium	19000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 15:55	1
Sodium	33000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:44	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-12-0/1-0

Date Collected: 08/14/15 12:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	76000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:00	1
Potassium	22000	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 10:49	1
Magnesium	12000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:00	1
Sodium	96000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 10:49	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-13-0/1-0

Date Collected: 08/14/15 09:20

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:30	1
Potassium	8300	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 11:18	1
Magnesium	11000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:30	1
Sodium	65000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 11:18	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-15-0/1-0

Date Collected: 08/14/15 13:05

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:35	1
Potassium	6100	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 11:23	1
Magnesium	20000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:35	1
Sodium	64000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 11:23	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-16-0/1-0

Date Collected: 08/14/15 09:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	41000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:40	1
Potassium	8000	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 11:28	1
Magnesium	9900	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:40	1
Sodium	63000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 11:28	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-17-0/1-0

Date Collected: 08/14/15 10:00

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	94000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:45	1
Potassium	6100	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 11:33	1
Magnesium	21000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:45	1
Sodium	61000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 11:33	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-20-0/1-0

Date Collected: 08/14/15 10:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	57000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:24	1
Potassium	3300	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:09	1
Magnesium	12000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:24	1
Sodium	48000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:09	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-26-0/1-0

Date Collected: 08/14/15 10:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:29	1
Potassium	3700	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:14	1
Magnesium	20000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:29	1
Sodium	91000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:14	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-27-0/1-0

Date Collected: 08/14/15 13:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	44000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:34	1
Potassium	7900	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:19	1
Magnesium	11000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:34	1
Sodium	63000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:19	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-28-0/1-0

Date Collected: 08/14/15 12:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	77000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:39	1
Potassium	18000	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:24	1
Magnesium	14000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:39	1
Sodium	82000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:24	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

Client Sample ID: HD-COD-SW-29-0/1-0

Date Collected: 08/14/15 08:45

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	43000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:45	1
Potassium	8900	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:29	1
Magnesium	10000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:45	1
Sodium	66000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:29	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

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

Date Collected: 08/14/15 08:00

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	92000	B	500	2.8	ug/L		08/17/15 10:40	08/21/15 17:50	1
Potassium	6200	B	500	5.8	ug/L		08/17/15 10:40	08/24/15 12:34	1
Magnesium	20000	B	500	1.2	ug/L		08/17/15 10:40	08/21/15 17:50	1
Sodium	65000	B	500	3.8	ug/L		08/17/15 10:40	08/24/15 12:34	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-6-0/1-0

Date Collected: 08/14/15 10:30

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	150	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-7-0/1-0

Date Collected: 08/14/15 11:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-8-0/1-0

Date Collected: 08/14/15 08:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	130	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	130	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-9-0/1-0

Date Collected: 08/14/15 12:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	190	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	190	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-10-0/1-0

Date Collected: 08/14/15 09:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.1	260	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-11-0/1-0

Date Collected: 08/14/15 12:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-12-0/1-0

Date Collected: 08/14/15 12:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	200	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	200	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-13-0/1-0

Date Collected: 08/14/15 09:20

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-15-0/1-0

Date Collected: 08/14/15 13:05

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-16-0/1-0

Date Collected: 08/14/15 09:50

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-17-0/1-0

Date Collected: 08/14/15 10:00

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-12

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			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	290	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-20-0/1-0

Date Collected: 08/14/15 10:35

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	170	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	170	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-26-0/1-0

Date Collected: 08/14/15 10:55

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-14

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			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-27-0/1-0

Date Collected: 08/14/15 13:15

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	150	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-28-0/1-0

Date Collected: 08/14/15 12:25

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

Client Sample ID: HD-COD-SW-29-0/1-0

Date Collected: 08/14/15 08:45

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

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

Date Collected: 08/14/15 08:00

Date Received: 08/15/15 09:20

Lab Sample ID: 180-46875-18

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			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	280	B	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

# Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

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

## Method: 300.0 - Anions, Ion Chromatography

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

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

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

# Default Detection Limits

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

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

## General Chemistry

Analyte	RL	MDL	Units	Method
Bicarbonate Alkalinity as CaCO <sub>3</sub>	5.0	0.41	mg/L	SM 2320B
Carbonate Alkalinity as CaCO <sub>3</sub>	5.0	0.41	mg/L	SM 2320B
Total Alkalinity as CaCO <sub>3</sub> 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: 180-46875-1

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

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-46875-1	HD-COD-SW-6-0/1-0	107	89	82	110
180-46875-2	HD-COD-SW-7-0/1-0	110	91	80	111
180-46875-3	HD-COD-SW-8-0/1-0	109	88	79	107
180-46875-4	HD-COD-SW-9-0/1-0	110	93	80	111
180-46875-5	HD-COD-SW-10-0/1-0	107	91	79	107
180-46875-6	HD-COD-SW-11-0/1-0	111	92	80	114
180-46875-7	HD-COD-SW-12-0/1-0	110	91	83	112
180-46875-8	HD-COD-SW-13-0/1-0	112	91	81	112
180-46875-9	HD-COD-SW-15-0/1-0	109	91	78	110
180-46875-10	HD-COD-SW-16-0/1-0	112	93	82	112
180-46875-11	HD-QC1-0/1-2	110	92	78	114
180-46875-12	HD-COD-SW-17-0/1-0	107	94	81	106
180-46875-12 MS	HD-COD-SW-17-0/1-0	89	98	91	92
180-46875-12 MSD	HD-COD-SW-17-0/1-0	95	99	92	96
180-46875-13	HD-COD-SW-20-0/1-0	112	90	80	111
180-46875-14	HD-COD-SW-26-0/1-0	106	92	81	112
180-46875-15	HD-COD-SW-27-0/1-0	109	91	81	114
180-46875-16	HD-COD-SW-28-0/1-0	111	94	85	114
180-46875-17	HD-COD-SW-29-0/1-0	103	93	84	102
180-46875-18	HD-QC1-0/1-1	110	94	82	112
180-46875-19	HD-QC2-0/1-2	108	91	84	109
LCS 180-151080/8	Lab Control Sample	94	97	94	98
LCS 180-151188/14	Lab Control Sample	84	95	90	86
LCSD 180-151080/9	Lab Control Sample Dup	97	99	97	96
MB 180-151080/7	Method Blank	102	92	85	101
MB 180-151188/6	Method Blank	104	96	88	105

**Surrogate Legend**

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

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: MB 180-151080/7**  
**Matrix: Water**  
**Analysis Batch: 151080**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/18/15 14:38	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/18/15 14:38	1
Bromomethane	ND		1.0	0.31	ug/L			08/18/15 14:38	1
Chloroethane	ND		1.0	0.21	ug/L			08/18/15 14:38	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/18/15 14:38	1
Acetone	ND		5.0	2.5	ug/L			08/18/15 14:38	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/18/15 14:38	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/18/15 14:38	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/18/15 14:38	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/18/15 14:38	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/18/15 14:38	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/18/15 14:38	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/18/15 14:38	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/18/15 14:38	1
Chloroform	ND		1.0	0.17	ug/L			08/18/15 14:38	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/18/15 14:38	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/18/15 14:38	1
Benzene	ND		1.0	0.11	ug/L			08/18/15 14:38	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/18/15 14:38	1
Trichloroethene	ND		1.0	0.14	ug/L			08/18/15 14:38	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/18/15 14:38	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/18/15 14:38	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/18/15 14:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/18/15 14:38	1
Toluene	ND		1.0	0.15	ug/L			08/18/15 14:38	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/18/15 14:38	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/18/15 14:38	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/18/15 14:38	1
2-Hexanone	ND		5.0	0.16	ug/L			08/18/15 14:38	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/18/15 14:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/18/15 14:38	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/18/15 14:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/18/15 14:38	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/18/15 14:38	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/18/15 14:38	1
Styrene	ND		1.0	0.097	ug/L			08/18/15 14:38	1
Bromoform	ND		1.0	0.19	ug/L			08/18/15 14:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/18/15 14:38	1
Acrylonitrile	ND		20	0.55	ug/L			08/18/15 14:38	1
1,4-Dioxane	ND		200	34	ug/L			08/18/15 14:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		64 - 135		08/18/15 14:38	1
Toluene-d8 (Surr)	92		71 - 118		08/18/15 14:38	1
4-Bromofluorobenzene (Surr)	85		70 - 118		08/18/15 14:38	1
Dibromofluoromethane (Surr)	101		70 - 128		08/18/15 14:38	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: LCS 180-151080/8**

**Matrix: Water**

**Analysis Batch: 151080**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	8.41		ug/L		84	50 - 139
Vinyl chloride	10.0	8.12		ug/L		81	53 - 138
Bromomethane	10.0	7.02		ug/L		70	33 - 150
Chloroethane	10.0	8.70		ug/L		87	36 - 142
1,1-Dichloroethene	10.0	8.94		ug/L		89	65 - 136
Acetone	20.0	17.9		ug/L		90	22 - 150
Carbon disulfide	10.0	8.98		ug/L		90	54 - 132
Methylene Chloride	10.0	9.83		ug/L		98	63 - 129
trans-1,2-Dichloroethene	10.0	9.48		ug/L		95	73 - 126
Methyl tert-butyl ether	10.0	9.45		ug/L		94	64 - 123
1,1-Dichloroethane	10.0	9.80		ug/L		98	73 - 126
cis-1,2-Dichloroethene	10.0	9.49		ug/L		95	70 - 120
Bromochloromethane	10.0	10.0		ug/L		100	70 - 127
2-Butanone (MEK)	20.0	18.5		ug/L		92	39 - 138
Chloroform	10.0	9.87		ug/L		99	72 - 127
1,1,1-Trichloroethane	10.0	9.48		ug/L		95	63 - 133
Carbon tetrachloride	10.0	8.47		ug/L		85	55 - 150
Benzene	10.0	10.0		ug/L		100	80 - 120
1,2-Dichloroethane	10.0	9.53		ug/L		95	68 - 132
Trichloroethene	10.0	9.37		ug/L		94	73 - 120
1,2-Dichloropropane	10.0	10.0		ug/L		100	76 - 124
Bromodichloromethane	10.0	9.80		ug/L		98	66 - 130
cis-1,3-Dichloropropene	10.0	9.89		ug/L		99	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.4		ug/L		97	45 - 145
Toluene	10.0	10.2		ug/L		102	80 - 123
trans-1,3-Dichloropropene	10.0	9.36		ug/L		94	65 - 125
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	77 - 127
Tetrachloroethene	10.0	9.77		ug/L		98	70 - 135
2-Hexanone	20.0	17.8		ug/L		89	25 - 132
Dibromochloromethane	10.0	9.37		ug/L		94	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.79		ug/L		98	74 - 123
Chlorobenzene	10.0	9.74		ug/L		97	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	63 - 140
Ethylbenzene	10.0	9.74		ug/L		97	72 - 126
Xylenes, Total	20.0	19.6		ug/L		98	76 - 128
Styrene	10.0	10.5		ug/L		105	71 - 127
Bromoform	10.0	8.90		ug/L		89	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.5		ug/L		105	62 - 125
Acrylonitrile	100	104		ug/L		104	30 - 140
1,4-Dioxane	200	208		ug/L		104	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		64 - 135
Toluene-d8 (Surr)	97		71 - 118
4-Bromofluorobenzene (Surr)	94		70 - 118
Dibromofluoromethane (Surr)	98		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: LCSD 180-151080/9**

**Matrix: Water**

**Analysis Batch: 151080**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	RPD Limit
Chloromethane	10.0	8.15		ug/L		81	50 - 139	3	35	
Vinyl chloride	10.0	7.82		ug/L		78	53 - 138	4	35	
Bromomethane	10.0	6.13		ug/L		61	33 - 150	14	35	
Chloroethane	10.0	8.09		ug/L		81	36 - 142	7	35	
1,1-Dichloroethene	10.0	8.50		ug/L		85	65 - 136	5	35	
Acetone	20.0	22.3		ug/L		111	22 - 150	21	35	
Carbon disulfide	10.0	8.42		ug/L		84	54 - 132	6	35	
Methylene Chloride	10.0	9.44		ug/L		94	63 - 129	4	35	
trans-1,2-Dichloroethene	10.0	9.13		ug/L		91	73 - 126	4	35	
Methyl tert-butyl ether	10.0	9.32		ug/L		93	64 - 123	1	35	
1,1-Dichloroethane	10.0	9.41		ug/L		94	73 - 126	4	35	
cis-1,2-Dichloroethene	10.0	9.38		ug/L		94	70 - 120	1	35	
Bromochloromethane	10.0	9.78		ug/L		98	70 - 127	2	35	
2-Butanone (MEK)	20.0	22.7		ug/L		113	39 - 138	21	35	
Chloroform	10.0	9.22		ug/L		92	72 - 127	7	35	
1,1,1-Trichloroethane	10.0	8.92		ug/L		89	63 - 133	6	35	
Carbon tetrachloride	10.0	8.20		ug/L		82	55 - 150	3	35	
Benzene	10.0	9.63		ug/L		96	80 - 120	4	32	
1,2-Dichloroethane	10.0	9.18		ug/L		92	68 - 132	4	32	
Trichloroethene	10.0	8.96		ug/L		90	73 - 120	4	35	
1,2-Dichloropropane	10.0	9.70		ug/L		97	76 - 124	3	34	
Bromodichloromethane	10.0	9.15		ug/L		92	66 - 130	7	35	
cis-1,3-Dichloropropene	10.0	9.66		ug/L		97	66 - 120	2	35	
4-Methyl-2-pentanone (MIBK)	20.0	20.4		ug/L		102	45 - 145	5	35	
Toluene	10.0	9.85		ug/L		99	80 - 123	3	35	
trans-1,3-Dichloropropene	10.0	9.27		ug/L		93	65 - 125	1	35	
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	77 - 127	2	35	
Tetrachloroethene	10.0	9.25		ug/L		93	70 - 135	5	35	
2-Hexanone	20.0	20.0		ug/L		100	25 - 132	12	35	
Dibromochloromethane	10.0	9.24		ug/L		92	60 - 140	1	35	
1,2-Dibromoethane (EDB)	10.0	9.89		ug/L		99	74 - 123	1	35	
Chlorobenzene	10.0	9.81		ug/L		98	80 - 120	1	29	
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	63 - 140	0	34	
Ethylbenzene	10.0	9.89		ug/L		99	72 - 126	1	33	
Xylenes, Total	20.0	20.0		ug/L		100	76 - 128	2	32	
Styrene	10.0	10.2		ug/L		102	71 - 127	2	34	
Bromoform	10.0	9.05		ug/L		90	46 - 150	2	35	
1,1,2,2-Tetrachloroethane	10.0	10.7		ug/L		107	62 - 125	2	35	
Acrylonitrile	100	104		ug/L		104	30 - 140	0	35	
1,4-Dioxane	200	225		ug/L		112	10 - 160	8	35	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		64 - 135
Toluene-d8 (Surr)	99		71 - 118
4-Bromofluorobenzene (Surr)	97		70 - 118
Dibromofluoromethane (Surr)	96		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: MB 180-151188/6**  
**Matrix: Water**  
**Analysis Batch: 151188**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			08/19/15 13:02	1
Vinyl chloride	ND		1.0	0.23	ug/L			08/19/15 13:02	1
Bromomethane	ND		1.0	0.31	ug/L			08/19/15 13:02	1
Chloroethane	ND		1.0	0.21	ug/L			08/19/15 13:02	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			08/19/15 13:02	1
Acetone	ND		5.0	2.5	ug/L			08/19/15 13:02	1
Carbon disulfide	ND		1.0	0.21	ug/L			08/19/15 13:02	1
Methylene Chloride	ND		1.0	0.13	ug/L			08/19/15 13:02	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			08/19/15 13:02	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			08/19/15 13:02	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			08/19/15 13:02	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			08/19/15 13:02	1
Bromochloromethane	ND		1.0	0.18	ug/L			08/19/15 13:02	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			08/19/15 13:02	1
Chloroform	ND		1.0	0.17	ug/L			08/19/15 13:02	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			08/19/15 13:02	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			08/19/15 13:02	1
Benzene	ND		1.0	0.11	ug/L			08/19/15 13:02	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/19/15 13:02	1
Trichloroethene	ND		1.0	0.14	ug/L			08/19/15 13:02	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			08/19/15 13:02	1
Bromodichloromethane	ND		1.0	0.13	ug/L			08/19/15 13:02	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			08/19/15 13:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			08/19/15 13:02	1
Toluene	ND		1.0	0.15	ug/L			08/19/15 13:02	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			08/19/15 13:02	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			08/19/15 13:02	1
Tetrachloroethene	ND		1.0	0.15	ug/L			08/19/15 13:02	1
2-Hexanone	ND		5.0	0.16	ug/L			08/19/15 13:02	1
Dibromochloromethane	ND		1.0	0.14	ug/L			08/19/15 13:02	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			08/19/15 13:02	1
Chlorobenzene	ND		1.0	0.14	ug/L			08/19/15 13:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			08/19/15 13:02	1
Ethylbenzene	ND		1.0	0.23	ug/L			08/19/15 13:02	1
Xylenes, Total	ND		3.0	0.49	ug/L			08/19/15 13:02	1
Styrene	ND		1.0	0.097	ug/L			08/19/15 13:02	1
Bromoform	ND		1.0	0.19	ug/L			08/19/15 13:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			08/19/15 13:02	1
Acrylonitrile	ND		20	0.55	ug/L			08/19/15 13:02	1
1,4-Dioxane	ND		200	34	ug/L			08/19/15 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 135		08/19/15 13:02	1
Toluene-d8 (Surr)	96		71 - 118		08/19/15 13:02	1
4-Bromofluorobenzene (Surr)	88		70 - 118		08/19/15 13:02	1
Dibromofluoromethane (Surr)	105		70 - 128		08/19/15 13:02	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: LCS 180-151188/14**

**Matrix: Water**

**Analysis Batch: 151188**

**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	11.3		ug/L		113	50 - 139
Vinyl chloride	10.0	10.4		ug/L		104	53 - 138
Bromomethane	10.0	7.87		ug/L		79	33 - 150
Chloroethane	10.0	9.62		ug/L		96	36 - 142
1,1-Dichloroethene	10.0	8.97		ug/L		90	65 - 136
Acetone	20.0	23.5		ug/L		118	22 - 150
Carbon disulfide	10.0	9.26		ug/L		93	54 - 132
Methylene Chloride	10.0	8.30		ug/L		83	63 - 129
trans-1,2-Dichloroethene	10.0	9.38		ug/L		94	73 - 126
Methyl tert-butyl ether	10.0	8.93		ug/L		89	64 - 123
1,1-Dichloroethane	10.0	9.28		ug/L		93	73 - 126
cis-1,2-Dichloroethene	10.0	9.15		ug/L		92	70 - 120
Bromochloromethane	10.0	9.37		ug/L		94	70 - 127
2-Butanone (MEK)	20.0	22.5		ug/L		112	39 - 138
Chloroform	10.0	9.19		ug/L		92	72 - 127
1,1,1-Trichloroethane	10.0	8.98		ug/L		90	63 - 133
Carbon tetrachloride	10.0	8.39		ug/L		84	55 - 150
Benzene	10.0	9.49		ug/L		95	80 - 120
1,2-Dichloroethane	10.0	8.86		ug/L		89	68 - 132
Trichloroethene	10.0	8.50		ug/L		85	73 - 120
1,2-Dichloropropane	10.0	9.61		ug/L		96	76 - 124
Bromodichloromethane	10.0	8.74		ug/L		87	66 - 130
cis-1,3-Dichloropropene	10.0	9.16		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.8		ug/L		94	45 - 145
Toluene	10.0	10.3		ug/L		103	80 - 123
trans-1,3-Dichloropropene	10.0	8.93		ug/L		89	65 - 125
1,1,2-Trichloroethane	10.0	9.82		ug/L		98	77 - 127
Tetrachloroethene	10.0	9.43		ug/L		94	70 - 135
2-Hexanone	20.0	19.5		ug/L		97	25 - 132
Dibromochloromethane	10.0	8.93		ug/L		89	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.55		ug/L		95	74 - 123
Chlorobenzene	10.0	9.62		ug/L		96	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.83		ug/L		98	63 - 140
Ethylbenzene	10.0	9.36		ug/L		94	72 - 126
Xylenes, Total	20.0	19.0		ug/L		95	76 - 128
Styrene	10.0	9.98		ug/L		100	71 - 127
Bromoform	10.0	9.13		ug/L		91	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.3		ug/L		103	62 - 125
Acrylonitrile	100	102		ug/L		102	30 - 140
1,4-Dioxane	200	171	J	ug/L		86	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		64 - 135
Toluene-d8 (Surr)	95		71 - 118
4-Bromofluorobenzene (Surr)	90		70 - 118
Dibromofluoromethane (Surr)	86		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: 180-46875-12 MS**

**Matrix: Water**

**Analysis Batch: 151188**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	ND		10.0	12.8		ug/L		128	50 - 139
Vinyl chloride	ND		10.0	11.7		ug/L		117	53 - 138
Bromomethane	ND	^c	10.0	9.00		ug/L		90	33 - 150
Chloroethane	ND		10.0	10.9		ug/L		109	36 - 142
1,1-Dichloroethene	0.88	J	10.0	10.8		ug/L		99	65 - 136
Acetone	ND		20.0	25.2		ug/L		126	22 - 150
Carbon disulfide	ND		10.0	9.86		ug/L		99	54 - 132
Methylene Chloride	ND		10.0	9.44		ug/L		94	63 - 129
trans-1,2-Dichloroethene	ND		10.0	10.7		ug/L		107	73 - 126
Methyl tert-butyl ether	ND		10.0	9.70		ug/L		97	64 - 123
1,1-Dichloroethane	0.59	J	10.0	10.6		ug/L		100	73 - 126
cis-1,2-Dichloroethene	15		10.0	22.9		ug/L		78	70 - 120
Bromochloromethane	ND		10.0	9.58		ug/L		96	70 - 127
2-Butanone (MEK)	ND		20.0	24.3		ug/L		122	39 - 138
Chloroform	0.22	J	10.0	10.1		ug/L		99	72 - 127
1,1,1-Trichloroethane	2.7		10.0	11.8		ug/L		92	63 - 133
Carbon tetrachloride	ND		10.0	9.32		ug/L		93	55 - 150
Benzene	ND		10.0	10.4		ug/L		104	80 - 120
1,2-Dichloroethane	ND		10.0	9.67		ug/L		97	68 - 132
Trichloroethene	19	F1	10.0	24.0	F1	ug/L		51	73 - 120
1,2-Dichloropropane	ND		10.0	10.5		ug/L		105	76 - 124
Bromodichloromethane	ND		10.0	9.47		ug/L		95	66 - 130
cis-1,3-Dichloropropene	ND		10.0	9.05		ug/L		90	66 - 120
4-Methyl-2-pentanone (MIBK)	ND		20.0	19.4		ug/L		97	45 - 145
Toluene	ND		10.0	10.8		ug/L		108	80 - 123
trans-1,3-Dichloropropene	ND		10.0	9.25		ug/L		93	65 - 125
1,1,2-Trichloroethane	ND		10.0	10.3		ug/L		103	77 - 127
Tetrachloroethene	42		10.0	43.4	4	ug/L		11	70 - 135
2-Hexanone	ND		20.0	22.3		ug/L		111	25 - 132
Dibromochloromethane	ND		10.0	9.42		ug/L		94	60 - 140
1,2-Dibromoethane (EDB)	ND		10.0	10.1		ug/L		101	74 - 123
Chlorobenzene	ND		10.0	10.1		ug/L		101	80 - 120
1,1,1,2-Tetrachloroethane	ND		10.0	9.99		ug/L		100	63 - 140
Ethylbenzene	ND		10.0	10.4		ug/L		104	72 - 126
Xylenes, Total	ND		20.0	20.9		ug/L		105	76 - 128
Styrene	ND		10.0	10.6		ug/L		106	71 - 127
Bromoform	ND		10.0	9.44		ug/L		94	46 - 150
1,1,2,2-Tetrachloroethane	ND		10.0	10.7		ug/L		107	62 - 125
Acrylonitrile	ND		100	110		ug/L		110	30 - 140
1,4-Dioxane	ND		200	198	J	ug/L		99	10 - 160
		<b>MS MS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	89		64 - 135						
Toluene-d8 (Surr)	98		71 - 118						
4-Bromofluorobenzene (Surr)	91		70 - 118						
Dibromofluoromethane (Surr)	92		70 - 128						



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: 180-46875-12 MSD**

**Matrix: Water**

**Analysis Batch: 151188**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	ND		10.0	12.6		ug/L		126	50 - 139	1	35
Vinyl chloride	ND		10.0	11.4		ug/L		114	53 - 138	3	35
Bromomethane	ND	^c	10.0	9.05		ug/L		91	33 - 150	1	35
Chloroethane	ND		10.0	10.9		ug/L		109	36 - 142	0	35
1,1-Dichloroethene	0.88	J	10.0	10.4		ug/L		96	65 - 136	4	35
Acetone	ND		20.0	24.1		ug/L		120	22 - 150	4	35
Carbon disulfide	ND		10.0	9.93		ug/L		99	54 - 132	1	35
Methylene Chloride	ND		10.0	9.97		ug/L		100	63 - 129	5	35
trans-1,2-Dichloroethene	ND		10.0	10.4		ug/L		104	73 - 126	3	35
Methyl tert-butyl ether	ND		10.0	10.5		ug/L		105	64 - 123	7	35
1,1-Dichloroethane	0.59	J	10.0	10.9		ug/L		103	73 - 126	2	35
cis-1,2-Dichloroethene	15		10.0	23.7		ug/L		86	70 - 120	3	35
Bromochloromethane	ND		10.0	10.4		ug/L		104	70 - 127	9	35
2-Butanone (MEK)	ND		20.0	25.6		ug/L		128	39 - 138	5	35
Chloroform	0.22	J	10.0	10.2		ug/L		100	72 - 127	1	35
1,1,1-Trichloroethane	2.7		10.0	11.8		ug/L		91	63 - 133	1	35
Carbon tetrachloride	ND		10.0	9.07		ug/L		91	55 - 150	3	35
Benzene	ND		10.0	10.3		ug/L		103	80 - 120	1	32
1,2-Dichloroethane	ND		10.0	10.0		ug/L		100	68 - 132	4	32
Trichloroethene	19	F1	10.0	24.2	F1	ug/L		53	73 - 120	1	35
1,2-Dichloropropane	ND		10.0	10.4		ug/L		104	76 - 124	1	34
Bromodichloromethane	ND		10.0	9.77		ug/L		98	66 - 130	3	35
cis-1,3-Dichloropropene	ND		10.0	9.16		ug/L		92	66 - 120	1	35
4-Methyl-2-pentanone (MIBK)	ND		20.0	19.7		ug/L		99	45 - 145	2	35
Toluene	ND		10.0	10.5		ug/L		105	80 - 123	2	35
trans-1,3-Dichloropropene	ND		10.0	9.35		ug/L		94	65 - 125	1	35
1,1,2-Trichloroethane	ND		10.0	10.1		ug/L		101	77 - 127	1	35
Tetrachloroethene	42		10.0	41.8	4	ug/L		-5	70 - 135	4	35
2-Hexanone	ND		20.0	21.6		ug/L		108	25 - 132	3	35
Dibromochloromethane	ND		10.0	9.54		ug/L		95	60 - 140	1	35
1,2-Dibromoethane (EDB)	ND		10.0	10.3		ug/L		103	74 - 123	2	35
Chlorobenzene	ND		10.0	10.1		ug/L		101	80 - 120	1	29
1,1,1,2-Tetrachloroethane	ND		10.0	10.2		ug/L		102	63 - 140	2	34
Ethylbenzene	ND		10.0	9.91		ug/L		99	72 - 126	5	33
Xylenes, Total	ND		20.0	20.1		ug/L		100	76 - 128	4	32
Styrene	ND		10.0	10.4		ug/L		104	71 - 127	2	34
Bromoform	ND		10.0	9.25		ug/L		92	46 - 150	2	35
1,1,2,2-Tetrachloroethane	ND		10.0	10.7		ug/L		107	62 - 125	0	35
Acrylonitrile	ND		100	113		ug/L		113	30 - 140	3	35
1,4-Dioxane	ND		200	201		ug/L		100	10 - 160	1	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		64 - 135
Toluene-d8 (Surr)	99		71 - 118
4-Bromofluorobenzene (Surr)	92		70 - 118
Dibromofluoromethane (Surr)	96		70 - 128



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 180-150875/6**  
**Matrix: Water**  
**Analysis Batch: 150875**

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	ND		0.10	0.0062	mg/L			08/15/15 11:01	1
Chloride	ND		1.0	0.20	mg/L			08/15/15 11:01	1
Sulfate	ND		1.0	0.21	mg/L			08/15/15 11:01	1

**Lab Sample ID: LCS 180-150875/5**  
**Matrix: Water**  
**Analysis Batch: 150875**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.9		mg/L		98	90 - 110
Sulfate	50.0	48.6		mg/L		97	90 - 110

**Lab Sample ID: 180-46875-1 MS**  
**Matrix: Water**  
**Analysis Batch: 150875**

**Client Sample ID: HD-COD-SW-6-0/1-0**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	89		25.0	109		mg/L		83	80 - 120
Sulfate	34		25.0	56.2		mg/L		88	80 - 120

**Lab Sample ID: 180-46875-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 150875**

**Client Sample ID: HD-COD-SW-6-0/1-0**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	89		25.0	112		mg/L		95	80 - 120	3	20
Sulfate	34		25.0	58.1		mg/L		95	80 - 120	3	20

**Lab Sample ID: 180-46875-12 MS**  
**Matrix: Water**  
**Analysis Batch: 150875**

**Client Sample ID: HD-COD-SW-17-0/1-0**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	130		25.0	156	4	mg/L		122	80 - 120
Sulfate	33		25.0	60.0		mg/L		107	80 - 120

**Lab Sample ID: 180-46875-12 MSD**  
**Matrix: Water**  
**Analysis Batch: 150875**

**Client Sample ID: HD-COD-SW-17-0/1-0**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	130		25.0	151	4	mg/L		105	80 - 120	3	20
Sulfate	33		25.0	57.8		mg/L		98	80 - 120	4	20

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: 180-46875-12 MS**

**Matrix: Water**

**Analysis Batch: 151557**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

**Prep Batch: 150950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Calcium	94000	B	50000	148000		ug/L		108	75 - 125
Magnesium	21000	B	50000	75600		ug/L		110	75 - 125

**Lab Sample ID: 180-46875-12 MS**

**Matrix: Water**

**Analysis Batch: 151671**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

**Prep Batch: 150950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Potassium	6100	B	50000	59100		ug/L		106	75 - 125
Sodium	61000	B	50000	113000		ug/L		104	75 - 125

**Lab Sample ID: 180-46875-12 MSD**

**Matrix: Water**

**Analysis Batch: 151557**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

**Prep Batch: 150950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	94000	B	50000	144000		ug/L		100	75 - 125	3	20
Magnesium	21000	B	50000	73600		ug/L		106	75 - 125	3	20

**Lab Sample ID: 180-46875-12 MSD**

**Matrix: Water**

**Analysis Batch: 151671**

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Prep Type: Total/NA**

**Prep Batch: 150950**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Potassium	6100	B	50000	57800		ug/L		103	75 - 125	2	20
Sodium	61000	B	50000	109000		ug/L		97	75 - 125	3	20

**Lab Sample ID: MB 180-150950/1-A**

**Matrix: Water**

**Analysis Batch: 151557**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 150950**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	72.6	J	500	2.8	ug/L		08/17/15 10:40	08/21/15 16:20	1
Magnesium	111	J	500	1.2	ug/L		08/17/15 10:40	08/21/15 16:20	1

**Lab Sample ID: MB 180-150950/1-A**

**Matrix: Water**

**Analysis Batch: 151671**

**Client Sample ID: Method Blank**

**Prep Type: Total Recoverable**

**Prep Batch: 150950**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	25.6	J	500	5.8	ug/L		08/17/15 10:40	08/24/15 11:08	1
Sodium	90.2	J	500	3.8	ug/L		08/17/15 10:40	08/24/15 11:08	1

**Lab Sample ID: LCS 180-150950/2-A**

**Matrix: Water**

**Analysis Batch: 151557**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total Recoverable**

**Prep Batch: 150950**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	50000	49100		ug/L		98	80 - 120

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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

**Lab Sample ID: LCS 180-150950/2-A**  
**Matrix: Water**  
**Analysis Batch: 151557**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 150950**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Magnesium	50000	52900		ug/L		106	80 - 120

**Lab Sample ID: LCS 180-150950/2-A**  
**Matrix: Water**  
**Analysis Batch: 151671**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total Recoverable**  
**Prep Batch: 150950**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Potassium	50000	51000		ug/L		102	80 - 120
Sodium	50000	50400		ug/L		101	80 - 120

## Method: SM 2320B - Alkalinity

**Lab Sample ID: MB 180-151534/2**  
**Matrix: Water**  
**Analysis Batch: 151534**

**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	2.01	J	5.0	0.41	mg/L			08/24/15 05:06	1
Bicarbonate Alkalinity as CaCO3	2.01	J	5.0	0.41	mg/L			08/24/15 05:06	1
Carbonate Alkalinity as CaCO3	ND		5.0	0.41	mg/L			08/24/15 05:06	1

**Lab Sample ID: LCS 180-151534/1**  
**Matrix: Water**  
**Analysis Batch: 151534**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Alkalinity as CaCO3 to pH 4.5	250	255		mg/L		102	80 - 120

**Lab Sample ID: 180-46875-1 DU**  
**Matrix: Water**  
**Analysis Batch: 151534**

**Client Sample ID: HD-COD-SW-6-0/1-0**  
**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	150	B	153		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	150	B	153		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

**Lab Sample ID: 180-46875-12 DU**  
**Matrix: Water**  
**Analysis Batch: 151534**

**Client Sample ID: HD-COD-SW-17-0/1-0**  
**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	290	B	289		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	290	B	289		mg/L		1	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## GC/MS VOA

### Analysis Batch: 151080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260C	
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260C	
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260C	
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	8260C	
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	8260C	
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	8260C	
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C	
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	8260C	
180-46875-11	HD-QC1-0/1-2	Total/NA	Water	8260C	
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	8260C	
LCS 180-151080/8	Lab Control Sample	Total/NA	Water	8260C	
LCSD 180-151080/9	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 180-151080/7	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 151188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-46875-12 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-46875-12 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	8260C	
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	8260C	
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	8260C	
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	8260C	
180-46875-19	HD-QC2-0/1-2	Total/NA	Water	8260C	
LCS 180-151188/14	Lab Control Sample	Total/NA	Water	8260C	
MB 180-151188/6	Method Blank	Total/NA	Water	8260C	

## HPLC/IC

### Analysis Batch: 150875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	300.0	
180-46875-1 MS	HD-COD-SW-6-0/1-0	Total/NA	Water	300.0	
180-46875-1 MSD	HD-COD-SW-6-0/1-0	Total/NA	Water	300.0	
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	300.0	
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	300.0	
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	300.0	
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	300.0	
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	300.0	
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	300.0	
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	300.0	
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	300.0	
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	300.0	
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-46875-12 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-46875-12 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	300.0	

TestAmerica Pittsburgh

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## HPLC/IC (Continued)

### Analysis Batch: 150875 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	300.0	
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	300.0	
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	300.0	
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	300.0	
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	300.0	
LCS 180-150875/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-150875/6	Method Blank	Total/NA	Water	300.0	

## Metals

### Prep Batch: 150950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	3005A	
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	3005A	
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	3005A	
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	3005A	
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	3005A	
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	3005A	
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	3005A	
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	3005A	
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	3005A	
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-46875-12 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-46875-12 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-46875-12 PDS	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-46875-12 SD	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	3005A	
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	3005A	
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	3005A	
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	3005A	
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	3005A	
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	3005A	
LCS 180-150950/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-150950/1-A	Method Blank	Total Recoverable	Water	3005A	

### Analysis Batch: 151557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	150950
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	6020A	150950
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	6020A	150950
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	6020A	150950
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	6020A	150950
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	6020A	150950
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	6020A	150950
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	6020A	150950
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	6020A	150950
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	6020A	150950
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950

TestAmerica Pittsburgh

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Metals (Continued)

### Analysis Batch: 151557 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-12 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 PDS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 SD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	6020A	150950
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	6020A	150950
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	6020A	150950
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	6020A	150950
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	6020A	150950
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	6020A	150950
CRI 180-151557/66	DL		Water	6020A	
CRI 180-151557/7	DL		Water	6020A	
ICSA 180-151557/8	ICS		Water	6020A	
ICSAB 180-151557/9	ICS		Water	6020A	
LCS 180-150950/2-A	Lab Control Sample	Total Recoverable	Water	6020A	150950
MB 180-150950/1-A	Method Blank	Total Recoverable	Water	6020A	150950

### Analysis Batch: 151671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	150950
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	6020A	150950
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	6020A	150950
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	6020A	150950
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	6020A	150950
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	6020A	150950
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	6020A	150950
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	6020A	150950
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	6020A	150950
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	6020A	150950
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 MS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 MSD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 PDS	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-12 SD	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	150950
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	6020A	150950
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	6020A	150950
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	6020A	150950
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	6020A	150950
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	6020A	150950
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	6020A	150950
CRI 180-151671/41	DL		Water	6020A	
CRI 180-151671/7	DL		Water	6020A	
ICSA 180-151671/8	ICS		Water	6020A	
ICSAB 180-151671/9	ICS		Water	6020A	
LCS 180-150950/2-A	Lab Control Sample	Total Recoverable	Water	6020A	150950
MB 180-150950/1-A	Method Blank	Total Recoverable	Water	6020A	150950

# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## General Chemistry

### Analysis Batch: 151534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-46875-1	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-46875-1 DU	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-46875-2	HD-COD-SW-7-0/1-0	Total/NA	Water	SM 2320B	
180-46875-3	HD-COD-SW-8-0/1-0	Total/NA	Water	SM 2320B	
180-46875-4	HD-COD-SW-9-0/1-0	Total/NA	Water	SM 2320B	
180-46875-5	HD-COD-SW-10-0/1-0	Total/NA	Water	SM 2320B	
180-46875-6	HD-COD-SW-11-0/1-0	Total/NA	Water	SM 2320B	
180-46875-7	HD-COD-SW-12-0/1-0	Total/NA	Water	SM 2320B	
180-46875-8	HD-COD-SW-13-0/1-0	Total/NA	Water	SM 2320B	
180-46875-9	HD-COD-SW-15-0/1-0	Total/NA	Water	SM 2320B	
180-46875-10	HD-COD-SW-16-0/1-0	Total/NA	Water	SM 2320B	
180-46875-12	HD-COD-SW-17-0/1-0	Total/NA	Water	SM 2320B	
180-46875-12 DU	HD-COD-SW-17-0/1-0	Total/NA	Water	SM 2320B	
180-46875-13	HD-COD-SW-20-0/1-0	Total/NA	Water	SM 2320B	
180-46875-14	HD-COD-SW-26-0/1-0	Total/NA	Water	SM 2320B	
180-46875-15	HD-COD-SW-27-0/1-0	Total/NA	Water	SM 2320B	
180-46875-16	HD-COD-SW-28-0/1-0	Total/NA	Water	SM 2320B	
180-46875-17	HD-COD-SW-29-0/1-0	Total/NA	Water	SM 2320B	
180-46875-18	HD-QC1-0/1-1	Total/NA	Water	SM 2320B	
LCS 180-151534/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-151534/2	Method Blank	Total/NA	Water	SM 2320B	



# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-COD-SW-6-0/1-0**

**Lab Sample ID: 180-46875-1**

**Date Collected: 08/14/15 10:30**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 19:13	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 13:44	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:30	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:18	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-7-0/1-0**

**Lab Sample ID: 180-46875-2**

**Date Collected: 08/14/15 11:15**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 19:37	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 14:36	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:35	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:23	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-8-0/1-0**

**Lab Sample ID: 180-46875-3**

**Date Collected: 08/14/15 08:55**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 20:01	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 14:53	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:40	CNF	TAL PIT
		Instrument ID: X								



# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-8-0/1-0

Date Collected: 08/14/15 08:55

Date Received: 08/15/15 09:20

## Lab Sample ID: 180-46875-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:28	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

## Client Sample ID: HD-COD-SW-9-0/1-0

Date Collected: 08/14/15 12:15

Date Received: 08/15/15 09:20

## Lab Sample ID: 180-46875-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	151080	08/18/15 20:26	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 15:11	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:45	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:33	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

## Client Sample ID: HD-COD-SW-10-0/1-0

Date Collected: 08/14/15 09:25

Date Received: 08/15/15 09:20

## Lab Sample ID: 180-46875-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	151080	08/18/15 20:50	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 15:28	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:50	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:38	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-COD-SW-11-0/1-0**

**Lab Sample ID: 180-46875-6**

**Date Collected: 08/14/15 12:35**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 21:38	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 15:45	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 15:55	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:44	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-12-0/1-0**

**Lab Sample ID: 180-46875-7**

**Date Collected: 08/14/15 12:50**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 22:02	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 16:37	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 16:00	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 10:49	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-13-0/1-0**

**Lab Sample ID: 180-46875-8**

**Date Collected: 08/14/15 09:20**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 22:26	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 16:55	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 16:30	CNF	TAL PIT
		Instrument ID: X								

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Client Sample ID: HD-COD-SW-13-0/1-0

## Lab Sample ID: 180-46875-8

Date Collected: 08/14/15 09:20

Matrix: Water

Date Received: 08/15/15 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 11:18	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

## Client Sample ID: HD-COD-SW-15-0/1-0

## Lab Sample ID: 180-46875-9

Date Collected: 08/14/15 13:05

Matrix: Water

Date Received: 08/15/15 09:20

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	151080	08/18/15 22:50	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 17:12	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 16:35	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 11:23	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

## Client Sample ID: HD-COD-SW-16-0/1-0

## Lab Sample ID: 180-46875-10

Date Collected: 08/14/15 09:50

Matrix: Water

Date Received: 08/15/15 09:20

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	151080	08/18/15 23:38	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 17:29	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 16:40	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 11:28	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-QC1-0/1-2**

**Lab Sample ID: 180-46875-11**

**Date Collected: 08/14/15 12:00**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/18/15 23:14	DLF	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-COD-SW-17-0/1-0**

**Lab Sample ID: 180-46875-12**

**Date Collected: 08/14/15 10:00**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 14:27	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 17:46	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 16:45	CNF	TAL PIT
Instrument ID: X										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 11:33	CNF	TAL PIT
Instrument ID: X										
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: HD-COD-SW-20-0/1-0**

**Lab Sample ID: 180-46875-13**

**Date Collected: 08/14/15 10:35**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151080	08/19/15 00:03	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 18:38	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:24	CNF	TAL PIT
Instrument ID: X										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:09	CNF	TAL PIT
Instrument ID: X										
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-COD-SW-26-0/1-0**

**Lab Sample ID: 180-46875-14**

**Date Collected: 08/14/15 10:55**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 20:27	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 18:56	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:29	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:14	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-27-0/1-0**

**Lab Sample ID: 180-46875-15**

**Date Collected: 08/14/15 13:15**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 20:52	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 19:13	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:34	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:19	CNF	TAL PIT
		Instrument ID: X								
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
		Instrument ID: NOEQUIP								

**Client Sample ID: HD-COD-SW-28-0/1-0**

**Lab Sample ID: 180-46875-16**

**Date Collected: 08/14/15 12:25**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 21:15	DLF	TAL PIT
		Instrument ID: CHHP5								
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 20:05	CMR	TAL PIT
		Instrument ID: CHICS2100B								
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:39	CNF	TAL PIT
		Instrument ID: X								

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-COD-SW-28-0/1-0**

**Lab Sample ID: 180-46875-16**

**Date Collected: 08/14/15 12:25**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:24	CNF	TAL PIT
Instrument ID: X										
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
Instrument ID: NOEQUIP										

**Client Sample ID: HD-COD-SW-29-0/1-0**

**Lab Sample ID: 180-46875-17**

**Date Collected: 08/14/15 08:45**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 16:51	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 20:22	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:45	CNF	TAL PIT
Instrument ID: X										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:29	CNF	TAL PIT
Instrument ID: X										
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
Instrument ID: NOEQUIP										

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

**Lab Sample ID: 180-46875-18**

**Date Collected: 08/14/15 08:00**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 20:04	DLF	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	300.0		1	1 mL		150875	08/15/15 20:39	CMR	TAL PIT
Instrument ID: CHICS2100B										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151557	08/21/15 17:50	CNF	TAL PIT
Instrument ID: X										
Total/NA	Prep	3005A			50 mL	50 mL	150950	08/17/15 10:40	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	151671	08/24/15 12:34	CNF	TAL PIT
Instrument ID: X										
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	151534	08/24/15 05:06	CLL	TAL PIT
Instrument ID: NOEQUIP										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

**Client Sample ID: HD-QC2-0/1-2**

**Lab Sample ID: 180-46875-19**

**Date Collected: 08/14/15 12:01**

**Matrix: Water**

**Date Received: 08/15/15 09:20**

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	151188	08/19/15 14:03	DLF	TAL PIT
Instrument ID: CHHP5										

**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

# Certification Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

## Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

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



# Method Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-46875-1

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

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**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: 180-46875-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-46875-1	HD-COD-SW-6-0/1-0	Water	08/14/15 10:30	08/15/15 09:20
180-46875-2	HD-COD-SW-7-0/1-0	Water	08/14/15 11:15	08/15/15 09:20
180-46875-3	HD-COD-SW-8-0/1-0	Water	08/14/15 08:55	08/15/15 09:20
180-46875-4	HD-COD-SW-9-0/1-0	Water	08/14/15 12:15	08/15/15 09:20
180-46875-5	HD-COD-SW-10-0/1-0	Water	08/14/15 09:25	08/15/15 09:20
180-46875-6	HD-COD-SW-11-0/1-0	Water	08/14/15 12:35	08/15/15 09:20
180-46875-7	HD-COD-SW-12-0/1-0	Water	08/14/15 12:50	08/15/15 09:20
180-46875-8	HD-COD-SW-13-0/1-0	Water	08/14/15 09:20	08/15/15 09:20
180-46875-9	HD-COD-SW-15-0/1-0	Water	08/14/15 13:05	08/15/15 09:20
180-46875-10	HD-COD-SW-16-0/1-0	Water	08/14/15 09:50	08/15/15 09:20
180-46875-11	HD-QC1-0/1-2	Water	08/14/15 12:00	08/15/15 09:20
180-46875-12	HD-COD-SW-17-0/1-0	Water	08/14/15 10:00	08/15/15 09:20
180-46875-13	HD-COD-SW-20-0/1-0	Water	08/14/15 10:35	08/15/15 09:20
180-46875-14	HD-COD-SW-26-0/1-0	Water	08/14/15 10:55	08/15/15 09:20
180-46875-15	HD-COD-SW-27-0/1-0	Water	08/14/15 13:15	08/15/15 09:20
180-46875-16	HD-COD-SW-28-0/1-0	Water	08/14/15 12:25	08/15/15 09:20
180-46875-17	HD-COD-SW-29-0/1-0	Water	08/14/15 08:45	08/15/15 09:20
180-46875-18	HD-QC1-0/1-1	Water	08/14/15 08:00	08/15/15 09:20
180-46875-19	HD-QC2-0/1-2	Water	08/14/15 12:01	08/15/15 09:20

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 145277Lab Sample ID: IC 180-145277/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/17/15 14:07 Lab File ID: 50617006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.24	Peak Tail	fergusond	06/18/15 09:47

Lab Sample ID: IC 180-145277/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/17/15 14:54 Lab File ID: 50617008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Peak Tail	fergusond	06/18/15 08:49

Lab Sample ID: IC 180-145277/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/17/15 15:18 Lab File ID: 50617009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.93	Peak Tail	fergusond	06/18/15 08:50

Lab Sample ID: IC 180-145277/17 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/17/15 18:04 Lab File ID: 50617017.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isobutyl alcohol	6.93	Peak Tail	fergusond	06/18/15 09:50

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 151080Lab Sample ID: LCS 180-151080/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/18/15 15:12 Lab File ID: 50818008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/18/15 15:36

Lab Sample ID: 180-46875-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 08/18/15 20:26 Lab File ID: 50818021.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	9.51	Incomplete Integration	fergusond	08/19/15 09:15

Lab Sample ID: 180-46875-8 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 08/18/15 22:26 Lab File ID: 50818026.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.38	Incomplete Integration	fergusond	08/19/15 09:19

Lab Sample ID: 180-46875-9 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 08/18/15 22:50 Lab File ID: 50818027.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.20	Incomplete Integration	fergusond	08/19/15 09:21

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 151188Lab Sample ID: CCVIS 180-151188/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/19/15 12:12 Lab File ID: 50819004.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/19/15 12:42

Lab Sample ID: 180-46875-12 MSD Client Sample ID: HD-COD-SW-17-0/1-0 MSDDate Analyzed: 08/19/15 15:39 Lab File ID: 50819012.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/20/15 07:52

Lab Sample ID: 180-46875-18 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 08/19/15 20:04 Lab File ID: 50819023.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.39	Incomplete Integration	fergusond	08/20/15 08:12

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Analysis Batch Number: 150875

Lab Sample ID: 180-46875-1 Client Sample ID: HD-COD-SW-6-0/1-0

Date Analyzed: 08/15/15 13:44 Lab File ID: B-ICS2100 B 08-15-2015-7. GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:23

Lab Sample ID: 180-46875-2 Client Sample ID: HD-COD-SW-7-0/1-0

Date Analyzed: 08/15/15 14:36 Lab File ID: B-ICS2100 B 08-15-2015-10 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:24

Lab Sample ID: 180-46875-3 Client Sample ID: HD-COD-SW-8-0/1-0

Date Analyzed: 08/15/15 14:53 Lab File ID: B-ICS2100 B 08-15-2015-11 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.61	Baseline Smoothing	reaglec	08/20/15 09:24

Lab Sample ID: 180-46875-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 08/15/15 15:11 Lab File ID: B-ICS2100 B 08-15-2015-12 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.59	Baseline Smoothing	reaglec	08/20/15 09:24

Lab Sample ID: 180-46875-5 Client Sample ID: HD-COD-SW-10-0/1-0

Date Analyzed: 08/15/15 15:28 Lab File ID: B-ICS2100 B 08-15-2015-13 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.58	Baseline Smoothing	reaglec	08/20/15 09:26

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Analysis Batch Number: 150875

Lab Sample ID: 180-46875-6 Client Sample ID: HD-COD-SW-11-0/1-0

Date Analyzed: 08/15/15 15:45 Lab File ID: B-ICS2100 B 08-15-2015-14 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.57	Baseline Smoothing	reaglec	08/20/15 09:26

Lab Sample ID: 180-46875-7 Client Sample ID: HD-COD-SW-12-0/1-0

Date Analyzed: 08/15/15 16:37 Lab File ID: B-ICS2100 B 08-15-2015-17 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.59	Baseline Smoothing	reaglec	08/20/15 09:30

Lab Sample ID: 180-46875-8 Client Sample ID: HD-COD-SW-13-0/1-0

Date Analyzed: 08/15/15 16:55 Lab File ID: B-ICS2100 B 08-15-2015-18 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:30

Lab Sample ID: 180-46875-9 Client Sample ID: HD-COD-SW-15-0/1-0

Date Analyzed: 08/15/15 17:12 Lab File ID: B-ICS2100 B 08-15-2015-19 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.58	Baseline Smoothing	reaglec	08/20/15 09:30

Lab Sample ID: 180-46875-10 Client Sample ID: HD-COD-SW-16-0/1-0

Date Analyzed: 08/15/15 17:29 Lab File ID: B-ICS2100 B 08-15-2015-20 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:31

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Analysis Batch Number: 150875

Lab Sample ID: 180-46875-13 Client Sample ID: HD-COD-SW-20-0/1-0

Date Analyzed: 08/15/15 18:38 Lab File ID: B-ICS2100 B 08-15-2015-24 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:33

Lab Sample ID: 180-46875-14 Client Sample ID: HD-COD-SW-26-0/1-0

Date Analyzed: 08/15/15 18:56 Lab File ID: B-ICS2100 B 08-15-2015-25 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.57	Baseline Smoothing	reaglec	08/20/15 09:33

Lab Sample ID: 180-46875-15 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 08/15/15 19:13 Lab File ID: B-ICS2100 B 08-15-2015-26 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.60	Baseline Smoothing	reaglec	08/20/15 09:33

Lab Sample ID: 180-46875-16 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 08/15/15 20:05 Lab File ID: B-ICS2100 B 08-15-2015-29 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.59	Baseline Smoothing	reaglec	08/20/15 09:34

Lab Sample ID: 180-46875-17 Client Sample ID: HD-COD-SW-29-0/1-0

Date Analyzed: 08/15/15 20:22 Lab File ID: B-ICS2100 B 08-15-2015-30 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.61	Baseline Smoothing	reaglec	08/20/15 09:34



HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Analysis Batch Number: 150875

Lab Sample ID: 180-46875-18 Client Sample ID: HD-QC1-0/1-1

Date Analyzed: 08/15/15 20:39 Lab File ID: B-ICS2100 B 08-15-2015-31 GC Column: AS-18 ID: \_\_\_\_\_

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrate as N	8.58	Baseline Smoothing	reaglec	08/20/15 09:34

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01287	08/15/15	08/14/15	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
iciev_01320	08/15/15	08/14/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00006	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00006	03/01/16		inorganic ventures, Lot J2-MEB568059		(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15		HIGH-PURITY STDS, Lot 1427624		(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00171	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
							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
							Nitrite as N	125 ug/mL
..ICPRIMARYSTDB_00008	10/08/15		HIGH-PURITY STDS, Lot 1427626		(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00209	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00213	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL
							Nitrate as N	0.25 ug/mL
							Orthophosphate as P	0.25 ug/mL
							Sulfate	5 ug/mL
							Nitrite as N	0.25 ug/mL
.ICSTDL6_00213	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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
<b>ICSTDL6_00213</b>	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15		HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)	Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15		HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)	Nitrite as N	125 ug/mL
<b>ICSTDL7_00141</b>	04/16/15	04/15/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
.ICPRIMARYSTA_00006	10/08/15		HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)	Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15		HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)	Nitrite as N	125 ug/mL
<b>ICSTDL8_00112</b>	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15		HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)	Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPRIMARYSTDB_00008	10/08/15		HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)	Nitrite as N	125 ug/mL
ICSTDL9_00115	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
					Sulfate	200 ug/mL		
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15		HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)	Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15		HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)	Nitrite as N	125 ug/mL
MCCV1X_00079	09/18/15	08/18/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00006	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00006	06/01/16		Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)	Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCR1X_00070	08/23/15	07/23/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16		Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)	Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_00073	08/23/15	07/23/15	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							

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
					MMSICSAB-1_00008	0.2 mL	Mn	0.0225 ppm	
							Ni	0.02 ppm	
							Zn	0.025 ppm	
							Ba	0.02 ppm	
							Be	0.02 ppm	
							Pb	0.02 ppm	
							Sr	0.025 ppm	
					MMSICSAB-2_00007	0.2 mL	Tl	0.02 ppm	
							V	0.02 ppm	
							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	
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151					(Purchased Reagent)	Ti	20 ppm
							Ag	2 ppm	
							As	2 ppm	
							Cd	2 ppm	
							Co	2 ppm	
							Cr	2 ppm	
							Cu	2 ppm	
							Mn	2.25 ppm	
							Ni	2 ppm	
Zn	2.5 ppm								
.MMSICSAB-1_00008	06/01/16	Inorganic Ventures, Lot J2-MEB575125					(Purchased Reagent)	Ba	10 ppm
							Be	10 ppm	
							Pb	10 ppm	
							Sr	12.5 ppm	
							Tl	10 ppm	
.MMSICSAB-2_00007	06/01/16	Inorganic Ventures, Lot J2-MEB575126					(Purchased Reagent)	V	10 ppm
							B	25 ppm	
							Sb	10 ppm	
							Se	25 ppm	
							Si	250 ppm	
Sn								50 ppm	
MICSAX_00069	08/23/15	07/23/15	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL		Al	100 ppm
								Calcium	100 ppm
								Fe	100 ppm
								Magnesium	100 ppm
								Mo	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

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SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15		Inorganic Ventures, Lot G2-MEB476152MCA		(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
MICVX_00034	08/16/15	07/16/15	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_00049	09/18/15	08/18/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00006	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00006	06/01/16		Inorganic Ventures, Lot J2-MEB575123		(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTCPMS_00022	05/01/16		INORGANIC VENTURES, Lot G2-MEB506053		(Purchased Reagent)		Ag	5 ug/mL
							Al	200 ug/mL
							As	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Be	5 ug/mL
							Cd	5 ug/mL
							Co	50 ug/mL
							Cr	20 ug/mL
							Cu	25 ug/mL
							Fe	100 ug/mL
							Mn	50 ug/mL
							Ni	50 ug/mL
							Pb	2 ug/mL
							Se	1 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zn	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

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SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
<b>MTAPITMSA_00023</b>	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
<b>MTAPITMSA_00026</b>	09/01/16		INORGANIC VENTURES, Lot J2-MEB584008			(Purchased Reagent)	Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
<b>MTAPITMSC_00032</b>	09/01/16		Inorganic Ventures, Lot J2-MEB584009			(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
<b>VOA8260INT_00038</b>	07/09/15	06/09/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00041	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_00041	02/01/18
Chlorobenzene-d5	250 ug/mL							
Fluorobenzene (IS)	250 ug/mL							
TBA-d9 (IS)	5000 ug/mL							
<b>VOA8260INT_00040</b>	09/03/15	08/03/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00088	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_00088	07/31/19
Chlorobenzene-d5	250 ug/mL							
Fluorobenzene (IS)	250 ug/mL							
TBA-d9 (IS)	5000 ug/mL							
<b>VOA8260SURR_00038</b>	07/09/15	06/09/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00091	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_00091	04/30/19
4-Bromofluorobenzene (Surr)	2500 ug/mL							
Dibromofluoromethane (Surr)	2500 ug/mL							
Toluene-d8 (Surr)	2500 ug/mL							
<b>VOA8260SURR_00040</b>	09/03/15	08/03/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00067	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_00067	01/31/19
4-Bromofluorobenzene (Surr)	2500 ug/mL							
Dibromofluoromethane (Surr)	2500 ug/mL							
Toluene-d8 (Surr)	2500 ug/mL							



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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
VOA8260VOA2ND_00138	08/25/15	08/18/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00109	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
					VOA8260VOA2ND_00136						1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
												1,1,1-Trichloroethane	25 ug/mL
												1,1,2,2-Tetrachloroethane	25 ug/mL
												1,1,2-Trichloroethane	25 ug/mL
												1,1-Dichloroethane	25 ug/mL
												1,1-Dichloroethene	25 ug/mL
												1,2-Dibromoethane (EDB)	25 ug/mL
												1,2-Dichloroethane	25 ug/mL
												1,2-Dichloropropane	25 ug/mL
												1,4-Dioxane	500 ug/mL
												Acrylonitrile	250 ug/mL
												Benzene	25 ug/mL
												Bromochloromethane	25 ug/mL
												Bromodichloromethane	25 ug/mL
												Bromoform	25 ug/mL
												Carbon disulfide	25 ug/mL
												Carbon tetrachloride	25 ug/mL
												Chlorobenzene	25 ug/mL
												Chloroform	25 ug/mL
												cis-1,2-Dichloroethene	25 ug/mL
												cis-1,3-Dichloropropene	25 ug/mL
												Dibromochloromethane	25 ug/mL
Ethylbenzene	25 ug/mL												
Methyl tert-butyl ether	25 ug/mL												
Methylene Chloride	25 ug/mL												
Styrene	25 ug/mL												
Tetrachloroethene	25 ug/mL												
Toluene	25 ug/mL												
trans-1,2-Dichloroethene	25 ug/mL												
trans-1,3-Dichloropropene	25 ug/mL												
Trichloroethene	25 ug/mL												
Xylenes, Total	50 ug/mL												
.VOA8260GAS2ND_00109	04/30/18		Restek, Lot A0110106		(Purchased Reagent)		Bromomethane	2500 ug/mL					
							Chloroethane	2500 ug/mL					
							Chloromethane	2500 ug/mL					
							Vinyl chloride	2500 ug/mL					
.VOA8260VOA2ND_00136	09/06/15	08/06/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00035	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL					
							1,1,1-Trichloroethane	250 ug/mL					
							1,1,2,2-Tetrachloroethane	250 ug/mL					
							1,1,2-Trichloroethane	250 ug/mL					
							1,1-Dichloroethane	250 ug/mL					
							1,1-Dichloroethene	250 ug/mL					
							1,2-Dibromoethane (EDB)	250 ug/mL					

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Lab Name: TestAmerica Pittsburgh

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SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00035	01/31/17		Restek, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL

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Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
<b>VOA8260VOAPRI_00125</b>	06/23/15	06/16/15	Methanol, Lot 85233	10 mL	VOA 8260VOAPR_00001	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-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-Dichloropropene	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

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Lab Name: TestAmerica Pittsburgh

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SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
trans-1,2-Dichloroethene	25 ug/mL							
trans-1,3-Dichloropropene	25 ug/mL							
trans-1,4-Dichloro-2-butene	25 ug/mL							
Trichloroethene	25 ug/mL							
VOA8260GAS1ST_00105					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	
.VOA 8260VOAPR_00001	07/12/15	06/12/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00045	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	250 ug/mL
					VOA8260MEGA1_00029	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	1250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00045	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00029	02/28/16		Restek, Lot A0108166		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
.VOA8260GAS1ST_00105	04/30/18		Restek, Lot A011070			(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_00138	08/25/15	08/18/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00112	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00136	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							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



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00112	04/30/18		Restek, Lot A011070			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00136	09/06/15	08/06/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00032	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA1_00032	02/28/16		Restek, Lot A0108166			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
<b>VOACRLOEINPR_00001</b>	06/22/15	05/22/15	Methanol, Lot 85233	100 mL	VOAACRORES_00071	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00071	07/31/15		Restek, Lot A0109948		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>voaWEEmix1st_00002</b>	07/16/15	06/16/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00022	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-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_00022	09/30/16		Restek, Lot A0109701		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
<b>voaWKet1 Rest_00001</b>	09/11/15	08/11/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00049	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_00049	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWKetmix1Re_00001</b>	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00043	0.1 mL	2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00043	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWKetmix2nd_00001</b>	08/28/15	07/28/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00051	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_00051	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
<b>voaWVA2nd Res_00007</b>	07/01/15	06/01/15	Methanol, Lot 85233	25 mL	VOA8260VARES2_00051	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES2_00051	07/31/15		Restek, Lot A0108224		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
<b>WALK125PPMCCV_00091</b>	02/13/16	08/13/15	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
<b>WALK250PPMPi_00098</b>	02/13/16	08/13/15	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

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**ICPRIMARYSTA\_00006**

# Certificate of Analysis

## Product Description:

Name: IC Spike  
Part Number: SM-606-005 Solution A  
Lot Number: 1427624  
Matrix: H<sub>2</sub>O  
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 <sub>3</sub> as N	125.00 ± 1.25	3185	050517
PO <sub>4</sub> 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.

Lot No.: 1427624  
Rev. No.: 3.2.1  
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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

A handwritten signature in cursive script, appearing to read "Angel Sellers".

Angel Sellers,  
Quality Manager

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: 1427624  
Rev. No.: 3.2.1  
Page 2 of 2

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

Reagent

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**ICPRIMARYSTDB\_00008**

# 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 <sub>2</sub> O

## Certified Value:

NO<sub>2</sub> 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

A handwritten signature in cursive script that reads "Angel Sellers".

Angel Sellers,  
Quality Manager

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Lot No.: 1427626  
Rev. No.: 3.2.1  
Page 2 of 2

Reagent

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**M6020ICS-0A\_00005**

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."



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

Catalog No.:                      6020ICS-0A

Lot Number:                        **G2-MEB476152MCA**

Matrix:                              1.4% HNO<sub>3</sub>(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.

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

( $\bar{x}$ ) = mean

$x_i$  = individual results

n = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

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

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

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

#### 4.1 ASSAY INFORMATION

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.

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

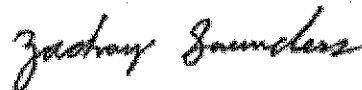
**11.3 Chemical Stability** - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

**Certification Date:** July 12, 2013

**Expiration Date:** **EXPIRES**  
01<sup>st</sup> 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

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**M6020ICS-0B\_00006**

**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."



**2.0 DESCRIPTION OF CRM      Stock Solution**

Catalog No.:                      6020ICS-0B

Lot Number:                        **G2-MEB463151**

Matrix:                                3% HNO<sub>3</sub>(v/v)

2 µg/mL ea:

Ag,              As,              Cd,              Co,              Cr<sub>3</sub>,              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	Gadmiun, 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.

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

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

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

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

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

- "Property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties." (ISO VIM, 2nd ed., 1993, definition 6.10)
- This product is Traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRMs are available, the term 'in-house std.' is specified.
- 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 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.

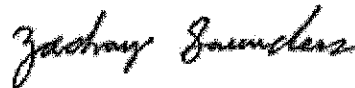
11.3 Chemical Stability - Studies have been conducted on this or similar CRMs and it has been demonstrated that this CRM is chemically stable for a period of not less than two years provided the "Storage & Handling" conditions are followed that are described in section 7.0.

**Certification Date:** March 25, 2013

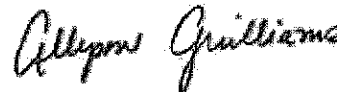
**Expiration Date:** EXPIRES  
01<sup>st</sup> 2015

**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

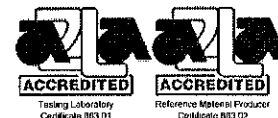
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**MCALSPECAREV\_00006**

**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).


**2.0 PRODUCT DESCRIPTION**

Product Code: Multi Analyte Custom Grade Solution

Catalog Number: TAPITT-CAL-SPECA-REV

Lot Number: J2-MEB575123

Matrix: 3% (v/v) HNO3

Value / Analyte(s): 2 500 µg/mL ea:  
 Ca, K, Mg,  
 Na,  
 1 250 µg/mL ea:  
 Fe,  
 25 µg/mL ea:  
 Al, Mn,  
 5 µg/mL ea:  
 Ag, As, Ba,  
 Be, Cd, Co,  
 Cr3, Cu, Ni,  
 Pb, Se, Sr,  
 Tl, V, Zn

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

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

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

**Assay Information:**

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	060502
As	EDTA		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

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

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

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

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

**4.0 TRACEABILITY TO NIST**

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

#### 4.1 Thermometer Calibration

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

#### 4.2 Balance Calibration

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

#### 4.3 Glassware Calibration

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

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

N/A

### 6.0 INTENDED USE

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

### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

#### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

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

### 8.0 HAZARDOUS INFORMATION

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

### 9.0 HOMOGENEITY

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

### 10.0 QUALITY STANDARD DOCUMENTATION

#### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

#### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

#### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

### 11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

**EXPIRES**  
1 #2016

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

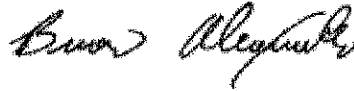
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



Reagent

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**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<sub>3</sub> / 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: [Signature]

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# 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 Principles 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](mailto: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
- $U = k u_c$  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](mailto:crmsales@spexcsp.com).

## Legal Notice:

SPEX CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against SPEX CertiPrep, Inc. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep, Inc. be liable for any loss of profits or any incidental, special, or consequential damages.

**SPEX CertiPrep** 

Your Science is Our Passion.®

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Page 158 of 1010  
Phone: 1-800-LAB-SPEX • Fax: 732-603-9647



Reagent

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**MMSCRI-1B\_00005**

**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).


**2.0 PRODUCT DESCRIPTION**

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

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

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

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

**Assay Information:**

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	892707
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	00630
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	Calculated		See Sec. 4.2
Na	ICP Assay	3152a	120715
Ni	ICP Assay	3136	000612
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	080123
Zn	EDTA	928	928

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

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

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

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

#### 4.0 TRACEABILITY TO NIST

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

#### 4.1 Thermometer Calibration

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

#### 4.2 Balance Calibration

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

#### 4.3 Glassware Calibration

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

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

N/A

### 6.0 INTENDED USE

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

### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

#### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

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

### 8.0 HAZARDOUS INFORMATION

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

### 9.0 HOMOGENEITY

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

### 10.0 QUALITY STANDARD DOCUMENTATION

#### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

#### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

#### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

### 11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 20, 2015

11.2 Expiration Date

EXPIRES

01<sup>st</sup> 2016

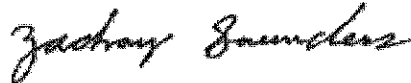
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

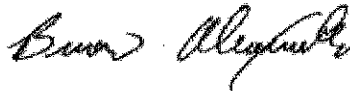
Certificate Prepared By:

Zach Saunders  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director





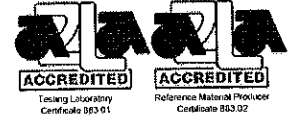
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**MMSICSAB-1\_00008**

## 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).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
Catalog Number: TAPITT-MSICSAB-1  
Lot Number: J2-MEB575125  
Matrix: 3% (v/v) HNO<sub>3</sub>  
Value / Analyte(s): 10 µg/mL ea:  
Ba, Be, Pb,  
Sr, Tl, V

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

### Assay Information:

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

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

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

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

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

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

#### **4.0 TRACEABILITY TO NIST**

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

##### **4.1 Thermometer Calibration**

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

##### **4.2 Balance Calibration**

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

##### **4.3 Glassware Calibration**

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

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

N/A

#### **6.0 INTENDED USE**

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

#### **7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL**

##### **7.1 Storage and Handling Recommendations**

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

#### **8.0 HAZARDOUS INFORMATION**

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

#### **9.0 HOMOGENEITY**

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

#### **10.0 QUALITY STANDARD DOCUMENTATION**

##### **10.1 10CFR50 Appendix B - Nuclear Regulatory Commission**

- Domestic Licensing of Production and Utilization Facilities

##### **10.2 10CFR21 - Nuclear Regulatory Commission**

- Reporting defects and Non-Compliance

##### **10.3 ISO 9001 Quality Management System Registration**

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

#### **11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

**EXPIRES**  
1 #2016

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

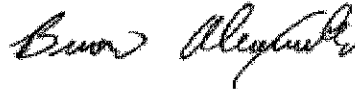
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



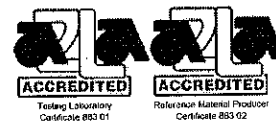
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**MMSICSAB-2\_00007**

## 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).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
 Catalog Number: TAPITT-MSICSAB-2  
 Lot Number: J2-MEB575126  
 Matrix: 3% (v/v) HNO<sub>3</sub>  
 tr. HF  
 Value / Analyte(s): 250 µg/mL ea:  
 Si,  
 50 µg/mL ea:  
 Sn,  
 25 µg/mL ea:  
 B, Se,  
 10 µg/mL ea:  
 Sb

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	10.00 ± 0.07 µg/mL	Boron, B	25.01 ± 0.17 µg/mL
Selenium, Se	25.00 ± 0.17 µg/mL	Silicon, Si	250.0 ± 1.9 µg/mL
Tin, Sn	50.01 ± 0.23 µg/mL		

Certified Density: 1.016 g/mL (measured at 20 ± 1 °C)

### Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

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

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

( $\bar{x}$ ) = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = 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 ( $\mu\text{g/mL}$ )

N/A

#### 6.0 INTENDED USE

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

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

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

#### 8.0 HAZARDOUS INFORMATION

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

#### 9.0 HOMOGENEITY

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

#### 10.0 QUALITY STANDARD DOCUMENTATION

##### 10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

##### 10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

##### 10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES  
1 #2016

11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

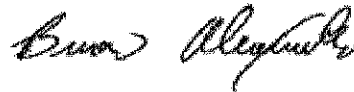
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director





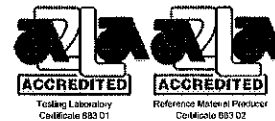
Reagent

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**MTAPITTTICPMS\_00022**

**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).


**2.0 PRODUCT DESCRIPTION**

Product Code:	Multi Analyte Custom Grade Solution		
Catalog Number:	TAPITT-MS-ICPMS		
Lot Number:	H2-MEB532047		
Matrix:	0.7% (v/v) HNO <sub>3</sub>		
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:		
	Cr <sub>3</sub> ,		
	5 µg/mL ea:		
	Ag,	Be,	Cd,
	Tl,		
	4 µg/mL ea:		
	As,		
	2 µg/mL ea:		
	Pb,		
	1 µg/mL ea:		
	Se		



1551024

 ID: MTAPITTCPMS\_00022  
 Exp: 05/01/16 Prpd: AB1  
 TAPITT-MS-ICPMS SPIKE


1551023

 ID: MTAPITTCPMS\_00022  
 Exp: 05/01/16 Prpd: AB1  
 TAPITT-MS-ICPMS SPIKE

*Rec 04/28/15*  
*AB*

**3.0 CERTIFIED VALUES AND UNCERTAINTIES**

ANALYTE	CERTIFIED VALUE	ANALYTE	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:**

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	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	3158	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

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

$(\bar{x})$  = mean

$x_i$  = individual results

$n$  = number of measurements

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.

$\left[ \sum (s_i)^2 \right]^{1/2}$  = 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 ( $\mu\text{g/mL}$ )

N/A

#### 6.0 INTENDED USE

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

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . Do not pipette from the container. Do not return removed aliquots to container.

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

#### 8.0 HAZARDOUS INFORMATION

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

#### 9.0 HOMOGENEITY

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

**10.0 QUALITY STANDARD DOCUMENTATION**

**10.1 10CFR50 Appendix B - Nuclear Regulatory Commission**

- Domestic Licensing of Production and Utilization Facilities

**10.2 10CFR21 - Nuclear Regulatory Commission**

- Reporting defects and Non-Compliance

**10.3 ISO 9001 Quality Management System Registration**

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

**11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY**

**11.1 Certification Issue Date**

June 06, 2014

**11.2 Expiration Date**

**EXPIRES**  
**1/7/2016**

**11.3 Period of Validity**

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

**12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS**

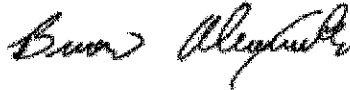
**Certificate Prepared By:**

Donna Senn  
Product Documentation Technician



**Certificate Approved By:**

Brian Alexander  
PhD., Technical Process Director



**Certifying Officer:**

Paul Gaines  
PhD., Senior Technical Director



Reagent

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**MTAPIT'TMSA\_00023**

**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)).


**2.0 PRODUCT DESCRIPTION**

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

REC. 11/13/14 SLB

**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.

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

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

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

2 = the coverage factor.  
 $\left[ \sum (s_i)^2 \right]^{1/2}$  = 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 ( $\mu\text{g/mL}$ )**
- 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  $20 \pm 4^\circ\text{C}$ . 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~~2~~2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

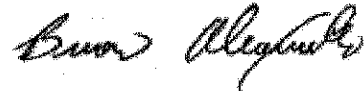
Certificate Prepared By:

Donna Senn  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



Reagent

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**MTAPIT'TMSA\_00026**



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).



## 2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution  
 Catalog Number: TAPITT-MS-A  
 Lot Number: J2-MEB584008  
 Matrix: 3% (w/v) HNO3  
 Value / Analyte(s): 5 000 µg/mL ea:  
 Ca, Na K, Mg

*Byler-Naucke*

*1657349*  
*1657343*  
*1657344*

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 23 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL
Potassium, K	5 000 ± 22 µg/mL	Sodium, Na	5 000 ± 22 µg/mL

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

### Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	139213
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.

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

$$\text{Uncertainty } (\pm) = 2 \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}}$$

$$(\bar{x}) = \text{mean}$$

$$x_i = \text{individual results}$$

$$n = \text{number of measurements}$$

$$2 = \text{the coverage factor}$$

$$\sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}} = \text{The square root of the sum of the squares of the most common errors (where 's' stands for the standard deviation) from}$$

- 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 ( $\mu\text{g/mL}$ )

N/A

### 6.0 INTENDED USE

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

### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

#### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . 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

May 19, 2015

11.2 Expiration Date

EXPIRES  
1 SEP 2016

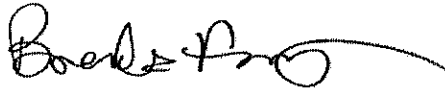
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

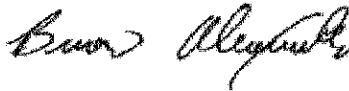
Certificate Prepared By:

Brenda Francis  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



Reagent

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**MTAPITTMSC\_00032**



**INORGANIC**  
VENTURES

300 Technology Drive

Christiansburg, VA 24073 • USA

[inorganicventures.com](http://inorganicventures.com)

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 • 540.585.3030

fax: 540.585.3012

[info@inorganicventures.com](mailto: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).

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	J2-MEBS84009
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	Si, 1 000 µg/mL ea: Sn, 200 µg/mL ea: Mo, 100 µg/mL ea: Sb, 50 µg/mL ea:

*Bobbi Aultback*

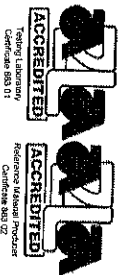
8/5/15

1657345

1657346

1657347

Ti,



NIST  
Testing Laboratory  
Certificate 883 01

NIST  
Reference Material Producer  
Certificate 840 02

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

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

$$\text{Uncertainty } (\pm) = 2 \left[ \sum (s_i)^2 \right]^{1/2}$$

$2$  = the coverage factor.  
 $\left[ \sum (s_i)^2 \right]^{1/2}$  = 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 ( $\mu\text{g/mL}$ )

N/A

#### 6.0 INTENDED USE

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

#### 7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

##### 7.1 Storage and Handling Recommendations

- Keep cap tightly sealed when not in use. Store and use at  $20 \pm 4^\circ \text{C}$ . 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

May 19, 2015

11.2 Expiration Date

EXPIRES  
1 2016

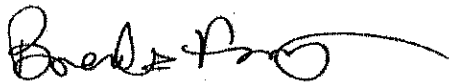
11.3 Period of Validity

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is handled and stored in accordance with instructions given in Sec 7.0 and used prior to the date given in Sec 11.2. This certification is nullified if the CRM/RM is damaged, contaminated, or otherwise modified.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

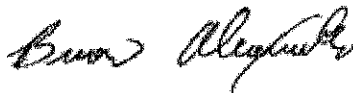
Certificate Prepared By:

Brenda Francis  
Product Documentation Technician



Certificate Approved By:

Brian Alexander  
PhD., Technical Process Director



Certifying Officer:

Paul Gaines  
PhD., Senior Technical Director



Reagent

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**VOA8260GAS1ST\_00105**



# 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 **Lot No.:** A0110070  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

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

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

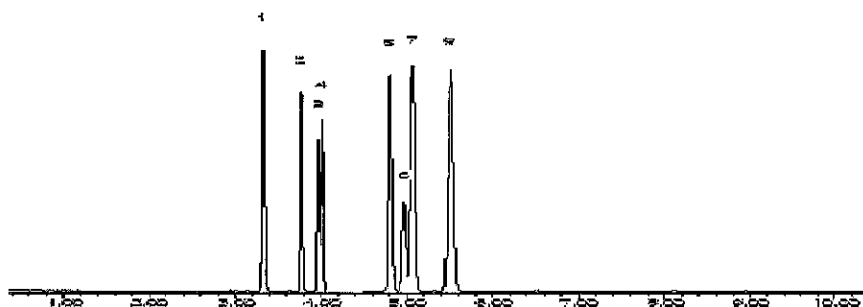
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



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

*[Signature]*  
F. Joseph Tallon - Mix Technician

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

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
--

Reagent

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**VOA8260GAS1ST\_00112**



# 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 **Lot No.:** A0110070  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

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

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

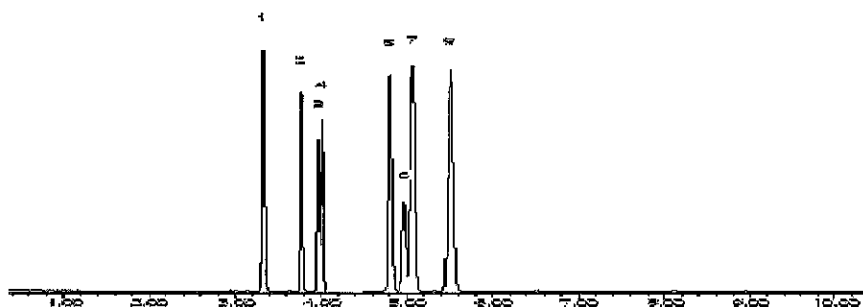
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



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

*[Signature]*  
F. Joseph Tallon - Mix Technician

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

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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

Reagent

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**VOA8260GAS2ND\_00109**





# 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.:** A0110106  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL                      **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018                      **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

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

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

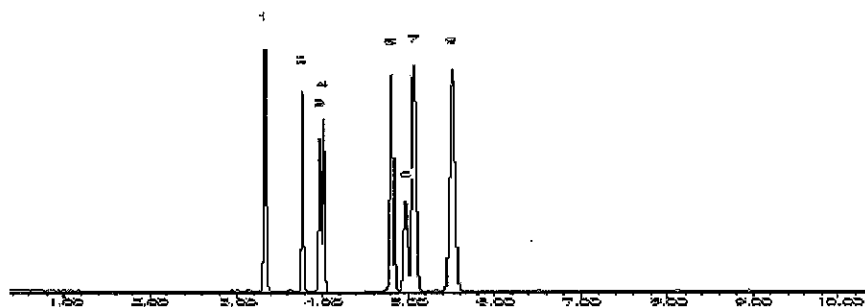
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



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

*Michael Mage*

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

*Tyler Brown*

Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
--

Reagent

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**VOA8260INTRES\_00041**



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 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

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**VOA8260INTRES\_00088**



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

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

Reagent

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**VOA8260KET1ST\_00043**

# 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. :** 569721 **Lot No.:** A0110400  
**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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



Reagent

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**VOA8260KET1ST\_00045**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569721 **Lot No.:** A0110400  
**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

Reagent

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**VOA8260KET1ST\_00049**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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 Bellefonte, PA 16823-8812  
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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 569721 **Lot No.:** A0110400  
**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

Reagent

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**VOA8260KET2ND\_00051**



# CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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

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**VOA8260MEGA1\_00029**



# CERTIFIED REFERENCE MATERIAL

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 Bellefonte, PA 16823-8812  
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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

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



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

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

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

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

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

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

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

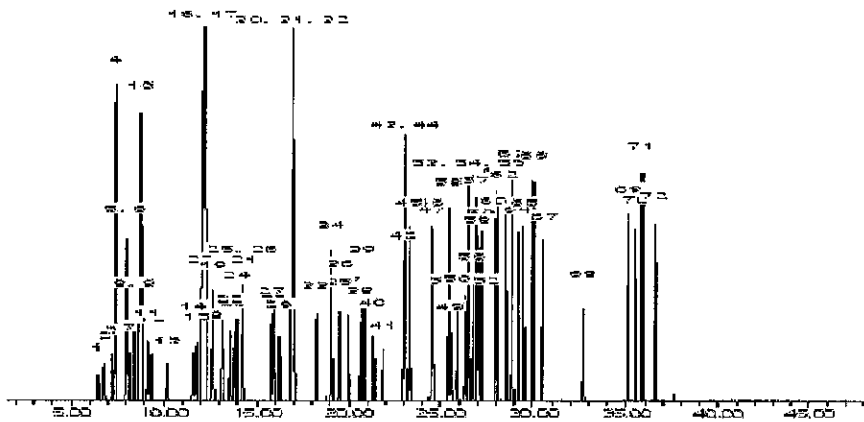
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

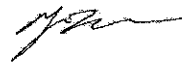
**Det. Type:**  
MSD



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

  
Kendra Swope - Mix Technician

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

  
Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
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Reagent

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**VOA8260MEGA1\_00032**



# 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. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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



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

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

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

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

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

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

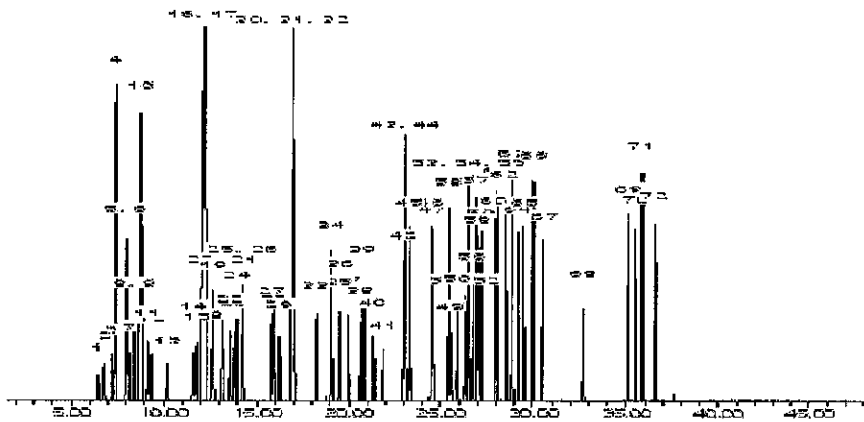
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

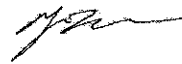
**Det. Type:**  
MSD



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

  
Kendra Swope - Mix Technician

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

  
Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

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

Reagent

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**VOA8260MEGA2\_00035**

# RESTEK<sup>®</sup> CERTIFIED REFERENCE MATERIAL

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## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 569720.sec **Lot No.:** A0108163  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

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



40	Dibromochloromethane		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	<b>CAS #</b> 124-48-1.SEC	(Lot I13W021)			+/-	133.1377	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.2845	µg/mL	Stressed
41	1,2-Dibromoethane (EDB)		2,502.1	µg/mL	+/-	14.5472	µg/mL	Gravimetric
	<b>CAS #</b> 106-93-4.SEC	(Lot 1368400)			+/-	133.1542	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3011	µg/mL	Stressed
42	Chlorobenzene		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	<b>CAS #</b> 108-90-7.SEC	(Lot H161936)			+/-	133.1310	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2778	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	<b>CAS #</b> 630-20-6.SEC	(Lot GC01-QSHR)			+/-	133.0844	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2312	µg/mL	Stressed
44	Ethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	<b>CAS #</b> 100-41-4.SEC	(Lot PI4SE-GR)			+/-	133.0578	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2045	µg/mL	Stressed
45	m-Xylene		1,250.4	µg/mL	+/-	7.2698	µg/mL	Gravimetric
	<b>CAS #</b> 108-38-3.SEC	(Lot OUKMG-GB)			+/-	66.5422	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	66.6156	µg/mL	Stressed
46	o-Xylene		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	<b>CAS #</b> 95-47-6.SEC	(Lot FGL01-KTPK)			+/-	133.1110	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2578	µg/mL	Stressed
47	p-Xylene		1,251.6	µg/mL	+/-	7.2771	µg/mL	Gravimetric
	<b>CAS #</b> 106-42-3.SEC	(Lot GM01)			+/-	66.6087	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	66.6822	µg/mL	Stressed
48	Styrene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	<b>CAS #</b> 100-42-5.SEC	(Lot OFIOL-IA)			+/-	133.0911	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2378	µg/mL	Stressed
49	Isopropylbenzene (cumene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	<b>CAS #</b> 98-82-8.SEC	(Lot 2PHXG-IH)			+/-	133.1110	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2578	µg/mL	Stressed
50	Bromoform		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	<b>CAS #</b> 75-25-2.SEC	(Lot 1039300)			+/-	133.1243	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2711	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane		2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
	<b>CAS #</b> 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	133.1975	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3444	µg/mL	Stressed
52	Chloroform		2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
	<b>CAS #</b> 67-66-3.SEC	(Lot 1297547)			+/-	133.1310	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2778	µg/mL	Stressed
53	1,2,3-Trichloropropane		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	<b>CAS #</b> 96-18-4.SEC	(Lot OGI01)			+/-	133.1477	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.2946	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene		2,502.7	µg/mL	+/-	14.5510	µg/mL	Gravimetric
	<b>CAS #</b> 110-57-6.SEC	(Lot 100700-2)			+/-	133.1893	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.3362	µg/mL	Stressed
55	n-Propylbenzene		2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	<b>CAS #</b> 103-65-1.SEC	(Lot T2HFC-IT)			+/-	133.0445	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.1912	µg/mL	Stressed

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

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

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

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

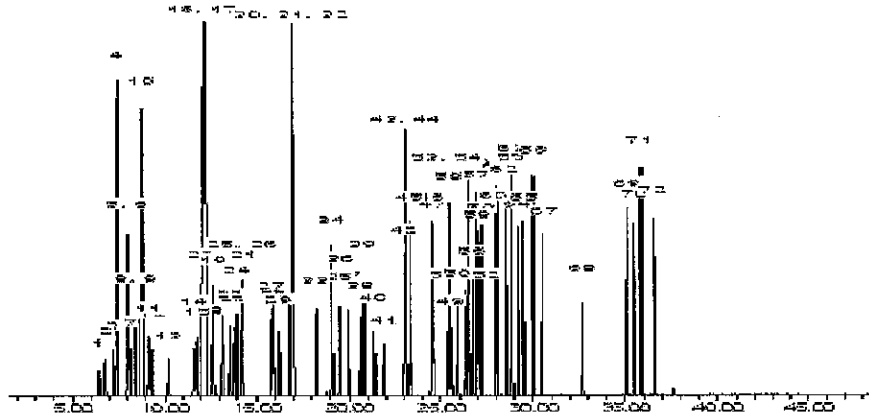
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



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

*Michael Mage*

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

*Tyler Brown*

Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
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Reagent

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**VOA8260SURRES\_00067**

# RESTEK CERTIFIED REFERENCE MATERIAL

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 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. :** 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 Purity 99% (Lot 022012)	2,502.2 µg/mL	+/-	14.5480	µg/mL Gravimetric
			+/-	28.2159	µg/mL Unstressed
			+/-	32.4683	µg/mL Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99% (Lot 12K-027)	2,501.2 µg/mL	+/-	14.5422	µg/mL Gravimetric
			+/-	28.2046	µg/mL Unstressed
			+/-	32.4554	µg/mL Stressed
3	Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot 13I-050)	2,500.8 µg/mL	+/-	14.5399	µg/mL Gravimetric
			+/-	28.2001	µg/mL Unstressed
			+/-	32.4502	µg/mL Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 01127COV)	2,501.4 µg/mL	+/-	14.5434	µg/mL Gravimetric
			+/-	28.2069	µg/mL Unstressed
			+/-	32.4580	µg/mL Stressed

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

Reagent

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**VOA8260SURRES\_00091**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 567650 **Lot No.:** A0102817  
**Description :** 8260 Surrogate Standard  
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** April 30, 2019 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

Reagent

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**VOA8260VARES2\_00051**





# CERTIFIED REFERENCE MATERIAL

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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569724.sec **Lot No.:** A0108224

**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 CAS # 108-05-4.SEC Purity 99%	5,003.0 µg/mL	+/- 29.3604 µg/mL +/- 266.2785 µg/mL +/- 266.5721 µg/mL	Gravimetric Unstressed 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

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**VOAACRORES\_00071**



# CERTIFIED REFERENCE MATERIAL

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

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 568720 **Lot No.:** A0109948

**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 :** July 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 CAS # 107-02-8 Purity 99% (Lot 150115JLM)	19,756.0 µg/mL	+/-	115.6757	µg/mL	Gravimetric
			+/-	633.4395	µg/mL	Unstressed
			+/-	736.3041	µg/mL	Stressed

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

Reagent

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**VOARESEE1ST\_00022**



# CERTIFIED REFERENCE MATERIAL



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

## Certificate of Analysis



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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL Lot No.: A0109701

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 : September 30, 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			µg/mL	µg/mL	Gravimetric	
1	3-Chlorobenzotrifluoride	5,000.0 µg/mL	---	+/- 29.3428	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/- 56.5231	µg/mL	Unstressed	
	Purity 99%		+/- 65.0021	µg/mL	Stressed	
2	4-Chlorobenzotrifluoride	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric	
	CAS # 98-56-6 (Lot 08507BO)		+/- 56.5570	µg/mL	Unstressed	
	Purity 99%		+/- 65.0411	µg/mL	Stressed	
3	2-Chlorobenzotrifluoride	5,009.0 µg/mL	+/- 29.3956	µg/mL	Gravimetric	
	CAS # 88-16-4 (Lot I0316DQ)		+/- 56.6248	µg/mL	Unstressed	
	Purity 99%		+/- 65.1191	µg/mL	Stressed	
4	3-Chlorotoluene	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric	
	CAS # 108-41-8 (Lot 13528LX)		+/- 56.6587	µg/mL	Unstressed	
	Purity 99%		+/- 65.1581	µg/mL	Stressed	
5	2,4-Dichlorobenzotrifluoride	5,013.0 µg/mL	+/- 29.4191	µg/mL	Gravimetric	
	CAS # 320-60-5 (Lot MKBL3552V)		+/- 56.6701	µg/mL	Unstressed	
	Purity 99%		+/- 65.1711	µg/mL	Stressed	
6	3,4-Dichlorobenzotrifluoride	5,018.0 µg/mL	+/- 29.4484	µg/mL	Gravimetric	
	CAS # 328-84-7 (Lot 11105EJV)		+/- 56.7266	µg/mL	Unstressed	
	Purity 99%		+/- 65.2361	µg/mL	Stressed	
7	2,5-Dichlorobenzotrifluoride	5,015.0 µg/mL	+/- 29.4308	µg/mL	Gravimetric	
	CAS # 320-50-3 (Lot 04415DSV)		+/- 56.6927	µg/mL	Unstressed	
	Purity 99%		+/- 65.1971	µg/mL	Stressed	

8	2,4-Dichlorotoluene	(Lot 07715JS)	5,021.0	$\mu\text{g/mL}$	+/-	29.4660	$\mu\text{g/mL}$	Gravimetric	
	CAS # 95-73-8					56.7605			Unstressed
	Purity 99%					65.2751			
9	2,5-Dichlorotoluene	(Lot 1381346V)	5,005.0	$\mu\text{g/mL}$	+/-	29.3721	$\mu\text{g/mL}$	Gravimetric	
	CAS # 19398-61-9					56.5796			Unstressed
	Purity 99%					65.0671			
10	2,6-Dichlorotoluene	(Lot 16921JS)	5,014.0	$\mu\text{g/mL}$	+/-	29.4250	$\mu\text{g/mL}$	Gravimetric	
	CAS # 118-69-4					56.6814			Unstressed
	Purity 99%					65.1841			
11	3,4-Dichlorotoluene	(Lot 09419AS)	5,011.0	$\mu\text{g/mL}$	+/-	29.4074	$\mu\text{g/mL}$	Gravimetric	
	CAS # 95-75-0					56.6474			Unstressed
	Purity 99%					65.1451			
12	2,3-Dichlorotoluene	(Lot 00317)	5,016.0	$\mu\text{g/mL}$	+/-	29.4367	$\mu\text{g/mL}$	Gravimetric	
	CAS # 32768-54-0					56.7040			Unstressed
	Purity 99%					65.2101			
13	2,4,5-Trichlorotoluene	(Lot 2490300)	5,000.0	$\mu\text{g/mL}$	+/-	29.3428	$\mu\text{g/mL}$	Gravimetric	
	CAS # 6639-30-1					56.5231			Unstressed
	Purity 99%					65.0021			
14	2,3,6-Trichlorotoluene	(Lot NT050444)	5,005.0	$\mu\text{g/mL}$	+/-	29.3721	$\mu\text{g/mL}$	Gravimetric	
	CAS # 2077-46-5					56.5796			Unstressed
	Purity 99%					65.0671			

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

Reagent

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**WNa2CO3P\_00007**



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

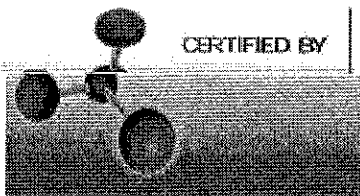
### Certificate of Analysis

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



*Edgar E. Hare*  
Lab Manager Fair Lawn

1243950  
ID: WNa2CO3P\_00007  
Exp:07/09/18 Prpd:IRA Opn:07/09/14  
Sodium Carbonate

1243948  
ID: WNa2CO3P\_00007  
Exp:07/09/18 Prpd:IRA Opn:07/09/14  
Sodium Carbonate

1243949  
ID: WNa2CO3P\_00007  
Exp:07/09/18 Prpd:IRA Opn:07/09/14  
Sodium Carbonate

1243947  
ID: WNa2CO3P\_00007  
Exp:07/09/18 Prpd:IRA 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

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

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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-COD-SW-6-0/1-0	180-46875-1	110	107	89	82
HD-COD-SW-7-0/1-0	180-46875-2	111	110	91	80
HD-COD-SW-8-0/1-0	180-46875-3	107	109	88	79
HD-COD-SW-9-0/1-0	180-46875-4	111	110	93	80
HD-COD-SW-10-0/1-0	180-46875-5	107	107	91	79
HD-COD-SW-11-0/1-0	180-46875-6	114	111	92	80
HD-COD-SW-12-0/1-0	180-46875-7	112	110	91	83
HD-COD-SW-13-0/1-0	180-46875-8	112	112	91	81
HD-COD-SW-15-0/1-0	180-46875-9	110	109	91	78
HD-COD-SW-16-0/1-0	180-46875-10	112	112	93	82
HD-QC1-0/1-2	180-46875-11	114	110	92	78
HD-COD-SW-17-0/1-0	180-46875-12	106	107	94	81
HD-COD-SW-20-0/1-0	180-46875-13	111	112	90	80
HD-COD-SW-26-0/1-0	180-46875-14	112	106	92	81
HD-COD-SW-27-0/1-0	180-46875-15	114	109	91	81
HD-COD-SW-28-0/1-0	180-46875-16	114	111	94	85
HD-COD-SW-29-0/1-0	180-46875-17	102	103	93	84
HD-QC1-0/1-1	180-46875-18	112	110	94	82
HD-QC2-0/1-2	180-46875-19	109	108	91	84
	MB 180-151080/7	101	102	92	85
	MB 180-151188/6	105	104	96	88
	LCS 180-151080/8	98	94	97	94
	LCS 180-151188/14	86	84	95	90
	LCSD 180-151080/9	96	97	99	97
HD-COD-SW-17-0/1-0 MS	180-46875-12 MS	92	89	98	91
HD-COD-SW-17-0/1-0 MSD	180-46875-12 MSD	96	95	99	92

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

QC LIMITS

70-128  
64-135  
71-118  
70-118

# Column to be used to flag recovery values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50818008.D

Lab ID: LCS 180-151080/8

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	8.41	84	50-139	
Vinyl chloride	10.0	8.12	81	53-138	
Bromomethane	10.0	7.02	70	33-150	
Chloroethane	10.0	8.70	87	36-142	
1,1-Dichloroethene	10.0	8.94	89	65-136	
Acetone	20.0	17.9	90	22-150	
Carbon disulfide	10.0	8.98	90	54-132	
Methylene Chloride	10.0	9.83	98	63-129	
trans-1,2-Dichloroethene	10.0	9.48	95	73-126	
Methyl tert-butyl ether	10.0	9.45	94	64-123	
1,1-Dichloroethane	10.0	9.80	98	73-126	
cis-1,2-Dichloroethene	10.0	9.49	95	70-120	
Bromochloromethane	10.0	10.0	100	70-127	
2-Butanone (MEK)	20.0	18.5	92	39-138	
Chloroform	10.0	9.87	99	72-127	
1,1,1-Trichloroethane	10.0	9.48	95	63-133	
Carbon tetrachloride	10.0	8.47	85	55-150	
Benzene	10.0	10.0	100	80-120	
1,2-Dichloroethane	10.0	9.53	95	68-132	
Trichloroethene	10.0	9.37	94	73-120	
1,2-Dichloropropane	10.0	10.0	100	76-124	
Bromodichloromethane	10.0	9.80	98	66-130	
cis-1,3-Dichloropropene	10.0	9.89	99	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	45-145	
Toluene	10.0	10.2	102	80-123	
trans-1,3-Dichloropropene	10.0	9.36	94	65-125	
1,1,2-Trichloroethane	10.0	10.3	103	77-127	
Tetrachloroethene	10.0	9.77	98	70-135	
2-Hexanone	20.0	17.8	89	25-132	
Dibromochloromethane	10.0	9.37	94	60-140	
1,2-Dibromoethane (EDB)	10.0	9.79	98	74-123	
Chlorobenzene	10.0	9.74	97	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.0	100	63-140	
Ethylbenzene	10.0	9.74	97	72-126	
Xylenes, Total	20.0	19.6	98	76-128	
Styrene	10.0	10.5	105	71-127	
Bromoform	10.0	8.90	89	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.5	105	62-125	
Acrylonitrile	100	104	104	30-140	
1,4-Dioxane	200	208	104	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50819014.D

Lab ID: LCS 180-151188/14

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.3	113	50-139	
Vinyl chloride	10.0	10.4	104	53-138	
Bromomethane	10.0	7.87	79	33-150	
Chloroethane	10.0	9.62	96	36-142	
1,1-Dichloroethene	10.0	8.97	90	65-136	
Acetone	20.0	23.5	118	22-150	
Carbon disulfide	10.0	9.26	93	54-132	
Methylene Chloride	10.0	8.30	83	63-129	
trans-1,2-Dichloroethene	10.0	9.38	94	73-126	
Methyl tert-butyl ether	10.0	8.93	89	64-123	
1,1-Dichloroethane	10.0	9.28	93	73-126	
cis-1,2-Dichloroethene	10.0	9.15	92	70-120	
Bromochloromethane	10.0	9.37	94	70-127	
2-Butanone (MEK)	20.0	22.5	112	39-138	
Chloroform	10.0	9.19	92	72-127	
1,1,1-Trichloroethane	10.0	8.98	90	63-133	
Carbon tetrachloride	10.0	8.39	84	55-150	
Benzene	10.0	9.49	95	80-120	
1,2-Dichloroethane	10.0	8.86	89	68-132	
Trichloroethene	10.0	8.50	85	73-120	
1,2-Dichloropropane	10.0	9.61	96	76-124	
Bromodichloromethane	10.0	8.74	87	66-130	
cis-1,3-Dichloropropene	10.0	9.16	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.8	94	45-145	
Toluene	10.0	10.3	103	80-123	
trans-1,3-Dichloropropene	10.0	8.93	89	65-125	
1,1,2-Trichloroethane	10.0	9.82	98	77-127	
Tetrachloroethene	10.0	9.43	94	70-135	
2-Hexanone	20.0	19.5	97	25-132	
Dibromochloromethane	10.0	8.93	89	60-140	
1,2-Dibromoethane (EDB)	10.0	9.55	95	74-123	
Chlorobenzene	10.0	9.62	96	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.83	98	63-140	
Ethylbenzene	10.0	9.36	94	72-126	
Xylenes, Total	20.0	19.0	95	76-128	
Styrene	10.0	9.98	100	71-127	
Bromoform	10.0	9.13	91	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.3	103	62-125	
Acrylonitrile	100	102	102	30-140	
1,4-Dioxane	200	171 J	86	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50818009.D

Lab ID: LCSD 180-151080/9

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	8.15	81	3	35	50-139	
Vinyl chloride	10.0	7.82	78	4	35	53-138	
Bromomethane	10.0	6.13	61	14	35	33-150	
Chloroethane	10.0	8.09	81	7	35	36-142	
1,1-Dichloroethene	10.0	8.50	85	5	35	65-136	
Acetone	20.0	22.3	111	21	35	22-150	
Carbon disulfide	10.0	8.42	84	6	35	54-132	
Methylene Chloride	10.0	9.44	94	4	35	63-129	
trans-1,2-Dichloroethene	10.0	9.13	91	4	35	73-126	
Methyl tert-butyl ether	10.0	9.32	93	1	35	64-123	
1,1-Dichloroethane	10.0	9.41	94	4	35	73-126	
cis-1,2-Dichloroethene	10.0	9.38	94	1	35	70-120	
Bromochloromethane	10.0	9.78	98	2	35	70-127	
2-Butanone (MEK)	20.0	22.7	113	21	35	39-138	
Chloroform	10.0	9.22	92	7	35	72-127	
1,1,1-Trichloroethane	10.0	8.92	89	6	35	63-133	
Carbon tetrachloride	10.0	8.20	82	3	35	55-150	
Benzene	10.0	9.63	96	4	32	80-120	
1,2-Dichloroethane	10.0	9.18	92	4	32	68-132	
Trichloroethene	10.0	8.96	90	4	35	73-120	
1,2-Dichloropropane	10.0	9.70	97	3	34	76-124	
Bromodichloromethane	10.0	9.15	92	7	35	66-130	
cis-1,3-Dichloropropene	10.0	9.66	97	2	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.4	102	5	35	45-145	
Toluene	10.0	9.85	99	3	35	80-123	
trans-1,3-Dichloropropene	10.0	9.27	93	1	35	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	2	35	77-127	
Tetrachloroethene	10.0	9.25	93	5	35	70-135	
2-Hexanone	20.0	20.0	100	12	35	25-132	
Dibromochloromethane	10.0	9.24	92	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.89	99	1	35	74-123	
Chlorobenzene	10.0	9.81	98	1	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.0	100	0	34	63-140	
Ethylbenzene	10.0	9.89	99	1	33	72-126	
Xylenes, Total	20.0	20.0	100	2	32	76-128	
Styrene	10.0	10.2	102	2	34	71-127	
Bromoform	10.0	9.05	90	2	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.7	107	2	35	62-125	
Acrylonitrile	100	104	104	0	35	30-140	
1,4-Dioxane	200	225	112	8	35	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50819011.D

Lab ID: 180-46875-12 MS

Client ID: HD-COD-SW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	ND	12.8	128	50-139	
Vinyl chloride	10.0	ND	11.7	117	53-138	
Bromomethane	10.0	ND	9.00	90	33-150	
Chloroethane	10.0	ND	10.9	109	36-142	
1,1-Dichloroethene	10.0	0.88 J	10.8	99	65-136	
Acetone	20.0	ND	25.2	126	22-150	
Carbon disulfide	10.0	ND	9.86	99	54-132	
Methylene Chloride	10.0	ND	9.44	94	63-129	
trans-1,2-Dichloroethene	10.0	ND	10.7	107	73-126	
Methyl tert-butyl ether	10.0	ND	9.70	97	64-123	
1,1-Dichloroethane	10.0	0.59 J	10.6	100	73-126	
cis-1,2-Dichloroethene	10.0	15	22.9	78	70-120	
Bromochloromethane	10.0	ND	9.58	96	70-127	
2-Butanone (MEK)	20.0	ND	24.3	122	39-138	
Chloroform	10.0	0.22 J	10.1	99	72-127	
1,1,1-Trichloroethane	10.0	2.7	11.8	92	63-133	
Carbon tetrachloride	10.0	ND	9.32	93	55-150	
Benzene	10.0	ND	10.4	104	80-120	
1,2-Dichloroethane	10.0	ND	9.67	97	68-132	
Trichloroethene	10.0	19	24.0	51	73-120	F1
1,2-Dichloropropane	10.0	ND	10.5	105	76-124	
Bromodichloromethane	10.0	ND	9.47	95	66-130	
cis-1,3-Dichloropropene	10.0	ND	9.05	90	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	ND	19.4	97	45-145	
Toluene	10.0	ND	10.8	108	80-123	
trans-1,3-Dichloropropene	10.0	ND	9.25	93	65-125	
1,1,2-Trichloroethane	10.0	ND	10.3	103	77-127	
Tetrachloroethene	10.0	42	43.4	11	70-135	4
2-Hexanone	20.0	ND	22.3	111	25-132	
Dibromochloromethane	10.0	ND	9.42	94	60-140	
1,2-Dibromoethane (EDB)	10.0	ND	10.1	101	74-123	
Chlorobenzene	10.0	ND	10.1	101	80-120	
1,1,1,2-Tetrachloroethane	10.0	ND	9.99	100	63-140	
Ethylbenzene	10.0	ND	10.4	104	72-126	
Xylenes, Total	20.0	ND	20.9	105	76-128	
Styrene	10.0	ND	10.6	106	71-127	
Bromoform	10.0	ND	9.44	94	46-150	
1,1,2,2-Tetrachloroethane	10.0	ND	10.7	107	62-125	
Acrylonitrile	100	ND	110	110	30-140	
1,4-Dioxane	200	ND	198 J	99	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50819012.D

Lab ID: 180-46875-12 MSD

Client ID: HD-COD-SW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	12.6	126	1	35	50-139	
Vinyl chloride	10.0	11.4	114	3	35	53-138	
Bromomethane	10.0	9.05	91	1	35	33-150	
Chloroethane	10.0	10.9	109	0	35	36-142	
1,1-Dichloroethene	10.0	10.4	96	4	35	65-136	
Acetone	20.0	24.1	120	4	35	22-150	
Carbon disulfide	10.0	9.93	99	1	35	54-132	
Methylene Chloride	10.0	9.97	100	5	35	63-129	
trans-1,2-Dichloroethene	10.0	10.4	104	3	35	73-126	
Methyl tert-butyl ether	10.0	10.5	105	7	35	64-123	
1,1-Dichloroethane	10.0	10.9	103	2	35	73-126	
cis-1,2-Dichloroethene	10.0	23.7	86	3	35	70-120	
Bromochloromethane	10.0	10.4	104	9	35	70-127	
2-Butanone (MEK)	20.0	25.6	128	5	35	39-138	
Chloroform	10.0	10.2	100	1	35	72-127	
1,1,1-Trichloroethane	10.0	11.8	91	1	35	63-133	
Carbon tetrachloride	10.0	9.07	91	3	35	55-150	
Benzene	10.0	10.3	103	1	32	80-120	
1,2-Dichloroethane	10.0	10.0	100	4	32	68-132	
Trichloroethene	10.0	24.2	53	1	35	73-120	F1
1,2-Dichloropropane	10.0	10.4	104	1	34	76-124	
Bromodichloromethane	10.0	9.77	98	3	35	66-130	
cis-1,3-Dichloropropene	10.0	9.16	92	1	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.7	99	2	35	45-145	
Toluene	10.0	10.5	105	2	35	80-123	
trans-1,3-Dichloropropene	10.0	9.35	94	1	35	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	1	35	77-127	
Tetrachloroethene	10.0	41.8	-5	4	35	70-135	4
2-Hexanone	20.0	21.6	108	3	35	25-132	
Dibromochloromethane	10.0	9.54	95	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	2	35	74-123	
Chlorobenzene	10.0	10.1	101	1	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	2	34	63-140	
Ethylbenzene	10.0	9.91	99	5	33	72-126	
Xylenes, Total	20.0	20.1	100	4	32	76-128	
Styrene	10.0	10.4	104	2	34	71-127	
Bromoform	10.0	9.25	92	2	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.7	107	0	35	62-125	
Acrylonitrile	100	113	113	3	35	30-140	
1,4-Dioxane	200	201	100	1	35	10-160	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50818007.D Lab Sample ID: MB 180-151080/7  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 08/18/2015 14:38  
 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 180-151080/8	50818008.D	08/18/2015 15:12
	LCSD 180-151080/9	50818009.D	08/18/2015 15:36
HD-COD-SW-6-0/1-0	180-46875-1	50818018.D	08/18/2015 19:13
HD-COD-SW-7-0/1-0	180-46875-2	50818019.D	08/18/2015 19:37
HD-COD-SW-8-0/1-0	180-46875-3	50818020.D	08/18/2015 20:01
HD-COD-SW-9-0/1-0	180-46875-4	50818021.D	08/18/2015 20:26
HD-COD-SW-10-0/1-0	180-46875-5	50818022.D	08/18/2015 20:50
HD-COD-SW-11-0/1-0	180-46875-6	50818024.D	08/18/2015 21:38
HD-COD-SW-12-0/1-0	180-46875-7	50818025.D	08/18/2015 22:02
HD-COD-SW-13-0/1-0	180-46875-8	50818026.D	08/18/2015 22:26
HD-COD-SW-15-0/1-0	180-46875-9	50818027.D	08/18/2015 22:50
HD-QC1-0/1-2	180-46875-11	50818028.D	08/18/2015 23:14
HD-COD-SW-16-0/1-0	180-46875-10	50818029.D	08/18/2015 23:38
HD-COD-SW-20-0/1-0	180-46875-13	50818030.D	08/19/2015 00:03



FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50819006.D Lab Sample ID: MB 180-151188/6  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 08/19/2015 13:02  
 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-QC2-0/1-2	180-46875-19	50819008.D	08/19/2015 14:03
HD-COD-SW-17-0/1-0	180-46875-12	50819009.D	08/19/2015 14:27
HD-COD-SW-17-0/1-0 MS	180-46875-12 MS	50819011.D	08/19/2015 15:15
HD-COD-SW-17-0/1-0 MSD	180-46875-12 MSD	50819012.D	08/19/2015 15:39
	LCS 180-151188/14	50819014.D	08/19/2015 16:27
HD-COD-SW-29-0/1-0	180-46875-17	50819015.D	08/19/2015 16:51
HD-QC1-0/1-1	180-46875-18	50819023.D	08/19/2015 20:04
HD-COD-SW-26-0/1-0	180-46875-14	50819024.D	08/19/2015 20:27
HD-COD-SW-27-0/1-0	180-46875-15	50819025.D	08/19/2015 20:52
HD-COD-SW-28-0/1-0	180-46875-16	50819026.D	08/19/2015 21:15

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50617016.D BFB Injection Date: 06/17/2015  
 Instrument ID: CHHP5 BFB Injection Time: 11:58  
 Analysis Batch No.: 145277

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	22.8
75	30.0 - 60.0 % of mass 95	54.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.5
173	Less than 2.0 % of mass 174	0.6 (0.8)1
174	50.0 - 120.00 % of mass 95	72.3
175	5.0 - 9.0 % of mass 174	5.6 (7.7)1
176	95.0 - 101.0 % of mass 174	72.9 (100.7)1
177	5.0 - 9.0 % of mass 176	4.6 (6.3)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-145277/6	50617006.D	06/17/2015	14:07
	ICIS 180-145277/7	50617007.D	06/17/2015	14:30
	IC 180-145277/8	50617008.D	06/17/2015	14:54
	IC 180-145277/9	50617009.D	06/17/2015	15:18
	IC 180-145277/10	50617010.D	06/17/2015	15:42
	IC 180-145277/11	50617011.D	06/17/2015	16:06
	IC 180-145277/12	50617012.D	06/17/2015	16:29
	IC 180-145277/17	50617017.D	06/17/2015	18:04

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50818005.D BFB Injection Date: 08/18/2015  
 Instrument ID: CHHP5 BFB Injection Time: 12:21  
 Analysis Batch No.: 151080

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	22.5
75	30.0 - 60.0 % of mass 95	49.8
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	0.6 (0.8)1
174	50.0 - 120.00 % of mass 95	73.9
175	5.0 - 9.0 % of mass 174	5.2 (7.1)1
176	95.0 - 101.0 % of mass 174	71.9 (97.2)1
177	5.0 - 9.0 % of mass 176	4.9 (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 180-151080/6	50818006.D	08/18/2015	13:50
	MB 180-151080/7	50818007.D	08/18/2015	14:38
	LCS 180-151080/8	50818008.D	08/18/2015	15:12
	LCSD 180-151080/9	50818009.D	08/18/2015	15:36
HD-COD-SW-6-0/1-0	180-46875-1	50818018.D	08/18/2015	19:13
HD-COD-SW-7-0/1-0	180-46875-2	50818019.D	08/18/2015	19:37
HD-COD-SW-8-0/1-0	180-46875-3	50818020.D	08/18/2015	20:01
HD-COD-SW-9-0/1-0	180-46875-4	50818021.D	08/18/2015	20:26
HD-COD-SW-10-0/1-0	180-46875-5	50818022.D	08/18/2015	20:50
HD-COD-SW-11-0/1-0	180-46875-6	50818024.D	08/18/2015	21:38
HD-COD-SW-12-0/1-0	180-46875-7	50818025.D	08/18/2015	22:02
HD-COD-SW-13-0/1-0	180-46875-8	50818026.D	08/18/2015	22:26
HD-COD-SW-15-0/1-0	180-46875-9	50818027.D	08/18/2015	22:50
HD-QC1-0/1-2	180-46875-11	50818028.D	08/18/2015	23:14
HD-COD-SW-16-0/1-0	180-46875-10	50818029.D	08/18/2015	23:38
HD-COD-SW-20-0/1-0	180-46875-13	50818030.D	08/19/2015	00:03

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50819001.D BFB Injection Date: 08/19/2015  
 Instrument ID: CHHP5 BFB Injection Time: 10:45  
 Analysis Batch No.: 151188

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.1
75	30.0 - 60.0 % of mass 95	50.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.7 (1.0)1
174	50.0 - 120.00 % of mass 95	72.8
175	5.0 - 9.0 % of mass 174	4.5 (6.3)1
176	95.0 - 101.0 % of mass 174	70.0 (96.3)1
177	5.0 - 9.0 % of mass 176	5.3 (7.6)2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-151188/4	50819004.D	08/19/2015	12:12
	MB 180-151188/6	50819006.D	08/19/2015	13:02
HD-QC2-0/1-2	180-46875-19	50819008.D	08/19/2015	14:03
HD-COD-SW-17-0/1-0	180-46875-12	50819009.D	08/19/2015	14:27
HD-COD-SW-17-0/1-0 MS	180-46875-12 MS	50819011.D	08/19/2015	15:15
HD-COD-SW-17-0/1-0 MSD	180-46875-12 MSD	50819012.D	08/19/2015	15:39
	LCS 180-151188/14	50819014.D	08/19/2015	16:27
HD-COD-SW-29-0/1-0	180-46875-17	50819015.D	08/19/2015	16:51
HD-QC1-0/1-1	180-46875-18	50819023.D	08/19/2015	20:04
HD-COD-SW-26-0/1-0	180-46875-14	50819024.D	08/19/2015	20:27
HD-COD-SW-27-0/1-0	180-46875-15	50819025.D	08/19/2015	20:52
HD-COD-SW-28-0/1-0	180-46875-16	50819026.D	08/19/2015	21:15

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-151080/6 Date Analyzed: 08/18/2015 13:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50818006.D Heated Purge: (Y/N) N  
 Calibration ID: 24418

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	140171	4.27	437406	7.29	96566	10.39	
UPPER LIMIT	280342	4.77	874812	7.79	193132	10.89	
LOWER LIMIT	70086	3.77	218703	6.79	48283	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-151080/7		179919	4.26	425833	7.29	94989	10.39
LCS 180-151080/8		144522	4.26	437119	7.29	101699	10.39
LCSD 180-151080/9		155829	4.27	442672	7.29	100340	10.39
180-46875-1	HD-COD-SW-6-0/1-0	162454	4.26	381805	7.29	87761	10.39
180-46875-2	HD-COD-SW-7-0/1-0	170086	4.26	365144	7.29	84160	10.39
180-46875-3	HD-COD-SW-8-0/1-0	168925	4.26	378446	7.29	88929	10.39
180-46875-4	HD-COD-SW-9-0/1-0	159298	4.26	373676	7.29	85718	10.39
180-46875-5	HD-COD-SW-10-0/1-0	161263	4.26	380806	7.29	88508	10.38
180-46875-6	HD-COD-SW-11-0/1-0	157399	4.26	361417	7.29	82923	10.39
180-46875-7	HD-COD-SW-12-0/1-0	153104	4.25	363306	7.29	83584	10.39
180-46875-8	HD-COD-SW-13-0/1-0	161998	4.26	362685	7.29	83218	10.39
180-46875-9	HD-COD-SW-15-0/1-0	157352	4.26	371266	7.29	85126	10.39
180-46875-11	HD-QC1-0/1-2	156631	4.26	366916	7.29	84869	10.39
180-46875-10	HD-COD-SW-16-0/1-0	155783	4.26	364421	7.29	83820	10.39
180-46875-13	HD-COD-SW-20-0/1-0	148675	4.26	365388	7.29	84501	10.38

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-151080/6 Date Analyzed: 08/18/2015 13:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50818006.D Heated Purge: (Y/N) N  
 Calibration ID: 24418

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135192	12.72				
UPPER LIMIT		270384	13.22				
LOWER LIMIT		67596	12.22				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-151080/7		122505	12.73				
LCS 180-151080/8		141431	12.73				
LCSD 180-151080/9		142416	12.73				
180-46875-1	HD-COD-SW-6-0/1-0	111506	12.73				
180-46875-2	HD-COD-SW-7-0/1-0	109145	12.73				
180-46875-3	HD-COD-SW-8-0/1-0	107013	12.73				
180-46875-4	HD-COD-SW-9-0/1-0	105401	12.73				
180-46875-5	HD-COD-SW-10-0/1-0	108824	12.73				
180-46875-6	HD-COD-SW-11-0/1-0	104431	12.73				
180-46875-7	HD-COD-SW-12-0/1-0	106651	12.73				
180-46875-8	HD-COD-SW-13-0/1-0	108734	12.73				
180-46875-9	HD-COD-SW-15-0/1-0	109123	12.73				
180-46875-11	HD-QC1-0/1-2	102454	12.73				
180-46875-10	HD-COD-SW-16-0/1-0	106305	12.73				
180-46875-13	HD-COD-SW-20-0/1-0	105592	12.73				

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-151188/4 Date Analyzed: 08/19/2015 12:12  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50819004.D Heated Purge: (Y/N) N  
 Calibration ID: 24418

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	146044	4.27	448342	7.29	99757	10.39	
UPPER LIMIT	292088	4.77	896684	7.79	199514	10.89	
LOWER LIMIT	73022	3.77	224171	6.79	49879	9.89	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-151188/6		193579	4.25	428291	7.29	94295	10.39
180-46875-19	HD-QC2-0/1-2	167025	4.26	396658	7.29	91699	10.39
180-46875-12	HD-COD-SW-17-0/1-0	171018	4.25	399164	7.29	92182	10.39
180-46875-12 MS	HD-COD-SW-17-0/1-0 MS	155783	4.27	460782	7.29	101345	10.39
180-46875-12 MSD	HD-COD-SW-17-0/1-0 MSD	143146	4.27	448081	7.29	100320	10.39
LCS 180-151188/14		158398	4.27	493248	7.29	105851	10.38
180-46875-17	HD-COD-SW-29-0/1-0	187295	4.26	431863	7.29	98704	10.38
180-46875-18	HD-QC1-0/1-1	152267	4.26	375476	7.29	84522	10.39
180-46875-14	HD-COD-SW-26-0/1-0	141835	4.25	379593	7.29	85309	10.39
180-46875-15	HD-COD-SW-27-0/1-0	141711	4.25	371665	7.29	85796	10.39
180-46875-16	HD-COD-SW-28-0/1-0	132788	4.26	369004	7.29	82185	10.38

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  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-151188/4 Date Analyzed: 08/19/2015 12:12  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50819004.D Heated Purge: (Y/N) N  
 Calibration ID: 24418

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		140669	12.73				
UPPER LIMIT		281338	13.23				
LOWER LIMIT		70335	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-151188/6		128052	12.73				
180-46875-19	HD-QC2-0/1-2	111152	12.73				
180-46875-12	HD-COD-SW-17-0/1-0	104931	12.73				
180-46875-12 MS	HD-COD-SW-17-0/1-0 MS	135052	12.72				
180-46875-12 MSD	HD-COD-SW-17-0/1-0 MSD	132932	12.73				
LCS 180-151188/14		145045	12.73				
180-46875-17	HD-COD-SW-29-0/1-0	121204	12.72				
180-46875-18	HD-QC1-0/1-1	102715	12.73				
180-46875-14	HD-COD-SW-26-0/1-0	99856	12.73				
180-46875-15	HD-COD-SW-27-0/1-0	106447	12.73				
180-46875-16	HD-COD-SW-28-0/1-0	102622	12.73				

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 I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-46875-1  
 Matrix: Water Lab File ID: 50818018.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 19:13  
 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.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-46875-1  
 Matrix: Water Lab File ID: 50818018.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 19:13  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	89		71-118
460-00-4	4-Bromofluorobenzene (Surr)	82		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818018.D  
 Lims ID: 180-46875-D-1 Lab Sample ID: 180-46875-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 19:13:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-1  
 Misc. Info.: 180-0008205-018  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 07:52:14 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 07:52:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.268	-0.009	0	162454	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.291	-0.003	98	381805	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.388	-0.003	89	87761	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.733	12.724	0.009	98	111506	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.564	6.567	-0.003	94	97846	55.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.932	0.004	0	137954	53.7	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.934	0.003	95	325381	44.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.568	0.003	86	109550	40.9	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.438	3.446	-0.008	89	6814	10.8	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83		6.385				ND	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.678	7.681	-0.003	26	873	0.3842	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818018.D

Injection Date: 18-Aug-2015 19:13:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-1

Lab Sample ID: 180-46875-1

Worklist Smp#: 18

Client ID: HD-COD-SW-6-0/1-0

Purge Vol: 5.000 mL

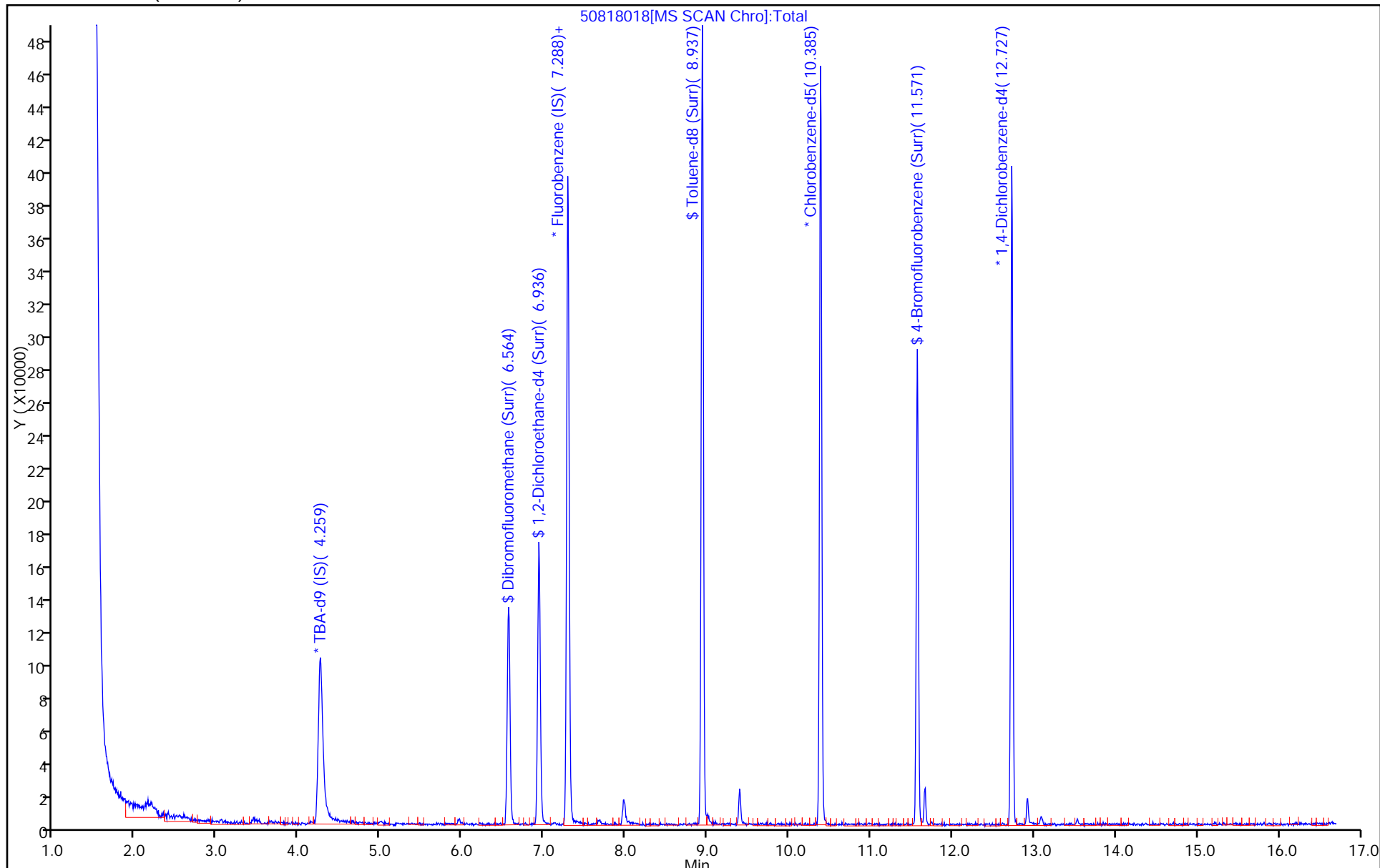
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-46875-2  
 Matrix: Water Lab File ID: 50818019.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 11:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 19:37  
 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.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-46875-2  
 Matrix: Water Lab File ID: 50818019.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 11:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 19:37  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	80		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818019.D  
 Lims ID: 180-46875-D-2 Lab Sample ID: 180-46875-2  
 Client ID: HD-COD-SW-7-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 19:37:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-2  
 Misc. Info.: 180-0008205-019  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:04:21 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:04:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.268	-0.012	0	170086	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	365144	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	84160	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.724	0.001	98	109145	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.567	-0.005	93	94815	55.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.932	0.001	0	135585	55.2	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.934	0.001	94	318861	45.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.568	0.001	87	102717	40.0	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.453	3.446	0.007	87	7706	12.7	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.953	0.001	73	1583	0.6796	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.392	6.385	0.007	1	1391	0.3599	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.675	7.681	-0.006	87	2209	1.02	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818019.D

Injection Date: 18-Aug-2015 19:37:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-2

Lab Sample ID: 180-46875-2

Worklist Smp#: 19

Client ID: HD-COD-SW-7-0/1-0

Purge Vol: 5.000 mL

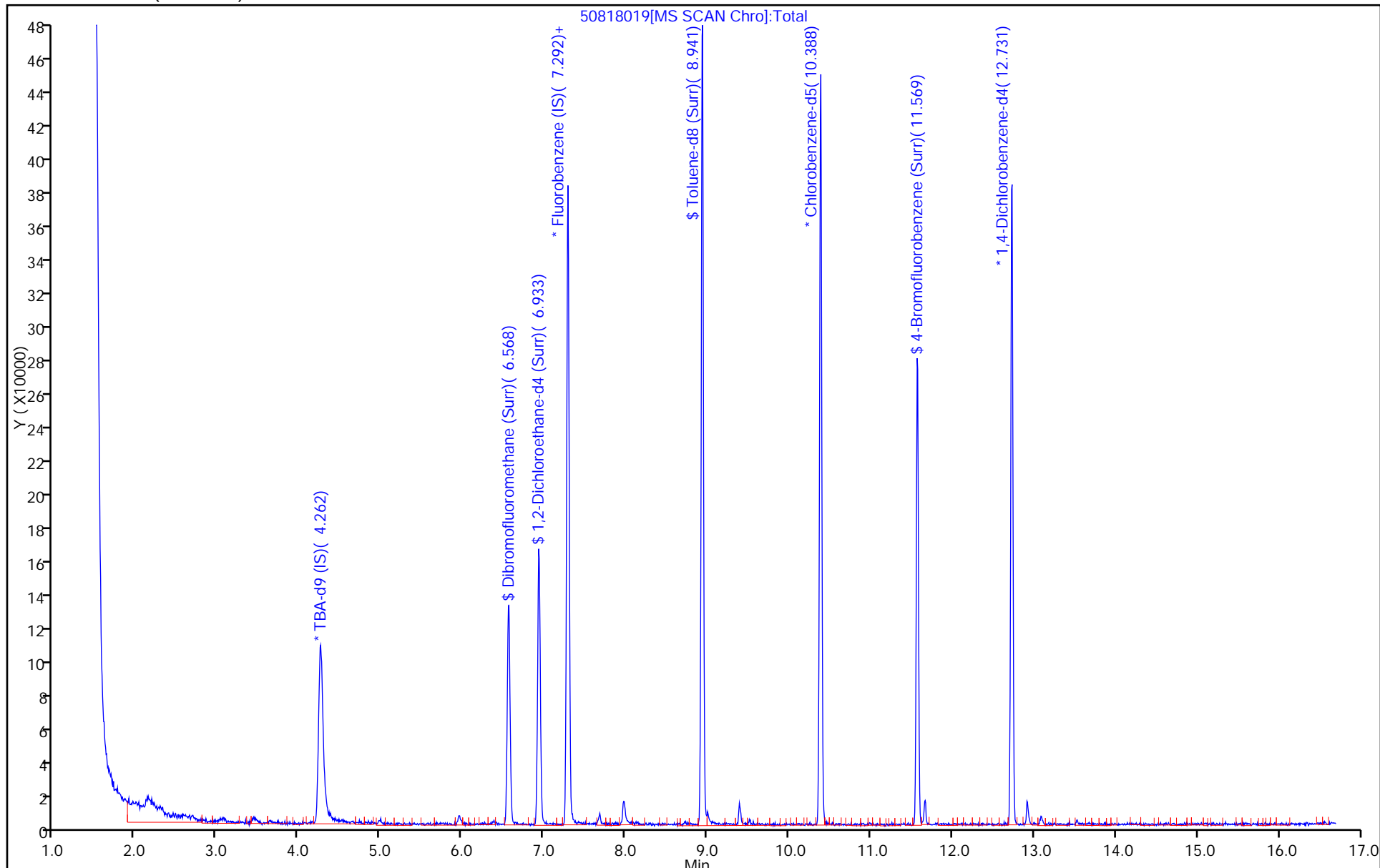
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818019.D

Injection Date: 18-Aug-2015 19:37:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-2

Lab Sample ID: 180-46875-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: 001562

ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

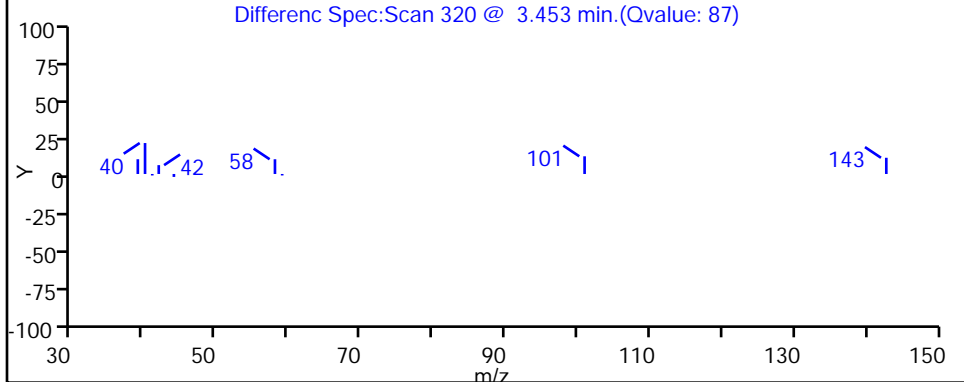
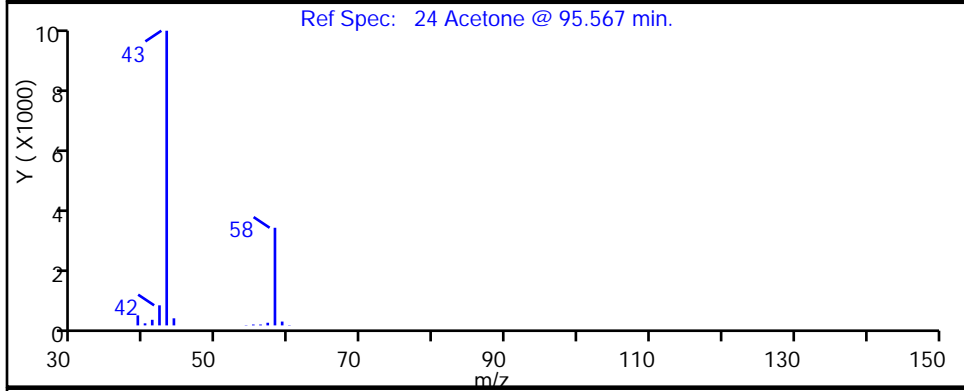
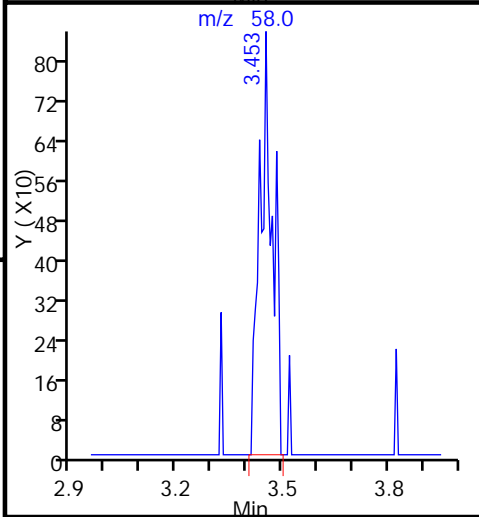
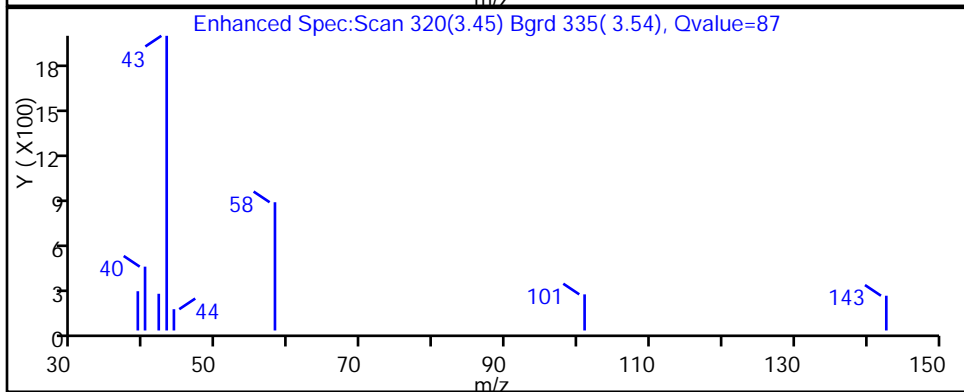
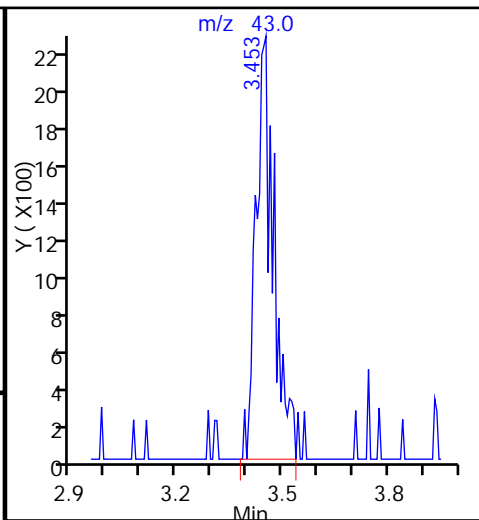
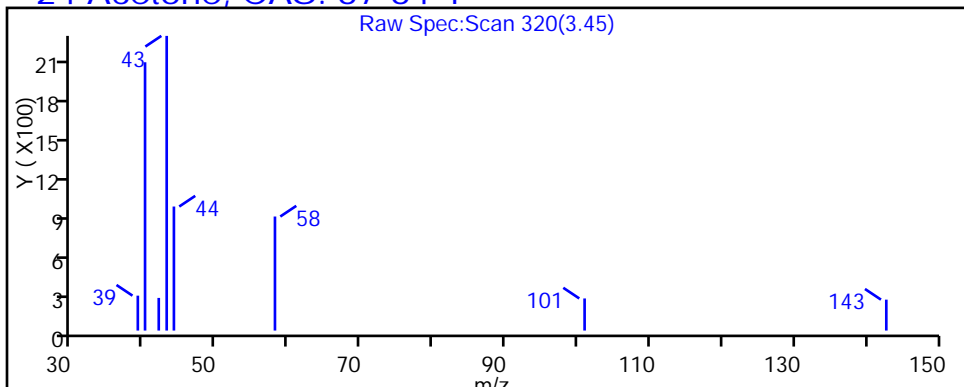
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

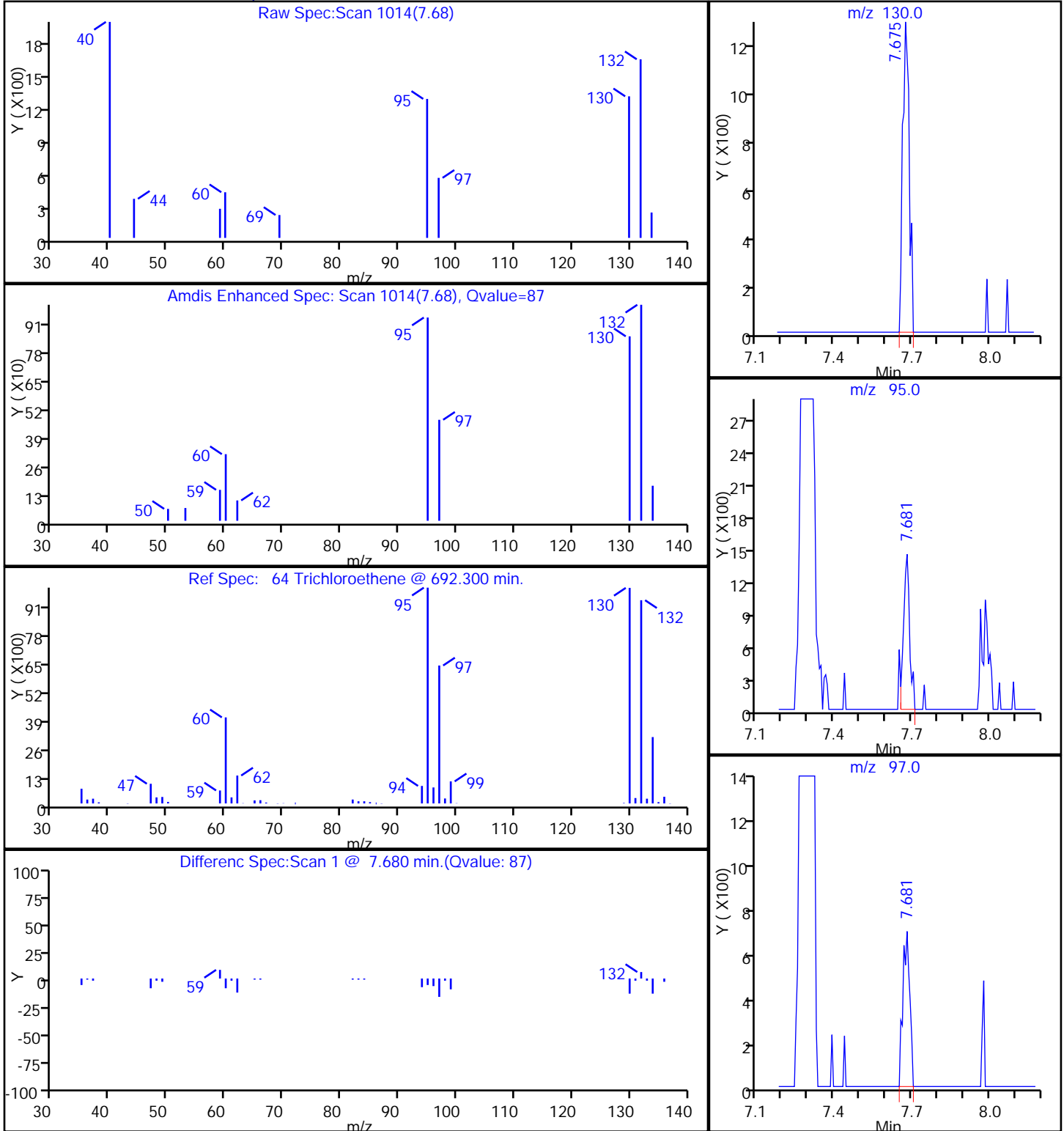
24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818019.D  
Injection Date: 18-Aug-2015 19:37:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-2 Lab Sample ID: 180-46875-2  
Client ID: HD-COD-SW-7-0/1-0  
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 19  
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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-46875-3  
 Matrix: Water Lab File ID: 50818020.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:55  
 Sample wt/vol: 5(mL) Date Analyzed: 08/18/2015 20:01  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.27	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.25	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.23	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-46875-3  
 Matrix: Water Lab File ID: 50818020.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 20:01  
 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.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	88		71-118
460-00-4	4-Bromofluorobenzene (Surr)	79		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818020.D  
 Lims ID: 180-46875-C-3 Lab Sample ID: 180-46875-3  
 Client ID: HD-COD-SW-8-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 20:01:30 ALS Bottle#: 19 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-C-3  
 Misc. Info.: 180-0008205-020  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:05:18 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:05:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.268	-0.009	0	168925	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.291	-0.002	98	378446	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.388	-0.003	90	88929	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	98	107013	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.567	-0.002	93	94407	53.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.932	0.004	0	138888	54.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	95	325921	44.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	85	106581	39.3	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.456	3.446	0.010	86	6704	10.7	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	83	3213	1.33	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.376	6.385	-0.009	1	1181	0.2948	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.672	7.681	-0.009	89	2869	1.27	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.534	9.518	0.016	85	2117	1.16	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818020.D

Injection Date: 18-Aug-2015 20:01:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-C-3

Lab Sample ID: 180-46875-3

Worklist Smp#: 20

Client ID: HD-COD-SW-8-0/1-0

Purge Vol: 5.000 mL

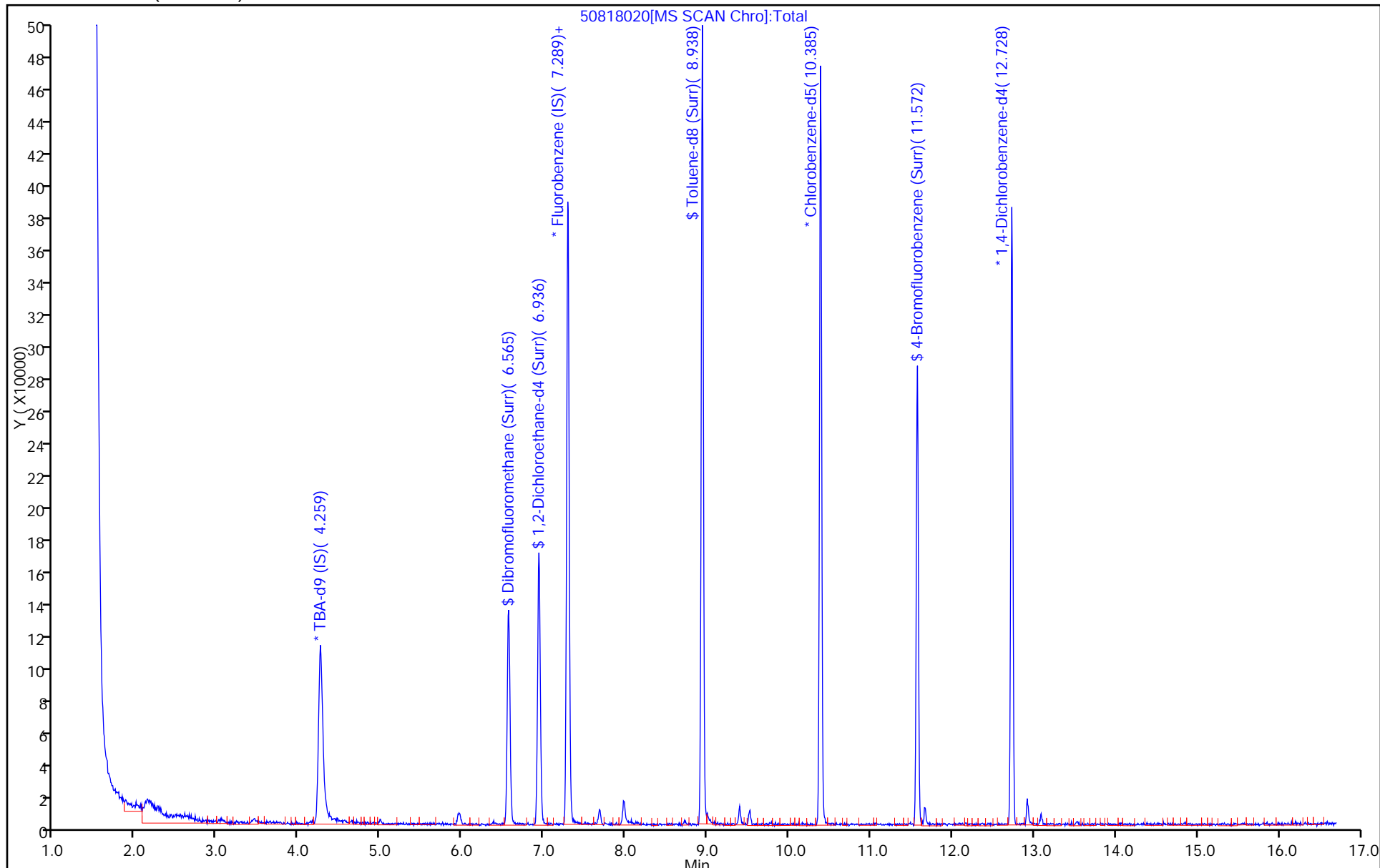
Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818020.D

Injection Date: 18-Aug-2015 20:01:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-3

Lab Sample ID: 180-46875-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

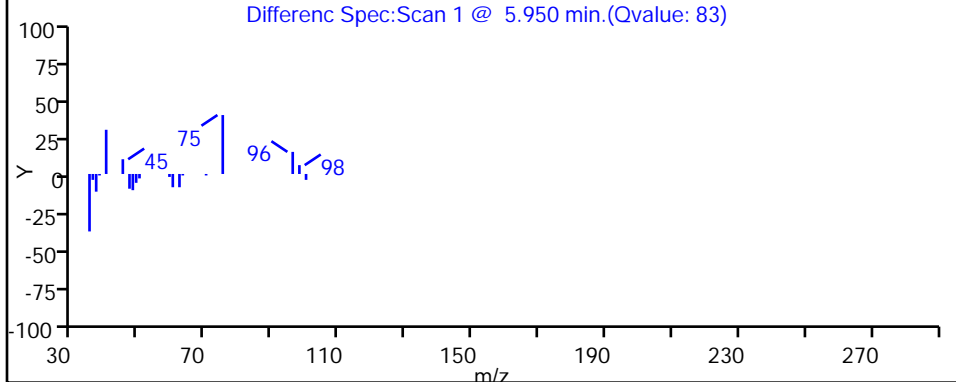
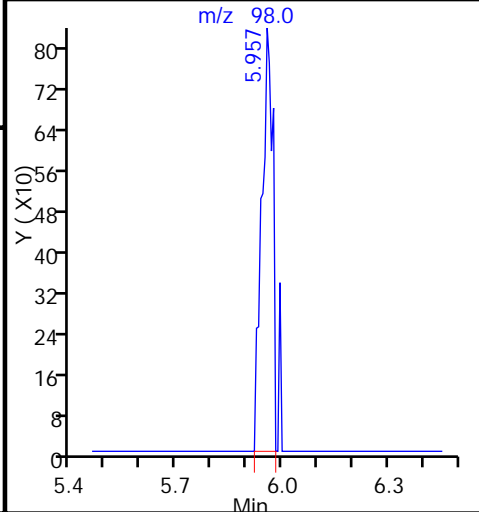
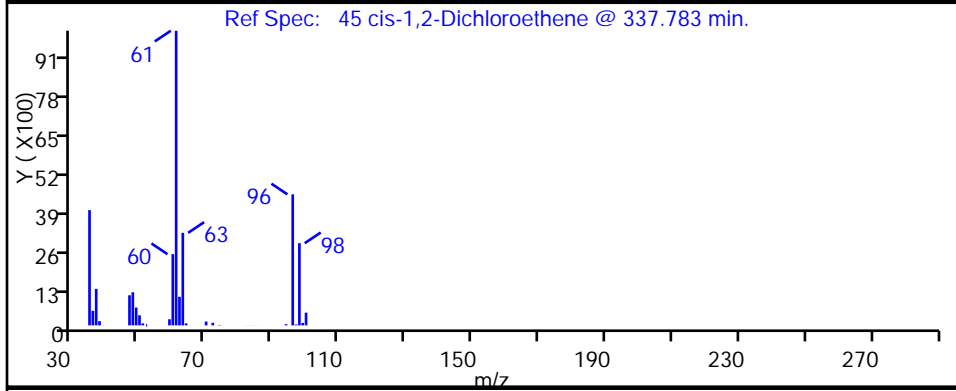
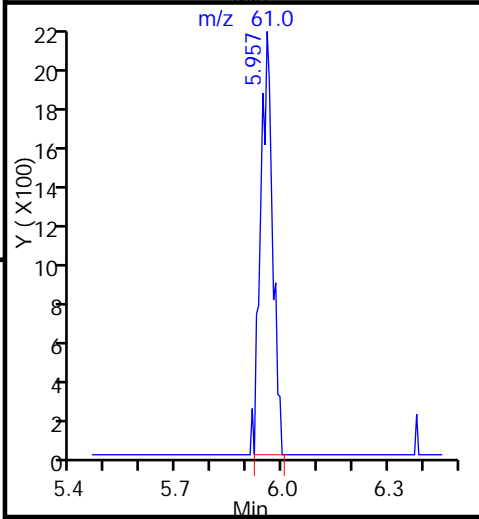
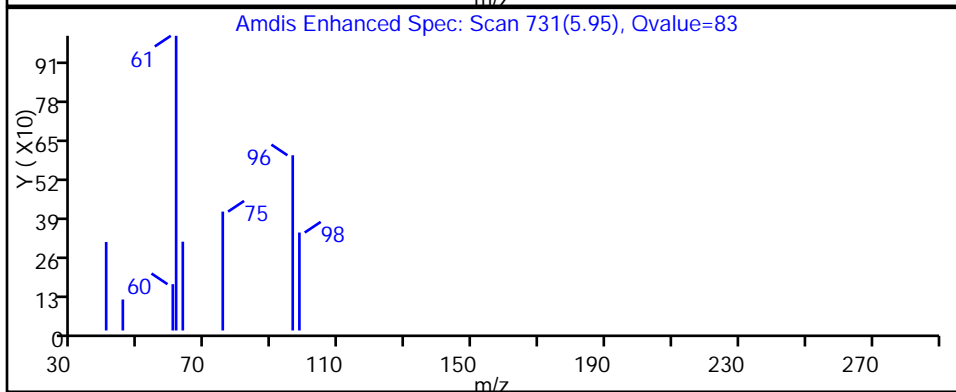
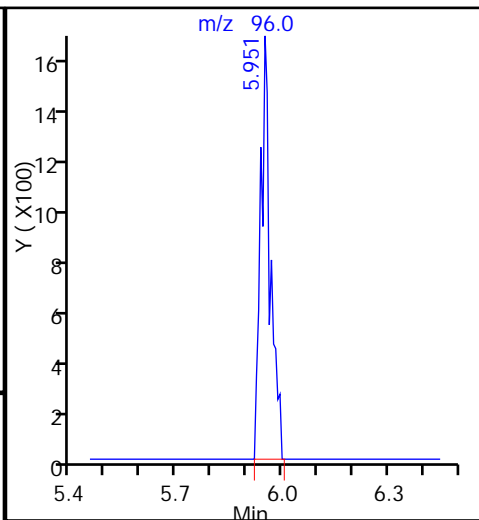
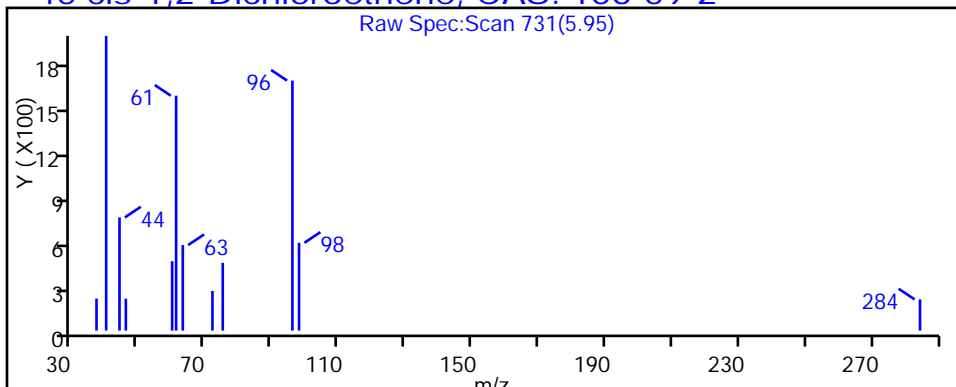
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818020.D

Injection Date: 18-Aug-2015 20:01:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-3

Lab Sample ID: 180-46875-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

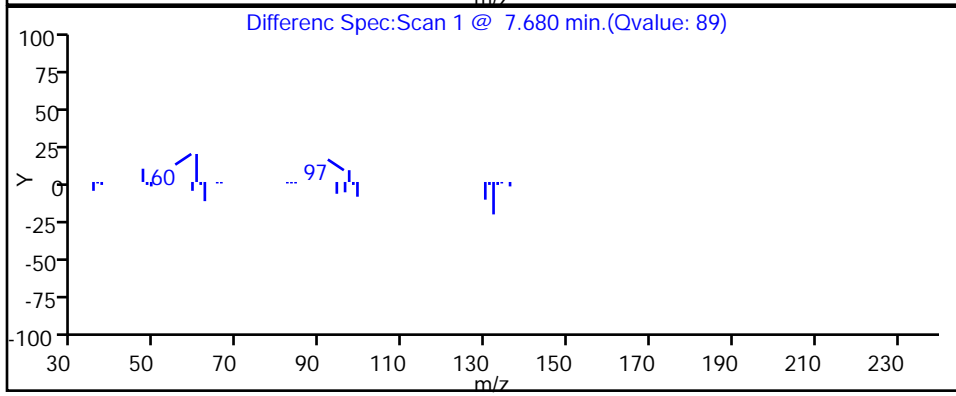
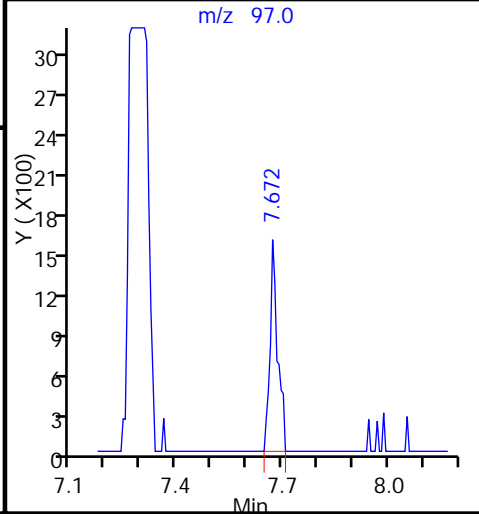
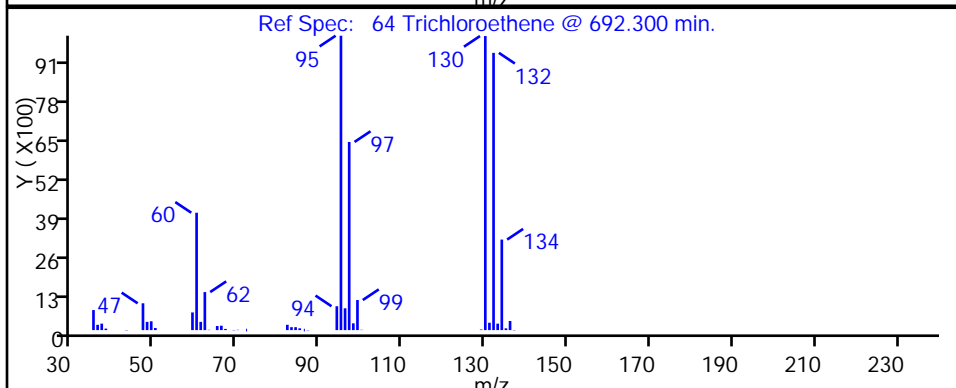
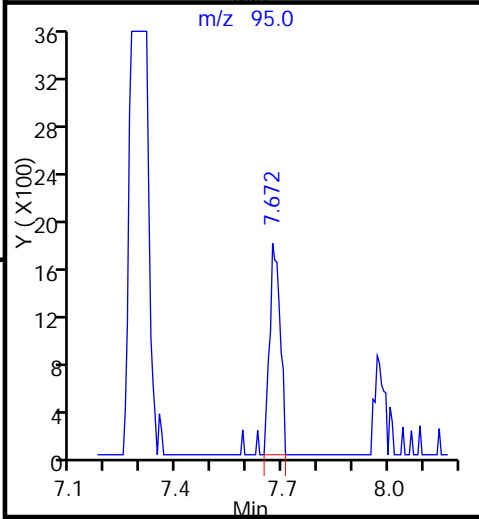
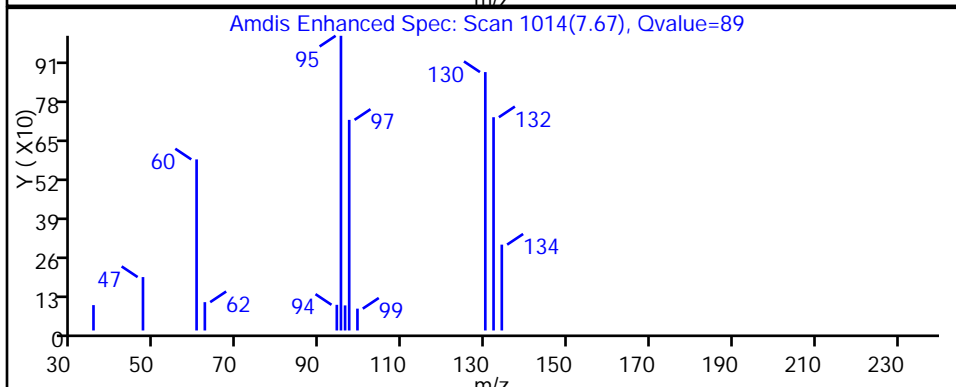
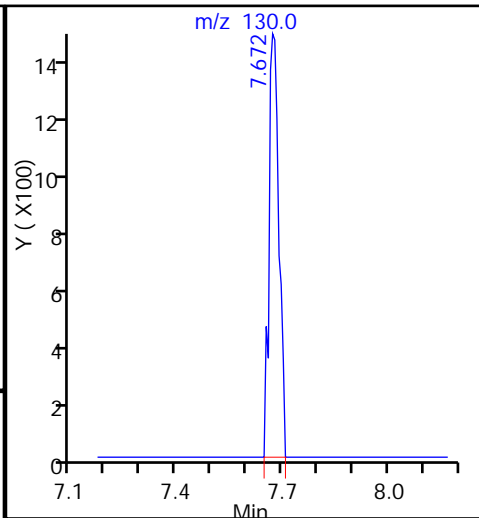
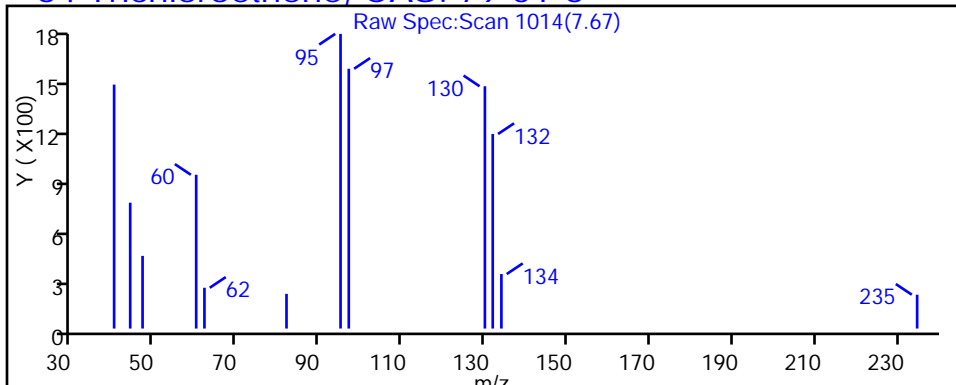
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818020.D

Injection Date: 18-Aug-2015 20:01:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-3

Lab Sample ID: 180-46875-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: 001562

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

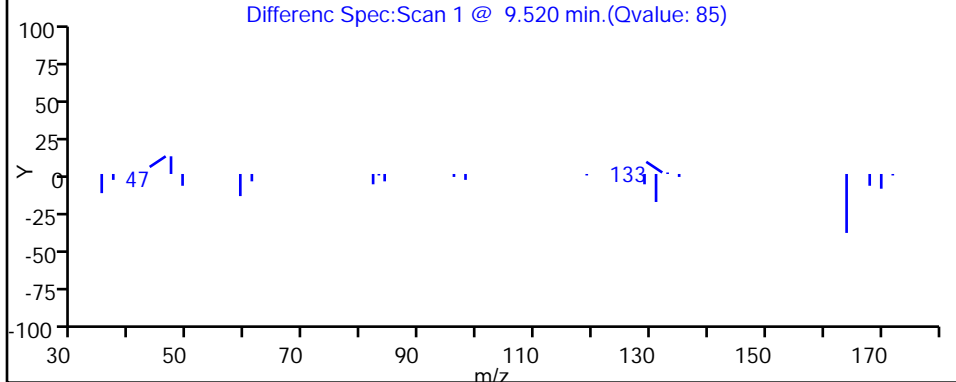
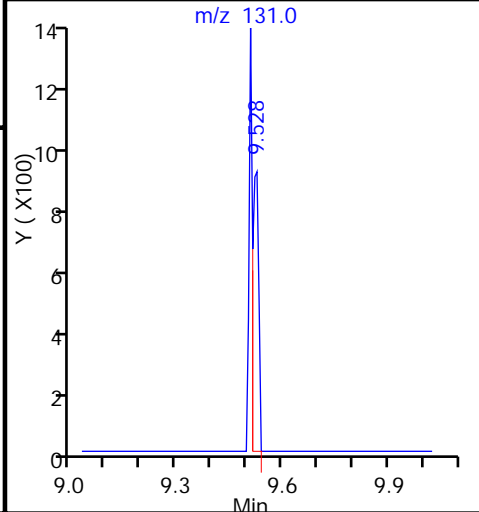
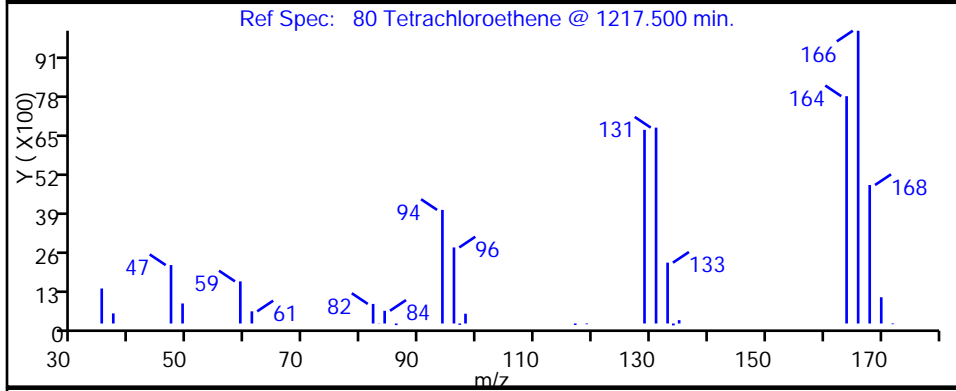
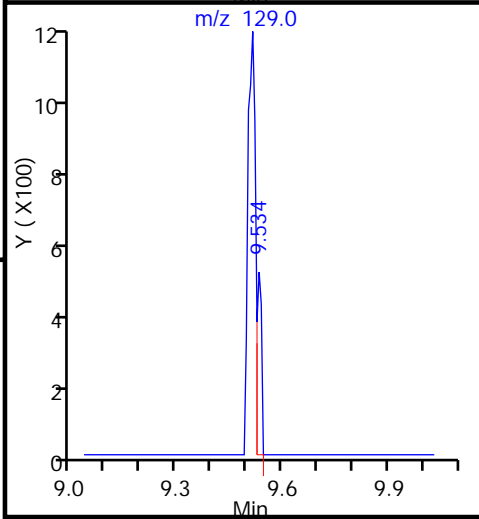
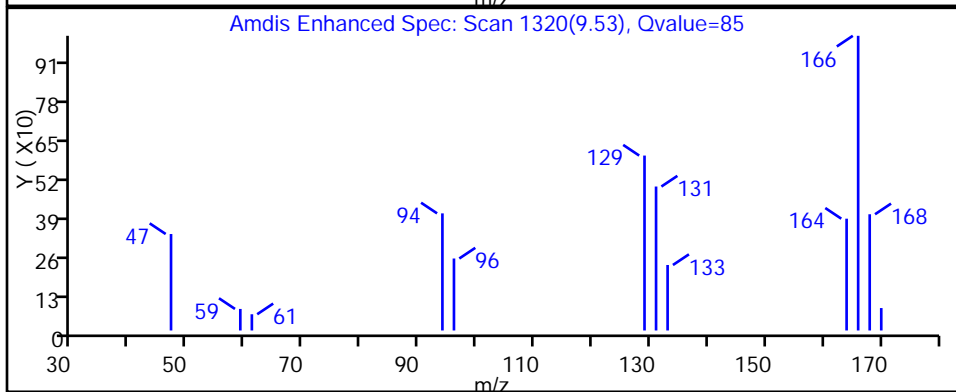
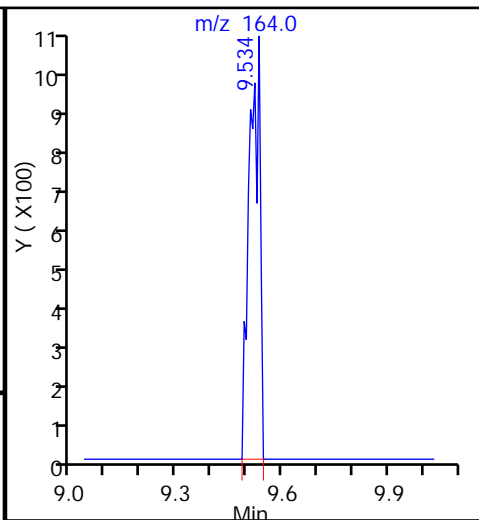
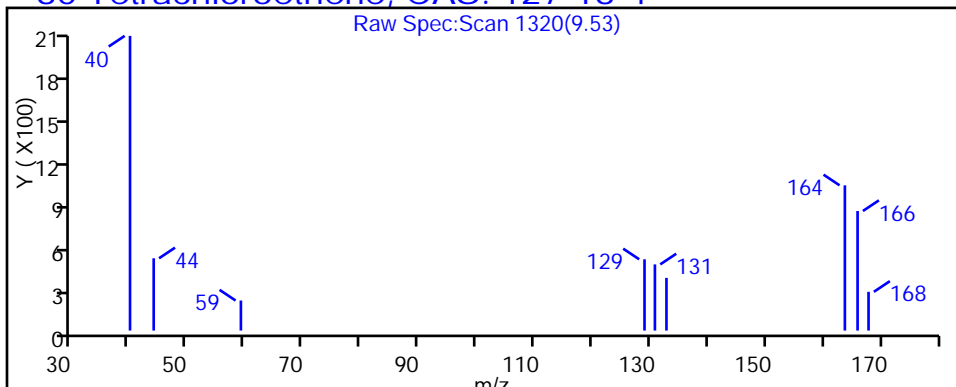
Method: MSVOA\_LL\_CHHP5

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-46875-4  
 Matrix: Water Lab File ID: 50818021.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 20:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	3.1	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.23	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.16	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-46875-4  
 Matrix: Water Lab File ID: 50818021.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 20:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	80		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D  
 Lims ID: 180-46875-D-4 Lab Sample ID: 180-46875-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 20:26:30 ALS Bottle#: 20 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-4  
 Misc. Info.: 180-0008205-021  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:15:13 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:15:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.268	-0.008	0	159298	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	373676	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	85718	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	97	105401	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.567	-0.001	93	96976	55.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.932	0.005	0	138550	55.1	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	95	329387	46.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	86	105294	40.2	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.451	3.446	0.005	95	9726	15.7	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	17	2683	1.13	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.389	6.385	0.004	5	2777	0.7021	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	90	2560	1.15	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91	8.999	9.007	-0.008	49	4311	0.4679	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.510	9.518	-0.008	25	1377	0.7857	M
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D

Injection Date: 18-Aug-2015 20:26:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-4

Lab Sample ID: 180-46875-4

Worklist Smp#: 21

Client ID: HD-COD-SW-9-0/1-0

Purge Vol: 5.000 mL

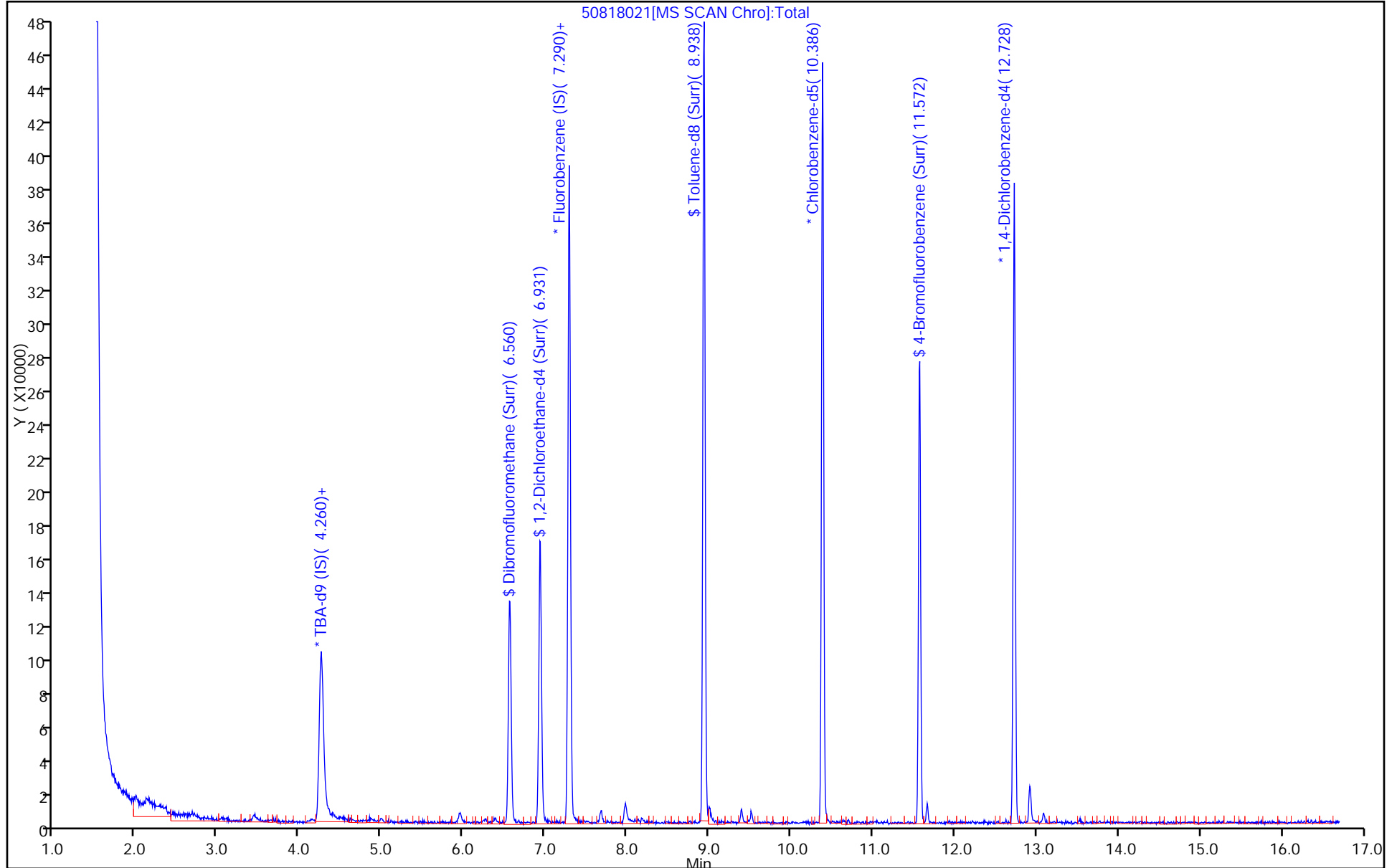
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D

Injection Date: 18-Aug-2015 20:26:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-4

Lab Sample ID: 180-46875-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: 001562

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

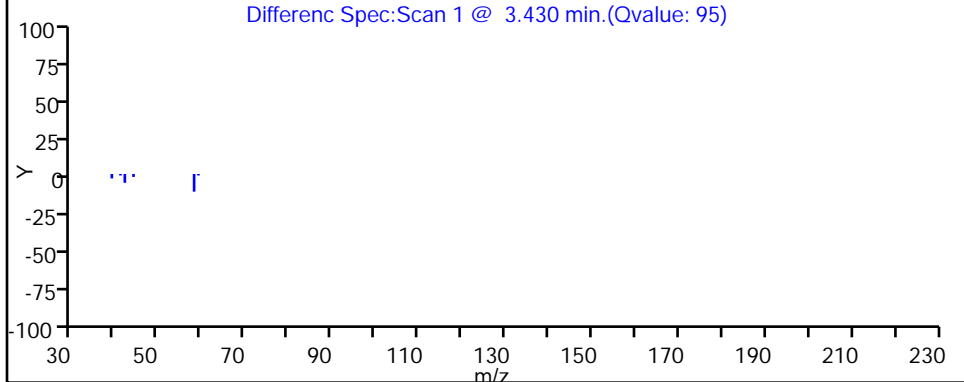
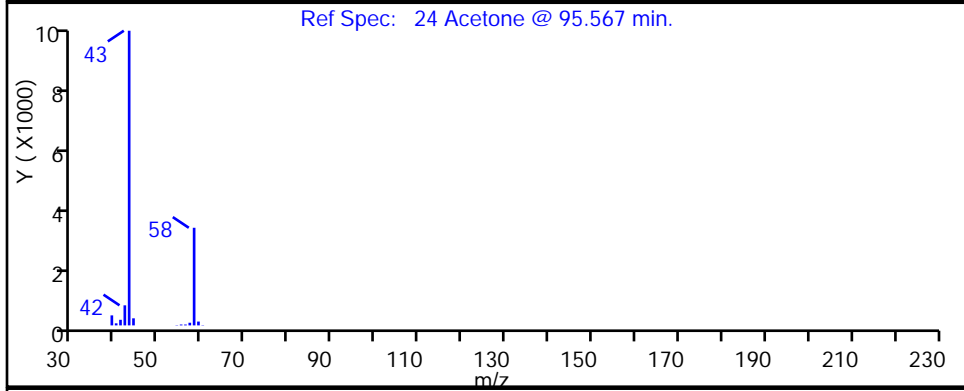
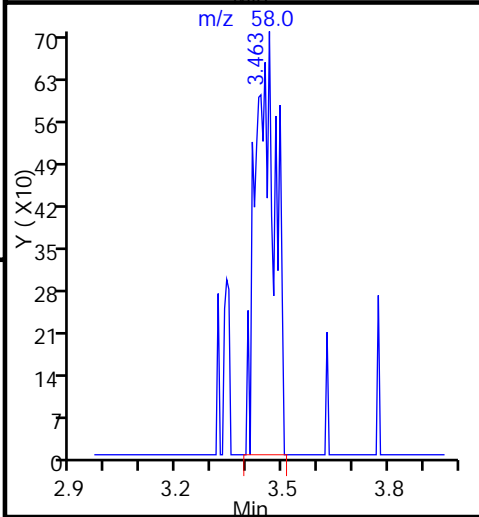
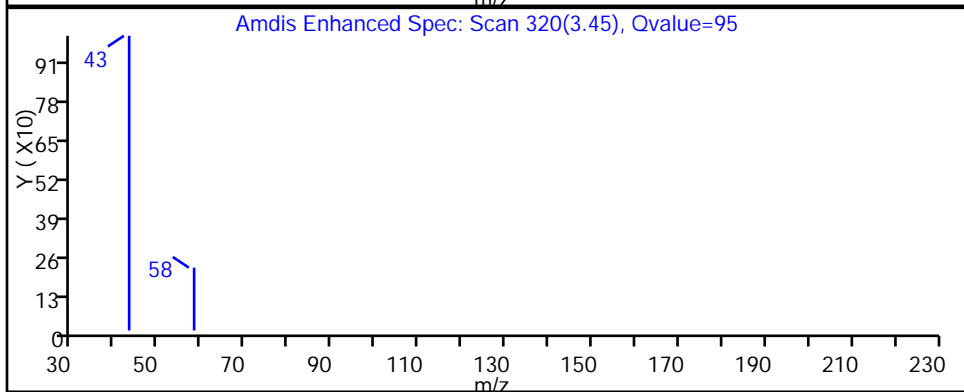
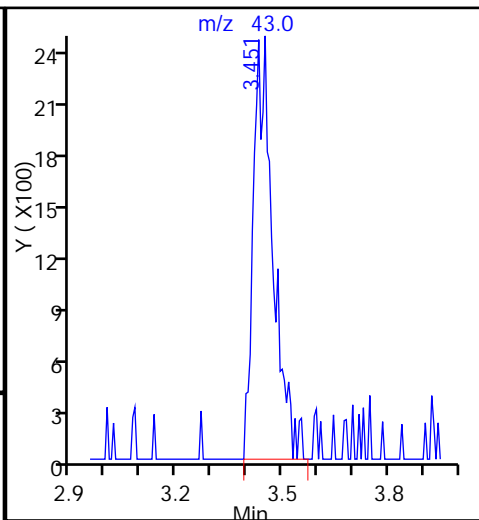
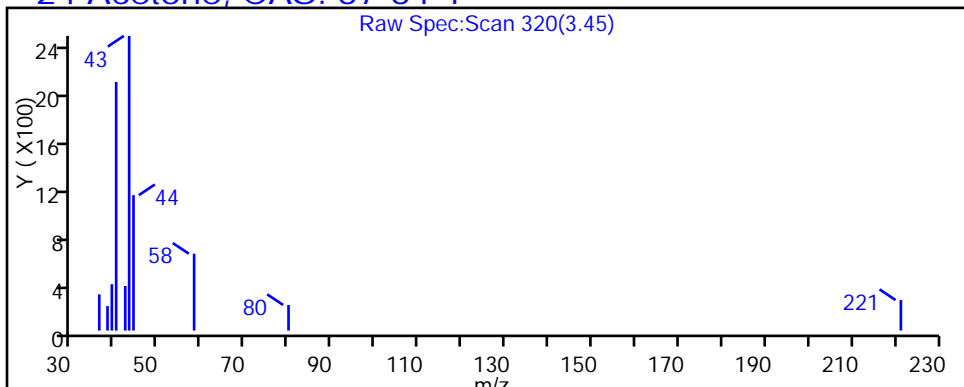
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

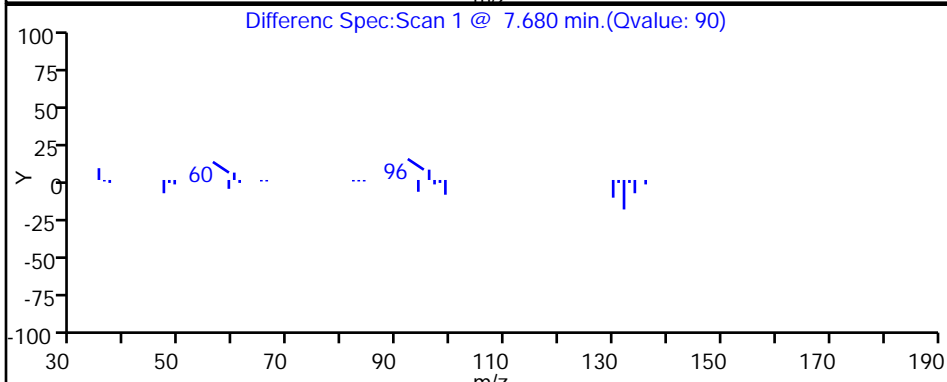
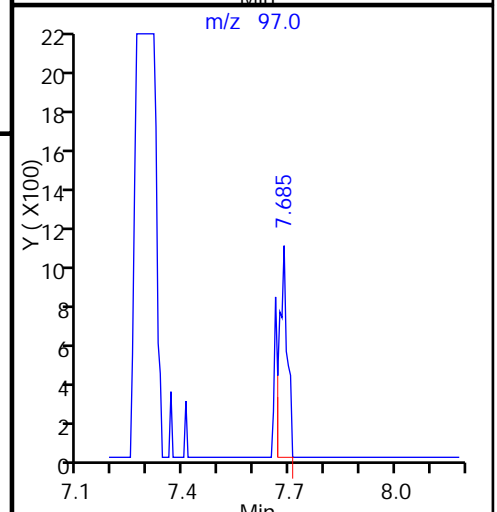
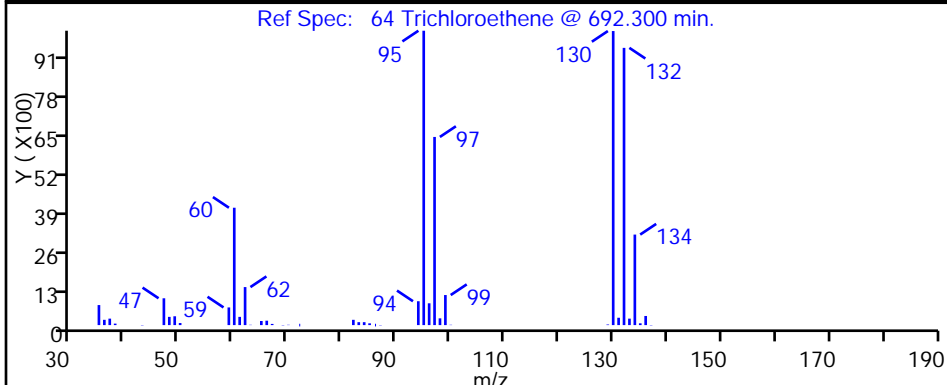
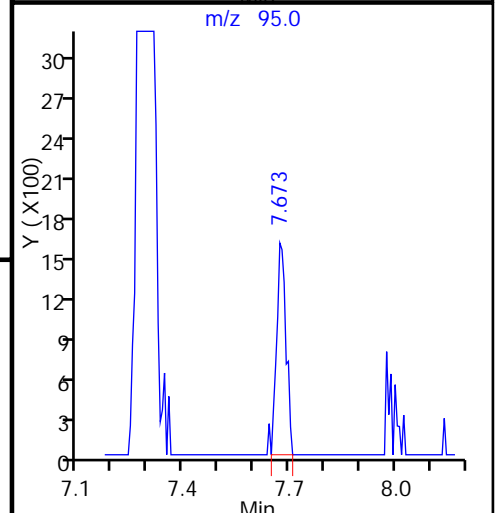
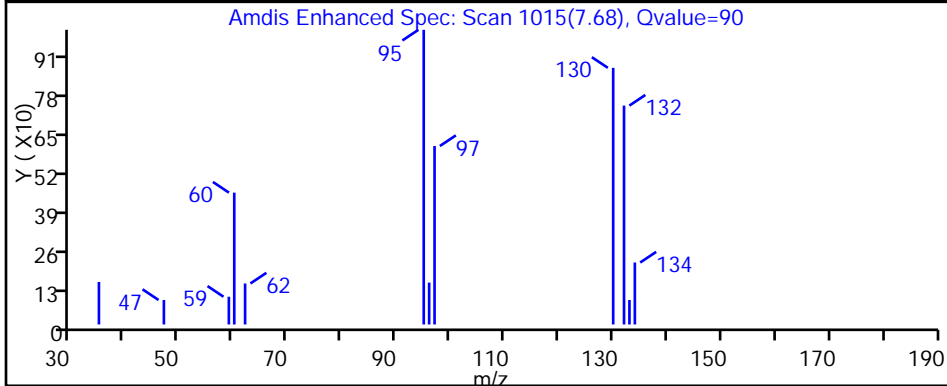
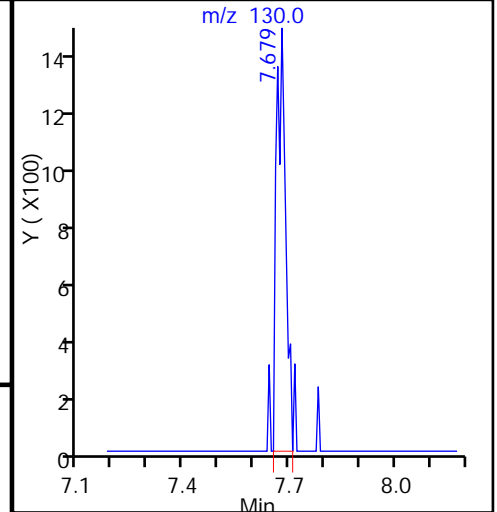
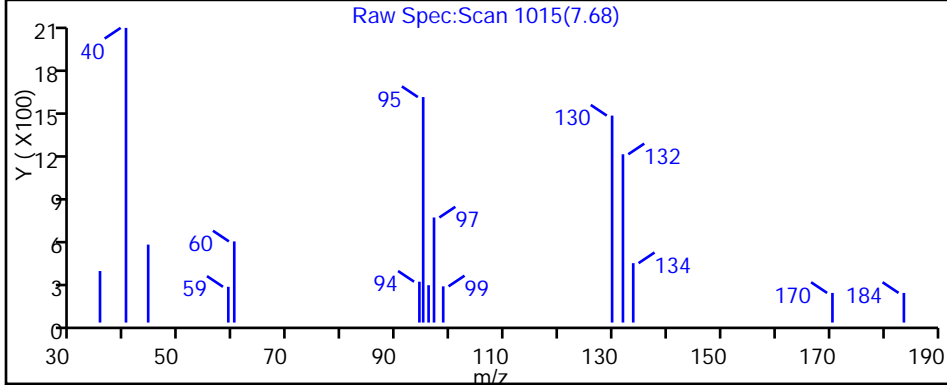
24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D  
Injection Date: 18-Aug-2015 20:26:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-4 Lab Sample ID: 180-46875-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 21  
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

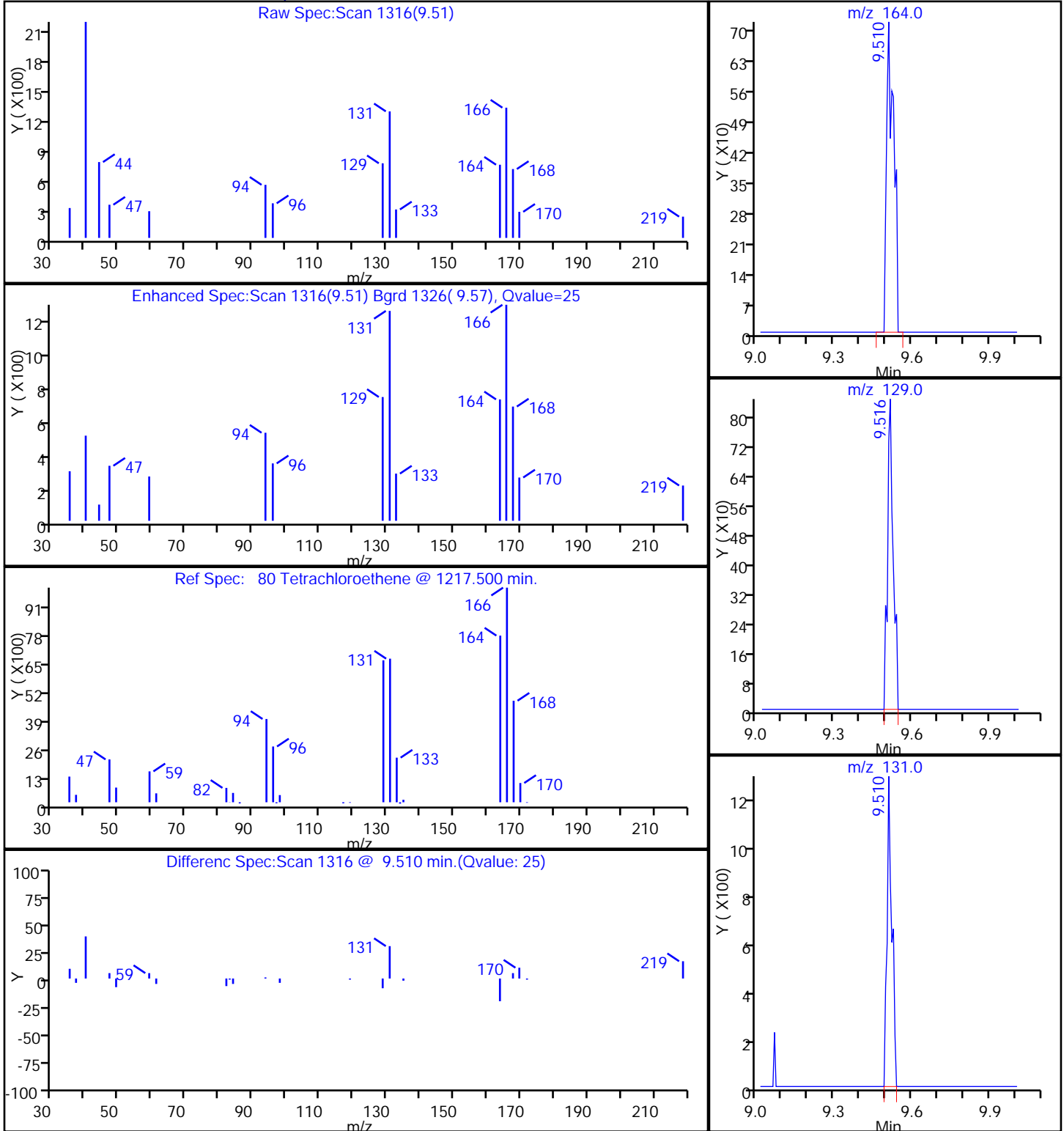
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D  
Injection Date: 18-Aug-2015 20:26:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-4 Lab Sample ID: 180-46875-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 21  
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



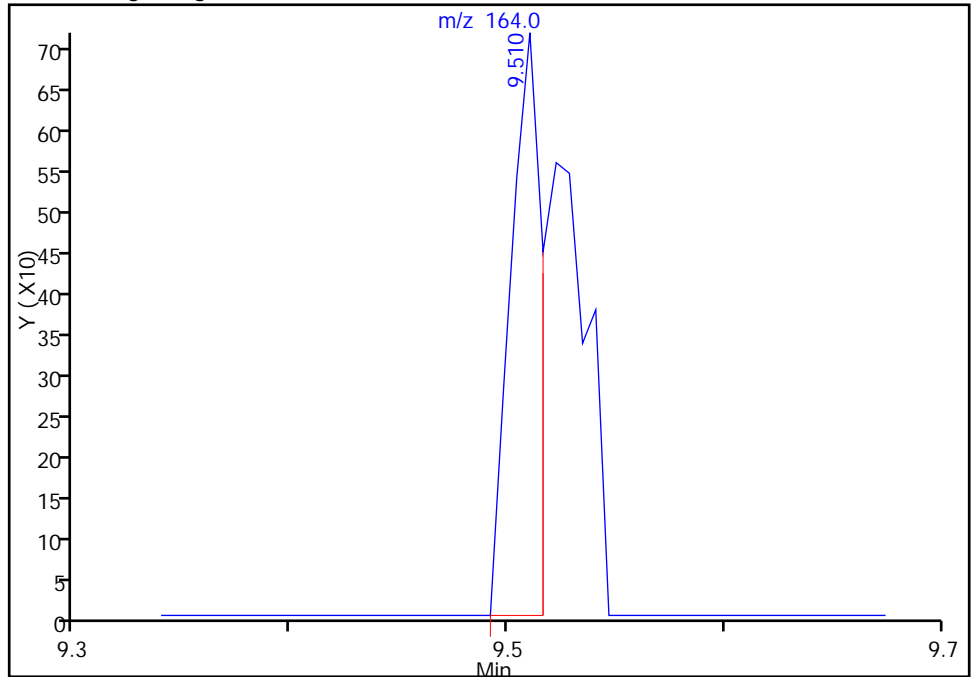
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818021.D  
Injection Date: 18-Aug-2015 20:26:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-4 Lab Sample ID: 180-46875-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: 001562 ALS Bottle#: 20 Worklist Smp#: 21  
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

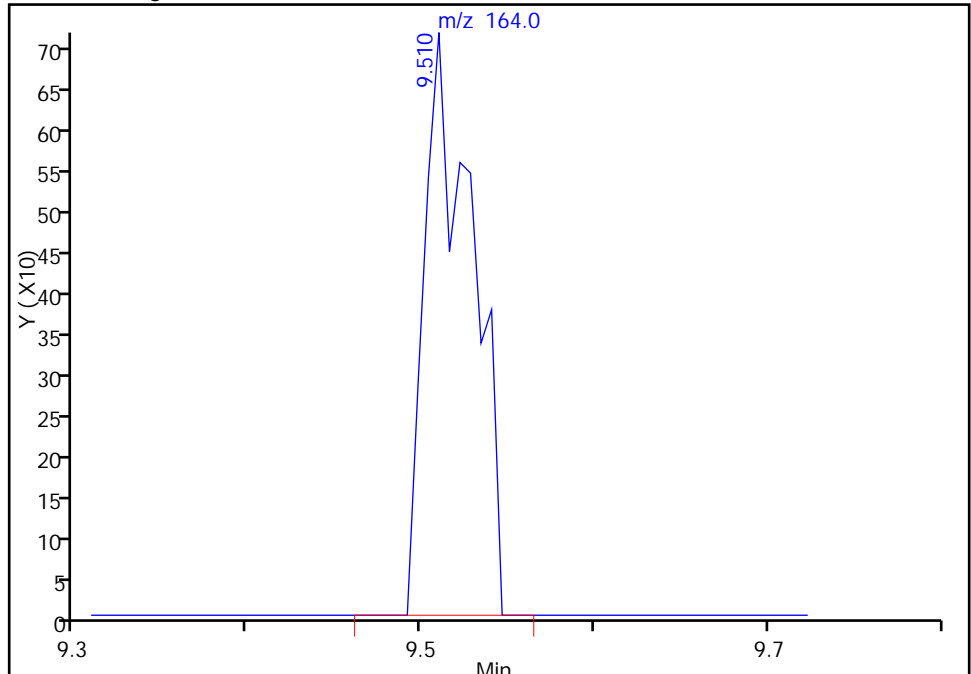
RT: 9.51  
Area: 719  
Amount: 0.410277  
Amount Units: ng

Processing Integration Results



RT: 9.51  
Area: 1377  
Amount: 0.785746  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 19-Aug-2015 09:15:13  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-46875-5  
 Matrix: Water Lab File ID: 50818022.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 20:50  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.37	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-46875-5  
 Matrix: Water Lab File ID: 50818022.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 20:50  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	79		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818022.D  
 Lims ID: 180-46875-D-5 Lab Sample ID: 180-46875-5  
 Client ID: HD-COD-SW-10-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 20:50:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-5  
 Misc. Info.: 180-0008205-022  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:16:22 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:16:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.268	-0.006	0	161263	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	97	380806	50.0	
* 3 Chlorobenzene-d5	119	10.382	10.388	-0.006	89	88508	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.724	0.006	98	108824	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.567	-0.005	93	95055	53.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.932	0.001	0	136711	53.3	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	95	333463	45.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.568	0.000	85	106924	39.6	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.459	3.446	0.013	64	3726	5.91	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.959	5.953	0.006	83	4492	1.85	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83		6.385				ND	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818022.D

Injection Date: 18-Aug-2015 20:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-5

Lab Sample ID: 180-46875-5

Worklist Smp#: 22

Client ID: HD-COD-SW-10-0/1-0

Purge Vol: 5.000 mL

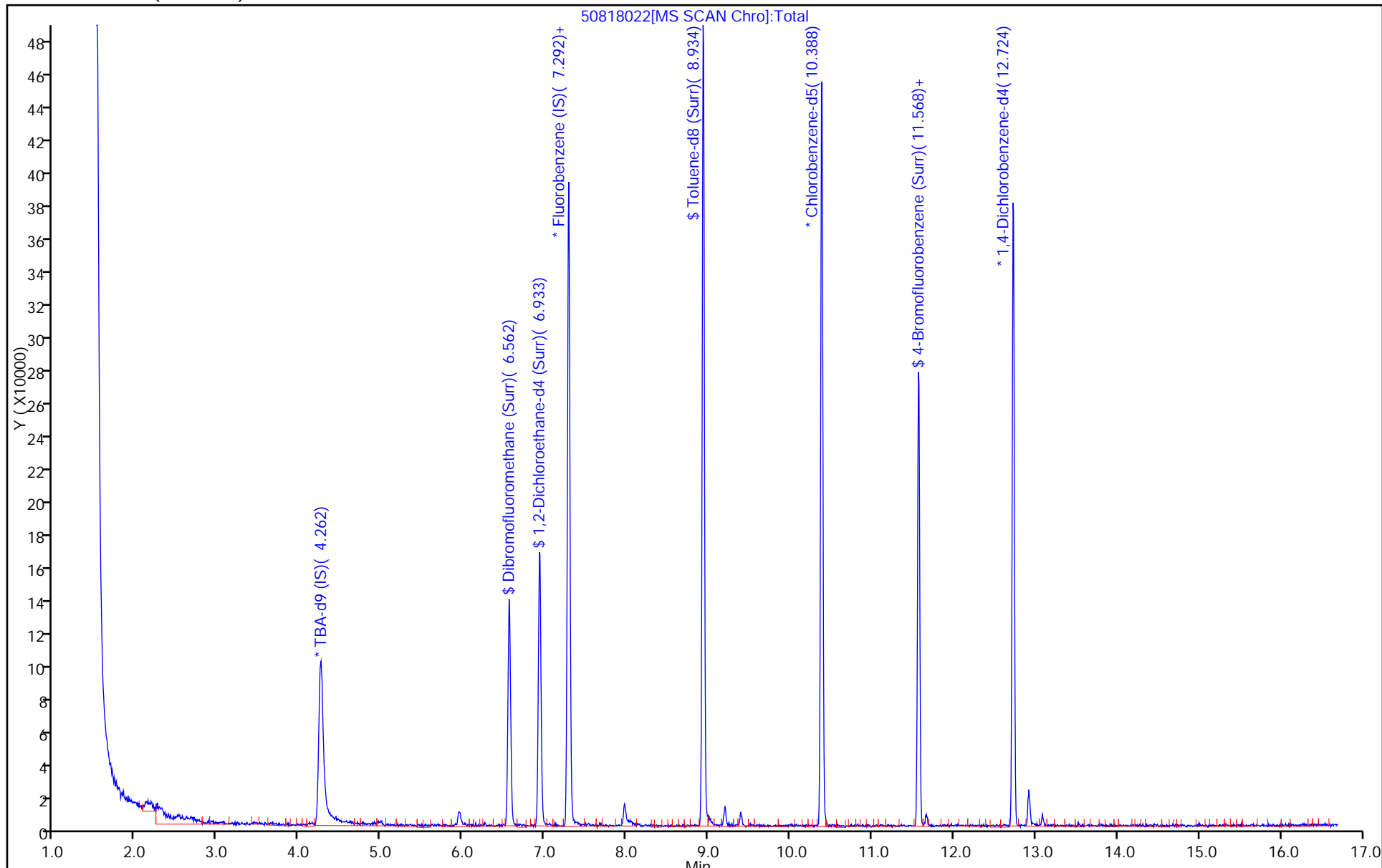
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818022.D

Injection Date: 18-Aug-2015 20:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-5

Lab Sample ID: 180-46875-5

Client ID: HD-COD-SW-10-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

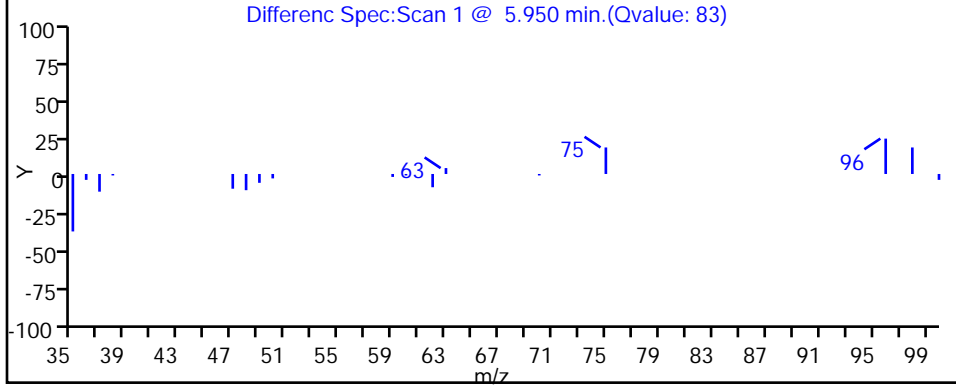
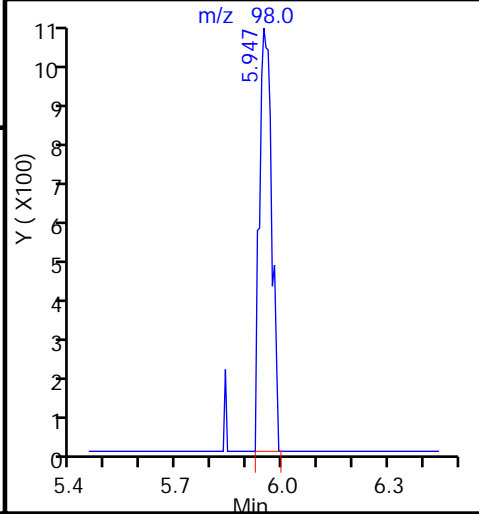
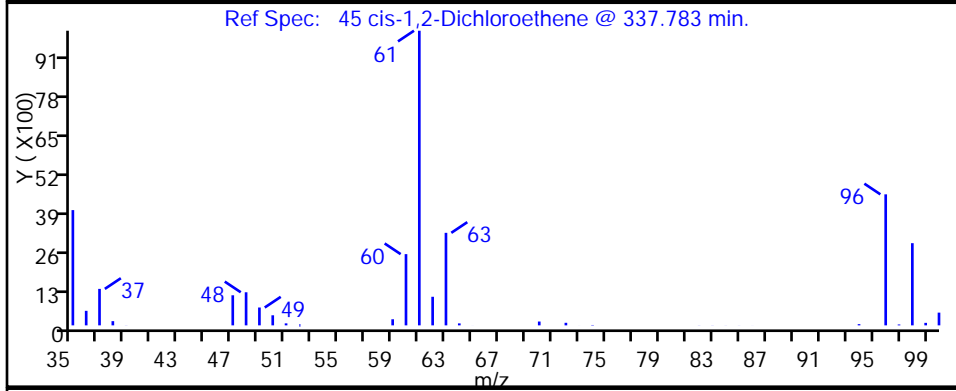
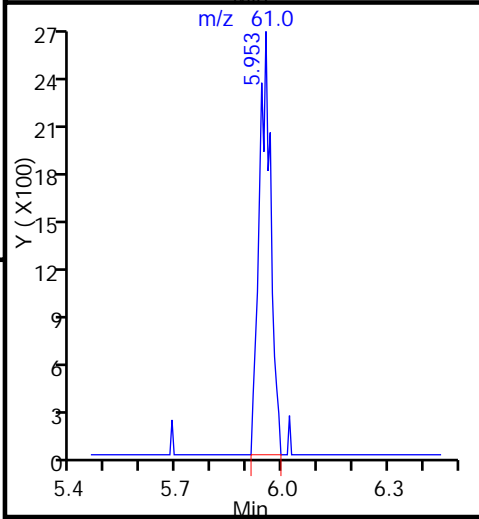
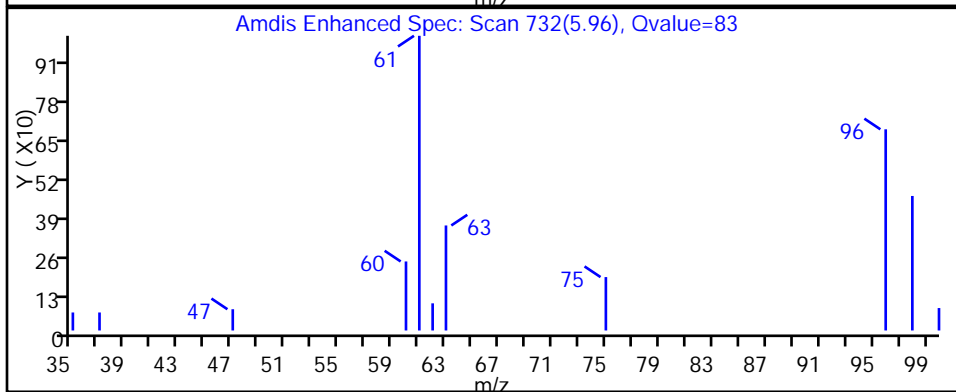
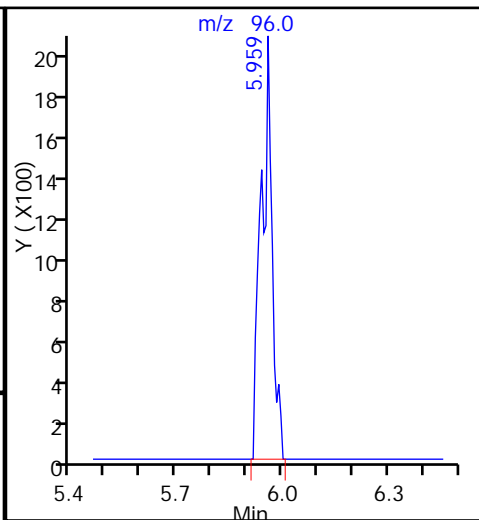
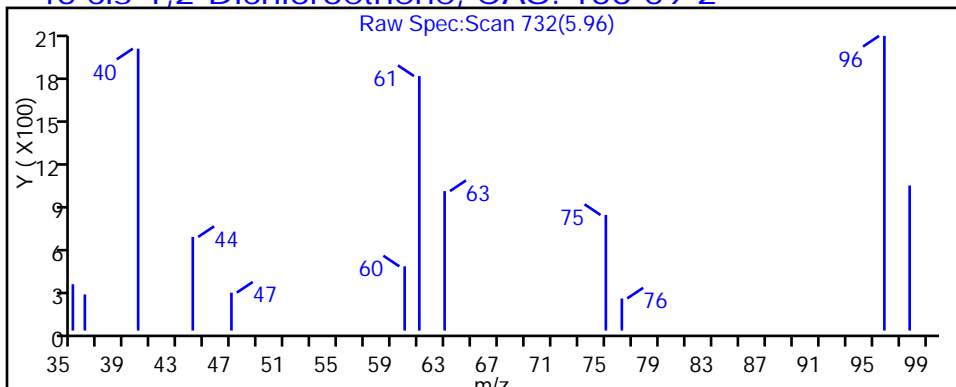
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-46875-6  
 Matrix: Water Lab File ID: 50818024.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 21:38  
 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.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-46875-6  
 Matrix: Water Lab File ID: 50818024.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 21:38  
 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.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	92		71-118
460-00-4	4-Bromofluorobenzene (Surr)	80		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818024.D  
 Lims ID: 180-46875-D-6 Lab Sample ID: 180-46875-6  
 Client ID: HD-COD-SW-11-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 21:38:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 80-46875-D-6  
 Misc. Info.: 180-0008205-024  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:17:22 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:17:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.268	-0.005	0	157399	1000.0	
* 2 Fluorobenzene (IS)	96	7.293	7.291	0.002	98	361417	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.388	0.001	89	82923	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.724	0.001	98	104431	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.563	6.567	-0.004	94	96037	57.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.932	0.002	0	135272	55.6	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.934	0.001	95	317316	46.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.568	0.007	87	101245	40.0	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.430	3.446	-0.016	71	3574	5.97	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.392	6.385	0.007	76	3735	0.9763	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818024.D

Injection Date: 18-Aug-2015 21:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-6

Lab Sample ID: 180-46875-6

Worklist Smp#: 24

Client ID: HD-COD-SW-11-0/1-0

Purge Vol: 5.000 mL

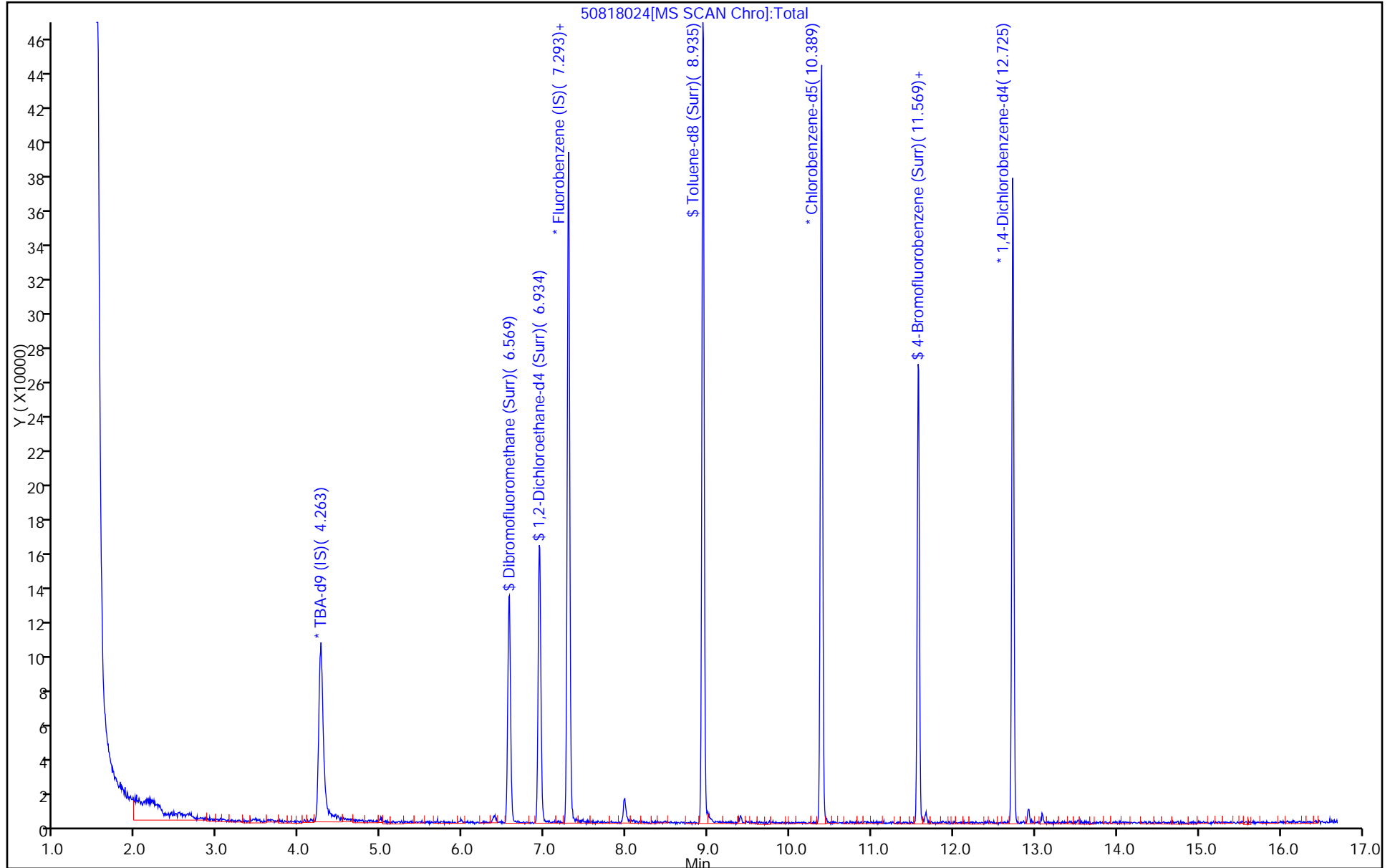
Dil. Factor: 1.0000

ALS Bottle#: 23

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818024.D

Injection Date: 18-Aug-2015 21:38:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-6

Lab Sample ID: 180-46875-6

Client ID: HD-COD-SW-11-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

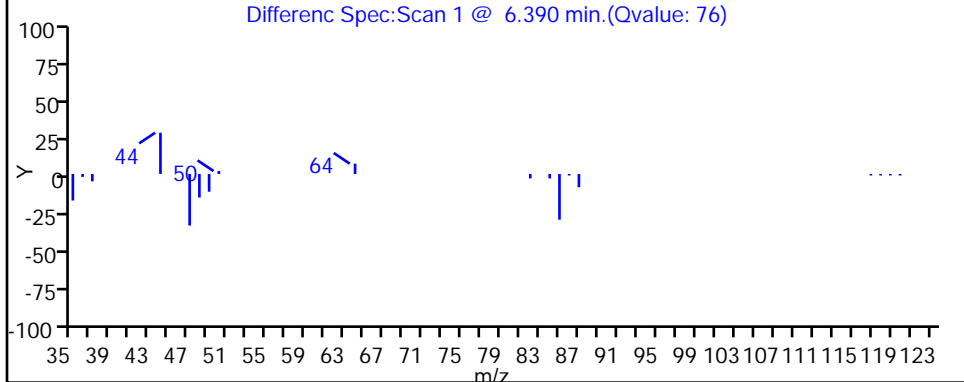
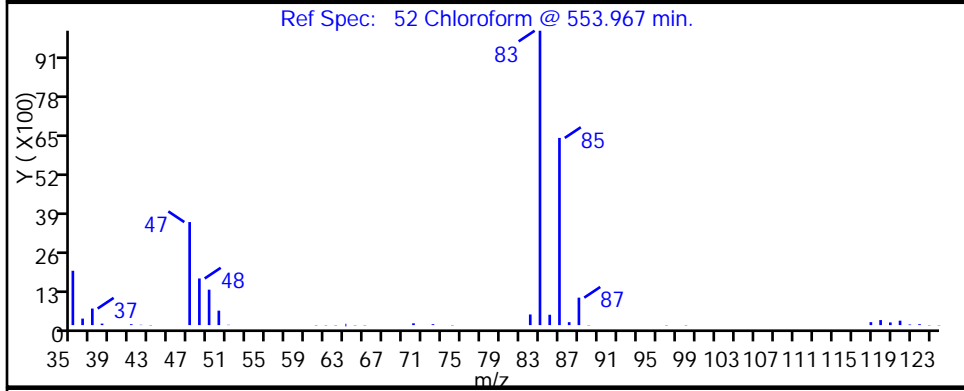
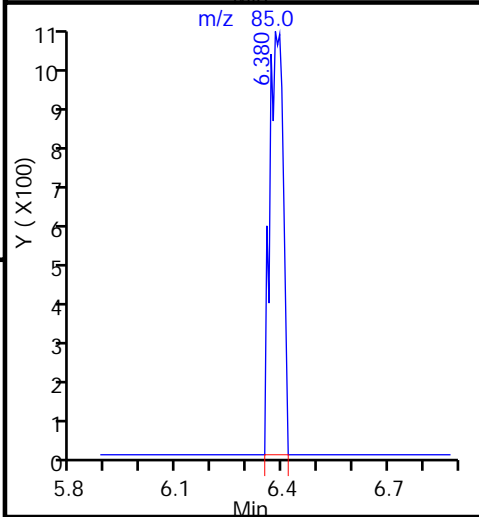
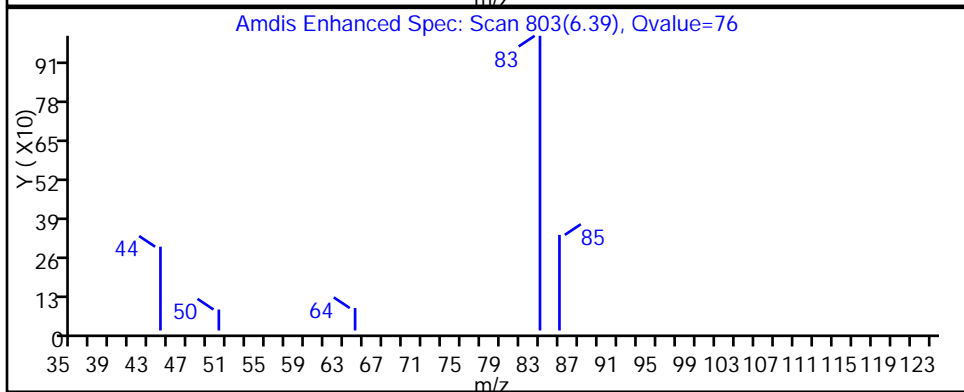
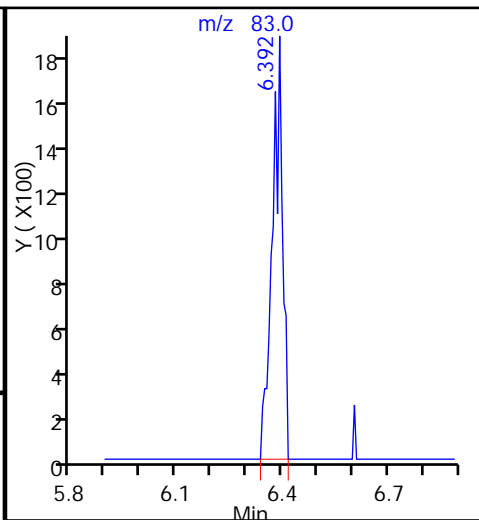
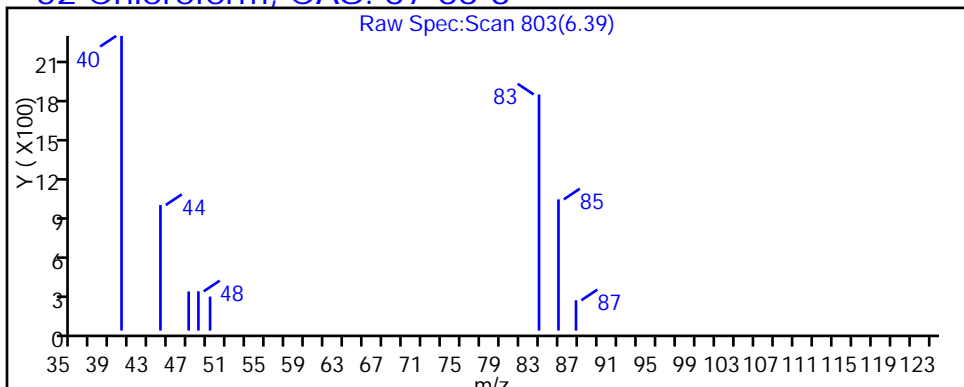
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-46875-7  
 Matrix: Water Lab File ID: 50818025.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:02  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	2.8	J	5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	0.18	J	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-46875-7  
 Matrix: Water Lab File ID: 50818025.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:02  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	83		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818025.D  
 Lims ID: 180-46875-D-7 Lab Sample ID: 180-46875-7  
 Client ID: HD-COD-SW-12-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 22:02:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-7  
 Misc. Info.: 180-0008205-025  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:18:20 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:18:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.268	-0.014	0	153104	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	97	363306	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	83584	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	98	106651	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.567	-0.007	93	94748	55.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.932	0.005	0	134477	55.0	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	315046	45.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	85	105711	41.4	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.451	3.446	0.005	70	8513	14.1	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.389	6.385	0.004	32	2670	0.6943	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91	8.999	9.007	-0.008	93	8192	0.9119	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818025.D

Injection Date: 18-Aug-2015 22:02:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-7

Lab Sample ID: 180-46875-7

Worklist Smp#: 25

Client ID: HD-COD-SW-12-0/1-0

Purge Vol: 5.000 mL

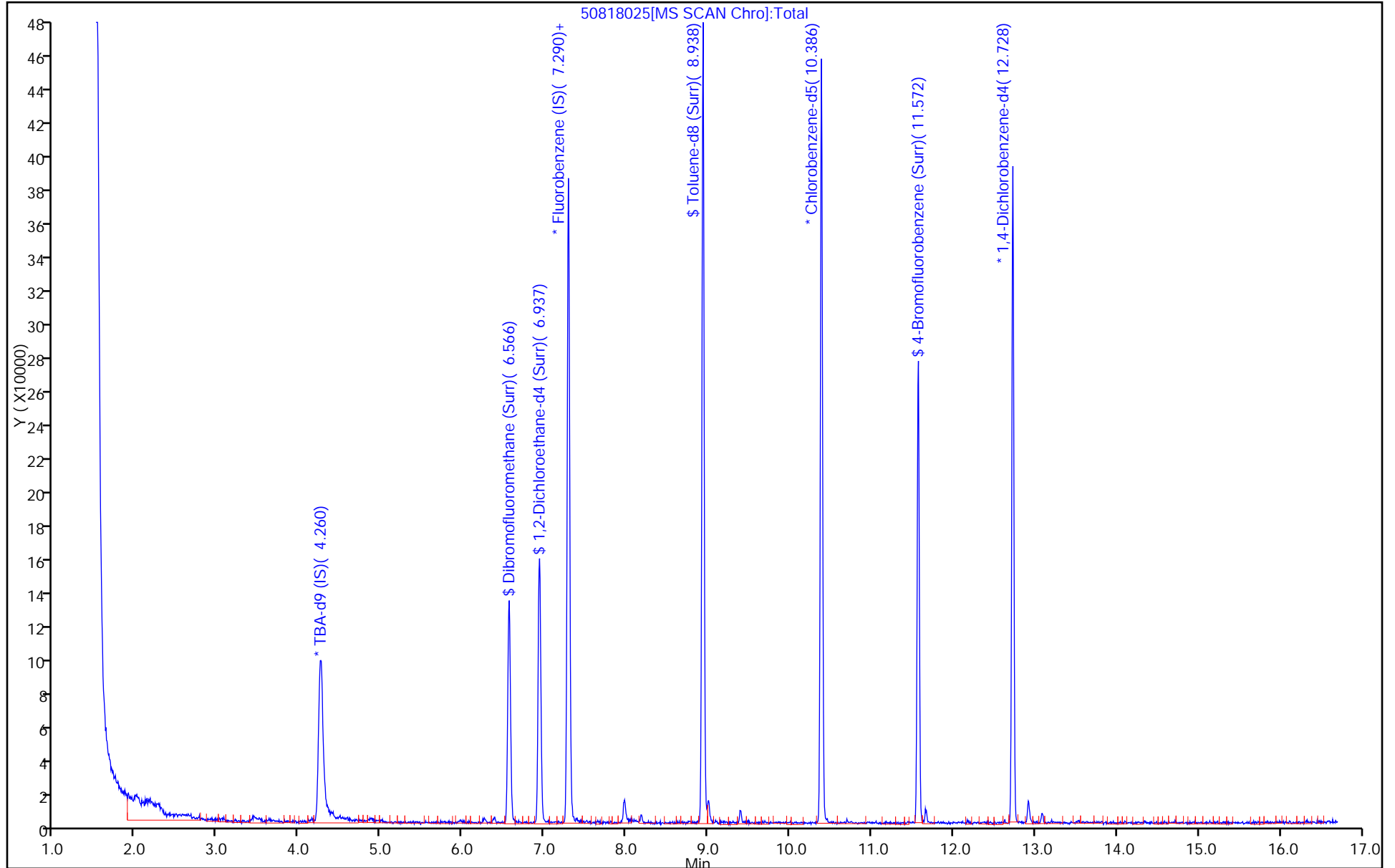
Dil. Factor: 1.0000

ALS Bottle#: 24

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818025.D

Injection Date: 18-Aug-2015 22:02:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-7

Lab Sample ID: 180-46875-7

Client ID: HD-COD-SW-12-0/1-0

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

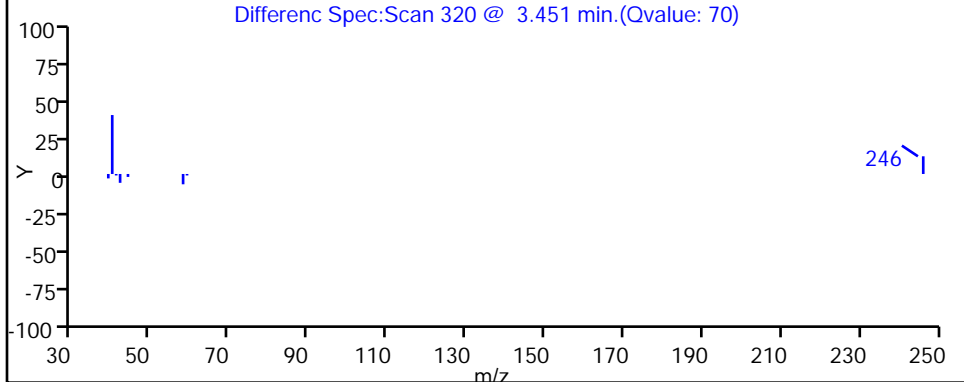
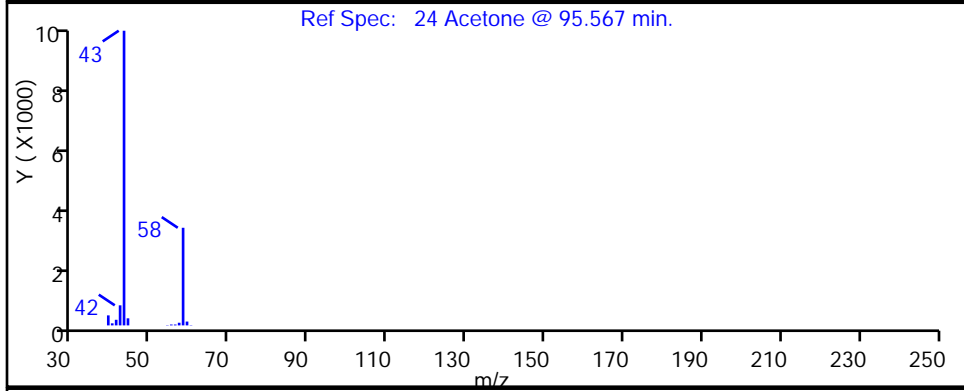
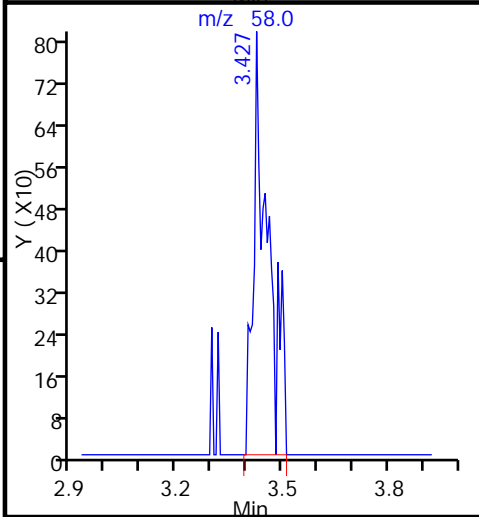
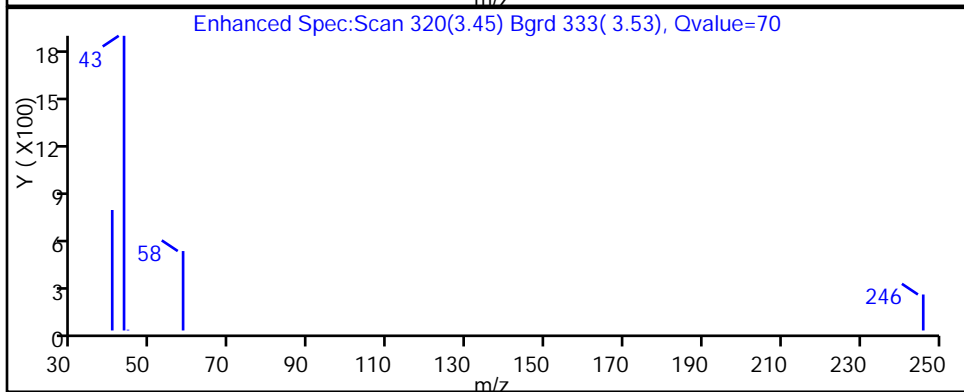
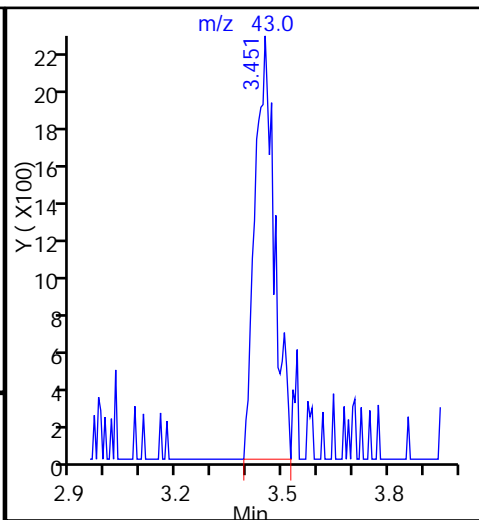
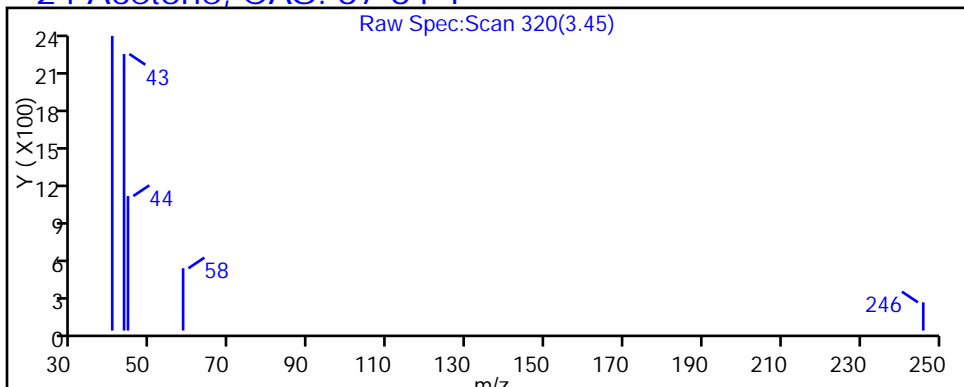
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

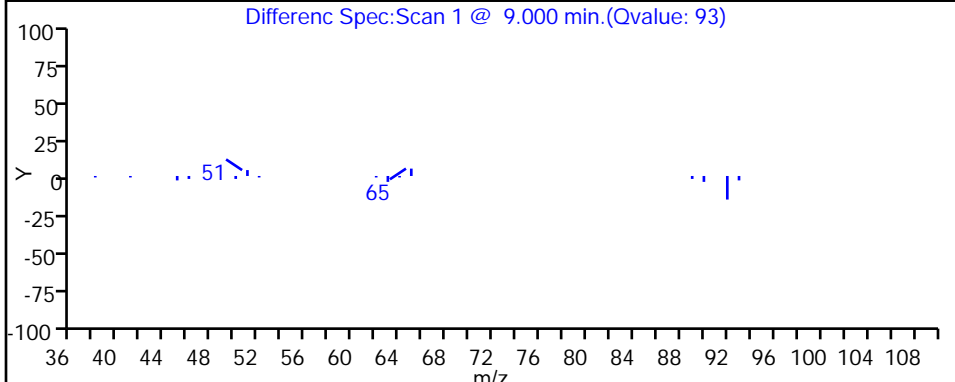
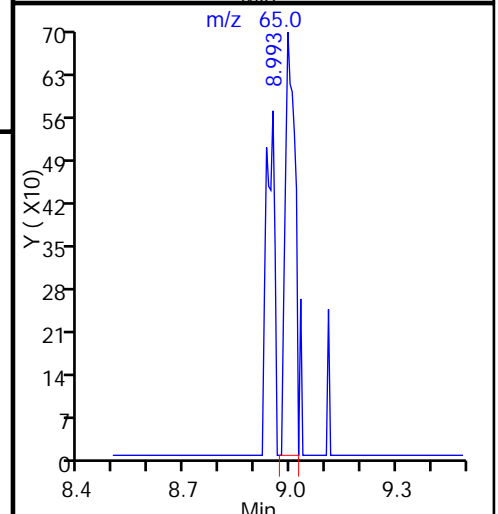
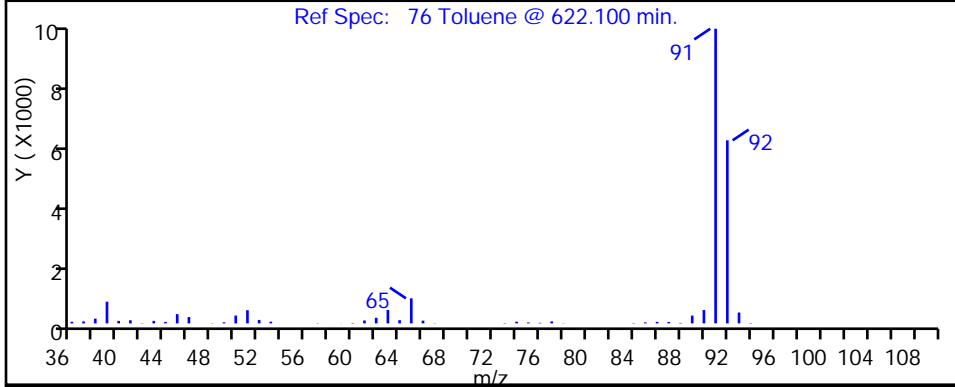
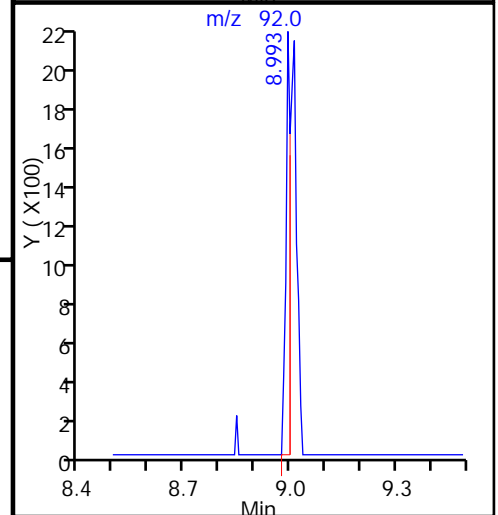
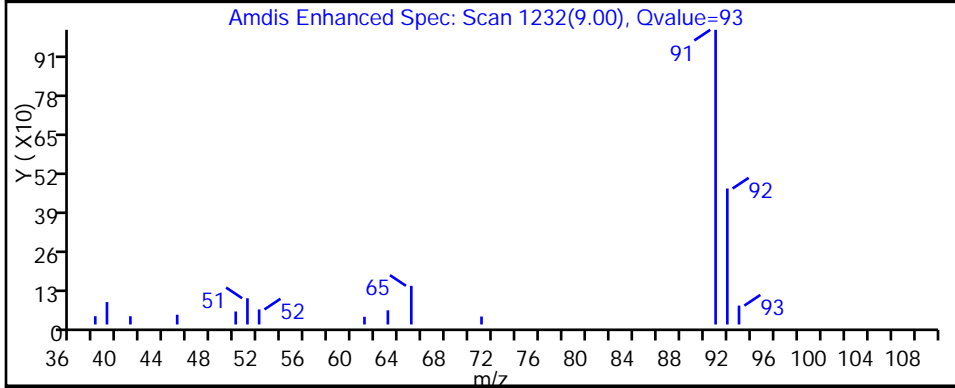
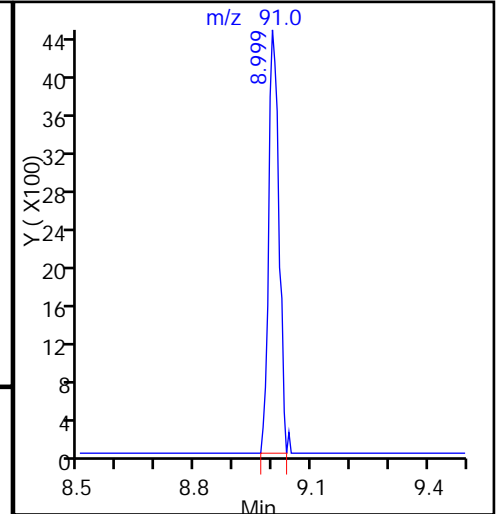
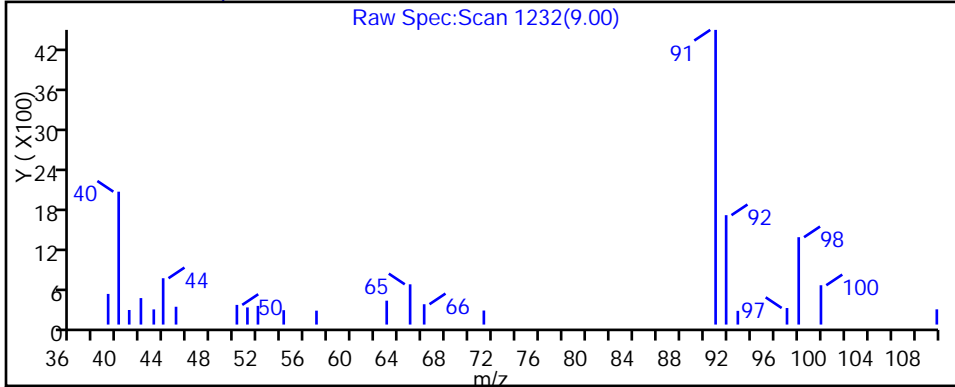
24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818025.D  
Injection Date: 18-Aug-2015 22:02:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-7 Lab Sample ID: 180-46875-7  
Client ID: HD-COD-SW-12-0/1-0  
Operator ID: 001562 ALS Bottle#: 24 Worklist Smp#: 25  
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

76 Toluene, CAS: 108-88-3





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-46875-8  
 Matrix: Water Lab File ID: 50818026.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.33	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.49	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.47	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-46875-8  
 Matrix: Water Lab File ID: 50818026.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	81		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D  
 Lims ID: 180-46875-D-8 Lab Sample ID: 180-46875-8  
 Client ID: HD-COD-SW-13-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 22:26:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-8  
 Misc. Info.: -0008205-026  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:19:38 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:19:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.268	-0.008	0	161998	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	362685	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	90	83218	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	98	108734	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.567	-0.007	93	94868	56.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.932	0.005	0	136991	56.1	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	312591	45.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	84	103026	40.6	
12 Chloromethane	50	1.784	1.773	0.011	1	673	0.2446	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.445	3.446	-0.001	86	6501	10.8	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	86	3766	1.63	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.377	6.385	-0.008	1	1269	0.3306	M
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	91	5294	2.45	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91	9.005	9.007	-0.002	94	2188	0.2446	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.516	9.518	-0.002	91	3973	2.34	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D

Injection Date: 18-Aug-2015 22:26:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-8

Lab Sample ID: 180-46875-8

Worklist Smp#: 26

Client ID: HD-COD-SW-13-0/1-0

Purge Vol: 5.000 mL

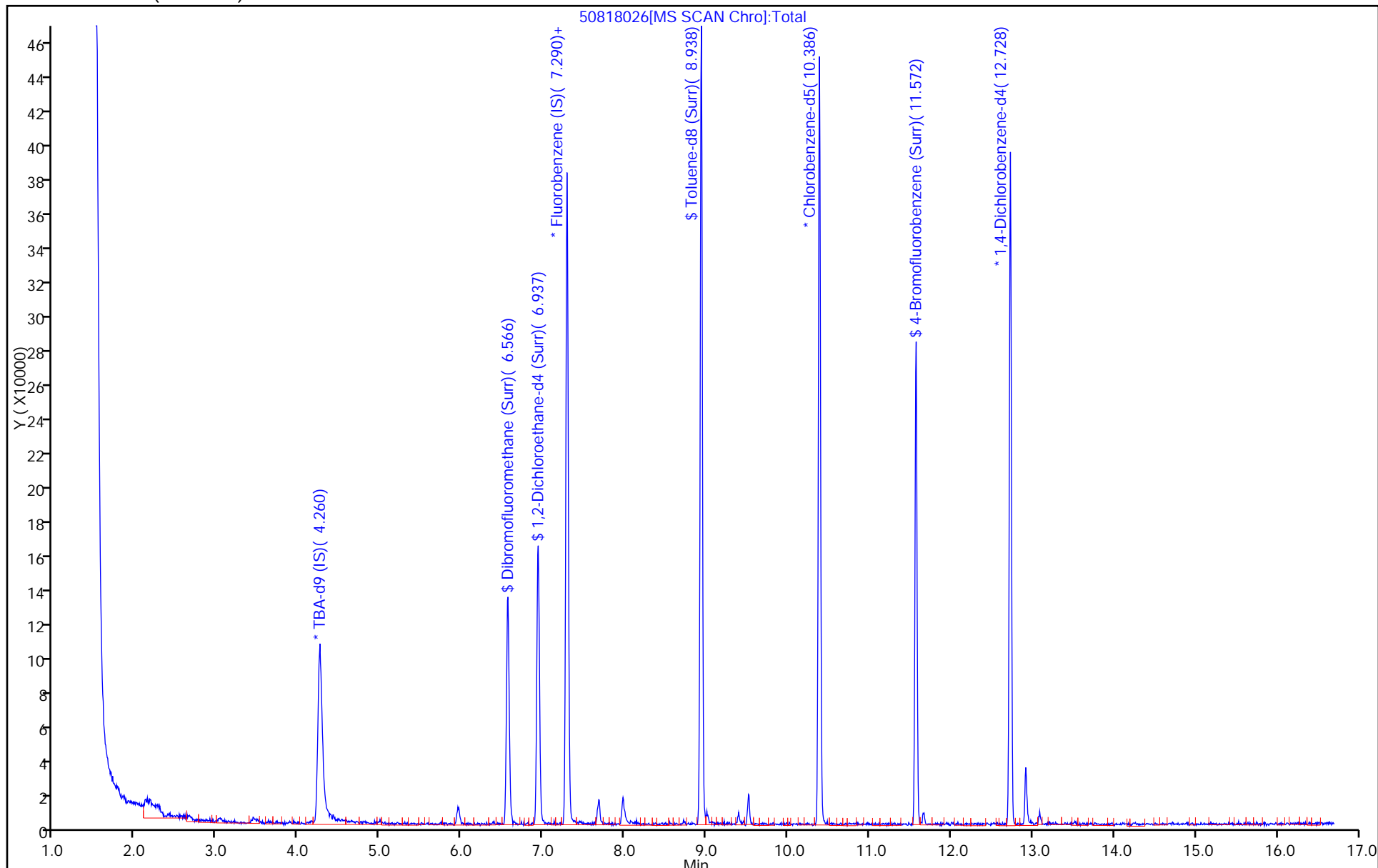
Dil. Factor: 1.0000

ALS Bottle#: 25

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D

Injection Date: 18-Aug-2015 22:26:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-8

Lab Sample ID: 180-46875-8

Client ID: HD-COD-SW-13-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

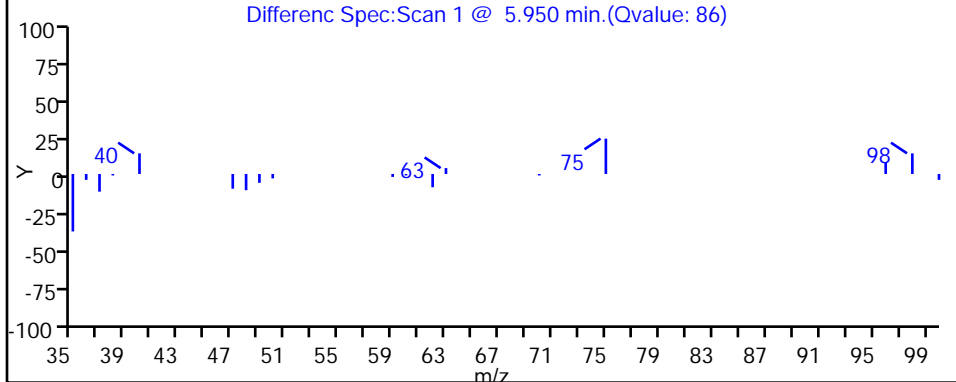
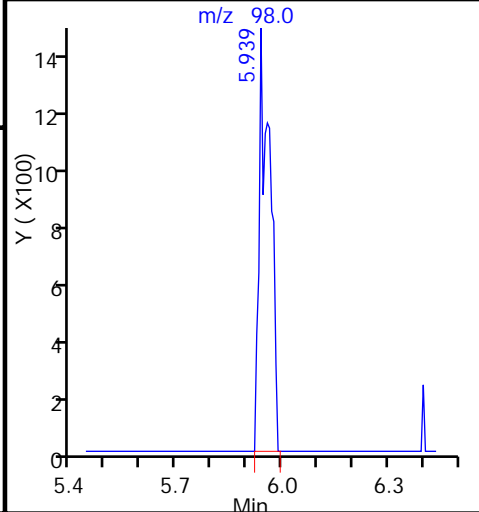
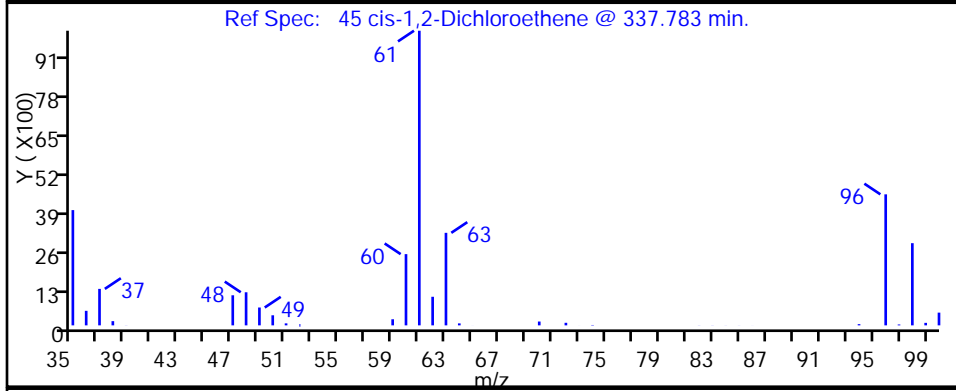
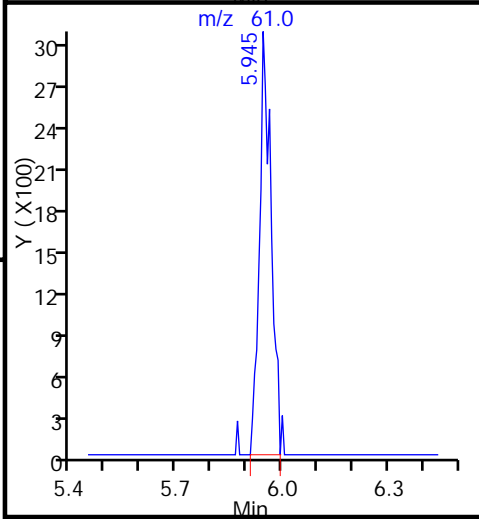
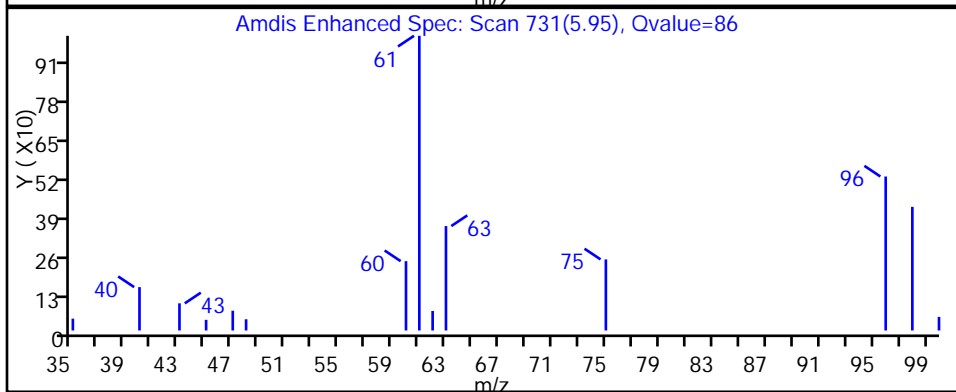
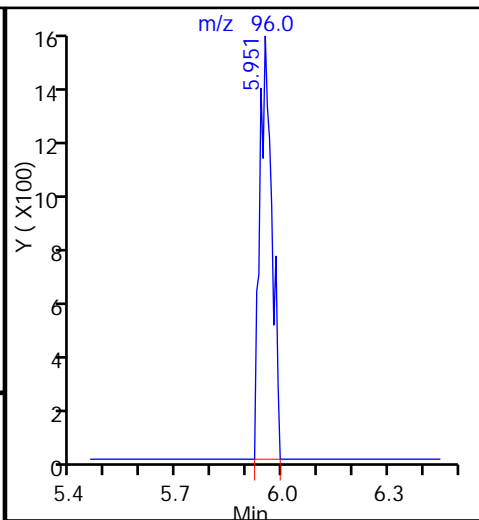
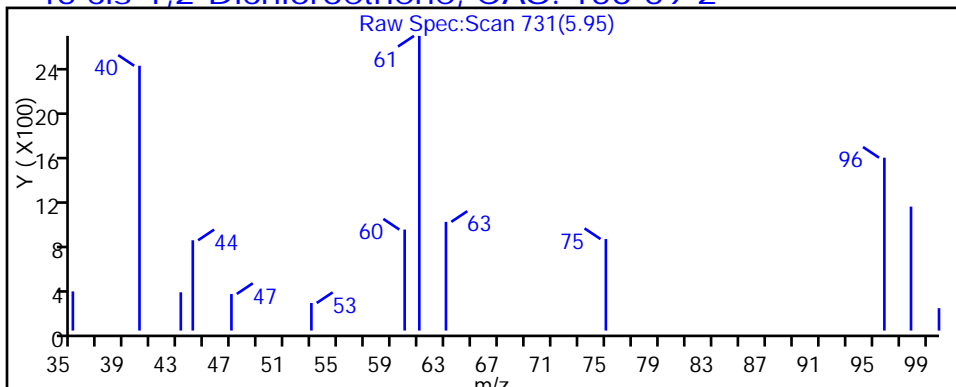
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D

Injection Date: 18-Aug-2015 22:26:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-8

Lab Sample ID: 180-46875-8

Client ID: HD-COD-SW-13-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

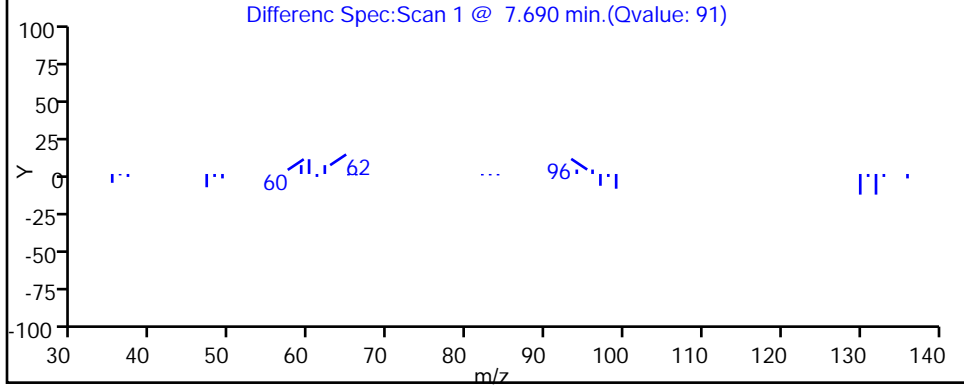
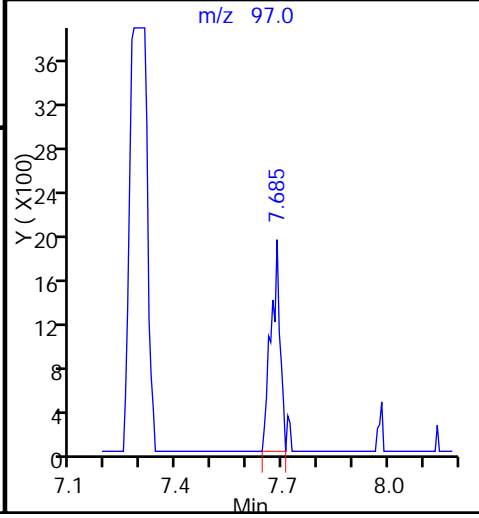
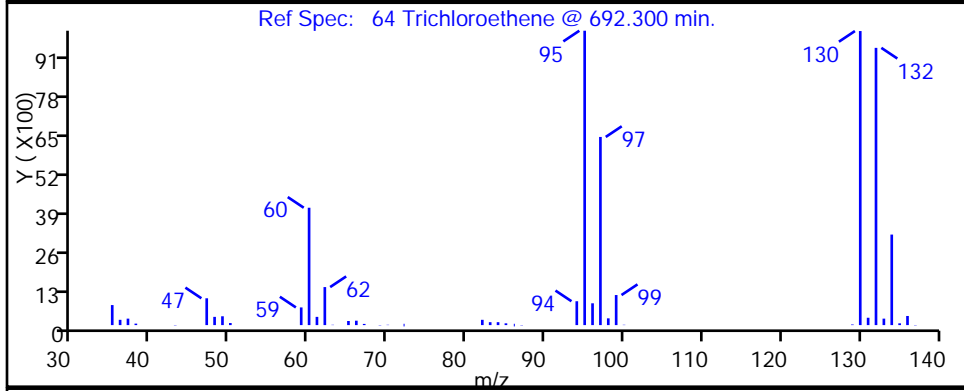
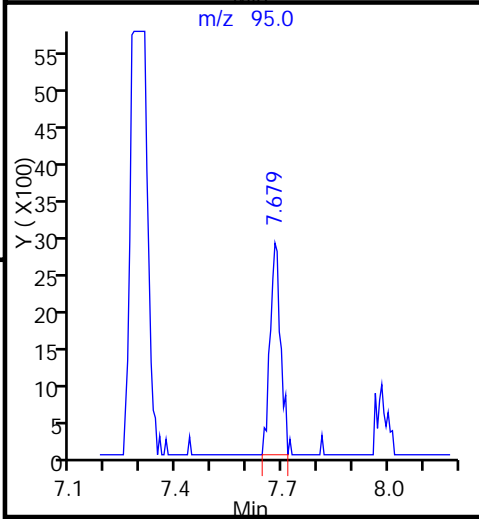
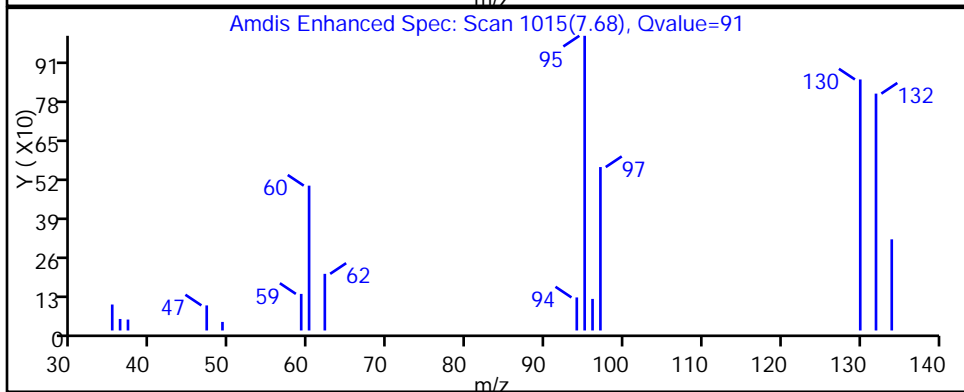
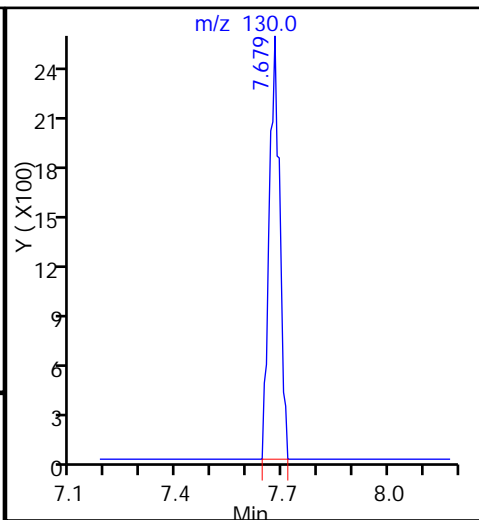
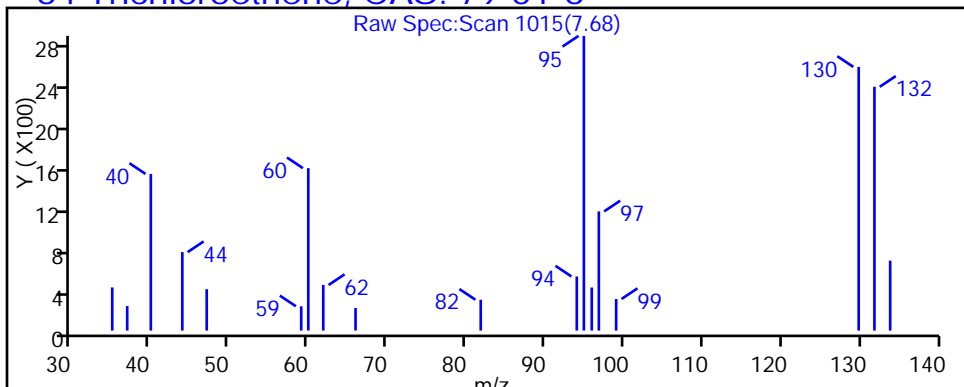
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D

Injection Date: 18-Aug-2015 22:26:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-8

Lab Sample ID: 180-46875-8

Client ID: HD-COD-SW-13-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

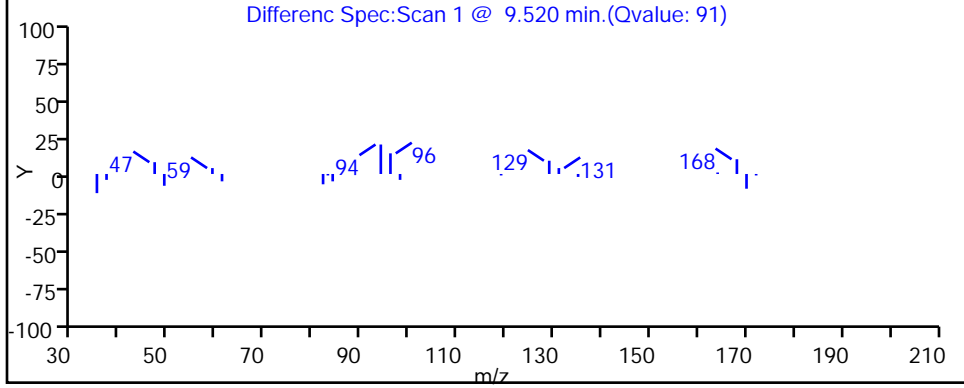
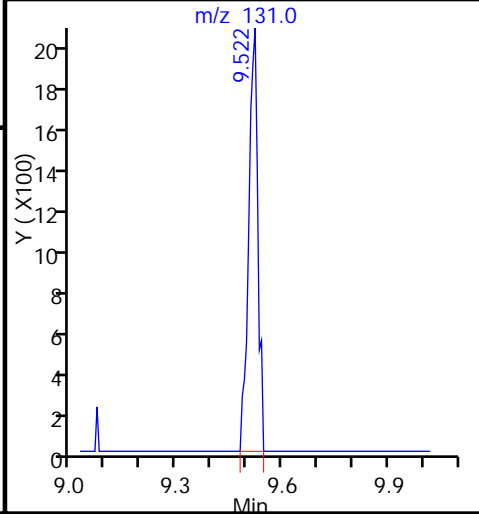
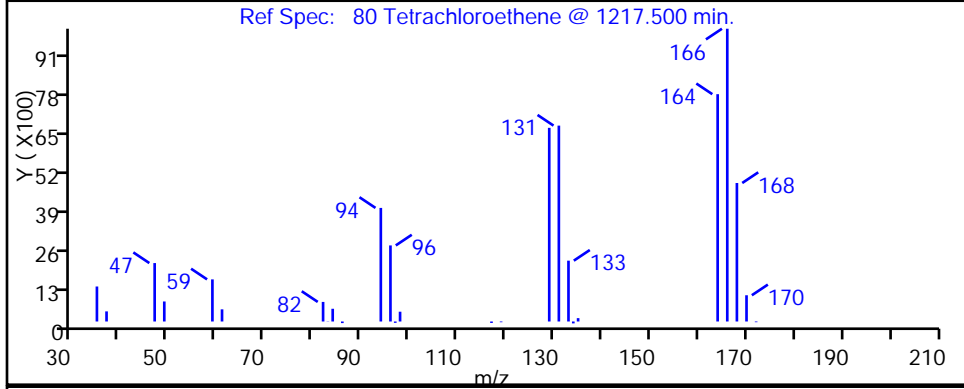
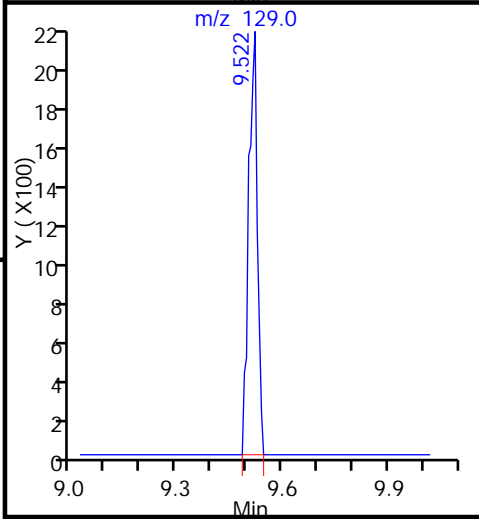
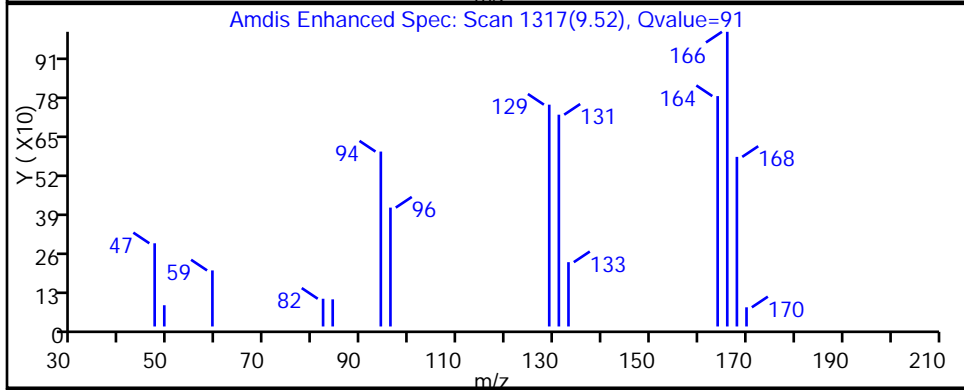
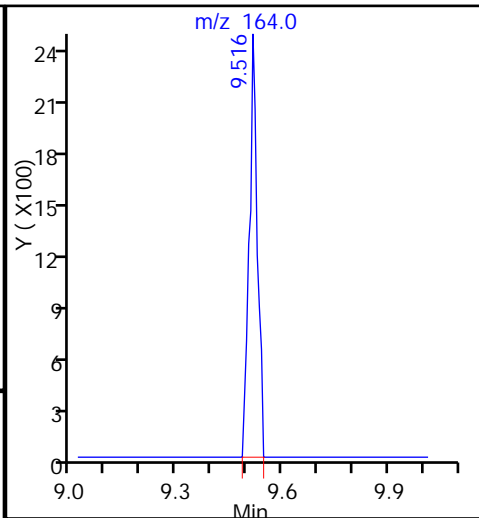
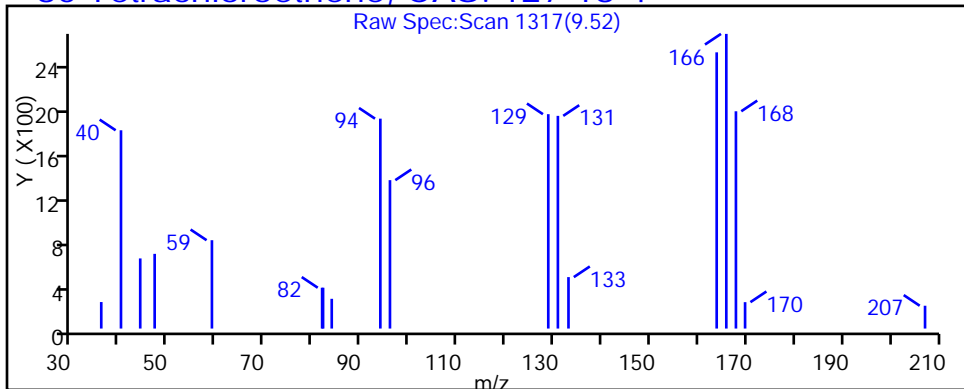
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





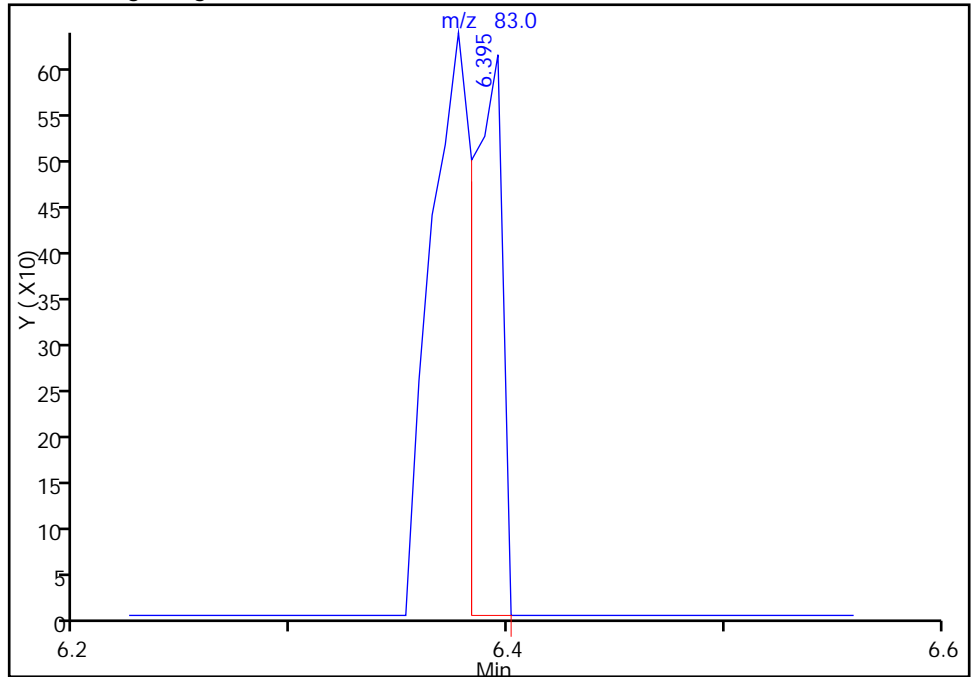
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818026.D  
Injection Date: 18-Aug-2015 22:26:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-8 Lab Sample ID: 180-46875-8  
Client ID: HD-COD-SW-13-0/1-0  
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 26  
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

52 Chloroform, CAS: 67-66-3

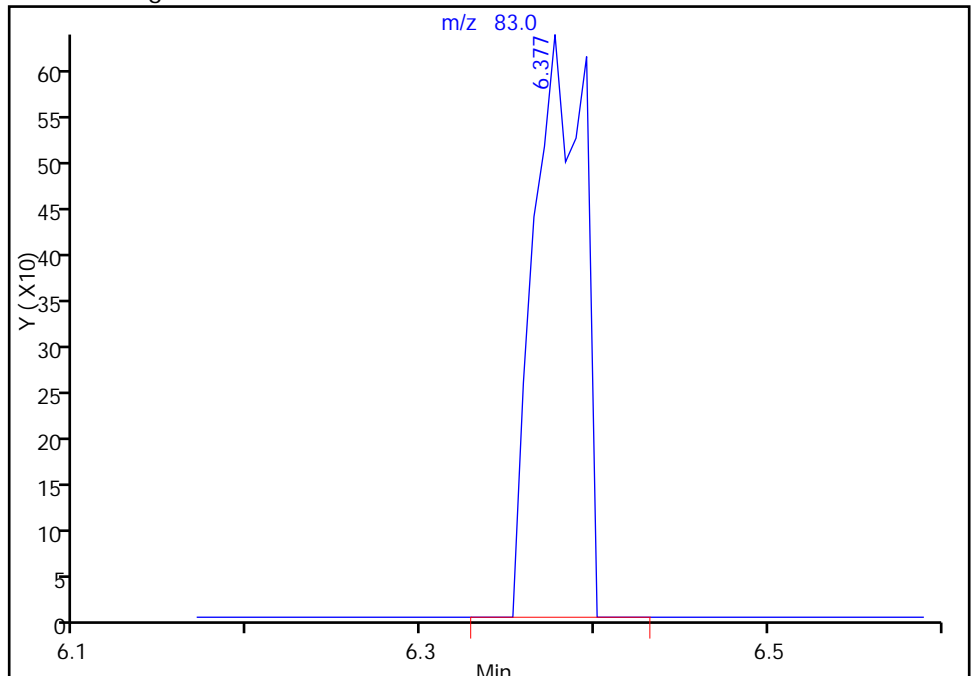
RT: 6.40  
Area: 596  
Amount: 0.155250  
Amount Units: ng

Processing Integration Results



RT: 6.38  
Area: 1269  
Amount: 0.330558  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 19-Aug-2015 09:19:38  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-46875-9  
 Matrix: Water Lab File ID: 50818027.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 13:05  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:50  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	0.63	J	1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.18	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	12		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.25	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.52	J	1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	12		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	7.8		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-46875-9  
 Matrix: Water Lab File ID: 50818027.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 13:05  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 22:50  
 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.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	78		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D  
 Lims ID: 180-46875-D-9 Lab Sample ID: 180-46875-9  
 Client ID: HD-COD-SW-15-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 22:50:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-9  
 Misc. Info.: 180-0008205-027  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:21:28 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:21:28

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.268	-0.008	0	157352	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	371266	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	85126	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.724	0.005	98	109123	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.567	-0.001	92	95033	54.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.932	0.005	0	135594	54.3	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.934	0.005	94	323237	45.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.568	-0.001	86	101608	39.1	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96	3.360	3.349	0.011	96	6664	3.17	
24 Acetone	43	3.439	3.446	-0.007	63	3848	6.26	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73	4.577	4.578	-0.001	3	1612	0.2923	
37 1,1-Dichloroethane	63	5.197	5.205	-0.008	1	3933	0.9207	M
45 cis-1,2-Dichloroethene	96	5.958	5.953	0.005	82	146660	61.9	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.377	6.385	-0.008	94	4973	1.27	
53 1,1,1-Trichloroethane	97	6.542	6.537	0.005	93	7637	2.59	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	97	128322	58.1	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.516	9.518	-0.002	93	67904	39.0	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Worklist Smp#: 27

Client ID: HD-COD-SW-15-0/1-0

Purge Vol: 5.000 mL

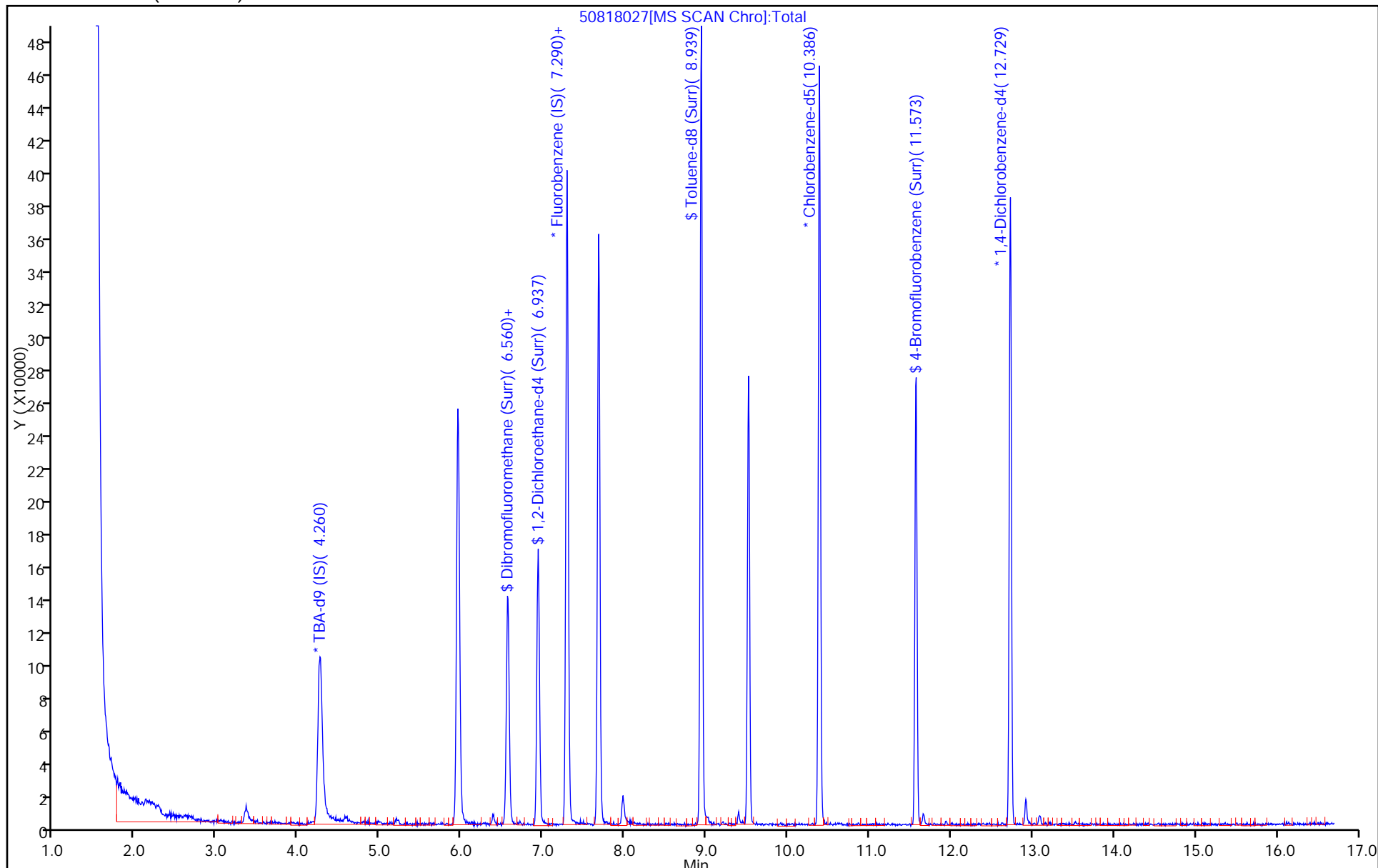
Dil. Factor: 1.0000

ALS Bottle#: 26

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

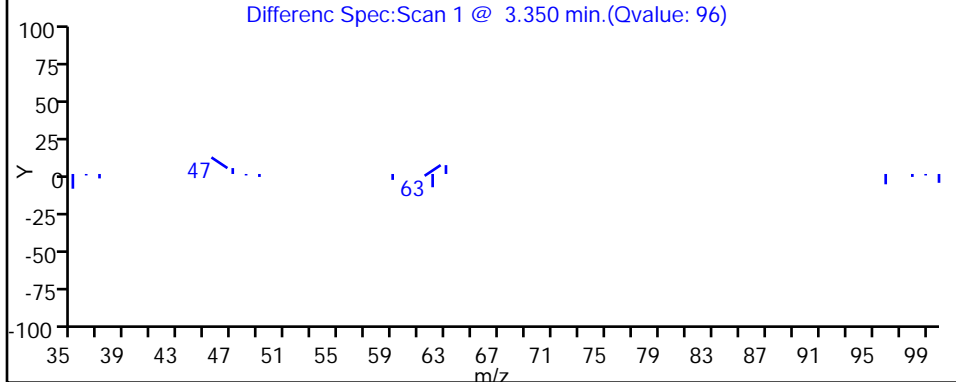
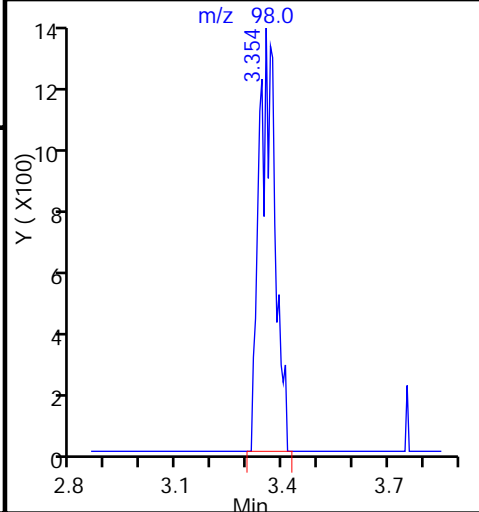
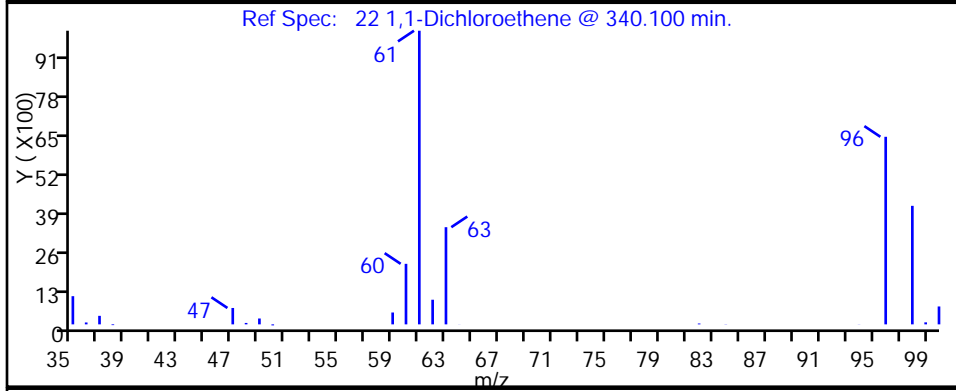
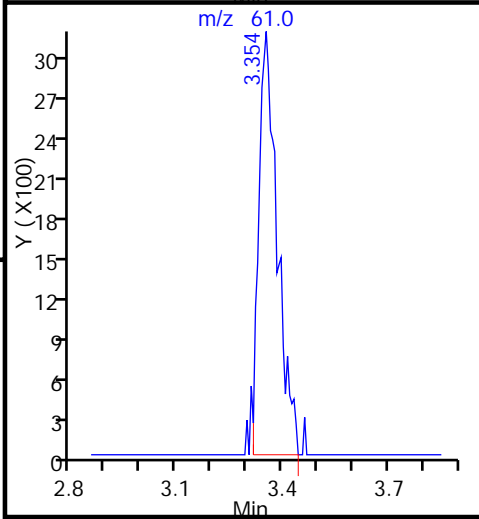
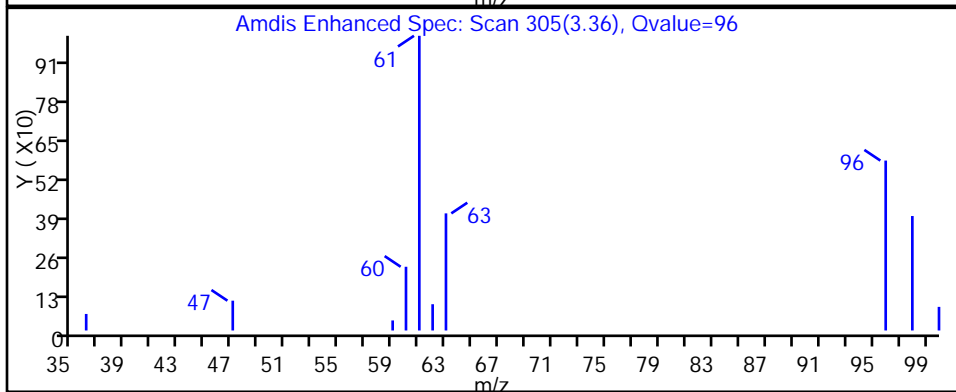
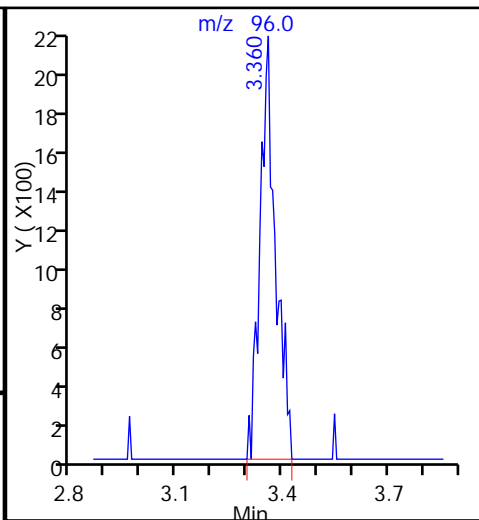
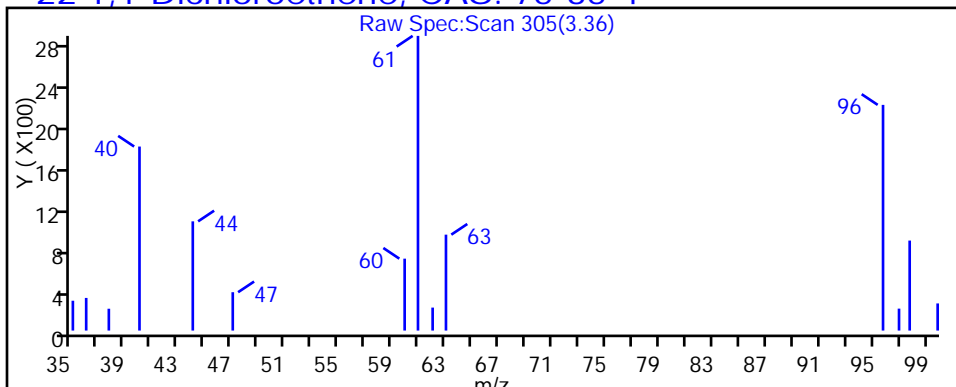
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

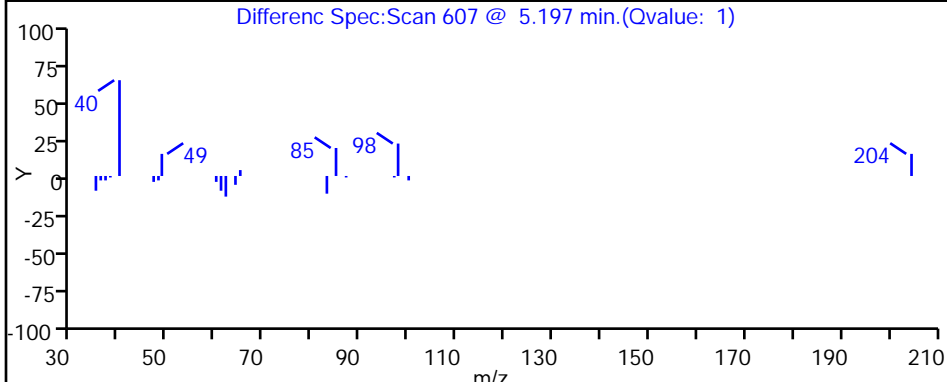
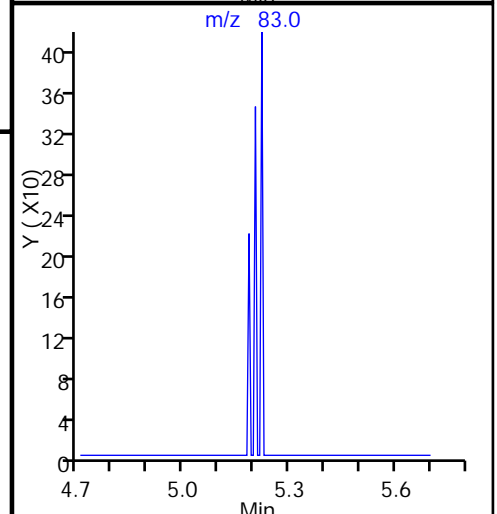
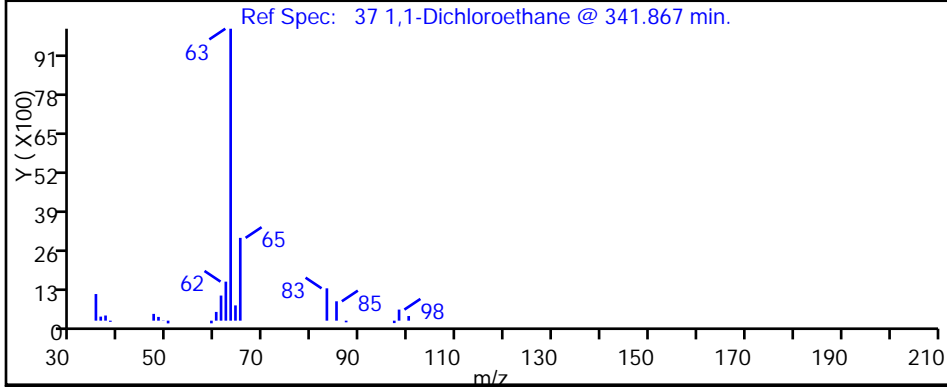
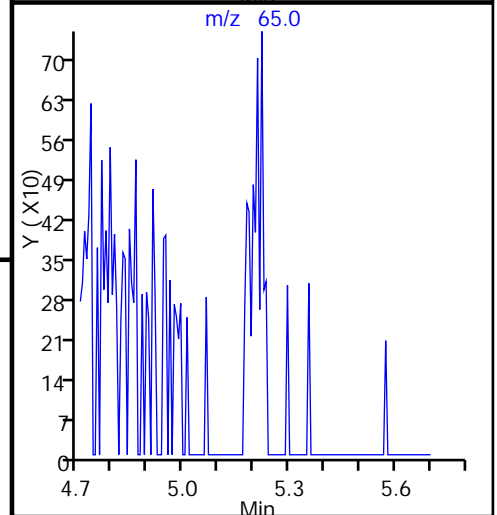
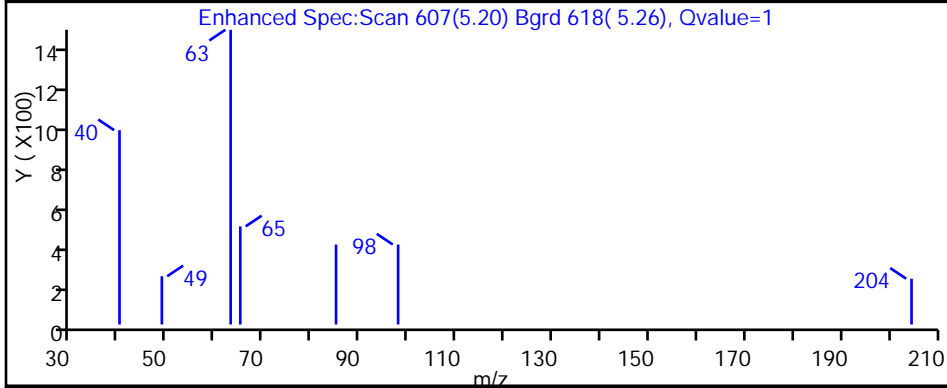
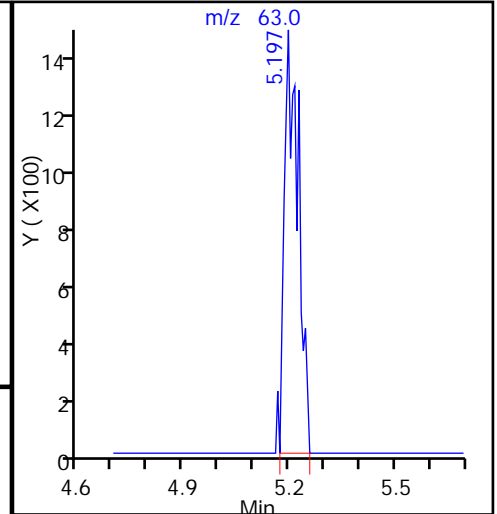
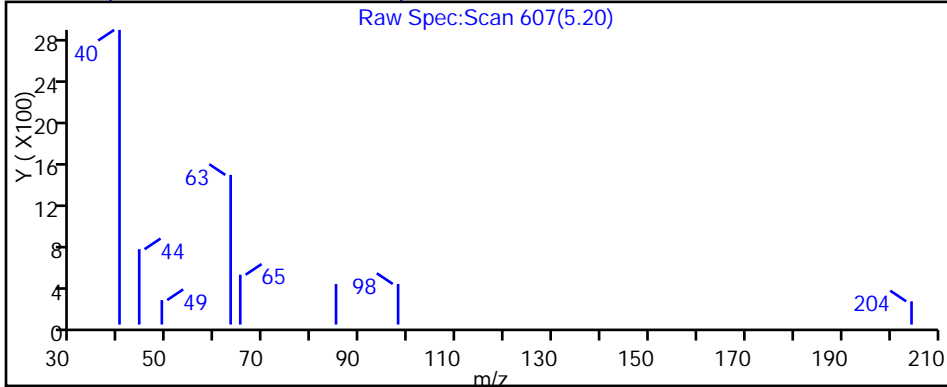
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

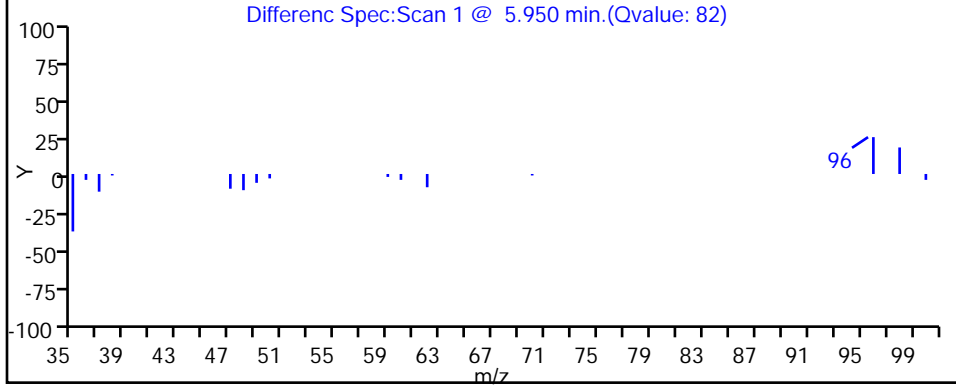
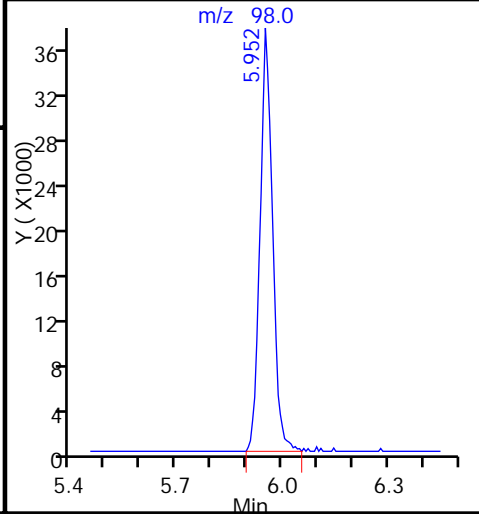
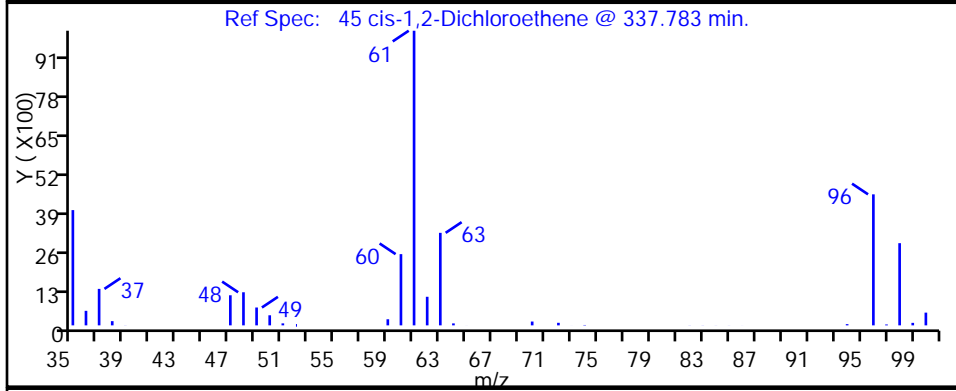
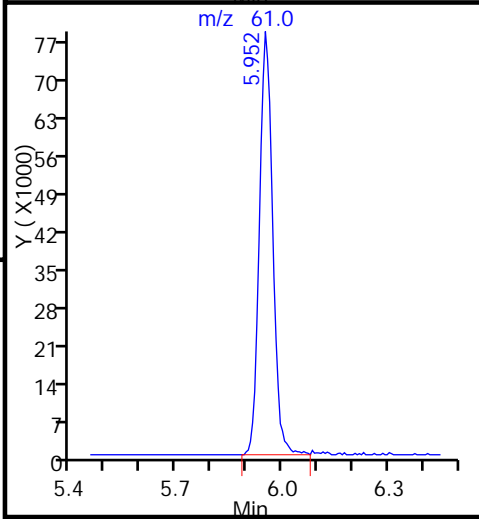
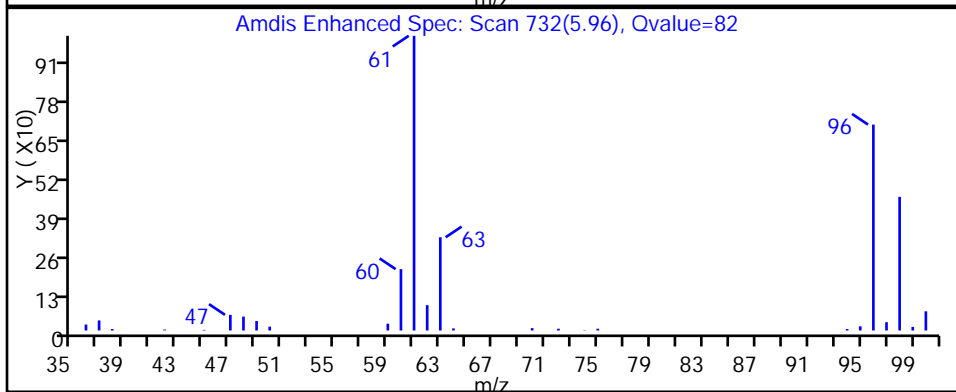
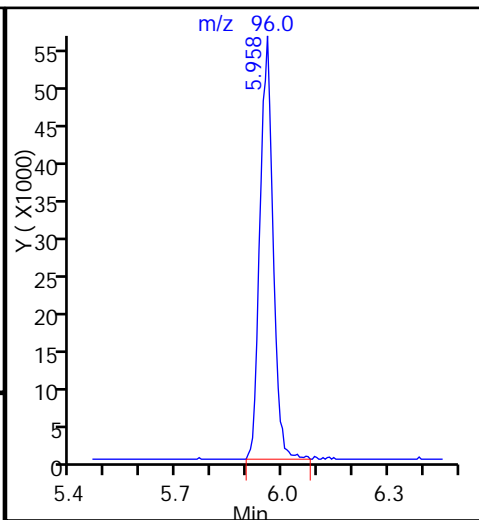
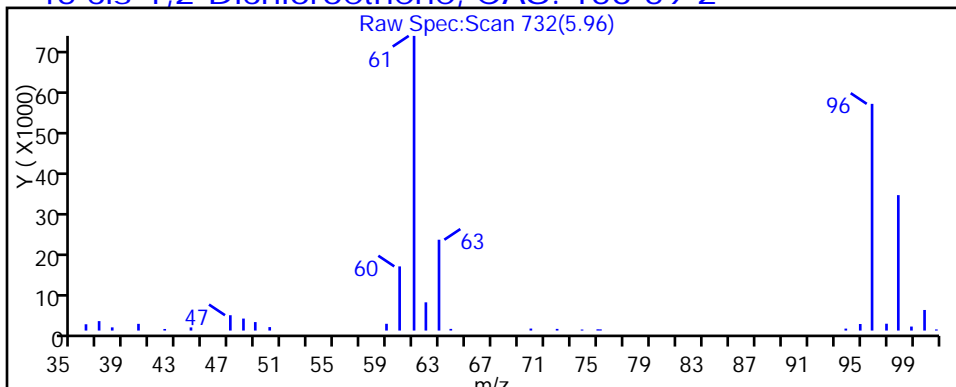
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

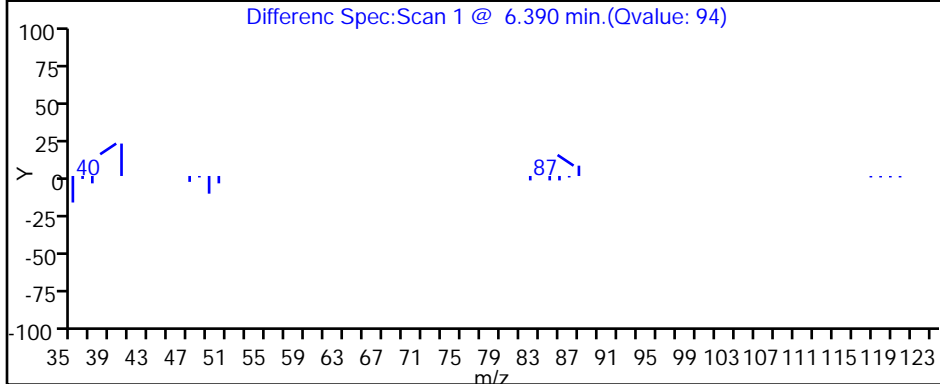
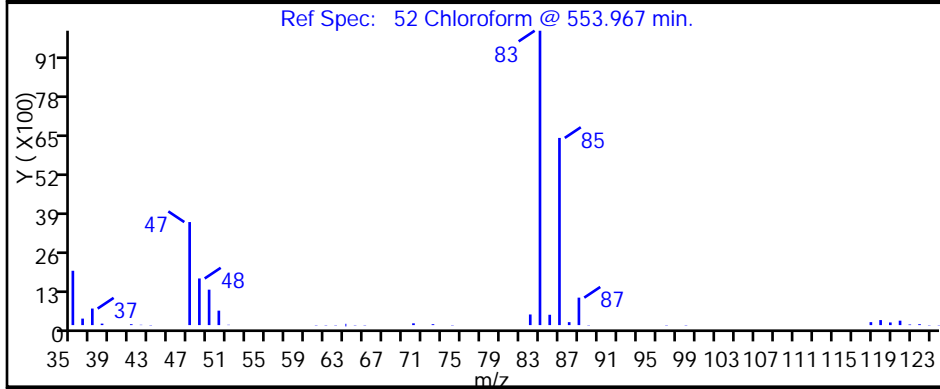
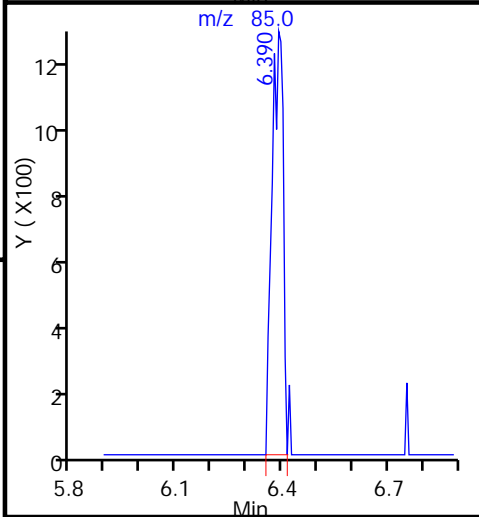
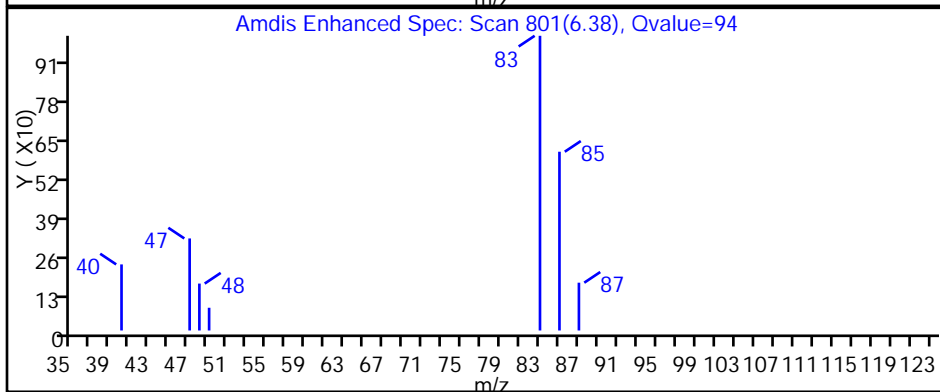
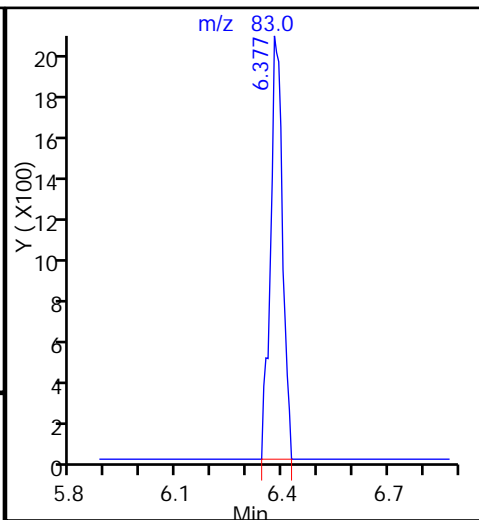
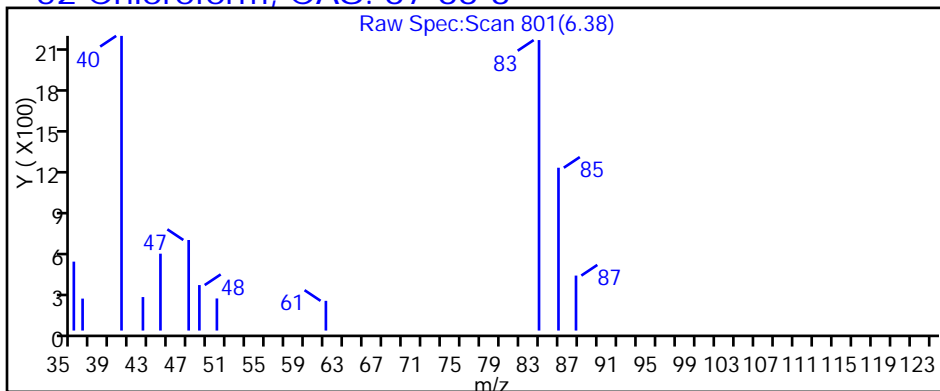
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

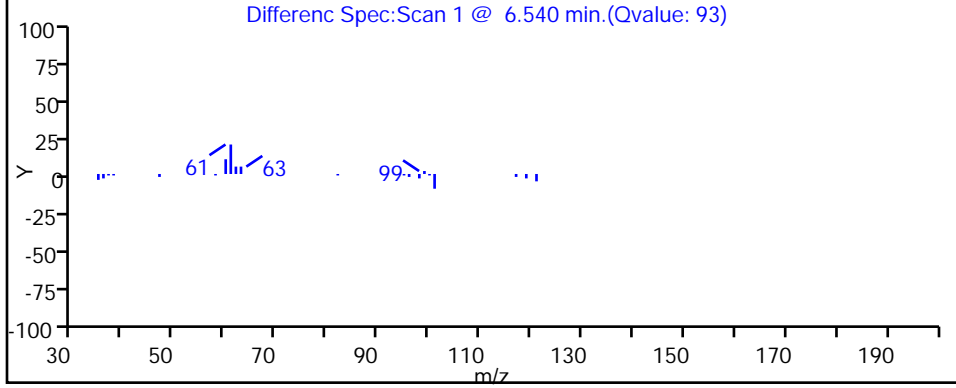
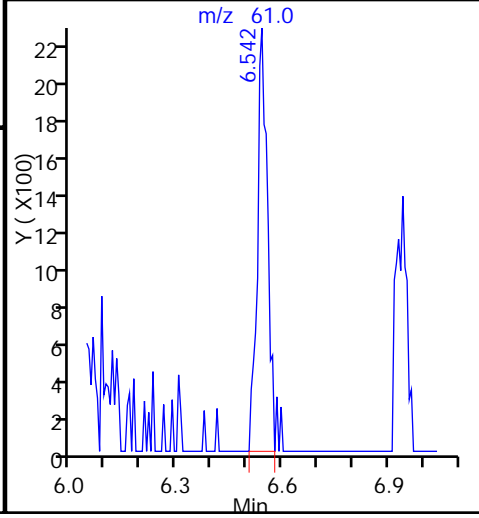
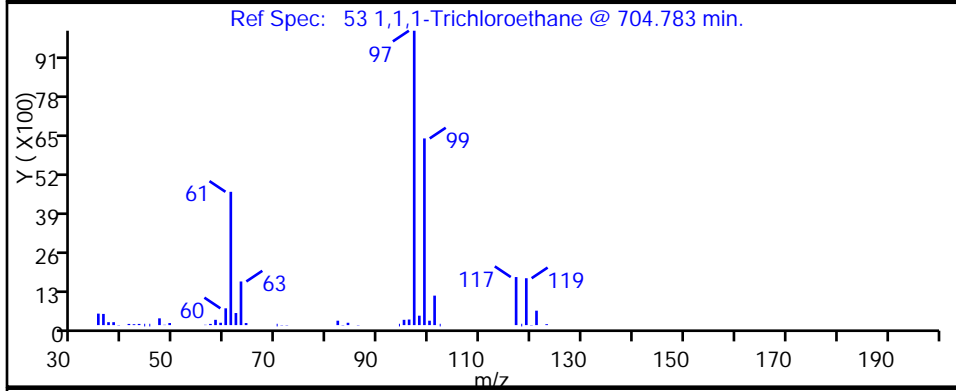
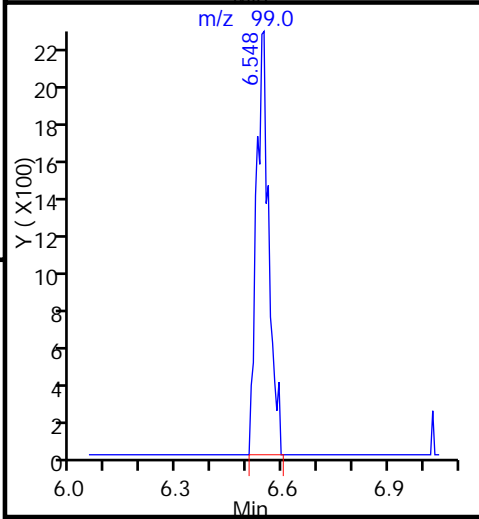
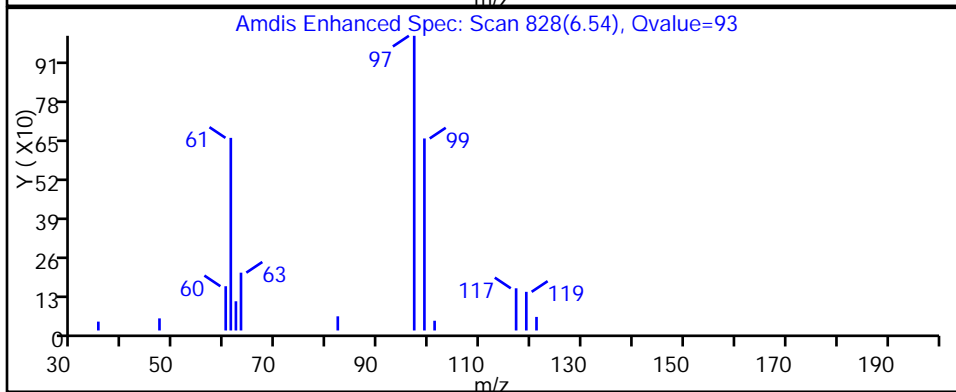
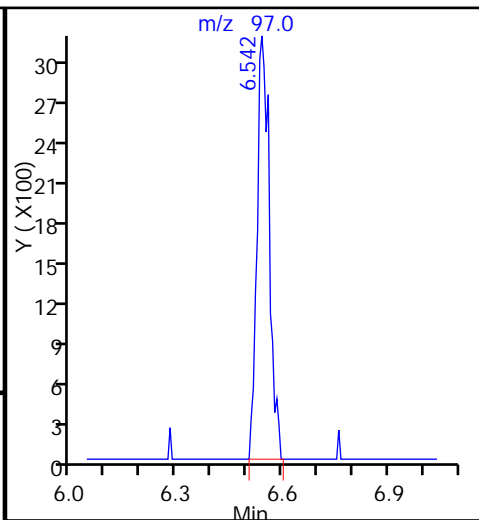
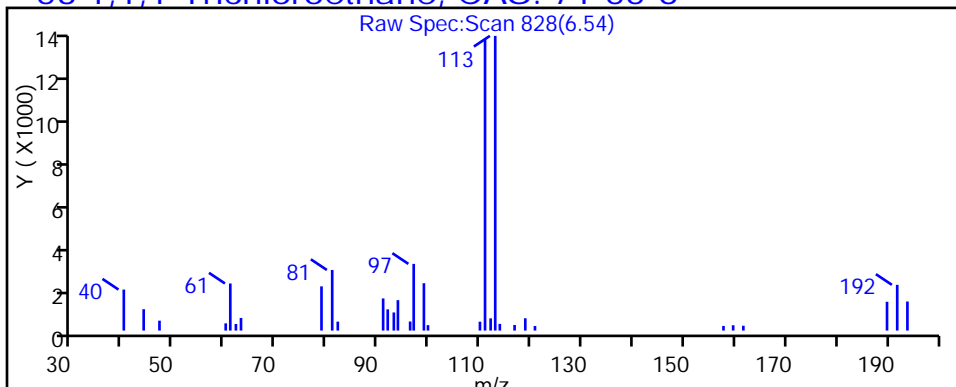
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

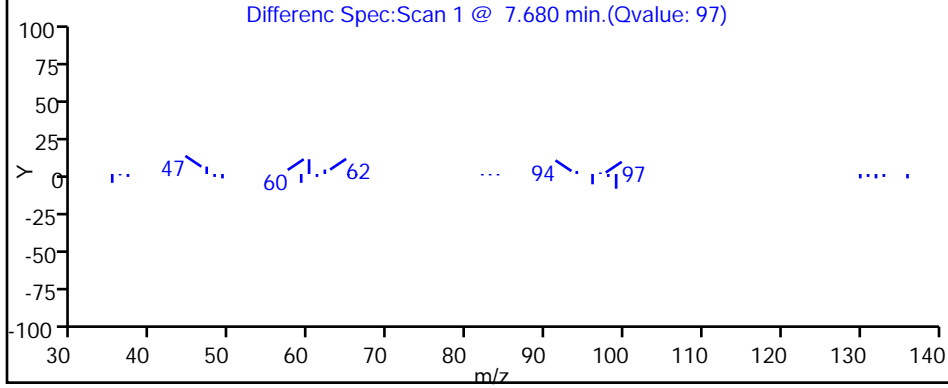
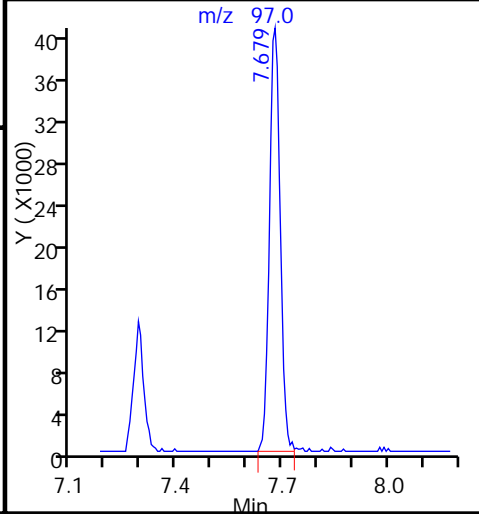
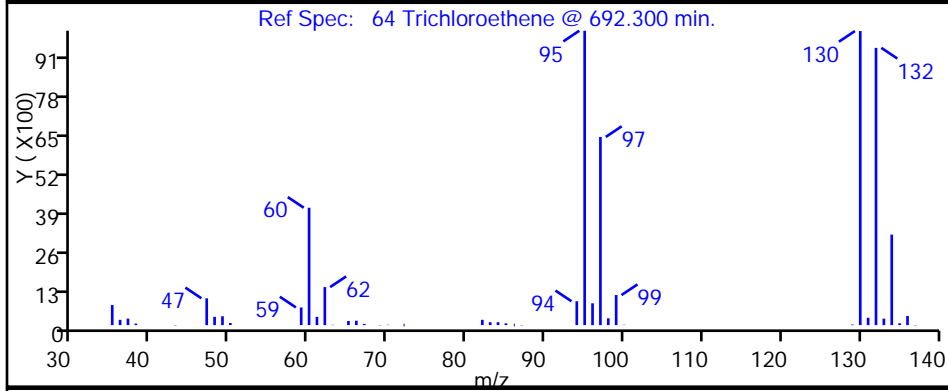
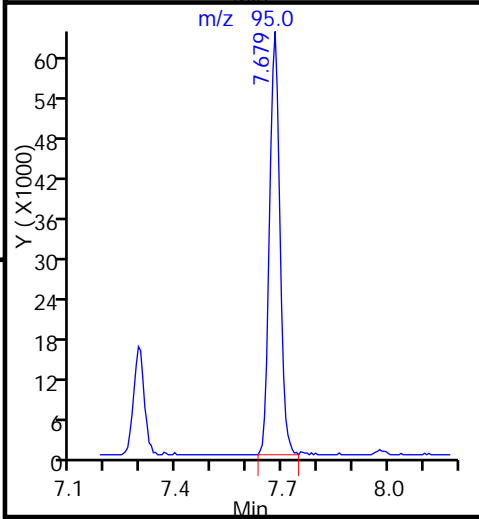
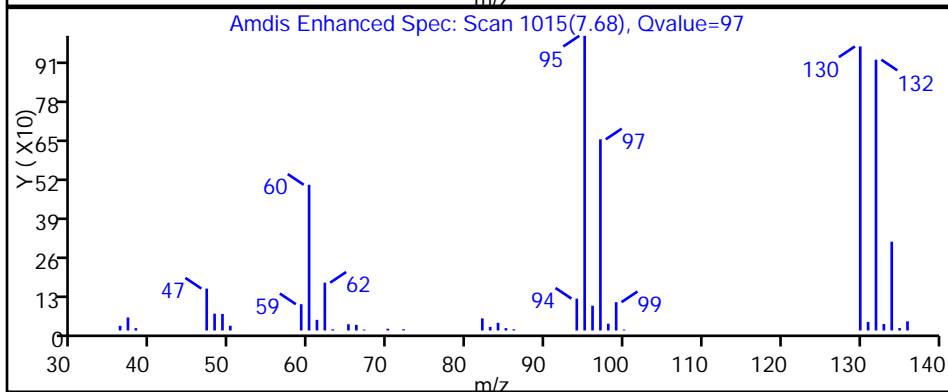
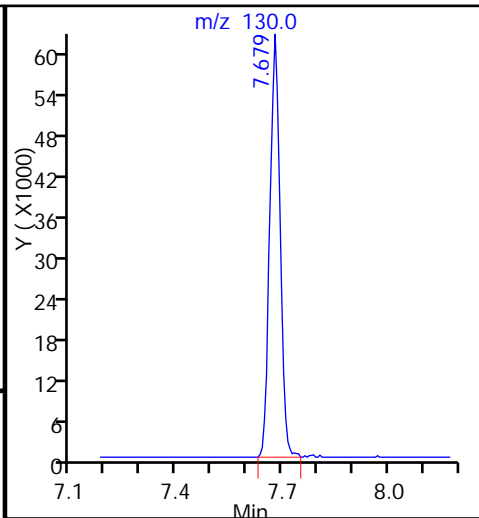
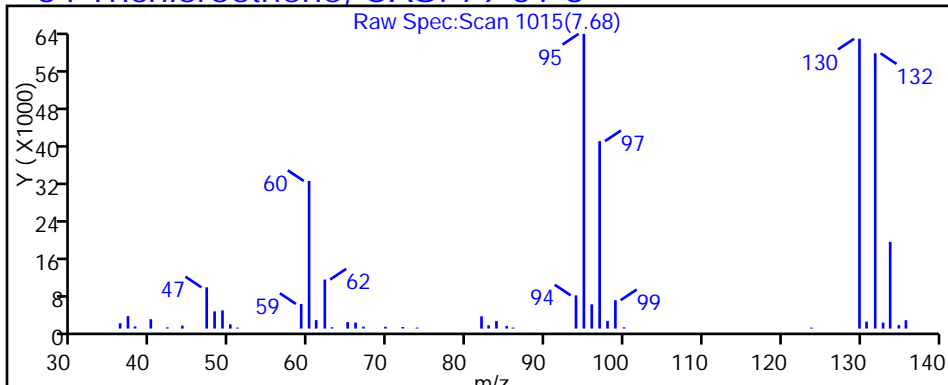
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D

Injection Date: 18-Aug-2015 22:50:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-9

Lab Sample ID: 180-46875-9

Client ID: HD-COD-SW-15-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

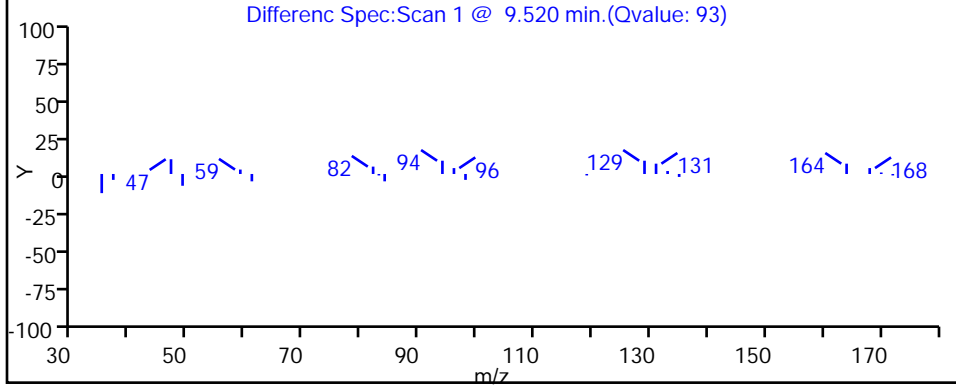
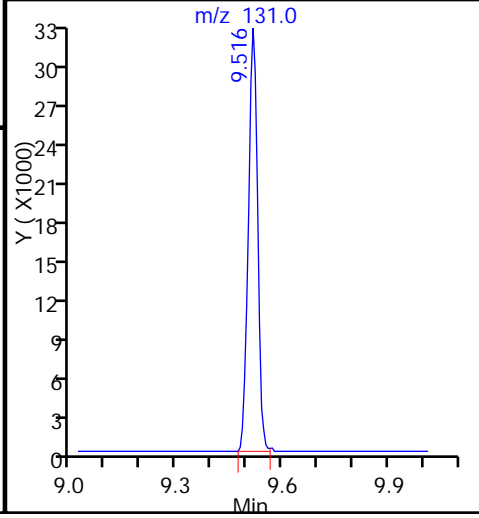
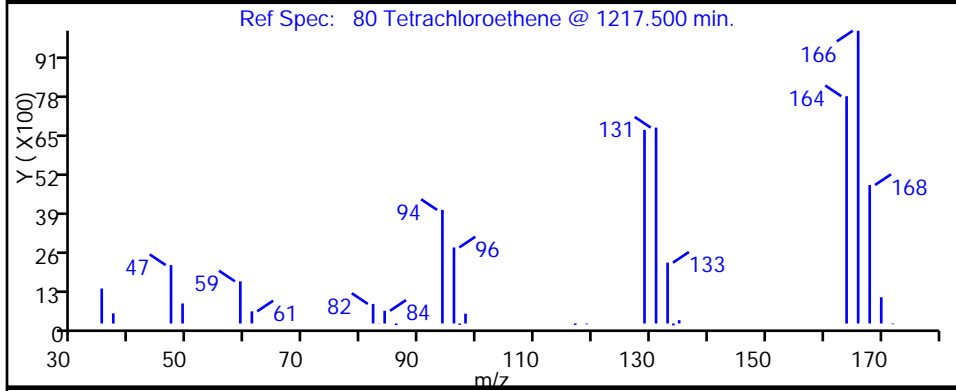
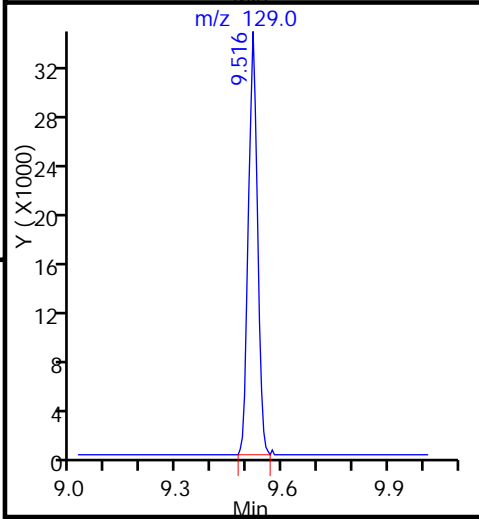
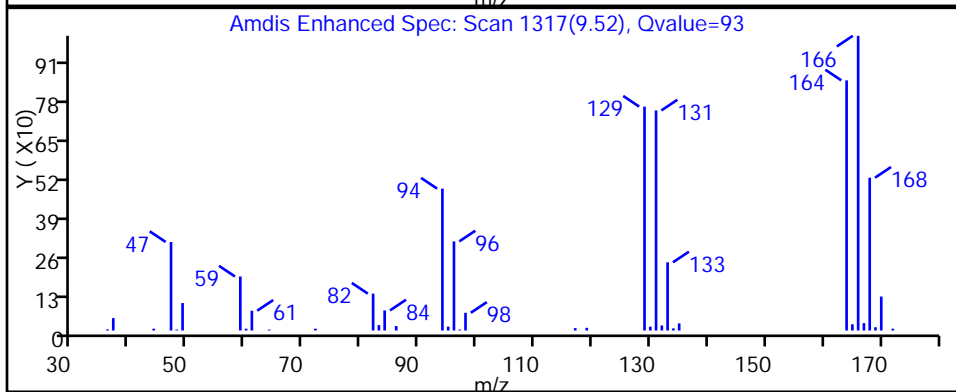
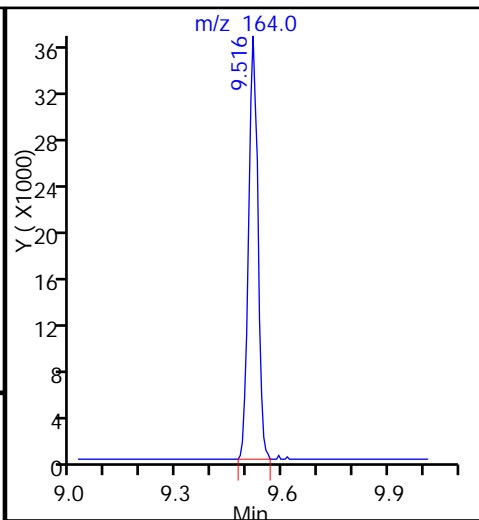
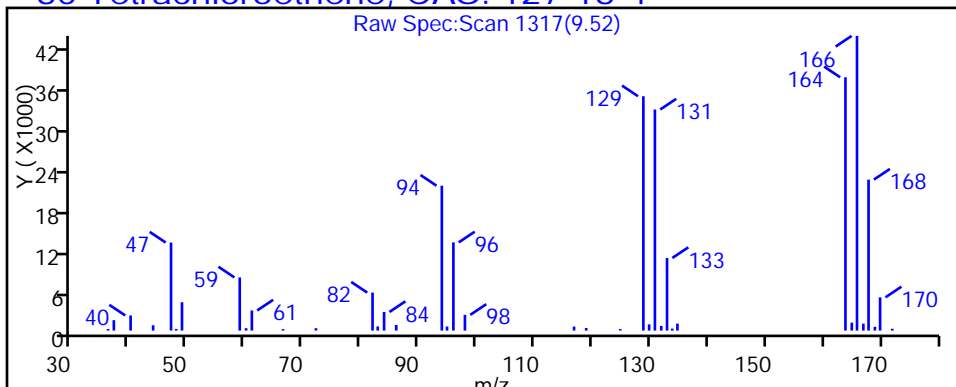
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



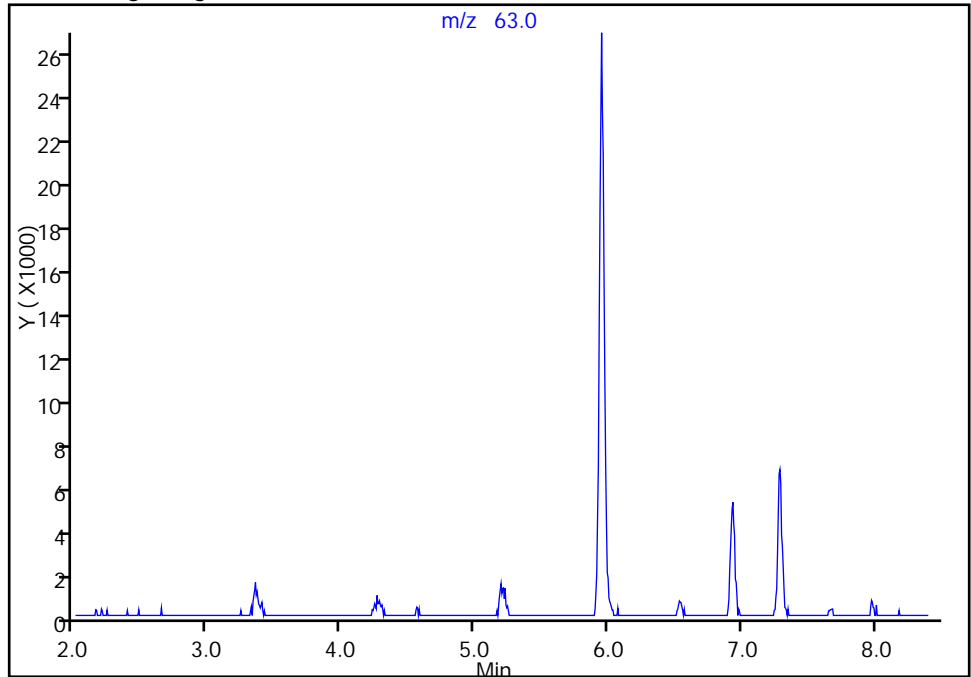
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818027.D  
Injection Date: 18-Aug-2015 22:50:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-9 Lab Sample ID: 180-46875-9  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: 001562 ALS Bottle#: 26 Worklist Smp#: 27  
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

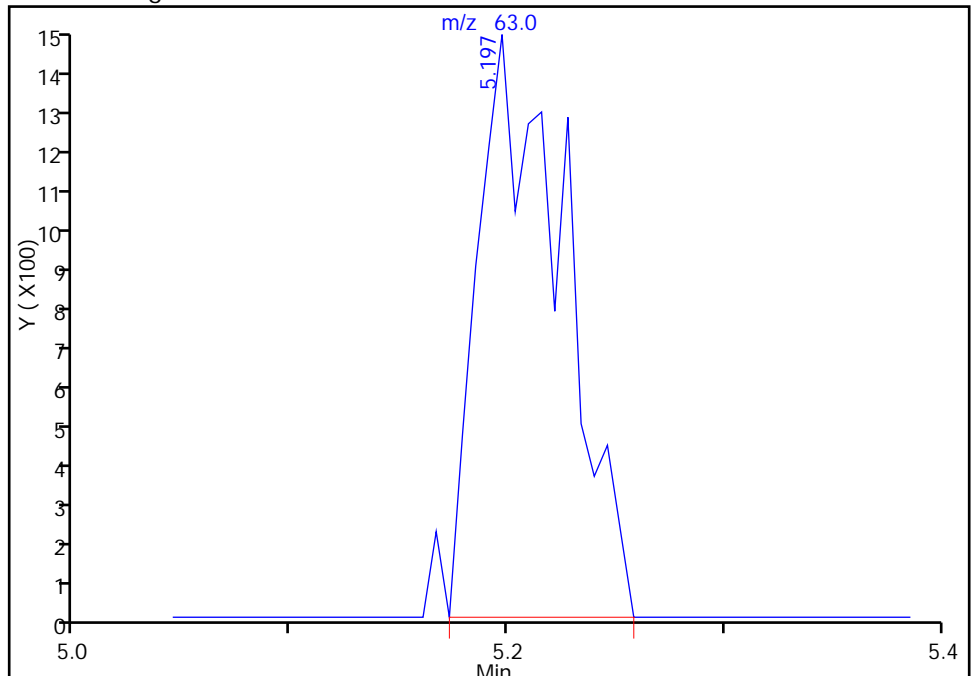
Not Detected  
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.20  
Area: 3933  
Amount: 0.920677  
Amount Units: ng



Reviewer: fergusond, 19-Aug-2015 09:21:28  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-46875-10  
 Matrix: Water Lab File ID: 50818029.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 23:38  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND	^c	1.0	0.28
75-01-4	Vinyl chloride	ND	^c	1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.37	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.44	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.61	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-46875-10  
 Matrix: Water Lab File ID: 50818029.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 09:50  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 23:38  
 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.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	82		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818029.D  
 Lims ID: 180-46875-D-10 Lab Sample ID: 180-46875-10  
 Client ID: HD-COD-SW-16-0/1-0  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 23:38:30 ALS Bottle#: 28 Worklist Smp#: 29  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-10  
 Misc. Info.: 180-0008205-029  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:23:23 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:23:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.268	-0.009	0	155783	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.291	-0.002	98	364421	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.388	0.003	89	83820	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.724	0.003	98	106305	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.567	-0.002	93	95211	56.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.932	0.004	0	137410	56.0	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.934	0.003	94	322602	46.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.568	0.003	86	104643	40.9	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.438	3.446	-0.008	82	6924	11.5	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.950	5.953	-0.003	79	4332	1.86	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.388	6.385	0.003	5	785	0.2035	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.678	7.681	-0.003	94	4814	2.22	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.509	9.518	-0.009	94	5189	3.03	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818029.D

Injection Date: 18-Aug-2015 23:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-10

Lab Sample ID: 180-46875-10

Worklist Smp#: 29

Client ID: HD-COD-SW-16-0/1-0

Purge Vol: 5.000 mL

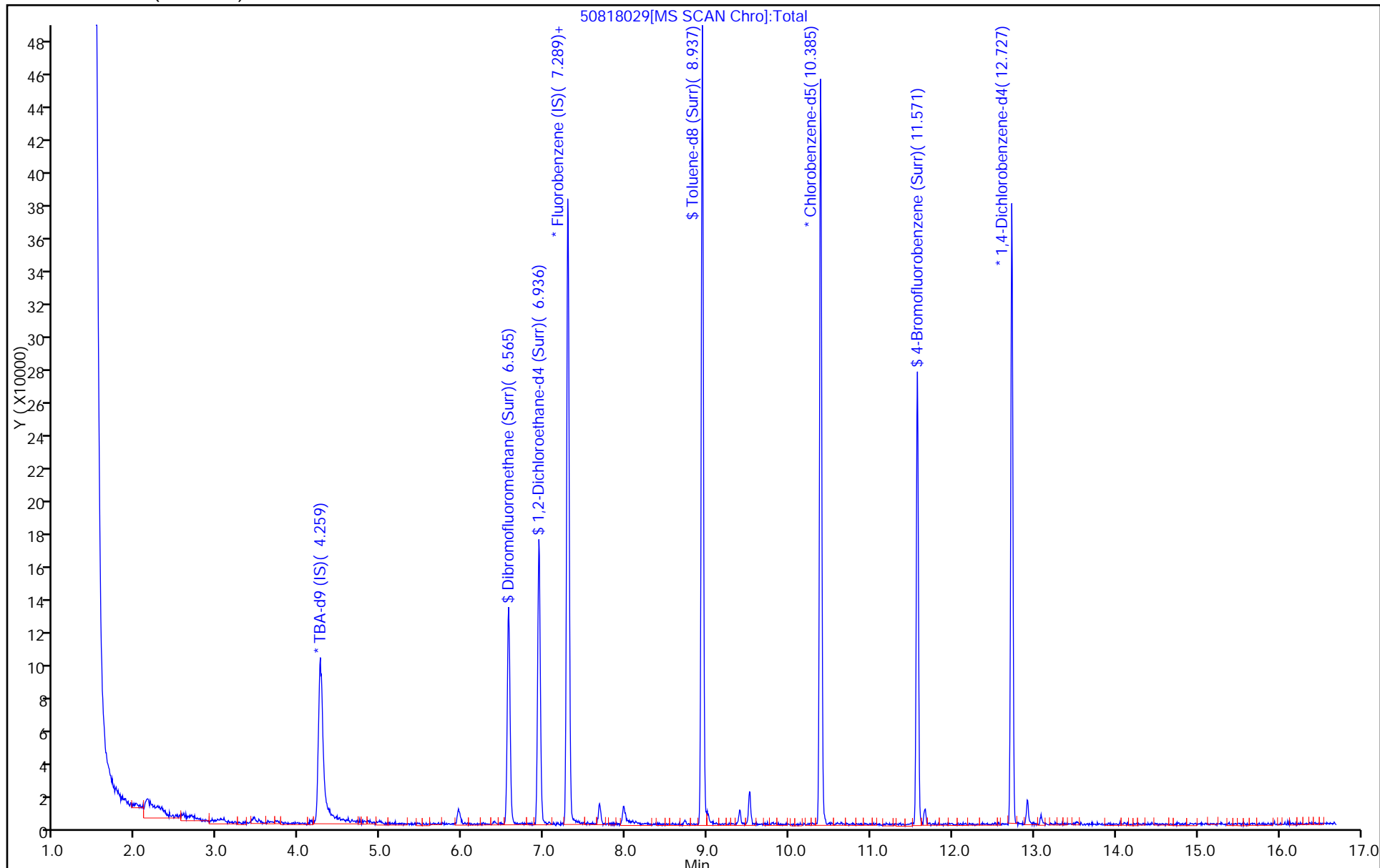
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818029.D

Injection Date: 18-Aug-2015 23:38:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-10

Lab Sample ID: 180-46875-10

Client ID: HD-COD-SW-16-0/1-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

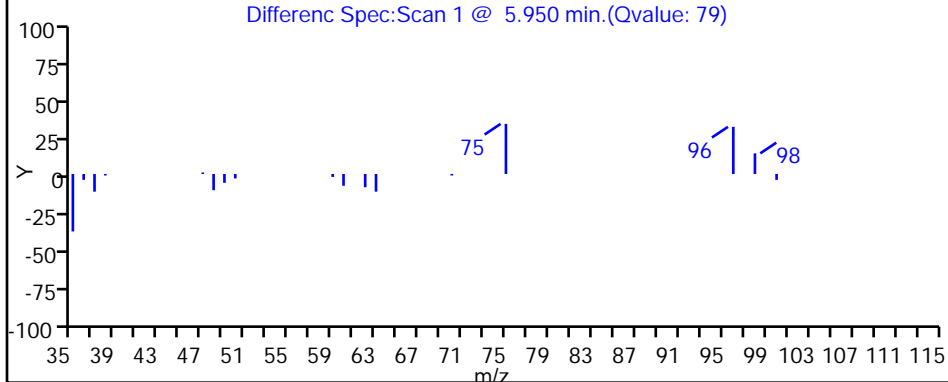
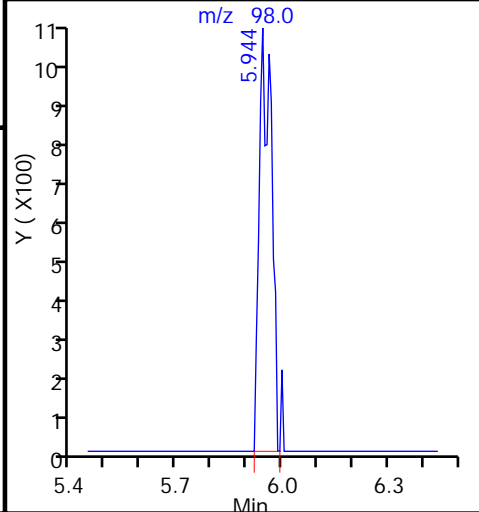
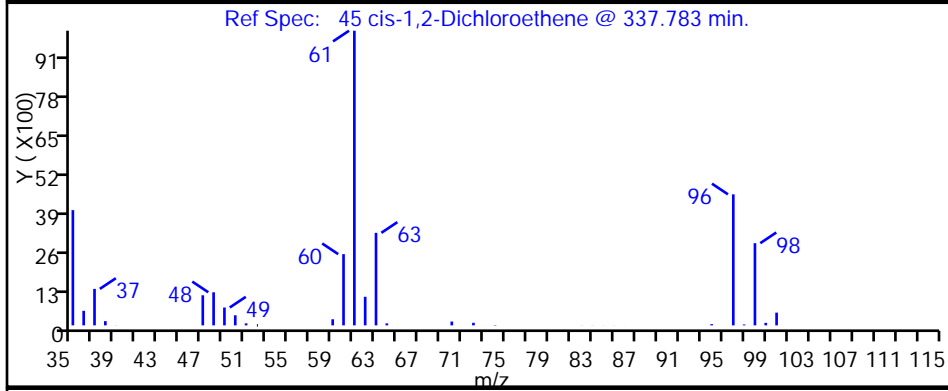
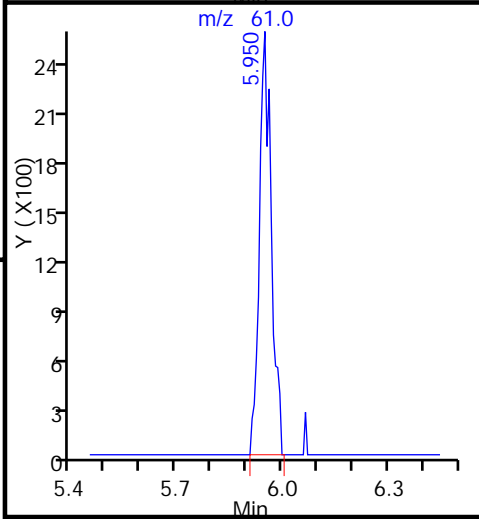
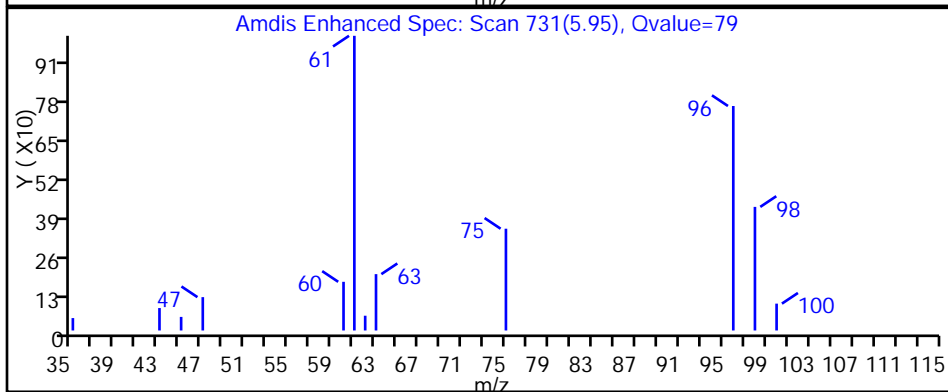
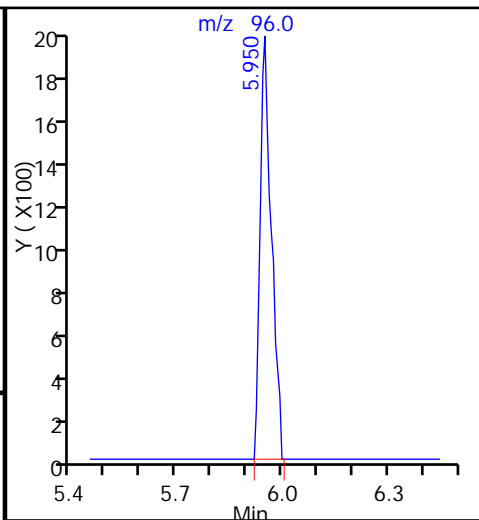
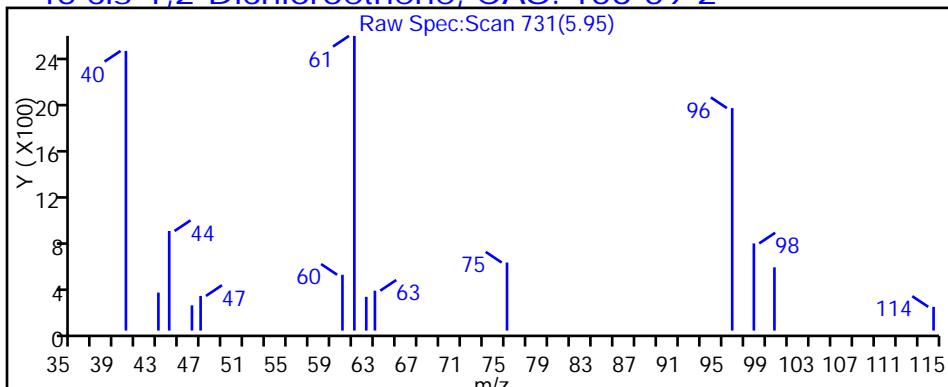
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

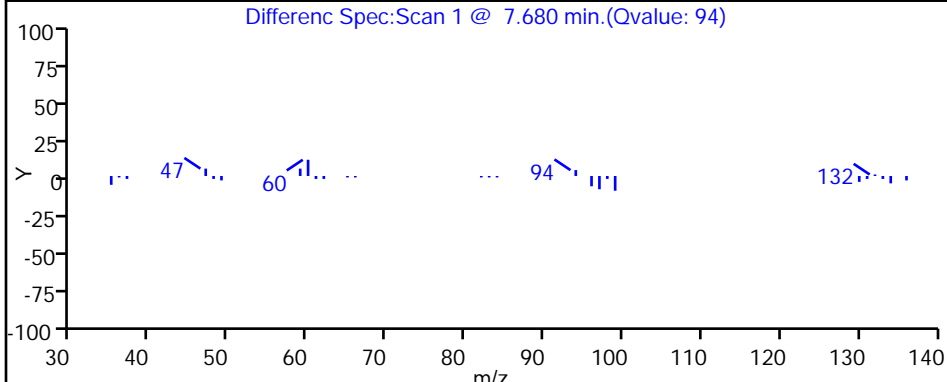
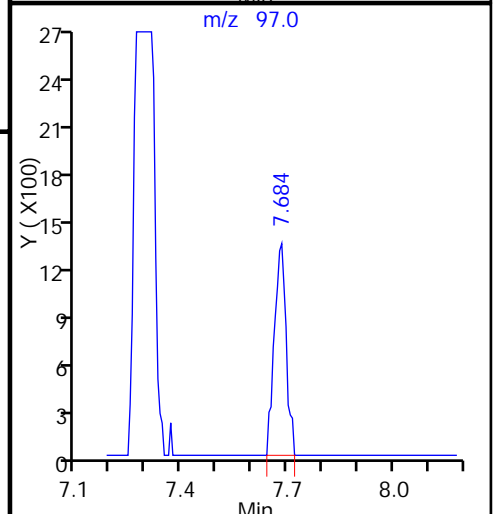
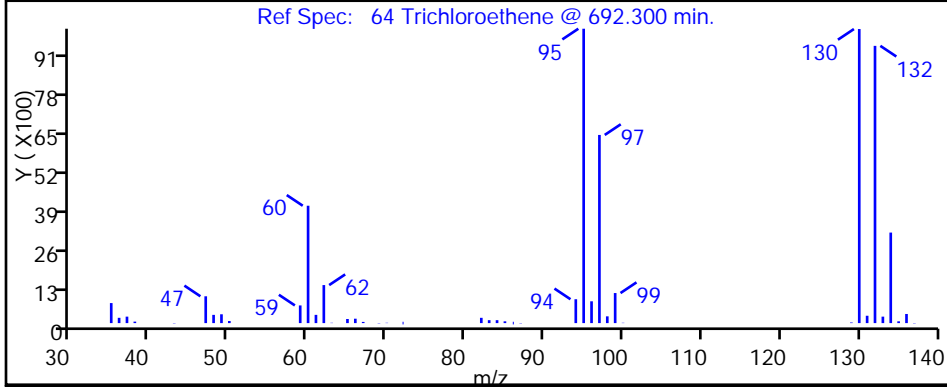
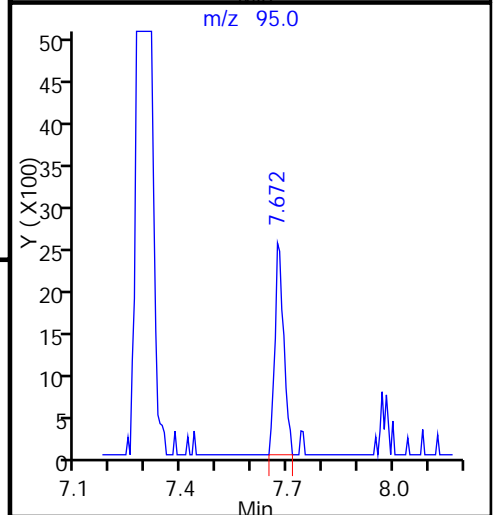
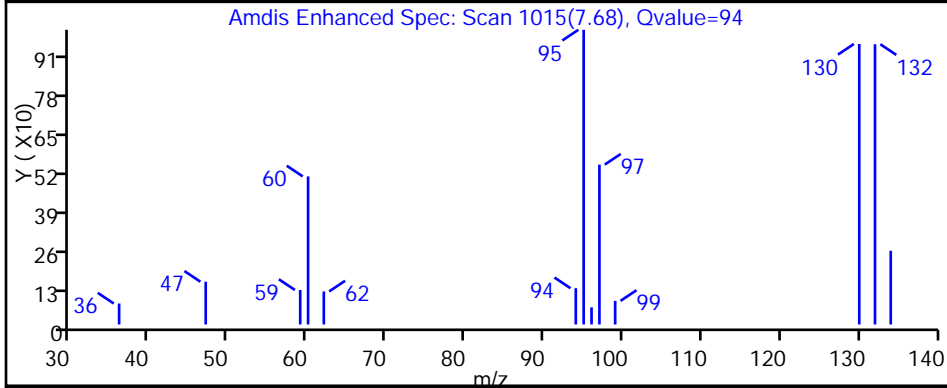
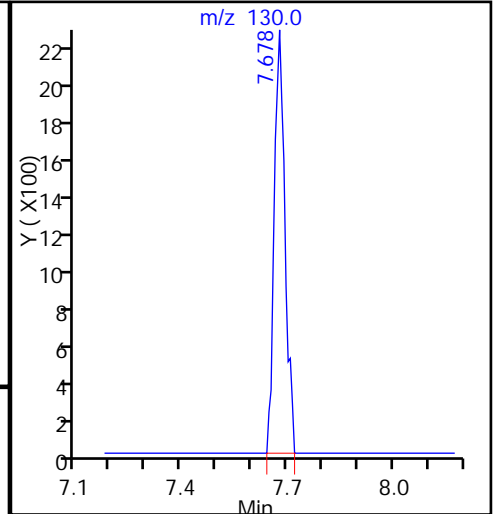
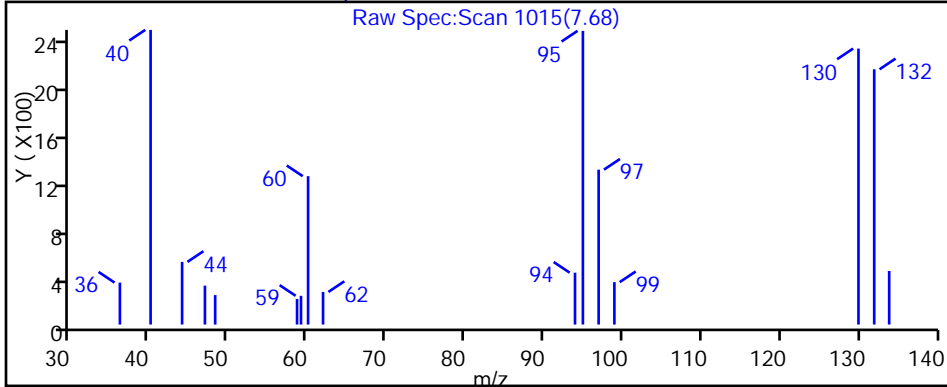
45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818029.D  
Injection Date: 18-Aug-2015 23:38:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-10 Lab Sample ID: 180-46875-10  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: 001562 ALS Bottle#: 28 Worklist Smp#: 29  
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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818029.D

Injection Date: 18-Aug-2015 23:38:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-10

Lab Sample ID: 180-46875-10

Client ID: HD-COD-SW-16-0/1-0

Operator ID: 001562

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

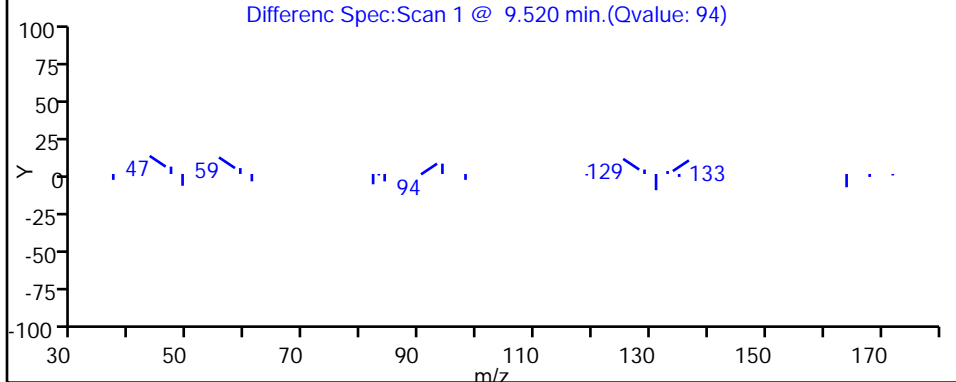
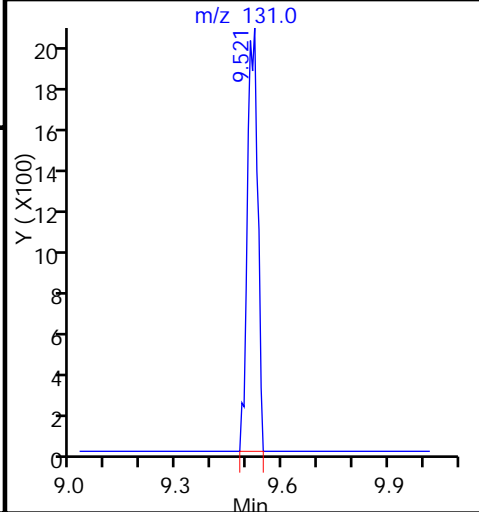
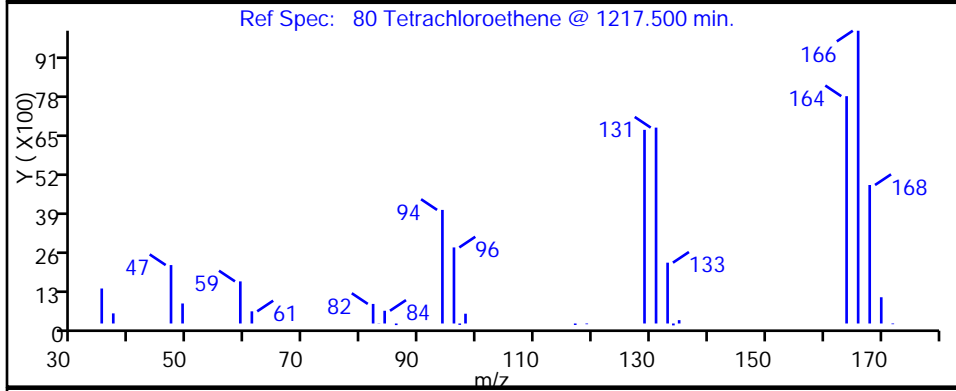
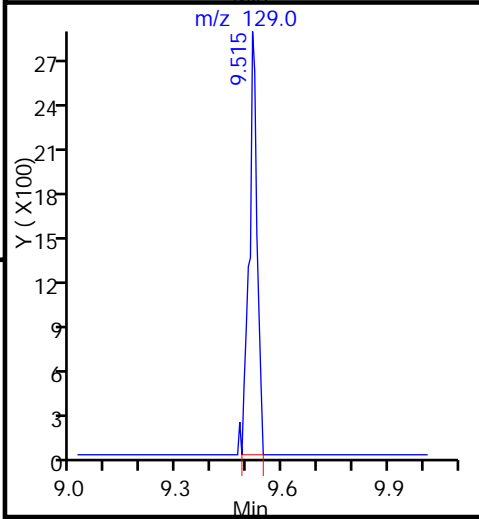
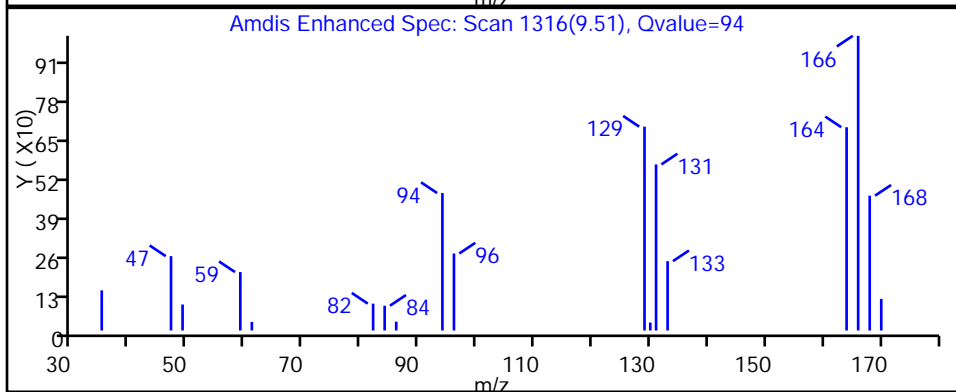
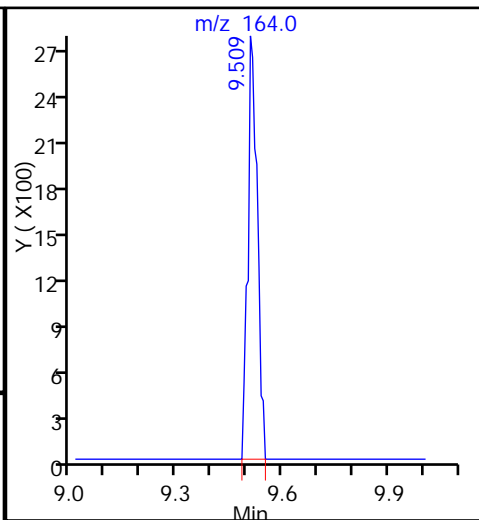
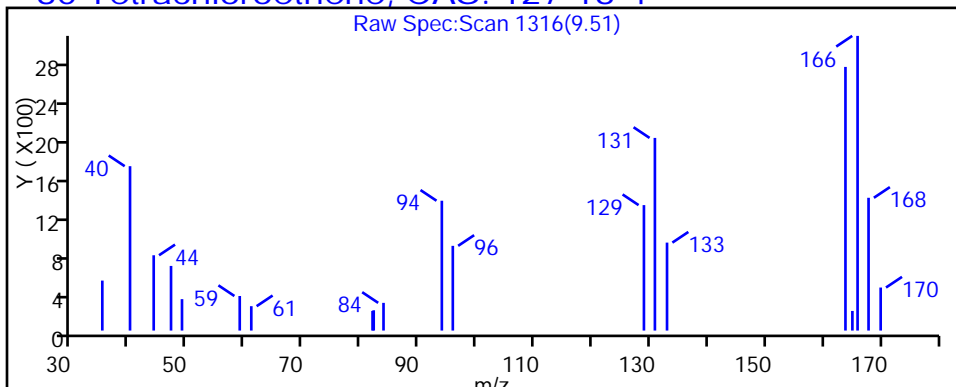
Method: MSVOA\_LL\_CHHP5

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-46875-11  
 Matrix: Water Lab File ID: 50818028.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 23:14  
 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.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-46875-11  
 Matrix: Water Lab File ID: 50818028.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 23:14  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	92		71-118
460-00-4	4-Bromofluorobenzene (Surr)	78		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818028.D  
 Lims ID: 180-46875-A-11 Lab Sample ID: 180-46875-11  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 18-Aug-2015 23:14:30 ALS Bottle#: 27 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-A-11  
 Misc. Info.: 180-0008205-028  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:22:24 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:22:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.268	-0.008	0	156631	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	366916	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	84869	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.724	0.005	98	102454	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.567	-0.007	93	97364	56.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.932	-0.001	0	135619	54.9	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.934	0.005	94	324831	46.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.568	-0.001	86	101668	39.2	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.439	3.446	-0.007	65	3345	5.50	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83		6.385				ND	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818028.D

Injection Date: 18-Aug-2015 23:14:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-A-11

Lab Sample ID: 180-46875-11

Worklist Smp#: 28

Client ID: HD-QC1-0/1-2

Purge Vol: 5.000 mL

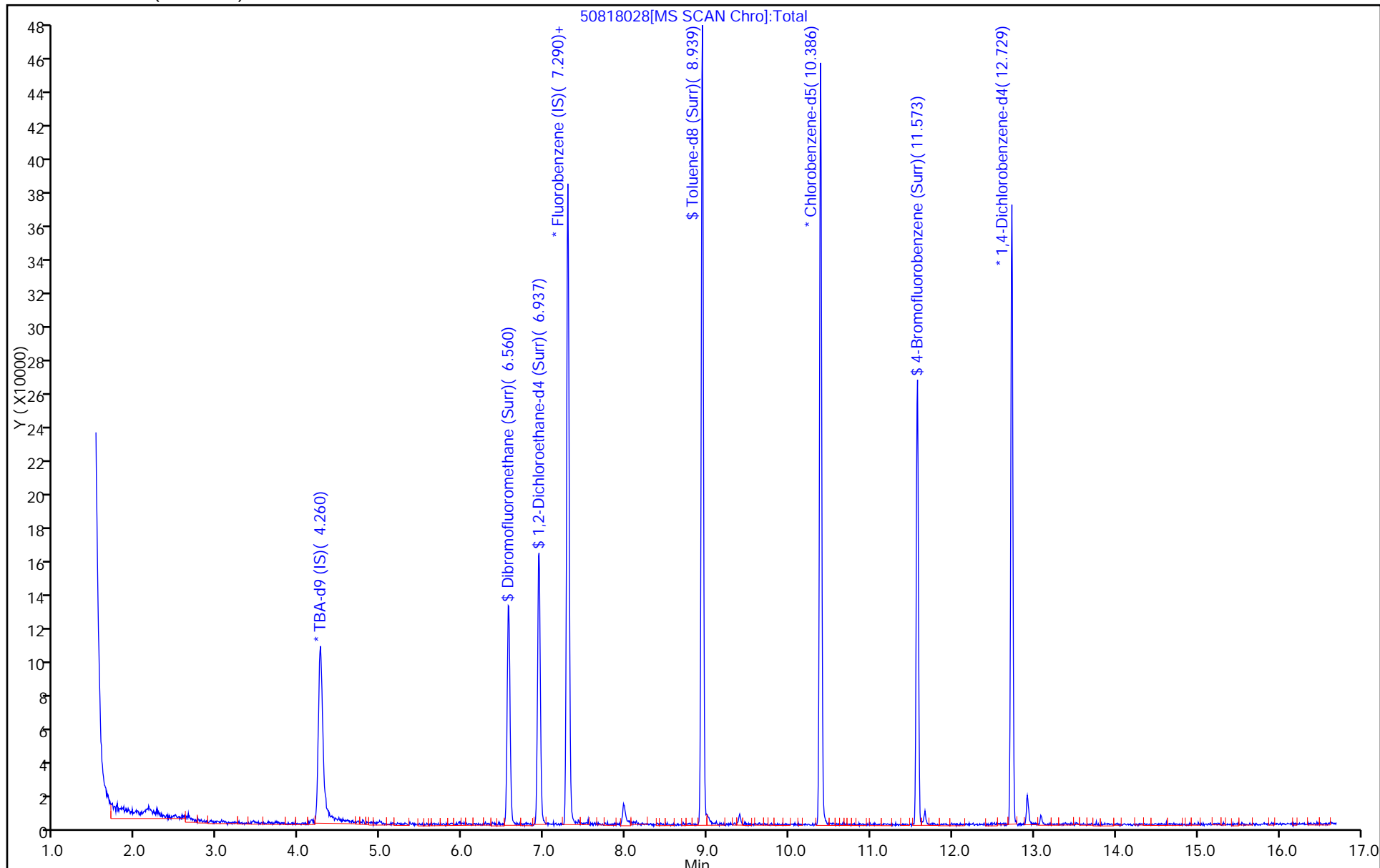
Dil. Factor: 1.0000

ALS Bottle#: 27

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-46875-12  
 Matrix: Water Lab File ID: 50819009.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 14:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	0.88	J	1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.59	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	15		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.22	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.7		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	19	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	42		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-46875-12  
 Matrix: Water Lab File ID: 50819009.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 14:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	81		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D  
 Lims ID: 180-46875-C-12 Lab Sample ID: 180-46875-12  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 14:27:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-C-12  
 Misc. Info.: 180-0008221-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 15:07:40 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 15:07:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.248	4.272	-0.024	0	171018	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	399164	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	92182	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	97	104931	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.559	0.007	93	98681	53.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	143787	53.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.932	0.006	94	357735	46.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.566	11.566	0.000	85	113816	40.5	
11 Dichlorodifluoromethane	85		1.614				ND	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62	1.912	1.912	0.000	1	1161	0.3799	
14 Butadiene	39		1.942				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
17 Dichlorofluoromethane	67		2.672				ND	
18 Trichlorofluoromethane	101		2.709				ND	
19 Ethanol	45		2.940				ND	
20 Ethyl ether	59		3.043				ND	
21 Acrolein	56		3.226				ND	
22 1,1-Dichloroethene	96	3.354	3.347	0.007	94	9940	4.40	
23 1,1,2-Trichloro-1,2,2-trif	101		3.420				ND	
24 Acetone	43	3.439	3.439	0.000	66	4091	6.19	
25 Iodomethane	142		3.536				ND	
26 Carbon disulfide	76		3.627				ND	
27 Isopropyl alcohol	45		3.719				ND	
29 Acetonitrile	40		3.871				ND	
28 3-Chloro-1-propene	76		3.919				ND	
30 Methyl acetate	43		3.938				ND	
31 Methylene Chloride	84		4.132				ND	
32 2-Methyl-2-propanol	59		4.412				ND	
33 Acrylonitrile	53		4.522				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
36 Hexane	57		4.990				ND	
37 1,1-Dichloroethane	63	5.197	5.203	-0.006	96	13600	2.96	
38 Vinyl acetate	43		5.245				ND	
41 Isopropyl ether	45		5.300				ND	
39 2-Chloro-1,3-butadiene	53		5.300				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.775				ND	
44 2,2-Dichloropropane	77		5.945				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	82	192359	75.5	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43		5.963				ND	
47 Propionitrile	54		6.030				ND	
48 Ethyl acetate	43		6.036				ND	
50 Methacrylonitrile	41		6.213				ND	
49 Chlorobromomethane	128		6.231				ND	
51 Tetrahydrofuran	42		6.249				ND	
52 Chloroform	83	6.389	6.383	0.006	95	4657	1.10	
53 1,1,1-Trichloroethane	97	6.547	6.541	0.006	96	42254	13.3	
54 Cyclohexane	56		6.614				ND	
56 Carbon tetrachloride	117		6.712				ND	
55 1,1-Dichloropropene	75		6.724				ND	
57 Isobutyl alcohol	41		6.925				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
61 Tert-amyl methyl ether	73		7.119				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.308				ND	
63 n-Butanol	56		7.630				ND	
64 Trichloroethene	130	7.679	7.673	0.006	95	224199	94.4	
65 Ethyl acrylate	55		7.794				ND	
66 Methylcyclohexane	83		7.916				ND	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	
68 Dibromomethane	93		8.032				ND	
69 Methyl methacrylate	69		8.032				ND	
71 Dichlorobromomethane	83		8.226				ND	
72 2-Nitropropane	41		8.451				ND	
73 2-Chloroethyl vinyl ether	63		8.531				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
78 Ethyl methacrylate	69		9.309				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.516	9.516	0.000	95	398564	211.5	
81 1,3-Dichloropropane	76		9.601				ND	
82 2-Hexanone	43		9.656				ND	
83 n-Butyl acetate	43		9.778				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.386				ND	
87 Chlorobenzene	112		10.416				ND	
88 4-Chlorobenzotrifluoride	180		10.477				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
95 Cyclohexanol	57		11.250				ND	
96 2-Chlorobenzotrifluoride	180		11.299				ND	
97 Isopropylbenzene	105		11.396				ND	
98 Cyclohexanone	55		11.481				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
100 Bromobenzene	156		11.706				ND	
102 trans-1,4-Dichloro-2-buten	53		11.737				ND	
101 1,2,3-Trichloropropane	110		11.761				ND	
103 N-Propylbenzene	120		11.810				ND	
104 2-Chlorotoluene	126		11.895				ND	
105 3-Chlorotoluene	126		11.962				ND	
106 1,3,5-Trimethylbenzene	105		11.992				ND	
107 4-Chlorotoluene	126		12.016				ND	
108 tert-Butylbenzene	119		12.308				ND	
109 Pentachloroethane	167		12.339				ND	
110 1,2,4-Trimethylbenzene	105		12.363				ND	
111 1,2-dichloro-4-(trifluorom	214		12.412				ND	
112 sec-Butylbenzene	105		12.533				ND	
113 1,3-Dichlorobenzene	146		12.649				ND	
114 4-Isopropyltoluene	119		12.686				ND	
115 1,4-Dichlorobenzene	146		12.752				ND	
116 2,4-Dichloro-1-(triflourom	214		12.777				ND	
117 1,2,3-Trimethylbenzene	105		12.777				ND	
118 2,5-Dichlorobenzotrifluori	214		12.819				ND	
119 Benzyl chloride	91		12.868				ND	
120 n-Butylbenzene	91		13.093				ND	
121 1,2-Dichlorobenzene	146		13.111				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.902				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.042				ND	
124 1,3,5-Trichlorobenzene	180		14.085				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462				ND	
126 1,2,4-Trichlorobenzene	180		14.724				ND	
127 Hexachlorobutadiene	225		14.870				ND	
128 Naphthalene	128		14.991				ND	
129 1,2,3-Trichlorobenzene	180		15.210				ND	
131 2,4,5-Trichlorotoluene	159		15.989				ND	
130 2,3,6-Trichlorotoluene	159		16.086				ND	
132 2-Methylnaphthalene	142		16.129				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	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				0		75.5	
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:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Worklist Smp#: 9

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

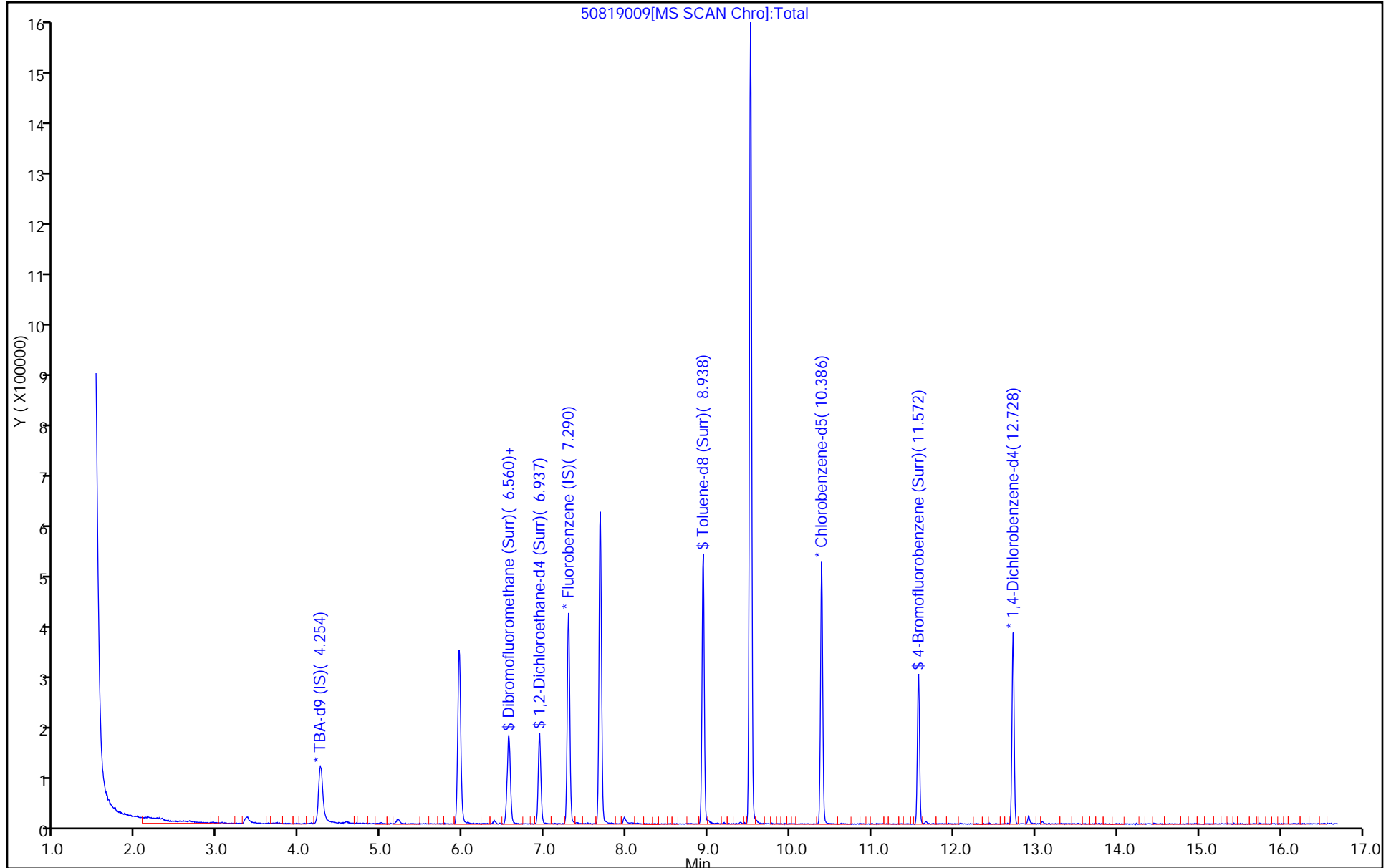
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

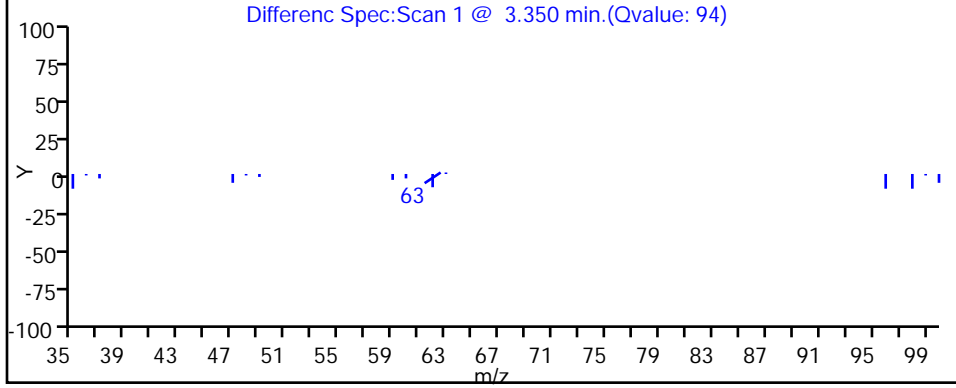
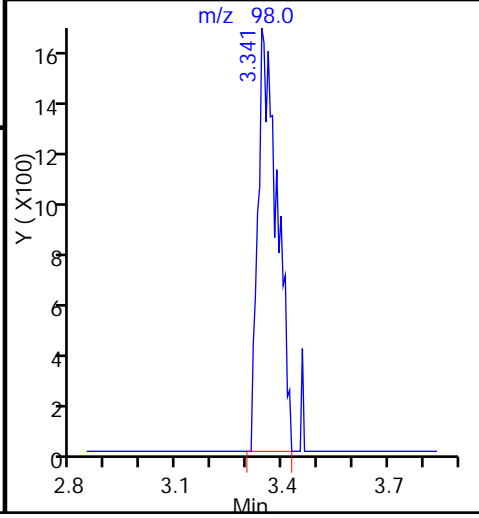
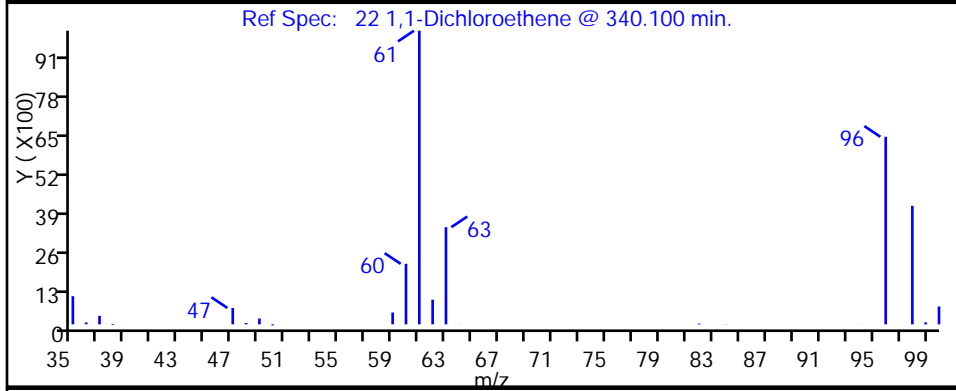
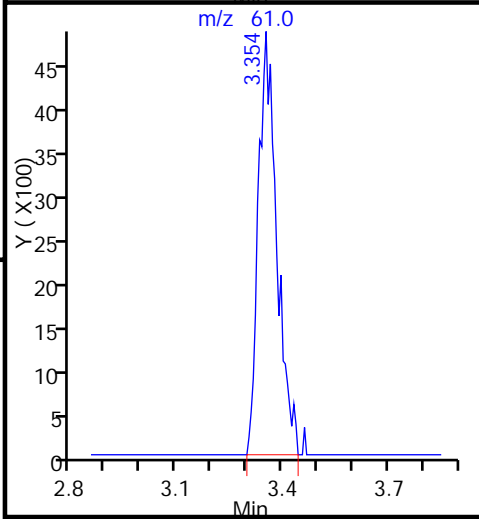
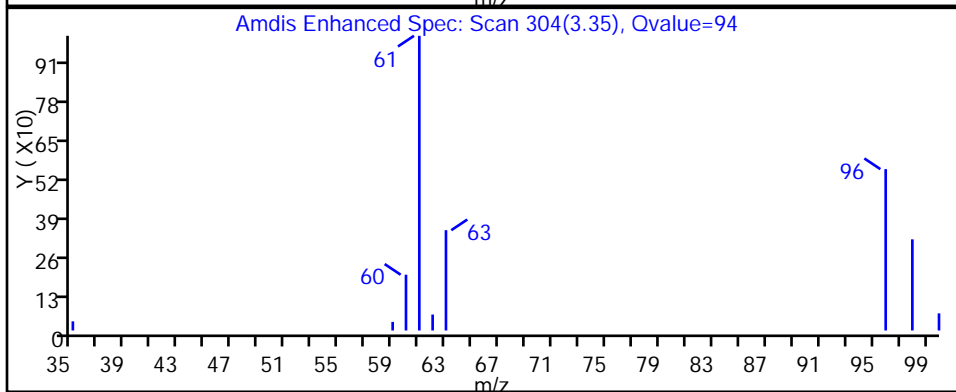
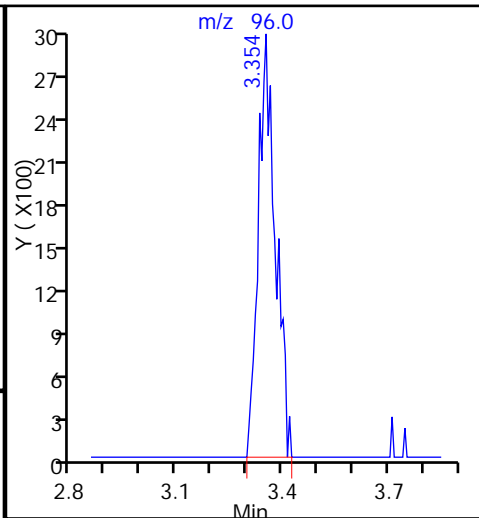
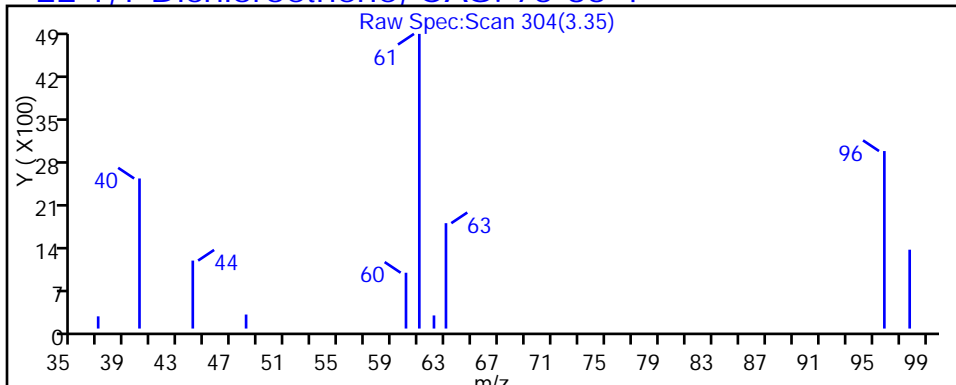
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

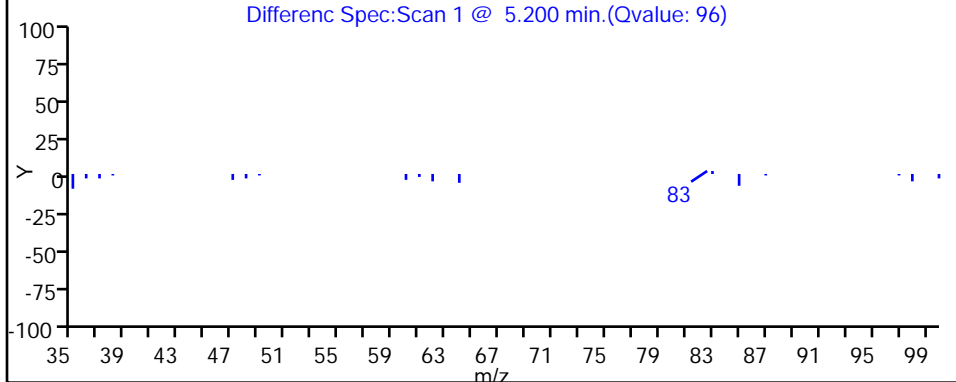
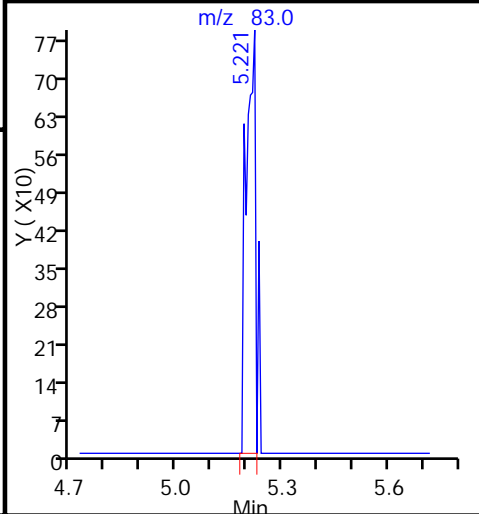
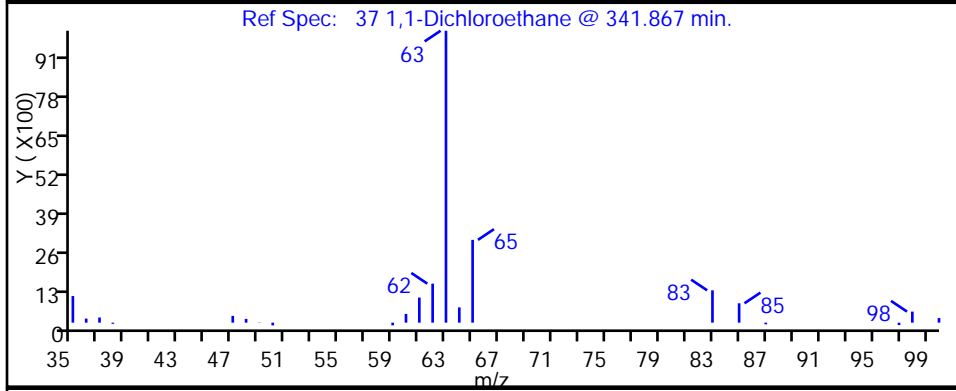
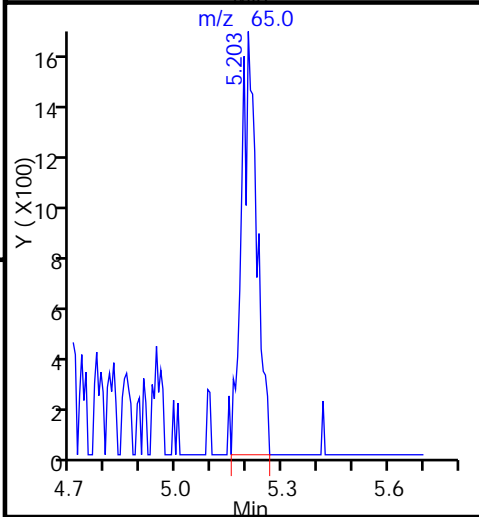
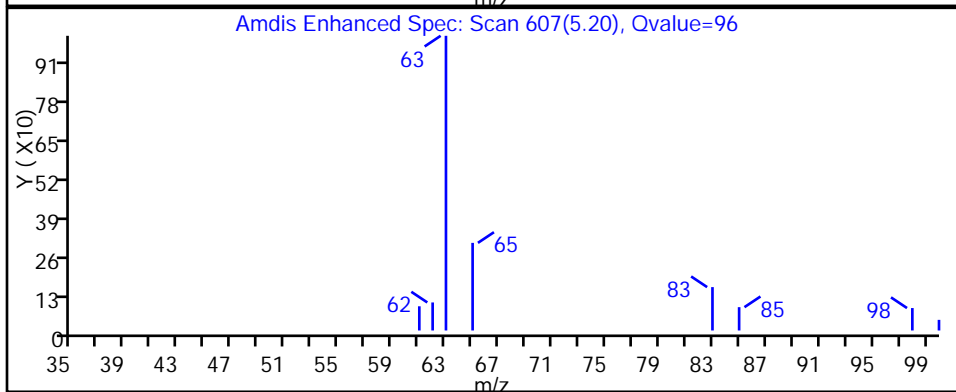
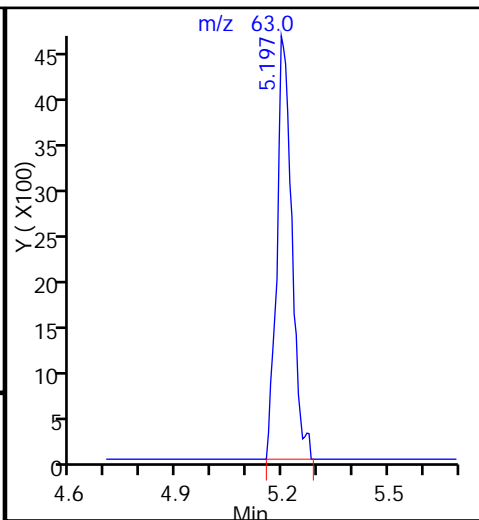
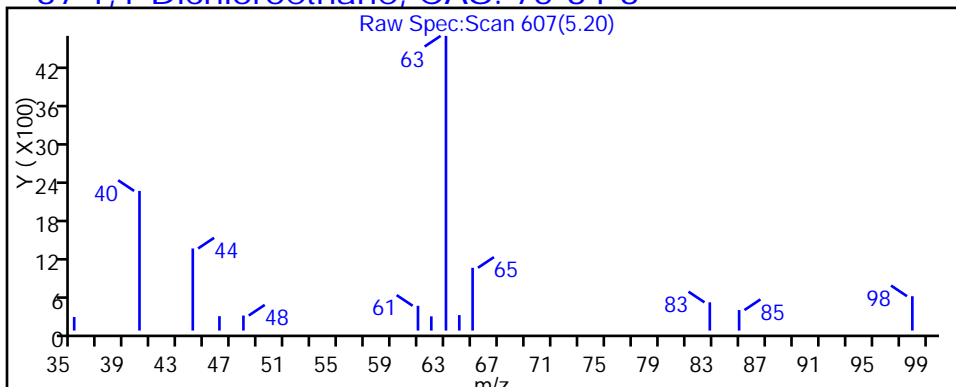
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

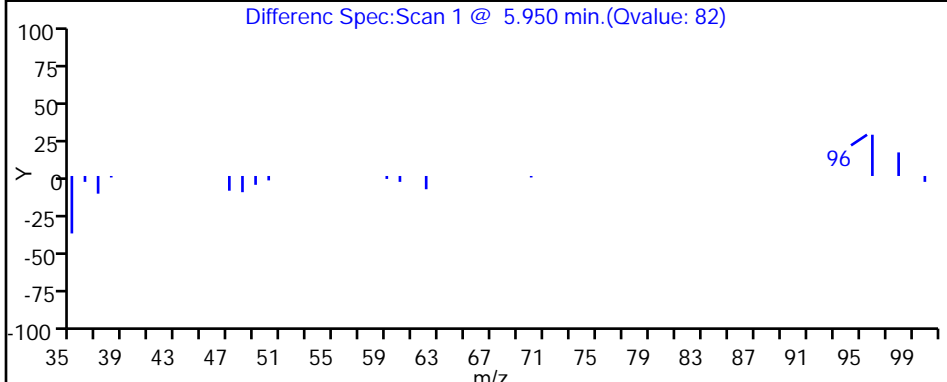
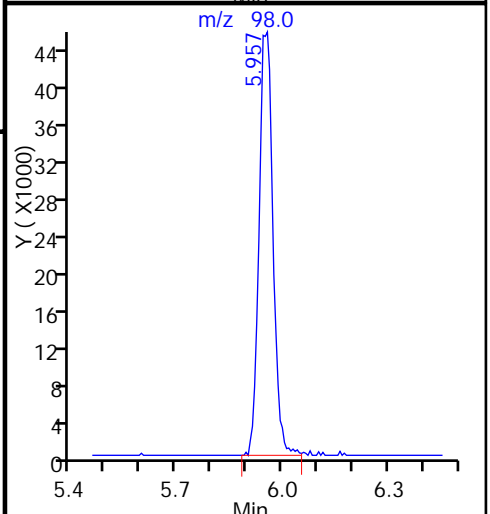
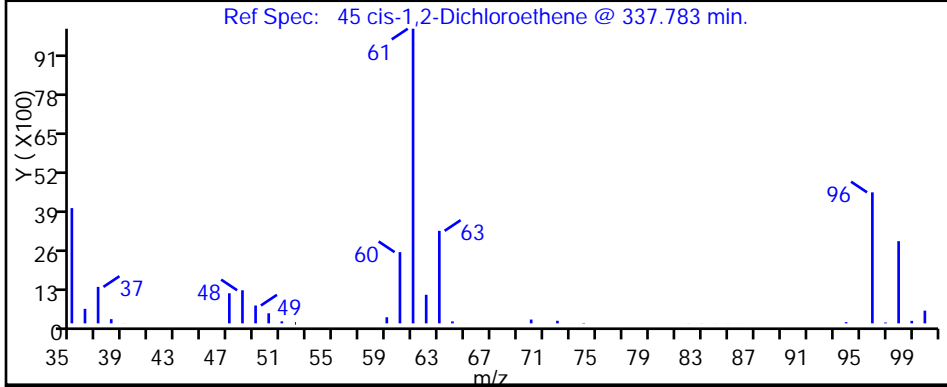
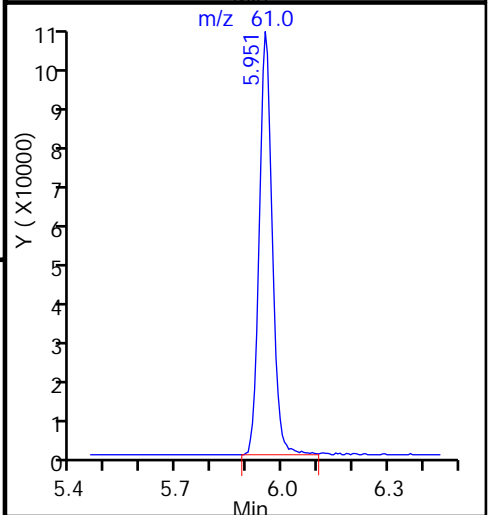
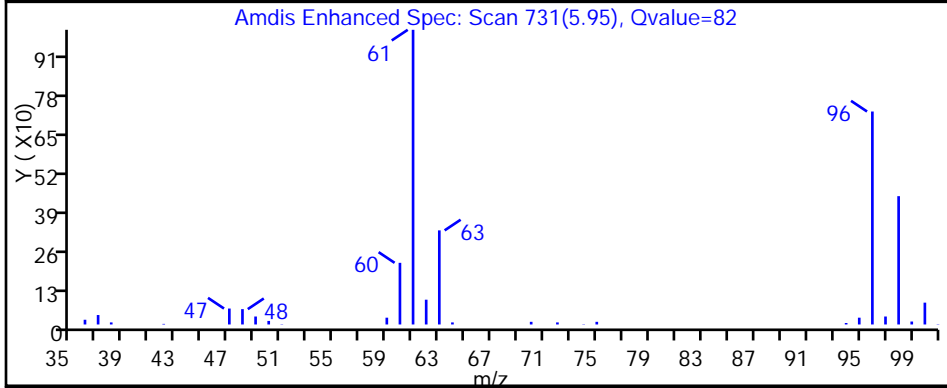
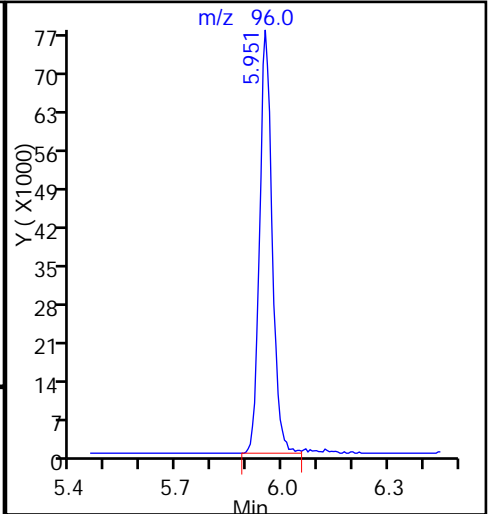
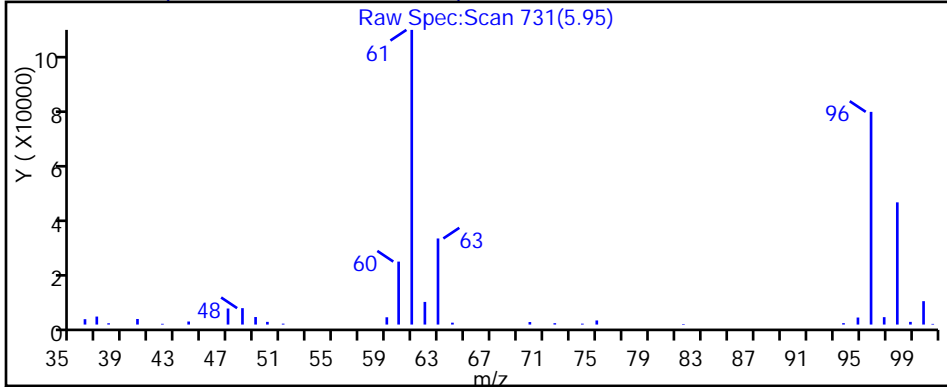
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

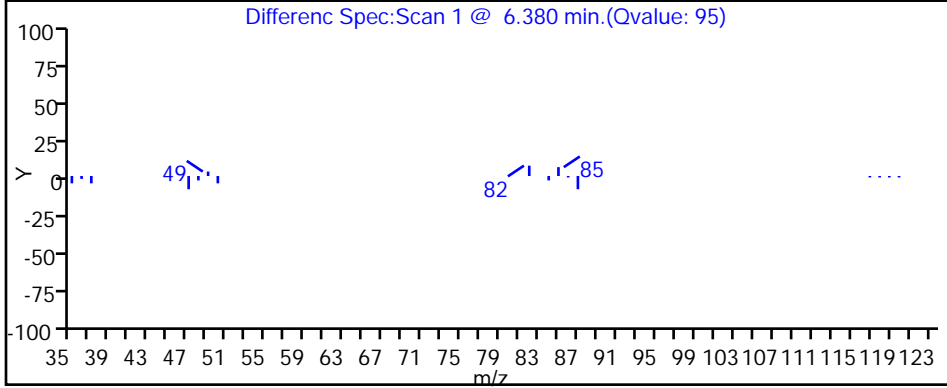
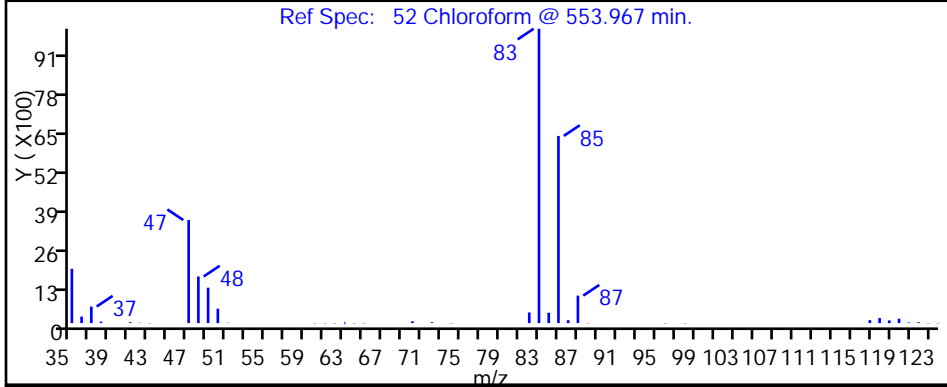
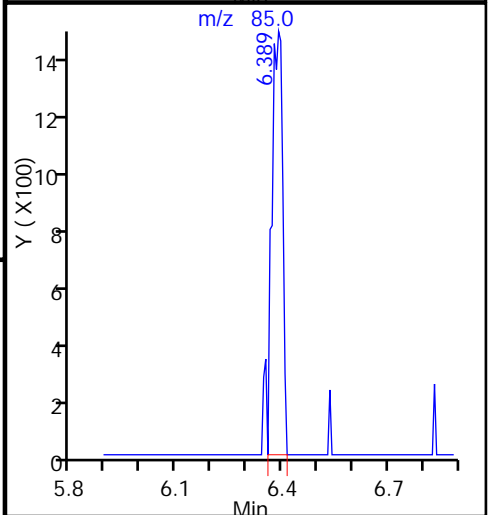
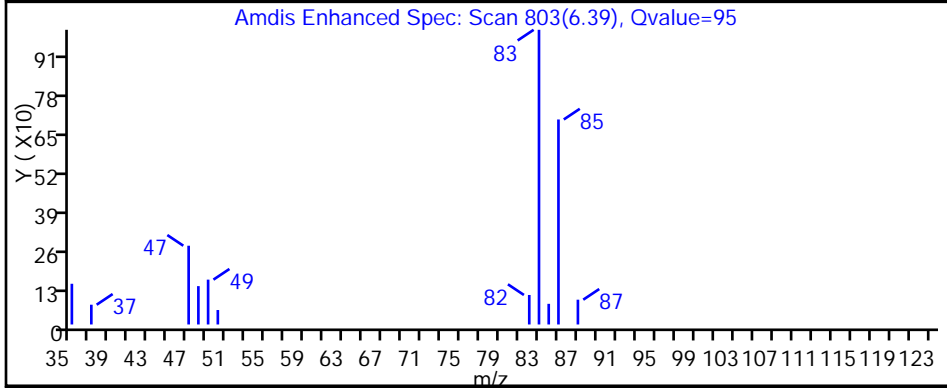
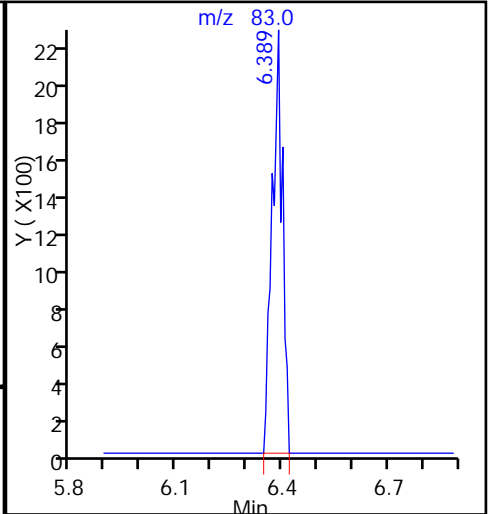
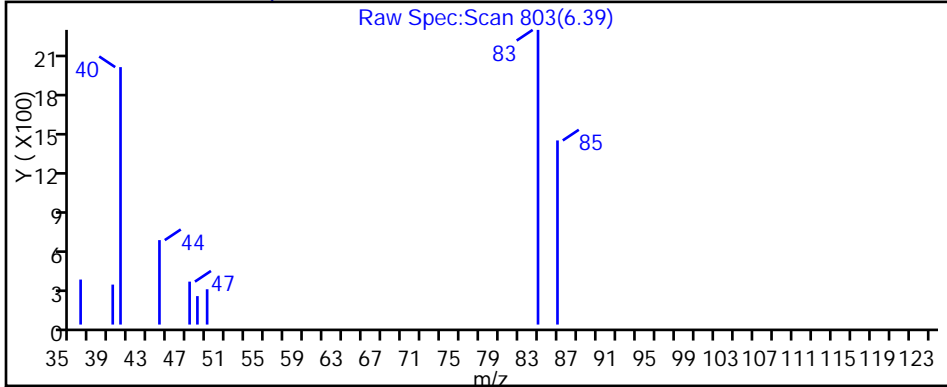
45 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D  
Injection Date: 19-Aug-2015 14:27:30 Instrument ID: CHHP5  
Lims ID: 180-46875-C-12 Lab Sample ID: 180-46875-12  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

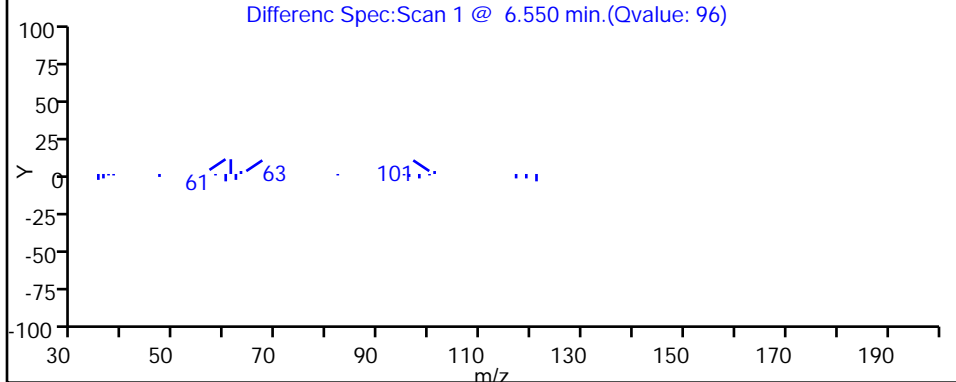
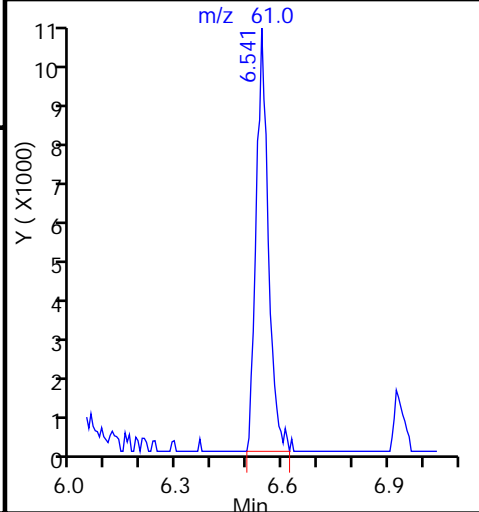
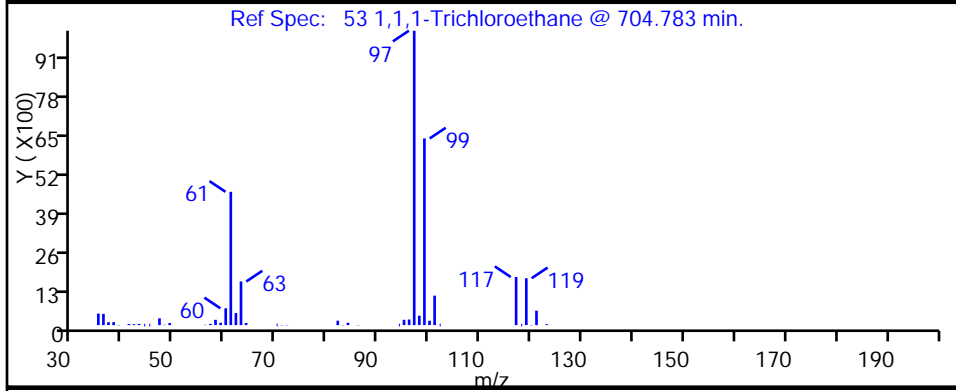
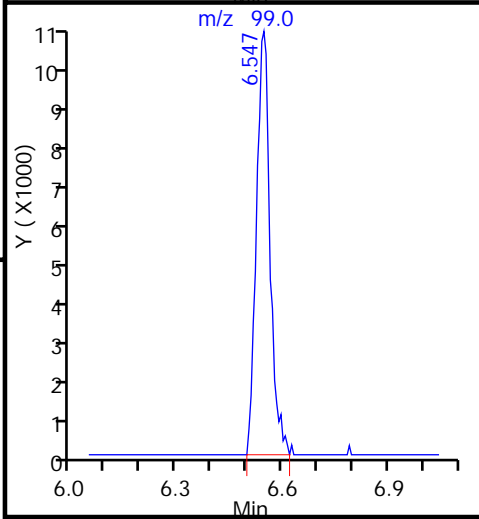
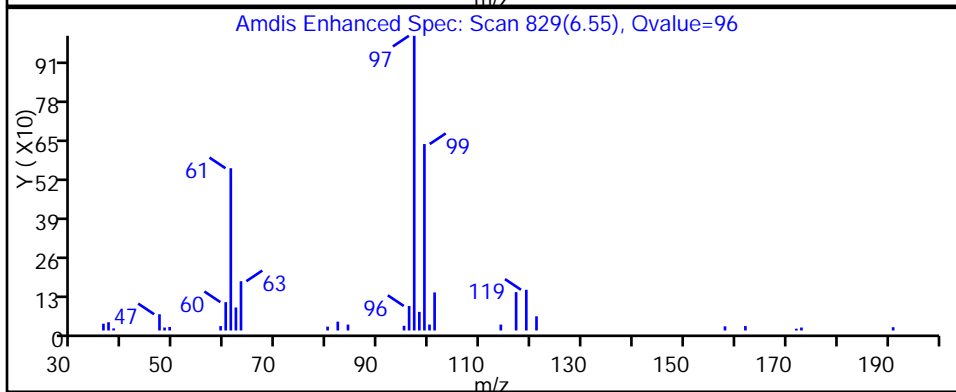
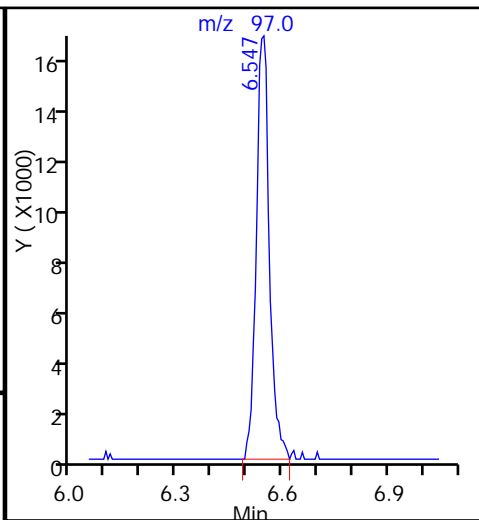
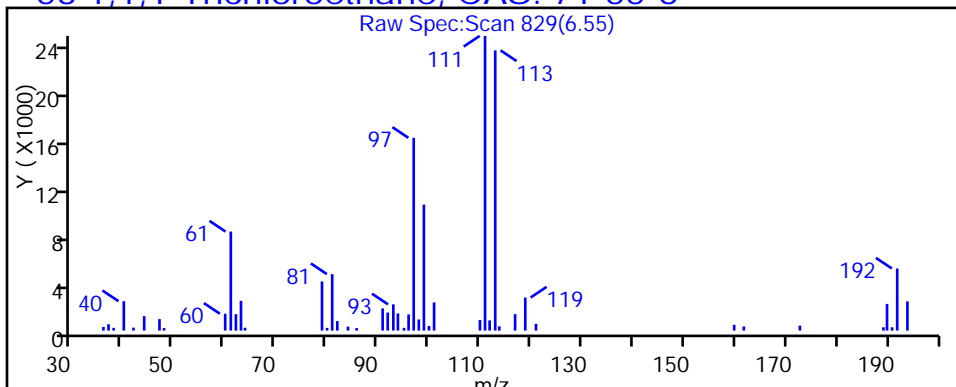
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9 Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

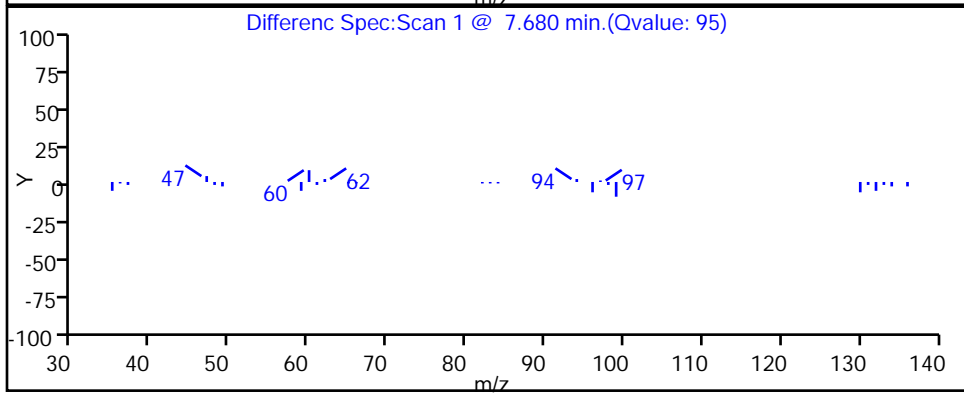
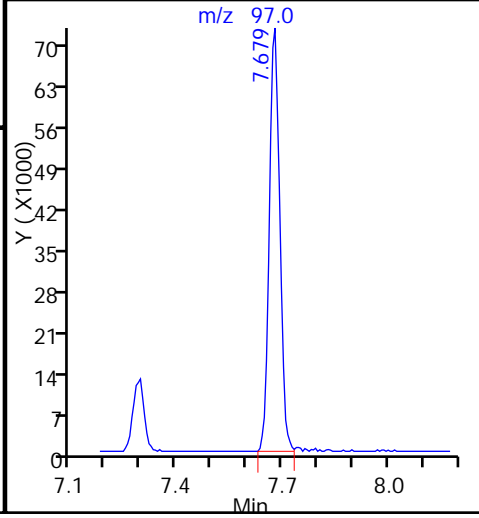
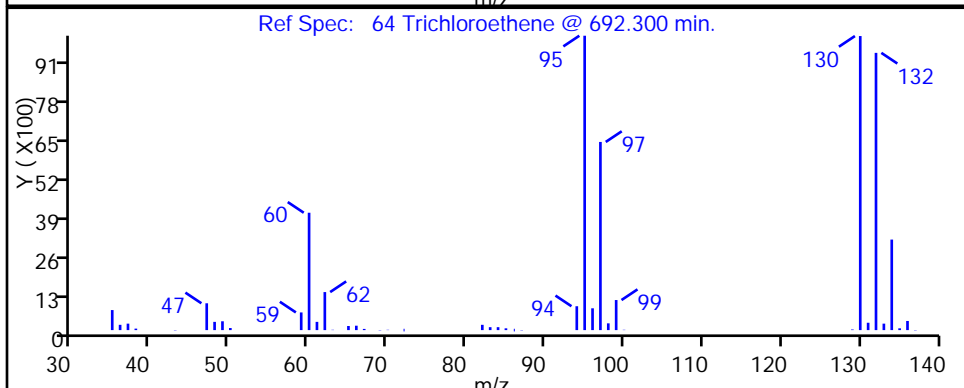
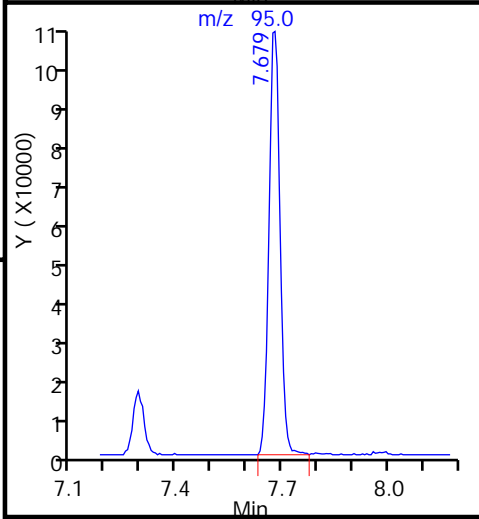
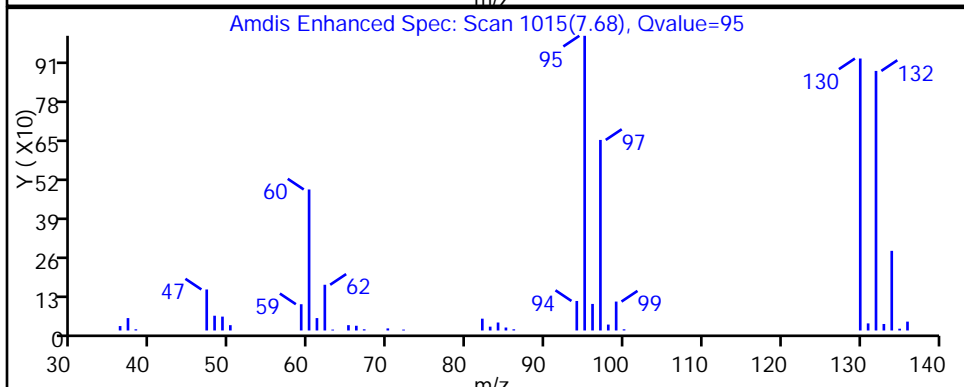
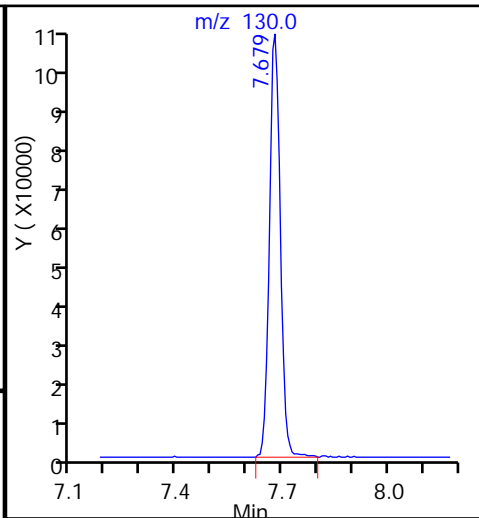
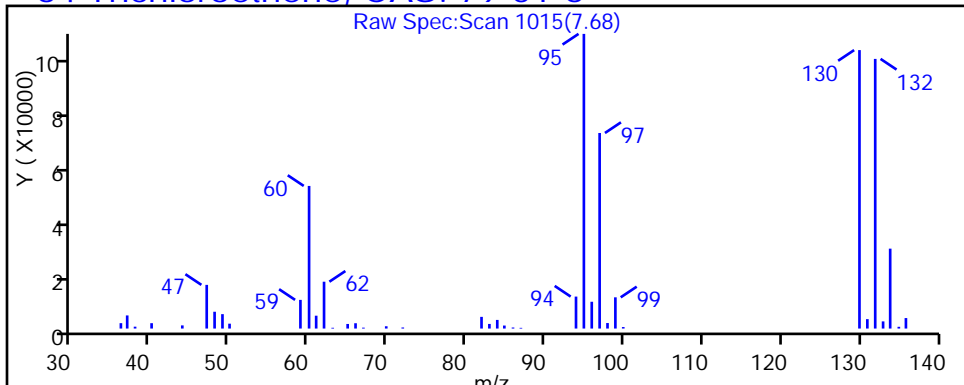
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819009.D

Injection Date: 19-Aug-2015 14:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-12

Lab Sample ID: 180-46875-12

Client ID: HD-COD-SW-17-0/1-0

Operator ID: 001562

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

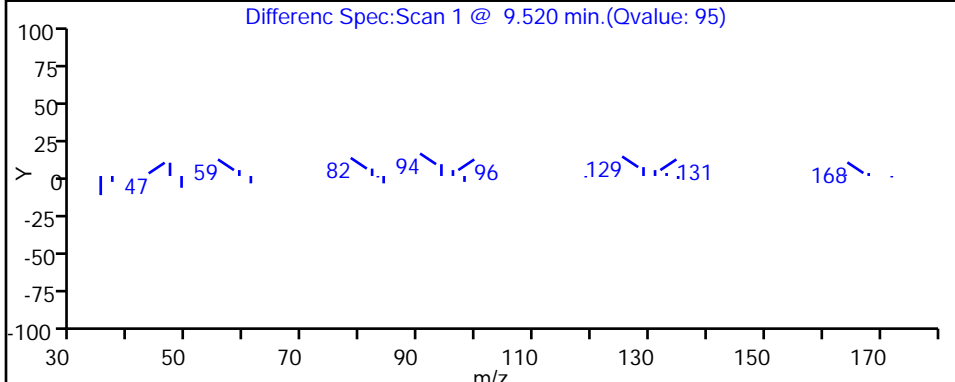
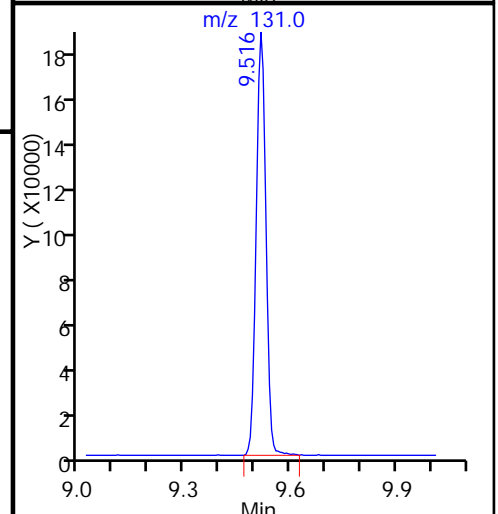
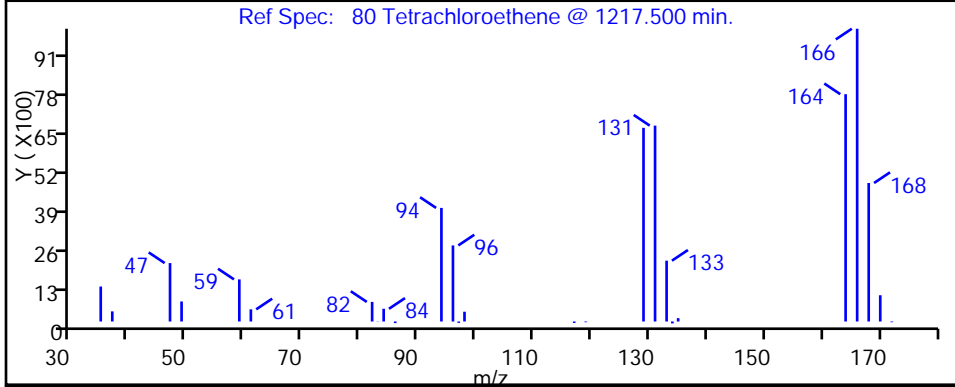
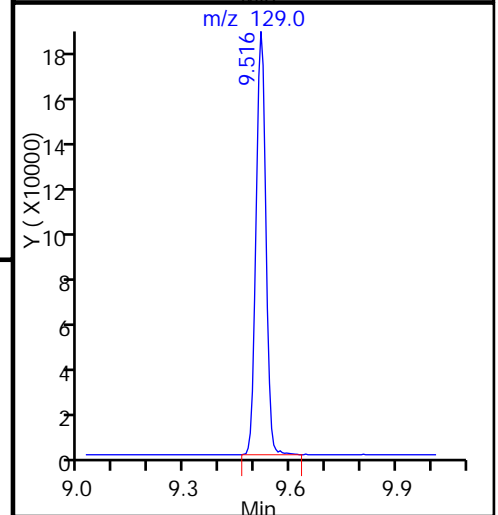
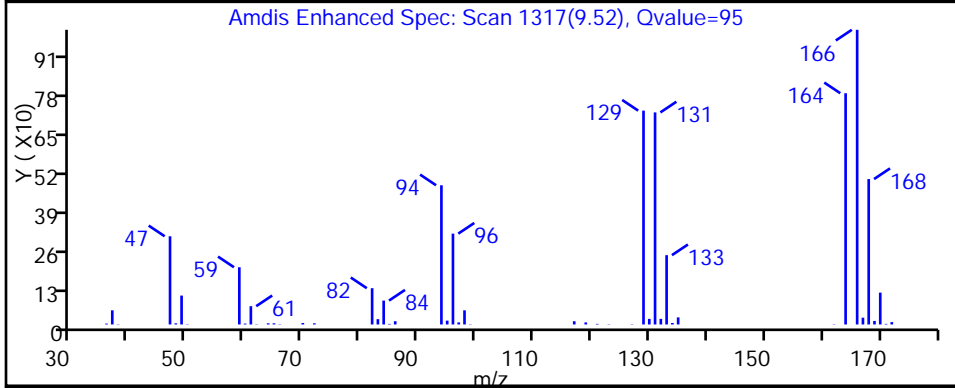
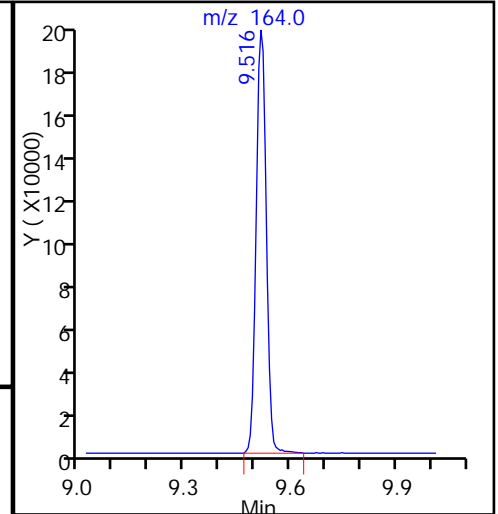
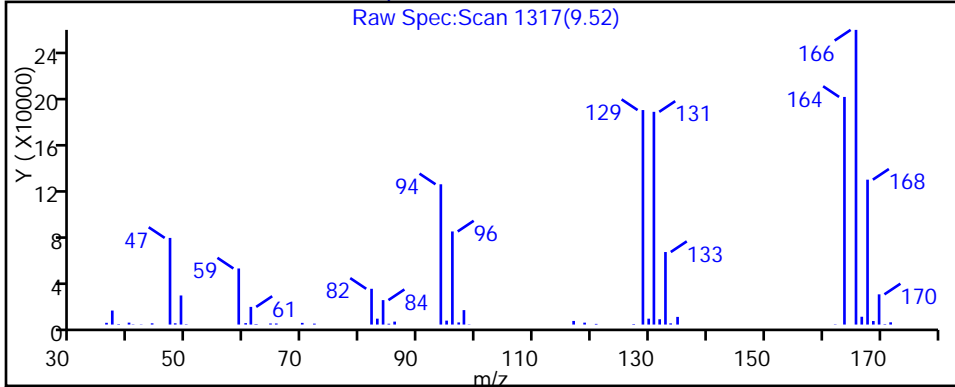
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-46875-13  
 Matrix: Water Lab File ID: 50818030.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 00:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-46875-13  
 Matrix: Water Lab File ID: 50818030.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 00:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	90		71-118
460-00-4	4-Bromofluorobenzene (Surr)	80		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818030.D  
 Lims ID: 180-46875-D-13 Lab Sample ID: 180-46875-13  
 Client ID: HD-COD-SW-20-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 00:03:30 ALS Bottle#: 29 Worklist Smp#: 30  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-13  
 Misc. Info.: 180-0008205-030  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 09:24:32 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 09:24:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.268	-0.005	0	148675	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	365388	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.388	-0.005	89	84501	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.724	0.001	98	105592	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.567	-0.005	93	94565	55.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.940	6.932	0.008	0	137431	55.9	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.934	0.001	94	314642	44.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.568	0.001	85	103235	40.0	
12 Chloromethane	50		1.773				ND	
13 Vinyl chloride	62		1.907				ND	
15 Bromomethane	94		2.242				ND	
16 Chloroethane	64		2.394				ND	
22 1,1-Dichloroethene	96		3.349				ND	
24 Acetone	43	3.436	3.446	-0.010	72	5129	8.47	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.523				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.578				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.965				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83		6.385				ND	
53 1,1,1-Trichloroethane	97		6.537				ND	
56 Carbon tetrachloride	117		6.713				ND	
58 Benzene	78		6.944				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.948				ND	
70 1,4-Dioxane	88		8.027				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.824				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164		9.518				ND	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.816				ND	
85 Ethylene Dibromide	107		9.931				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.509				ND	
90 Ethylbenzene	106		10.515				ND	
91 m-Xylene & p-Xylene	106		10.643				ND	
92 o-Xylene	106		11.026				ND	
93 Styrene	104		11.045				ND	
94 Bromoform	173		11.233				ND	
99 1,1,2,2-Tetrachloroethane	83		11.702				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818030.D

Injection Date: 19-Aug-2015 00:03:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-13

Lab Sample ID: 180-46875-13

Worklist Smp#: 30

Client ID: HD-COD-SW-20-0/1-0

Purge Vol: 5.000 mL

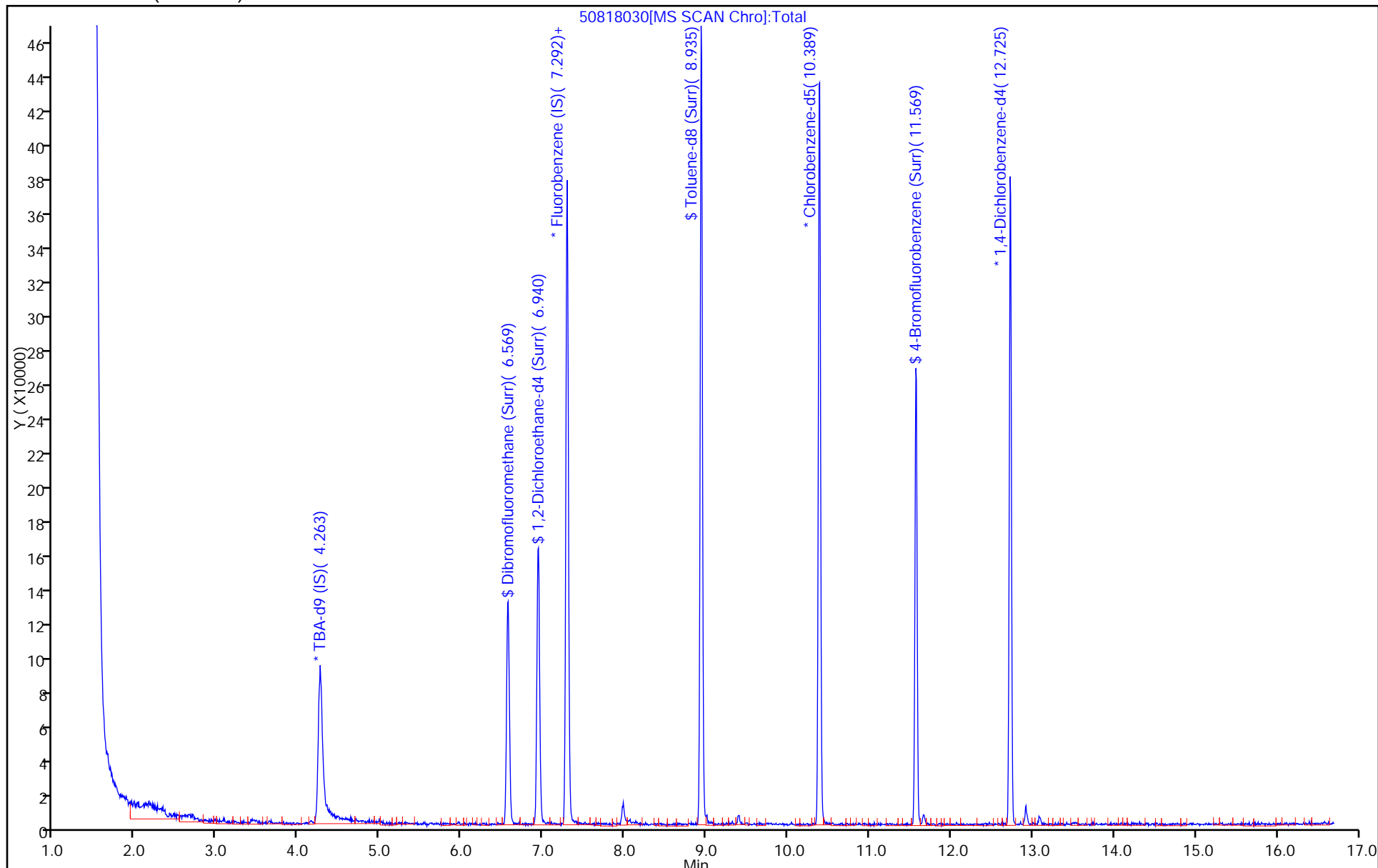
Dil. Factor: 1.0000

ALS Bottle#: 29

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-46875-14  
 Matrix: Water Lab File ID: 50819024.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.26	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.89	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.34	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	3.9		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-46875-14  
 Matrix: Water Lab File ID: 50819024.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	92		71-118
460-00-4	4-Bromofluorobenzene (Surr)	81		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D  
 Lims ID: 180-46875-D-14 Lab Sample ID: 180-46875-14  
 Client ID: HD-COD-SW-26-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 20:27:30 ALS Bottle#: 24 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-14  
 Misc. Info.: 180-0008221-024  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 08:14:51 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 08:14:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.247	4.272	-0.025	0	141835	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.290	-0.002	98	379593	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	90	85309	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.728	-0.001	98	99856	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.564	6.559	0.005	92	98810	55.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	135421	53.0	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.932	0.005	95	326908	46.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.566	0.005	84	105696	40.6	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.358	3.347	0.011	42	2562	1.19	
24 Acetone	43	3.438	3.439	-0.001	66	3957	6.29	
26 Carbon disulfide	76	3.650	3.627	0.023	35	4073	0.8559	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.950	5.951	-0.001	85	3091	1.28	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.388	6.383	0.005	95	17794	4.43	
53 1,1,1-Trichloroethane	97	6.540	6.541	-0.001	1	1517	0.5025	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.678	7.673	0.005	92	3870	1.71	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91	9.004	9.005	-0.001	94	2098	0.2288	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.515	9.516	-0.001	95	33634	19.3	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D

Injection Date: 19-Aug-2015 20:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-14

Lab Sample ID: 180-46875-14

Worklist Smp#: 24

Client ID: HD-COD-SW-26-0/1-0

Purge Vol: 5.000 mL

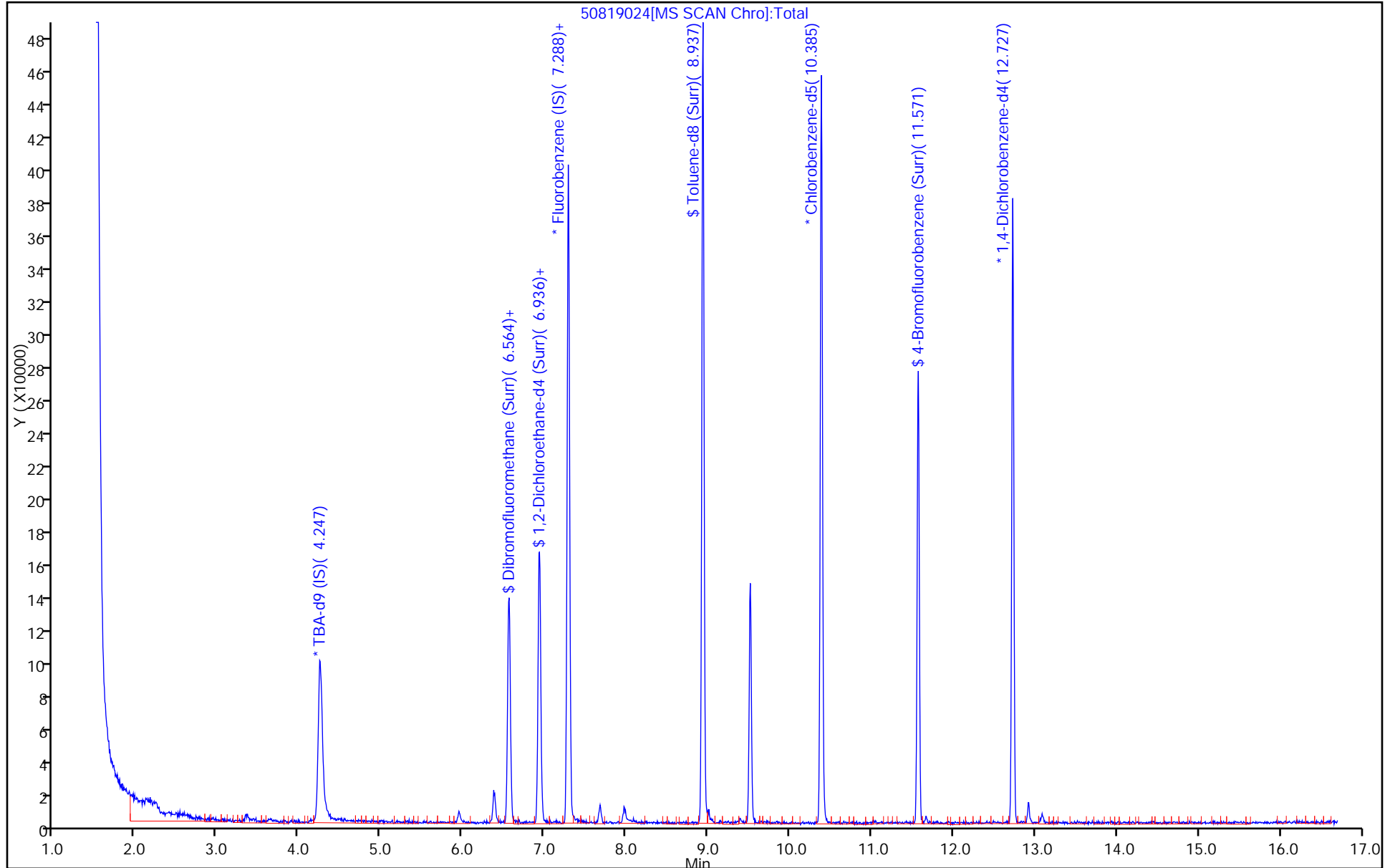
Dil. Factor: 1.0000

ALS Bottle#: 24

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D

Injection Date: 19-Aug-2015 20:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-14

Lab Sample ID: 180-46875-14

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

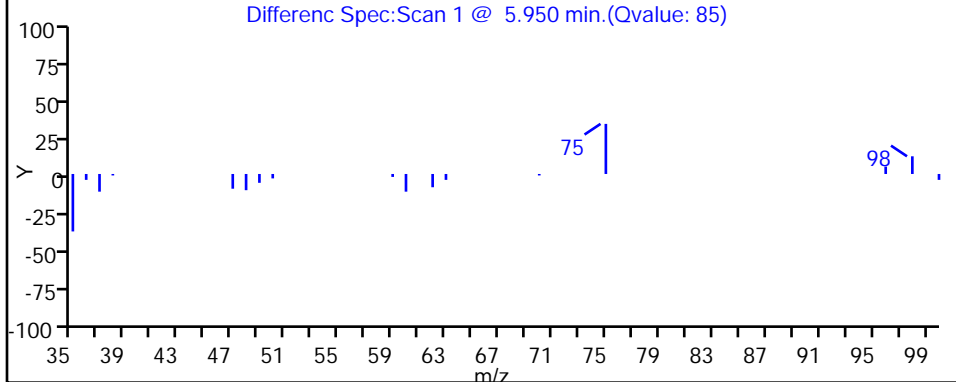
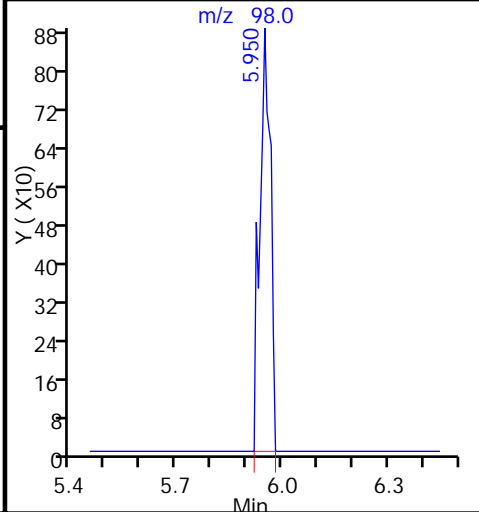
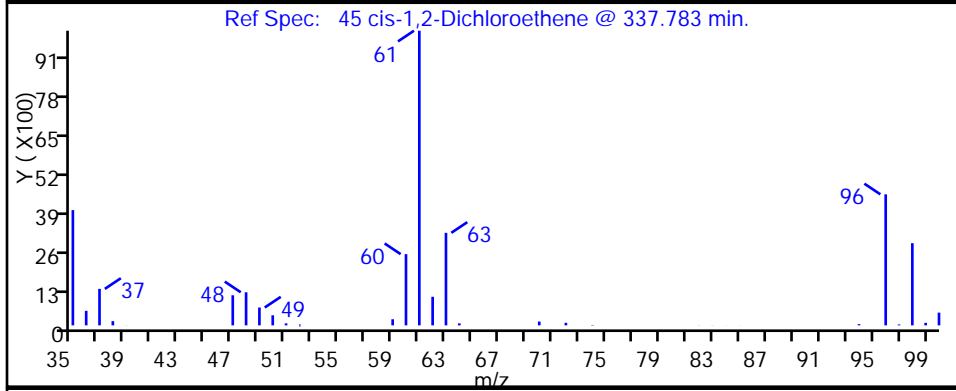
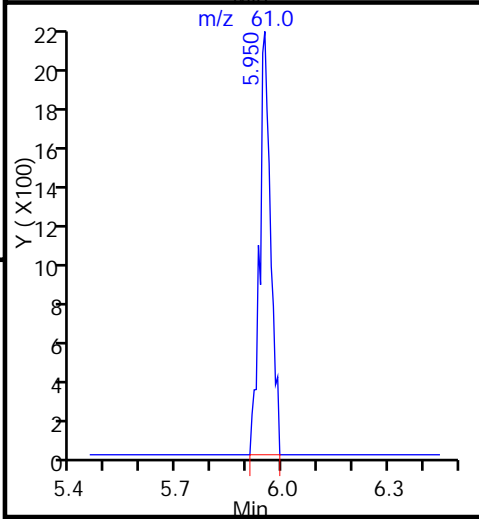
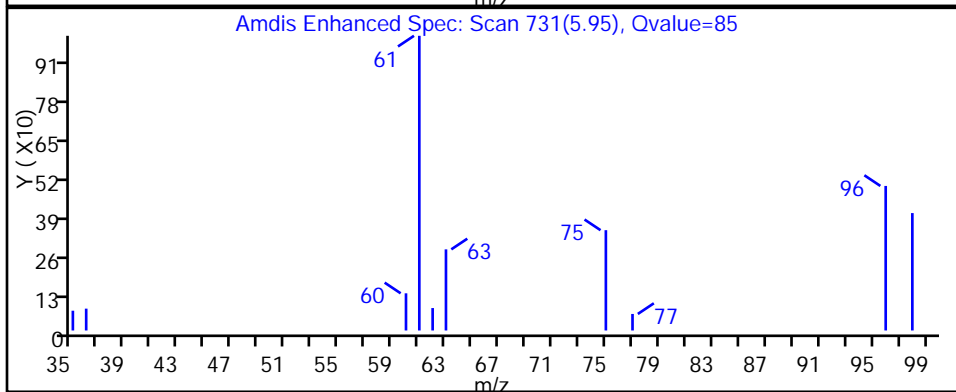
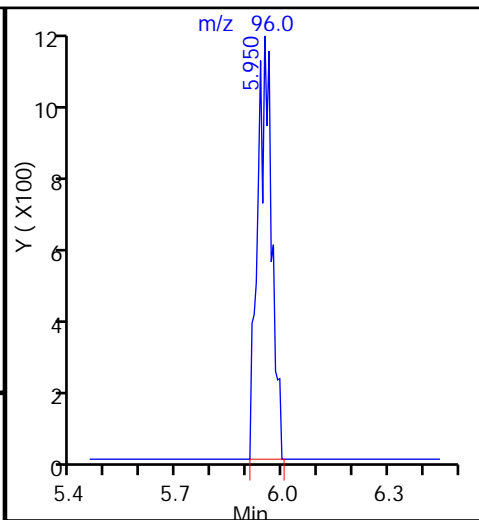
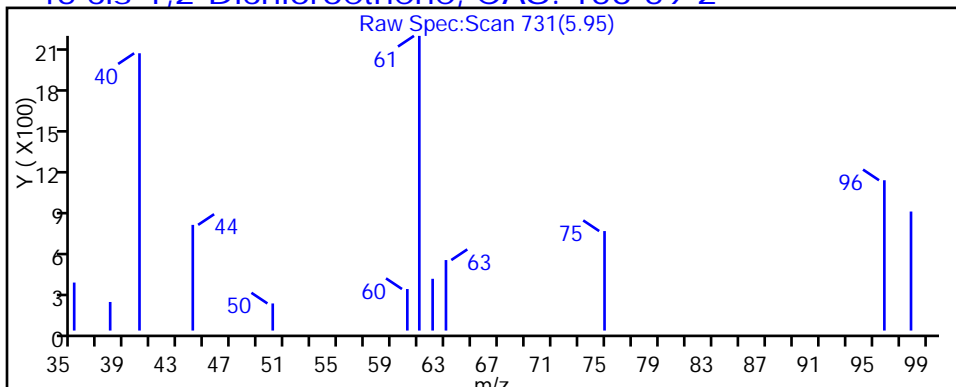
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D

Injection Date: 19-Aug-2015 20:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-14

Lab Sample ID: 180-46875-14

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

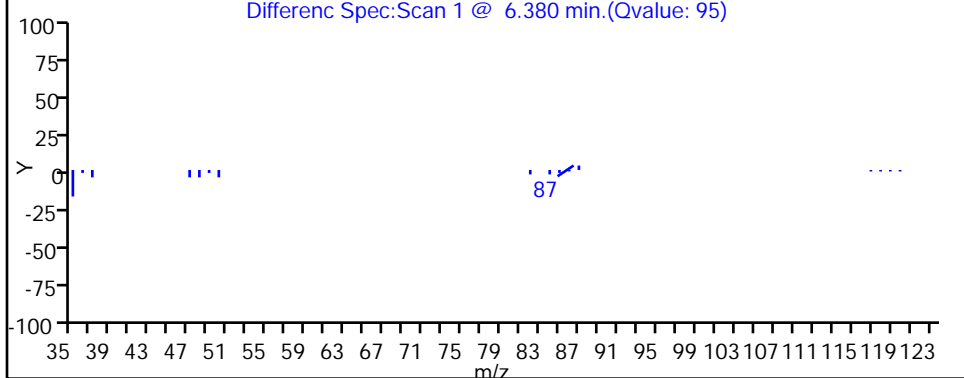
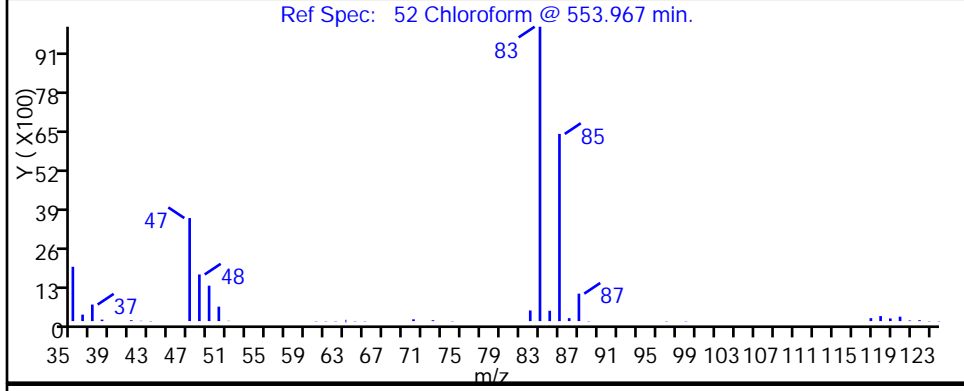
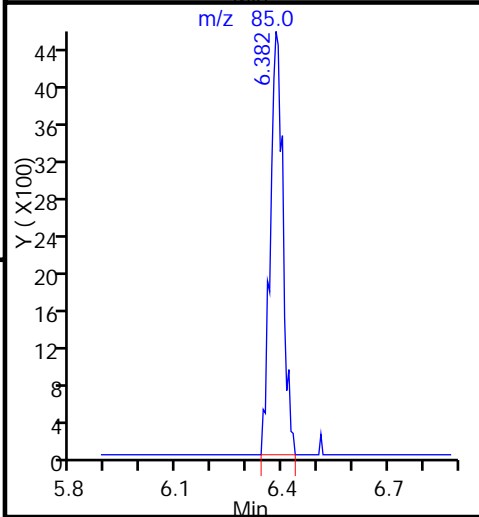
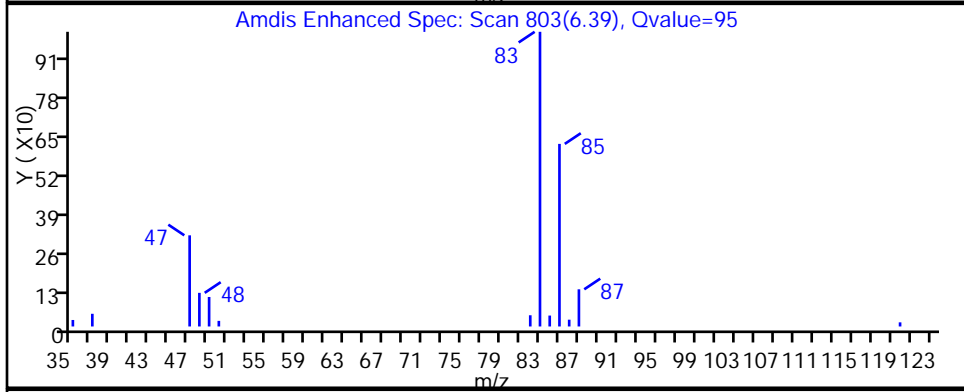
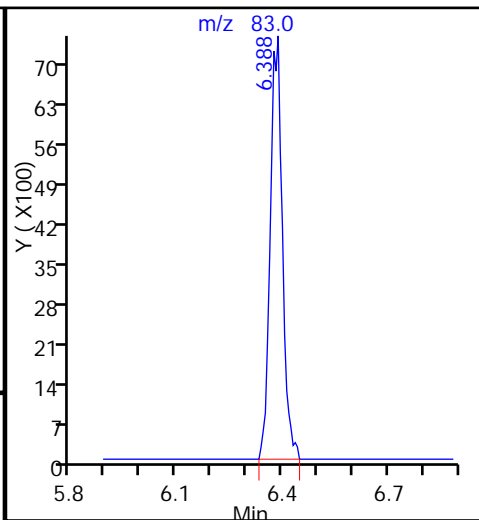
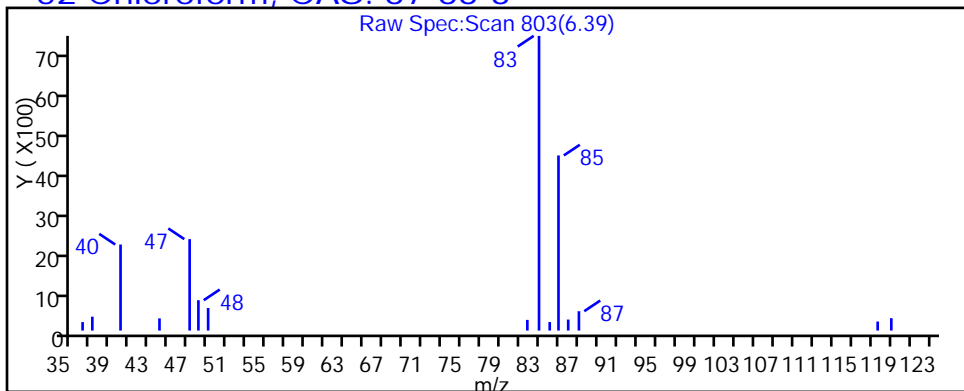
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

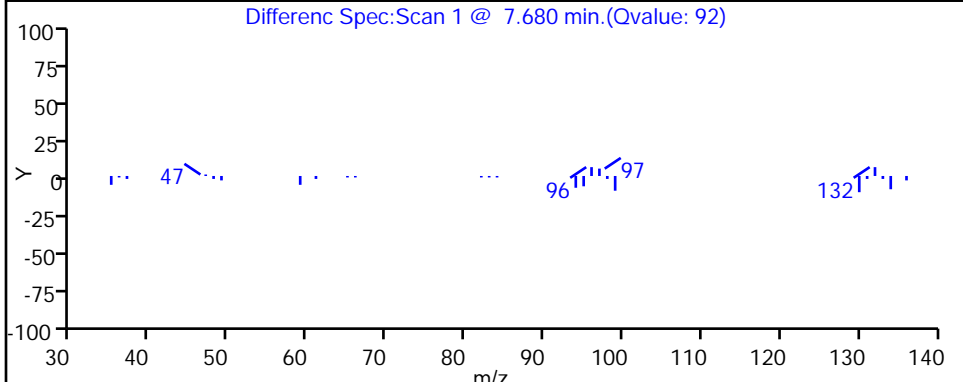
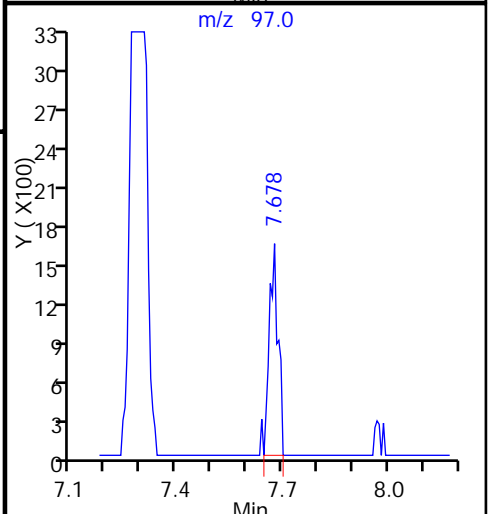
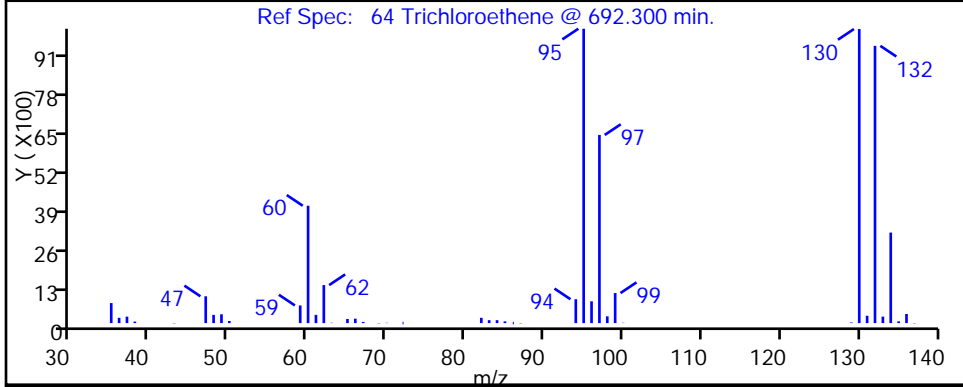
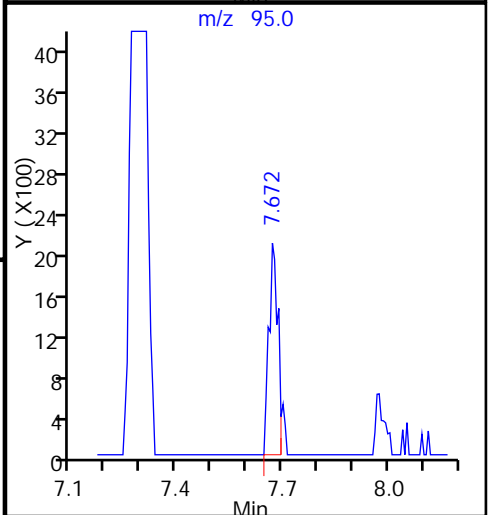
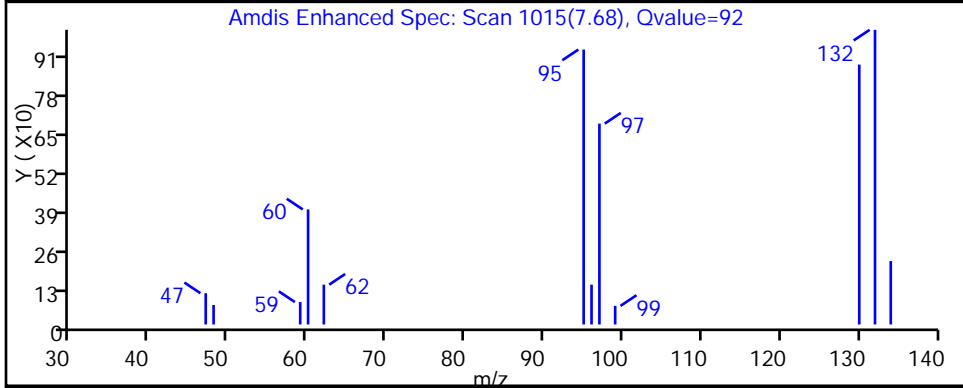
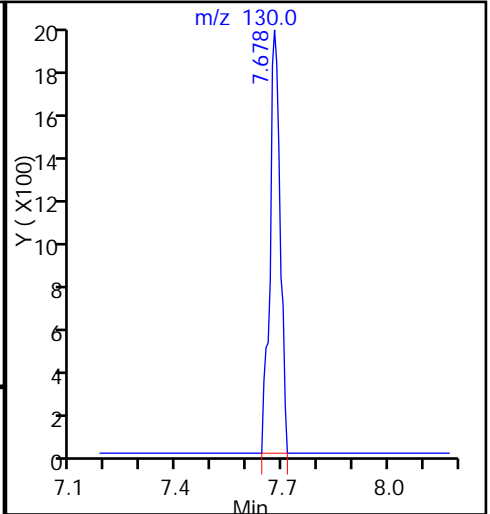
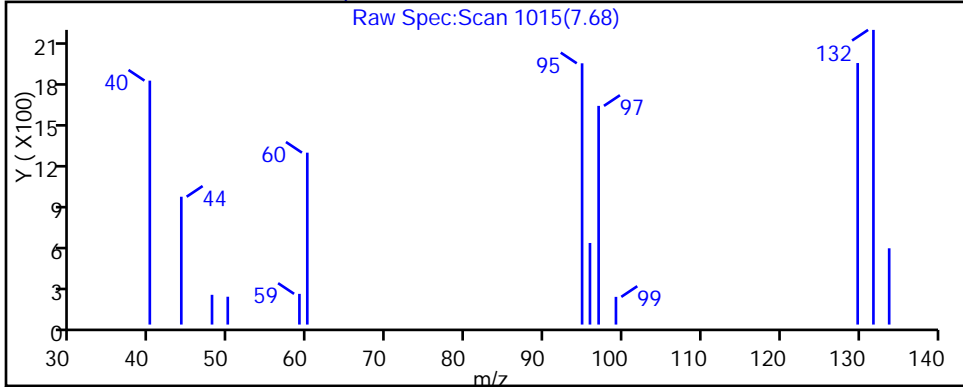
52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D  
Injection Date: 19-Aug-2015 20:27:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-14 Lab Sample ID: 180-46875-14  
Client ID: HD-COD-SW-26-0/1-0  
Operator ID: 001562 ALS Bottle#: 24 Worklist Smp#: 24  
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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819024.D

Injection Date: 19-Aug-2015 20:27:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-14

Lab Sample ID: 180-46875-14

Client ID: HD-COD-SW-26-0/1-0

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

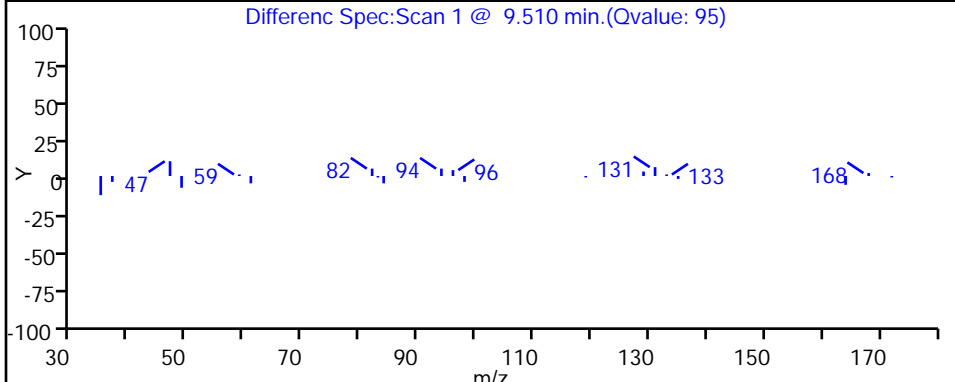
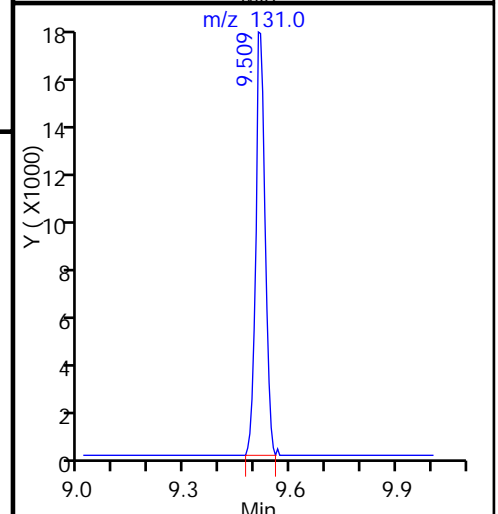
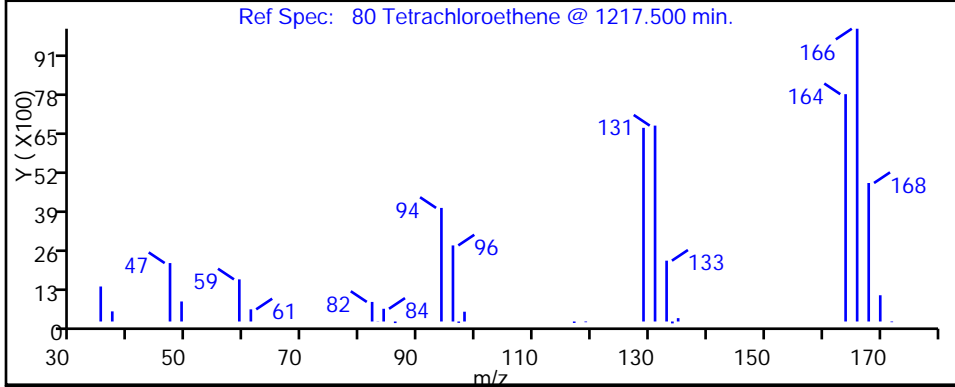
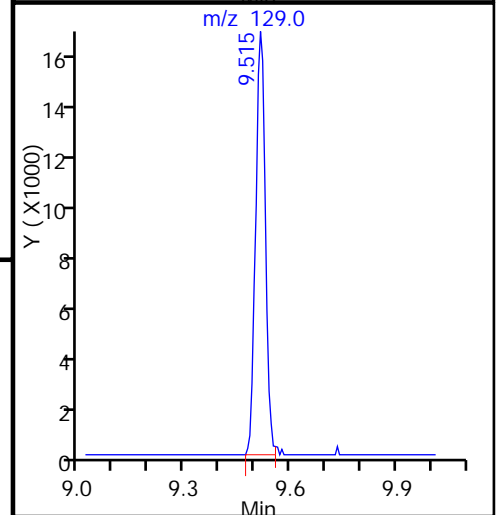
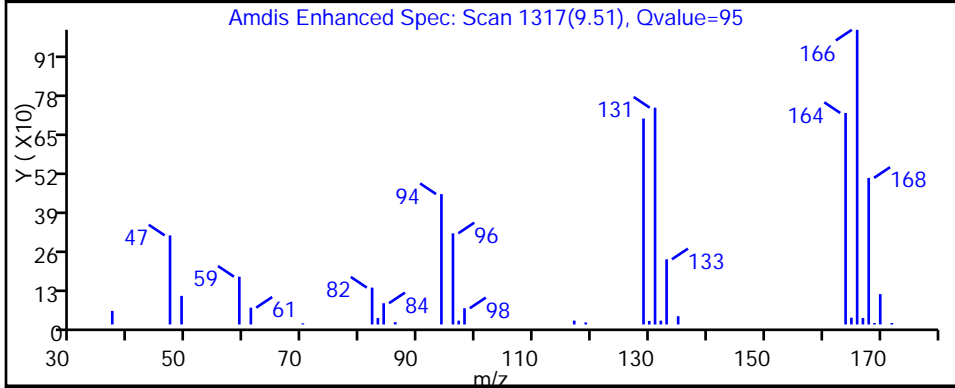
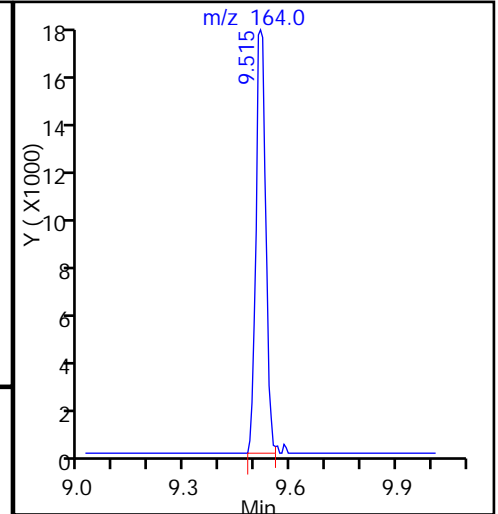
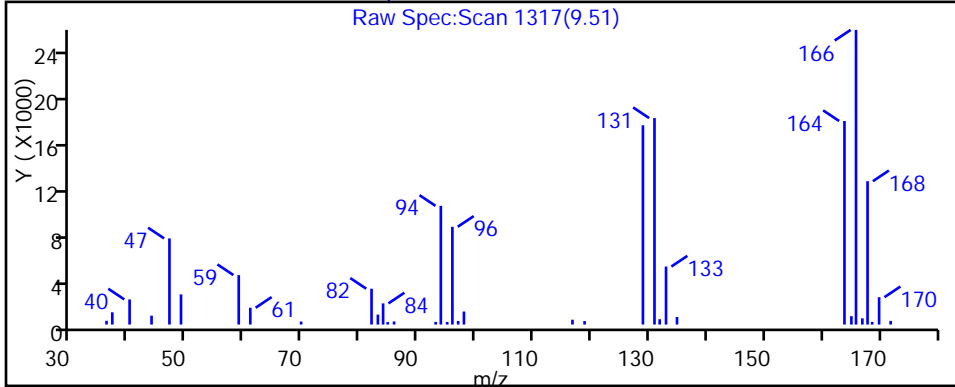
Method: MSVOA\_LL\_CHHP5

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-46875-15  
 Matrix: Water Lab File ID: 50819025.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 13:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:52  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	5.0		5.0	2.5
75-15-0	Carbon disulfide	0.23	J	1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.79	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.19	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	0.76	J	1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.39	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-46875-15  
 Matrix: Water Lab File ID: 50819025.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 13:15  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:52  
 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.: 151188 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	91		71-118
460-00-4	4-Bromofluorobenzene (Surr)	81		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D  
 Lims ID: 180-46875-C-15 Lab Sample ID: 180-46875-15  
 Client ID: HD-COD-SW-27-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 20:52:30 ALS Bottle#: 25 Worklist Smp#: 25  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-C-15  
 Misc. Info.: 180-0008221-025  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 08:16:48 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 08:16:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.251	4.272	-0.021	0	141711	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	97	371665	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.386	0.003	89	85796	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.728	0.003	98	106447	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.568	6.559	0.009	93	99011	57.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	136334	54.5	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.932	0.003	95	322281	45.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.566	0.003	85	106297	40.6	
12 Chloromethane	50	1.775	1.766	0.009	1	1403	0.4975	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.448	3.439	0.009	99	15519	25.2	
26 Carbon disulfide	76	3.630	3.627	0.003	67	5341	1.15	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.954	5.951	0.003	83	9328	3.93	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.380	6.383	-0.003	93	3658	0.9298	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.682	7.673	0.009	96	8422	3.81	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91	8.996	9.005	-0.009	98	5113	0.5545	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.519	9.516	0.003	93	3453	1.97	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106	10.644	10.648	-0.004	0	997	0.2608	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106				0		0.2608	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Worklist Smp#: 25

Client ID: HD-COD-SW-27-0/1-0

Purge Vol: 5.000 mL

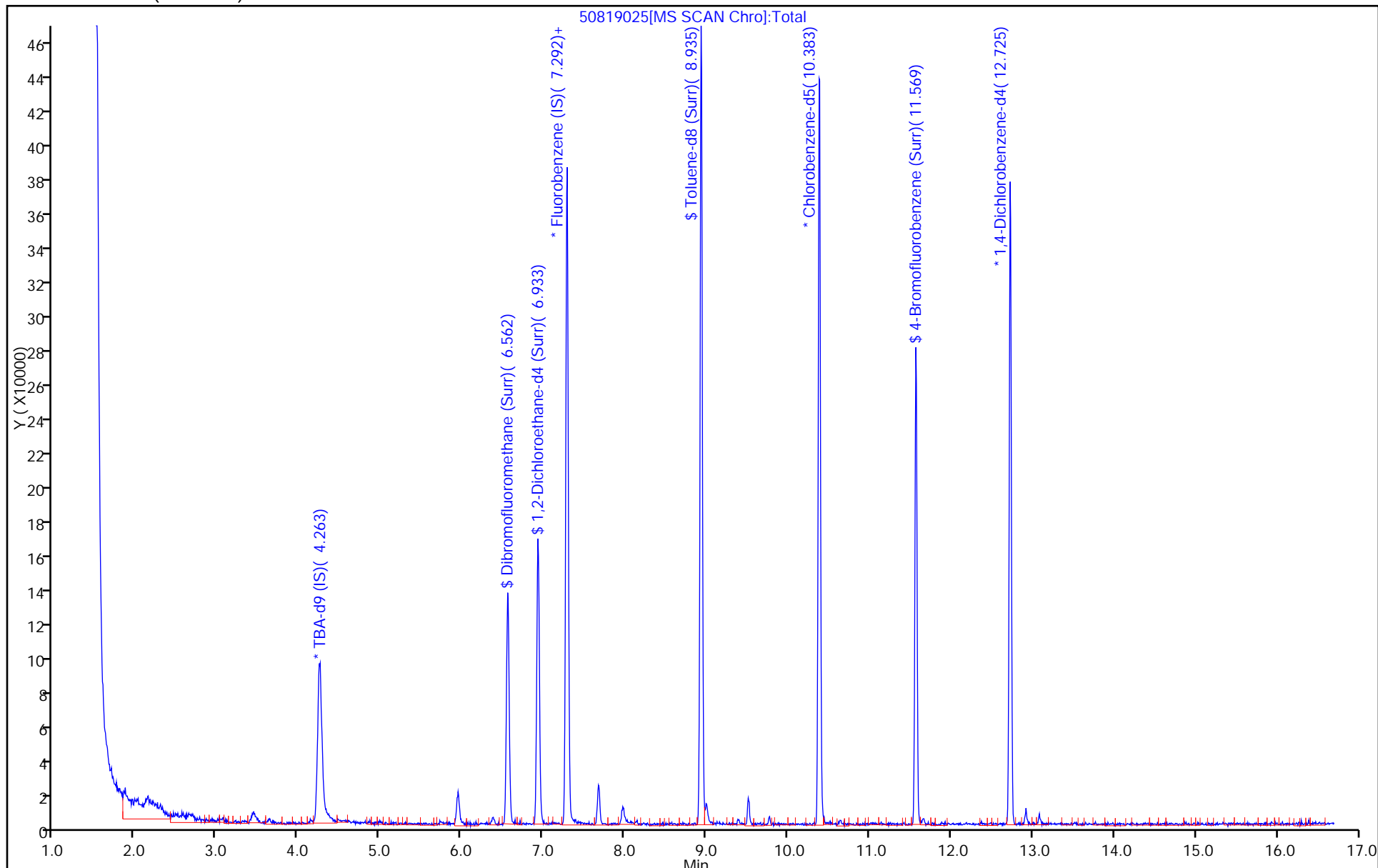
Dil. Factor: 1.0000

ALS Bottle#: 25

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

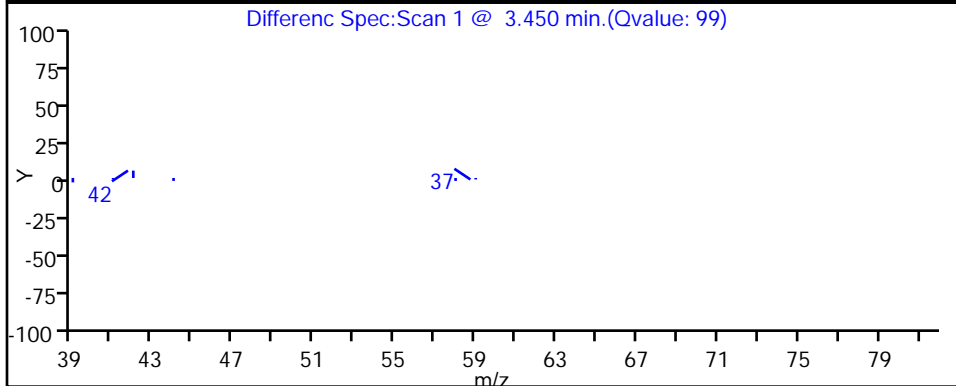
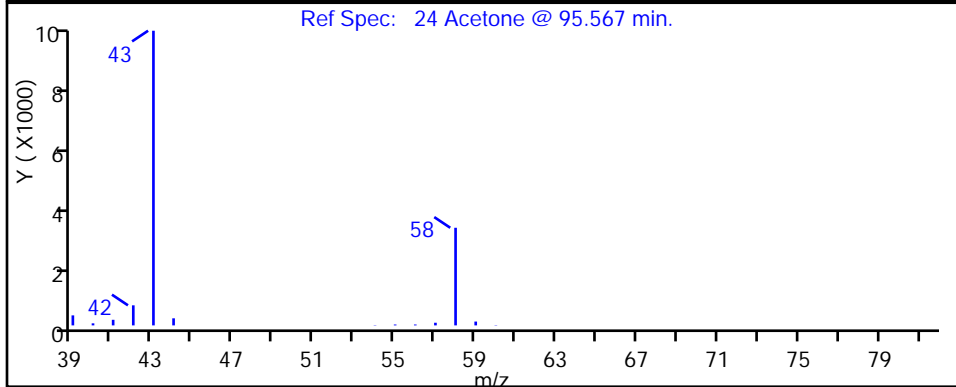
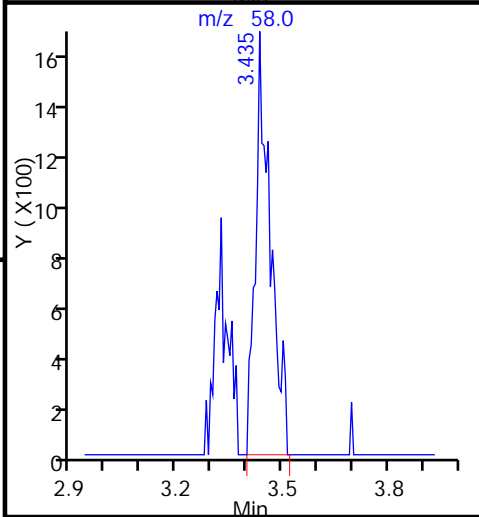
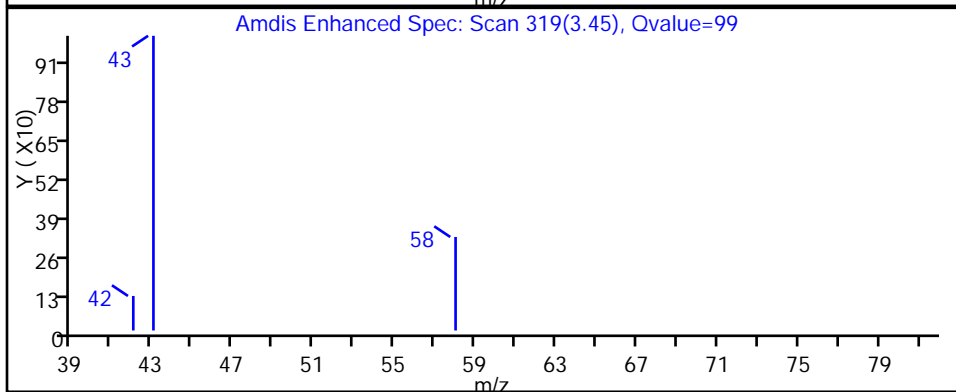
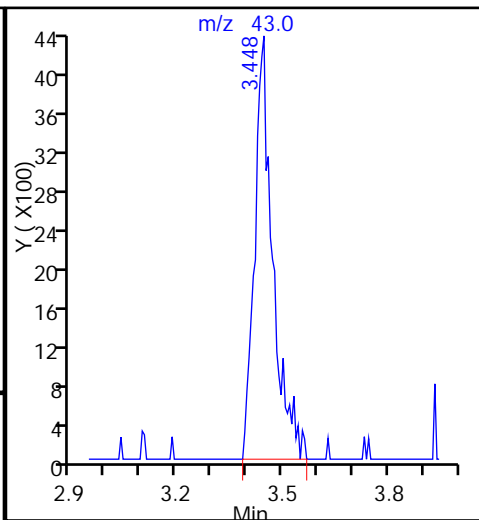
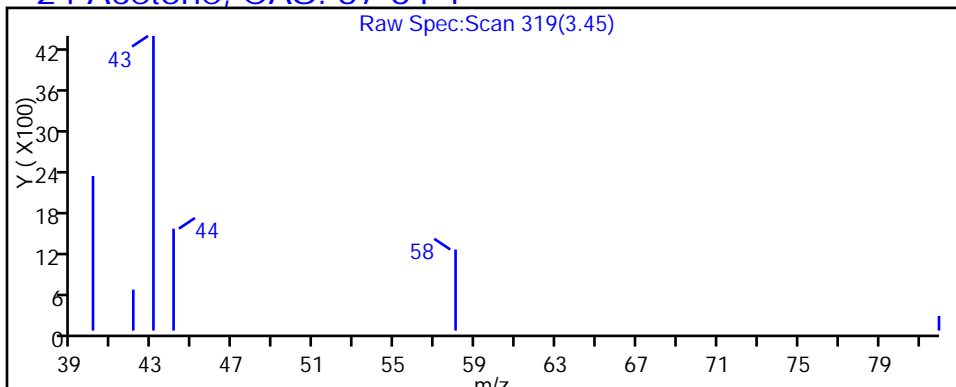
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

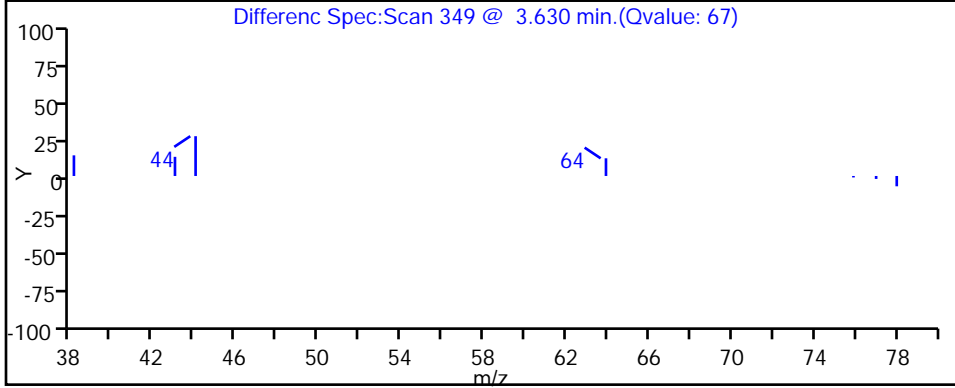
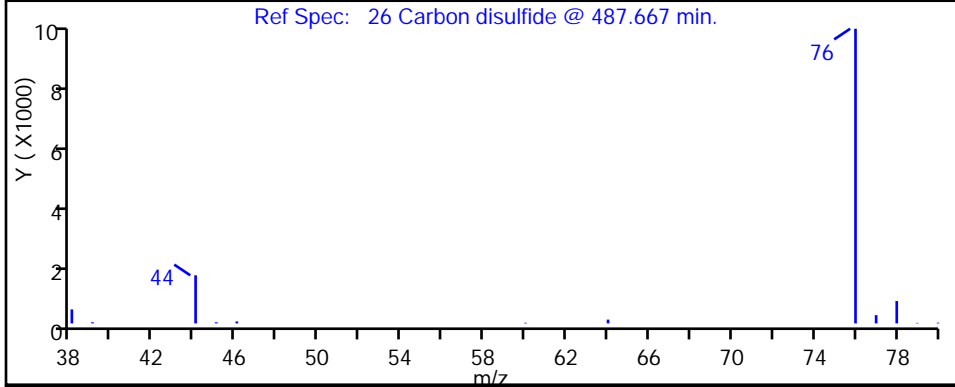
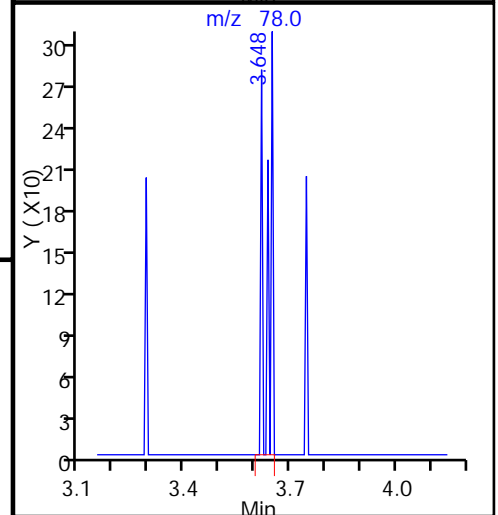
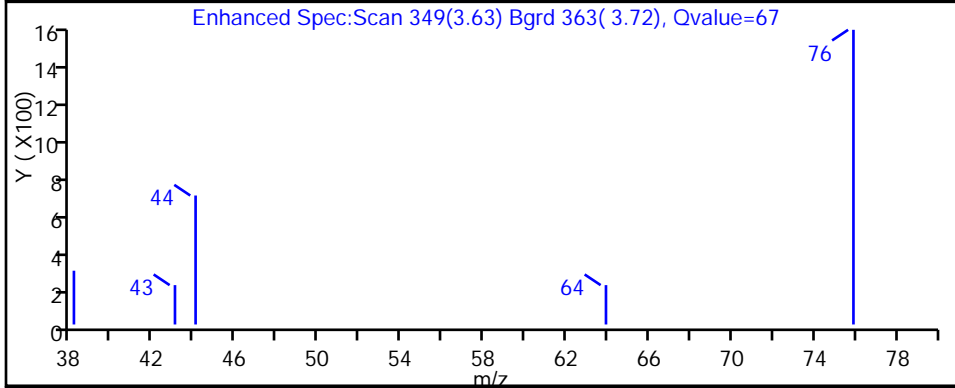
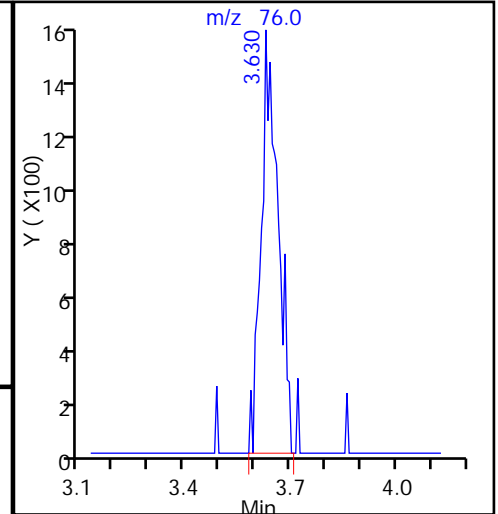
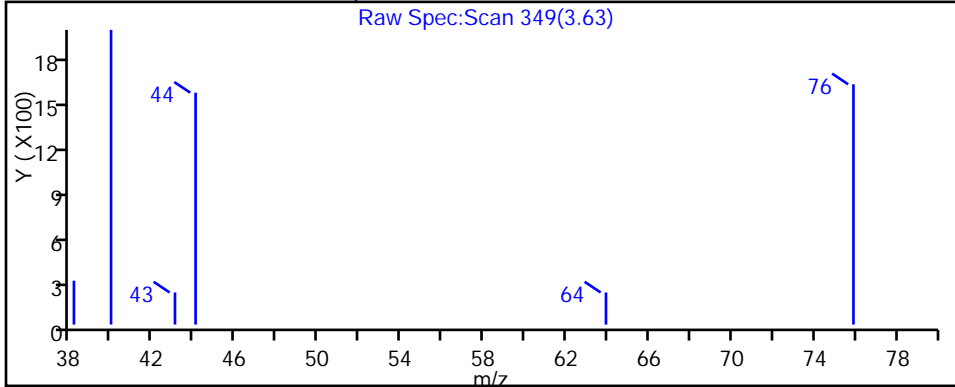
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

26 Carbon disulfide, CAS: 75-15-0



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

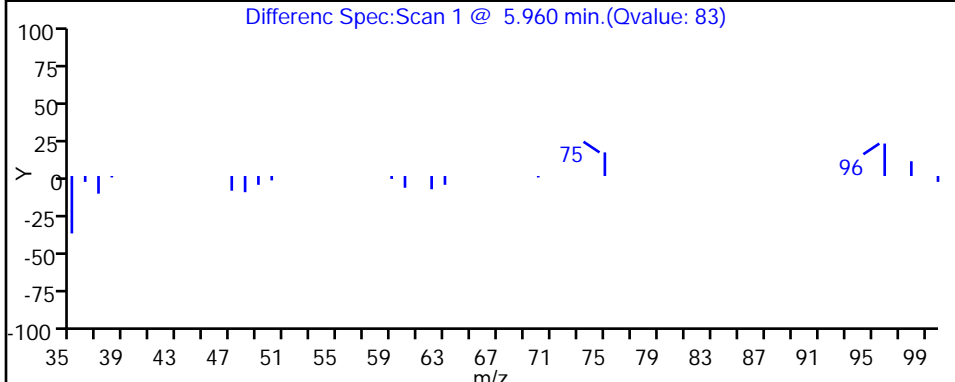
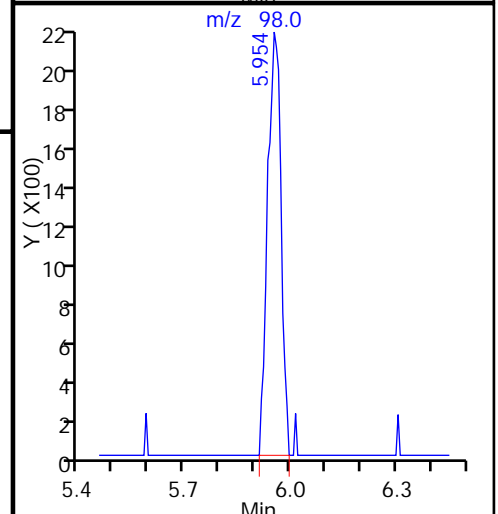
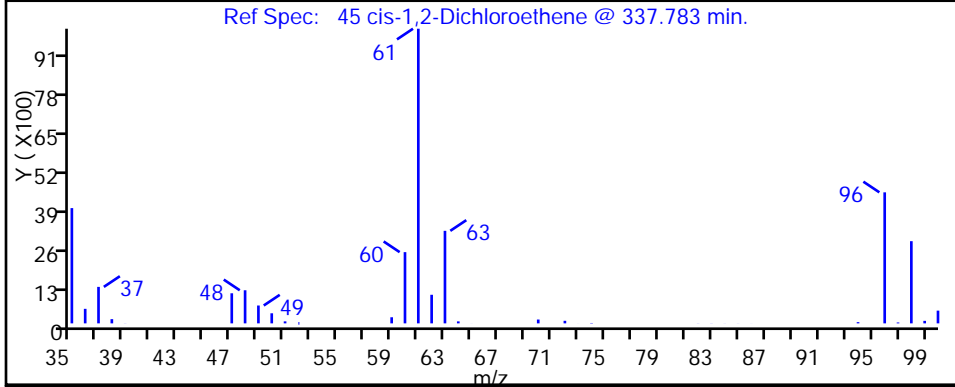
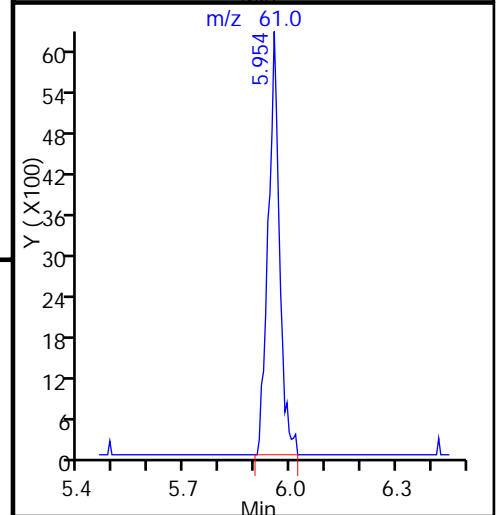
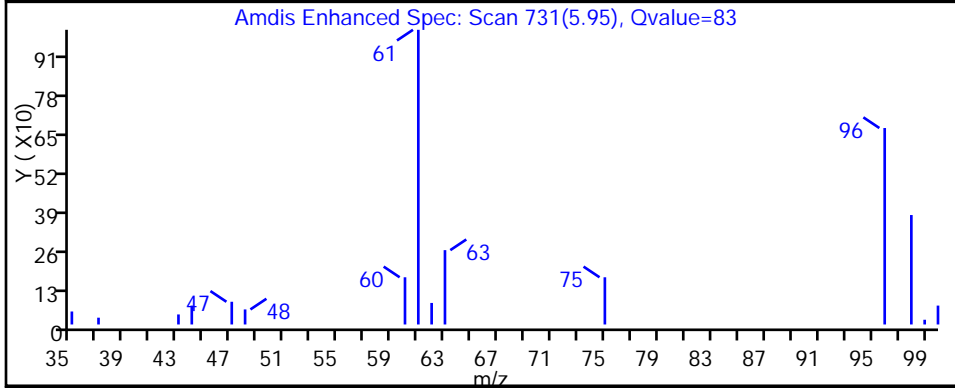
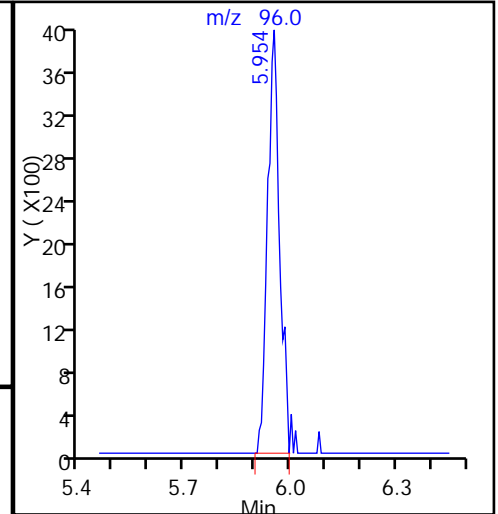
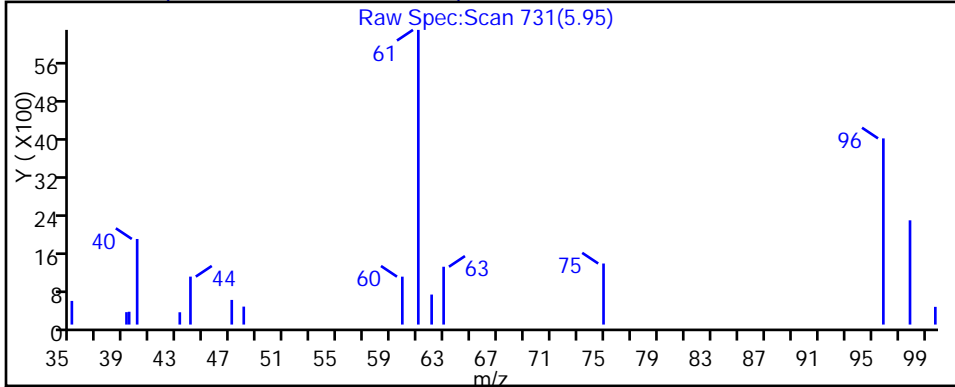
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 25 Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

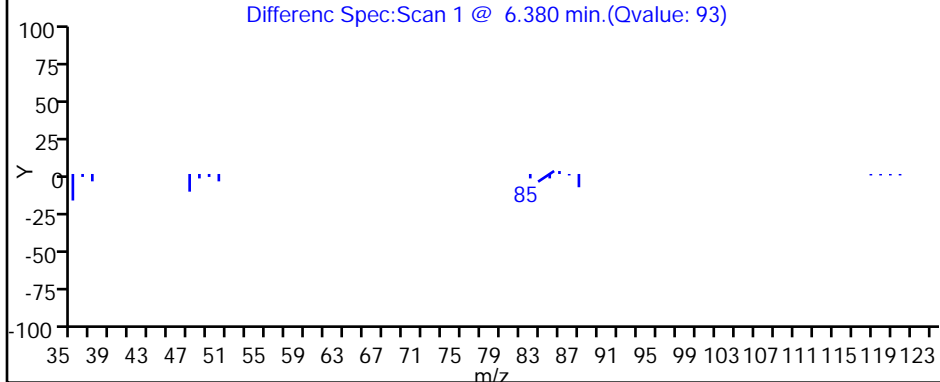
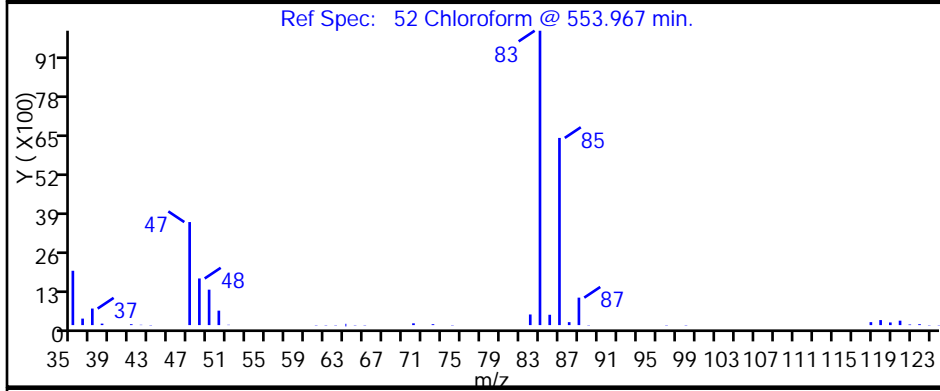
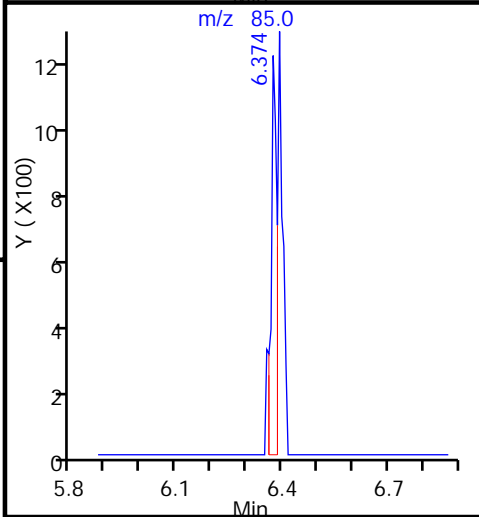
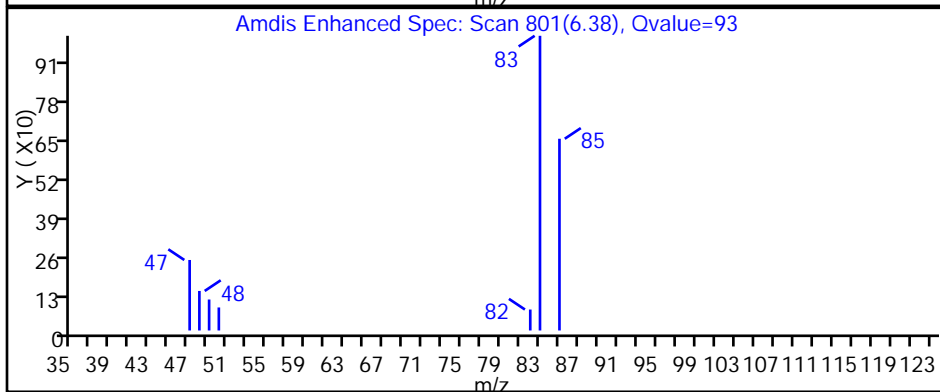
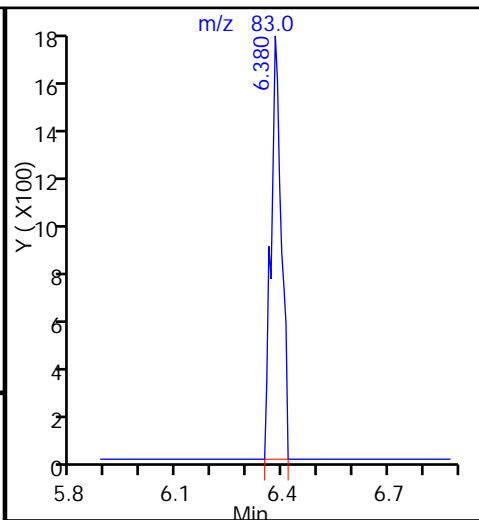
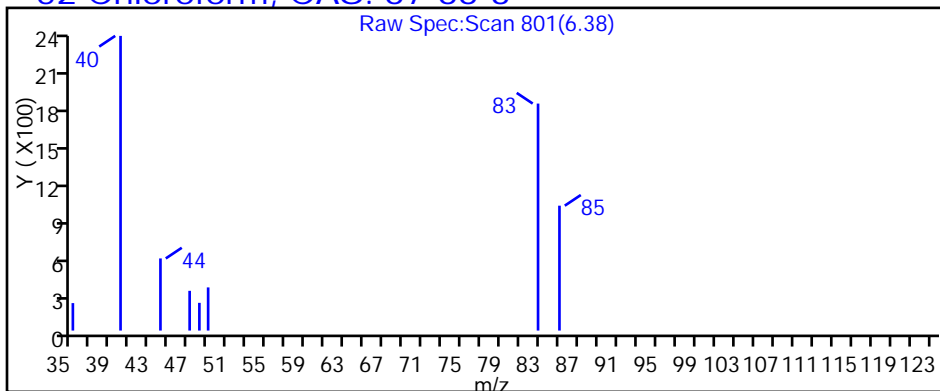
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D

Injection Date: 19-Aug-2015 20:52:30

Instrument ID: CHHP5

Lims ID: 180-46875-C-15

Lab Sample ID: 180-46875-15

Client ID: HD-COD-SW-27-0/1-0

Operator ID: 001562

ALS Bottle#: 25

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

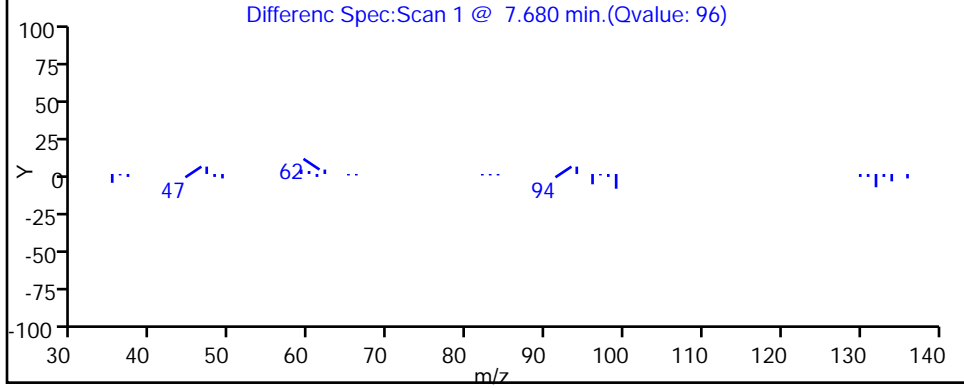
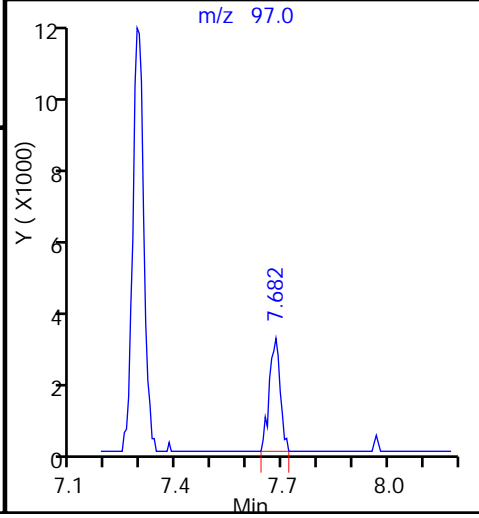
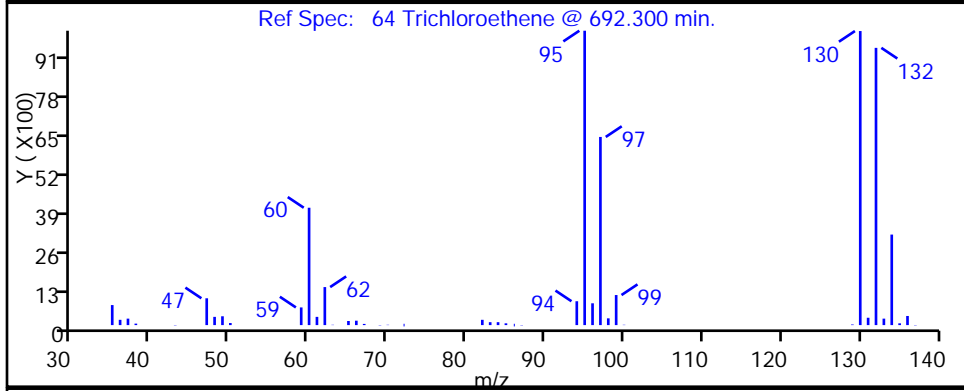
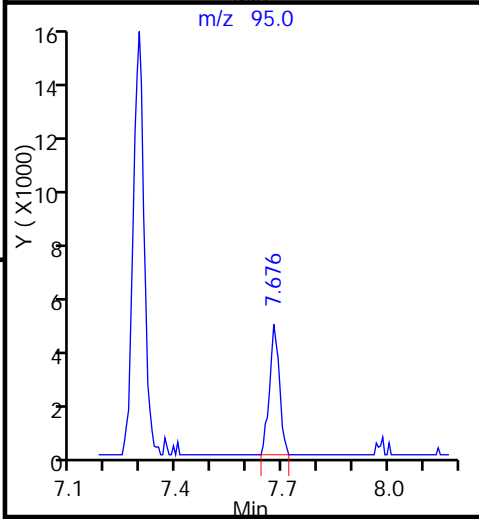
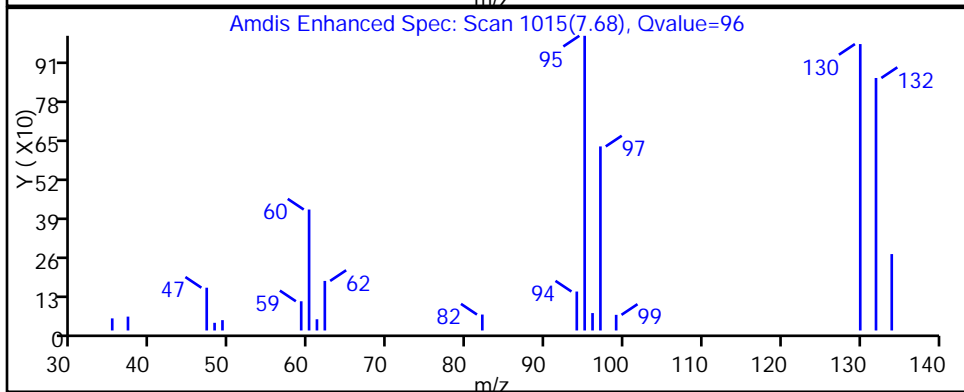
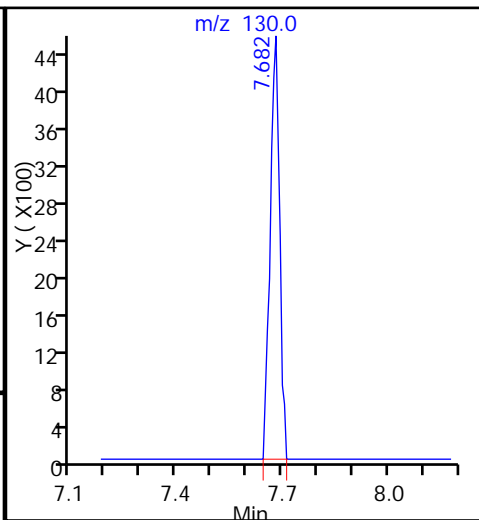
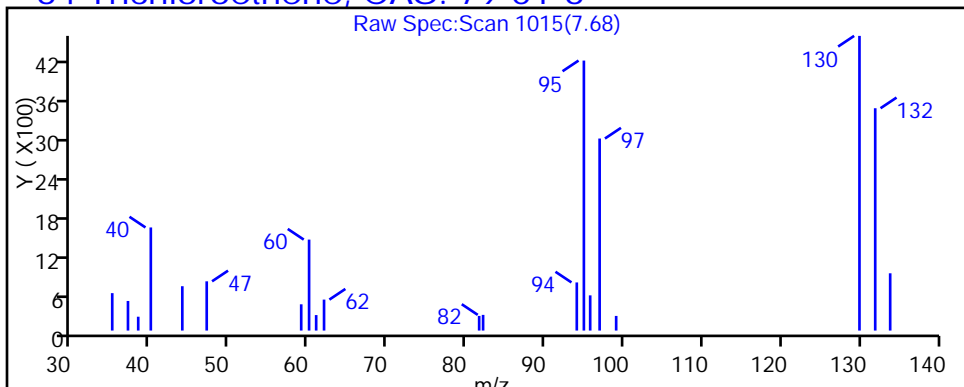
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

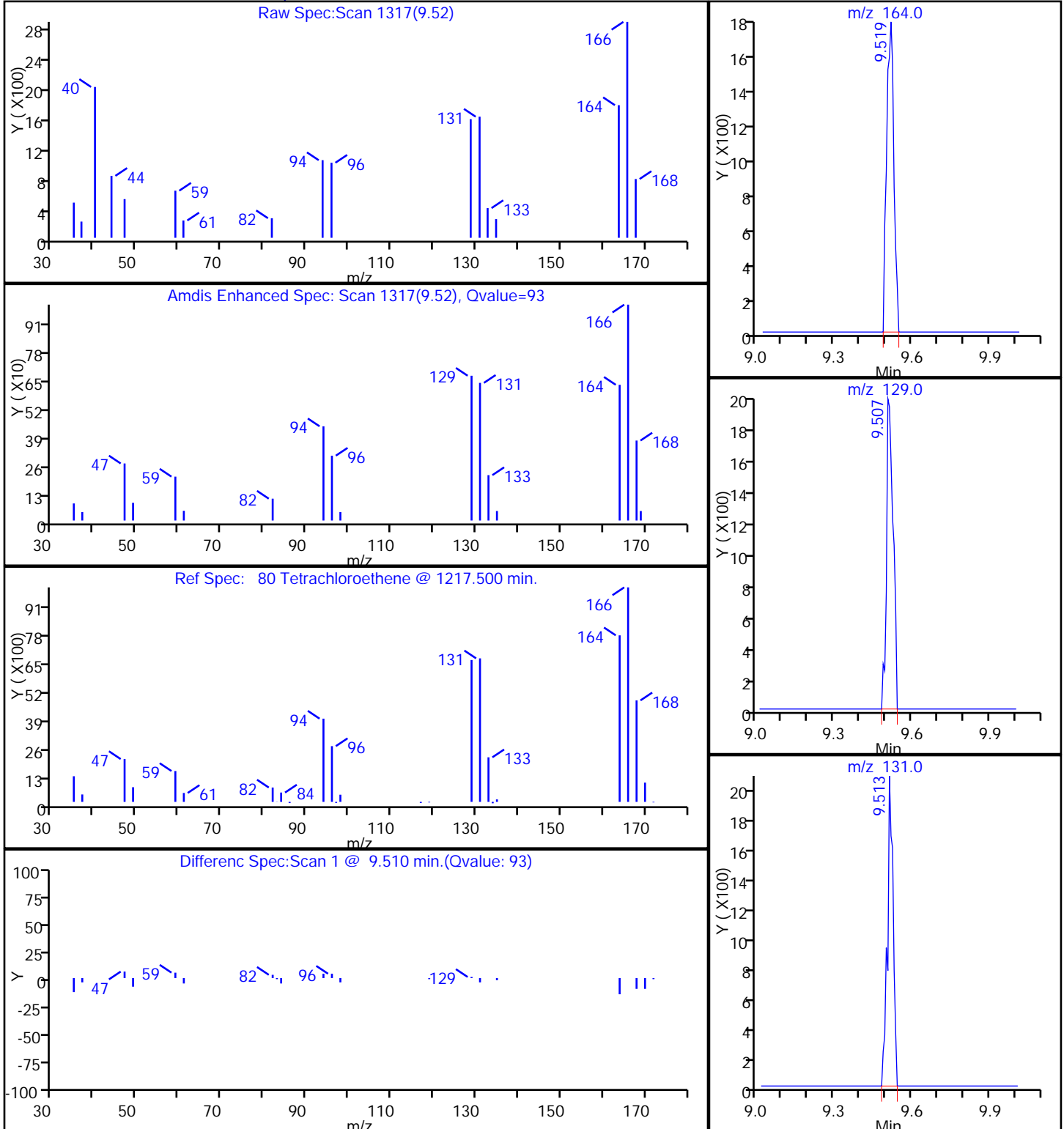
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819025.D  
Injection Date: 19-Aug-2015 20:52:30 Instrument ID: CHHP5  
Lims ID: 180-46875-C-15 Lab Sample ID: 180-46875-15  
Client ID: HD-COD-SW-27-0/1-0  
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 25  
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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-46875-16  
 Matrix: Water Lab File ID: 50819026.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 21:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-46875-16  
 Matrix: Water Lab File ID: 50819026.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 21:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819026.D  
 Lims ID: 180-46875-E-16 Lab Sample ID: 180-46875-16  
 Client ID: HD-COD-SW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 21:15:30 ALS Bottle#: 26 Worklist Smp#: 26  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-E-16  
 Misc. Info.: 180-0008221-026  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 08:18:36 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 08:18:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.257	4.272	-0.015	0	132788	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.290	-0.003	98	369004	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.386	-0.003	90	82185	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.732	12.728	0.004	99	102622	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.563	6.559	0.004	93	97663	56.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.937	-0.003	0	137577	55.4	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.932	0.003	95	319065	46.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.570	11.566	0.004	86	106323	42.4	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.454	3.439	0.015	76	7837	12.8	
26 Carbon disulfide	76	3.643	3.627	0.016	57	3524	0.7618	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.955	5.951	0.004	1	1025	0.4355	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.380	6.383	-0.003	85	2498	0.6396	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.676	7.673	0.003	7	667	0.3037	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91	9.008	9.005	0.003	79	5002	0.5663	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.526	9.516	0.010	1	408	0.2428	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819026.D

Injection Date: 19-Aug-2015 21:15:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-E-16

Lab Sample ID: 180-46875-16

Worklist Smp#: 26

Client ID: HD-COD-SW-28-0/1-0

Purge Vol: 5.000 mL

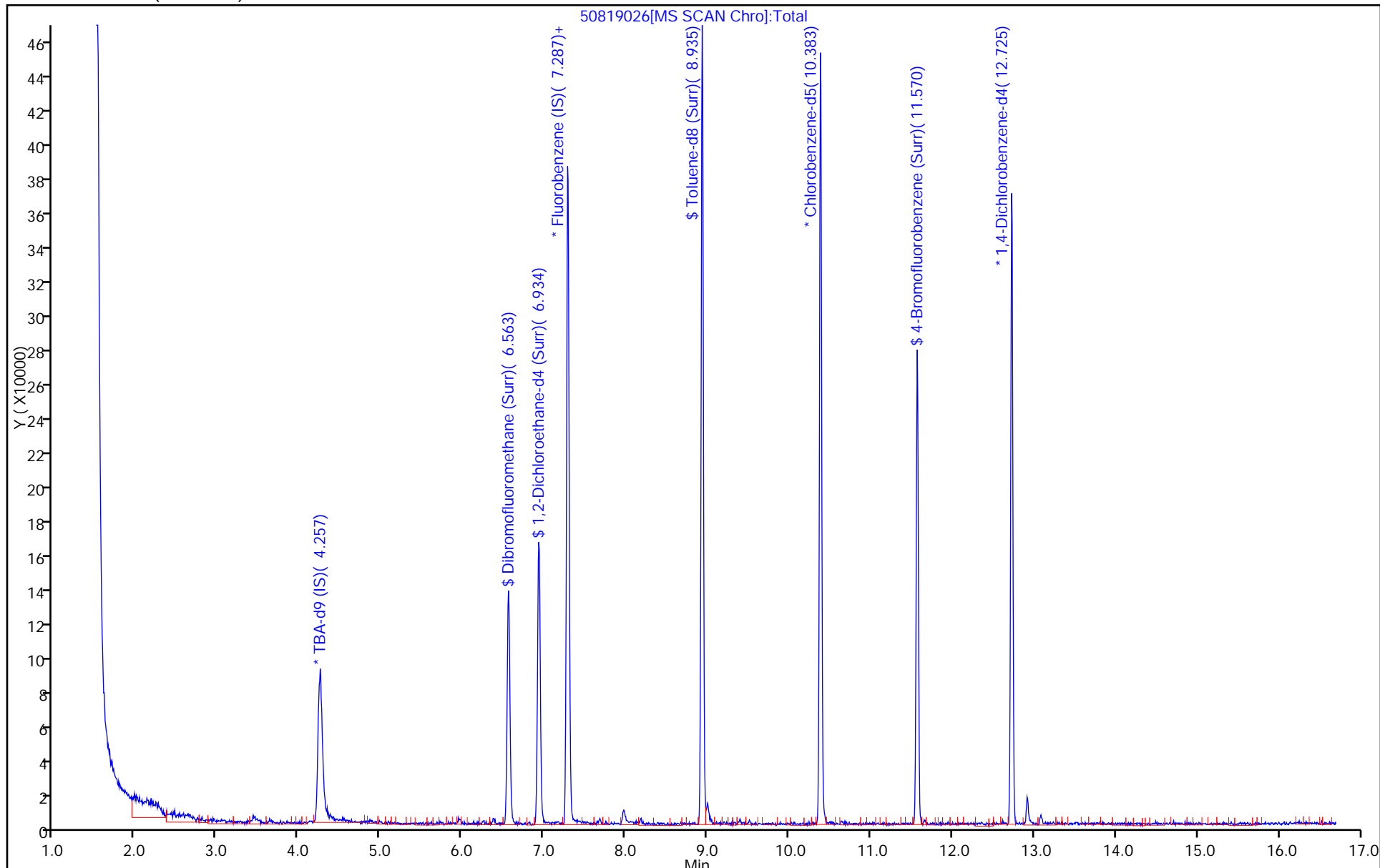
Dil. Factor: 1.0000

ALS Bottle#: 26

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819026.D

Injection Date: 19-Aug-2015 21:15:30

Instrument ID: CHHP5

Lims ID: 180-46875-E-16

Lab Sample ID: 180-46875-16

Client ID: HD-COD-SW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 26

Worklist Smp#: 26

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

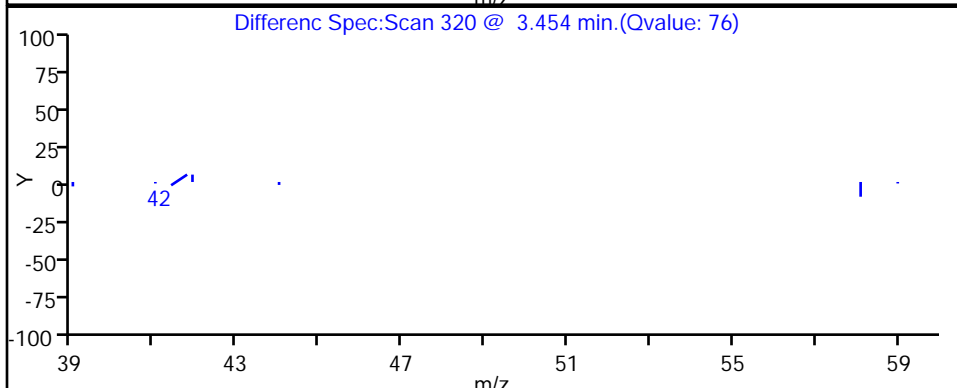
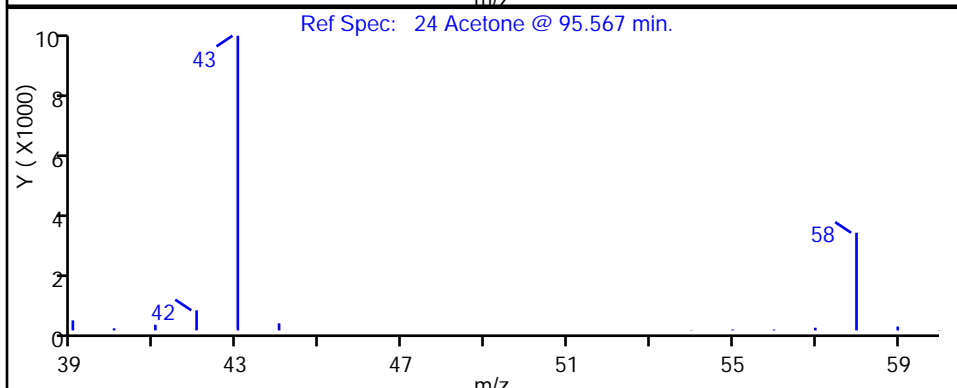
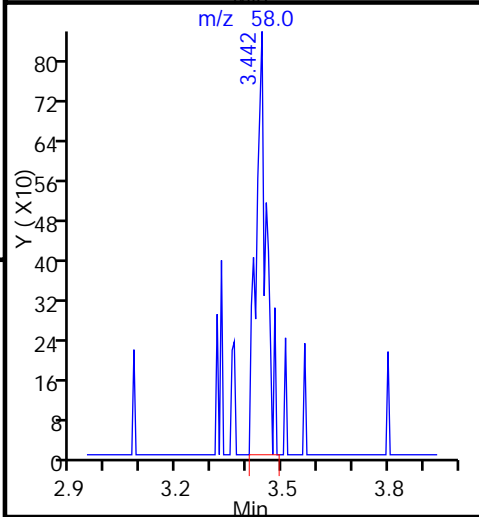
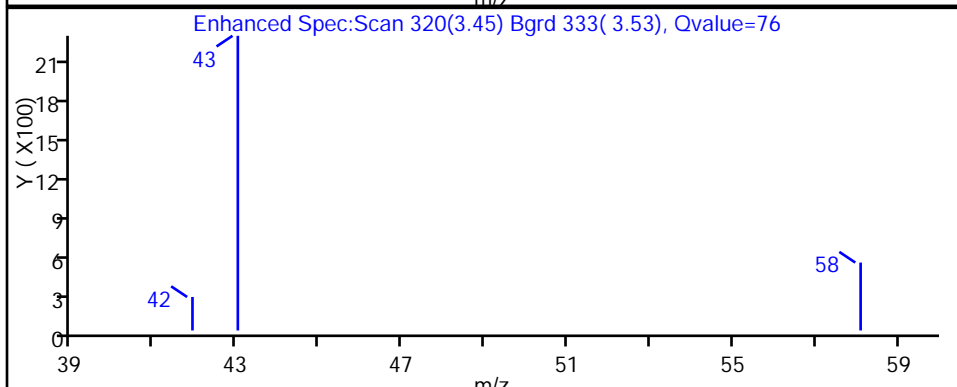
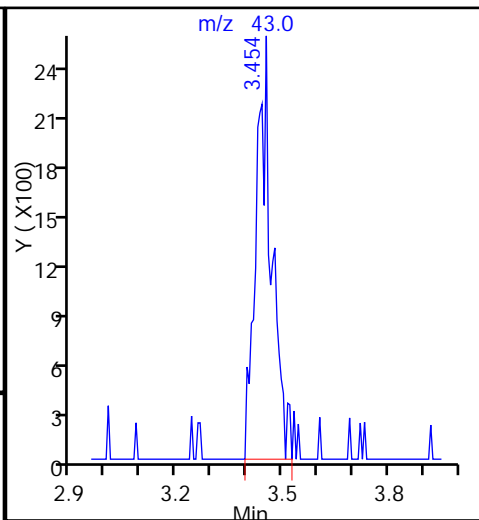
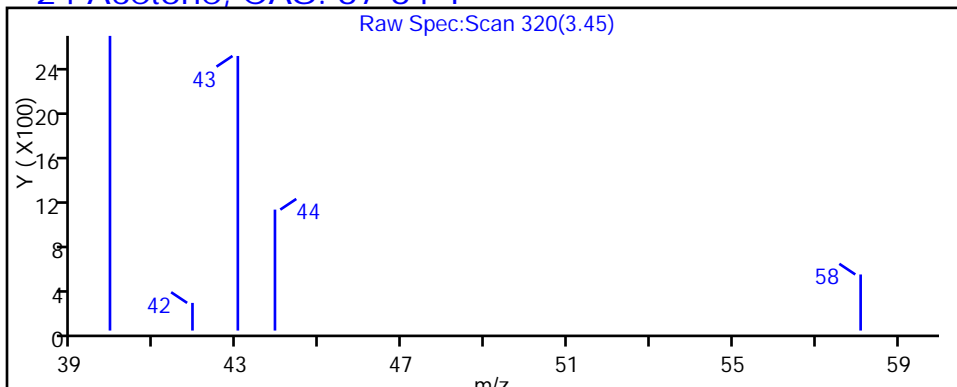
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-46875-17  
 Matrix: Water Lab File ID: 50819015.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 16:51  
 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.: 151188 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-46875-17  
 Matrix: Water Lab File ID: 50819015.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 16:51  
 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.: 151188 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-135
2037-26-5	Toluene-d8 (Surr)	93		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819015.D  
 Lims ID: 180-46875-E-17 Lab Sample ID: 180-46875-17  
 Client ID: HD-COD-SW-29-0/1-0  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 16:51:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-E-17  
 Misc. Info.: 180-0008221-015  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 07:57:15 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 07:57:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.272	-0.016	0	187295	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.290	0.002	97	431863	50.0	
* 3 Chlorobenzene-d5	119	10.382	10.386	-0.004	89	98704	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.728	-0.004	98	121204	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.568	6.559	0.009	92	103014	51.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	149166	51.3	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.932	0.002	95	381955	46.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.566	0.003	85	126397	42.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.441	3.439	0.002	77	6907	9.65	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96	5.947	5.951	-0.004	85	3809	1.38	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.385	6.383	0.002	11	1112	0.2433	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.675	7.673	0.002	85	3046	1.19	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91	8.995	9.005	-0.010	94	3581	0.3376	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164	9.525	9.516	0.008	87	1513	0.7498	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819015.D

Injection Date: 19-Aug-2015 16:51:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-E-17

Lab Sample ID: 180-46875-17

Worklist Smp#: 15

Client ID: HD-COD-SW-29-0/1-0

Purge Vol: 5.000 mL

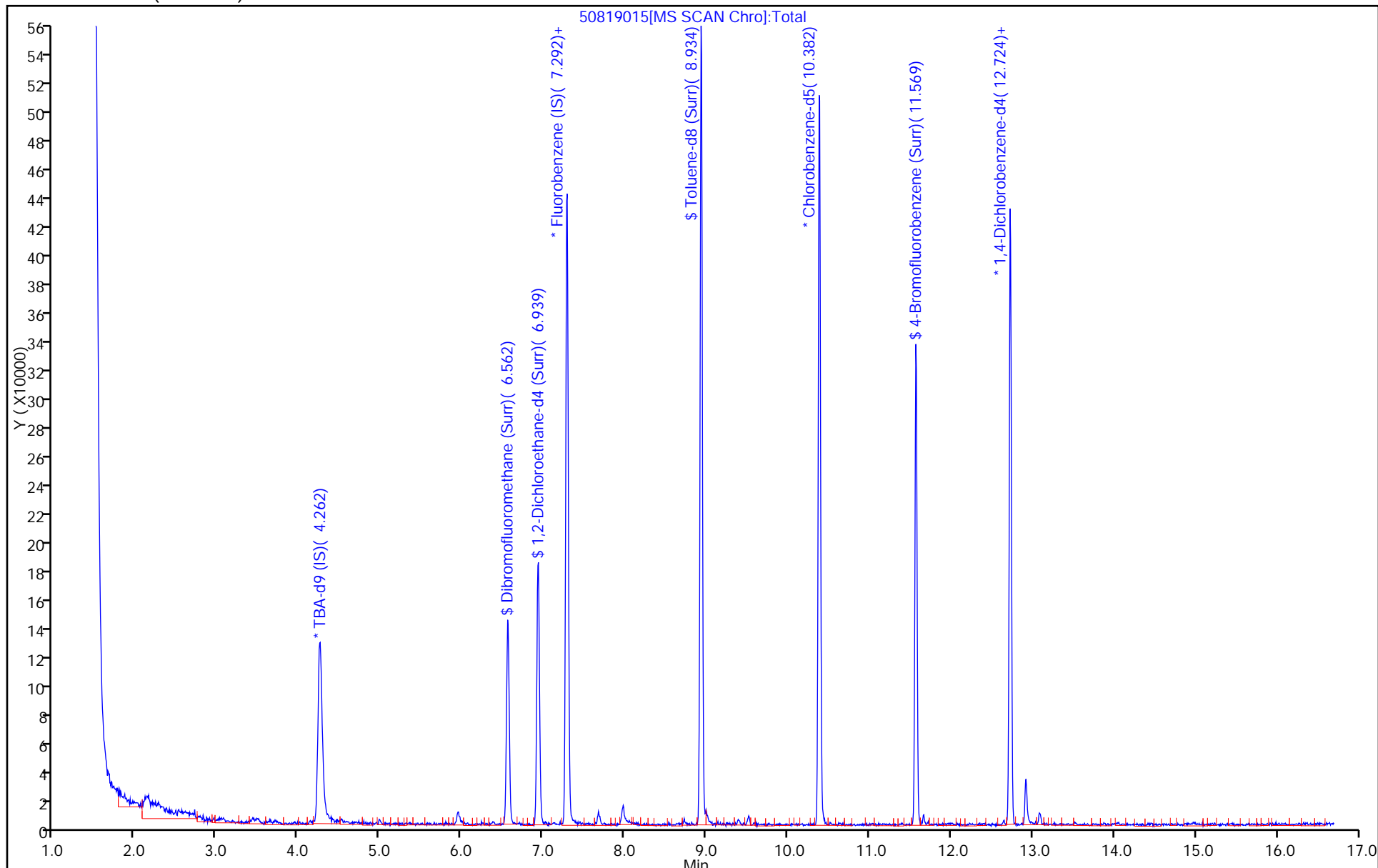
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819015.D

Injection Date: 19-Aug-2015 16:51:30

Instrument ID: CHHP5

Lims ID: 180-46875-E-17

Lab Sample ID: 180-46875-17

Client ID: HD-COD-SW-29-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

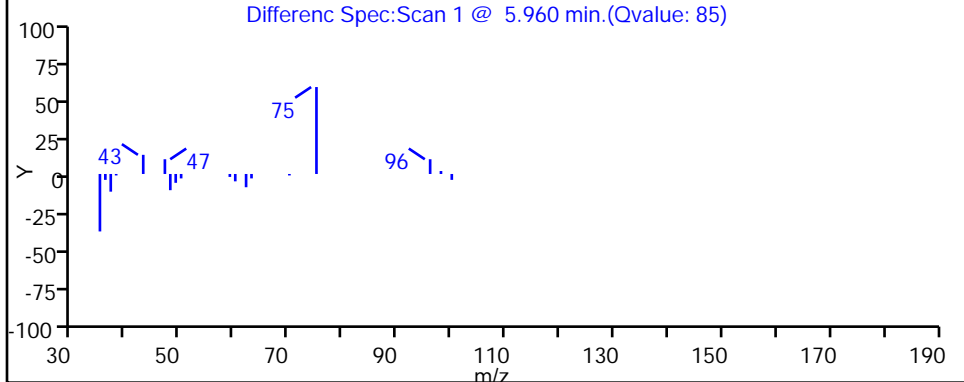
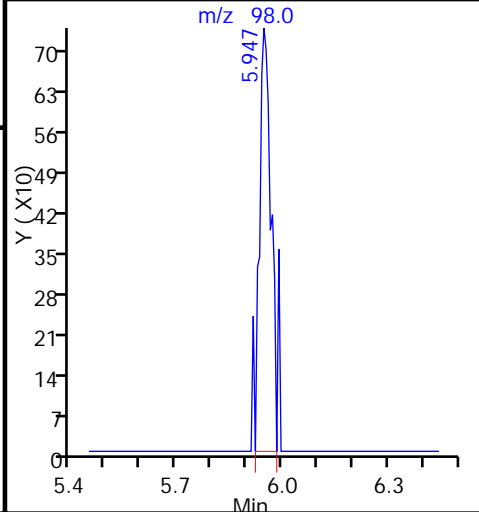
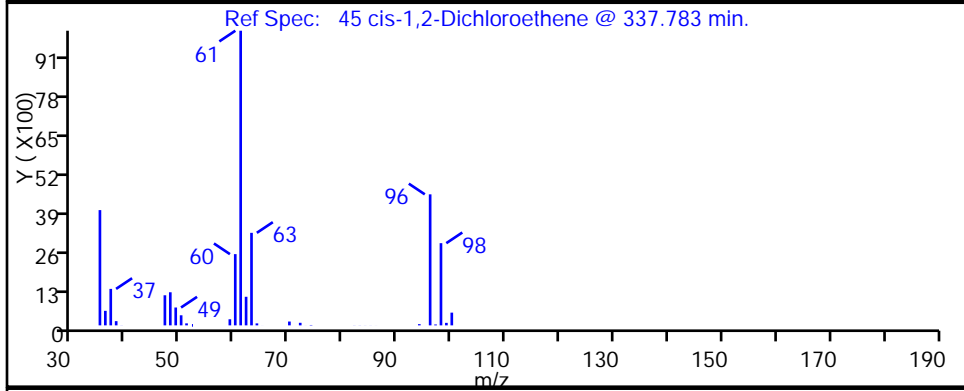
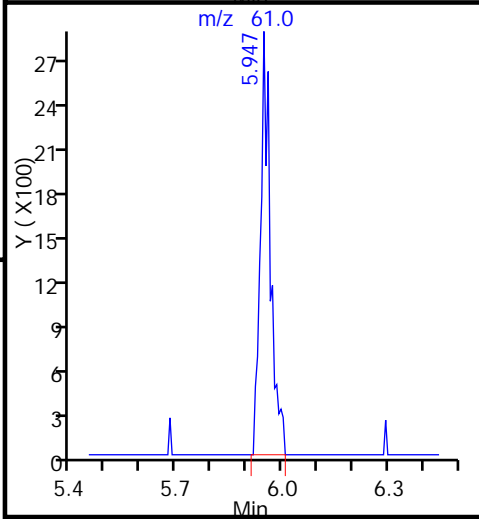
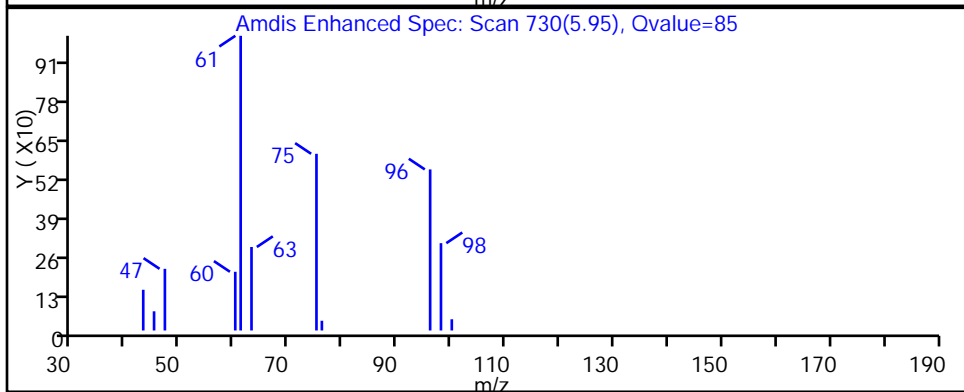
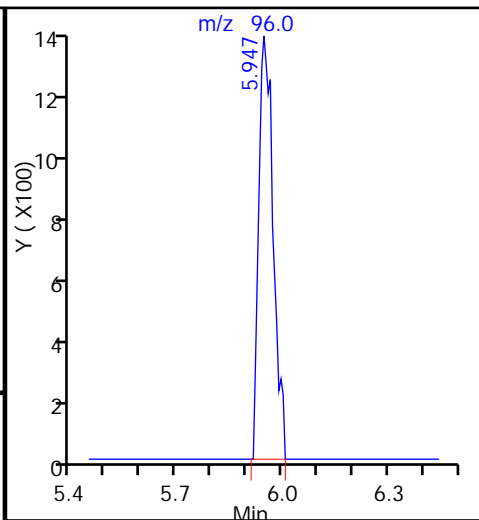
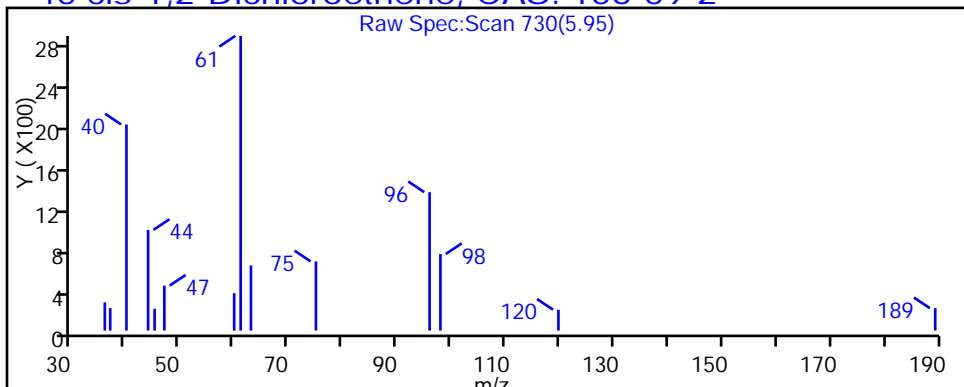
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819015.D

Injection Date: 19-Aug-2015 16:51:30

Instrument ID: CHHP5

Lims ID: 180-46875-E-17

Lab Sample ID: 180-46875-17

Client ID: HD-COD-SW-29-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

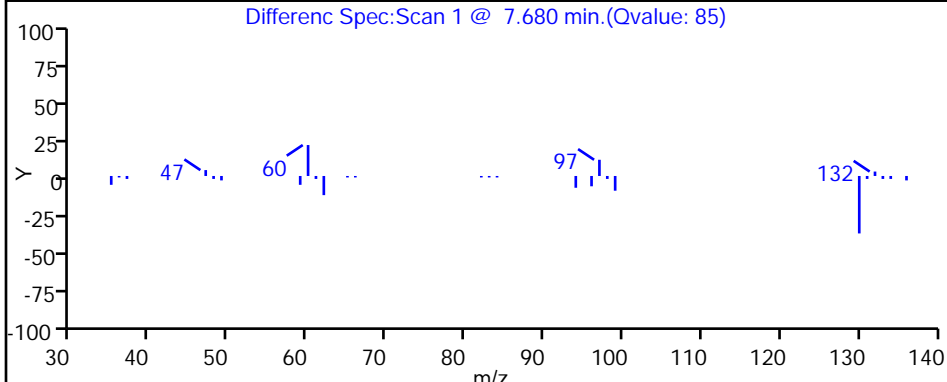
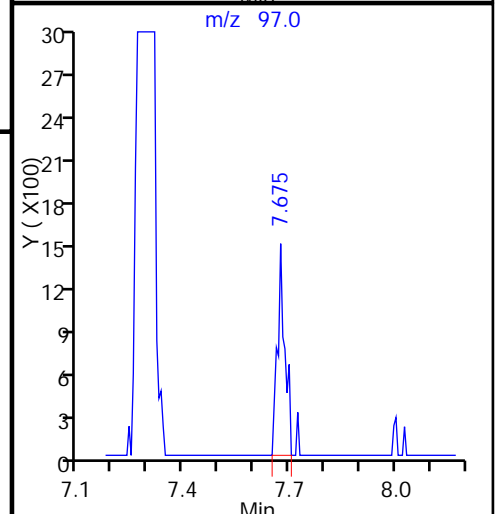
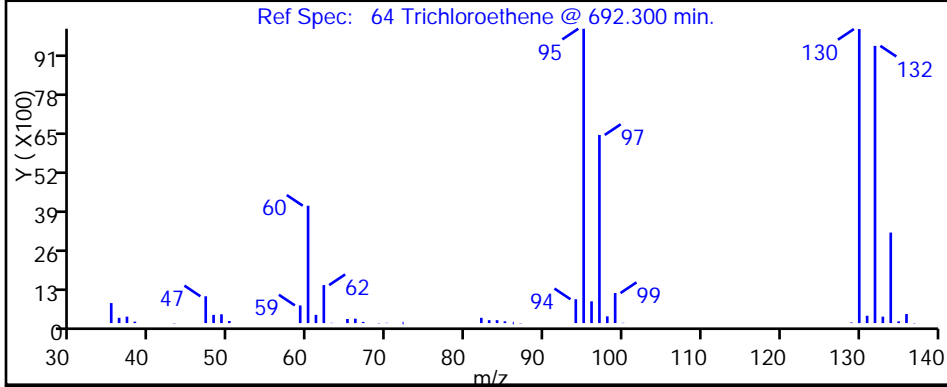
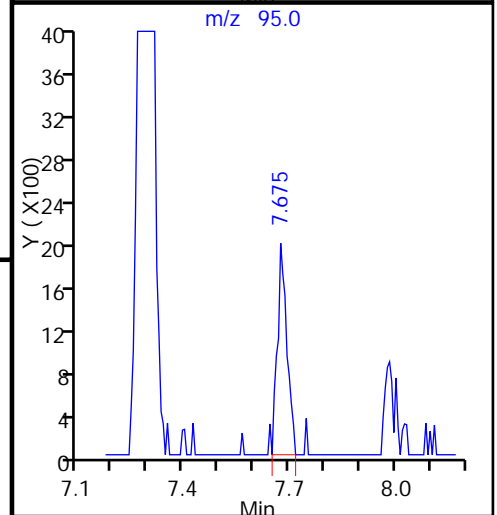
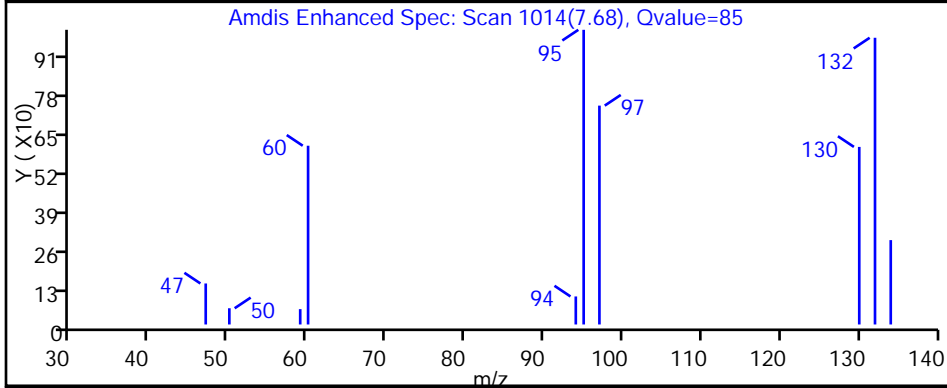
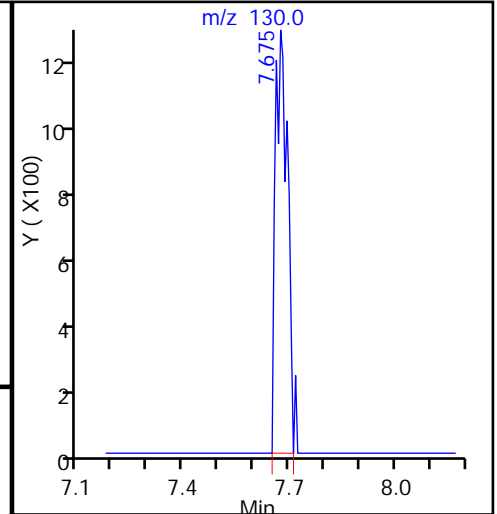
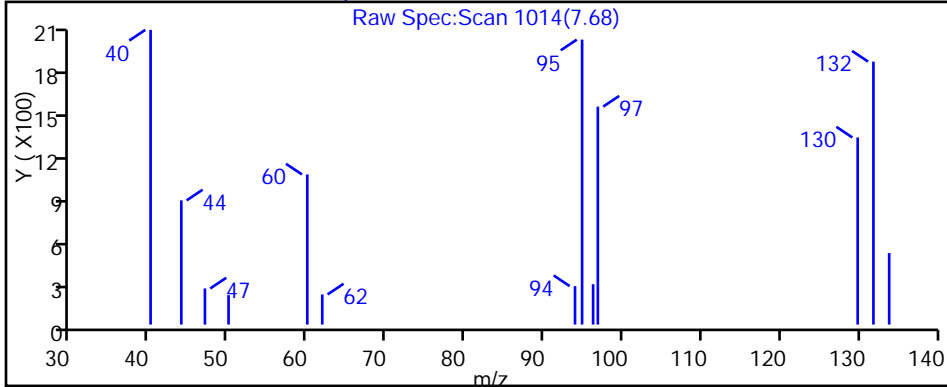
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819015.D

Injection Date: 19-Aug-2015 16:51:30

Instrument ID: CHHP5

Lims ID: 180-46875-E-17

Lab Sample ID: 180-46875-17

Client ID: HD-COD-SW-29-0/1-0

Operator ID: 001562

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

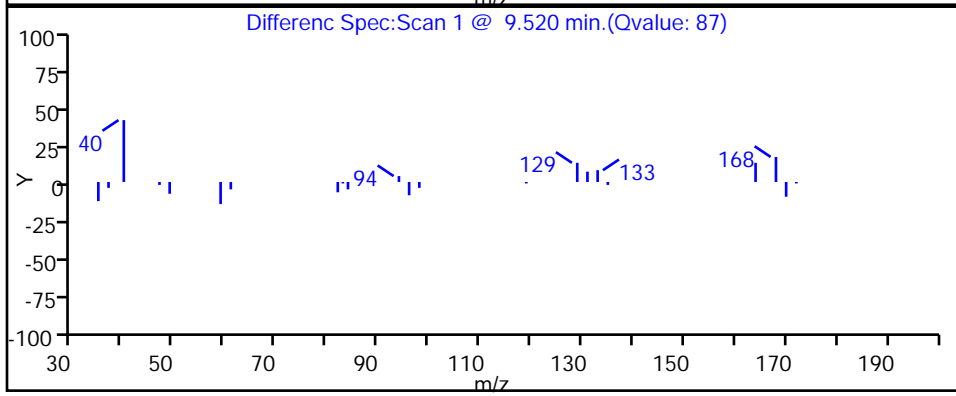
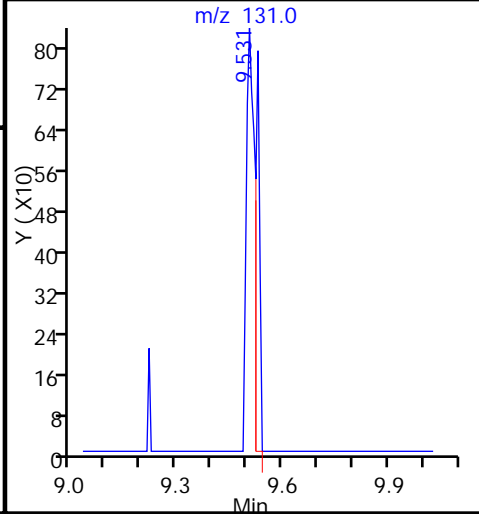
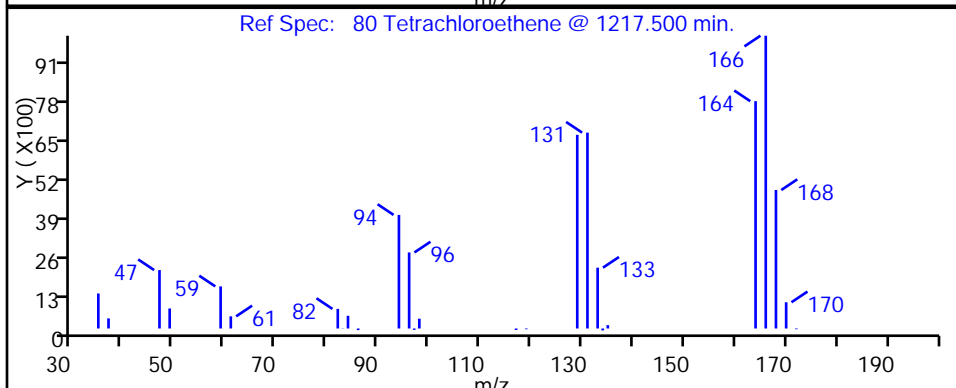
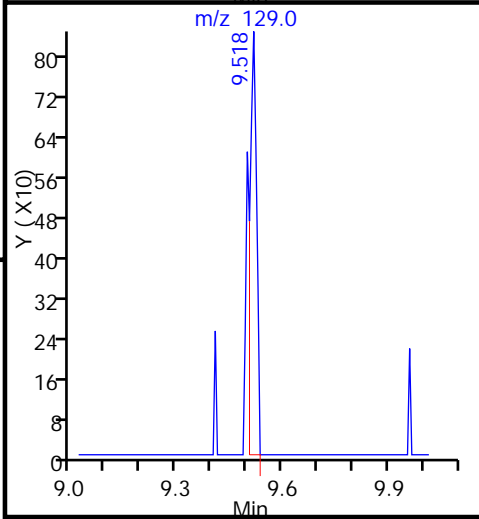
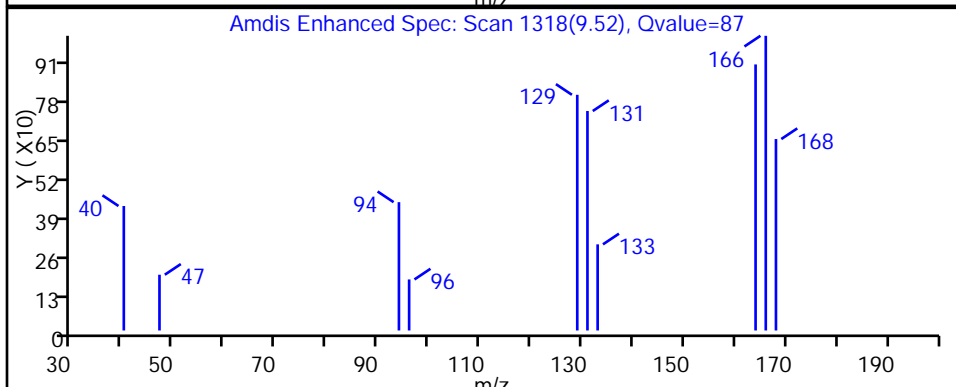
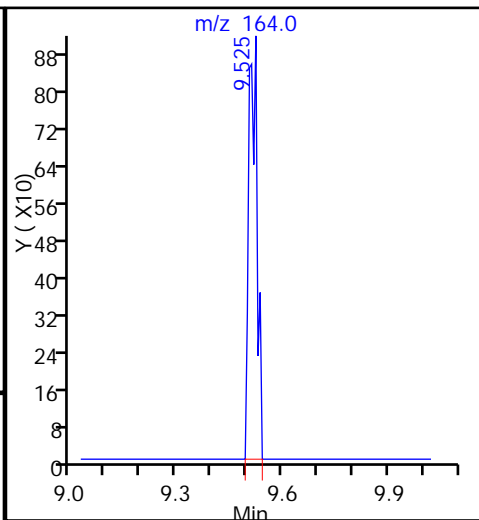
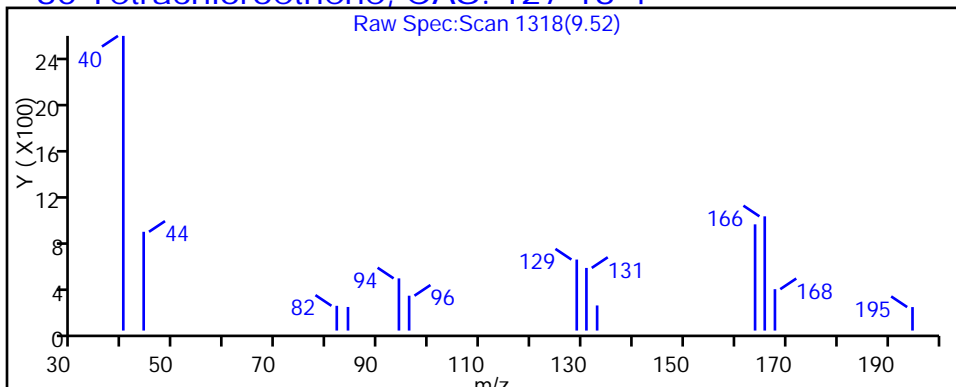
Method: MSVOA\_LL\_CHHP5

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-46875-18  
 Matrix: Water Lab File ID: 50819023.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:04  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND	^c	1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	0.65	J	1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	0.21	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	12		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	0.20	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.55	J	1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	11		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	7.7		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-46875-18  
 Matrix: Water Lab File ID: 50819023.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 20:04  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	82		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D  
 Lims ID: 180-46875-D-18 Lab Sample ID: 180-46875-18  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 20:04:30 ALS Bottle#: 23 Worklist Smp#: 23  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-18  
 Misc. Info.: 180-0008221-023  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 08:12:54 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 08:12:54

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.272	-0.013	0	152267	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.290	-0.002	97	375476	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	90	84522	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.728	-0.001	98	102715	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	97938	55.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	138415	54.8	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.932	0.005	94	328008	46.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.566	0.005	85	105157	40.8	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96	3.359	3.347	0.012	93	6949	3.27	
24 Acetone	43	3.444	3.439	0.005	66	4631	7.44	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73	4.575	4.576	-0.001	3	1189	0.2132	
37 1,1-Dichloroethane	63	5.214	5.203	0.011	1	4641	1.07	
45 cis-1,2-Dichloroethene	96	5.950	5.951	-0.001	83	149075	62.2	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83	6.388	6.383	0.005	94	4047	1.02	M
53 1,1,1-Trichloroethane	97	6.546	6.541	0.005	96	8156	2.73	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.678	7.673	0.005	96	126004	56.4	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91	8.998	9.005	-0.007	30	2401	0.2643	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97	9.430	9.443	-0.013	1	770	0.4369	
80 Tetrachloroethene	164	9.515	9.516	-0.001	94	66792	38.7	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

Worklist Smp#: 23

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

Purge Vol: 5.000 mL

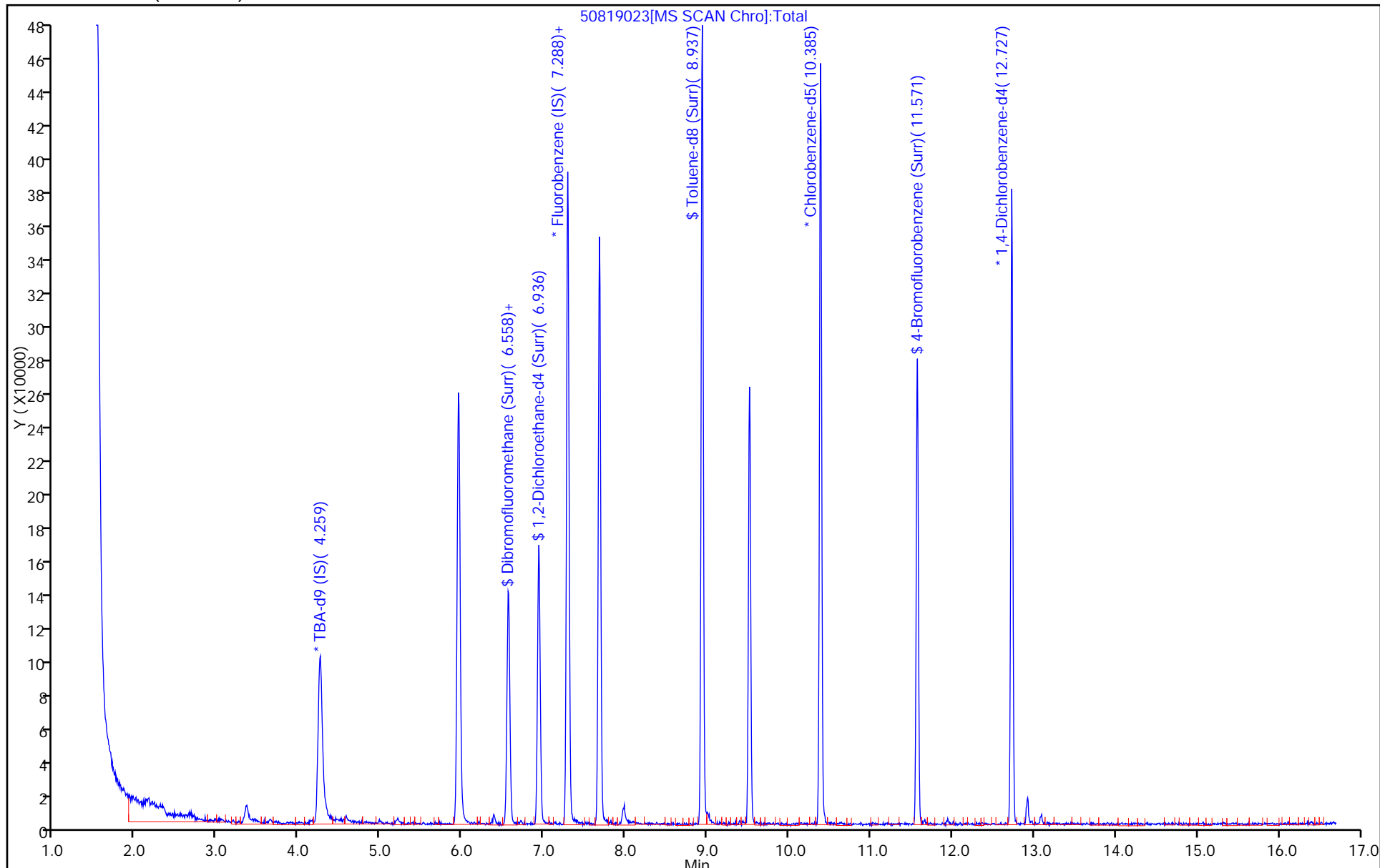
Dil. Factor: 1.0000

ALS Bottle#: 23

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

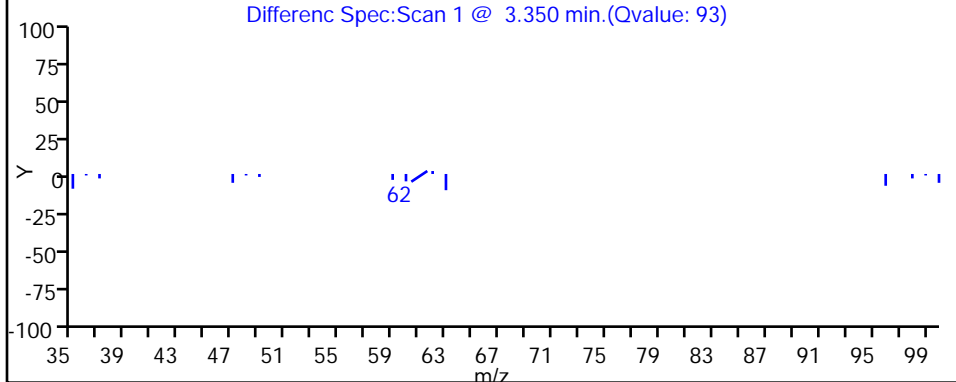
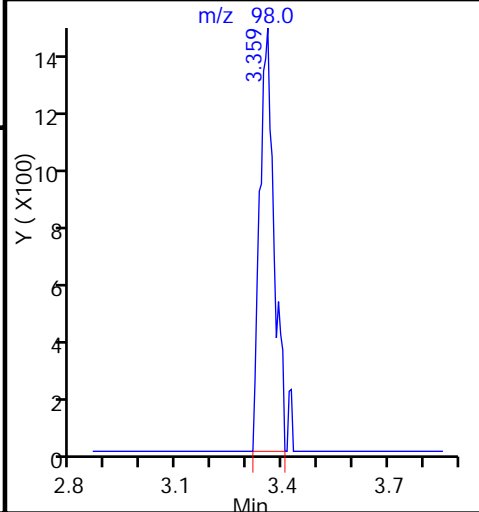
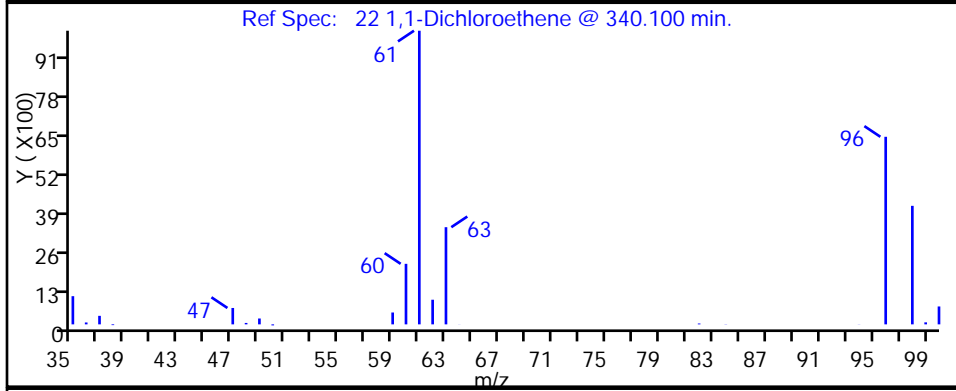
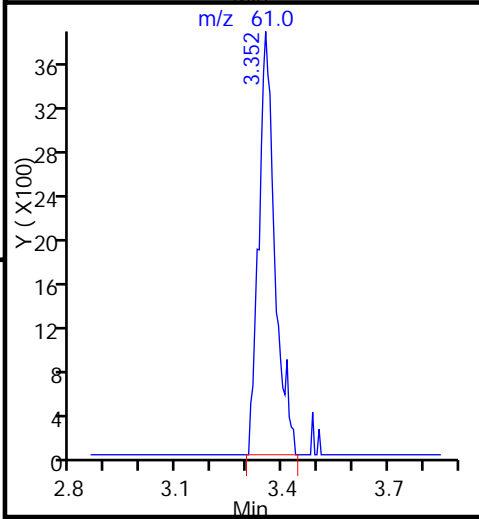
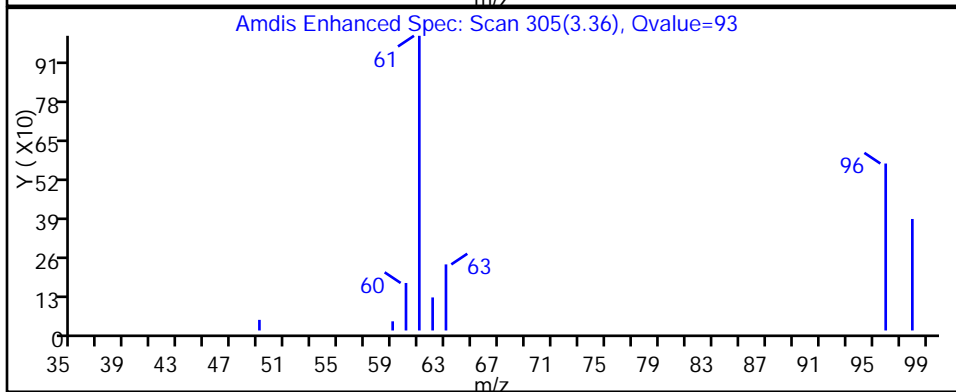
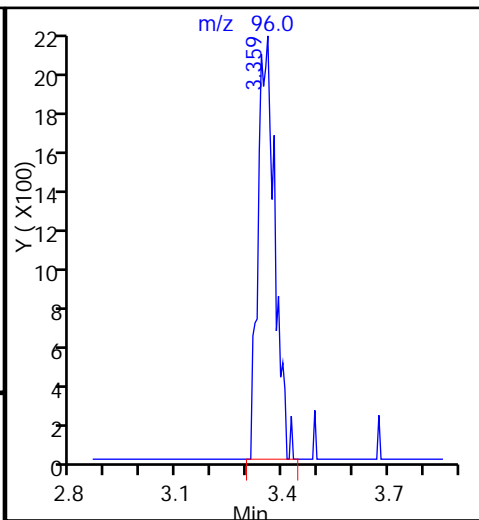
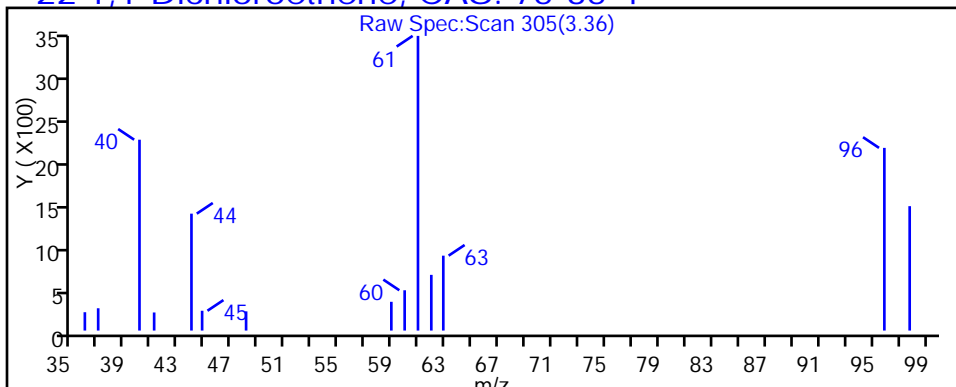
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

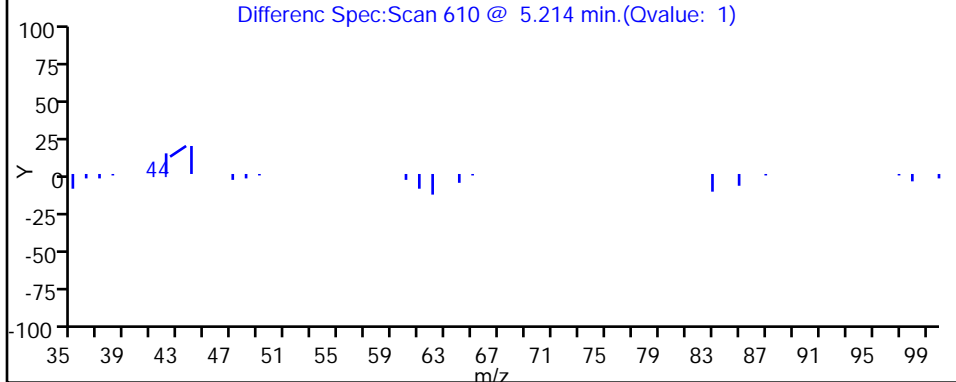
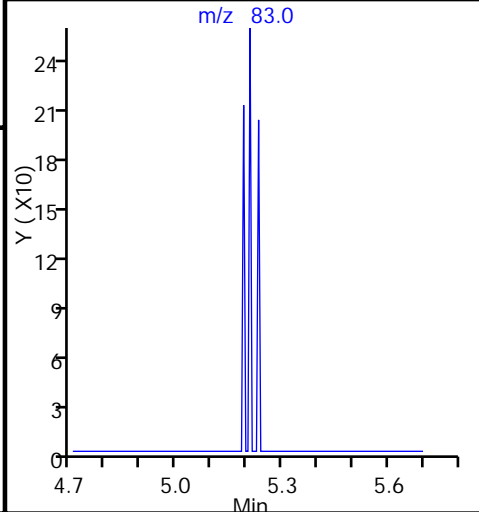
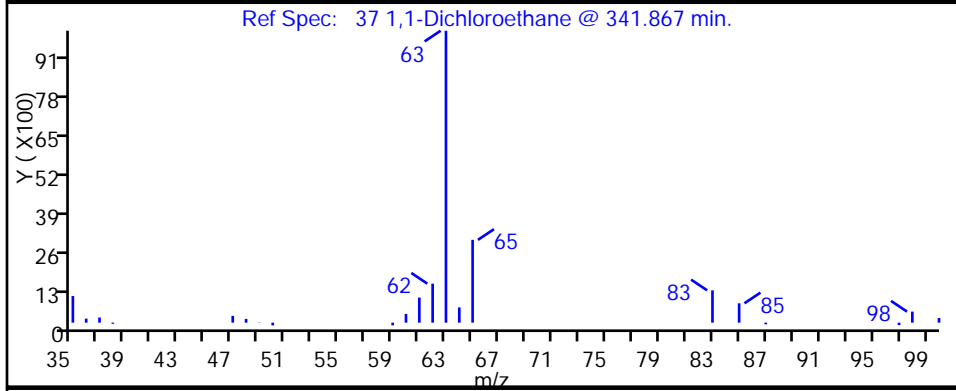
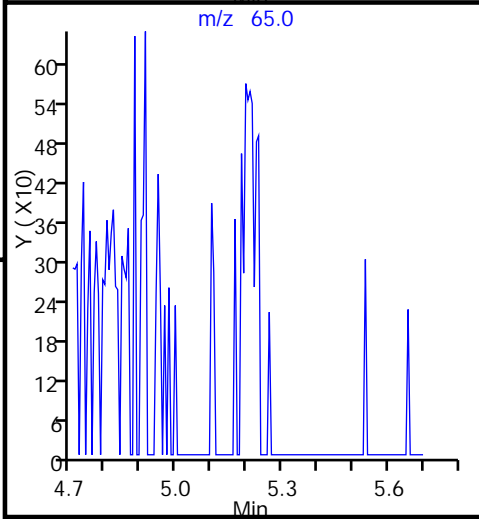
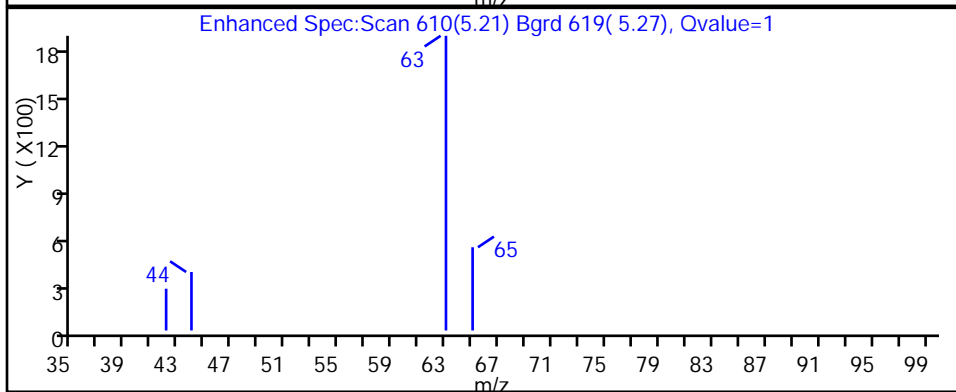
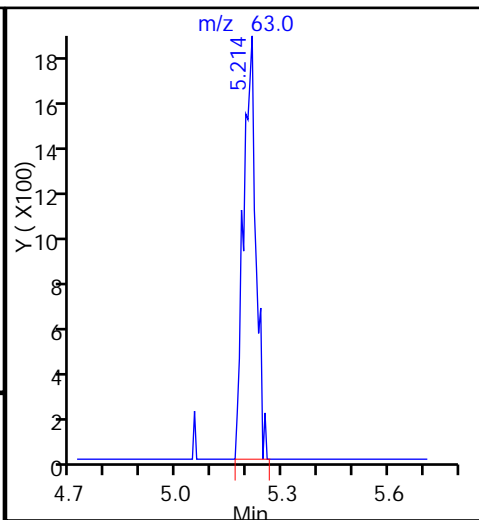
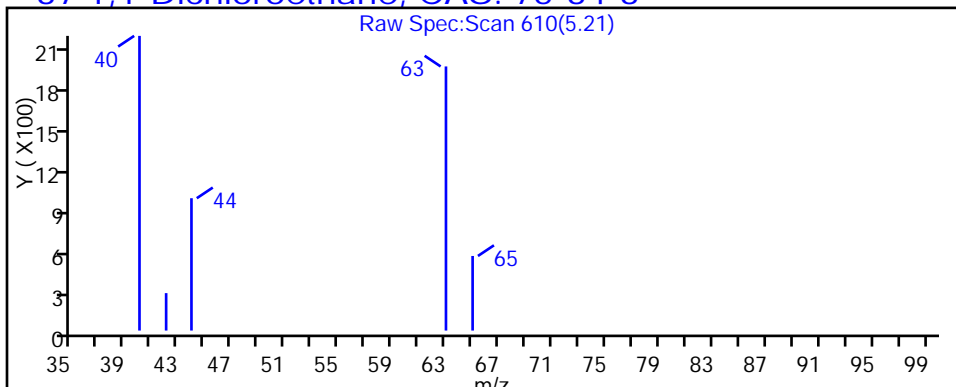
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

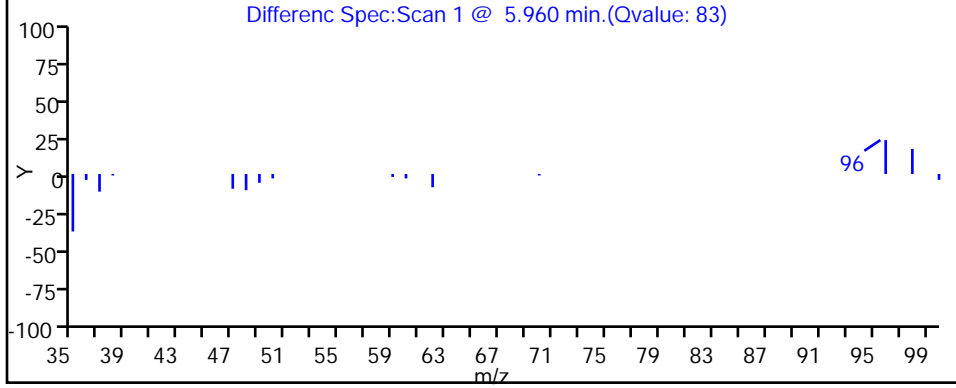
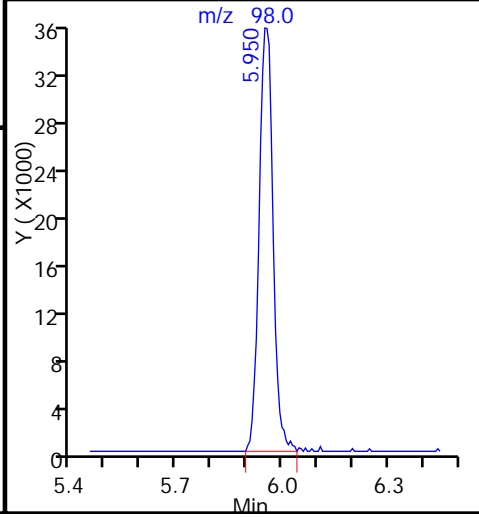
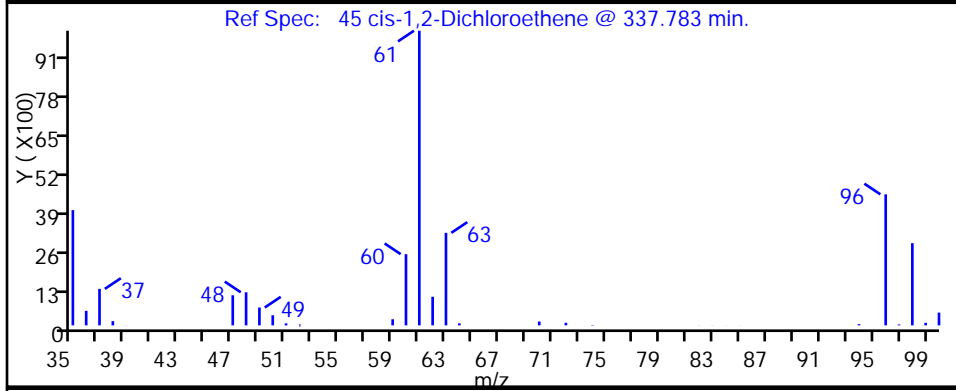
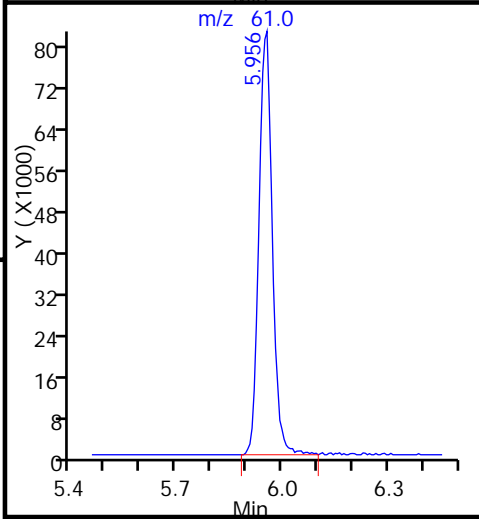
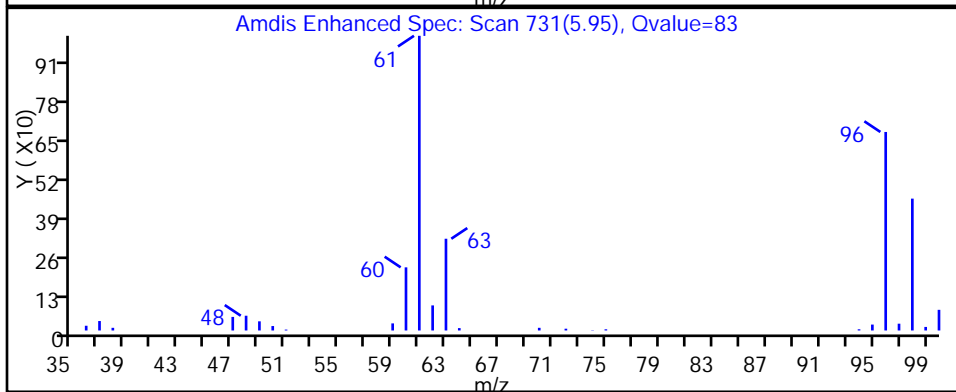
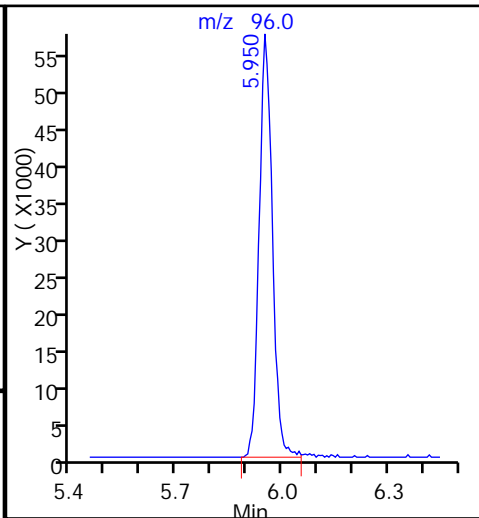
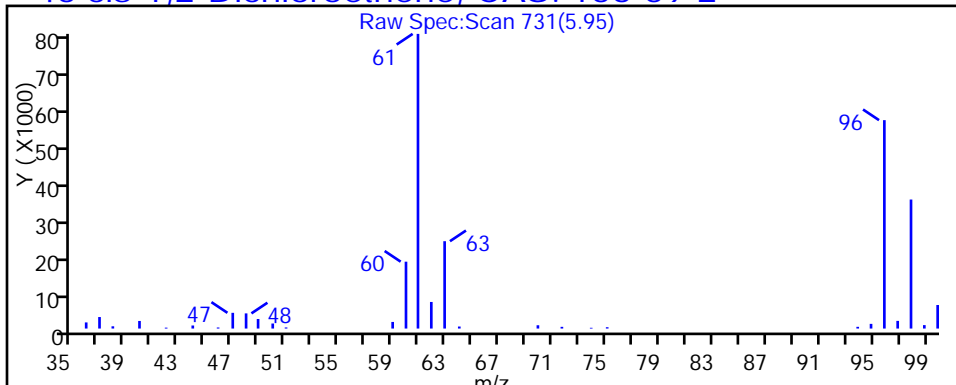
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

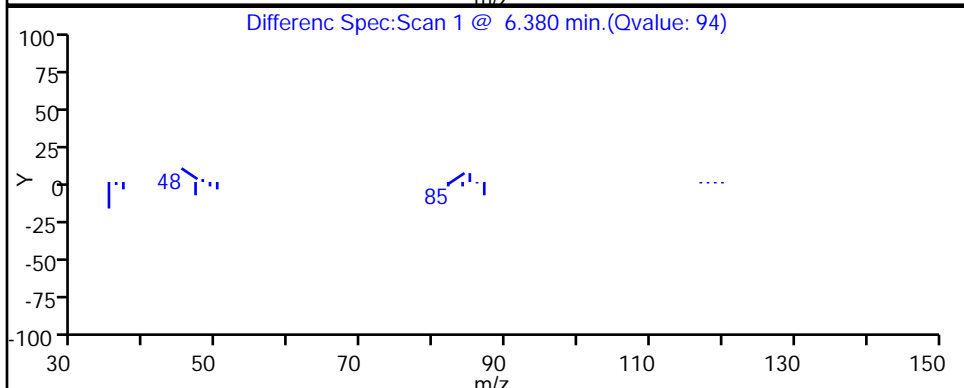
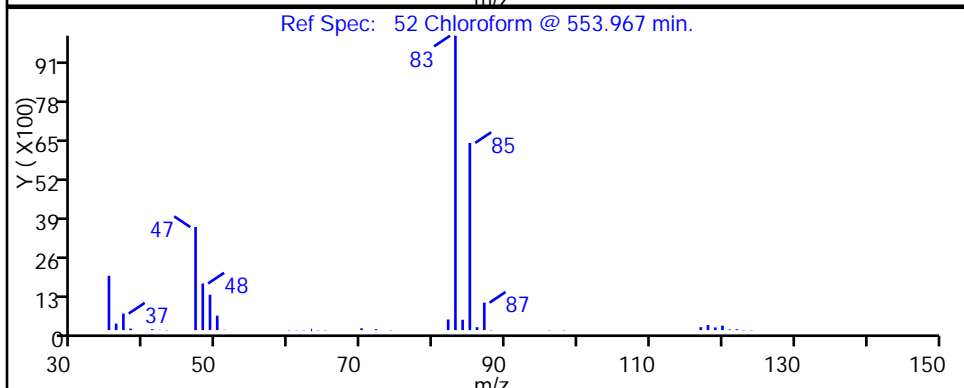
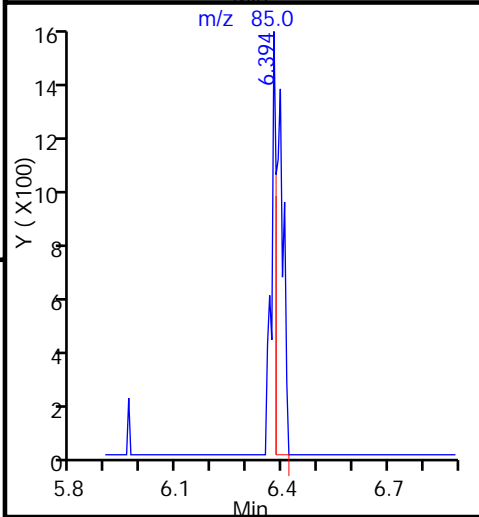
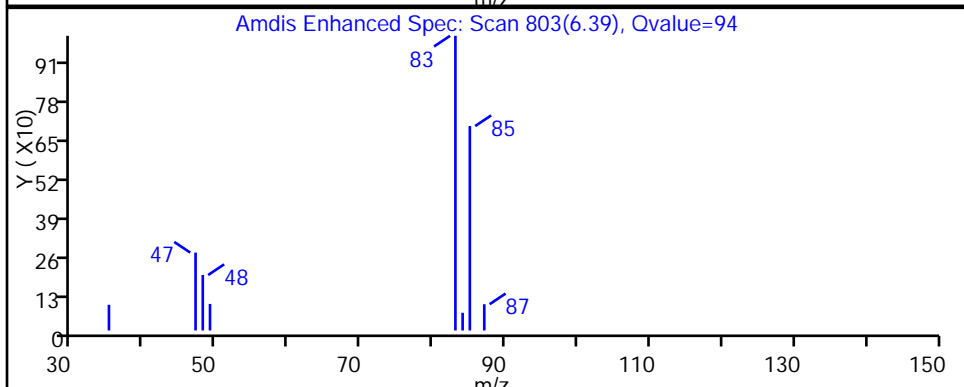
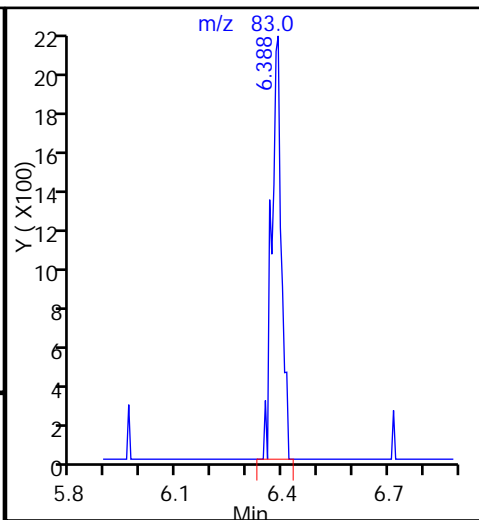
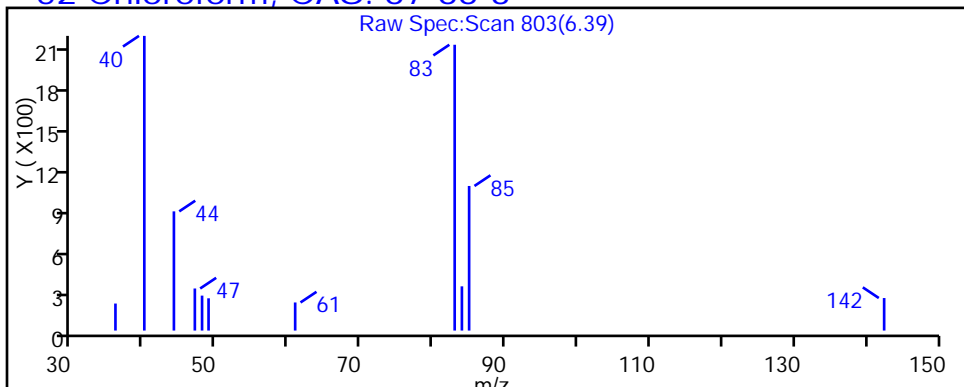
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

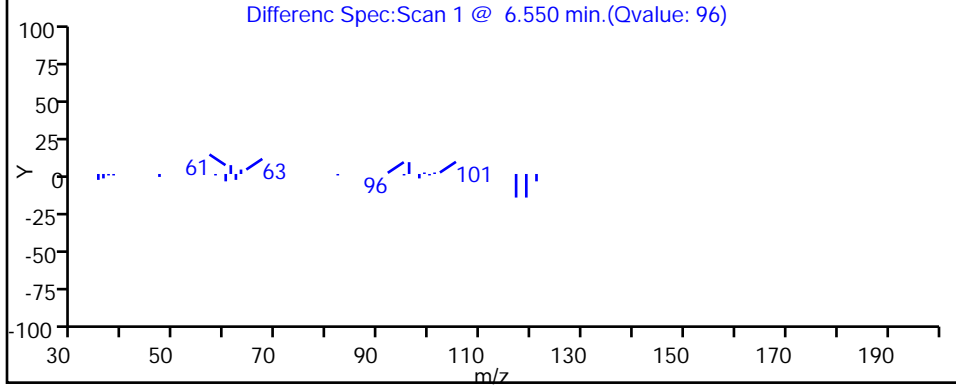
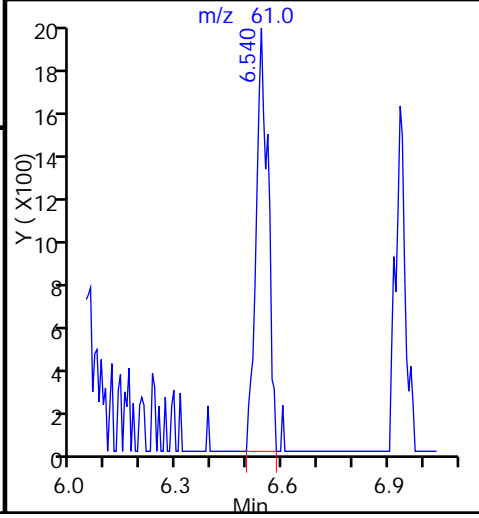
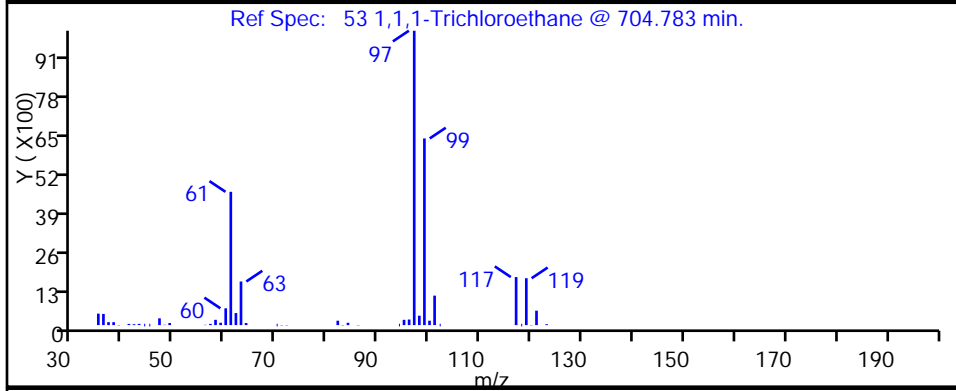
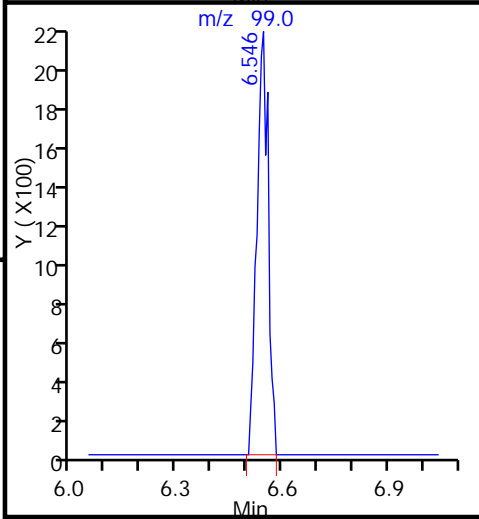
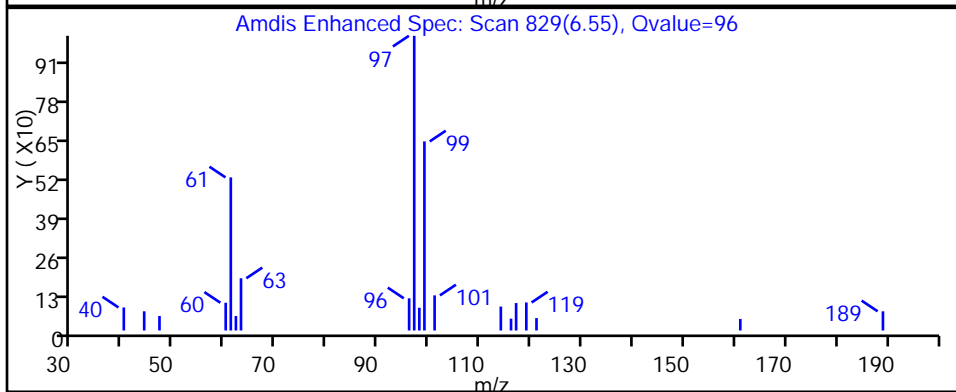
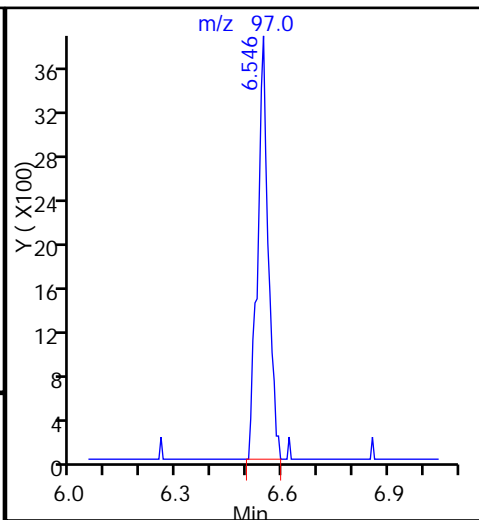
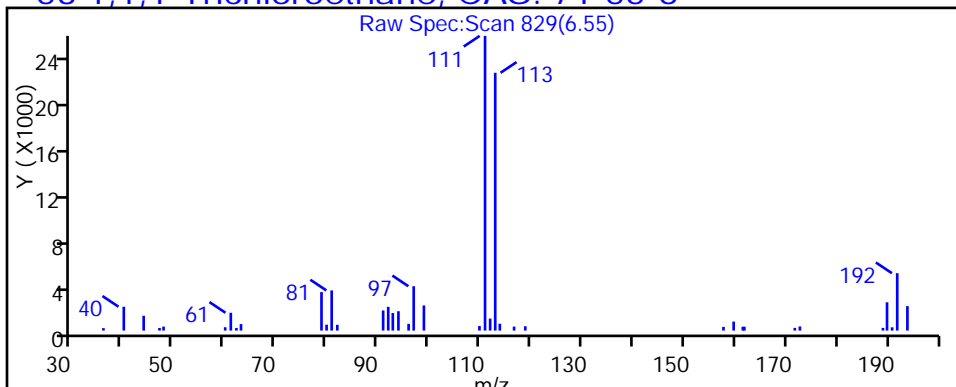
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

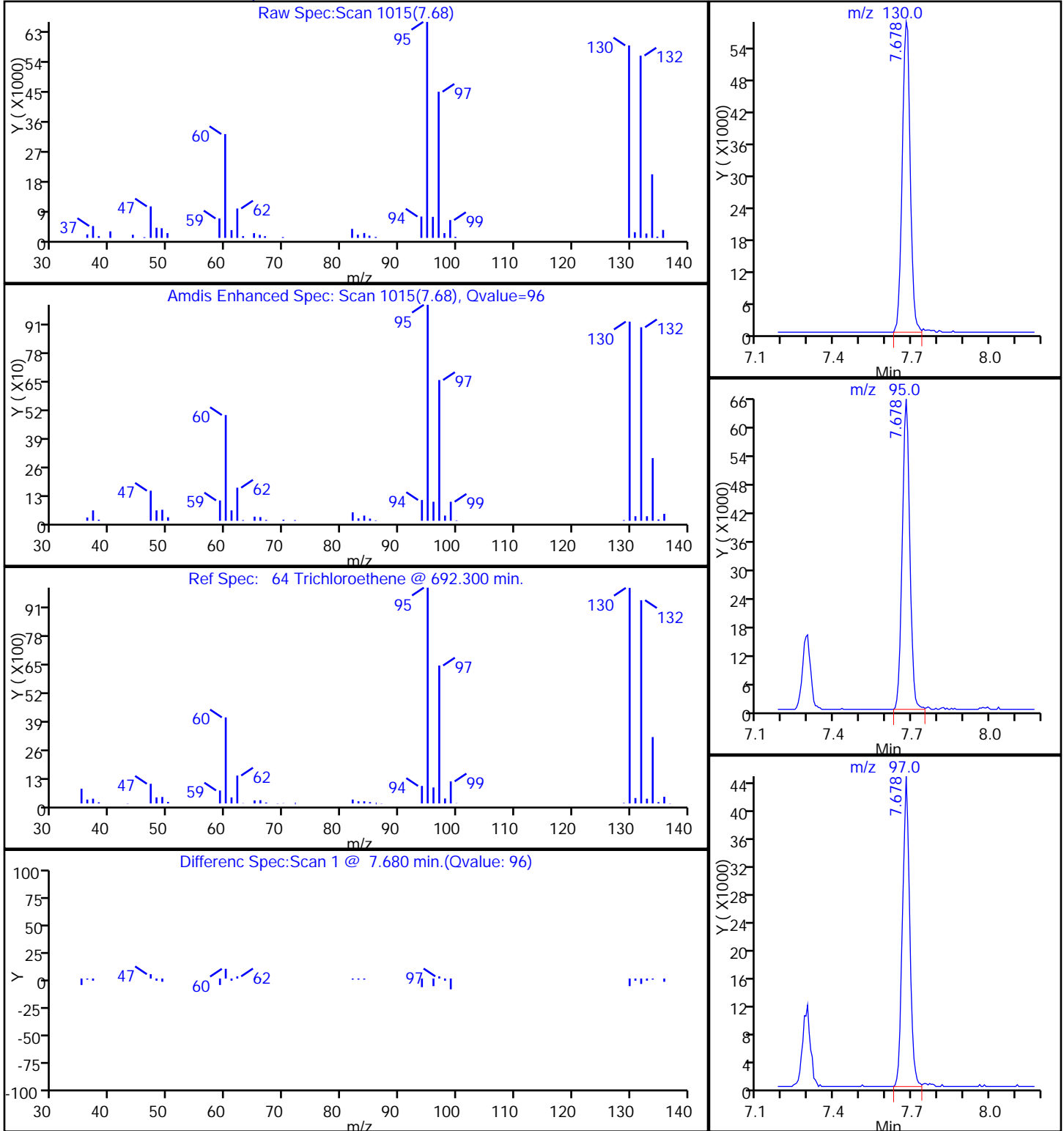
53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D  
Injection Date: 19-Aug-2015 20:04:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-18 Lab Sample ID: 180-46875-18  
Client ID: HD-QC1-0/1-1  
Operator ID: 001562 ALS Bottle#: 23 Worklist Smp#: 23  
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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D

Injection Date: 19-Aug-2015 20:04:30

Instrument ID: CHHP5

Lims ID: 180-46875-D-18

Lab Sample ID: 180-46875-18

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

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

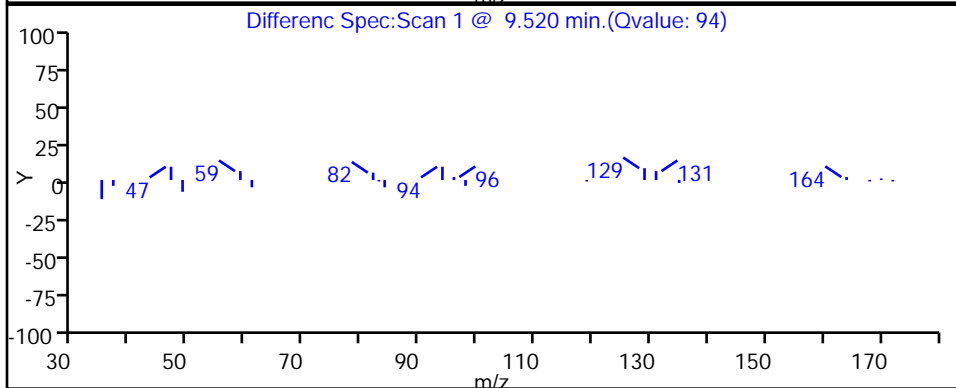
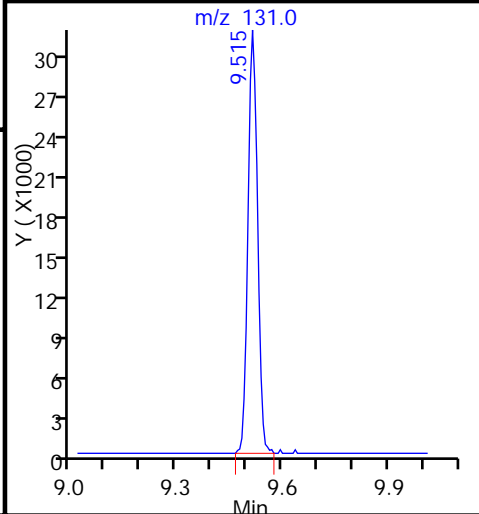
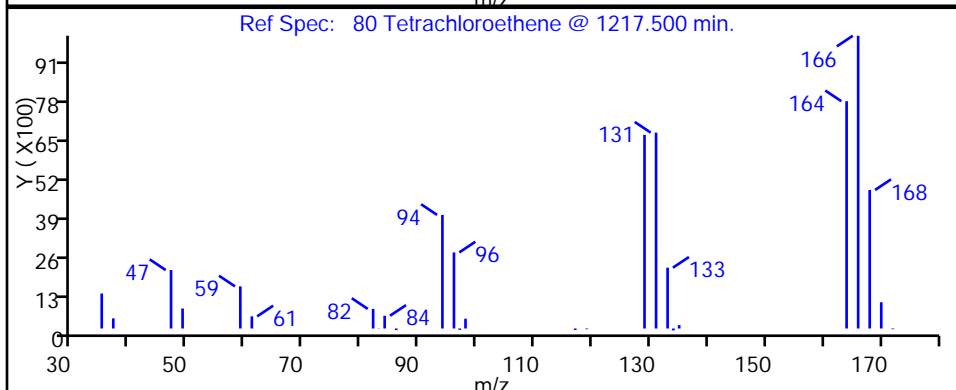
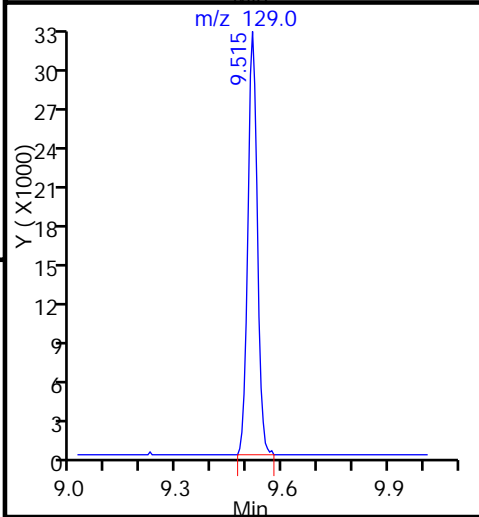
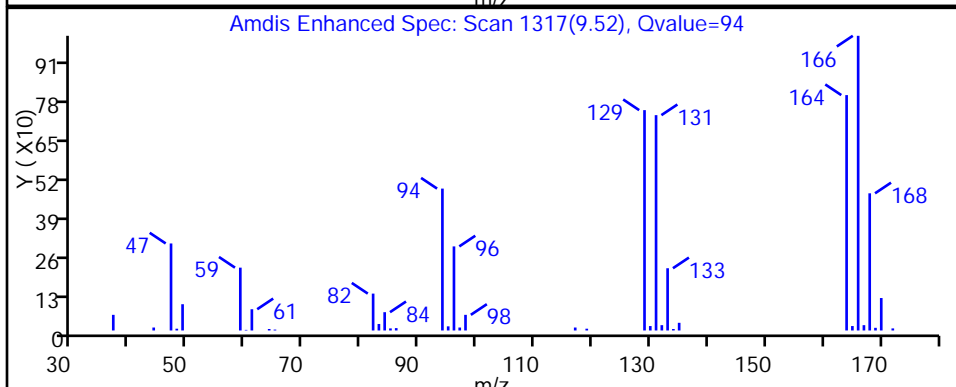
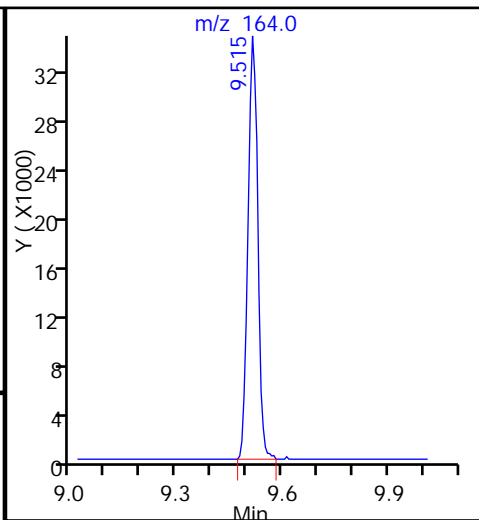
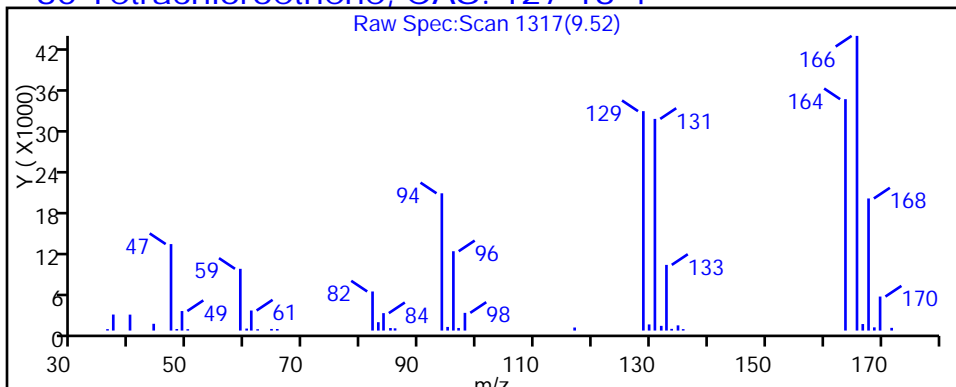
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



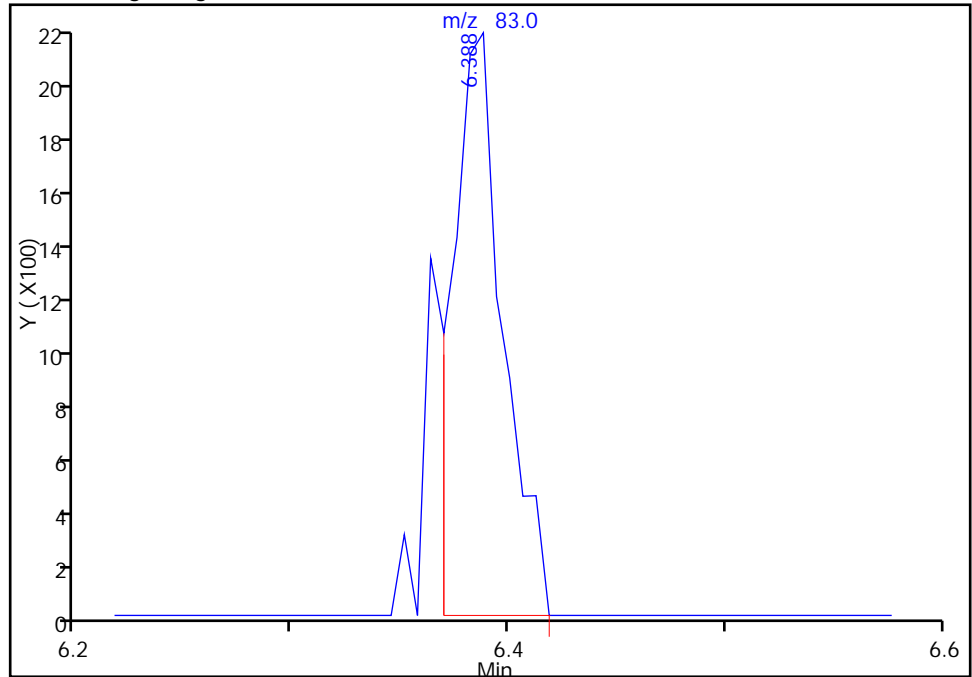
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819023.D  
Injection Date: 19-Aug-2015 20:04:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-18 Lab Sample ID: 180-46875-18  
Client ID: HD-QC1-0/1-1  
Operator ID: 001562 ALS Bottle#: 23 Worklist Smp#: 23  
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

52 Chloroform, CAS: 67-66-3

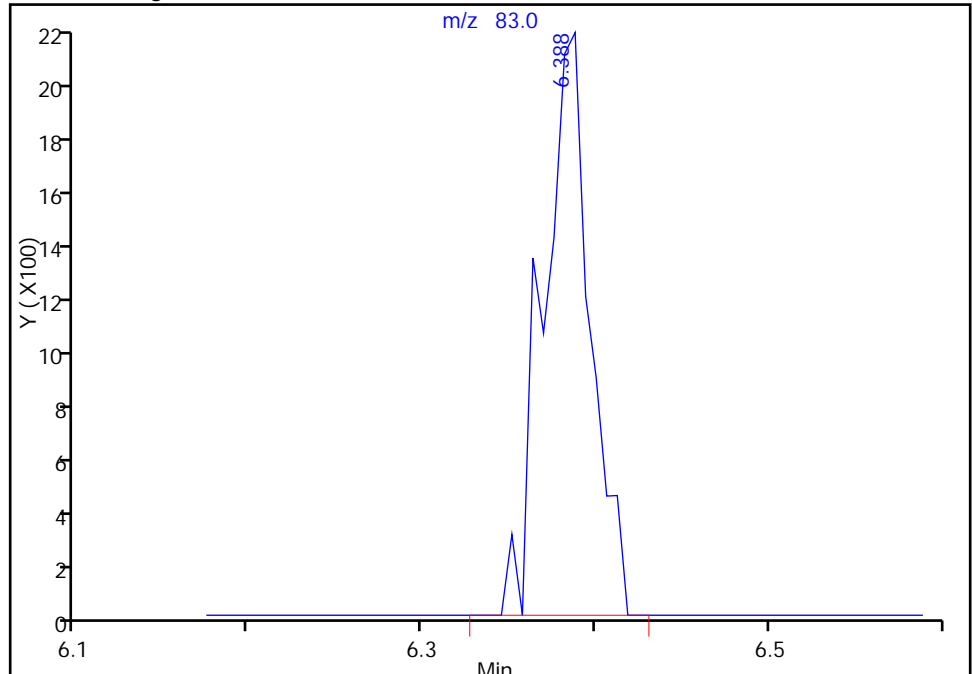
RT: 6.39  
Area: 3463  
Amount: 0.871336  
Amount Units: ng

Processing Integration Results



RT: 6.39  
Area: 4047  
Amount: 1.018277  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 20-Aug-2015 08:12:54  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC2-0/1-2 Lab Sample ID: 180-46875-19  
 Matrix: Water Lab File ID: 50819008.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:01  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 14:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC2-0/1-2 Lab Sample ID: 180-46875-19  
 Matrix: Water Lab File ID: 50819008.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 12:01  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 14:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		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)	109		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819008.D  
 Lims ID: 180-46875-A-19 Lab Sample ID: 180-46875-19  
 Client ID: HD-QC2-0/1-2  
 Sample Type: Client  
 Inject. Date: 19-Aug-2015 14:03:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-A-19  
 Misc. Info.: 180-0008221-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 15:05:05 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 15:05:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.272	-0.012	0	167025	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	396658	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	89	91699	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.728	0.001	98	111152	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.559	0.007	93	100433	54.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.937	-0.006	0	144495	54.1	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.932	0.007	94	345924	45.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.566	0.007	85	117160	41.9	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.912				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.386				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43	3.439	3.439	0.000	94	6918	10.5	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.564				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63		5.203				ND	
45 cis-1,2-Dichloroethene	96		5.951				ND	
46 2-Butanone (MEK)	43		5.963				ND	
49 Chlorobromomethane	128		6.231				ND	
52 Chloroform	83		6.383				ND	
53 1,1,1-Trichloroethane	97		6.541				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130		7.673				ND	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.026				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.226				ND	
74 cis-1,3-Dichloropropene	75		8.670				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.829				ND	
76 Toluene	91		9.005				ND	
77 trans-1,3-Dichloropropene	75		9.248				ND	
79 1,1,2-Trichloroethane	97		9.443				ND	
80 Tetrachloroethene	164		9.516				ND	
82 2-Hexanone	43		9.656				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.508				ND	
90 Ethylbenzene	106		10.514				ND	
91 m-Xylene & p-Xylene	106		10.648				ND	
92 o-Xylene	106		11.025				ND	
93 Styrene	104		11.049				ND	
94 Bromoform	173		11.226				ND	
99 1,1,2,2-Tetrachloroethane	83		11.706				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819008.D

Injection Date: 19-Aug-2015 14:03:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-A-19

Lab Sample ID: 180-46875-19

Worklist Smp#: 8

Client ID: HD-QC2-0/1-2

Purge Vol: 5.000 mL

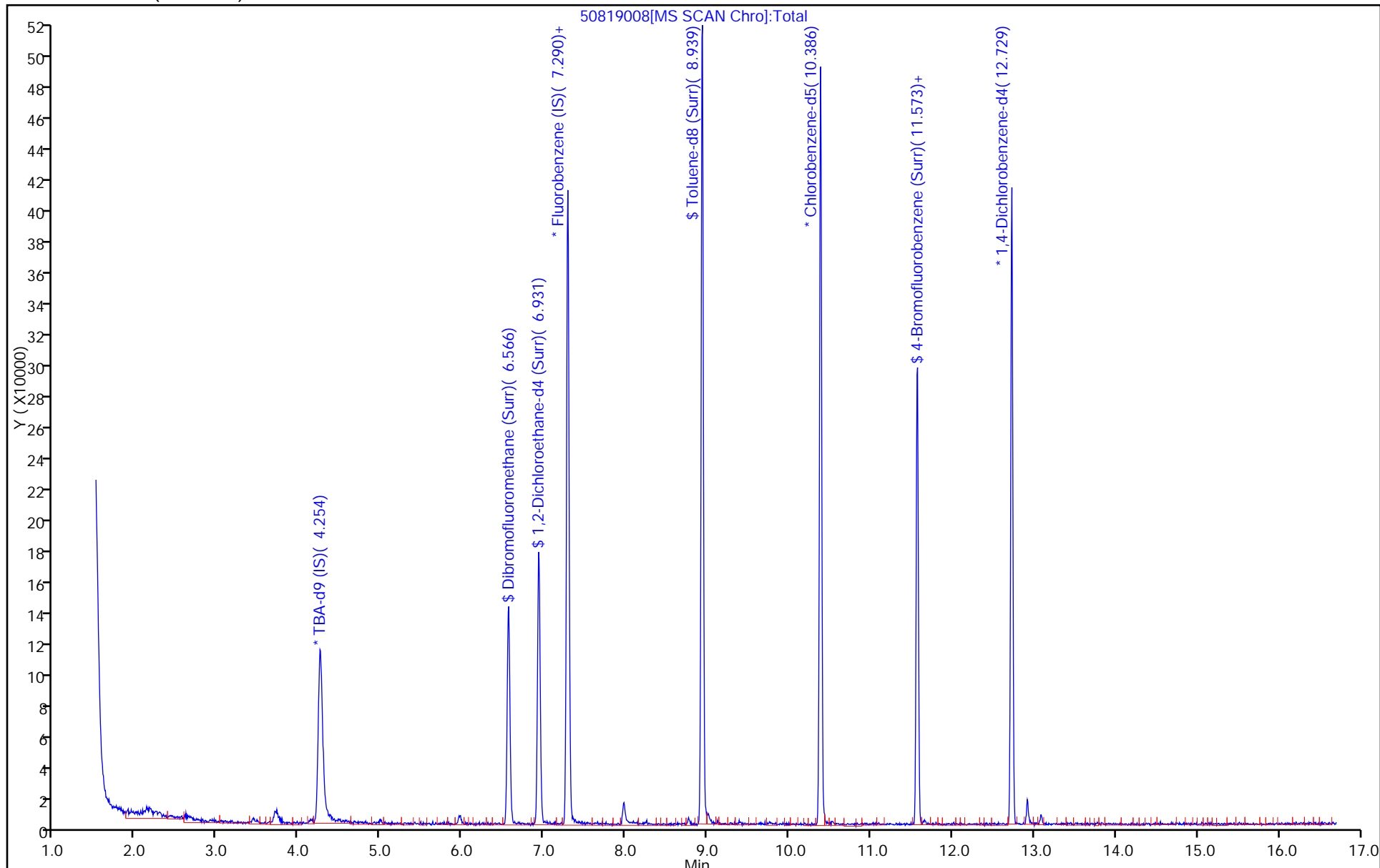
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-145277/17	50617017.D
Level 2	IC 180-145277/6	50617006.D
Level 3	ICIS 180-145277/7	50617007.D
Level 4	IC 180-145277/8	50617008.D
Level 5	IC 180-145277/9	50617009.D
Level 6	IC 180-145277/10	50617010.D
Level 7	IC 180-145277/11	50617011.D
Level 8	IC 180-145277/12	50617012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3789 0.3100	0.3397 0.3123	0.3567 0.3214	0.3386	0.3381	Ave		0.3369			0.1000	6.9	20.0				
Chloromethane	0.4464 0.3589	0.3920 0.3334	0.3998 0.3567	0.3687	0.3787	Ave		0.3794			0.1000	9.0	20.0				
Vinyl chloride	0.4461 0.3532	0.3931 0.3424	0.3978 0.3601	0.3760	0.3935	Ave		0.3828			0.1000	8.6	20.0				
1,3-Butadiene	0.4750 0.3768	0.4405 0.3575	0.4465 0.3761	0.3985	0.4119	Ave		0.4104			0.0100	9.9	20.0				
Bromomethane	0.2589 0.1745	0.1921 0.1584	0.1857 0.1604	0.1817	0.1776	Ave		0.1862			0.0500	17.0	20.0				
Chloroethane	0.2728 0.2170	0.2356 0.2014	0.2388 0.2148	0.2266	0.2370	Ave		0.2305			0.0500	9.3	20.0				
Dichlorofluoromethane	0.6038 0.4745	0.5399 0.4570	0.5300 0.4671	0.4963	0.5114	Ave		0.5100			0.0100	9.4	20.0				
Trichlorofluoromethane	0.4417 0.4024	0.4212 0.3824	0.4475 0.3856	0.4183	0.4311	Ave		0.4163			0.1000	5.9	20.0				
Ethyl ether	0.3314 0.2827	0.2975 0.2744	0.2827 0.2725	0.2796	0.2814	Ave		0.2878			0.0100	6.7	20.0				
Acrolein	0.0551 0.0570	0.0549 0.0581	0.0537 0.0554	0.0548	0.0526	Ave		0.0552			0.0100	3.1	20.0				
1,1-Dichloroethene	0.3231 0.2711	0.2838 0.2613	0.2843 0.2742	0.2732	0.2942	Ave		0.2832			0.1000	6.7	20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3364 0.2866	0.2910 0.2741	0.3113 0.2914	0.2934	0.3073	Ave		0.2989			0.1000	6.4	20.0				
Acetone	0.1145 0.0795	0.0822 0.0801	0.0809 0.0733	0.0788	0.0733	Ave		0.0828			0.0500	16.0	20.0				
Iodomethane	0.4382 0.3770	0.3846 0.3686	0.3914 0.3901	0.3883	0.3926	Ave		0.3913			0.0100	5.3	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Carbon disulfide	0.6643 0.6500	0.5328 0.6371	0.5875 0.6914	0.5922	0.6592	Ave		0.6268		0.1000	8.3		20.0				
Allyl chloride	0.1551 0.1643	0.1420 0.1563	0.1469 0.1715	0.1556	0.1615	Ave		0.1566		0.0100	6.0		20.0				
Methyl acetate	0.3016 0.2565	0.2520 0.2509	0.2534 0.2417	0.2527	0.2464	Ave		0.2569		0.1000	7.3		20.0				
Methylene Chloride	1.1481 0.3180	0.4132 0.2970	0.3604 0.3060	0.3326	0.3405	Lin2	4.3118	0.2788		0.1000				0.9950		0.9900	
tert-Butyl alcohol	1.2085 1.1797	1.2289 1.1027	1.1180 1.0836	1.1179	1.0962	Ave		1.1419		0.0100	4.9		20.0				
Acrylonitrile	0.1374 0.1269	0.1198 0.1216	0.1243 0.1190	0.1245	0.1225	Ave		0.1245		0.0100	4.7		20.0				
trans-1,2-Dichloroethene	0.3481 0.2912	0.2974 0.2797	0.3074 0.2913	0.2940	0.2992	Ave		0.3011		0.1000	6.8		20.0				
Methyl tert-butyl ether	0.8363 0.7490	0.6973 0.7498	0.6947 0.7699	0.7170	0.7276	Ave		0.7427		0.1000	6.2		20.0				
Hexane	0.4948 0.4614	0.4247 0.4478	0.4768 0.4797	0.4614	0.4797	Ave		0.4658		0.0100	4.7		20.0				
1,1-Dichloroethane	0.6697 0.5568	0.5598 0.5354	0.5720 0.5622	0.5690	0.5776	Ave		0.5753		0.2000	7.0		20.0				
Vinyl acetate	0.4540 0.5520	0.4510 0.5211	0.4730 0.5116	0.4621	0.5145	Ave		0.4924		0.0100	7.6		20.0				
2,2-Dichloropropane	0.2515 0.2430	0.2465 0.2366	0.2461 0.2470	0.2450	0.2508	Ave		0.2458		0.0100	1.9		20.0				
cis-1,2-Dichloroethene	0.3618 0.3150	0.3087 0.3035	0.3142 0.3141	0.3158	0.3185	Ave		0.3190		0.1000	5.6		20.0				
2-Butanone (MEK)	0.1390 0.1278	0.1161 0.1216	0.1169 0.1208	0.1151	0.1148	Ave		0.1215		0.0500	6.8		20.0				
Bromochloromethane	0.1398 0.1350	0.1346 0.1314	0.1367 0.1329	0.1320	0.1344	Ave		0.1346		0.0100	2.0		20.0				
Tetrahydrofuran	0.1213 0.1033	0.0856 0.1036	0.0911 0.1016	0.0986	0.0939	Ave		0.0999		0.0100	10.7		20.0				
Chloroform	0.6349 0.5063	0.5307 0.4874	0.5304 0.5025	0.5272	0.5147	Ave		0.5292		0.2000	8.6		20.0				
1,1,1-Trichloroethane	0.4164 0.3978	0.3758 0.3819	0.4000 0.4030	0.3980	0.4087	Ave		0.3977		0.1000	3.3		20.0				
Cyclohexane	0.6342 0.5844	0.5521 0.5673	0.6004 0.6119	0.5855	0.6264	Ave		0.5953		0.1000	4.8		20.0				
Carbon tetrachloride	0.3694 0.3413	0.3245 0.3309	0.3538 0.3573	0.3366	0.3542	Ave		0.3460		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 BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07

Calibration End Date: 06/17/2015 18:04

Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,1-Dichloropropene	0.4631 0.4305	0.4088 0.4124	0.4498 0.4373	0.4352	0.4542	Ave		0.4364			0.0100	4.4	20.0				
Isobutyl alcohol	0.0084 0.0091	0.0077 0.0080	0.0075 0.0088	0.0091	0.0080	Ave		0.0083		*	0.0100	7.4	20.0				
Benzene	1.4578 1.2027	1.2781 1.1470	1.2961 1.1714	1.2614	1.2669	Ave		1.2602			0.5000	7.6	20.0				
1,2-Dichloroethane	0.4977 0.4237	0.4381 0.4081	0.4219 0.4172	0.4185	0.4236	Ave		0.4311			0.1000	6.5	20.0				
n-Heptane	0.4395 0.4078	0.3789 0.3903	0.4254 0.4187	0.4071	0.4261	Ave		0.4117			0.0100	4.8	20.0				
Trichloroethene	0.3418 0.2891	0.2897 0.2789	0.2938 0.2956	0.2919	0.2998	Ave		0.2975			0.2000	6.3	20.0				
Methylcyclohexane	0.4650 0.5078	0.4471 0.4904	0.5134 0.5215	0.5030	0.5286	Ave		0.4971			0.1000	5.7	20.0				
1,2-Dichloropropane	0.3518 0.3050	0.2946 0.2951	0.2984 0.3102	0.2994	0.3017	Ave		0.3070			0.1000	6.1	20.0				
1,4-Dioxane	0.0016 0.0023	0.0018 0.0023	0.0022 0.0023	0.0023	0.0022	Ave		0.0021		*	0.0100	13.1	20.0				
Dibromomethane	0.1902 0.1636	0.1678 0.1603	0.1590 0.1661	0.1633	0.1584	Ave		0.1661			0.0100	6.2	20.0				
Bromodichloromethane	0.3597 0.3499	0.3058 0.3357	0.3110 0.3536	0.3279	0.3383	Ave		0.3352			0.2000	5.8	20.0				
cis-1,3-Dichloropropene	0.3478 0.4260	0.3263 0.4222	0.3601 0.4405	0.3829	0.3970	Ave		0.3878			0.2000	10.5	20.0				
4-Methyl-2-pentanone (MIBK)	1.2534 1.2472	1.0304 1.1594	1.1832 1.1879	1.2130	1.1943	Ave		1.1836			0.1000	5.9	20.0				
Toluene	6.1711 4.9176	5.6697 4.5402	5.8197 4.6853	5.6108	5.5761	Ave		5.3738			0.4000	10.9	20.0				
trans-1,3-Dichloropropene	1.4210 1.5246	1.2766 1.4456	1.3940 1.5462	1.4629	1.5014	Ave		1.4465			0.1000	5.9	20.0				
Ethyl methacrylate	1.1779 1.5078	1.1627 1.4334	1.3515 1.4923	1.4216	1.4730	Ave		1.3775			0.0100	9.9	20.0				
1,1,2-Trichloroethane	1.2519 0.9795	1.0938 0.9118	1.0632 0.9429	1.0682	1.0298	Ave		1.0426			0.1000	10.2	20.0				
Tetrachloroethene	1.1721 0.9414	1.0602 0.8734	1.0692 0.9362	1.0486	1.0769	Ave		1.0222			0.2000	9.5	20.0				
1,3-Dichloropropane	2.1871 1.8289	1.9483 1.6861	1.9806 1.7783	1.9302	1.9129	Ave		1.9065			0.0100	7.9	20.0				
2-Hexanone	0.8242 0.8130	0.6781 0.7394	0.7654 0.7638	0.7481	0.7513	Ave		0.7604			0.1000	5.9	20.0				

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

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07

Calibration End Date: 06/17/2015 18:04

Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromochloromethane	0.9056 0.8758	0.7668 0.8290	0.8046 0.8931	0.8428	0.8760	Ave		0.8492			0.1000	5.6	20.0				
1,2-Dibromoethane (EDB)	1.0369 0.9639	0.9543 0.9083	0.9943 0.9466	0.9944	0.9954	Ave		0.9743			0.1000	4.0	20.0				
3-Chlorobenzotrifluoride	2.0552 1.6732	1.8669 1.5578	1.8134 1.5255	1.7644	1.8271	Ave		1.7604			0.0100	9.8	20.0				
Chlorobenzene	4.1242 3.0932	3.4839 2.8830	3.5109 3.0138	3.3752	3.3640	Ave		3.3560			0.5000	11.5	20.0				
4-Chlorobenzotrifluoride	1.9609 1.5902	1.6374 1.5004	1.7439 1.4520	1.6528	1.7330	Ave		1.6588			0.0100	9.6	20.0				
1,1,1,2-Tetrachloroethane	1.0740 1.0321	1.0143 0.9696	1.0442 1.0099	1.0652	1.0783	Ave		1.0359			0.0100	3.6	20.0				
Ethylbenzene	1.8940 1.7932	1.8209 1.6586	1.9452 1.7684	1.9264	1.9579	Ave		1.8456			0.1000	5.6	20.0				
m-Xylene & p-Xylene	2.1452 2.1725	2.2094 2.0526	2.3572 2.1434	2.3587	2.3848	Ave		2.2280			0.1000	5.5	20.0				
o-Xylene	2.0743 2.0931	2.0859 1.9776	2.2674 2.0624	2.2610	2.2898	Ave		2.1390			0.3000	5.5	20.0				
Styrene	3.1100 3.4473	3.5127 3.2256	3.7596 3.3888	3.7510	3.7561	Ave		3.4939			0.3000	7.2	20.0				
Bromoform	0.4373 0.4827	0.4096 0.4651	0.4124 0.5080	0.4357	0.4557	Ave		0.4508			0.1000	7.5	20.0				
2-Chlorobenzotrifluoride	1.9344 1.5826	1.6798 1.5159	1.6733 1.4688	1.6701	1.7509	Ave		1.6595			0.0100	8.7	20.0				
Isopropylbenzene	5.0800 4.9867	5.2319 4.6988	5.7705 4.8646	5.5778	5.7052	Ave		5.2394			0.1000	7.7	20.0				
1,1,2,2-Tetrachloroethane	1.5224 1.2588	1.4149 1.1942	1.3347 1.2264	1.3061	1.2909	Ave		1.3186			0.3000	8.1	20.0				
Bromobenzene	1.0611 0.9637	0.9226 0.9042	0.9693 0.9883	0.9765	1.0017	Ave		0.9734			0.0100	4.9	20.0				
trans-1,4-Dichloro-2-butene	0.2997 0.3606	0.2725 0.3450	0.3143 0.3740	0.3328	0.3335	Ave		0.3290			0.0100	10.0	20.0				
1,2,3-Trichloropropane	0.4003 0.3444	0.3299 0.3268	0.3434 0.3469	0.3290	0.3378	Ave		0.3448			0.0100	6.9	20.0				
N-Propylbenzene	1.0305 1.1769	1.0496 1.1095	1.1892 1.2189	1.1958	1.2262	Ave		1.1496			0.0100	6.7	20.0				
2-Chlorotoluene	1.0850 0.9772	0.9205 0.9428	0.9967 1.0081	0.9868	1.0223	Ave		0.9924			0.0100	5.1	20.0				
3-Chlorotoluene	1.0331 1.0523	0.9837 1.0029	1.0324 1.0130	1.0268	1.0735	Ave		1.0272			0.0100	2.7	20.0				

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

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07

Calibration End Date: 06/17/2015 18:04

Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
1,3,5-Trimethylbenzene	3.0237 3.3111	3.3245 3.1136	3.6197 3.3043	3.5081	3.5504	Ave		3.3444			0.0100	6.2	20.0				
4-Chlorotoluene	1.1654 1.0667	1.0510 0.9893	1.1054 1.0809	1.0606	1.0825	Ave		1.0752			0.0100	4.6	20.0				
tert-Butylbenzene	2.4388 2.6754	2.4315 2.5569	2.8015 2.7285	2.7900	2.8591	Ave		2.6602			0.0100	6.2	20.0				
1,2,4-Trimethylbenzene	2.9527 3.3087	3.1796 3.1218	3.5446 3.2815	3.4454	3.5129	Ave		3.2934			0.0100	6.2	20.0				
3,4-Dichlorobenzotrifluoride	1.1480 0.9438	0.9539 0.9099	0.9578 0.8947	0.9350	0.9711	Ave		0.9643			0.0100	8.1	20.0				
sec-Butylbenzene	3.5996 3.7756	3.6982 3.5744	3.5446 3.7960	4.0177	4.1302	Ave		3.8358			0.0100	5.7	20.0				
1,3-Dichlorobenzene	2.1265 1.7032	1.7173 1.6225	1.7467 1.7233	1.7425	1.7720	Ave		1.7693			0.6000	8.5	20.0				
4-Isopropyltoluene	2.7083 3.1020	2.9124 2.9631	3.2839 3.1471	3.2465	3.3452	Ave		3.0886			0.0100	7.0	20.0				
1,4-Dichlorobenzene	2.0878 1.7387	1.7885 1.6329	1.7957 1.7617	1.7898	1.8027	Ave		1.7997			0.5000	7.2	20.0				
2,4-Dichlorobenzotrifluoride	1.0106 0.8739	0.8677 0.8114	0.8733 0.8001	0.8877	0.8840	Ave		0.8761			0.0100	7.3	20.0				
2,5-Dichlorobenzotrifluoride	1.0822 0.9166	0.9278 0.9195	0.9011 0.9098	0.9207	1.0029	Ave		0.9476			0.0100	6.6	20.0				
n-Butylbenzene	2.2811 2.6842	2.4658 2.5552	2.7112 2.7456	2.8171	2.8649	Ave		2.6406			0.0100	7.4	20.0				
1,2-Dichlorobenzene	1.8093 1.5224	1.5492 1.4342	1.5338 1.5226	1.5907	1.5720	Ave		1.5668			0.4000	6.9	20.0				
1,2-Dibromo-3-Chloropropane	0.1739 0.1365	0.1114 0.1317	0.1158 0.1489	0.1272	0.1307	Ave		0.1345			0.0500	14.7	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	0.8081 0.9486	0.7958 0.8943	0.8182 0.9159	0.9554	0.9863	Ave		0.8903			0.0100	8.3	20.0				
2,3- & 3,4- Dichlorotoluene	0.7467 0.8836	0.7241 0.8313	0.6949 0.8687	0.8736	0.8980	Ave		0.8151			0.0100	9.9	20.0				
1,2,4-Trichlorobenzene	0.5005 0.5904	0.5296 0.5558	0.4902 0.6255	0.5887	0.5957	Ave		0.5596			0.2000	8.7	20.0				
Hexachlorobutadiene	0.4072 0.2861	0.3242 0.2658	0.2903 0.2960	0.3094	0.3064	Ave		0.3107			0.0100	13.7	20.0				
Naphthalene	1.2108 1.6342	1.1808 1.5586	1.1819 1.7463	1.5144	1.5675	Ave		1.4493			0.0100	15.5	20.0				
1,2,3-Trichlorobenzene	0.4529 0.4667	0.4561 0.4485	0.3657 0.5042	0.4843	0.4660	Ave		0.4556			0.0100	8.9	20.0				

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.1816 0.1880	0.1236 0.2085	0.1215 0.2320	0.1644	0.1667	Qua	0.2667	0.1098	0.0004799		0.0100			0.9990		0.9900	
2,3,6-Trichlorotoluene	0.1758 +++++	0.1419 +++++	0.1144 +++++	0.1621	0.1679	Qua	0.2057	0.1127	0.0004750		0.0100			0.9990		0.9900	
Dibromofluoromethane (Surr)	0.2623 0.2320	0.2273 0.2231	0.2360 0.2248	0.2360	0.2236	Ave		0.2331			5.5		20.0				
1,2-Dichloroethane-d4 (Surr)	0.4097 0.3261	0.3392 0.3141	0.3317 0.3173	0.3375	0.3163	Ave		0.3365			9.2		20.0				
Toluene-d8 (Surr)	4.9751 3.8804	4.3178 3.6003	4.5129 3.5692	4.3426	4.0028	Ave		4.1502			11.6		20.0				
4-Bromofluorobenzene (Surr)	1.7358 1.4589	1.5710 1.3944	1.5724 1.4413	1.5656	1.4690	Ave		1.5261			7.1		20.0				

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



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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-145277/17	50617017.D
Level 2	IC 180-145277/6	50617006.D
Level 3	ICIS 180-145277/7	50617007.D
Level 4	IC 180-145277/8	50617008.D
Level 5	IC 180-145277/9	50617009.D
Level 6	IC 180-145277/10	50617010.D
Level 7	IC 180-145277/11	50617011.D
Level 8	IC 180-145277/12	50617012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Dichlorodifluoromethane	FB	Ave	13985 406279	61850 490752	131293 633416	190707	258891	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	16479 470358	71382 523991	147191 703080	207710	290013	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	16468 462809	71583 538171	146437 709759	211773	301311	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17534 493792	80205 561800	164375 741355	224490	315376	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	9558 228703	34976 248868	68351 316164	102333	135973	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10069 284353	42901 316475	87910 423350	127616	181501	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	22288 621763	98310 718183	195088 920746	279582	391592	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	16306 527308	76687 600930	164743 760123	235615	330063	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12234 370505	54177 431207	104081 537080	157481	215472	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	40673 96004	49960 114067	59325 120047	72042	80592	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11927 355250	51665 410599	104659 540491	153911	225297	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	12416 375509	52979 430718	114588 574450	165277	235316	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	21142 208479	29930 251920	59535 288844	88741	112327	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	16174 494039	70032 579231	144076 768838	218721	300629	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	24523 851784	97009 1001334	216284 1362874	333568	504737	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07

Calibration End Date: 06/17/2015 18:04

Calibration ID: 24418

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	5725 215345	25848 245584	54063 337990	87643	123678	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	55670 1680625	229444 1971351	466467 2382208	711636	943344	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	42380 416721	75234 466826	132678 603105	187350	260743	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	5750 226221	29086 269586	55749 308656	92171	122036	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	50704 1662395	218071 1910483	457488 2346331	701092	938260	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	12851 381648	54149 439641	113174 574249	165608	229120	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	30869 981534	126963 1178416	255720 1517466	403865	557161	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	18266 604571	77336 703743	175506 945438	259892	367307	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	24720 729616	101924 841498	210563 1108115	320495	442302	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	16760 723334	82115 819004	174104 1008331	260276	393966	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9285 318442	44890 371771	90602 486802	137988	192057	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	13356 412793	56211 476914	115658 619117	177912	243856	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	25657 335015	42291 382226	86075 476377	129631	175815	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5160 176872	24506 206501	50339 261865	74378	102910	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8952 270631	31179 325712	67105 400339	111135	143767	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23436 663409	96620 766034	195248 990455	296949	394079	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15369 521331	68417 600207	147248 794369	224170	312928	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	23411 765785	100526 891635	221024 1206014	329815	479657	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	13635 447259	59080 520097	130225 704165	189615	271218	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17095 564179	74440 648085	165562 861875	245133	347816	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	7732 299025	35170 315367	69370 431449	128711	152861	125 4375	625 5000	1250 6250	1875	2500

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

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	53813 1576107	232716 1802599	477132 2308789	710542	970078	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	18373 555180	79766 641336	155314 822349	235728	324383	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16224 534358	68983 613406	156586 825317	229309	326259	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12617 378840	52740 438244	108145 582600	164400	229535	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	17166 665394	81408 770738	188978 1027848	283358	404786	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	12987 399628	53633 463847	109841 611506	168672	231010	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1168 60747	6452 72079	16354 89366	25534	32972	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	7021 214398	30549 251996	58547 327328	91973	121298	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	13279 458579	55672 527553	114470 696885	184708	259051	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	12838 558268	59408 663516	132564 868238	215665	304012	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	49926 808801	82393 927073	194304 1183396	307905	416339	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	49160 1594574	226679 1815140	477853 2333889	712142	971897	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	11320 494360	51041 577958	114458 770190	185676	261694	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	9383 488926	46485 573048	110969 743353	180438	256749	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	9973 317622	43730 364522	87301 469658	135577	179495	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	9337 305258	42386 349165	87791 466332	133093	187697	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	17423 593034	77894 674090	162627 885819	244987	333410	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	32828 527235	54222 591225	125695 760964	189893	261891	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7214 283987	30659 331408	66065 444869	106966	152688	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8260 312538	38153 363127	81646 471517	126213	173491	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	16372 542554	74638 622777	148897 759876	223941	318462	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07

Calibration End Date: 06/17/2015 18:04

Calibration ID: 24418

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	32854 1002990	139289 1152586	288276 1501256	428389	586338	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15621 515650	65463 599843	143190 723279	209779	302059	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8556 334679	40551 387650	85737 503057	135194	187943	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	15088 581465	72799 663092	159720 880883	244510	341262	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	17089 704459	88332 820612	193548 1067701	299376	415658	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	16524 678709	83396 790630	186179 1027331	286981	399112	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	24775 1117800	140441 1289578	308704 1688053	476097	654687	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	3484 156513	16378 185935	33865 253044	55299	79426	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	15410 513173	67161 606064	137397 731650	211979	305182	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	40468 1616980	209172 1878555	473817 2423171	707962	994404	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	12128 408165	56570 477417	109592 610898	165776	225004	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	10764 380076	50918 442468	103286 586242	161084	223666	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3040 142204	15042 168794	33494 221836	54904	74465	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4061 135814	18208 159888	36596 205782	54278	75422	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	10453 464167	57927 542910	126725 723043	197258	273796	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11006 385419	50806 461338	106205 598001	162789	228249	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	10480 415021	54294 490765	110015 600892	169380	239692	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	30672 1305913	183486 1523592	385709 1960117	578714	792740	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	11822 420730	58008 484074	117792 641189	174953	241693	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	24739 1055188	134199 1251164	298526 1618547	460243	638390	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	29952 1304956	175487 1527586	377713 1946593	568369	784367	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

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	11645 372233	52646 445231	102057 530743	154242	216824	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	36514 1489124	204111 1749050	436333 2251780	662774	922192	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	21571 671741	94781 793952	186128 1022265	287457	395663	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	27473 1223451	160740 1449933	349926 1866871	535559	746924	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	21178 685744	98711 799016	191352 1045055	295251	402496	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	10251 344654	47888 397020	93053 474617	146435	197387	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	10978 361493	51205 449922	96025 539686	151889	223938	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	23139 1058649	136090 1250309	288901 1628698	464713	639686	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	18353 600426	85501 701795	163440 903210	262407	351002	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1764 53852	6148 64433	12341 88331	20984	29188	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCB	Ave	24591 1122389	131762 1312774	261552 1629871	472818	660651	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCB	Ave	15149 697008	79928 813548	148094 1030679	288213	401024	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCB	Ave	5077 232870	29232 271980	52233 371041	97122	133002	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	4131 112857	17896 130058	30937 175617	51045	68407	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	12282 644555	65173 762683	125945 1035925	249815	349999	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	4594 184060	25174 219483	38967 299099	79889	104055	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Qua	1842 74150	6820 102047	12944 137650	27113	37231	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Qua	1783 +++++	7830 +++++	12194 +++++	26738	37479	5.00 +++++	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9682 304086	41380 350611	86872 443187	132928	171222	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	15123 427373	61757 493641	122115 625499	190096	242219	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	39633 1258264	172629 1439382	370552 1777930	551180	697675	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBZ	Ave	13828 473052	62811 557463	129109 717948	198709	256052	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD Lin2 = Linear 1/conc^2 ISTD Qua = Quadratic ISTD
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FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 145277

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/17/2015 14:07 Calibration End Date: 06/17/2015 18:04 Calibration ID: 24418

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-145277/17	50617017.D
Level 2	IC 180-145277/6	50617006.D
Level 3	ICIS 180-145277/7	50617007.D
Level 4	IC 180-145277/8	50617008.D
Level 5	IC 180-145277/9	50617009.D
Level 6	IC 180-145277/10	50617010.D
Level 7	IC 180-145277/11	50617011.D
Level 8	IC 180-145277/12	50617012.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methylene Chloride	2.5	-13.7	-1.7	-1.3	6.7	5.2	40	40	40	40	40	40
	-1.2	3.5					40	40				
2,4,5-Trichlorotoluene	13.9	-6.7	-11.4	8.1	3.0	-2.7	70	70	70	70	70	70
	0.5	0.3					70	70				
2,3,6-Trichlorotoluene	16.6	6.6	-16.7	5.9	2.7	+++++	70	70	70	70	70	
	+++++	+++++										

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 17-Jun-2015 14:07:30 ALS Bottle#: 4 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 180-0007443-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:45 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 08:36:08

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	4.265	0.007	0	94671	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	364154	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.385	0.001	89	79961	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	97	110384	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	92	41380	25.0	24.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	61757	25.0	25.2	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.937	-0.005	94	172629	25.0	26.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	83	62811	25.0	25.7	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	100	61850	25.0	25.2	
12 Chloromethane	50	1.765	1.765	0.000	99	71382	25.0	25.8	
13 Vinyl chloride	62	1.899	1.893	0.006	98	71583	25.0	25.7	
14 Butadiene	39	1.942	1.941	0.001	98	80205	25.0	26.8	
15 Bromomethane	94	2.264	2.258	0.006	90	34976	25.0	25.8	
16 Chloroethane	64	2.392	2.392	0.000	99	42901	25.0	25.6	
17 Dichlorofluoromethane	67	2.666	2.671	-0.005	97	98310	25.0	26.5	
18 Trichlorofluoromethane	101	2.714	2.702	0.012	95	76687	25.0	25.3	
20 Ethyl ether	59	3.049	3.049	0.000	96	54177	25.0	25.8	
21 Acrolein	56	3.237	3.225	0.012	98	49960	125.0	124.3	M
22 1,1-Dichloroethene	96	3.347	3.347	0.000	94	51665	25.0	25.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	92	52979	25.0	24.3	
24 Acetone	43	3.438	3.444	-0.006	99	29930	50.0	49.6	
25 Iodomethane	142	3.542	3.535	0.007	99	70032	25.0	24.6	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	97009	25.0	21.2	
28 3-Chloro-1-propene	76	3.925	3.931	-0.006	87	25848	25.0	22.7	
30 Methyl acetate	43	3.937	3.943	-0.006	99	229444	125.0	122.6	
31 Methylene Chloride	84	4.150	4.137	0.013	91	75234	25.0	21.6	
32 2-Methyl-2-propanol	59	4.406	4.399	0.007	89	29086	250.0	269.0	
33 Acrylonitrile	53	4.521	4.521	0.000	99	218071	250.0	240.5	
34 trans-1,2-Dichloroethene	96	4.570	4.569	0.001	95	54149	25.0	24.7	
35 Methyl tert-butyl ether	73	4.576	4.575	0.001	96	126963	25.0	23.5	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.989	0.001	93	77336	25.0	22.8	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	101924	25.0	24.3	
38 Vinyl acetate	43	5.245	5.251	-0.006	98	82115	25.0	22.9	
44 2,2-Dichloropropane	77	5.945	5.944	0.001	65	44890	25.0	25.1	
45 cis-1,2-Dichloroethene	96	5.951	5.950	0.001	83	56211	25.0	24.2	
46 2-Butanone (MEK)	43	5.957	5.963	-0.005	52	42291	50.0	47.8	
49 Chlorobromomethane	128	6.231	6.236	-0.005	94	24506	25.0	25.0	
51 Tetrahydrofuran	42	6.255	6.255	0.001	87	31179	50.0	42.9	
52 Chloroform	83	6.383	6.382	0.001	94	96620	25.0	25.1	
53 1,1,1-Trichloroethane	97	6.541	6.547	-0.006	96	68417	25.0	23.6	
54 Cyclohexane	56	6.620	6.613	0.007	93	100526	25.0	23.2	
56 Carbon tetrachloride	117	6.717	6.717	0.000	96	59080	25.0	23.4	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	92	74440	25.0	23.4	
57 Isobutyl alcohol	41	6.924	6.930	-0.006	71	35170	625.0	579.4	
58 Benzene	78	6.942	6.942	0.000	97	232716	25.0	25.4	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	98	79766	25.0	25.4	
62 n-Heptane	43	7.307	7.307	0.000	93	68983	25.0	23.0	
64 Trichloroethene	130	7.678	7.678	0.000	98	52740	25.0	24.3	
66 Methylcyclohexane	83	7.916	7.915	0.001	95	81408	25.0	22.5	
67 1,2-Dichloropropane	63	7.946	7.952	-0.006	94	53633	25.0	24.0	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	6452	500.0	420.0	
68 Dibromomethane	93	8.037	8.037	0.000	94	30549	25.0	25.3	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	55672	25.0	22.8	
74 cis-1,3-Dichloropropene	75	8.670	8.676	-0.006	91	59408	25.0	21.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.828	0.000	98	82393	50.0	43.5	
76 Toluene	91	9.005	9.004	0.001	97	226679	25.0	26.4	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	99	51041	25.0	22.1	
78 Ethyl methacrylate	69	9.309	9.308	0.001	92	46485	25.0	21.1	
79 1,1,2-Trichloroethane	97	9.449	9.442	0.007	94	43730	25.0	26.2	
80 Tetrachloroethene	164	9.522	9.521	0.001	96	42386	25.0	25.9	
81 1,3-Dichloropropane	76	9.601	9.600	0.001	96	77894	25.0	25.5	
82 2-Hexanone	43	9.656	9.655	0.001	99	54222	50.0	44.6	
84 Chlorodibromomethane	129	9.814	9.813	0.001	91	30659	25.0	22.6	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	38153	25.0	24.5	
86 3-Chlorobenzotrifluoride	180	10.392	10.385	0.007	88	74638	25.0	26.5	
87 Chlorobenzene	112	10.416	10.416	0.000	92	139289	25.0	26.0	
88 4-Chlorobenzotrifluoride	180	10.477	10.476	0.001	96	65463	25.0	24.7	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	88	40551	25.0	24.5	
90 Ethylbenzene	106	10.513	10.519	-0.006	99	72799	25.0	24.7	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	88332	25.0	24.8	
92 o-Xylene	106	11.024	11.024	0.000	98	83396	25.0	24.4	
93 Styrene	104	11.049	11.048	0.001	96	140441	25.0	25.1	
94 Bromoform	173	11.231	11.231	0.000	96	16378	25.0	22.7	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	92	67161	25.0	25.3	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	209172	25.0	25.0	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.705	0.001	78	56570	25.0	26.8	
100 Bromobenzene	156	11.706	11.711	-0.005	97	50918	25.0	23.7	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	76	15042	25.0	20.7	
101 1,2,3-Trichloropropane	110	11.766	11.760	0.006	87	18208	25.0	23.9	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	57927	25.0	22.8	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	50806	25.0	23.2	
105 3-Chlorotoluene	126	11.967	11.967	0.000	96	54294	25.0	23.9	

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	11.998	11.997	0.001	93	183486	25.0	24.9	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	58008	25.0	24.4	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	134199	25.0	22.9	
110 1,2,4-Trimethylbenzene	105	12.369	12.368	0.001	98	175487	25.0	24.1	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	52646	25.0	24.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	204111	25.0	24.1	
113 1,3-Dichlorobenzene	146	12.649	12.648	0.001	96	94781	25.0	24.3	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	97	160740	25.0	23.6	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	93	98711	25.0	24.8	
116 2,4-Dichloro-1-(trifluorom	214	12.782	12.776	0.006	96	47888	25.0	24.8	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	51205	25.0	24.5	
120 n-Butylbenzene	91	13.099	13.098	0.001	98	136090	25.0	23.3	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	95	85501	25.0	24.7	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.901	0.001	71	6148	25.0	20.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.041	0.001	0	131762	75.0	67.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.461	-0.006	0	79928	50.0	44.4	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	29232	25.0	23.7	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	96	17896	25.0	26.1	
128 Naphthalene	128	14.991	14.990	0.001	98	65173	25.0	20.4	
129 1,2,3-Trichlorobenzene	180	15.216	15.215	0.001	95	25174	25.0	25.0	
131 2,4,5-Trichlorotoluene	159	15.995	15.988	0.006	0	6820	25.0	23.3	
130 2,3,6-Trichlorotoluene	159	16.092	16.091	0.001	96	7830	25.0	26.6	
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	49.2	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.9	
S 135 1,3-Dichloropropene, Total	1				0		50.0	43.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAACRLOEINPR_00001	Amount Added: 5.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 1.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 1.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 1.00	Units: uL	
VOA8260SURRE_00038	Amount Added: 1.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D

Injection Date: 17-Jun-2015 14:07:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

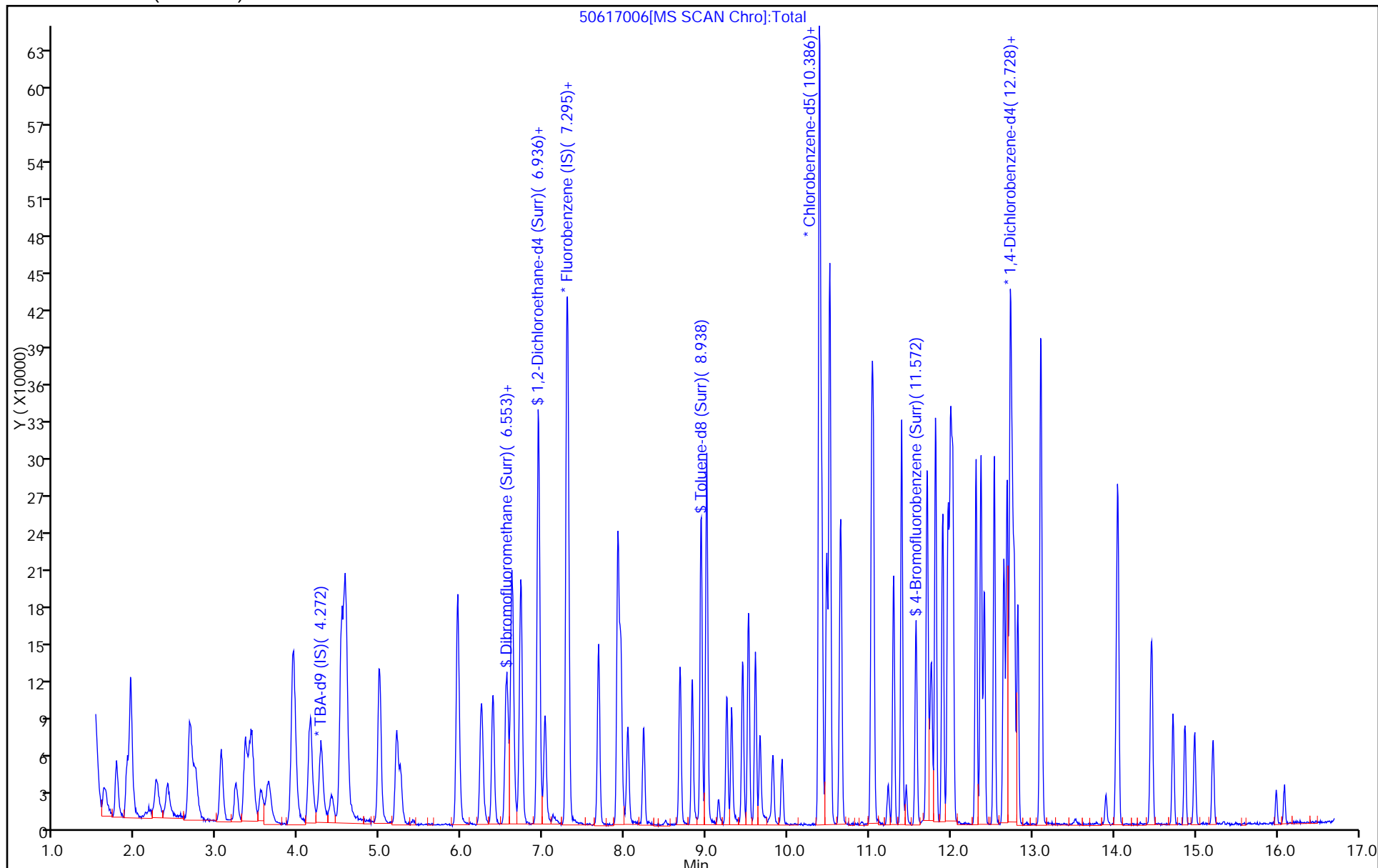
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



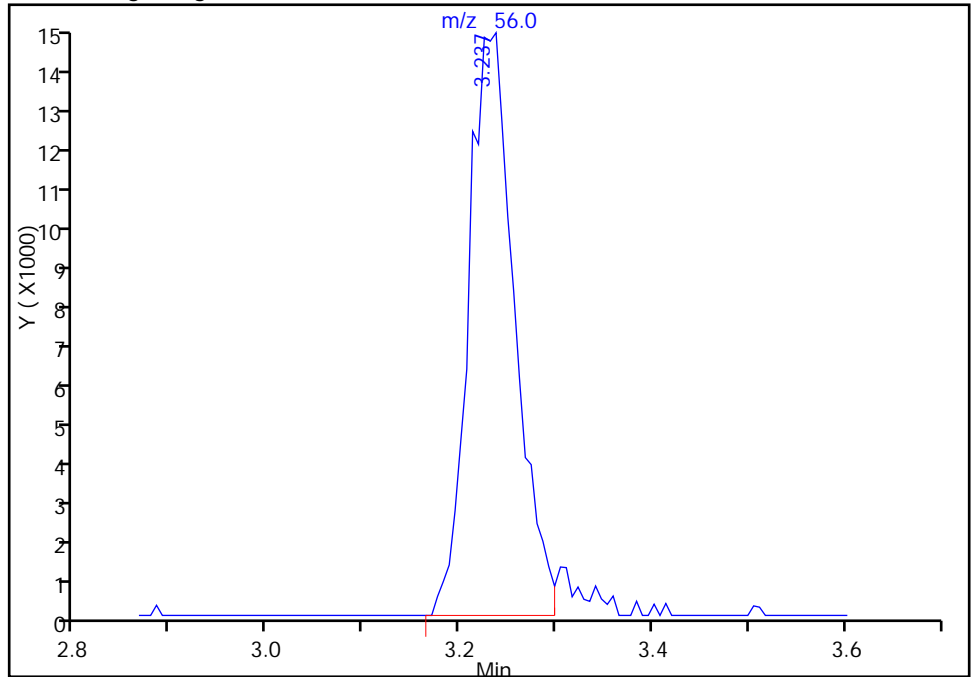
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617006.D  
Injection Date: 17-Jun-2015 14:07:30 Instrument ID: CHHP5  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 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

21 Acrolein, CAS: 107-02-8

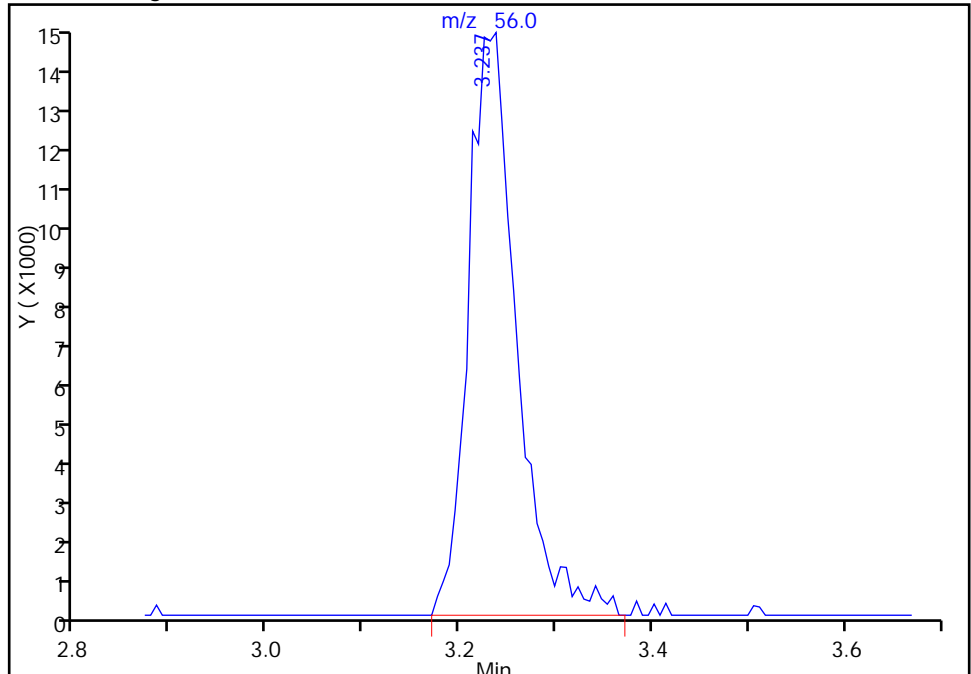
RT: 3.24  
Area: 47722  
Amount: 118.6567  
Amount Units: ng

Processing Integration Results



RT: 3.24  
Area: 49960  
Amount: 124.2873  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Jun-2015 09:47:59  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617007.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 17-Jun-2015 14:30:30 ALS Bottle#: 5 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD10  
 Misc. Info.: 180-0007443-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:47:50 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 11:31:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.265	0.000	0	99728	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	368117	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	82110	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	96	106559	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	93	86872	50.0	50.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	0	122115	50.0	49.3	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	94	370552	50.0	54.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	85	129109	50.0	51.5	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	100	131293	50.0	52.9	
12 Chloromethane	50	1.765	1.765	0.000	99	147191	50.0	52.7	
13 Vinyl chloride	62	1.893	1.893	0.000	98	146437	50.0	52.0	
14 Butadiene	39	1.941	1.941	0.000	96	164375	50.0	54.4	
15 Bromomethane	94	2.258	2.258	0.000	90	68351	50.0	49.9	
16 Chloroethane	64	2.392	2.392	0.000	100	87910	50.0	51.8	
17 Dichlorofluoromethane	67	2.671	2.671	0.000	97	195088	50.0	52.0	
18 Trichlorofluoromethane	101	2.702	2.702	0.000	98	164743	50.0	53.8	
20 Ethyl ether	59	3.049	3.049	0.000	96	104081	50.0	49.1	
21 Acrolein	56	3.225	3.225	0.000	97	59325	150.0	146.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	94	104659	50.0	50.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	95	114588	50.0	52.1	
24 Acetone	43	3.444	3.444	0.000	99	59535	100.0	97.6	
25 Iodomethane	142	3.535	3.535	0.000	100	144076	50.0	50.0	
26 Carbon disulfide	76	3.633	3.633	0.000	100	216284	50.0	46.9	
28 3-Chloro-1-propene	76	3.931	3.931	0.000	88	54063	50.0	46.9	
30 Methyl acetate	43	3.943	3.943	0.000	98	466467	250.0	246.6	
31 Methylene Chloride	84	4.137	4.137	0.000	97	132678	50.0	49.2	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	87	55749	500.0	489.5	
33 Acrylonitrile	53	4.521	4.521	0.000	98	457488	500.0	499.2	
34 trans-1,2-Dichloroethene	96	4.569	4.569	0.000	96	113174	50.0	51.1	
35 Methyl tert-butyl ether	73	4.575	4.575	0.000	96	255720	50.0	46.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.989	0.000	95	175506	50.0	51.2	
37 1,1-Dichloroethane	63	5.202	5.202	0.000	97	210563	50.0	49.7	
38 Vinyl acetate	43	5.251	5.251	0.000	98	174104	50.0	48.0	
44 2,2-Dichloropropane	77	5.944	5.944	0.000	60	90602	50.0	50.1	
45 cis-1,2-Dichloroethene	96	5.950	5.950	0.000	84	115658	50.0	49.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	66	86075	100.0	96.2	
49 Chlorobromomethane	128	6.236	6.236	0.000	94	50339	50.0	50.8	
51 Tetrahydrofuran	42	6.255	6.255	0.000	88	67105	100.0	91.3	
52 Chloroform	83	6.382	6.382	0.000	96	195248	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.547	6.547	0.000	96	147248	50.0	50.3	
54 Cyclohexane	56	6.613	6.613	0.000	92	221024	50.0	50.4	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	130225	50.0	51.1	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	93	165562	50.0	51.5	
57 Isobutyl alcohol	41	6.930	6.930	0.000	89	69370	1250.0	1130.5	
58 Benzene	78	6.942	6.942	0.000	98	477132	50.0	51.4	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	97	155314	50.0	48.9	
62 n-Heptane	43	7.307	7.307	0.000	92	156586	50.0	51.7	
64 Trichloroethene	130	7.678	7.678	0.000	97	108145	50.0	49.4	
66 Methylcyclohexane	83	7.915	7.915	0.000	94	188978	50.0	51.6	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	93	109841	50.0	48.6	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	16354	1000.0	1053.2	
68 Dibromomethane	93	8.037	8.037	0.000	96	58547	50.0	47.9	
71 Dichlorobromomethane	83	8.232	8.232	0.000	98	114470	50.0	46.4	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	132564	50.0	46.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.828	0.000	99	194304	100.0	100.0	
76 Toluene	91	9.004	9.004	0.000	98	477853	50.0	54.1	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	114458	50.0	48.2	
78 Ethyl methacrylate	69	9.308	9.308	0.000	91	110969	50.0	49.1	
79 1,1,2-Trichloroethane	97	9.442	9.442	0.000	93	87301	50.0	51.0	
80 Tetrachloroethene	164	9.521	9.521	0.000	96	87791	50.0	52.3	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	95	162627	50.0	51.9	
82 2-Hexanone	43	9.655	9.655	0.000	99	125695	100.0	100.7	
84 Chlorodibromomethane	129	9.813	9.813	0.000	91	66065	50.0	47.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	97	81646	50.0	51.0	
86 3-Chlorobenzotrifluoride	180	10.385	10.385	0.000	88	148897	50.0	51.5	
87 Chlorobenzene	112	10.416	10.416	0.000	93	288276	50.0	52.3	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	143190	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.507	0.000	91	85737	50.0	50.4	
90 Ethylbenzene	106	10.519	10.519	0.000	99	159720	50.0	52.7	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	193548	50.0	52.9	
92 o-Xylene	106	11.024	11.024	0.000	97	186179	50.0	53.0	
93 Styrene	104	11.048	11.048	0.000	94	308704	50.0	53.8	
94 Bromoform	173	11.231	11.231	0.000	94	33865	50.0	45.7	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	137397	50.0	50.4	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	473817	50.0	55.1	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.705	0.000	92	109592	50.0	50.6	
100 Bromobenzene	156	11.711	11.711	0.000	97	103286	50.0	49.8	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	70	33494	50.0	47.8	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	86	36596	50.0	49.8	
103 N-Propylbenzene	120	11.809	11.809	0.000	99	126725	50.0	51.7	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	106205	50.0	50.2	
105 3-Chlorotoluene	126	11.967	11.967	0.000	96	110015	50.0	50.3	

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	11.997	11.997	0.000	95	385709	50.0	54.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	117792	50.0	51.4	
108 tert-Butylbenzene	119	12.308	12.308	0.000	93	298526	50.0	52.7	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	98	377713	50.0	53.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	102057	50.0	49.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	436333	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.648	12.648	0.000	97	186128	50.0	49.4	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	96	349926	50.0	53.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	93	191352	50.0	49.9	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.776	0.000	95	93053	50.0	49.8	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	96025	50.0	47.5	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	288901	50.0	51.3	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	93	163440	50.0	48.9	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	74	12341	50.0	43.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.041	0.000	0	261552	150.0	137.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	148094	100.0	85.3	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	94	52233	50.0	43.8	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	96	30937	50.0	46.7	
128 Naphthalene	128	14.990	14.990	0.000	98	125945	50.0	40.8	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	94	38967	50.0	40.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	12944	50.0	44.3	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	91	12194	50.0	41.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.9	
S 134 1,2-Dichloroethene, Total	96				0		100.0	100.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR_00038	Amount Added: 2.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 2.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 2.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617007.D

Injection Date: 17-Jun-2015 14:30:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

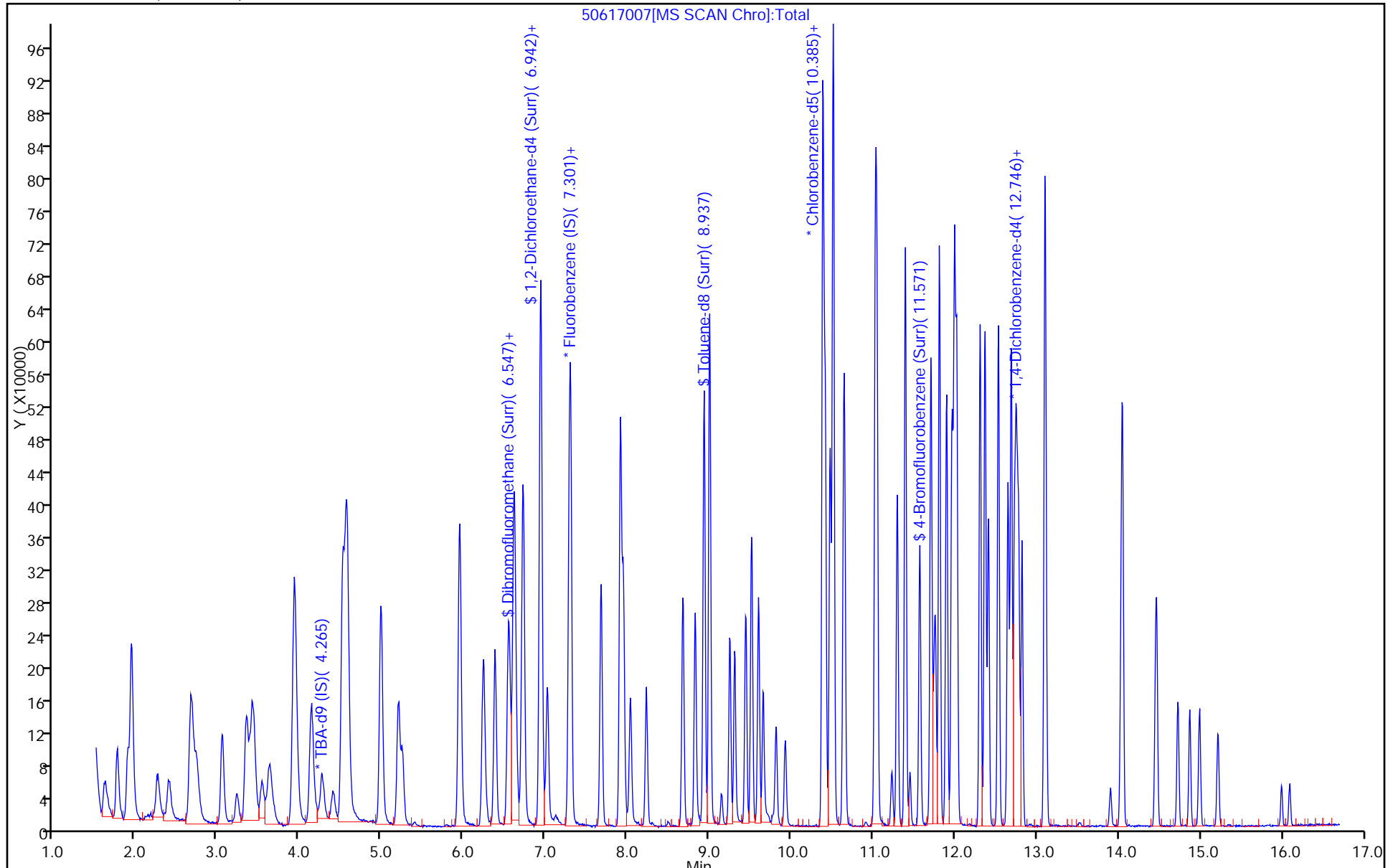
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 17-Jun-2015 14:54:30 ALS Bottle#: 6 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD15  
 Misc. Info.: 180-0007443-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:48 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 08:49:04

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	4.272	0.000	0	109934	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	95	375524	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	87	84616	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	84	109976	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	61	132928	75.0	75.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	190096	75.0	75.2	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	79	551180	75.0	78.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	84	198709	75.0	76.9	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	64	190707	75.0	75.4	
12 Chloromethane	50	1.771	1.771	0.000	89	207710	75.0	72.9	
13 Vinyl chloride	62	1.899	1.899	0.000	83	211773	75.0	73.7	
14 Butadiene	39	1.942	1.942	0.000	92	224490	75.0	72.8	
15 Bromomethane	94	2.258	2.258	0.000	89	102333	75.0	73.2	
16 Chloroethane	64	2.398	2.398	0.000	94	127616	75.0	73.7	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	97	279582	75.0	73.0	
18 Trichlorofluoromethane	101	2.708	2.708	0.000	83	235615	75.0	75.4	
20 Ethyl ether	59	3.049	3.049	0.000	91	157481	75.0	72.9	
21 Acrolein	56	3.225	3.225	0.000	91	72042	175.0	173.8	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	89	153911	75.0	72.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	95	165277	75.0	73.6	
24 Acetone	43	3.444	3.444	0.000	86	88741	150.0	142.6	
25 Iodomethane	142	3.542	3.542	0.000	98	218721	75.0	74.4	
26 Carbon disulfide	76	3.633	3.633	0.000	100	333568	75.0	70.9	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	79	87643	75.0	74.5	
30 Methyl acetate	43	3.943	3.943	0.000	98	711636	375.0	368.8	
31 Methylene Chloride	84	4.138	4.138	0.000	88	187350	75.0	74.0	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	85	92171	750.0	734.2	
33 Acrylonitrile	53	4.521	4.521	0.000	98	701092	750.0	749.9	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	89	165608	75.0	73.2	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	91	403865	75.0	72.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	95	259892	75.0	74.3	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	85	320495	75.0	74.2	
38 Vinyl acetate	43	5.251	5.251	0.000	97	260276	75.0	70.4	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	59	137988	75.0	74.7	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	73	177912	75.0	74.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	65	129631	150.0	142.0	
49 Chlorobromomethane	128	6.231	6.231	0.000	90	74378	75.0	73.6	
51 Tetrahydrofuran	42	6.255	6.255	0.000	91	111135	150.0	148.2	
52 Chloroform	83	6.383	6.383	0.000	83	296949	75.0	74.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	54	224170	75.0	75.1	
54 Cyclohexane	56	6.614	6.614	0.000	94	329815	75.0	73.8	
56 Carbon tetrachloride	117	6.717	6.717	0.000	81	189615	75.0	73.0	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	90	245133	75.0	74.8	
57 Isobutyl alcohol	41	6.930	6.930	0.000	49	128711	1875.0	2056.2	
58 Benzene	78	6.942	6.942	0.000	98	710542	75.0	75.1	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	91	235728	75.0	72.8	
62 n-Heptane	43	7.307	7.307	0.000	91	229309	75.0	74.2	
64 Trichloroethene	130	7.678	7.678	0.000	97	164400	75.0	73.6	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	283358	75.0	75.9	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	85	168672	75.0	73.1	
70 1,4-Dioxane	88	8.037	8.037	0.000	37	25534	1500.0	1612.0	M
68 Dibromomethane	93	8.037	8.037	0.000	92	91973	75.0	73.7	
71 Dichlorobromomethane	83	8.232	8.232	0.000	92	184708	75.0	73.4	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	86	215665	75.0	74.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.828	0.000	97	307905	150.0	153.7	
76 Toluene	91	9.005	9.005	0.000	96	712142	75.0	78.3	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	95	185676	75.0	75.8	
78 Ethyl methacrylate	69	9.309	9.309	0.000	91	180438	75.0	77.4	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	90	135577	75.0	76.8	
80 Tetrachloroethene	164	9.516	9.516	0.000	91	133093	75.0	76.9	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	96	244987	75.0	75.9	
82 2-Hexanone	43	9.656	9.656	0.000	98	189893	150.0	147.6	
84 Chlorodibromomethane	129	9.814	9.814	0.000	90	106966	75.0	74.4	
85 Ethylene Dibromide	107	9.929	9.929	0.000	96	126213	75.0	76.6	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	91	223941	75.0	75.2	
87 Chlorobenzene	112	10.416	10.416	0.000	89	428389	75.0	75.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	92	209779	75.0	74.7	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.513	0.000	37	135194	75.0	77.1	
90 Ethylbenzene	106	10.513	10.513	0.000	99	244510	75.0	78.3	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	299376	75.0	79.4	
92 o-Xylene	106	11.024	11.024	0.000	97	286981	75.0	79.3	
93 Styrene	104	11.049	11.049	0.000	94	476097	75.0	80.5	
94 Bromoform	173	11.231	11.231	0.000	92	55299	75.0	72.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	95	211979	75.0	75.5	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	707962	75.0	79.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	41	165776	75.0	74.3	
100 Bromobenzene	156	11.712	11.712	0.000	74	161084	75.0	75.2	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	78	54904	75.0	75.9	
101 1,2,3-Trichloropropane	110	11.767	11.767	0.000	71	54278	75.0	71.6	
103 N-Propylbenzene	120	11.809	11.809	0.000	97	197258	75.0	78.0	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	162789	75.0	74.6	
105 3-Chlorotoluene	126	11.961	11.961	0.000	75	169380	75.0	75.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	93	578714	75.0	78.7	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	174953	75.0	74.0	
108 tert-Butylbenzene	119	12.308	12.308	0.000	81	460243	75.0	78.7	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	568369	75.0	78.5	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	97	154242	75.0	72.7	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	662774	75.0	78.6	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	93	287457	75.0	73.9	
114 4-Isopropyltoluene	119	12.685	12.685	0.000	83	535559	75.0	78.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	295251	75.0	74.6	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.776	0.000	85	146435	75.0	76.0	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	151889	75.0	72.9	
120 n-Butylbenzene	91	13.099	13.099	0.000	97	464713	75.0	80.0	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	94	262407	75.0	76.1	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	63	20984	75.0	70.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	472818	225.0	241.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	288213	150.0	160.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	93	97122	75.0	78.9	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	93	51045	75.0	74.7	
128 Naphthalene	128	14.991	14.991	0.000	97	249815	75.0	78.4	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	93	79889	75.0	79.7	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	27113	75.0	81.1	
130 2,3,6-Trichlorotoluene	159	16.086	16.086	0.000	90	26738	75.0	79.4	
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		150.0	158.7	
S 134 1,2-Dichloroethene, Total	96				0		150.0	147.5	
S 135 1,3-Dichloropropene, Total	1				0		150.0	149.9	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAACRLOEINPR_00001	Amount Added: 7.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 3.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 3.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 3.00	Units: uL	
VOA8260SURRE_00038	Amount Added: 3.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D

Injection Date: 17-Jun-2015 14:54:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

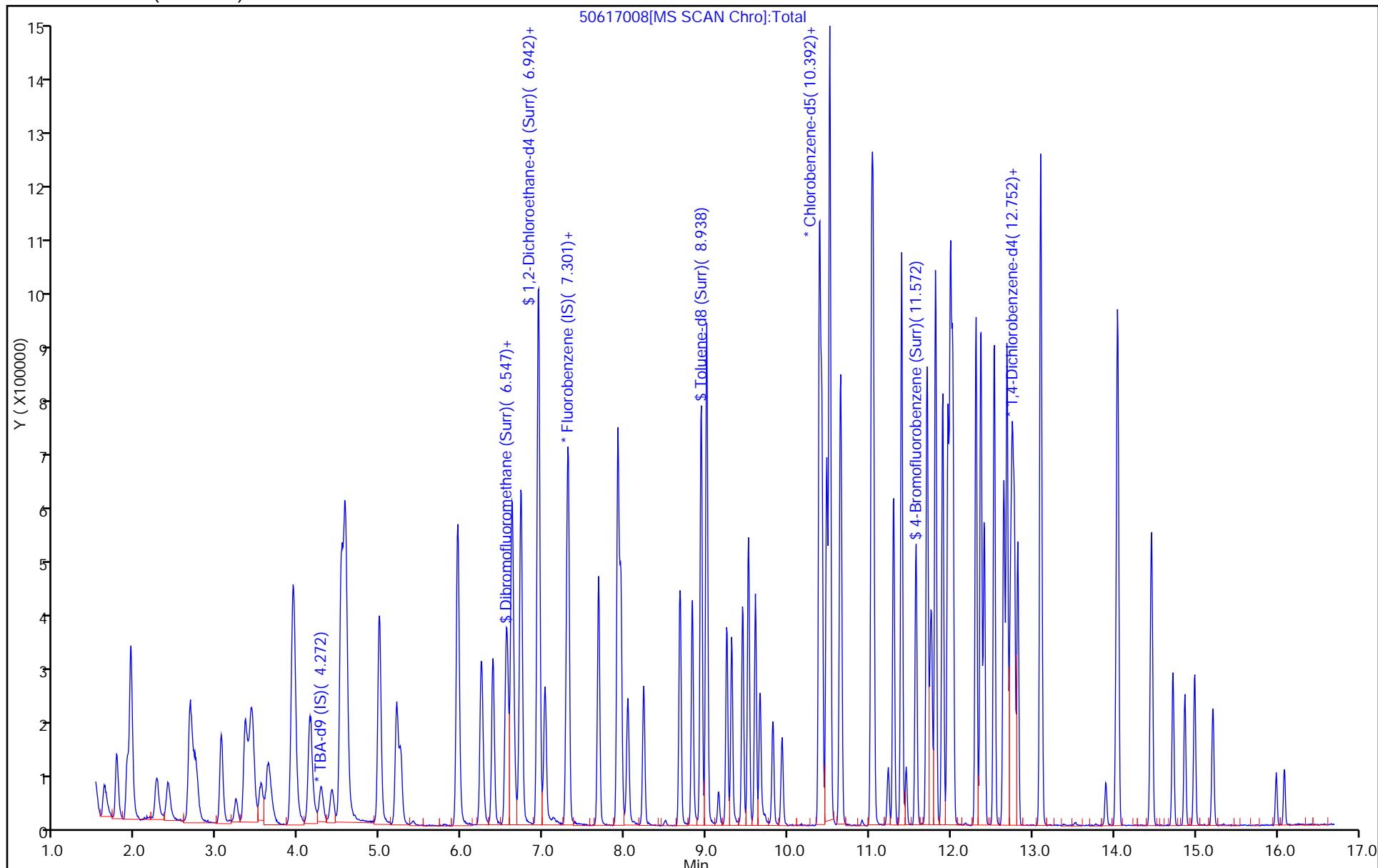
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



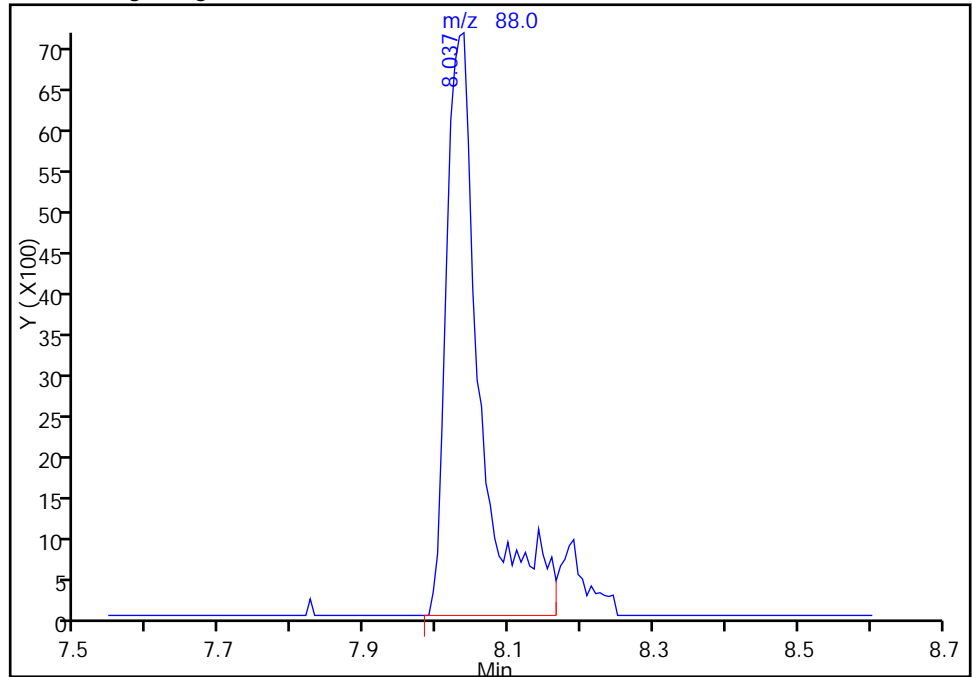
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617008.D  
Injection Date: 17-Jun-2015 14:54:30 Instrument ID: CHHP5  
Lims ID: IC VSTD15  
Client ID:  
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 8  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

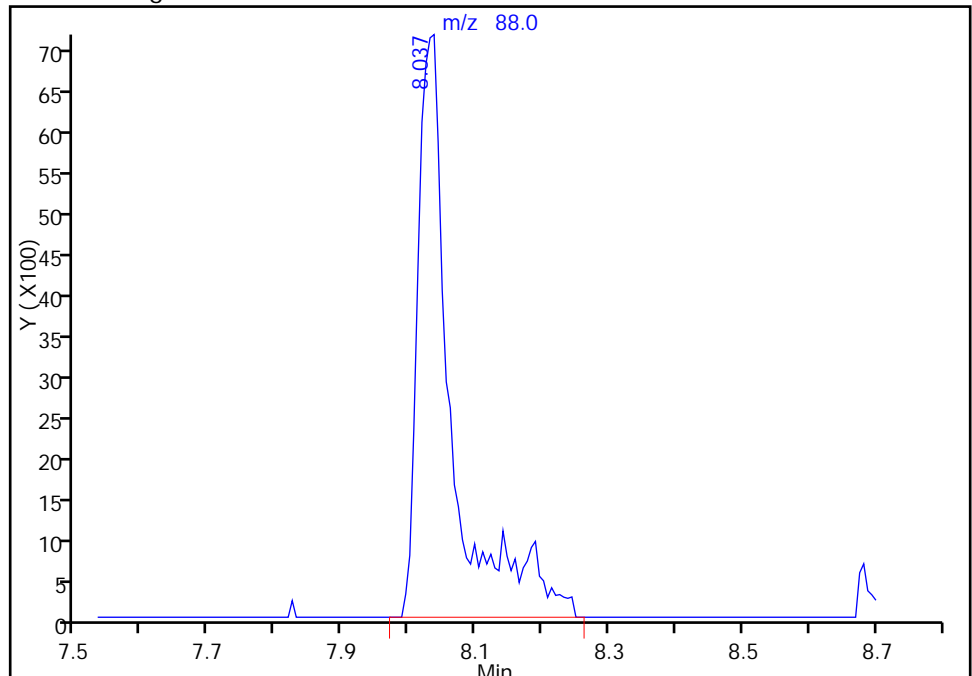
RT: 8.04  
Area: 23368  
Amount: 1488.6474  
Amount Units: ng

Processing Integration Results



RT: 8.04  
Area: 25534  
Amount: 1611.9735  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Jun-2015 08:49:04  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 17-Jun-2015 15:18:30 ALS Bottle#: 7 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD20  
 Misc. Info.: 180-0007443-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:50 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 08:50:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.272	0.002	0	111324	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	94	382859	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.382	10.386	-0.004	81	87149	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.728	0.002	91	111640	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	59	171222	100.0	95.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.936	0.003	0	242219	100.0	94.0	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	79	697675	100.0	96.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.572	-0.004	84	256052	100.0	96.3	
11 Dichlorodifluoromethane	85	1.622	1.619	0.003	88	258891	100.0	100.3	
12 Chloromethane	50	1.768	1.771	-0.003	89	290013	100.0	99.8	
13 Vinyl chloride	62	1.902	1.899	0.003	84	301311	100.0	102.8	
14 Butadiene	39	1.944	1.942	0.002	93	315376	100.0	100.4	
15 Bromomethane	94	2.255	2.258	-0.003	89	135973	100.0	95.4	
16 Chloroethane	64	2.401	2.398	0.003	76	181501	100.0	102.8	
17 Dichlorofluoromethane	67	2.674	2.672	0.002	82	391592	100.0	100.3	
18 Trichlorofluoromethane	101	2.705	2.708	-0.003	84	330063	100.0	103.5	
20 Ethyl ether	59	3.052	3.049	0.003	93	215472	100.0	97.8	
21 Acrolein	56	3.234	3.225	0.009	84	80592	200.0	190.7	
22 1,1-Dichloroethene	96	3.350	3.347	0.003	89	225297	100.0	103.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.420	-0.003	86	235316	100.0	102.8	
24 Acetone	43	3.447	3.444	0.003	87	112327	200.0	177.1	
25 Iodomethane	142	3.544	3.542	0.002	100	300629	100.0	100.3	
26 Carbon disulfide	76	3.636	3.633	0.003	100	504737	100.0	105.2	
28 3-Chloro-1-propene	76	3.928	3.919	0.009	74	123678	100.0	103.1	
30 Methyl acetate	43	3.940	3.943	-0.003	97	943344	500.0	479.5	
31 Methylene Chloride	84	4.141	4.138	0.003	89	260743	100.0	106.7	
32 2-Methyl-2-propanol	59	4.402	4.406	-0.004	74	122036	1000.0	960.0	
33 Acrylonitrile	53	4.524	4.521	0.003	97	938260	1000.0	984.3	
34 trans-1,2-Dichloroethene	96	4.572	4.564	0.008	76	229120	100.0	99.4	
35 Methyl tert-butyl ether	73	4.585	4.582	0.003	92	557161	100.0	98.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	95	367307	100.0	103.0	
37 1,1-Dichloroethane	63	5.205	5.203	0.003	85	442302	100.0	100.4	
38 Vinyl acetate	43	5.254	5.251	0.003	97	393966	100.0	104.5	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	59	192057	100.0	102.0	
45 cis-1,2-Dichloroethene	96	5.947	5.951	-0.004	73	243856	100.0	99.8	
46 2-Butanone (MEK)	43	5.966	5.963	0.003	70	175815	200.0	188.9	
49 Chlorobromomethane	128	6.239	6.231	0.008	78	102910	100.0	99.9	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	88	143767	200.0	188.0	
52 Chloroform	83	6.385	6.383	0.002	83	394079	100.0	97.2	
53 1,1,1-Trichloroethane	97	6.544	6.541	0.003	58	312928	100.0	102.8	
54 Cyclohexane	56	6.617	6.614	0.002	95	479657	100.0	105.2	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	81	271218	100.0	102.4	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	90	347816	100.0	104.1	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	55	152861	2500.0	2395.2	M
58 Benzene	78	6.945	6.942	0.003	97	970078	100.0	100.5	
59 1,2-Dichloroethane	62	7.024	7.021	0.003	90	324383	100.0	98.3	
62 n-Heptane	43	7.310	7.307	0.003	92	326259	100.0	103.5	
64 Trichloroethene	130	7.675	7.678	-0.003	94	229535	100.0	100.7	
66 Methylcyclohexane	83	7.912	7.916	-0.004	94	404786	100.0	106.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	86	231010	100.0	98.3	
70 1,4-Dioxane	88	8.034	8.037	-0.003	30	32972	2000.0	2041.7	
68 Dibromomethane	93	8.034	8.037	-0.003	92	121298	100.0	95.4	
71 Dichlorobromomethane	83	8.235	8.232	0.003	93	259051	100.0	100.9	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	86	304012	100.0	102.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.828	-0.003	96	416339	200.0	201.8	
76 Toluene	91	9.001	9.005	-0.004	98	971897	100.0	103.8	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	93	261694	100.0	103.8	
78 Ethyl methacrylate	69	9.311	9.309	0.002	90	256749	100.0	106.9	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	82	179495	100.0	98.8	
80 Tetrachloroethene	164	9.518	9.516	0.002	91	187697	100.0	105.3	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	94	333410	100.0	100.3	
82 2-Hexanone	43	9.658	9.656	0.002	74	261891	200.0	197.6	
84 Chlorodibromomethane	129	9.816	9.814	0.002	87	152688	100.0	103.2	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	97	173491	100.0	102.2	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	93	318462	100.0	103.8	
87 Chlorobenzene	112	10.419	10.416	0.003	89	586338	100.0	100.2	
88 4-Chlorobenzotrifluoride	180	10.473	10.477	-0.004	85	302059	100.0	104.5	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	39	187943	100.0	104.1	
90 Ethylbenzene	106	10.516	10.513	0.003	99	341262	100.0	106.1	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	415658	100.0	107.0	
92 o-Xylene	106	11.027	11.024	0.003	95	399112	100.0	107.1	
93 Styrene	104	11.045	11.049	-0.004	92	654687	100.0	107.5	
94 Bromoform	173	11.228	11.231	-0.003	92	79426	100.0	101.1	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	94	305182	100.0	105.5	
97 Isopropylbenzene	105	11.392	11.395	-0.003	97	994404	100.0	108.9	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	49	225004	100.0	97.9	
100 Bromobenzene	156	11.708	11.712	-0.004	93	223666	100.0	102.9	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.742	0.003	66	74465	100.0	101.4	
101 1,2,3-Trichloropropane	110	11.763	11.767	-0.004	54	75422	100.0	98.0	
103 N-Propylbenzene	120	11.812	11.809	0.003	97	273796	100.0	106.7	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	228249	100.0	103.0	
105 3-Chlorotoluene	126	11.964	11.961	0.003	75	239692	100.0	104.5	



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	11.994	11.992	0.002	94	792740	100.0	106.2	
107 4-Chlorotoluene	126	12.025	12.022	0.003	98	241693	100.0	100.7	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	78	638390	100.0	107.5	
110 1,2,4-Trimethylbenzene	105	12.365	12.369	-0.004	99	784367	100.0	106.7	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	97	216824	100.0	100.7	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	89	922192	100.0	107.7	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	95	395663	100.0	100.2	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	88	746924	100.0	108.3	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	91	402496	100.0	100.2	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.776	0.003	91	197387	100.0	100.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	223938	100.0	105.8	
120 n-Butylbenzene	91	13.095	13.099	-0.004	95	639686	100.0	108.5	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	86	351002	100.0	100.3	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.896	0.008	66	29188	100.0	97.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.038	14.042	-0.004	0	660651	300.0	332.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	401024	200.0	220.3	
126 1,2,4-Trichlorobenzene	180	14.726	14.723	0.003	94	133002	100.0	106.5	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	94	68407	100.0	98.6	
128 Naphthalene	128	14.987	14.991	-0.004	98	349999	100.0	108.2	
129 1,2,3-Trichlorobenzene	180	15.212	15.210	0.002	92	104055	100.0	102.3	
131 2,4,5-Trichlorotoluene	159	15.991	15.988	0.003	0	37231	100.0	103.0	
130 2,3,6-Trichlorotoluene	159	16.088	16.086	0.002	90	37479	100.0	102.7	
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		200.0	214.1	
S 134 1,2-Dichloroethene, Total	96				0		200.0	199.2	
S 135 1,3-Dichloropropene, Total	1				0		200.0	206.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00038	Amount Added: 4.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 4.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 4.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 4.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added: 8.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D

Injection Date: 17-Jun-2015 15:18:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

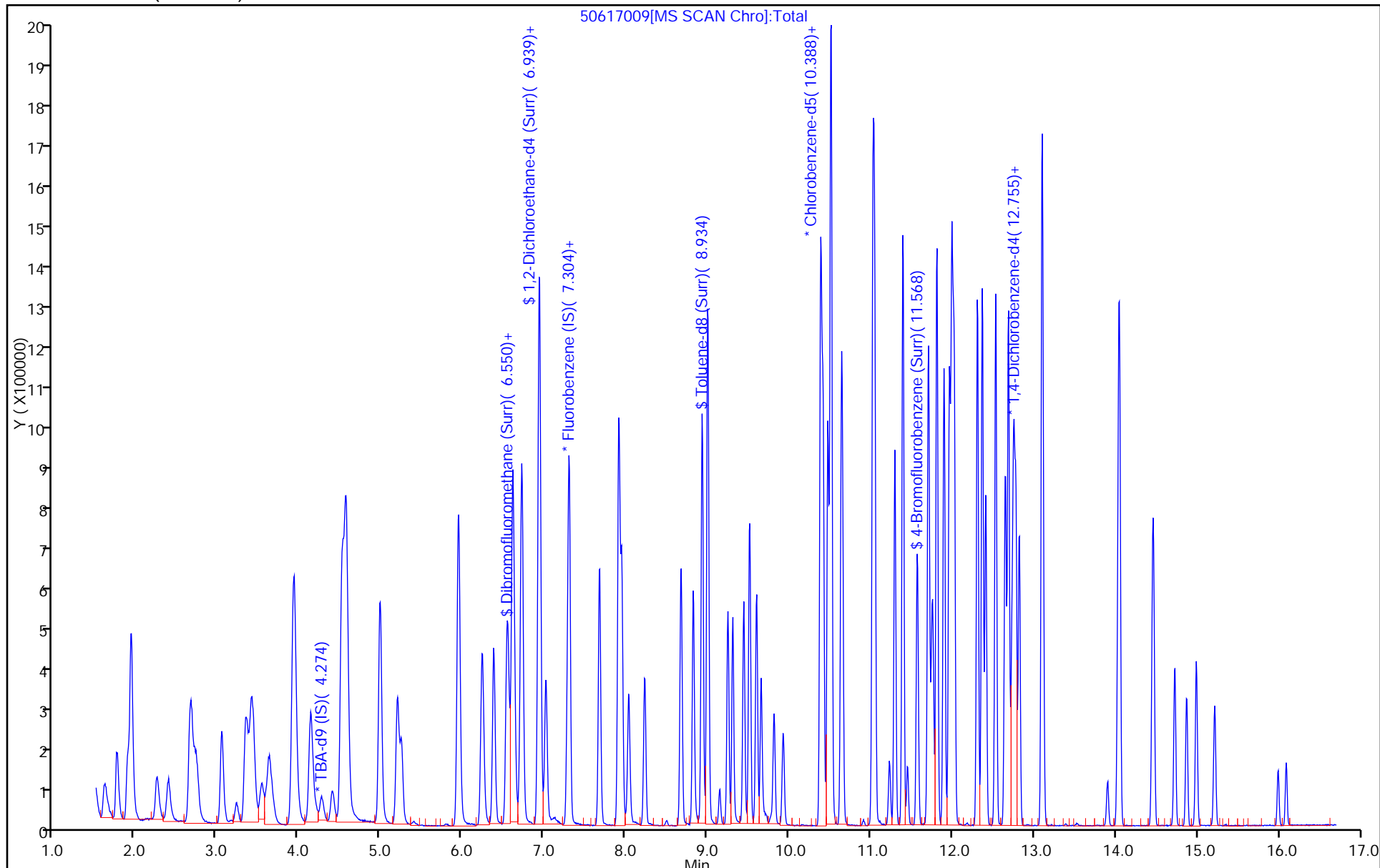
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



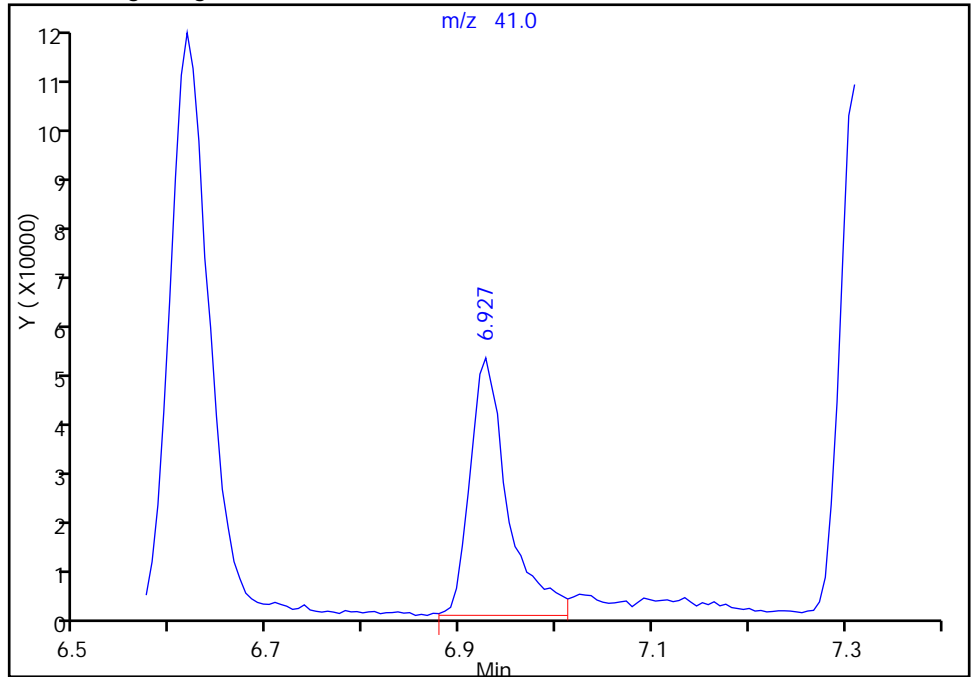
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617009.D  
Injection Date: 17-Jun-2015 15:18:30 Instrument ID: CHHP5  
Lims ID: IC VSTD20  
Client ID:  
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

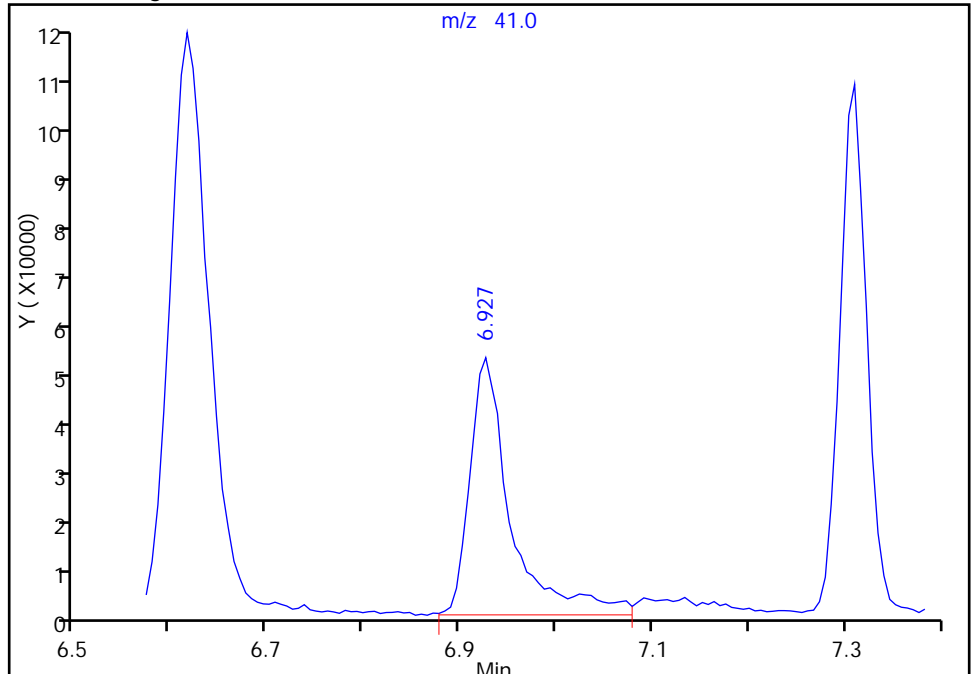
RT: 6.93  
Area: 141188  
Amount: 2192.4652  
Amount Units: ng

Processing Integration Results



RT: 6.93  
Area: 152861  
Amount: 2395.1695  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Jun-2015 08:50:54  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617010.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 17-Jun-2015 15:42:30 ALS Bottle#: 8 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD35  
 Misc. Info.: 180-0007443-010  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:51 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 09:32:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.272	0.006	0	109577	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	92	374410	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	56	92645	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	75	112687	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.565	6.565	0.000	57	304086	175.0	174.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.936	-0.006	0	427373	175.0	169.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1258264	175.0	163.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	85	473052	175.0	167.3	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	406279	175.0	161.0	
12 Chloromethane	50	1.771	1.771	0.000	85	470358	175.0	165.6	
13 Vinyl chloride	62	1.905	1.899	0.006	83	462809	175.0	161.5	
14 Butadiene	39	1.942	1.942	0.000	94	493792	175.0	160.7	
15 Bromomethane	94	2.258	2.258	0.000	84	228703	175.0	164.1	
16 Chloroethane	64	2.404	2.398	0.006	95	284353	175.0	164.7	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	98	621763	175.0	162.8	
18 Trichlorofluoromethane	101	2.714	2.708	0.006	98	527308	175.0	169.2	
20 Ethyl ether	59	3.049	3.049	0.000	93	370505	175.0	171.9	
21 Acrolein	56	3.231	3.225	0.006	88	96004	225.0	232.3	
22 1,1-Dichloroethene	96	3.341	3.347	-0.006	88	355250	175.0	167.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	86	375509	175.0	167.8	
24 Acetone	43	3.444	3.444	0.000	93	208479	350.0	336.1	
25 Iodomethane	142	3.542	3.542	0.000	98	494039	175.0	168.6	
26 Carbon disulfide	76	3.633	3.633	0.000	100	851784	175.0	181.5	
28 3-Chloro-1-propene	76	3.925	3.919	0.006	61	215345	175.0	183.6	
30 Methyl acetate	43	3.943	3.943	0.000	97	1680625	875.0	873.6	
31 Methylene Chloride	84	4.144	4.138	0.006	92	416721	175.0	184.1	
32 2-Methyl-2-propanol	59	4.406	4.406	0.000	84	226221	1750.0	1807.9	
33 Acrylonitrile	53	4.527	4.521	0.006	99	1662395	1750.0	1783.4	
34 trans-1,2-Dichloroethene	96	4.570	4.564	0.006	76	381648	175.0	169.3	
35 Methyl tert-butyl ether	73	4.582	4.582	0.000	92	981534	175.0	176.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	95	604571	175.0	173.3	
37 1,1-Dichloroethane	63	5.202	5.203	0.000	85	729616	175.0	169.4	
38 Vinyl acetate	43	5.251	5.251	0.000	97	723334	175.0	196.2	
44 2,2-Dichloropropane	77	5.951	5.945	0.006	57	318442	175.0	173.0	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	71	412793	175.0	172.8	
46 2-Butanone (MEK)	43	5.957	5.963	-0.006	64	335015	350.0	368.1	
49 Chlorobromomethane	128	6.237	6.231	0.006	79	176872	175.0	175.5	
51 Tetrahydrofuran	42	6.249	6.255	-0.006	87	270631	350.0	361.9	
52 Chloroform	83	6.383	6.383	0.000	83	663409	175.0	167.4	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	51	521331	175.0	175.1	
54 Cyclohexane	56	6.614	6.614	0.000	77	765785	175.0	171.8	
56 Carbon tetrachloride	117	6.711	6.717	-0.006	84	447259	175.0	172.6	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	91	564179	175.0	172.6	
57 Isobutyl alcohol	41	6.930	6.930	0.000	52	299025	4375.0	4791.1	
58 Benzene	78	6.942	6.942	0.000	96	1576107	175.0	167.0	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	91	555180	175.0	172.0	
62 n-Heptane	43	7.307	7.307	0.000	93	534358	175.0	173.3	
64 Trichloroethene	130	7.672	7.678	-0.006	93	378840	175.0	170.0	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	665394	175.0	178.8	
67 1,2-Dichloropropane	63	7.952	7.952	0.000	88	399628	175.0	173.8	
68 Dibromomethane	93	8.037	8.037	0.000	95	214398	175.0	172.4	
70 1,4-Dioxane	88	8.031	8.037	-0.006	40	60747	3500.0	3846.4	
71 Dichlorobromomethane	83	8.232	8.232	0.000	99	458579	175.0	182.7	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	89	558268	175.0	192.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.828	0.000	95	808801	350.0	368.8	
76 Toluene	91	9.005	9.005	0.000	97	1594574	175.0	160.1	
77 trans-1,3-Dichloropropene	75	9.254	9.248	0.006	94	494360	175.0	184.4	
78 Ethyl methacrylate	69	9.309	9.309	0.000	75	488926	175.0	191.6	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	88	317622	175.0	164.4	
80 Tetrachloroethene	164	9.516	9.516	0.000	89	305258	175.0	161.2	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	94	593034	175.0	167.9	
82 2-Hexanone	43	9.656	9.656	0.000	97	527235	350.0	374.2	
84 Chlorodibromomethane	129	9.814	9.814	0.000	89	283987	175.0	180.5	
85 Ethylene Dibromide	107	9.923	9.929	-0.006	97	312538	175.0	173.1	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	91	542554	175.0	166.3	
87 Chlorobenzene	112	10.416	10.416	0.000	91	1002990	175.0	161.3	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	96	515650	175.0	167.8	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.513	-0.006	41	334679	175.0	174.4	
90 Ethylbenzene	106	10.513	10.513	0.000	98	581465	175.0	170.0	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	704459	175.0	170.6	
92 o-Xylene	106	11.024	11.024	0.000	96	678709	175.0	171.3	
93 Styrene	104	11.049	11.049	0.000	93	1117800	175.0	172.7	
94 Bromoform	173	11.231	11.231	0.000	94	156513	175.0	187.4	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	96	513173	175.0	166.9	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	1616980	175.0	166.6	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	52	408165	175.0	167.1	
100 Bromobenzene	156	11.706	11.712	-0.006	82	380076	175.0	173.2	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.742	0.000	74	142204	175.0	191.8	
101 1,2,3-Trichloropropane	110	11.760	11.767	-0.007	82	135814	175.0	174.8	
103 N-Propylbenzene	120	11.809	11.809	0.000	86	464167	175.0	179.2	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	385419	175.0	172.3	
105 3-Chlorotoluene	126	11.961	11.961	0.000	74	415021	175.0	179.3	

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	11.992	11.992	0.000	93	1305913	175.0	173.3	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	420730	175.0	173.6	
108 tert-Butylbenzene	119	12.308	12.308	0.000	90	1055188	175.0	176.0	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	1304956	175.0	175.8	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	372233	175.0	171.3	
112 sec-Butylbenzene	105	12.527	12.533	-0.006	83	1489124	175.0	172.3	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	94	671741	175.0	168.5	
114 4-Isopropyltoluene	119	12.685	12.685	0.000	90	1223451	175.0	175.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	91	685744	175.0	169.1	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.776	0.000	87	344654	175.0	174.6	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	361493	175.0	169.3	
120 n-Butylbenzene	91	13.099	13.099	0.000	95	1058649	175.0	177.9	
121 1,2-Dichlorobenzene	146	13.105	13.111	-0.006	82	600426	175.0	170.0	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	71	53852	175.0	177.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	1122389	525.0	559.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.462	-0.001	0	697008	350.0	379.4	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	232870	175.0	184.7	
127 Hexachlorobutadiene	225	14.869	14.869	0.000	94	112857	175.0	161.2	
128 Naphthalene	128	14.991	14.991	0.000	98	644555	175.0	197.3	
129 1,2,3-Trichlorobenzene	180	15.216	15.210	0.006	95	184060	175.0	179.3	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	74150	175.0	170.3	
130 2,3,6-Trichlorotoluene	159	16.092	16.086	0.006	95	76853	175.0	173.1	
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		350.0	341.9	
S 134 1,2-Dichloroethene, Total	96				0		350.0	342.1	
S 135 1,3-Dichloropropene, Total	1				0		350.0	376.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACRLOEINPR_00001	Amount Added: 9.00	Units: uL	
VOA8260SURR_00038	Amount Added: 7.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 7.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 7.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 7.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617010.D

Injection Date: 17-Jun-2015 15:42:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

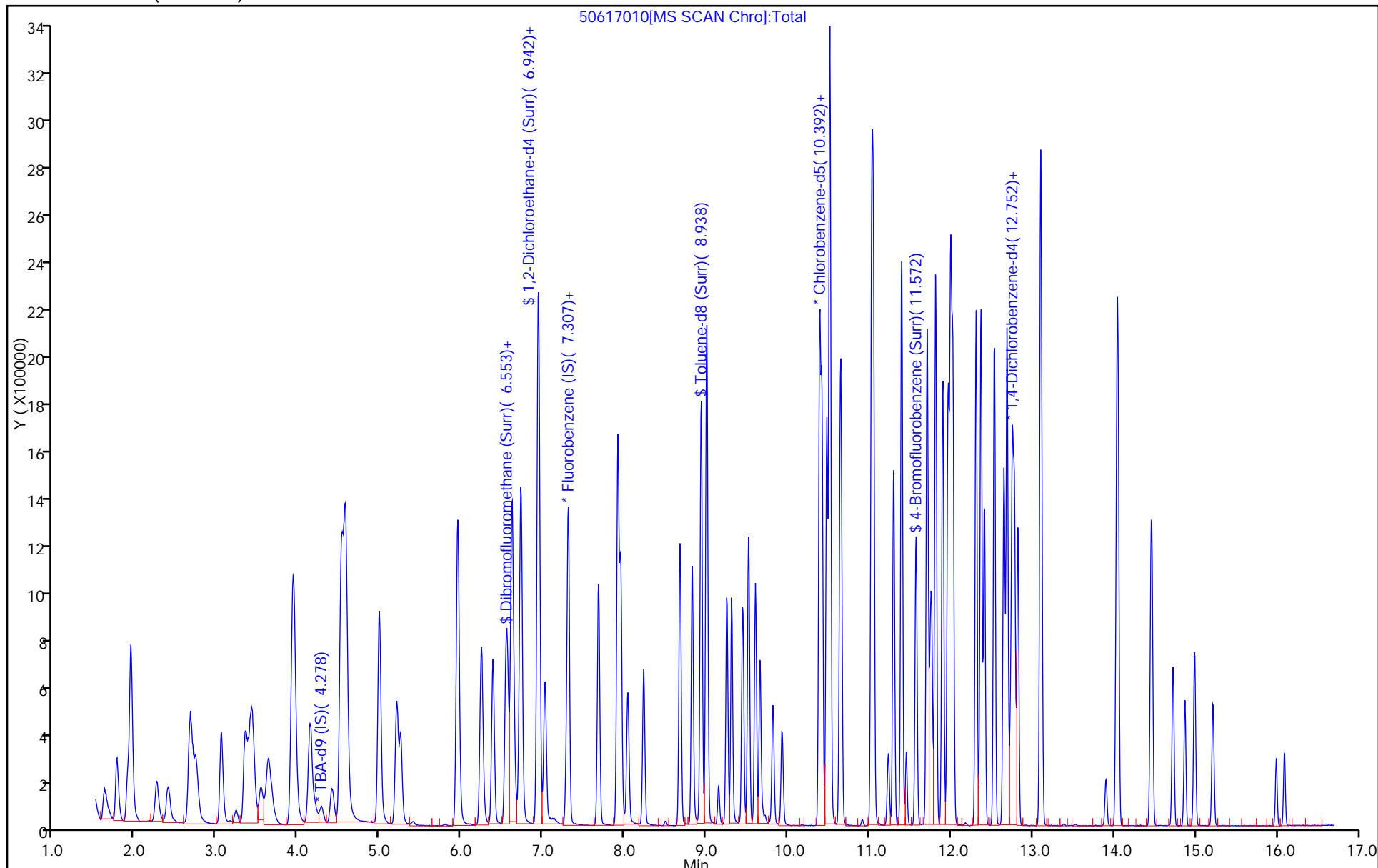
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617011.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 17-Jun-2015 16:06:30 ALS Bottle#: 9 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 180-0007443-011  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:53 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 09:35:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.272	-0.004	0	122239	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.289	-0.003	98	392901	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.386	0.002	57	99948	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.728	0.003	92	122332	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	93	350611	200.0	191.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.936	-0.003	0	493641	200.0	186.7	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	1439382	200.0	173.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	90	557463	200.0	182.7	
11 Dichlorodifluoromethane	85	1.616	1.619	-0.003	99	490752	200.0	185.4	
12 Chloromethane	50	1.768	1.771	-0.003	100	523991	200.0	175.8	
13 Vinyl chloride	62	1.902	1.899	0.003	98	538171	200.0	178.9	
14 Butadiene	39	1.938	1.942	-0.004	93	561800	200.0	174.2	
15 Bromomethane	94	2.255	2.258	-0.003	91	248868	200.0	170.1	
16 Chloroethane	64	2.389	2.398	-0.009	100	316475	200.0	174.7	
17 Dichlorofluoromethane	67	2.668	2.672	-0.004	97	718183	200.0	179.2	
18 Trichlorofluoromethane	101	2.699	2.708	-0.009	99	600930	200.0	183.7	
20 Ethyl ether	59	3.046	3.049	-0.003	94	431207	200.0	190.7	
21 Acrolein	56	3.228	3.225	0.003	98	114067	250.0	263.0	
22 1,1-Dichloroethene	96	3.338	3.347	-0.009	95	410599	200.0	184.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.420	-0.003	95	430718	200.0	183.4	
24 Acetone	43	3.435	3.444	-0.009	99	251920	400.0	387.0	
25 Iodomethane	142	3.532	3.542	-0.010	100	579231	200.0	188.4	
26 Carbon disulfide	76	3.630	3.633	-0.003	100	1001334	200.0	203.3	
28 3-Chloro-1-propene	76	3.916	3.919	-0.003	89	245584	200.0	199.5	
30 Methyl acetate	43	3.940	3.943	-0.003	98	1971351	1000.0	976.5	
31 Methylene Chloride	84	4.141	4.138	0.003	96	466826	200.0	197.6	
32 2-Methyl-2-propanol	59	4.408	4.406	0.002	91	269586	2000.0	1931.3	
33 Acrylonitrile	53	4.524	4.521	0.003	97	1910483	2000.0	1953.1	
34 trans-1,2-Dichloroethene	96	4.560	4.564	-0.004	96	439641	200.0	185.8	
35 Methyl tert-butyl ether	73	4.579	4.582	-0.003	98	1178416	200.0	201.9	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.990	-0.004	95	703743	200.0	192.3	
37 1,1-Dichloroethane	63	5.205	5.203	0.003	97	841498	200.0	186.1	
38 Vinyl acetate	43	5.248	5.251	-0.003	98	819004	200.0	211.7	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	88	371771	200.0	192.5	
45 cis-1,2-Dichloroethene	96	5.954	5.951	0.003	84	476914	200.0	190.3	
46 2-Butanone (MEK)	43	5.960	5.963	-0.003	100	382226	400.0	400.3	
49 Chlorobromomethane	128	6.239	6.231	0.008	96	206501	200.0	195.2	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	88	325712	400.0	415.0	
52 Chloroform	83	6.379	6.383	-0.004	95	766034	200.0	184.2	
53 1,1,1-Trichloroethane	97	6.538	6.541	-0.003	97	600207	200.0	192.1	
54 Cyclohexane	56	6.617	6.614	0.003	94	891635	200.0	190.6	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	94	520097	200.0	191.3	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	92	648085	200.0	189.0	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	94	315367	5000.0	4815.2	
58 Benzene	78	6.945	6.942	0.003	98	1802599	200.0	182.0	
59 1,2-Dichloroethane	62	7.018	7.021	-0.003	98	641336	200.0	189.3	
62 n-Heptane	43	7.310	7.307	0.003	94	613406	200.0	189.6	
64 Trichloroethene	130	7.675	7.678	-0.003	97	438244	200.0	187.4	
66 Methylcyclohexane	83	7.912	7.916	-0.004	94	770738	200.0	197.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	94	463847	200.0	192.3	
68 Dibromomethane	93	8.034	8.037	-0.003	97	251996	200.0	193.1	
70 1,4-Dioxane	88	8.028	8.037	-0.009	42	72079	4000.0	4349.1	
71 Dichlorobromomethane	83	8.229	8.232	-0.003	99	527553	200.0	200.3	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	91	663516	200.0	217.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.828	-0.003	97	927073	400.0	391.8	
76 Toluene	91	9.001	9.005	-0.004	98	1815140	200.0	169.0	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	98	577958	200.0	199.9	
78 Ethyl methacrylate	69	9.312	9.309	0.003	91	573048	200.0	208.1	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	93	364522	200.0	174.9	
80 Tetrachloroethene	164	9.518	9.516	0.002	95	349165	200.0	170.9	
81 1,3-Dichloropropane	76	9.604	9.601	0.003	95	674090	200.0	176.9	
82 2-Hexanone	43	9.658	9.656	0.002	98	591225	400.0	389.0	
84 Chlorodibromomethane	129	9.817	9.814	0.003	91	331408	200.0	195.2	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	98	363127	200.0	186.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	91	622777	200.0	177.0	
87 Chlorobenzene	112	10.419	10.416	0.003	91	1152586	200.0	171.8	
88 4-Chlorobenzotrifluoride	180	10.474	10.477	-0.003	97	599843	200.0	180.9	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	93	387650	200.0	187.2	
90 Ethylbenzene	106	10.516	10.513	0.003	98	663092	200.0	179.7	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	820612	200.0	184.3	
92 o-Xylene	106	11.027	11.024	0.003	97	790630	200.0	184.9	
93 Styrene	104	11.045	11.049	-0.004	94	1289578	200.0	184.6	
94 Bromoform	173	11.228	11.231	-0.003	95	185935	200.0	206.3	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	94	606064	200.0	182.7	
97 Isopropylbenzene	105	11.392	11.395	-0.003	98	1878555	200.0	179.4	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.706	0.002	77	477417	200.0	181.1	
100 Bromobenzene	156	11.709	11.712	-0.004	96	442468	200.0	185.8	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.742	0.003	79	168794	200.0	209.7	
101 1,2,3-Trichloropropane	110	11.763	11.767	-0.004	86	159888	200.0	189.5	
103 N-Propylbenzene	120	11.812	11.809	0.003	98	542910	200.0	193.0	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	461338	200.0	190.0	
105 3-Chlorotoluene	126	11.964	11.961	0.003	95	490765	200.0	195.3	



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	11.994	11.992	0.002	95	1523592	200.0	186.2	
107 4-Chlorotoluene	126	12.025	12.022	0.003	98	484074	200.0	184.0	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	93	1251164	200.0	192.2	
110 1,2,4-Trimethylbenzene	105	12.366	12.369	-0.003	99	1527586	200.0	189.6	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	98	445231	200.0	188.7	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	96	1749050	200.0	186.4	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	96	793952	200.0	183.4	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	96	1449933	200.0	191.9	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	93	799016	200.0	181.5	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.776	0.003	96	397020	200.0	185.2	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	449922	200.0	194.1	
120 n-Butylbenzene	91	13.096	13.099	-0.003	97	1250309	200.0	193.5	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	94	701795	200.0	183.1	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.896	0.003	77	64433	200.0	195.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.042	0.003	0	1312774	600.0	602.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	813548	400.0	407.9	
126 1,2,4-Trichlorobenzene	180	14.720	14.723	-0.003	95	271980	200.0	198.7	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	96	130058	200.0	171.1	
128 Naphthalene	128	14.988	14.991	-0.003	98	762683	200.0	215.1	
129 1,2,3-Trichlorobenzene	180	15.213	15.210	0.003	94	219483	200.0	196.9	
131 2,4,5-Trichlorotoluene	159	15.991	15.988	0.003	0	102047	200.0	200.9	
130 2,3,6-Trichlorotoluene	159	16.089	16.086	0.003	96	101530	200.0	198.8	
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		400.0	369.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	376.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	417.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR_00038	Amount Added: 8.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 8.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 8.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added: 10.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617011.D

Injection Date: 17-Jun-2015 16:06:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

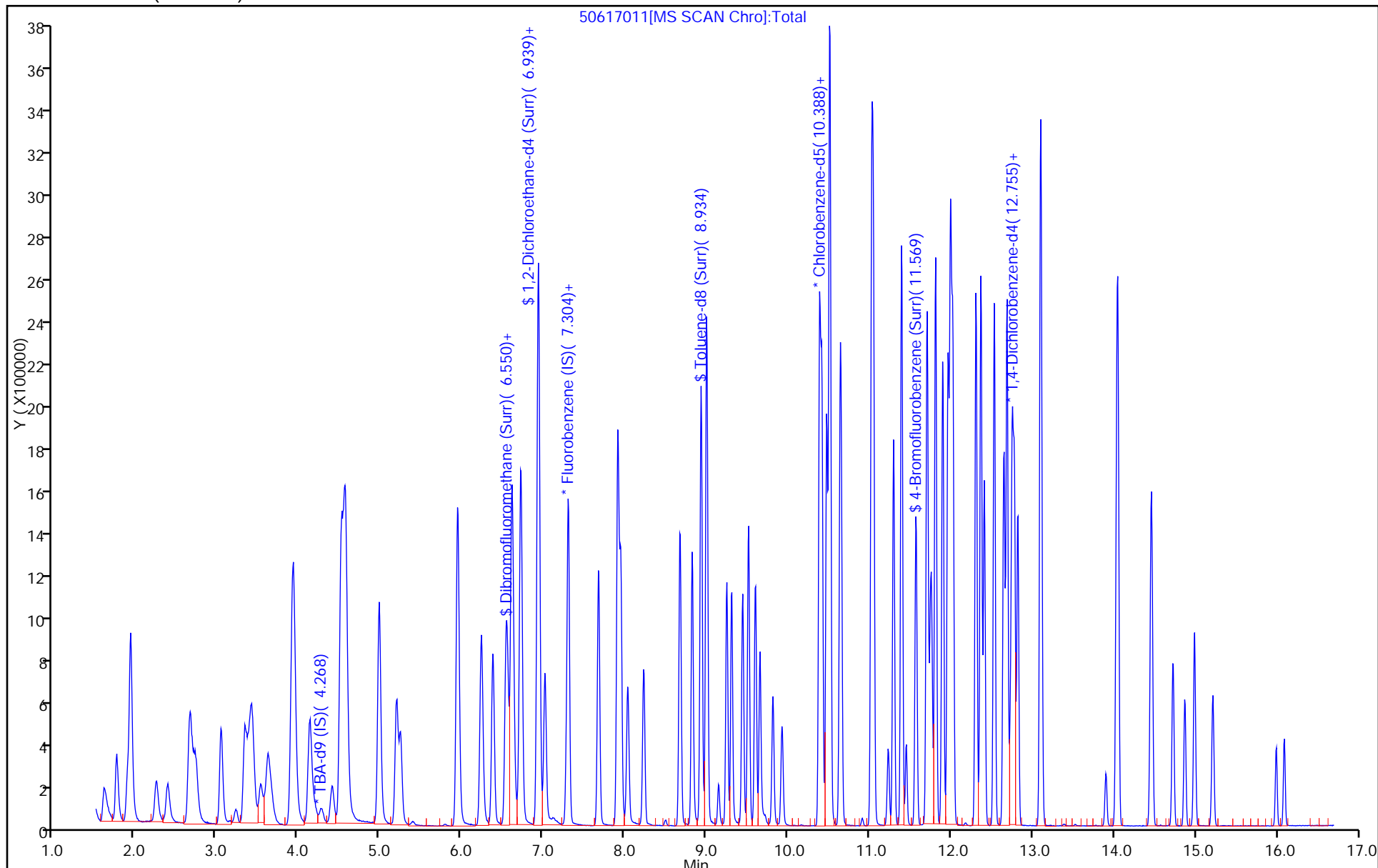
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617012.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 17-Jun-2015 16:29:30 ALS Bottle#: 10 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 180-0007443-012  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:54 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 09:42:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.272	0.015	0	113940	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.289	-0.003	98	394209	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.386	0.003	53	99625	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.728	-0.003	96	118641	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.565	-0.003	93	443187	250.0	241.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.936	-0.003	0	625499	250.0	235.8	
\$ 7 Toluene-d8 (Surr)	98	8.935	8.938	-0.003	94	1777930	250.0	215.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.572	-0.003	85	717948	250.0	236.1	
11 Dichlorodifluoromethane	85	1.616	1.619	-0.003	99	633416	250.0	238.4	
12 Chloromethane	50	1.762	1.771	-0.009	99	703080	250.0	235.1	
13 Vinyl chloride	62	1.908	1.899	0.009	98	709759	250.0	235.2	
14 Butadiene	39	1.939	1.942	-0.003	94	741355	250.0	229.1	
15 Bromomethane	94	2.243	2.258	-0.015	90	316164	250.0	215.4	
16 Chloroethane	64	2.389	2.398	-0.009	100	423350	250.0	233.0	
17 Dichlorofluoromethane	67	2.663	2.672	-0.009	97	920746	250.0	229.0	
18 Trichlorofluoromethane	101	2.711	2.708	0.003	98	760123	250.0	231.6	
20 Ethyl ether	59	3.046	3.049	-0.003	93	537080	250.0	236.7	
21 Acrolein	56	3.222	3.225	-0.003	99	120047	275.0	275.9	
22 1,1-Dichloroethene	96	3.338	3.347	-0.009	96	540491	250.0	242.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.420	-0.009	95	574450	250.0	243.7	
24 Acetone	43	3.441	3.444	-0.003	99	288844	500.0	442.3	
25 Iodomethane	142	3.533	3.542	-0.009	99	768838	250.0	249.2	
26 Carbon disulfide	76	3.630	3.633	-0.003	100	1362874	250.0	275.8	
28 3-Chloro-1-propene	76	3.916	3.919	-0.003	89	337990	250.0	273.7	
30 Methyl acetate	43	3.940	3.943	-0.003	98	2382208	1250.0	1176.1	
31 Methylene Chloride	84	4.135	4.138	-0.003	97	603105	250.0	258.9	
32 2-Methyl-2-propanol	59	4.421	4.406	0.015	91	308656	2500.0	2372.2	
33 Acrylonitrile	53	4.524	4.521	0.003	98	2346331	2500.0	2390.7	
34 trans-1,2-Dichloroethene	96	4.561	4.564	-0.003	97	574249	250.0	241.9	
35 Methyl tert-butyl ether	73	4.579	4.582	-0.003	98	1517466	250.0	259.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.990	-0.003	95	945438	250.0	257.5	
37 1,1-Dichloroethane	63	5.200	5.203	-0.002	97	1108115	250.0	244.3	
38 Vinyl acetate	43	5.248	5.251	-0.003	98	1008331	250.0	259.7	
44 2,2-Dichloropropane	77	5.948	5.945	0.003	86	486802	250.0	251.2	
45 cis-1,2-Dichloroethene	96	5.948	5.951	-0.003	83	619117	250.0	246.2	
46 2-Butanone (MEK)	43	5.960	5.963	-0.003	100	476377	500.0	497.2	
49 Chlorobromomethane	128	6.234	6.231	0.003	96	261865	250.0	246.8	
51 Tetrahydrofuran	42	6.252	6.255	-0.003	89	400339	500.0	508.4	
52 Chloroform	83	6.380	6.383	-0.003	95	990455	250.0	237.4	
53 1,1,1-Trichloroethane	97	6.544	6.541	0.003	97	794369	250.0	253.4	
54 Cyclohexane	56	6.611	6.614	-0.003	97	1206014	250.0	257.0	
56 Carbon tetrachloride	117	6.714	6.717	-0.003	94	704165	250.0	258.1	
55 1,1-Dichloropropene	75	6.726	6.729	-0.003	92	861875	250.0	250.5	
57 Isobutyl alcohol	41	6.927	6.930	-0.003	93	431449	6250.0	6565.7	
58 Benzene	78	6.939	6.942	-0.003	98	2308789	250.0	232.4	
59 1,2-Dichloroethane	62	7.018	7.021	-0.003	97	822349	250.0	241.9	
62 n-Heptane	43	7.310	7.307	0.003	93	825317	250.0	254.3	
64 Trichloroethene	130	7.676	7.678	-0.002	97	582600	250.0	248.3	
66 Methylcyclohexane	83	7.913	7.916	-0.003	95	1027848	250.0	262.3	
67 1,2-Dichloropropane	63	7.949	7.952	-0.003	94	611506	250.0	252.6	
68 Dibromomethane	93	8.034	8.037	-0.003	97	327328	250.0	250.0	
70 1,4-Dioxane	88	8.028	8.037	-0.009	41	89366	5000.0	5374.3	
71 Dichlorobromomethane	83	8.229	8.232	-0.003	98	696885	250.0	263.7	
74 cis-1,3-Dichloropropene	75	8.673	8.676	-0.003	92	868238	250.0	283.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.828	-0.003	97	1183396	500.0	501.8	
76 Toluene	91	9.002	9.005	-0.003	97	2333889	250.0	218.0	
77 trans-1,3-Dichloropropene	75	9.251	9.248	0.003	98	770190	250.0	267.2	
78 Ethyl methacrylate	69	9.312	9.309	0.003	91	743353	250.0	270.8	
79 1,1,2-Trichloroethane	97	9.446	9.443	0.003	93	469658	250.0	226.1	
80 Tetrachloroethene	164	9.519	9.516	0.003	95	466332	250.0	229.0	
81 1,3-Dichloropropane	76	9.604	9.601	0.003	95	885819	250.0	233.2	
82 2-Hexanone	43	9.659	9.656	0.003	97	760964	500.0	502.2	
84 Chlorodibromomethane	129	9.817	9.814	0.003	92	444869	250.0	262.9	
85 Ethylene Dibromide	107	9.926	9.929	-0.003	99	471517	250.0	242.9	
86 3-Chlorobenzotrifluoride	180	10.389	10.386	0.003	92	759876	250.0	216.6	
87 Chlorobenzene	112	10.413	10.416	-0.003	94	1501256	250.0	224.5	
88 4-Chlorobenzotrifluoride	180	10.474	10.477	-0.003	96	723279	250.0	218.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.513	-0.003	92	503057	250.0	243.7	
90 Ethylbenzene	106	10.516	10.513	0.003	98	880883	250.0	239.5	
91 m-Xylene & p-Xylene	106	10.644	10.647	-0.003	0	1067701	250.0	240.5	
92 o-Xylene	106	11.027	11.024	0.003	95	1027331	250.0	241.1	
93 Styrene	104	11.046	11.049	-0.003	92	1688053	250.0	242.5	
94 Bromoform	173	11.228	11.231	-0.003	95	253044	250.0	281.7	
96 2-Chlorobenzotrifluoride	180	11.295	11.298	-0.003	95	731650	250.0	221.3	
97 Isopropylbenzene	105	11.393	11.395	-0.003	98	2423171	250.0	232.1	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.706	0.003	75	610898	250.0	232.5	
100 Bromobenzene	156	11.709	11.712	-0.003	96	586242	250.0	253.8	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.742	-0.003	84	221836	250.0	284.1	
101 1,2,3-Trichloropropane	110	11.758	11.767	-0.009	86	205782	250.0	251.5	
103 N-Propylbenzene	120	11.812	11.809	0.003	97	723043	250.0	265.1	
104 2-Chlorotoluene	126	11.897	11.900	-0.003	95	598001	250.0	253.9	
105 3-Chlorotoluene	126	11.964	11.961	0.003	95	600892	250.0	246.5	

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	11.995	11.992	0.003	94	1960117	250.0	247.0	
107 4-Chlorotoluene	126	12.019	12.022	-0.003	98	641189	250.0	251.3	
108 tert-Butylbenzene	119	12.305	12.308	-0.003	93	1618547	250.0	256.4	
110 1,2,4-Trimethylbenzene	105	12.366	12.369	-0.003	98	1946593	250.0	249.1	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.411	-0.003	98	530743	250.0	232.0	
112 sec-Butylbenzene	105	12.530	12.533	-0.003	96	2251780	250.0	247.4	
113 1,3-Dichlorobenzene	146	12.652	12.649	0.003	96	1022265	250.0	243.5	
114 4-Isopropyltoluene	119	12.688	12.685	0.003	95	1866871	250.0	254.7	
115 1,4-Dichlorobenzene	146	12.755	12.752	0.003	92	1045055	250.0	244.7	
116 2,4-Dichloro-1-(trifluorom	214	12.780	12.776	0.004	96	474617	250.0	228.3	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.819	0.003	0	539686	250.0	240.0	
120 n-Butylbenzene	91	13.096	13.099	-0.003	97	1628698	250.0	259.9	
121 1,2-Dichlorobenzene	146	13.108	13.111	-0.003	94	903210	250.0	243.0	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.896	0.003	78	88331	250.0	276.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.039	14.042	-0.003	0	1629871	750.0	771.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.462	-0.003	0	1030679	500.0	532.9	
126 1,2,4-Trichlorobenzene	180	14.726	14.723	0.003	95	371041	250.0	279.5	
127 Hexachlorobutadiene	225	14.872	14.869	0.003	97	175617	250.0	238.2	
128 Naphthalene	128	14.988	14.991	-0.003	98	1035925	250.0	301.2	
129 1,2,3-Trichlorobenzene	180	15.213	15.210	0.003	94	299099	250.0	276.7	
131 2,4,5-Trichlorotoluene	159	15.992	15.988	0.004	0	137650	250.0	250.8	
130 2,3,6-Trichlorotoluene	159	16.089	16.086	0.003	95	138350	250.0	350.5	
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		500.0	481.6	
S 134 1,2-Dichloroethene, Total	96				0		500.0	488.1	
S 135 1,3-Dichloropropene, Total	1				0		500.0	551.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOAACRLOEINPR_00001	Amount Added: 11.00	Units: uL	
VOA8260SURR_00038	Amount Added: 10.00	Units: uL	
voaWketmix1Re_00001	Amount Added: 10.00	Units: uL	
voaWEEmix1st_00002	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 10.00	Units: uL	
voaWVA2nd Res_00007	Amount Added: 10.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617012.D

Injection Date: 17-Jun-2015 16:29:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

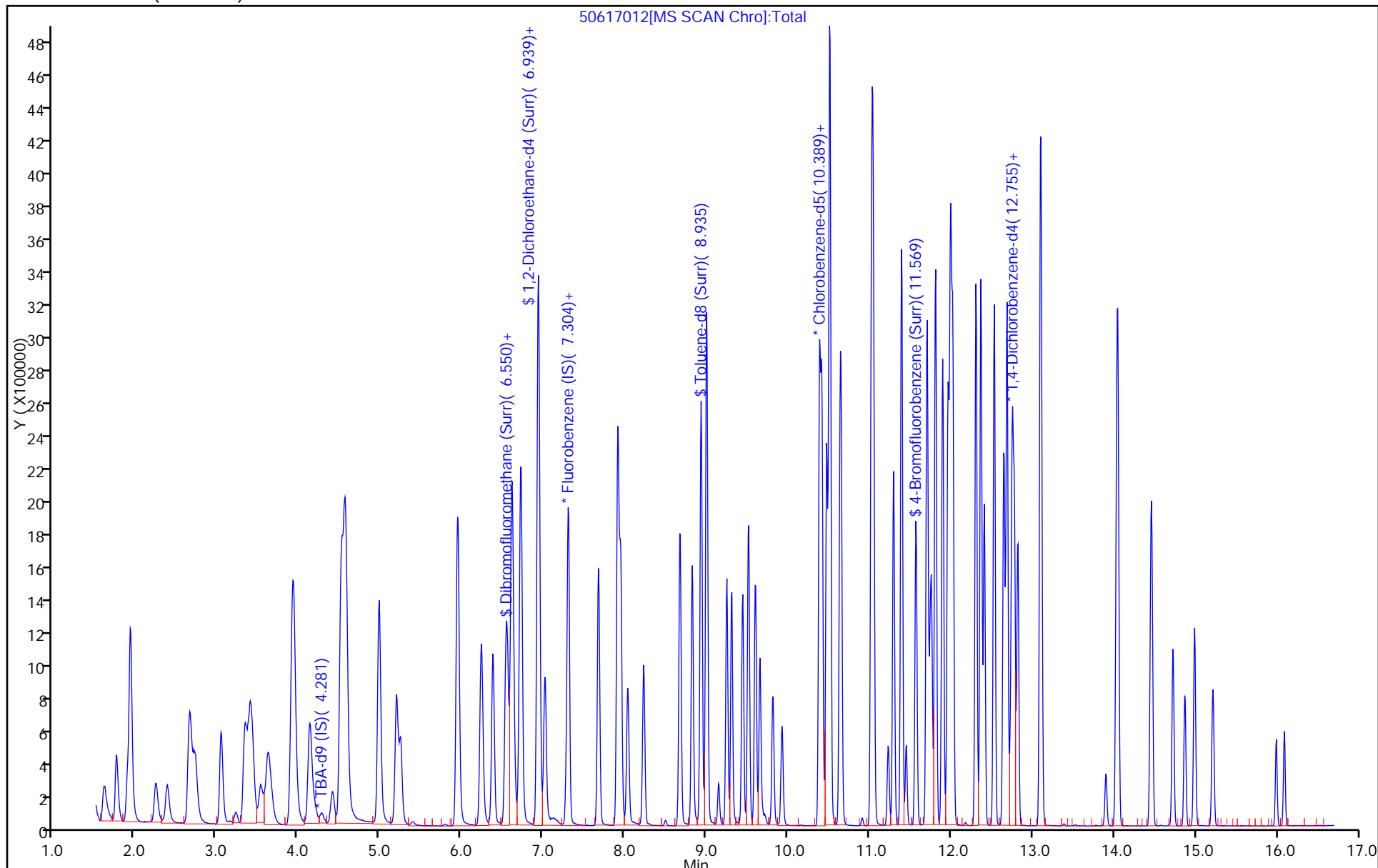
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 17-Jun-2015 18:04:30 ALS Bottle#: 14 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD1  
 Misc. Info.: 180-0007443-017  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub4  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:55 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond

Date: 18-Jun-2015 09:50:05

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	4.272	0.005	0	95161	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.289	-0.001	98	369135	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	89	79662	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.728	-0.001	97	101439	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.558	6.565	-0.007	90	9682	5.00	5.63	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	15123	5.00	6.09	
\$ 7 Toluene-d8 (Surr)	98	8.931	8.938	-0.007	94	39633	5.00	5.99	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.572	-0.001	83	13828	5.00	5.69	
11 Dichlorodifluoromethane	85	1.637	1.619	0.018	92	13985	5.00	5.62	
12 Chloromethane	50	1.771	1.771	0.000	98	16479	5.00	5.88	
13 Vinyl chloride	62	1.892	1.899	-0.007	97	16468	5.00	5.83	
14 Butadiene	39	1.953	1.942	0.011	97	17534	5.00	5.79	
15 Bromomethane	94	2.251	2.258	-0.007	87	9558	5.00	6.95	
16 Chloroethane	64	2.403	2.398	0.005	73	10069	5.00	5.92	
17 Dichlorofluoromethane	67	2.671	2.672	-0.001	98	22288	5.00	5.92	
18 Trichlorofluoromethane	101	2.665	2.708	-0.043	53	16306	5.00	5.31	
20 Ethyl ether	59	3.054	3.049	0.005	92	12234	5.00	5.76	
21 Acrolein	56	3.231	3.225	0.006	99	40673	100.0	99.8	
22 1,1-Dichloroethene	96	3.346	3.347	-0.001	94	11927	5.00	5.71	
23 1,1,2-Trichloro-1,2,2-trif	101	3.432	3.420	0.012	95	12416	5.00	5.63	
24 Acetone	43	3.450	3.444	0.006	98	21142	25.0	34.6	
25 Iodomethane	142	3.541	3.542	-0.001	99	16174	5.00	5.60	
26 Carbon disulfide	76	3.632	3.633	-0.001	98	24523	5.00	5.30	
28 3-Chloro-1-propene	76	3.924	3.919	0.005	78	5725	5.00	4.95	
30 Methyl acetate	43	3.949	3.943	0.006	99	55670	25.0	29.4	
31 Methylene Chloride	84	4.143	4.138	0.005	99	42380	5.00	5.12	
32 2-Methyl-2-propanol	59	4.405	4.406	-0.001	58	5750	50.0	52.9	
33 Acrylonitrile	53	4.533	4.521	0.012	99	50704	50.0	55.2	
34 trans-1,2-Dichloroethene	96	4.569	4.564	0.005	82	12851	5.00	5.78	
35 Methyl tert-butyl ether	73	4.575	4.582	-0.007	96	30869	5.00	5.63	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	95	18266	5.00	5.31	
37 1,1-Dichloroethane	63	5.208	5.203	0.006	96	24720	5.00	5.82	
38 Vinyl acetate	43	5.257	5.251	0.006	96	16760	5.00	4.61	
44 2,2-Dichloropropane	77	5.938	5.945	-0.007	54	9285	5.00	5.12	
45 cis-1,2-Dichloroethene	96	5.944	5.951	-0.007	87	13356	5.00	5.67	
46 2-Butanone (MEK)	43	5.968	5.963	0.005	94	25657	25.0	28.6	
49 Chlorobromomethane	128	6.242	6.231	0.011	96	5160	5.00	5.19	
51 Tetrahydrofuran	42	6.260	6.255	0.005	88	8952	10.0	12.1	
52 Chloroform	83	6.388	6.383	0.005	95	23436	5.00	6.00	
53 1,1,1-Trichloroethane	97	6.540	6.541	-0.001	96	15369	5.00	5.23	
54 Cyclohexane	56	6.619	6.614	0.005	96	23411	5.00	5.33	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	13635	5.00	5.34	
55 1,1-Dichloropropene	75	6.723	6.729	-0.006	90	17095	5.00	5.31	
57 Isobutyl alcohol	41	6.930	6.930	0.000	80	7732	125.0	125.7	M
58 Benzene	78	6.942	6.942	0.000	97	53813	5.00	5.78	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	97	18373	5.00	5.77	
62 n-Heptane	43	7.307	7.307	0.000	93	16224	5.00	5.34	
64 Trichloroethene	130	7.678	7.678	0.000	97	12617	5.00	5.74	
66 Methylcyclohexane	83	7.915	7.916	-0.001	91	17166	5.00	4.68	
67 1,2-Dichloropropane	63	7.958	7.952	0.006	92	12987	5.00	5.73	
68 Dibromomethane	93	8.043	8.037	0.006	92	7021	5.00	5.73	
70 1,4-Dioxane	88	8.025	8.037	-0.012	36	1168	100.0	75.0	
71 Dichlorobromomethane	83	8.231	8.232	-0.001	97	13279	5.00	5.37	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	12838	5.00	4.48	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.828	0.000	99	49926	25.0	26.5	
76 Toluene	91	9.004	9.005	-0.001	98	49160	5.00	5.74	
77 trans-1,3-Dichloropropene	75	9.247	9.248	-0.001	98	11320	5.00	4.91	
78 Ethyl methacrylate	69	9.308	9.309	-0.001	90	9383	5.00	4.28	
79 1,1,2-Trichloroethane	97	9.448	9.443	0.005	92	9973	5.00	6.00	
80 Tetrachloroethene	164	9.515	9.516	-0.001	96	9337	5.00	5.73	
81 1,3-Dichloropropane	76	9.600	9.601	-0.001	99	17423	5.00	5.74	
82 2-Hexanone	43	9.655	9.656	-0.001	98	32828	25.0	27.1	
84 Chlorodibromomethane	129	9.813	9.814	-0.001	88	7214	5.00	5.33	
85 Ethylene Dibromide	107	9.929	9.929	0.000	98	8260	5.00	5.32	
86 3-Chlorobenzotrifluoride	180	10.391	10.386	0.005	56	16372	5.00	5.84	
87 Chlorobenzene	112	10.415	10.416	-0.001	92	32854	5.00	6.14	
88 4-Chlorobenzotrifluoride	180	10.476	10.477	-0.001	94	15621	5.00	5.91	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.513	-0.006	42	8556	5.00	5.18	
90 Ethylbenzene	106	10.513	10.513	0.000	99	15088	5.00	5.13	
91 m-Xylene & p-Xylene	106	10.647	10.647	0.000	0	17089	5.00	4.81	
92 o-Xylene	106	11.030	11.024	0.006	98	16524	5.00	4.85	
93 Styrene	104	11.048	11.049	-0.001	93	24775	5.00	4.45	
94 Bromoform	173	11.231	11.231	0.000	94	3484	5.00	4.85	
96 2-Chlorobenzotrifluoride	180	11.297	11.298	-0.001	91	15410	5.00	5.83	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	40468	5.00	4.85	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.706	-0.001	81	12128	5.00	5.77	
100 Bromobenzene	156	11.711	11.712	-0.001	95	10764	5.00	5.45	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.742	0.006	28	3040	5.00	4.55	
101 1,2,3-Trichloropropane	110	11.766	11.767	-0.001	85	4061	5.00	5.81	
103 N-Propylbenzene	120	11.808	11.809	-0.001	99	10453	5.00	4.48	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	11006	5.00	5.47	
105 3-Chlorotoluene	126	11.967	11.961	0.006	97	10480	5.00	5.03	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.991	11.992	-0.001	96	30672	5.00	4.52	
107 4-Chlorotoluene	126	12.021	12.022	-0.001	99	11822	5.00	5.42	
108 tert-Butylbenzene	119	12.307	12.308	-0.001	94	24739	5.00	4.58	
110 1,2,4-Trimethylbenzene	105	12.368	12.369	-0.001	98	29952	5.00	4.48	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	95	11645	5.00	5.95	
112 sec-Butylbenzene	105	12.532	12.533	-0.001	96	36514	5.00	4.69	
113 1,3-Dichlorobenzene	146	12.648	12.649	-0.001	96	21571	5.00	6.01	
114 4-Isopropyltoluene	119	12.691	12.685	0.006	95	27473	5.00	4.38	
115 1,4-Dichlorobenzene	146	12.751	12.752	-0.001	94	21178	5.00	5.80	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.776	0.000	92	10251	5.00	5.77	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.819	-0.001	0	10978	5.00	5.71	
120 n-Butylbenzene	91	13.098	13.099	-0.001	97	23139	5.00	4.32	
121 1,2-Dichlorobenzene	146	13.110	13.111	-0.001	95	18353	5.00	5.77	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.896	0.005	69	1764	5.00	6.46	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.042	-0.001	0	24591	15.0	13.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.462	-0.007	0	15149	10.0	9.16	
126 1,2,4-Trichlorobenzene	180	14.722	14.723	-0.001	91	5077	5.00	4.47	
127 Hexachlorobutadiene	225	14.868	14.869	-0.001	92	4131	5.00	6.55	
128 Naphthalene	128	14.984	14.991	-0.007	97	12282	5.00	4.18	
129 1,2,3-Trichlorobenzene	180	15.209	15.210	-0.001	94	4594	5.00	4.97	
131 2,4,5-Trichlorotoluene	159	15.994	15.988	0.006	0	1842	5.00	5.70	
130 2,3,6-Trichlorotoluene	159	16.097	16.086	0.011	88	1783	5.00	5.83	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.66	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.5	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.40	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00038	Amount Added: 0.20	Units: uL	
voaWVA2nd Res_00007	Amount Added: 0.20	Units: uL	
voaWEEmix1st_00002	Amount Added: 0.20	Units: uL	
VOA8260VOAPRI_00125	Amount Added: 0.20	Units: uL	
voaWketmix1Re_00001	Amount Added: 0.80	Units: uL	
VOAACRLOEINPR_00001	Amount Added: 4.00	Units: uL	
VOA8260INT_00038	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D

Injection Date: 17-Jun-2015 18:04:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 17

Client ID:

Purge Vol: 5.000 mL

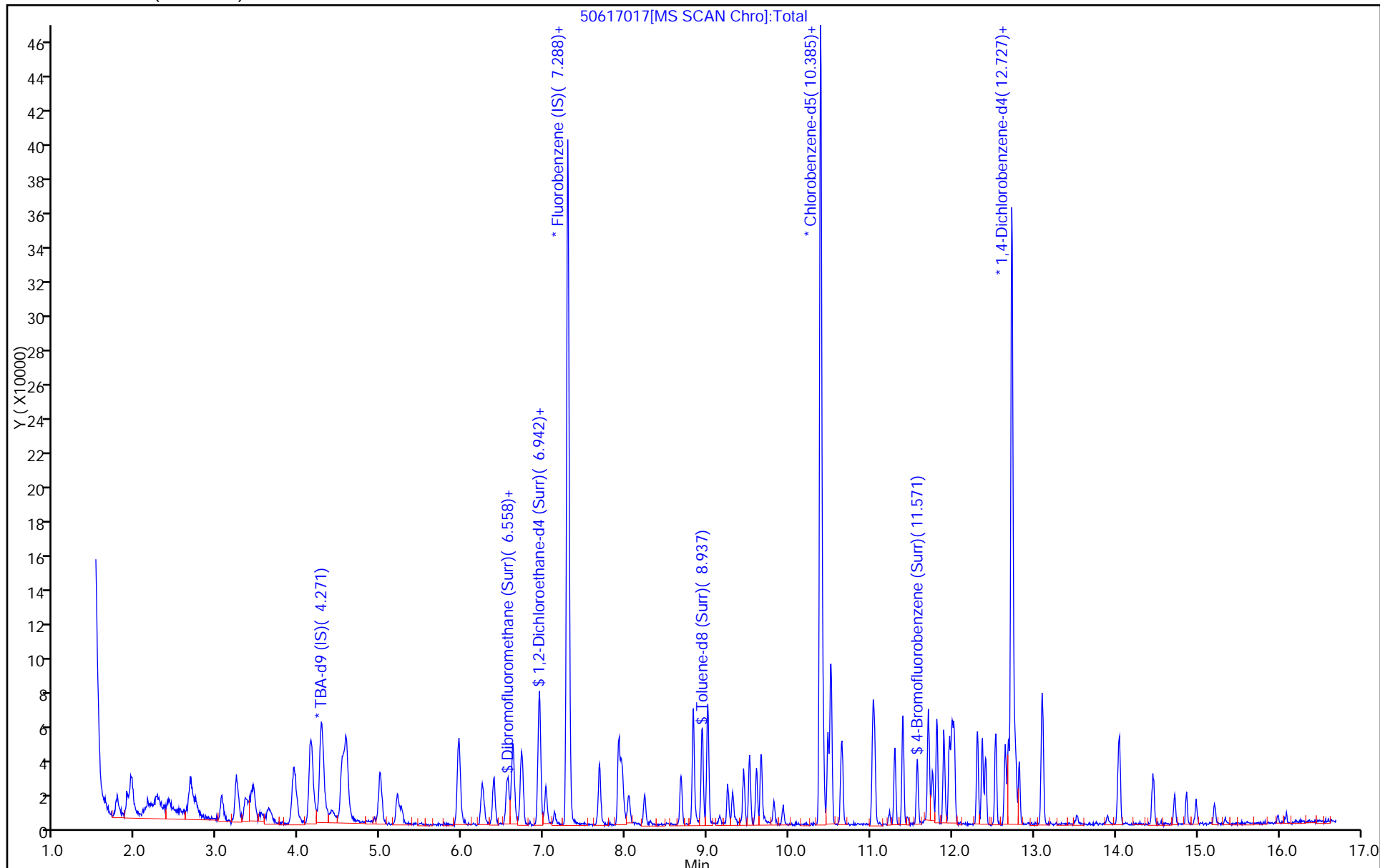
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



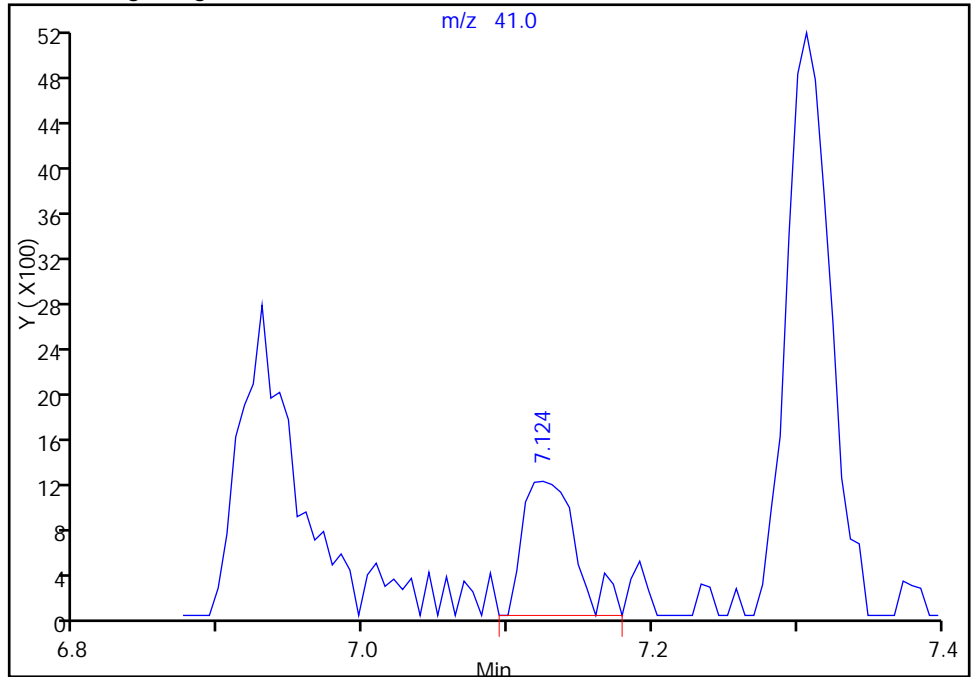
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
Injection Date: 17-Jun-2015 18:04:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 17  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

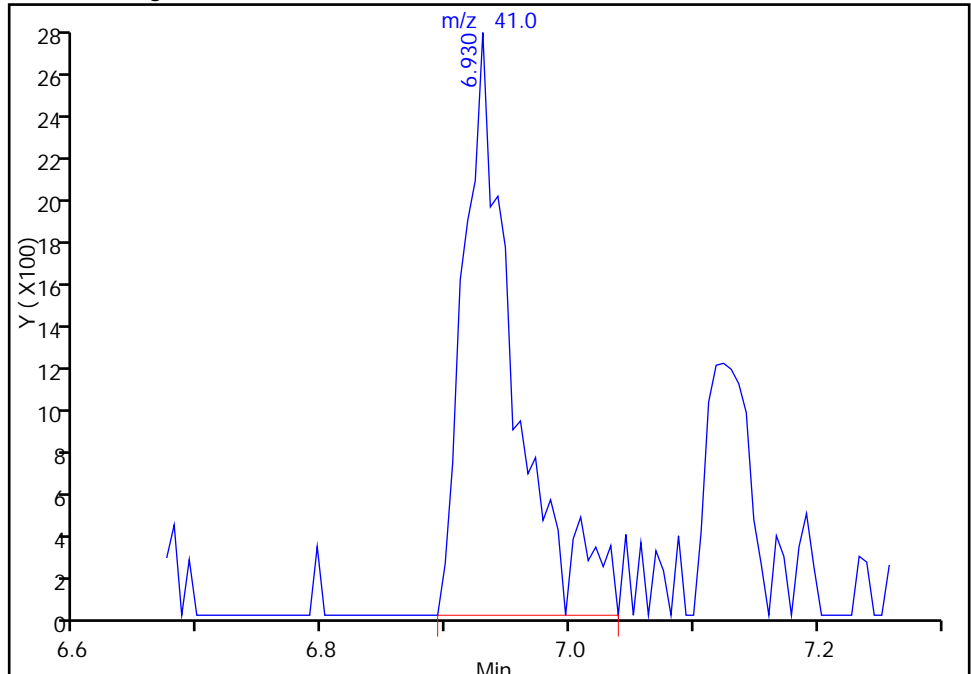
RT: 7.12  
Area: 3003  
Amount: 47.931992  
Amount Units: ng

Processing Integration Results



RT: 6.93  
Area: 7732  
Amount: 125.6565  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Jun-2015 09:50:05  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151080/6 Calibration Date: 08/18/2015 13:50  
 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: 50818006.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	0.1481	0.0100	17.9	20.0	-10.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818006.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 18-Aug-2015 13:50:30 ALS Bottle#: 4 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008205-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 14:38:47 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond

Date: 18-Aug-2015 14:16:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.268	0.000	0	140171	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.291	0.000	97	437406	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	96566	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.724	0.000	96	135192	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.567	6.567	0.000	93	95928	50.0	47.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.932	0.000	0	132755	50.0	45.1	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	404251	50.0	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.568	0.000	90	137286	50.0	46.6	
11 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	189042	50.0	64.1	
12 Chloromethane	50	1.773	1.773	0.000	99	210453	50.0	63.4	
13 Vinyl chloride	62	1.907	1.907	0.000	99	205492	50.0	61.4	
14 Butadiene	39	1.938	1.938	0.000	93	242824	50.0	67.6	
15 Bromomethane	94	2.242	2.242	0.000	91	76484	50.0	47.0	
16 Chloroethane	64	2.394	2.394	0.000	99	115831	50.0	57.4	
17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	257736	50.0	57.8	
18 Trichlorofluoromethane	101	2.716	2.716	0.000	95	200063	50.0	54.9	
20 Ethyl ether	59	3.051	3.051	0.000	95	127984	50.0	50.8	
21 Acrolein	56	3.234	3.234	0.000	100	58259	150.0	120.7	
22 1,1-Dichloroethene	96	3.349	3.349	0.000	95	124786	50.0	50.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	95	136420	50.0	52.2	
24 Acetone	43	3.446	3.446	0.000	100	59928	100.0	82.7	
25 Iodomethane	142	3.550	3.550	0.000	99	161530	50.0	47.2	
26 Carbon disulfide	76	3.629	3.629	0.000	100	282759	50.0	51.6	
28 3-Chloro-1-propene	76	3.927	3.927	0.000	89	67621	50.0	49.3	
30 Methyl acetate	43	3.945	3.945	0.000	99	565320	250.0	251.5	
31 Methylene Chloride	84	4.140	4.140	0.000	97	152482	50.0	47.0	
32 2-Methyl-2-propanol	59	4.402	4.402	0.000	87	70346	500.0	439.5	
33 Acrylonitrile	53	4.523	4.523	0.000	99	542055	500.0	497.8	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	96	134432	50.0	51.0	
35 Methyl tert-butyl ether	73	4.578	4.578	0.000	96	301123	50.0	46.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.992	0.000	95	209425	50.0	51.4	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	96	249522	50.0	49.6	
38 Vinyl acetate	43	5.253	5.253	0.000	98	196128	50.0	45.5	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	62	114921	50.0	53.4	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	83	135499	50.0	48.6	
46 2-Butanone (MEK)	43	5.965	5.965	0.000	63	94777	100.0	89.1	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	55368	50.0	47.0	
51 Tetrahydrofuran	42	6.251	6.251	0.000	85	74205	100.0	84.9	
52 Chloroform	83	6.385	6.385	0.000	95	223109	50.0	48.2	
53 1,1,1-Trichloroethane	97	6.537	6.537	0.000	96	175448	50.0	50.4	
54 Cyclohexane	56	6.616	6.616	0.000	95	265183	50.0	50.9	
56 Carbon tetrachloride	117	6.713	6.713	0.000	96	144269	50.0	47.7	
55 1,1-Dichloropropene	75	6.732	6.732	0.000	93	188115	50.0	49.3	
57 Isobutyl alcohol	41	6.920	6.920	0.000	90	91541	1250.0	1255.5	
58 Benzene	78	6.944	6.944	0.000	98	559421	50.0	50.7	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	97	170183	50.0	45.1	
62 n-Heptane	43	7.309	7.309	0.000	94	182516	50.0	50.7	
64 Trichloroethene	130	7.681	7.681	0.000	96	123936	50.0	47.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	94	219107	50.0	50.4	
67 1,2-Dichloropropane	63	7.948	7.948	0.000	92	133935	50.0	49.9	
70 1,4-Dioxane	88	8.027	8.027	0.000	36	18598	1000.0	1008.0	
68 Dibromomethane	93	8.039	8.039	0.000	94	67252	50.0	46.3	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	132561	50.0	45.2	
73 2-Chloroethyl vinyl ether	63	8.532	8.532	0.000	93	129572	100.0	89.7	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	161796	50.0	47.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.824	8.824	0.000	98	211572	100.0	92.6	
76 Toluene	91	9.007	9.007	0.000	98	549299	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	97	129657	50.0	46.4	
78 Ethyl methacrylate	69	9.311	9.311	0.000	92	123709	50.0	46.5	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	93	102680	50.0	51.0	
80 Tetrachloroethene	164	9.518	9.518	0.000	97	102122	50.0	51.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	95	184261	50.0	50.0	
82 2-Hexanone	43	9.658	9.658	0.000	98	132583	100.0	90.3	
84 Chlorodibromomethane	129	9.816	9.816	0.000	91	74227	50.0	45.3	
85 Ethylene Dibromide	107	9.931	9.931	0.000	100	91822	50.0	48.8	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	84	158889	50.0	46.7	
87 Chlorobenzene	112	10.418	10.418	0.000	92	322735	50.0	49.8	
88 4-Chlorobenzotrifluoride	180	10.473	10.473	0.000	97	143658	50.0	44.8	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.509	0.000	91	101073	50.0	50.5	
90 Ethylbenzene	106	10.515	10.515	0.000	99	176765	50.0	49.6	
91 m-Xylene & p-Xylene	106	10.643	10.643	0.000	0	219984	50.0	51.1	
92 o-Xylene	106	11.026	11.026	0.000	97	206995	50.0	50.1	
93 Styrene	104	11.045	11.045	0.000	95	352261	50.0	52.2	
94 Bromoform	173	11.233	11.233	0.000	97	37764	50.0	43.4	
96 2-Chlorobenzotrifluoride	180	11.294	11.294	0.000	95	152988	50.0	47.7	
97 Isopropylbenzene	105	11.398	11.398	0.000	97	524436	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.702	0.000	75	129814	50.0	51.0	
100 Bromobenzene	156	11.708	11.708	0.000	95	119913	50.0	45.6	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.738	0.000	75	21339	50.0	24.0	
101 1,2,3-Trichloropropane	110	11.756	11.756	0.000	85	42622	50.0	45.7	
103 N-Propylbenzene	120	11.811	11.811	0.000	99	145796	50.0	46.9	
104 2-Chlorotoluene	126	11.896	11.896	0.000	95	124860	50.0	46.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.963	11.963	0.000	96	119435	50.0	43.0	
106 1,3,5-Trimethylbenzene	105	11.994	11.994	0.000	95	444940	50.0	49.2	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	136135	50.0	46.8	
108 tert-Butylbenzene	119	12.310	12.310	0.000	95	331295	50.0	46.1	
110 1,2,4-Trimethylbenzene	105	12.365	12.365	0.000	99	436101	50.0	49.0	
111 1,2-dichloro-4-(trifluorom	214	12.407	12.407	0.000	98	111521	50.0	42.8	
112 sec-Butylbenzene	105	12.529	12.529	0.000	95	506032	50.0	48.8	
113 1,3-Dichlorobenzene	146	12.645	12.645	0.000	97	218707	50.0	45.7	
114 4-Isopropyltoluene	119	12.687	12.687	0.000	97	410202	50.0	49.1	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	94	227582	50.0	46.8	
116 2,4-Dichloro-1-(trifluorom	214	12.778	12.778	0.000	96	101744	50.0	43.0	
118 2,5-Dichlorobenzotrifluori	214	12.815	12.815	0.000	0	115694	50.0	45.2	
120 n-Butylbenzene	91	13.095	13.095	0.000	99	333486	50.0	46.7	
121 1,2-Dichlorobenzene	146	13.107	13.107	0.000	95	198505	50.0	46.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	80	14267	50.0	39.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	281434	150.0	116.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.458	0.000	0	164611	100.0	74.7	
126 1,2,4-Trichlorobenzene	180	14.725	14.725	0.000	95	62501	50.0	41.3	
127 Hexachlorobutadiene	225	14.871	14.871	0.000	97	37390	50.0	44.5	
128 Naphthalene	128	14.987	14.987	0.000	98	139882	50.0	35.7	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	94	47358	50.0	38.4	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	13358	50.0	36.7	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	94	11784	50.0	32.4	
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		100.0	101.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOAPRI_00138	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 2.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 6.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818006.D

Injection Date: 18-Aug-2015 13:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

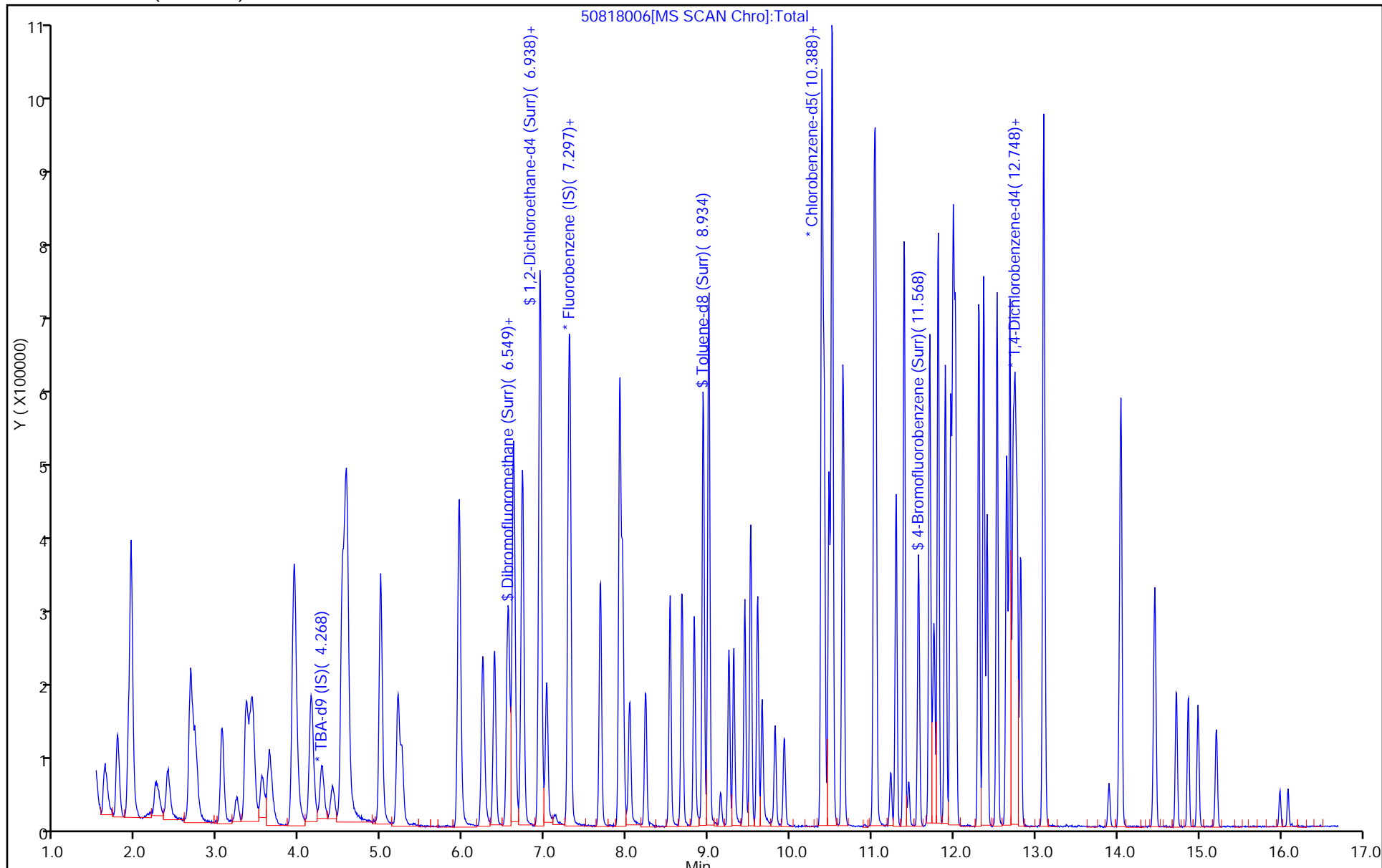
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151080/6 Calibration Date: 08/18/2015 13:50  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50818006.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	0.3369	0.4322	0.1000	12.8	10.0	28.3*	20.0
Chloromethane	Ave	0.3794	0.4811	0.1000	12.7	10.0	26.8*	20.0
Vinyl chloride	Ave	0.3828	0.4698	0.1000	12.3	10.0	22.7*	20.0
1,3-Butadiene	Ave	0.4104	0.5552	0.0100	13.5	10.0	35.3*	20.0
Bromomethane	Ave	0.1862	0.1749	0.0500	9.39	10.0	-6.1	20.0
Chloroethane	Ave	0.2305	0.2648	0.0500	11.5	10.0	14.9	20.0
Dichlorofluoromethane	Ave	0.5100	0.5892	0.0100	11.6	10.0	15.5	20.0
Trichlorofluoromethane	Ave	0.4163	0.4574	0.1000	11.0	10.0	9.9	20.0
Ethyl ether	Ave	0.2878	0.2926	0.0100	10.2	10.0	1.7	20.0
Acrolein	Ave	0.0552	0.0444	0.0100	24.1	30.0	-19.6	20.0
1,1-Dichloroethene	Ave	0.2832	0.2853	0.1000	10.1	10.0	0.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2989	0.3119	0.1000	10.4	10.0	4.3	20.0
Acetone	Ave	0.0828	0.0685	0.0500	16.5	20.0	-17.3	20.0
Iodomethane	Ave	0.3913	0.3693	0.0100	9.44	10.0	-5.6	20.0
Carbon disulfide	Ave	0.6268	0.6465	0.1000	10.3	10.0	3.1	20.0
Allyl chloride	Ave	0.1566	0.1546	0.0100	9.87	10.0	-1.3	20.0
Methyl acetate	Ave	0.2569	0.2585	0.1000	50.3	50.0	0.6	20.0
Methylene Chloride	Lin2		0.3486	0.1000	9.41	10.0	-5.9	20.0
tert-Butyl alcohol	Ave	1.142	1.004	0.0100	87.9	100	-12.1	20.0
Acrylonitrile	Ave	0.1245	0.1239	0.0100	99.6	100	-0.4	20.0
trans-1,2-Dichloroethene	Ave	0.3011	0.3073	0.1000	10.2	10.0	2.1	20.0
Methyl tert-butyl ether	Ave	0.7427	0.6884	0.1000	9.27	10.0	-7.3	20.0
Hexane	Ave	0.4658	0.4788	0.0100	10.3	10.0	2.8	20.0
1,1-Dichloroethane	Ave	0.5753	0.5705	0.2000	9.92	10.0	-0.8	20.0
Vinyl acetate	Ave	0.4924	0.4484	0.0100	9.11	10.0	-8.9	20.0
2,2-Dichloropropane	Ave	0.2458	0.2627	0.0100	10.7	10.0	6.9	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3098	0.1000	9.71	10.0	-2.9	20.0
2-Butanone (MEK)	Ave	0.1215	0.1083	0.0500	17.8	20.0	-10.9	20.0
Bromochloromethane	Ave	0.1346	0.1266	0.0100	9.40	10.0	-6.0	20.0
Tetrahydrofuran	Ave	0.0999	0.0848	0.0100	17.0	20.0	-15.1	20.0
Chloroform	Ave	0.5292	0.5101	0.2000	9.64	10.0	-3.6	20.0
1,1,1-Trichloroethane	Ave	0.3977	0.4011	0.1000	10.1	10.0	0.9	20.0
Cyclohexane	Ave	0.5953	0.6063	0.1000	10.2	10.0	1.8	20.0
Carbon tetrachloride	Ave	0.3460	0.3298	0.1000	9.53	10.0	-4.7	20.0
1,1-Dichloropropene	Ave	0.4364	0.4301	0.0100	9.85	10.0	-1.5	20.0
Isobutyl alcohol	Ave	0.0083	0.0084*	0.0100	251	250	0.4	20.0
Benzene	Ave	1.260	1.279	0.5000	10.1	10.0	1.5	20.0
1,2-Dichloroethane	Ave	0.4311	0.3891	0.1000	9.03	10.0	-9.7	20.0
n-Heptane	Ave	0.4117	0.4173	0.0100	10.1	10.0	1.3	20.0
Trichloroethene	Ave	0.2975	0.2833	0.2000	9.52	10.0	-4.8	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151080/6 Calibration Date: 08/18/2015 13:50  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50818006.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4971	0.5009	0.1000	10.1	10.0	0.8	20.0
1,2-Dichloropropane	Ave	0.3070	0.3062	0.1000	9.97	10.0	-0.3	20.0
1,4-Dioxane	Ave	0.0021	0.0021*	0.0100	202	200	0.8	20.0
Dibromomethane	Ave	0.1661	0.1538	0.0100	9.26	10.0	-7.4	20.0
Bromodichloromethane	Ave	0.3352	0.3031	0.2000	9.04	10.0	-9.6	20.0
cis-1,3-Dichloropropene	Ave	0.3878	0.3699	0.2000	9.54	10.0	-4.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.184	1.095	0.1000	18.5	20.0	-7.4	20.0
Toluene	Ave	5.374	5.688	0.4000	10.6	10.0	5.9	20.0
trans-1,3-Dichloropropene	Ave	1.447	1.343	0.1000	9.28	10.0	-7.2	20.0
Ethyl methacrylate	Ave	1.378	1.281	0.0100	9.30	10.0	-7.0	20.0
1,1,2-Trichloroethane	Ave	1.043	1.063	0.1000	10.2	10.0	2.0	20.0
Tetrachloroethene	Ave	1.022	1.058	0.2000	10.3	10.0	3.5	20.0
1,3-Dichloropropane	Ave	1.907	1.908	0.0100	10.0	10.0	0.0	20.0
2-Hexanone	Ave	0.7604	0.6865	0.1000	18.1	20.0	-9.7	20.0
Dibromochloromethane	Ave	0.8492	0.7687	0.1000	9.05	10.0	-9.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9743	0.9509	0.1000	9.76	10.0	-2.4	20.0
3-Chlorobenzotrifluoride	Ave	1.760	1.645	0.0100	9.35	10.0	-6.5	20.0
Chlorobenzene	Ave	3.356	3.342	0.5000	9.96	10.0	-0.4	20.0
4-Chlorobenzotrifluoride	Ave	1.659	1.488	0.0100	8.97	10.0	-10.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.047	0.0100	10.1	10.0	1.0	20.0
Ethylbenzene	Ave	1.846	1.831	0.1000	9.92	10.0	-0.8	20.0
m-Xylene & p-Xylene	Ave	2.228	2.278	0.1000	10.2	10.0	2.2	20.0
o-Xylene	Ave	2.139	2.144	0.3000	10.0	10.0	0.2	20.0
Styrene	Ave	3.494	3.648	0.3000	10.4	10.0	4.4	20.0
Bromoform	Ave	0.4508	0.3911	0.1000	8.67	10.0	-13.3	20.0
2-Chlorobenzotrifluoride	Ave	1.660	1.584	0.0100	9.55	10.0	-4.5	20.0
Isopropylbenzene	Ave	5.239	5.431	0.1000	10.4	10.0	3.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.319	1.344	0.3000	10.2	10.0	2.0	20.0
Bromobenzene	Ave	0.9734	0.8870	0.0100	9.11	10.0	-8.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3290	0.1578	0.0100	4.80	10.0	-52.0*	20.0
1,2,3-Trichloropropane	Ave	0.3448	0.3153	0.0100	9.14	10.0	-8.6	20.0
N-Propylbenzene	Ave	1.150	1.078	0.0100	9.38	10.0	-6.2	20.0
2-Chlorotoluene	Ave	0.9924	0.9236	0.0100	9.31	10.0	-6.9	20.0
3-Chlorotoluene	Ave	1.027	0.8835	0.0100	8.60	10.0	-14.0	20.0
1,3,5-Trimethylbenzene	Ave	3.344	3.291	0.0100	9.84	10.0	-1.6	20.0
4-Chlorotoluene	Ave	1.075	1.007	0.0100	9.37	10.0	-6.3	20.0
tert-Butylbenzene	Ave	2.660	2.451	0.0100	9.21	10.0	-7.9	20.0
1,2,4-Trimethylbenzene	Ave	3.293	3.226	0.0100	9.79	10.0	-2.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9643	0.8249	0.0100	8.55	10.0	-14.5	20.0
sec-Butylbenzene	Ave	3.836	3.743	0.0100	9.76	10.0	-2.4	20.0
1,3-Dichlorobenzene	Ave	1.769	1.618	0.6000	9.14	10.0	-8.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151080/6 Calibration Date: 08/18/2015 13:50  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50818006.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
4-Isopropyltoluene	Ave	3.089	3.034	0.0100	9.82	10.0	-1.8	20.0
1,4-Dichlorobenzene	Ave	1.800	1.683	0.5000	9.35	10.0	-6.5	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8761	0.7526	0.0100	8.59	10.0	-14.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9476	0.8558	0.0100	9.03	10.0	-9.7	20.0
n-Butylbenzene	Ave	2.641	2.467	0.0100	9.34	10.0	-6.6	20.0
1,2-Dichlorobenzene	Ave	1.567	1.468	0.4000	9.37	10.0	-6.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1345	0.1055	0.0500	7.85	10.0	-21.5*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8903	0.6939	0.0100	23.4	30.0	-22.1*	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8151	0.6088	0.0100	14.9	20.0	-25.3*	20.0
1,2,4-Trichlorobenzene	Ave	0.5596	0.4623	0.2000	8.26	10.0	-17.4	20.0
Hexachlorobutadiene	Ave	0.3107	0.2766	0.0100	8.90	10.0	-11.0	20.0
Naphthalene	Ave	1.449	1.035	0.0100	7.14	10.0	-28.6*	20.0
1,2,3-Trichlorobenzene	Ave	0.4556	0.3503	0.0100	7.69	10.0	-23.1*	20.0
2,4,5-Trichlorotoluene	Qua		0.0988	0.0100	7.33	10.0	-26.7*	20.0
2,3,6-Trichlorotoluene	Qua		0.0872	0.0100	6.48	10.0	-35.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.2331	0.2193		9.41	10.0	-5.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3365	0.3035		9.02	10.0	-9.8	20.0
Toluene-d8 (Surr)	Ave	4.150	4.186		10.1	10.0	0.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.526	1.422		9.32	10.0	-6.8	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818006.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 18-Aug-2015 13:50:30 ALS Bottle#: 4 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008205-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 14:38:47 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond

Date: 18-Aug-2015 14:16:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.268	0.000	0	140171	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.291	0.000	97	437406	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	96566	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.724	0.000	96	135192	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.567	6.567	0.000	93	95928	50.0	47.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.932	0.000	0	132755	50.0	45.1	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	404251	50.0	50.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.568	0.000	90	137286	50.0	46.6	
11 Dichlorodifluoromethane	85	1.621	1.621	0.000	99	189042	50.0	64.1	
12 Chloromethane	50	1.773	1.773	0.000	99	210453	50.0	63.4	
13 Vinyl chloride	62	1.907	1.907	0.000	99	205492	50.0	61.4	
14 Butadiene	39	1.938	1.938	0.000	93	242824	50.0	67.6	
15 Bromomethane	94	2.242	2.242	0.000	91	76484	50.0	47.0	
16 Chloroethane	64	2.394	2.394	0.000	99	115831	50.0	57.4	
17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	257736	50.0	57.8	
18 Trichlorofluoromethane	101	2.716	2.716	0.000	95	200063	50.0	54.9	
20 Ethyl ether	59	3.051	3.051	0.000	95	127984	50.0	50.8	
21 Acrolein	56	3.234	3.234	0.000	100	58259	150.0	120.7	
22 1,1-Dichloroethene	96	3.349	3.349	0.000	95	124786	50.0	50.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	95	136420	50.0	52.2	
24 Acetone	43	3.446	3.446	0.000	100	59928	100.0	82.7	
25 Iodomethane	142	3.550	3.550	0.000	99	161530	50.0	47.2	
26 Carbon disulfide	76	3.629	3.629	0.000	100	282759	50.0	51.6	
28 3-Chloro-1-propene	76	3.927	3.927	0.000	89	67621	50.0	49.3	
30 Methyl acetate	43	3.945	3.945	0.000	99	565320	250.0	251.5	
31 Methylene Chloride	84	4.140	4.140	0.000	97	152482	50.0	47.0	
32 2-Methyl-2-propanol	59	4.402	4.402	0.000	87	70346	500.0	439.5	
33 Acrylonitrile	53	4.523	4.523	0.000	99	542055	500.0	497.8	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	96	134432	50.0	51.0	
35 Methyl tert-butyl ether	73	4.578	4.578	0.000	96	301123	50.0	46.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.992	0.000	95	209425	50.0	51.4	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	96	249522	50.0	49.6	
38 Vinyl acetate	43	5.253	5.253	0.000	98	196128	50.0	45.5	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	62	114921	50.0	53.4	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	83	135499	50.0	48.6	
46 2-Butanone (MEK)	43	5.965	5.965	0.000	63	94777	100.0	89.1	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	55368	50.0	47.0	
51 Tetrahydrofuran	42	6.251	6.251	0.000	85	74205	100.0	84.9	
52 Chloroform	83	6.385	6.385	0.000	95	223109	50.0	48.2	
53 1,1,1-Trichloroethane	97	6.537	6.537	0.000	96	175448	50.0	50.4	
54 Cyclohexane	56	6.616	6.616	0.000	95	265183	50.0	50.9	
56 Carbon tetrachloride	117	6.713	6.713	0.000	96	144269	50.0	47.7	
55 1,1-Dichloropropene	75	6.732	6.732	0.000	93	188115	50.0	49.3	
57 Isobutyl alcohol	41	6.920	6.920	0.000	90	91541	1250.0	1255.5	
58 Benzene	78	6.944	6.944	0.000	98	559421	50.0	50.7	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	97	170183	50.0	45.1	
62 n-Heptane	43	7.309	7.309	0.000	94	182516	50.0	50.7	
64 Trichloroethene	130	7.681	7.681	0.000	96	123936	50.0	47.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	94	219107	50.0	50.4	
67 1,2-Dichloropropane	63	7.948	7.948	0.000	92	133935	50.0	49.9	
70 1,4-Dioxane	88	8.027	8.027	0.000	36	18598	1000.0	1008.0	
68 Dibromomethane	93	8.039	8.039	0.000	94	67252	50.0	46.3	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	132561	50.0	45.2	
73 2-Chloroethyl vinyl ether	63	8.532	8.532	0.000	93	129572	100.0	89.7	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	161796	50.0	47.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.824	8.824	0.000	98	211572	100.0	92.6	
76 Toluene	91	9.007	9.007	0.000	98	549299	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	97	129657	50.0	46.4	
78 Ethyl methacrylate	69	9.311	9.311	0.000	92	123709	50.0	46.5	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	93	102680	50.0	51.0	
80 Tetrachloroethene	164	9.518	9.518	0.000	97	102122	50.0	51.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	95	184261	50.0	50.0	
82 2-Hexanone	43	9.658	9.658	0.000	98	132583	100.0	90.3	
84 Chlorodibromomethane	129	9.816	9.816	0.000	91	74227	50.0	45.3	
85 Ethylene Dibromide	107	9.931	9.931	0.000	100	91822	50.0	48.8	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	84	158889	50.0	46.7	
87 Chlorobenzene	112	10.418	10.418	0.000	92	322735	50.0	49.8	
88 4-Chlorobenzotrifluoride	180	10.473	10.473	0.000	97	143658	50.0	44.8	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.509	0.000	91	101073	50.0	50.5	
90 Ethylbenzene	106	10.515	10.515	0.000	99	176765	50.0	49.6	
91 m-Xylene & p-Xylene	106	10.643	10.643	0.000	0	219984	50.0	51.1	
92 o-Xylene	106	11.026	11.026	0.000	97	206995	50.0	50.1	
93 Styrene	104	11.045	11.045	0.000	95	352261	50.0	52.2	
94 Bromoform	173	11.233	11.233	0.000	97	37764	50.0	43.4	
96 2-Chlorobenzotrifluoride	180	11.294	11.294	0.000	95	152988	50.0	47.7	
97 Isopropylbenzene	105	11.398	11.398	0.000	97	524436	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.702	11.702	0.000	75	129814	50.0	51.0	
100 Bromobenzene	156	11.708	11.708	0.000	95	119913	50.0	45.6	
102 trans-1,4-Dichloro-2-buten	53	11.738	11.738	0.000	75	21339	50.0	24.0	
101 1,2,3-Trichloropropane	110	11.756	11.756	0.000	85	42622	50.0	45.7	
103 N-Propylbenzene	120	11.811	11.811	0.000	99	145796	50.0	46.9	
104 2-Chlorotoluene	126	11.896	11.896	0.000	95	124860	50.0	46.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.963	11.963	0.000	96	119435	50.0	43.0	
106 1,3,5-Trimethylbenzene	105	11.994	11.994	0.000	95	444940	50.0	49.2	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	136135	50.0	46.8	
108 tert-Butylbenzene	119	12.310	12.310	0.000	95	331295	50.0	46.1	
110 1,2,4-Trimethylbenzene	105	12.365	12.365	0.000	99	436101	50.0	49.0	
111 1,2-dichloro-4-(trifluorom	214	12.407	12.407	0.000	98	111521	50.0	42.8	
112 sec-Butylbenzene	105	12.529	12.529	0.000	95	506032	50.0	48.8	
113 1,3-Dichlorobenzene	146	12.645	12.645	0.000	97	218707	50.0	45.7	
114 4-Isopropyltoluene	119	12.687	12.687	0.000	97	410202	50.0	49.1	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	94	227582	50.0	46.8	
116 2,4-Dichloro-1-(trifluorom	214	12.778	12.778	0.000	96	101744	50.0	43.0	
118 2,5-Dichlorobenzotrifluori	214	12.815	12.815	0.000	0	115694	50.0	45.2	
120 n-Butylbenzene	91	13.095	13.095	0.000	99	333486	50.0	46.7	
121 1,2-Dichlorobenzene	146	13.107	13.107	0.000	95	198505	50.0	46.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	80	14267	50.0	39.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	281434	150.0	116.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.458	0.000	0	164611	100.0	74.7	
126 1,2,4-Trichlorobenzene	180	14.725	14.725	0.000	95	62501	50.0	41.3	
127 Hexachlorobutadiene	225	14.871	14.871	0.000	97	37390	50.0	44.5	
128 Naphthalene	128	14.987	14.987	0.000	98	139882	50.0	35.7	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	94	47358	50.0	38.4	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	13358	50.0	36.7	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	94	11784	50.0	32.4	
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		100.0	101.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOAPRI_00138	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 2.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 6.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818006.D

Injection Date: 18-Aug-2015 13:50:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

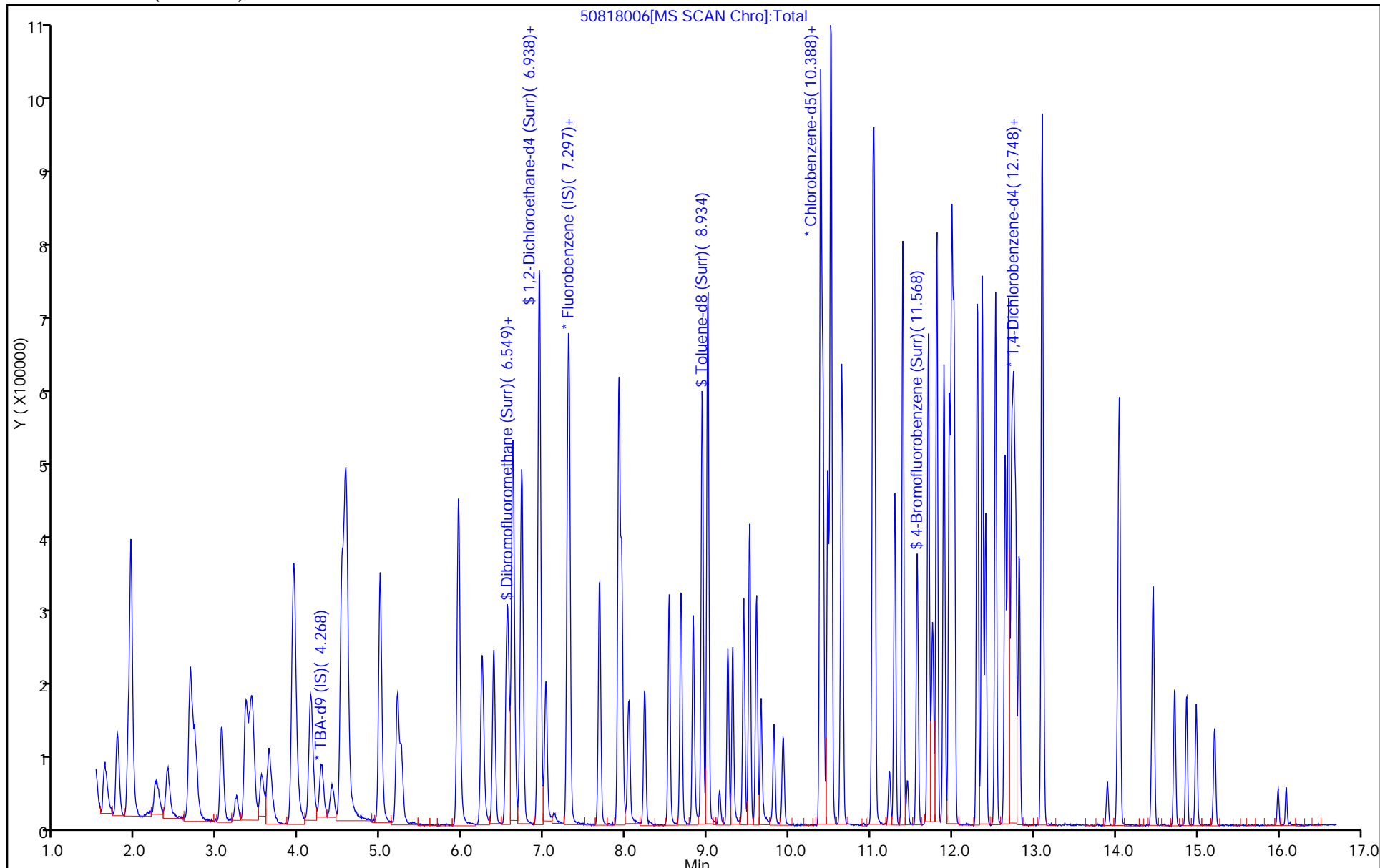
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151188/4 Calibration Date: 08/19/2015 12:12  
 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: 50819004.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	0.1446	0.0100	17.5	20.0	-12.5	20.0



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819004.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 19-Aug-2015 12:12:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008221-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 13:13:52 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 12:42:05

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	4.272	0.000	0	146044	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	448342	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	88	99757	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	140669	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	94	92461	50.0	44.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	128753	50.0	42.7	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.932	0.000	94	391545	50.0	47.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.566	11.566	0.000	84	136260	50.0	44.8	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	190450	50.0	63.0	
12 Chloromethane	50	1.766	1.766	0.000	99	204016	50.0	60.0	
13 Vinyl chloride	62	1.912	1.912	0.000	98	191195	50.0	55.7	
14 Butadiene	39	1.942	1.942	0.000	95	234967	50.0	63.9	
15 Bromomethane	94	2.240	2.240	0.000	90	66412	50.0	39.8	
16 Chloroethane	64	2.386	2.386	0.000	100	106606	50.0	51.6	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	97	253401	50.0	55.4	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	95	193799	50.0	51.9	
20 Ethyl ether	59	3.043	3.043	0.000	96	127008	50.0	49.2	
21 Acrolein	56	3.226	3.226	0.000	97	71529	150.0	144.5	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	96	121910	50.0	48.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	94	129848	50.0	48.4	
24 Acetone	43	3.439	3.439	0.000	83	72818	100.0	98.0	
25 Iodomethane	142	3.536	3.536	0.000	98	160802	50.0	45.8	
26 Carbon disulfide	76	3.627	3.627	0.000	100	272697	50.0	48.5	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	89	65265	50.0	46.5	
30 Methyl acetate	43	3.938	3.938	0.000	99	576354	250.0	250.2	
31 Methylene Chloride	84	4.132	4.132	0.000	98	143885	50.0	42.1	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	87	82072	500.0	492.1	
33 Acrylonitrile	53	4.522	4.522	0.000	99	564656	500.0	505.9	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	96	133117	50.0	49.3	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	95	294837	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	4.990	4.990	0.000	95	202711	50.0	48.5	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	96	243127	50.0	47.1	
38 Vinyl acetate	43	5.245	5.245	0.000	97	185768	50.0	42.1	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	85	109929	50.0	49.9	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	85	132449	50.0	46.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	100	110488	100.0	101.4	
49 Chlorobromomethane	128	6.231	6.231	0.000	93	56958	50.0	47.2	
51 Tetrahydrofuran	42	6.249	6.249	0.000	91	81790	100.0	91.3	
52 Chloroform	83	6.383	6.383	0.000	95	219850	50.0	46.3	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	169292	50.0	47.5	
54 Cyclohexane	56	6.614	6.614	0.000	97	260375	50.0	48.8	
56 Carbon tetrachloride	117	6.712	6.712	0.000	97	136995	50.0	44.2	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	93	180791	50.0	46.2	
57 Isobutyl alcohol	41	6.925	6.925	0.000	93	90452	1250.0	1210.3	
58 Benzene	78	6.943	6.943	0.000	98	554489	50.0	49.1	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	172208	50.0	44.5	
62 n-Heptane	43	7.308	7.308	0.000	95	178519	50.0	48.4	
64 Trichloroethene	130	7.673	7.673	0.000	96	116661	50.0	43.7	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	202314	50.0	45.4	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	95	136188	50.0	49.5	
70 1,4-Dioxane	88	8.026	8.026	0.000	41	18659	1000.0	986.6	M
68 Dibromomethane	93	8.032	8.032	0.000	96	65909	50.0	44.3	
71 Dichlorobromomethane	83	8.226	8.226	0.000	98	133174	50.0	44.3	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	93	129619	100.0	87.5	
74 cis-1,3-Dichloropropene	75	8.670	8.670	0.000	91	161155	50.0	46.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	217339	100.0	92.0	
76 Toluene	91	9.005	9.005	0.000	98	544258	50.0	50.8	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	97	125368	50.0	43.4	
78 Ethyl methacrylate	69	9.309	9.309	0.000	92	120887	50.0	44.0	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	93	99294	50.0	47.7	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	99154	50.0	48.6	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	97	179720	50.0	47.2	
82 2-Hexanone	43	9.656	9.656	0.000	99	159323	100.0	105.0	
84 Chlorodibromomethane	129	9.820	9.820	0.000	91	74933	50.0	44.2	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	91831	50.0	47.2	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	86	167558	50.0	47.7	
87 Chlorobenzene	112	10.416	10.416	0.000	92	310511	50.0	46.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	97	157647	50.0	47.6	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	91	98885	50.0	47.8	
90 Ethylbenzene	106	10.514	10.514	0.000	99	175643	50.0	47.7	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	213113	50.0	47.9	
92 o-Xylene	106	11.025	11.025	0.000	97	201421	50.0	47.2	
93 Styrene	104	11.049	11.049	0.000	95	346527	50.0	49.7	
94 Bromoform	173	11.226	11.226	0.000	96	39054	50.0	43.4	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	160629	50.0	48.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	514085	50.0	49.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	76	135168	50.0	51.4	
100 Bromobenzene	156	11.706	11.706	0.000	96	118230	50.0	43.2	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	77	22672	50.0	24.5	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	85	41786	50.0	43.1	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	142979	50.0	44.2	
104 2-Chlorotoluene	126	11.895	11.895	0.000	95	122232	50.0	43.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	96	128561	50.0	44.5	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	94	447570	50.0	47.6	
107 4-Chlorotoluene	126	12.016	12.016	0.000	99	133930	50.0	44.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	326760	50.0	43.7	
110 1,2,4-Trimethylbenzene	105	12.363	12.363	0.000	99	432947	50.0	46.7	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	127034	50.0	46.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	496906	50.0	46.0	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	222886	50.0	44.8	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	402513	50.0	46.3	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	231557	50.0	45.7	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	97	111194	50.0	45.1	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	130985	50.0	49.1	
120 n-Butylbenzene	91	13.093	13.093	0.000	98	339991	50.0	45.8	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	204302	50.0	46.3	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	72	17139	50.0	45.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	339800	150.0	135.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	202651	100.0	88.4	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	95	67684	50.0	43.0	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	97	39431	50.0	45.1	
128 Naphthalene	128	14.991	14.991	0.000	97	150910	50.0	37.0	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	96	49973	50.0	39.0	
131 2,4,5-Trichlorotoluene	159	15.989	15.989	0.000	0	14870	50.0	39.0	
130 2,3,6-Trichlorotoluene	159	16.086	16.086	0.000	95	14375	50.0	37.6	
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	95.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260VOAPRI_00138	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 2.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 6.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819004.D

Injection Date: 19-Aug-2015 12:12:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

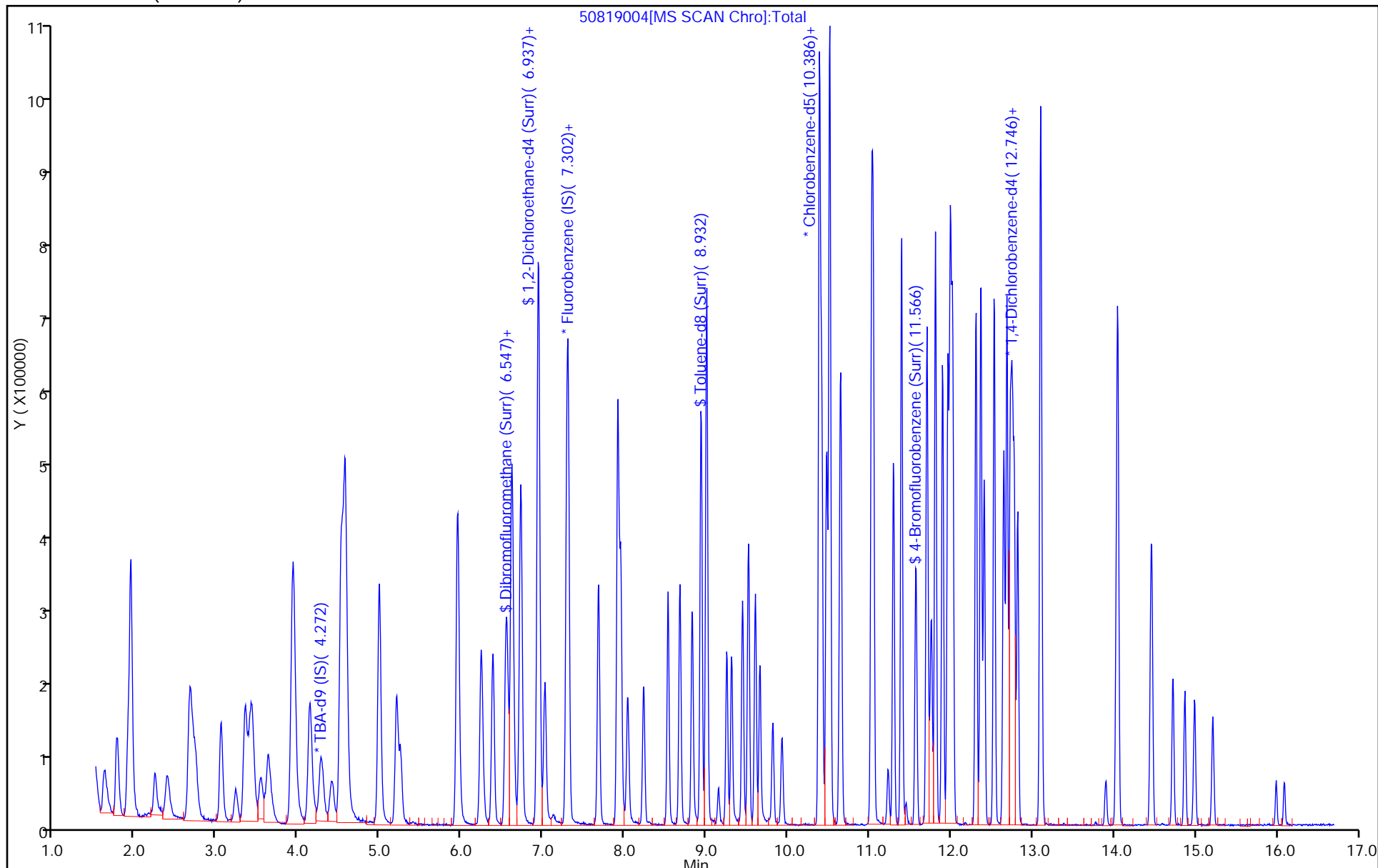
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151188/4 Calibration Date: 08/19/2015 12:12  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50819004.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	0.3369	0.4248	0.1000	12.6	10.0	26.1*	20.0
Chloromethane	Ave	0.3794	0.4551	0.1000	12.0	10.0	20.0	20.0
Vinyl chloride	Ave	0.3828	0.4265	0.1000	11.1	10.0	11.4	20.0
1,3-Butadiene	Ave	0.4104	0.5241	0.0100	12.8	10.0	27.7*	20.0
Bromomethane	Ave	0.1862	0.1481	0.0500	7.96	10.0	-20.4*	20.0
Chloroethane	Ave	0.2305	0.2378	0.0500	10.3	10.0	3.2	20.0
Dichlorofluoromethane	Ave	0.5100	0.5652	0.0100	11.1	10.0	10.8	20.0
Trichlorofluoromethane	Ave	0.4163	0.4323	0.1000	10.4	10.0	3.8	20.0
Ethyl ether	Ave	0.2878	0.2833	0.0100	9.84	10.0	-1.6	20.0
Acrolein	Ave	0.0552	0.0532	0.0100	28.9	30.0	-3.6	20.0
1,1-Dichloroethene	Ave	0.2832	0.2719	0.1000	9.60	10.0	-4.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2989	0.2896	0.1000	9.69	10.0	-3.1	20.0
Acetone	Ave	0.0828	0.0812	0.0500	19.6	20.0	-2.0	20.0
Iodomethane	Ave	0.3913	0.3587	0.0100	9.16	10.0	-8.4	20.0
Carbon disulfide	Ave	0.6268	0.6082	0.1000	9.70	10.0	-3.0	20.0
Allyl chloride	Ave	0.1566	0.1456	0.0100	9.29	10.0	-7.1	20.0
Methyl acetate	Ave	0.2569	0.2571	0.1000	50.0	50.0	0.0	20.0
Methylene Chloride	Lin2		0.3209	0.1000	8.42	10.0	-15.8	20.0
tert-Butyl alcohol	Ave	1.142	1.124	0.0100	98.4	100	-1.6	20.0
Acrylonitrile	Ave	0.1245	0.1259	0.0100	101	100	1.2	20.0
trans-1,2-Dichloroethene	Ave	0.3011	0.2969	0.1000	9.86	10.0	-1.4	20.0
Methyl tert-butyl ether	Ave	0.7427	0.6576	0.1000	8.85	10.0	-11.5	20.0
Hexane	Ave	0.4658	0.4521	0.0100	9.71	10.0	-2.9	20.0
1,1-Dichloroethane	Ave	0.5753	0.5423	0.2000	9.43	10.0	-5.7	20.0
Vinyl acetate	Ave	0.4924	0.4143	0.0100	8.41	10.0	-15.9	20.0
2,2-Dichloropropane	Ave	0.2458	0.2452	0.0100	9.97	10.0	-0.3	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2954	0.1000	9.26	10.0	-7.4	20.0
2-Butanone (MEK)	Ave	0.1215	0.1232	0.0500	20.3	20.0	1.4	20.0
Bromochloromethane	Ave	0.1346	0.1270	0.0100	9.44	10.0	-5.6	20.0
Tetrahydrofuran	Ave	0.0999	0.0912	0.0100	18.3	20.0	-8.7	20.0
Chloroform	Ave	0.5292	0.4904	0.2000	9.27	10.0	-7.3	20.0
1,1,1-Trichloroethane	Ave	0.3977	0.3776	0.1000	9.49	10.0	-5.1	20.0
Cyclohexane	Ave	0.5953	0.5808	0.1000	9.76	10.0	-2.4	20.0
Carbon tetrachloride	Ave	0.3460	0.3056	0.1000	8.83	10.0	-11.7	20.0
1,1-Dichloropropene	Ave	0.4364	0.4032	0.0100	9.24	10.0	-7.6	20.0
Isobutyl alcohol	Ave	0.0083	0.0081*	0.0100	242	250	-3.2	20.0
Benzene	Ave	1.260	1.237	0.5000	9.81	10.0	-1.9	20.0
1,2-Dichloroethane	Ave	0.4311	0.3841	0.1000	8.91	10.0	-10.9	20.0
n-Heptane	Ave	0.4117	0.3982	0.0100	9.67	10.0	-3.3	20.0
Trichloroethene	Ave	0.2975	0.2602	0.2000	8.74	10.0	-12.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151188/4 Calibration Date: 08/19/2015 12:12  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50819004.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methylcyclohexane	Ave	0.4971	0.4513	0.1000	9.08	10.0	-9.2	20.0
1,2-Dichloropropane	Ave	0.3070	0.3038	0.1000	9.89	10.0	-1.1	20.0
1,4-Dioxane	Ave	0.0021	0.0021*	0.0100	197	200	-1.3	20.0
Dibromomethane	Ave	0.1661	0.1470	0.0100	8.85	10.0	-11.5	20.0
Bromodichloromethane	Ave	0.3352	0.2970	0.2000	8.86	10.0	-11.4	20.0
cis-1,3-Dichloropropene	Ave	0.3878	0.3595	0.2000	9.27	10.0	-7.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.184	1.089	0.1000	18.4	20.0	-8.0	20.0
Toluene	Ave	5.374	5.456	0.4000	10.2	10.0	1.5	20.0
trans-1,3-Dichloropropene	Ave	1.447	1.257	0.1000	8.69	10.0	-13.1	20.0
Ethyl methacrylate	Ave	1.378	1.212	0.0100	8.80	10.0	-12.0	20.0
1,1,2-Trichloroethane	Ave	1.043	0.995	0.1000	9.55	10.0	-4.5	20.0
Tetrachloroethene	Ave	1.022	0.9940	0.2000	9.72	10.0	-2.8	20.0
1,3-Dichloropropane	Ave	1.907	1.802	0.0100	9.45	10.0	-5.5	20.0
2-Hexanone	Ave	0.7604	0.7986	0.1000	21.0	20.0	5.0	20.0
Dibromochloromethane	Ave	0.8492	0.7512	0.1000	8.85	10.0	-11.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.9743	0.9206	0.1000	9.45	10.0	-5.5	20.0
3-Chlorobenzotrifluoride	Ave	1.760	1.680	0.0100	9.54	10.0	-4.6	20.0
Chlorobenzene	Ave	3.356	3.113	0.5000	9.27	10.0	-7.3	20.0
4-Chlorobenzotrifluoride	Ave	1.659	1.580	0.0100	9.53	10.0	-4.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	0.9913	0.0100	9.57	10.0	-4.3	20.0
Ethylbenzene	Ave	1.846	1.761	0.1000	9.54	10.0	-4.6	20.0
m-Xylene & p-Xylene	Ave	2.228	2.136	0.1000	9.59	10.0	-4.1	20.0
o-Xylene	Ave	2.139	2.019	0.3000	9.44	10.0	-5.6	20.0
Styrene	Ave	3.494	3.474	0.3000	9.94	10.0	-0.6	20.0
Bromoform	Ave	0.4508	0.3915	0.1000	8.68	10.0	-13.2	20.0
2-Chlorobenzotrifluoride	Ave	1.660	1.610	0.0100	9.70	10.0	-3.0	20.0
Isopropylbenzene	Ave	5.239	5.153	0.1000	9.84	10.0	-1.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.319	1.355	0.3000	10.3	10.0	2.8	20.0
Bromobenzene	Ave	0.9734	0.8405	0.0100	8.63	10.0	-13.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3290	0.1612	0.0100	4.90	10.0	-51.0*	20.0
1,2,3-Trichloropropane	Ave	0.3448	0.2971	0.0100	8.61	10.0	-13.9	20.0
N-Propylbenzene	Ave	1.150	1.016	0.0100	8.84	10.0	-11.6	20.0
2-Chlorotoluene	Ave	0.9924	0.8689	0.0100	8.76	10.0	-12.4	20.0
3-Chlorotoluene	Ave	1.027	0.9139	0.0100	8.90	10.0	-11.0	20.0
1,3,5-Trimethylbenzene	Ave	3.344	3.182	0.0100	9.51	10.0	-4.9	20.0
4-Chlorotoluene	Ave	1.075	0.9521	0.0100	8.85	10.0	-11.5	20.0
tert-Butylbenzene	Ave	2.660	2.323	0.0100	8.73	10.0	-12.7	20.0
1,2,4-Trimethylbenzene	Ave	3.293	3.078	0.0100	9.35	10.0	-6.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.9643	0.9031	0.0100	9.37	10.0	-6.3	20.0
sec-Butylbenzene	Ave	3.836	3.532	0.0100	9.21	10.0	-7.9	20.0
1,3-Dichlorobenzene	Ave	1.769	1.584	0.6000	8.96	10.0	-10.4	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-151188/4 Calibration Date: 08/19/2015 12:12  
 Instrument ID: CHHP5 Calib Start Date: 06/17/2015 14:07  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/17/2015 18:04  
 Lab File ID: 50819004.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
4-Isopropyltoluene	Ave	3.089	2.861	0.0100	9.26	10.0	-7.4	20.0
1,4-Dichlorobenzene	Ave	1.800	1.646	0.5000	9.15	10.0	-8.5	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8761	0.7905	0.0100	9.02	10.0	-9.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9476	0.9312	0.0100	9.83	10.0	-1.7	20.0
n-Butylbenzene	Ave	2.641	2.417	0.0100	9.15	10.0	-8.5	20.0
1,2-Dichlorobenzene	Ave	1.567	1.452	0.4000	9.27	10.0	-7.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1345	0.1218	0.0500	9.06	10.0	-9.4	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.8903	0.8052	0.0100	27.1	30.0	-9.6	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8151	0.7203	0.0100	17.7	20.0	-11.6	20.0
1,2,4-Trichlorobenzene	Ave	0.5596	0.4812	0.2000	8.60	10.0	-14.0	20.0
Hexachlorobutadiene	Ave	0.3107	0.2803	0.0100	9.02	10.0	-9.8	20.0
Naphthalene	Ave	1.449	1.073	0.0100	7.40	10.0	-26.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.4556	0.3553	0.0100	7.80	10.0	-22.0*	20.0
2,4,5-Trichlorotoluene	Qua		0.1057	0.0100	7.81	10.0	-21.9*	20.0
2,3,6-Trichlorotoluene	Qua		0.1022	0.0100	7.51	10.0	-24.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2331	0.2062		8.85	10.0	-11.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3365	0.2872		8.53	10.0	-14.7	20.0
Toluene-d8 (Surr)	Ave	4.150	3.925		9.46	10.0	-5.4	20.0
4-Bromofluorobenzene (Surr)	Ave	1.526	1.366		8.95	10.0	-10.5	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819004.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 19-Aug-2015 12:12:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008221-004  
 Operator ID: 001562 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 13:13:52 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 12:42:05

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	4.272	0.000	0	146044	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	448342	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	88	99757	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	140669	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	94	92461	50.0	44.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	128753	50.0	42.7	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.932	0.000	94	391545	50.0	47.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.566	11.566	0.000	84	136260	50.0	44.8	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	190450	50.0	63.0	
12 Chloromethane	50	1.766	1.766	0.000	99	204016	50.0	60.0	
13 Vinyl chloride	62	1.912	1.912	0.000	98	191195	50.0	55.7	
14 Butadiene	39	1.942	1.942	0.000	95	234967	50.0	63.9	
15 Bromomethane	94	2.240	2.240	0.000	90	66412	50.0	39.8	
16 Chloroethane	64	2.386	2.386	0.000	100	106606	50.0	51.6	
17 Dichlorofluoromethane	67	2.672	2.672	0.000	97	253401	50.0	55.4	
18 Trichlorofluoromethane	101	2.709	2.709	0.000	95	193799	50.0	51.9	
20 Ethyl ether	59	3.043	3.043	0.000	96	127008	50.0	49.2	
21 Acrolein	56	3.226	3.226	0.000	97	71529	150.0	144.5	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	96	121910	50.0	48.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	94	129848	50.0	48.4	
24 Acetone	43	3.439	3.439	0.000	83	72818	100.0	98.0	
25 Iodomethane	142	3.536	3.536	0.000	98	160802	50.0	45.8	
26 Carbon disulfide	76	3.627	3.627	0.000	100	272697	50.0	48.5	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	89	65265	50.0	46.5	
30 Methyl acetate	43	3.938	3.938	0.000	99	576354	250.0	250.2	
31 Methylene Chloride	84	4.132	4.132	0.000	98	143885	50.0	42.1	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	87	82072	500.0	492.1	
33 Acrylonitrile	53	4.522	4.522	0.000	99	564656	500.0	505.9	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	96	133117	50.0	49.3	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	95	294837	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	4.990	4.990	0.000	95	202711	50.0	48.5	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	96	243127	50.0	47.1	
38 Vinyl acetate	43	5.245	5.245	0.000	97	185768	50.0	42.1	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	85	109929	50.0	49.9	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	85	132449	50.0	46.3	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	100	110488	100.0	101.4	
49 Chlorobromomethane	128	6.231	6.231	0.000	93	56958	50.0	47.2	
51 Tetrahydrofuran	42	6.249	6.249	0.000	91	81790	100.0	91.3	
52 Chloroform	83	6.383	6.383	0.000	95	219850	50.0	46.3	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	169292	50.0	47.5	
54 Cyclohexane	56	6.614	6.614	0.000	97	260375	50.0	48.8	
56 Carbon tetrachloride	117	6.712	6.712	0.000	97	136995	50.0	44.2	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	93	180791	50.0	46.2	
57 Isobutyl alcohol	41	6.925	6.925	0.000	93	90452	1250.0	1210.3	
58 Benzene	78	6.943	6.943	0.000	98	554489	50.0	49.1	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	172208	50.0	44.5	
62 n-Heptane	43	7.308	7.308	0.000	95	178519	50.0	48.4	
64 Trichloroethene	130	7.673	7.673	0.000	96	116661	50.0	43.7	
66 Methylcyclohexane	83	7.916	7.916	0.000	94	202314	50.0	45.4	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	95	136188	50.0	49.5	
70 1,4-Dioxane	88	8.026	8.026	0.000	41	18659	1000.0	986.6	M
68 Dibromomethane	93	8.032	8.032	0.000	96	65909	50.0	44.3	
71 Dichlorobromomethane	83	8.226	8.226	0.000	98	133174	50.0	44.3	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	93	129619	100.0	87.5	
74 cis-1,3-Dichloropropene	75	8.670	8.670	0.000	91	161155	50.0	46.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.829	8.829	0.000	99	217339	100.0	92.0	
76 Toluene	91	9.005	9.005	0.000	98	544258	50.0	50.8	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	97	125368	50.0	43.4	
78 Ethyl methacrylate	69	9.309	9.309	0.000	92	120887	50.0	44.0	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	93	99294	50.0	47.7	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	99154	50.0	48.6	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	97	179720	50.0	47.2	
82 2-Hexanone	43	9.656	9.656	0.000	99	159323	100.0	105.0	
84 Chlorodibromomethane	129	9.820	9.820	0.000	91	74933	50.0	44.2	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	91831	50.0	47.2	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	86	167558	50.0	47.7	
87 Chlorobenzene	112	10.416	10.416	0.000	92	310511	50.0	46.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	97	157647	50.0	47.6	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	91	98885	50.0	47.8	
90 Ethylbenzene	106	10.514	10.514	0.000	99	175643	50.0	47.7	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	213113	50.0	47.9	
92 o-Xylene	106	11.025	11.025	0.000	97	201421	50.0	47.2	
93 Styrene	104	11.049	11.049	0.000	95	346527	50.0	49.7	
94 Bromoform	173	11.226	11.226	0.000	96	39054	50.0	43.4	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	96	160629	50.0	48.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	514085	50.0	49.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	76	135168	50.0	51.4	
100 Bromobenzene	156	11.706	11.706	0.000	96	118230	50.0	43.2	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	77	22672	50.0	24.5	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	85	41786	50.0	43.1	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	142979	50.0	44.2	
104 2-Chlorotoluene	126	11.895	11.895	0.000	95	122232	50.0	43.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.962	11.962	0.000	96	128561	50.0	44.5	
106 1,3,5-Trimethylbenzene	105	11.992	11.992	0.000	94	447570	50.0	47.6	
107 4-Chlorotoluene	126	12.016	12.016	0.000	99	133930	50.0	44.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	326760	50.0	43.7	
110 1,2,4-Trimethylbenzene	105	12.363	12.363	0.000	99	432947	50.0	46.7	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	127034	50.0	46.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	496906	50.0	46.0	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	222886	50.0	44.8	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	402513	50.0	46.3	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	231557	50.0	45.7	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	97	111194	50.0	45.1	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	130985	50.0	49.1	
120 n-Butylbenzene	91	13.093	13.093	0.000	98	339991	50.0	45.8	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	204302	50.0	46.3	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	72	17139	50.0	45.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	339800	150.0	135.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	202651	100.0	88.4	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	95	67684	50.0	43.0	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	97	39431	50.0	45.1	
128 Naphthalene	128	14.991	14.991	0.000	97	150910	50.0	37.0	
129 1,2,3-Trichlorobenzene	180	15.210	15.210	0.000	96	49973	50.0	39.0	
131 2,4,5-Trichlorotoluene	159	15.989	15.989	0.000	0	14870	50.0	39.0	
130 2,3,6-Trichlorotoluene	159	16.086	16.086	0.000	95	14375	50.0	37.6	
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	95.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.8	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260VOAPRI_00138	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
voaWKet1 Rest_00001	Amount Added: 2.00	Units: uL	
VOAACROLEINPR_00006	Amount Added: 6.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819004.D

Injection Date: 19-Aug-2015 12:12:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

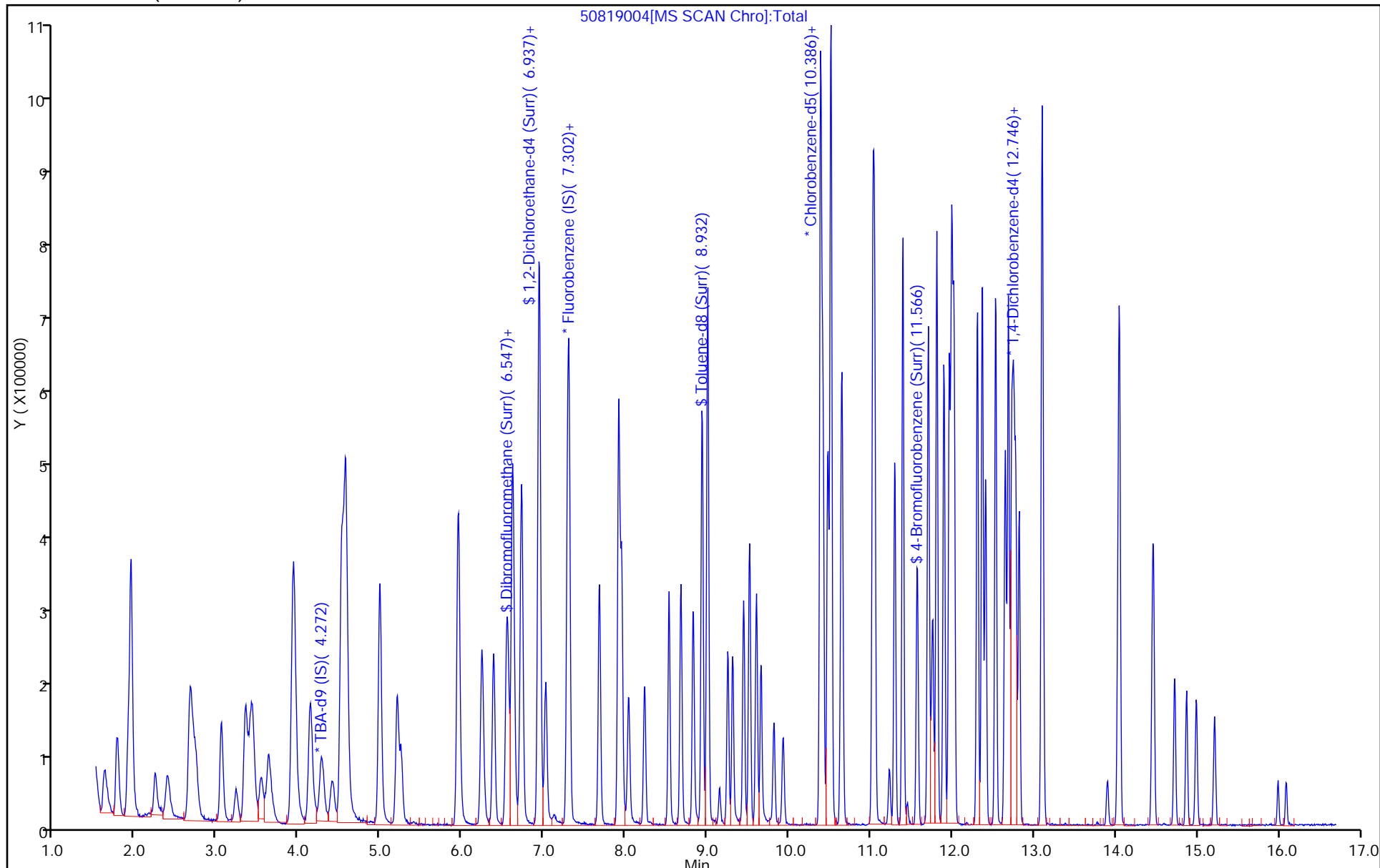
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



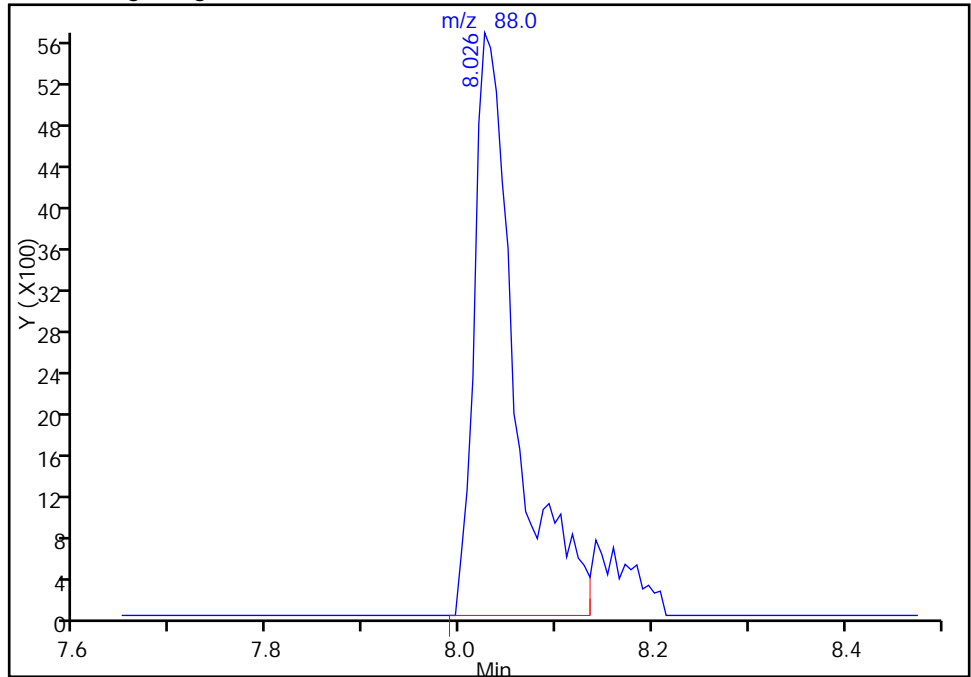
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819004.D  
Injection Date: 19-Aug-2015 12:12:30 Instrument ID: CHHP5  
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\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

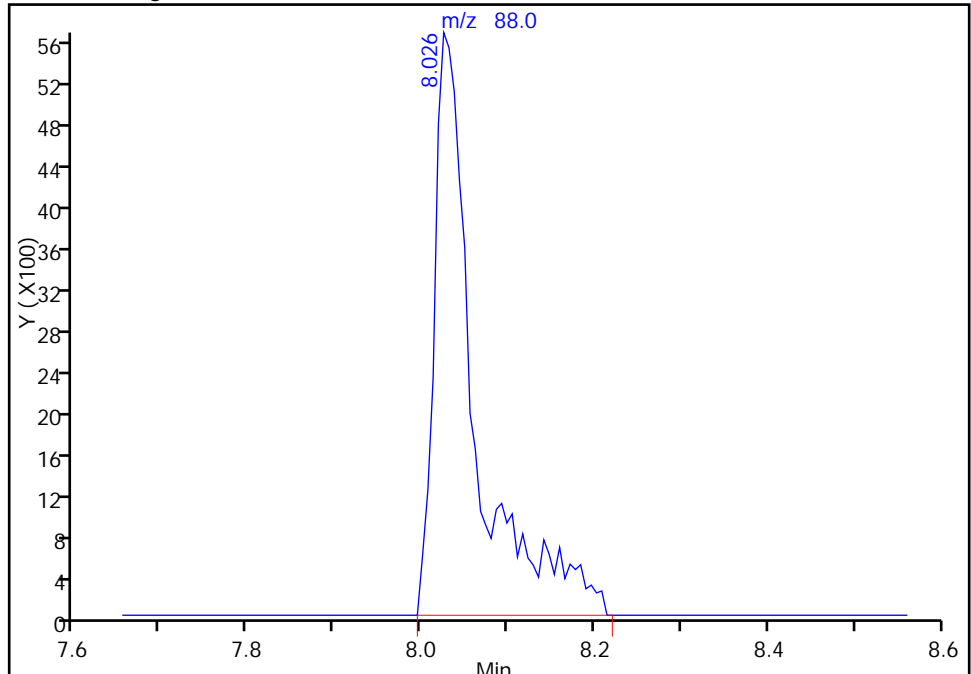
RT: 8.03  
Area: 16770  
Amount: 886.7483  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 18659  
Amount: 986.6331  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 19-Aug-2015 12:42:05  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 17-Jun-2015 11:58:30 ALS Bottle#: 1 Worklist Smp#: 16  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0007443-016  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\MMSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Jun-2015 11:19:44 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK008

First Level Reviewer: fergusond Date: 17-Jun-2015 12:09:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.361	8.361	0.000	0	64329	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

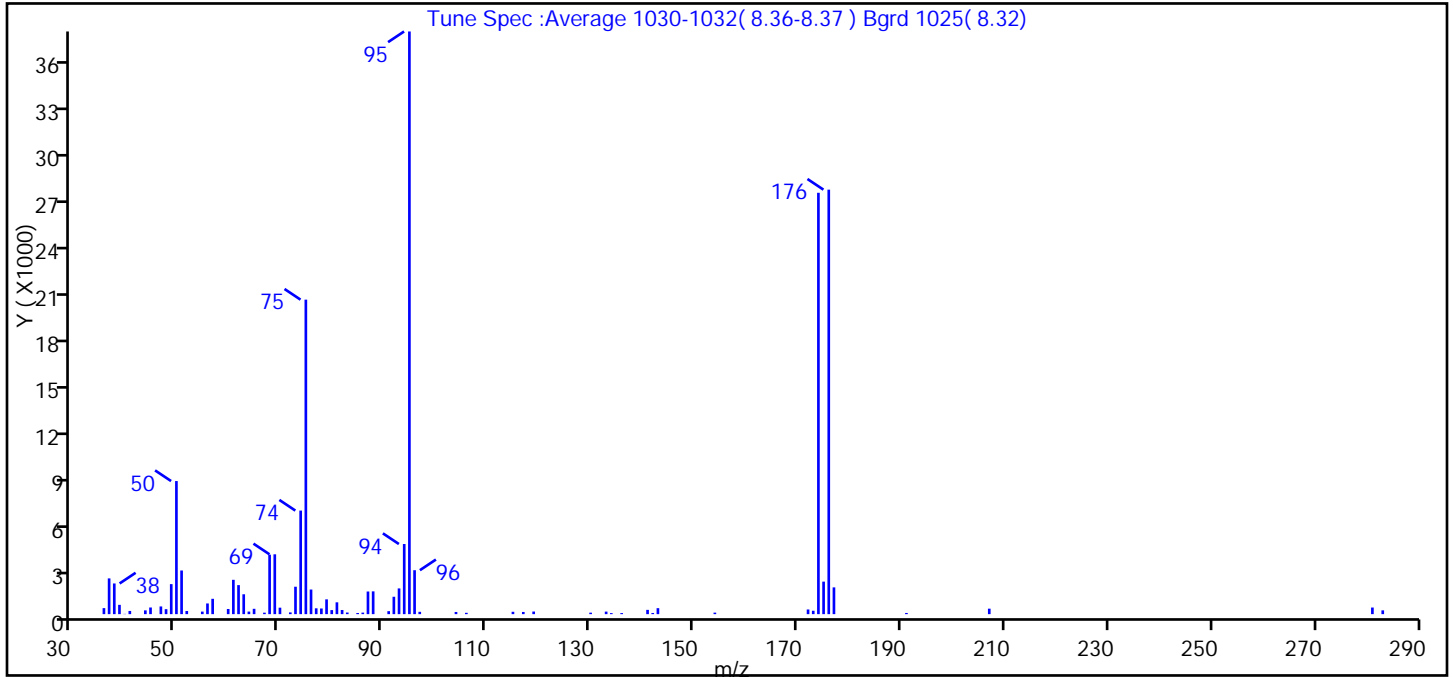
**Reagents:**

VOABFB25\_00063 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D  
 Injection Date: 17-Jun-2015 11:58:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 16  
 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	22.8
75	30 to 60% of m/z 95	54.0
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	72.3
175	5 to 9% of m/z 174	5.6 (7.7)
176	Greater than 95% but less than 101% of m/z 174	72.9 (100.7)
177	5 to 9% of m/z 176	4.6 (6.3)

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D\MSVOA\_LL\_CHHP5.rslt\spectra.d  
 Injection Date: 17-Jun-2015 11:58:30  
 Spectrum: Tune Spec :Average 1030-1032( 8.36-8.37 ) Bgrd 1025( 8.32)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 73

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	386	62.00	1860	83.00	104	134.00	66
37.00	2291	63.00	1273	85.00	73	136.00	68
38.00	1966	64.00	164	86.00	98	141.00	274
39.00	595	65.00	342	87.00	1450	142.00	75
40.00	16	67.00	94	88.00	1460	143.00	383
41.00	204	68.00	3811	91.00	190	154.00	97
44.00	242	69.00	3834	92.00	1114	172.00	299
45.00	426	70.00	414	93.00	1649	173.00	217
47.00	493	72.00	111	94.00	4493	174.00	27000
48.00	318	73.00	1757	95.00	37336	175.00	2084
49.00	1924	74.00	6636	96.00	2815	176.00	27200
50.00	8528	75.00	20152	97.00	149	177.00	1715
51.00	2797	76.00	1577	104.00	139	191.00	76
52.00	200	77.00	374	106.00	85	207.00	350
55.00	163	78.00	362	115.00	151	281.00	424
56.00	685	79.00	948	117.00	140	283.00	243
57.00	983	80.00	260	119.00	167		
60.00	330	81.00	758	130.00	95		
61.00	2200	82.00	266	133.00	163		

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150617-7443.b\50617016.D

Injection Date: 17-Jun-2015 11:58:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 16

Client ID:

Injection Vol: 5.0 mL

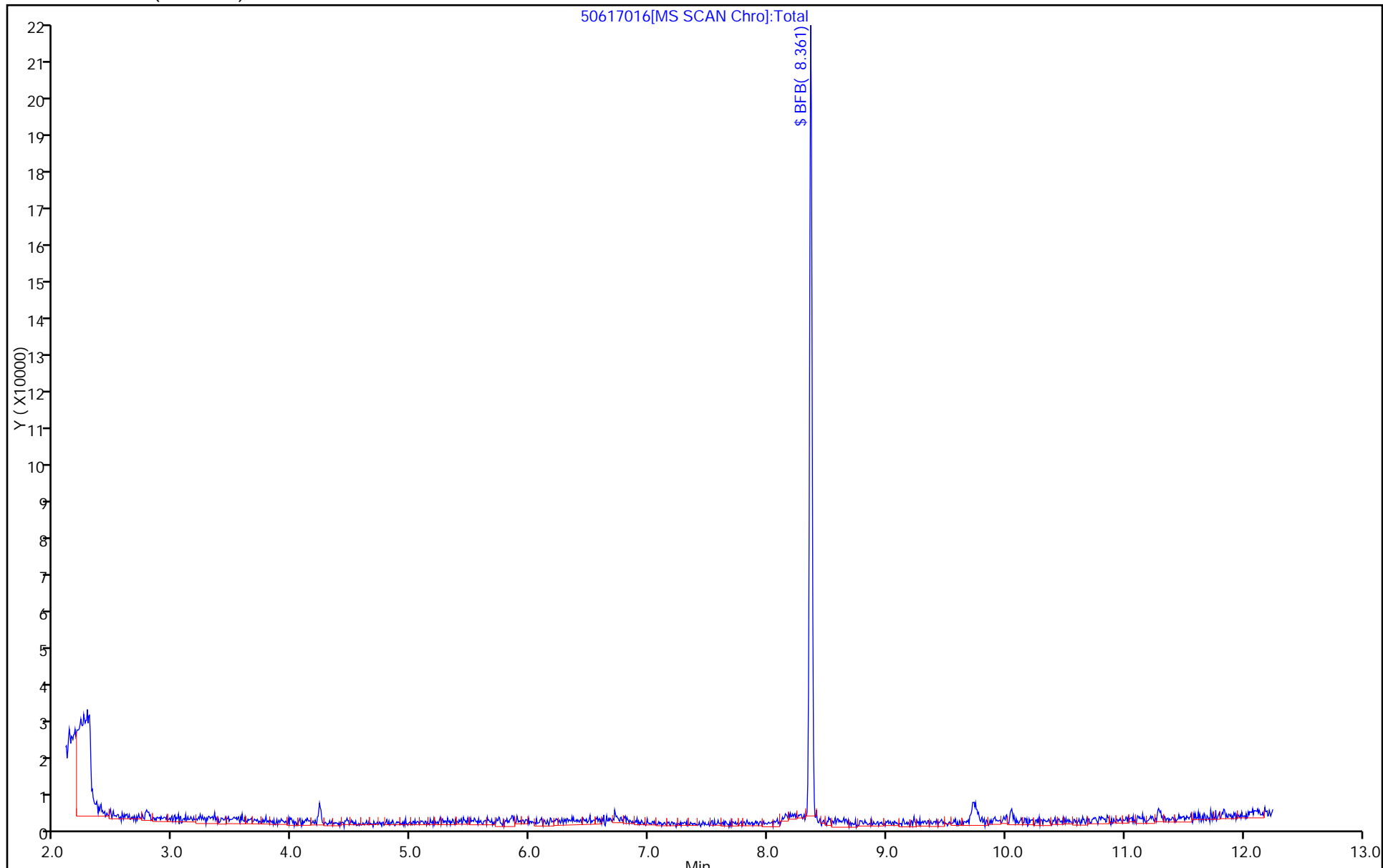
Dil. Factor: 1.0000

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: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818005.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 18-Aug-2015 12:21:30 ALS Bottle#: 1 Worklist Smp#: 5  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008205-005  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 14:38:44 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond Date: 18-Aug-2015 12:33:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.362	8.362	0.000	0	83148	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

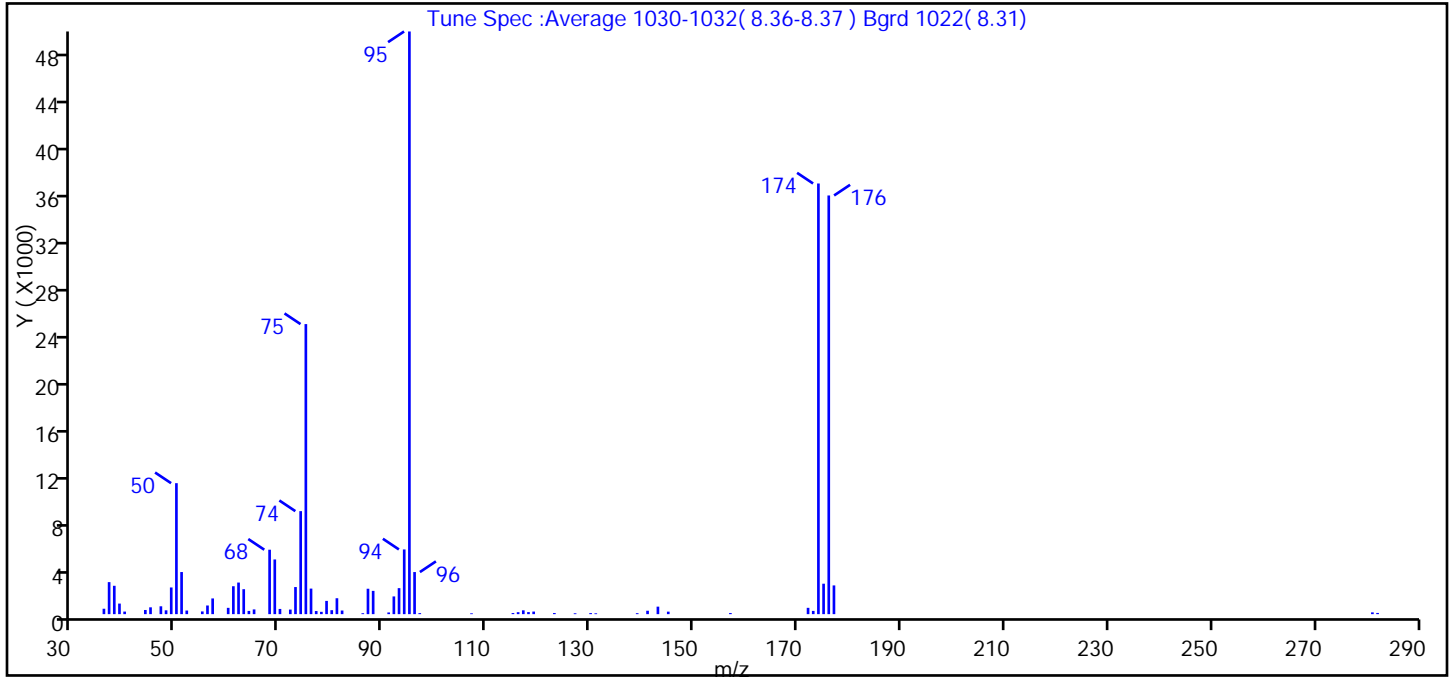
**Reagents:**

VOABFB25\_00065 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818005.D  
 Injection Date: 18-Aug-2015 12:21:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 5  
 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	22.5
75	30 to 60% of m/z 95	49.8
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	73.9
175	5 to 9% of m/z 174	5.2 (7.1)
176	Greater than 95% but less than 101% of m/z 174	71.9 (97.2)
177	5 to 9% of m/z 176	4.9 (6.9)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818005.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 18-Aug-2015 12:21:30  
 Spectrum: Tune Spec :Average 1030-1032( 8.36-8.37 ) Bgrd 1022( 8.31)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	455	62.00	2658	86.00	78	130.00	89
37.00	2694	63.00	2099	87.00	2138	131.00	70
38.00	2386	64.00	271	88.00	1958	139.00	81
39.00	889	65.00	398	91.00	142	141.00	286
40.00	216	68.00	5422	92.00	1491	143.00	631
44.00	350	69.00	4602	93.00	2188	145.00	210
45.00	574	70.00	438	94.00	5445	157.00	92
47.00	661	72.00	385	95.00	49032	172.00	531
48.00	322	73.00	2280	96.00	3542	173.00	272
49.00	2245	74.00	8668	97.00	86	174.00	36240
50.00	11021	75.00	24408	107.00	69	175.00	2562
51.00	3543	76.00	2150	115.00	93	176.00	35232
52.00	303	77.00	261	116.00	166	177.00	2417
55.00	228	78.00	195	117.00	321	281.00	149
56.00	728	79.00	1114	118.00	173	282.00	101
57.00	1322	80.00	333	119.00	217		
60.00	530	81.00	1339	123.00	94		
61.00	2349	82.00	306	127.00	72		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818005.D

Injection Date: 18-Aug-2015 12:21:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 5.0 mL

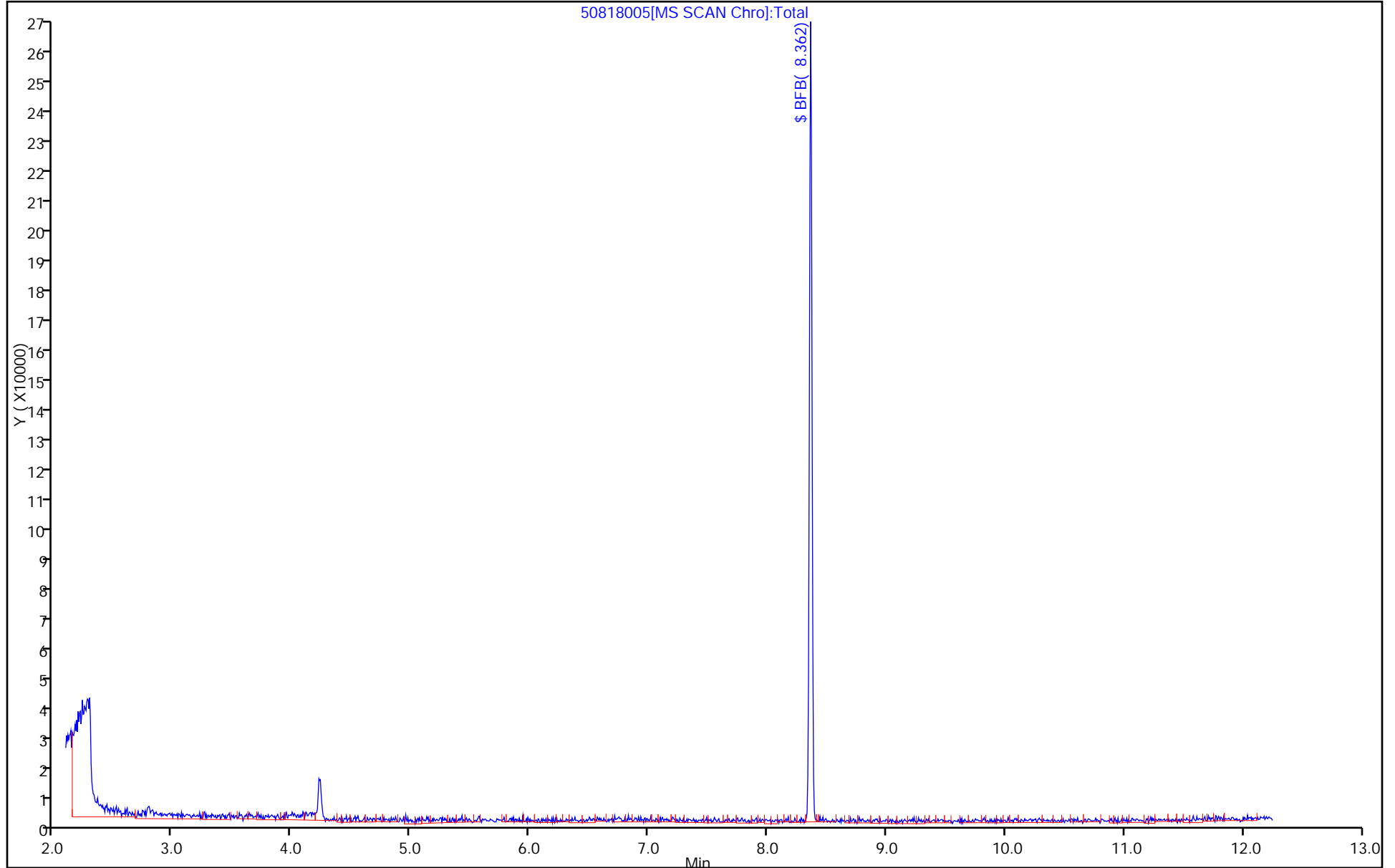
Dil. Factor: 1.0000

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: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 19-Aug-2015 10:45:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008221-001  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 13:13:51 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond Date: 19-Aug-2015 10:53:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.366	8.366	0.000	0	54328	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

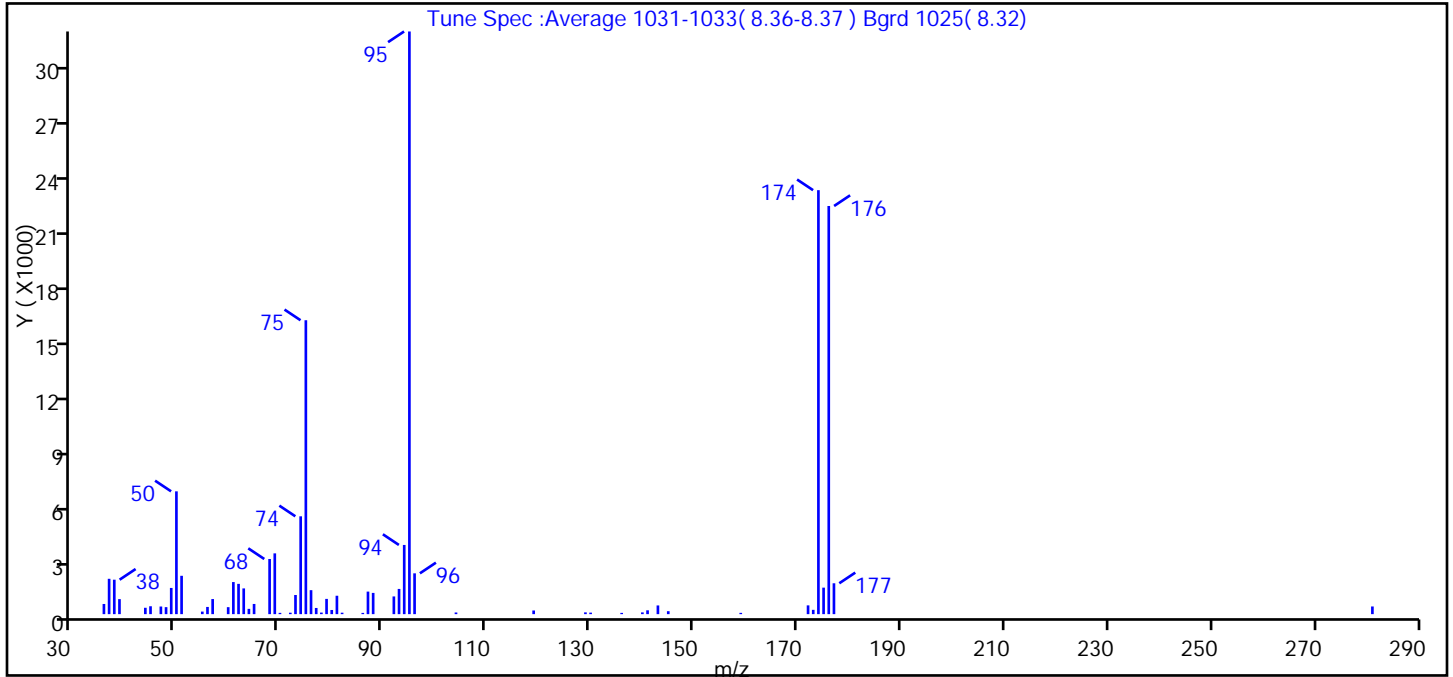
**Reagents:**

VOABFB25\_00065 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819001.D  
 Injection Date: 19-Aug-2015 10:45:30 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	21.1
75	30 to 60% of m/z 95	50.4
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.7 (1.0)
174	50 to 120% of m/z 95	72.8
175	5 to 9% of m/z 174	4.5 (6.2)
176	Greater than 95% but less than 101% of m/z 174	70.0 (96.3)
177	5 to 9% of m/z 176	5.3 (7.6)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819001.D\MSVOA\_LL\_CHHP5.rsl\spectr  
 Injection Date: 19-Aug-2015 10:45:30  
 Spectrum: Tune Spec :Average 1031-1033( 8.36-8.37 ) Bgrd 1025( 8.32)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 59

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	545	61.00	1719	79.00	817	130.00	81
37.00	1894	62.00	1623	80.00	223	136.00	68
38.00	1846	63.00	1379	81.00	986	140.00	94
39.00	805	64.00	283	82.00	78	141.00	205
44.00	341	65.00	546	86.00	67	143.00	466
45.00	423	68.00	2955	87.00	1208	145.00	158
47.00	409	69.00	3257	88.00	1138	159.00	69
48.00	375	70.00	69	92.00	949	172.00	470
49.00	1404	72.00	77	93.00	1351	173.00	231
50.00	6581	73.00	1026	94.00	3708	174.00	22720
51.00	2055	74.00	5243	95.00	31224	175.00	1420
55.00	137	75.00	15750	96.00	2187	176.00	21872
56.00	386	76.00	1285	104.00	89	177.00	1654
57.00	809	77.00	331	119.00	196	281.00	411
60.00	374	78.00	84	129.00	95		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819001.D

Injection Date: 19-Aug-2015 10:45:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-151080/7  
 Matrix: Water Lab File ID: 50818007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 14:38  
 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.: 151080 Units: ug/L

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

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-151080/7  
 Matrix: Water Lab File ID: 50818007.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 14:38  
 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.: 151080 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	92		71-118
460-00-4	4-Bromofluorobenzene (Surr)	85		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818007.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 18-Aug-2015 14:38:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008205-007  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 15:38:11 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond

Date: 18-Aug-2015 15:38:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.268	-0.006	0	179919	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	425833	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	89	94989	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.724	0.006	97	122505	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.567	-0.005	93	100213	50.0	50.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.932	0.001	0	146056	50.0	51.0	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	363409	50.0	46.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.568	0.001	86	123248	50.0	42.5	
11 Dichlorodifluoromethane	85		1.621					ND	
12 Chloromethane	50		1.773					ND	
13 Vinyl chloride	62		1.907					ND	
14 Butadiene	39		1.938					ND	
15 Bromomethane	94		2.242					ND	
16 Chloroethane	64		2.394					ND	
17 Dichlorofluoromethane	67		2.674					ND	
18 Trichlorofluoromethane	101		2.716					ND	
19 Ethanol	45		2.952					ND	
20 Ethyl ether	59		3.051					ND	
21 Acrolein	56		3.234					ND	
22 1,1-Dichloroethene	96		3.349					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.416					ND	
24 Acetone	43		3.446					ND	
25 Iodomethane	142		3.550					ND	
26 Carbon disulfide	76		3.629					ND	
27 Isopropyl alcohol	45		3.719					ND	
29 Acetonitrile	40		3.871					ND	
28 3-Chloro-1-propene	76		3.927					ND	
30 Methyl acetate	43		3.945					ND	
31 Methylene Chloride	84		4.140					ND	
32 2-Methyl-2-propanol	59		4.402					ND	
33 Acrylonitrile	53		4.523					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		4.578					ND	
36 Hexane	57		4.992					ND	
37 1,1-Dichloroethane	63		5.205					ND	
38 Vinyl acetate	43		5.253					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.775					ND	
44 2,2-Dichloropropane	77		5.947					ND	
45 cis-1,2-Dichloroethene	96		5.953					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.965					ND	
47 Propionitrile	54		6.030					ND	
48 Ethyl acetate	43		6.036					ND	
50 Methacrylonitrile	41		6.213					ND	
49 Chlorobromomethane	128		6.233					ND	
51 Tetrahydrofuran	42		6.251					ND	
52 Chloroform	83		6.385					ND	
53 1,1,1-Trichloroethane	97		6.537					ND	
54 Cyclohexane	56		6.616					ND	
56 Carbon tetrachloride	117		6.713					ND	
55 1,1-Dichloropropene	75		6.732					ND	
57 Isobutyl alcohol	41		6.920					ND	
58 Benzene	78		6.944					ND	
59 1,2-Dichloroethane	62		7.024					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.309					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.681					ND	
65 Ethyl acrylate	55		7.801					ND	
66 Methylcyclohexane	83		7.918					ND	
67 1,2-Dichloropropane	63		7.948					ND	
70 1,4-Dioxane	88		8.027					ND	
69 Methyl methacrylate	69		8.032					ND	
68 Dibromomethane	93		8.039					ND	
71 Dichlorobromomethane	83		8.234					ND	
72 2-Nitropropane	41		8.452					ND	
73 2-Chloroethyl vinyl ether	63		8.532					ND	
74 cis-1,3-Dichloropropene	75		8.672					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.824					ND	
76 Toluene	91		9.007					ND	
77 trans-1,3-Dichloropropene	75		9.250					ND	
78 Ethyl methacrylate	69		9.311					ND	
79 1,1,2-Trichloroethane	97		9.445					ND	
80 Tetrachloroethene	164		9.518					ND	
81 1,3-Dichloropropane	76		9.603					ND	
82 2-Hexanone	43		9.658					ND	
83 n-Butyl acetate	43		9.778					ND	
84 Chlorodibromomethane	129		9.816					ND	
85 Ethylene Dibromide	107		9.931					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.388					ND	
87 Chlorobenzene	112		10.418					ND	
88 4-Chlorobenzotrifluoride	180		10.473					ND	
89 1,1,1,2-Tetrachloroethane	131		10.509					ND	
90 Ethylbenzene	106		10.515					ND	
91 m-Xylene & p-Xylene	106		10.643					ND	
92 o-Xylene	106		11.026					ND	
93 Styrene	104		11.045					ND	
94 Bromoform	173		11.233					ND	
95 Cyclohexanol	57		11.250					ND	
96 2-Chlorobenzotrifluoride	180		11.294					ND	
97 Isopropylbenzene	105		11.398					ND	
98 Cyclohexanone	55		11.481					ND	
99 1,1,2,2-Tetrachloroethane	83		11.702					ND	
100 Bromobenzene	156		11.708					ND	
102 trans-1,4-Dichloro-2-buten	53		11.738					ND	
101 1,2,3-Trichloropropane	110		11.756					ND	
103 N-Propylbenzene	120		11.811					ND	
104 2-Chlorotoluene	126		11.896					ND	
105 3-Chlorotoluene	126		11.963					ND	
106 1,3,5-Trimethylbenzene	105		11.994					ND	
107 4-Chlorotoluene	126		12.024					ND	
108 tert-Butylbenzene	119		12.310					ND	
109 Pentachloroethane	167		12.339					ND	
110 1,2,4-Trimethylbenzene	105		12.365					ND	
111 1,2-dichloro-4-(trifluorom	214		12.407					ND	
112 sec-Butylbenzene	105		12.529					ND	
113 1,3-Dichlorobenzene	146		12.645					ND	
114 4-Isopropyltoluene	119		12.687					ND	
115 1,4-Dichlorobenzene	146		12.754					ND	
117 1,2,3-Trimethylbenzene	105		12.777					ND	
116 2,4-Dichloro-1-(triflourom	214		12.778					ND	
118 2,5-Dichlorobenzotrifluori	214		12.815					ND	
119 Benzyl chloride	91		12.868					ND	
120 n-Butylbenzene	91		13.095					ND	
121 1,2-Dichlorobenzene	146		13.107					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.898					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.044					ND	
124 1,3,5-Trichlorobenzene	180		14.091					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.458					ND	
126 1,2,4-Trichlorobenzene	180		14.725					ND	
127 Hexachlorobutadiene	225		14.871					ND	
128 Naphthalene	128		14.987					ND	
129 1,2,3-Trichlorobenzene	180		15.212					ND	
131 2,4,5-Trichlorotoluene	159		15.991					ND	
130 2,3,6-Trichlorotoluene	159		16.094					ND	
132 2-Methylnaphthalene	142		16.129					ND	
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 2,5-Dichlorotoluene	1		0.000						ND
150 2,6-Dichlorotoluene	1		0.000						ND
S 133 Xylenes, Total	106		1.000						ND
S 134 1,2-Dichloroethene, Total	96		1.000						ND
S 135 1,3-Dichloropropene, Total	1		0.000						ND
T 153 1,2 Epoxybutane TIC	42		0.000						ND
T 136 Mesityl oxide TIC	83		0.000						ND
T 137 Tetrahydrofuran TIC	42		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND

**Reagents:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818007.D

Injection Date: 18-Aug-2015 14:38:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

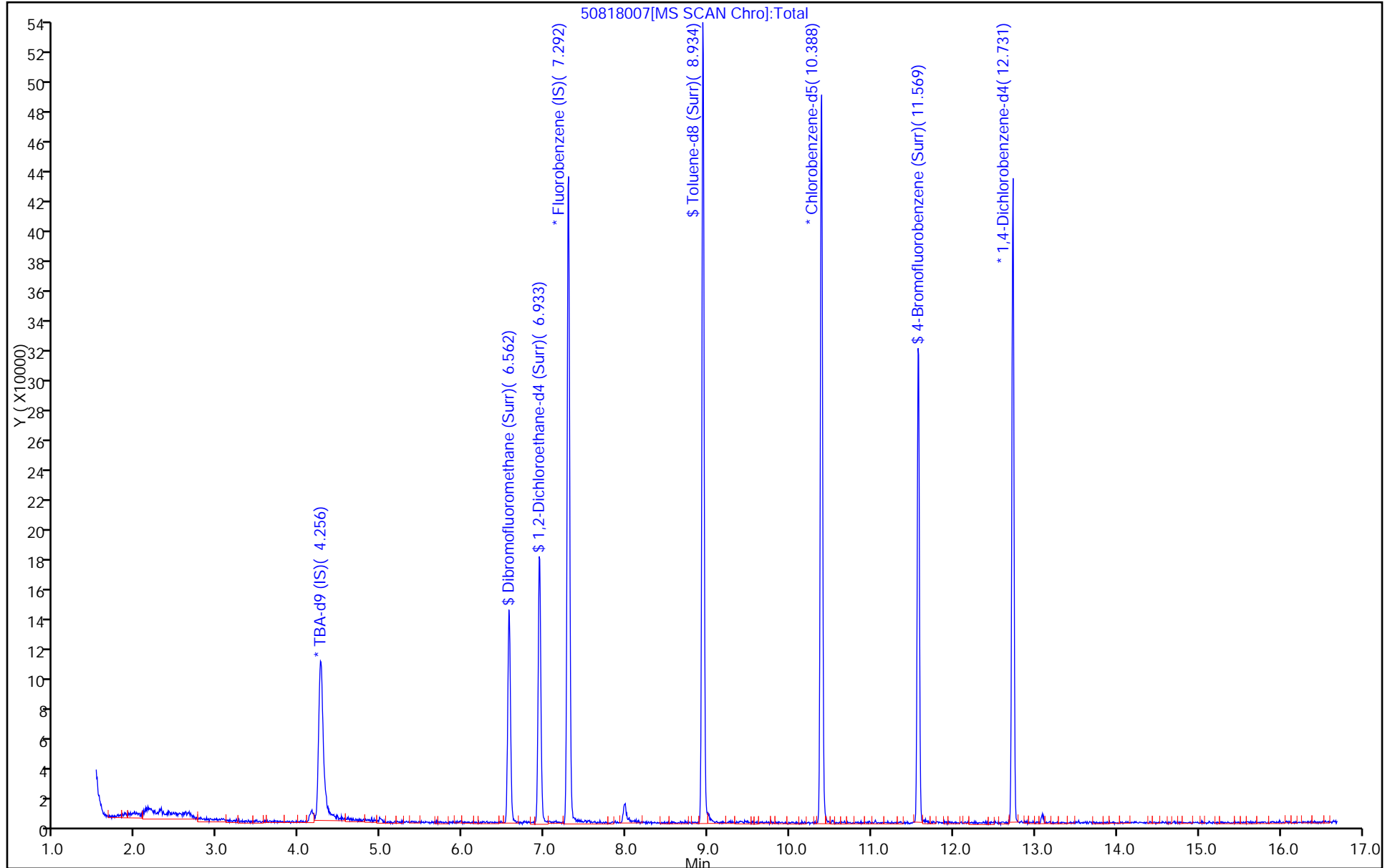
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-151188/6  
 Matrix: Water Lab File ID: 50819006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 13:02  
 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.: 151188 Units: ug/L

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



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-151188/6  
 Matrix: Water Lab File ID: 50819006.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 13:02  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		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)	96		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819006.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 19-Aug-2015 13:02:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008221-006  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 13:23:53 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 13:33:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.272	-0.018	0	193579	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	428291	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.386	0.001	90	94295	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.728	0.001	98	128052	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.566	6.559	0.007	94	104424	50.0	52.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.937	-0.006	0	150473	50.0	52.2	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.932	0.007	95	374044	50.0	47.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.566	0.001	84	127256	50.0	44.2	
11 Dichlorodifluoromethane	85		1.614					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.912					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.240					ND	
16 Chloroethane	64		2.386					ND	
17 Dichlorofluoromethane	67		2.672					ND	
18 Trichlorofluoromethane	101		2.709					ND	
19 Ethanol	45		2.940					ND	
20 Ethyl ether	59		3.043					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.347					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.420					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.627					ND	
27 Isopropyl alcohol	45		3.719					ND	
29 Acetonitrile	40		3.871					ND	
28 3-Chloro-1-propene	76		3.919					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.132					ND	
32 2-Methyl-2-propanol	59		4.412					ND	
33 Acrylonitrile	53		4.522					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		4.564					ND	
35 Methyl tert-butyl ether	73		4.576					ND	
36 Hexane	57		4.990					ND	
37 1,1-Dichloroethane	63		5.203					ND	
38 Vinyl acetate	43		5.245					ND	
41 Isopropyl ether	45		5.300					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.775					ND	
44 2,2-Dichloropropane	77		5.945					ND	
45 cis-1,2-Dichloroethene	96		5.951					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.963					ND	
47 Propionitrile	54		6.030					ND	
48 Ethyl acetate	43		6.036					ND	
50 Methacrylonitrile	41		6.213					ND	
49 Chlorobromomethane	128		6.231					ND	
51 Tetrahydrofuran	42		6.249					ND	
52 Chloroform	83		6.383					ND	
53 1,1,1-Trichloroethane	97		6.541					ND	
54 Cyclohexane	56		6.614					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.724					ND	
57 Isobutyl alcohol	41		6.925					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.119					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.630					ND	
64 Trichloroethene	130		7.673					ND	
65 Ethyl acrylate	55		7.794					ND	
66 Methylcyclohexane	83		7.916					ND	
67 1,2-Dichloropropane	63		7.947					ND	
70 1,4-Dioxane	88		8.026					ND	
68 Dibromomethane	93		8.032					ND	
69 Methyl methacrylate	69		8.032					ND	
71 Dichlorobromomethane	83		8.226					ND	
72 2-Nitropropane	41		8.451					ND	
73 2-Chloroethyl vinyl ether	63		8.531					ND	
74 cis-1,3-Dichloropropene	75		8.670					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829					ND	
76 Toluene	91		9.005					ND	
77 trans-1,3-Dichloropropene	75		9.248					ND	
78 Ethyl methacrylate	69		9.309					ND	
79 1,1,2-Trichloroethane	97		9.443					ND	
80 Tetrachloroethene	164		9.516					ND	
81 1,3-Dichloropropane	76		9.601					ND	
82 2-Hexanone	43		9.656					ND	
83 n-Butyl acetate	43		9.778					ND	
84 Chlorodibromomethane	129		9.820					ND	
85 Ethylene Dibromide	107		9.930					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.386					ND	
87 Chlorobenzene	112		10.416					ND	
88 4-Chlorobenzotrifluoride	180		10.477					ND	
89 1,1,1,2-Tetrachloroethane	131		10.508					ND	
90 Ethylbenzene	106		10.514					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.025					ND	
93 Styrene	104		11.049					ND	
94 Bromoform	173		11.226					ND	
95 Cyclohexanol	57		11.250					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.481					ND	
99 1,1,2,2-Tetrachloroethane	83		11.706					ND	
100 Bromobenzene	156		11.706					ND	
102 trans-1,4-Dichloro-2-buten	53		11.737					ND	
101 1,2,3-Trichloropropane	110		11.761					ND	
103 N-Propylbenzene	120		11.810					ND	
104 2-Chlorotoluene	126		11.895					ND	
105 3-Chlorotoluene	126		11.962					ND	
106 1,3,5-Trimethylbenzene	105		11.992					ND	
107 4-Chlorotoluene	126		12.016					ND	
108 tert-Butylbenzene	119		12.308					ND	
109 Pentachloroethane	167		12.339					ND	
110 1,2,4-Trimethylbenzene	105		12.363					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.533					ND	
113 1,3-Dichlorobenzene	146		12.649					ND	
114 4-Isopropyltoluene	119		12.686					ND	
115 1,4-Dichlorobenzene	146		12.752					ND	
116 2,4-Dichloro-1-(triflourom	214		12.777					ND	
117 1,2,3-Trimethylbenzene	105		12.777					ND	
118 2,5-Dichlorobenzotrifluori	214		12.819					ND	
119 Benzyl chloride	91		12.868					ND	
120 n-Butylbenzene	91		13.093					ND	
121 1,2-Dichlorobenzene	146		13.111					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.902					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.042					ND	
124 1,3,5-Trichlorobenzene	180		14.085					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.462					ND	
126 1,2,4-Trichlorobenzene	180		14.724					ND	
127 Hexachlorobutadiene	225		14.870					ND	
128 Naphthalene	128		14.991					ND	
129 1,2,3-Trichlorobenzene	180		15.210					ND	
131 2,4,5-Trichlorotoluene	159		15.989					ND	
130 2,3,6-Trichlorotoluene	159		16.086					ND	
132 2-Methylnaphthalene	142		16.129					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 3,4-Dichlorotoluene	1		0.000						ND
151 Isooctane	57		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:**

VOA8260SURR\_00040

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260INT\_00040

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819006.D

Injection Date: 19-Aug-2015 13:02:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

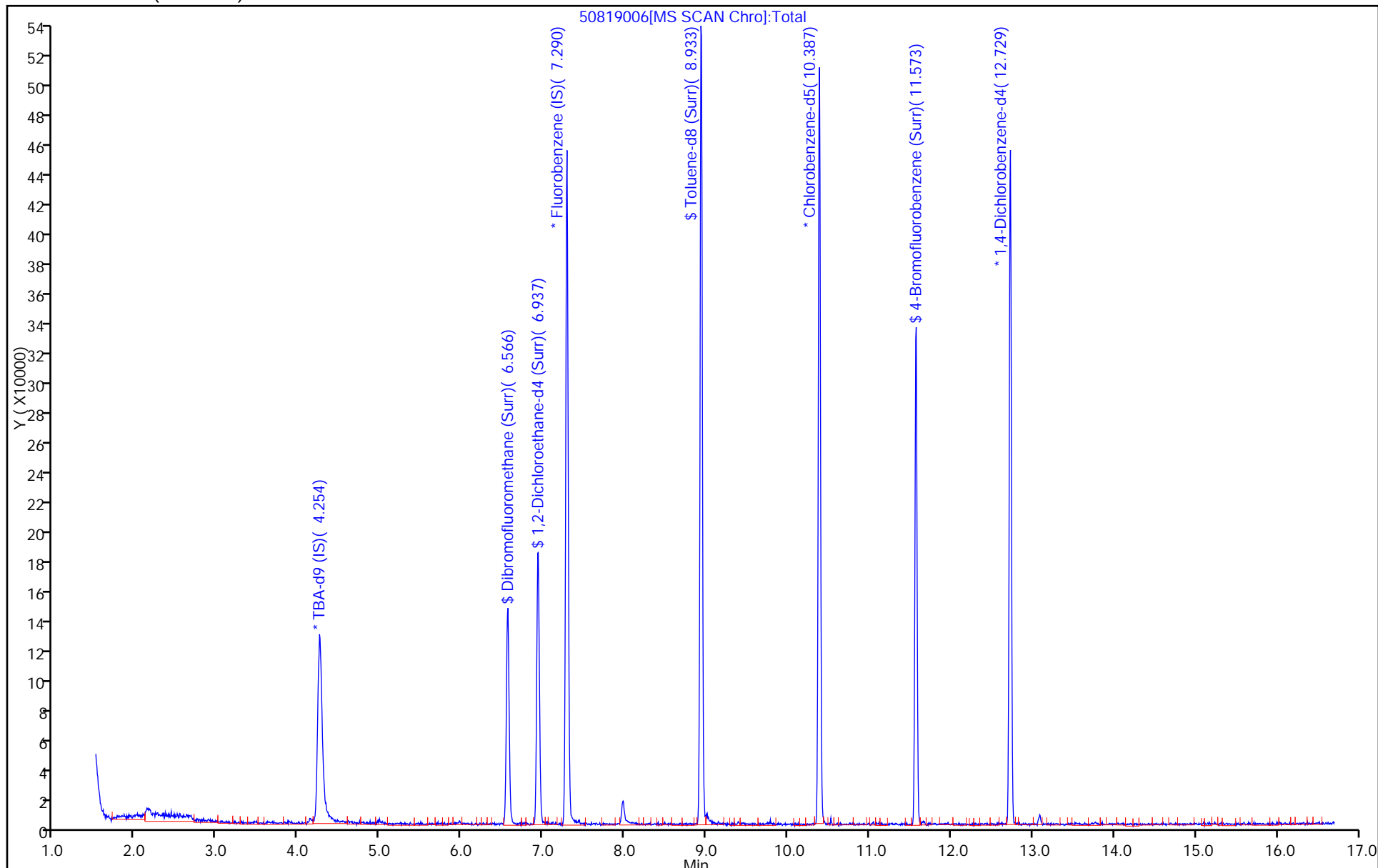
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-151080/8  
 Matrix: Water Lab File ID: 50818008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 15:12  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.41		1.0	0.28
75-01-4	Vinyl chloride	8.12		1.0	0.23
74-83-9	Bromomethane	7.02		1.0	0.31
75-00-3	Chloroethane	8.70		1.0	0.21
75-35-4	1,1-Dichloroethene	8.94		1.0	0.30
67-64-1	Acetone	17.9		5.0	2.5
75-15-0	Carbon disulfide	8.98		1.0	0.21
75-09-2	Methylene Chloride	9.83		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.48		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.45		1.0	0.18
75-34-3	1,1-Dichloroethane	9.80		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.49		1.0	0.24
74-97-5	Bromochloromethane	10.0		1.0	0.18
78-93-3	2-Butanone (MEK)	18.5		5.0	0.55
67-66-3	Chloroform	9.87		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.48		1.0	0.29
56-23-5	Carbon tetrachloride	8.47		1.0	0.14
71-43-2	Benzene	10.0		1.0	0.11
107-06-2	1,2-Dichloroethane	9.53		1.0	0.21
79-01-6	Trichloroethene	9.37		1.0	0.14
78-87-5	1,2-Dichloropropane	10.0		1.0	0.095
75-27-4	Bromodichloromethane	9.80		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.89		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.4		5.0	0.53
108-88-3	Toluene	10.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.36		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.20
127-18-4	Tetrachloroethene	9.77		1.0	0.15
591-78-6	2-Hexanone	17.8		5.0	0.16
124-48-1	Dibromochloromethane	9.37		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.79		1.0	0.18
108-90-7	Chlorobenzene	9.74		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	9.74		1.0	0.23
1330-20-7	Xylenes, Total	19.6		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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-151080/8  
 Matrix: Water Lab File ID: 50818008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 15:12  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.90		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.5		1.0	0.20
107-13-1	Acrylonitrile	104		20	0.55
123-91-1	1,4-Dioxane	208		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818008.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 18-Aug-2015 15:12:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008205-008  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 15:38:11 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond

Date: 18-Aug-2015 15:36:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.260	4.268	-0.008	0	144522	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.291	-0.002	98	437119	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	101699	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	94	141431	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.567	-0.008	92	99893	50.0	49.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.932	-0.002	0	137985	50.0	46.9	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.934	-0.002	94	409568	50.0	48.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.568	0.004	86	145821	50.0	47.0	
11 Dichlorodifluoromethane	85	1.619	1.621	-0.002	99	82609	50.0	28.0	
12 Chloromethane	50	1.772	1.773	-0.001	99	139476	50.0	42.1	
13 Vinyl chloride	62	1.905	1.907	-0.002	98	135908	50.0	40.6	
14 Butadiene	39	1.942	1.938	0.004	96	160759	50.0	44.8	
15 Bromomethane	94	2.240	2.242	-0.002	89	57162	50.0	35.1	
16 Chloroethane	64	2.398	2.394	0.004	99	87641	50.0	43.5	
17 Dichlorofluoromethane	67	2.666	2.674	-0.008	98	203394	50.0	45.6	
18 Trichlorofluoromethane	101	2.714	2.716	-0.002	98	150435	50.0	41.3	
20 Ethyl ether	59	3.049	3.051	-0.002	95	132054	50.0	52.5	
21 Acrolein	56	3.225	3.234	-0.009	98	65379	150.0	135.5	
22 1,1-Dichloroethene	96	3.341	3.349	-0.008	98	110656	50.0	44.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.416	-0.002	95	117644	50.0	45.0	
24 Acetone	43	3.438	3.446	-0.008	98	64992	100.0	89.7	
25 Iodomethane	142	3.542	3.550	-0.008	97	151922	50.0	44.4	
26 Carbon disulfide	76	3.627	3.629	-0.002	99	245978	50.0	44.9	
28 3-Chloro-1-propene	76	3.925	3.927	-0.002	89	63370	50.0	46.3	
30 Methyl acetate	43	3.937	3.945	-0.008	98	585001	250.0	260.5	
31 Methylene Chloride	84	4.132	4.140	-0.008	98	157553	50.0	49.2	
32 2-Methyl-2-propanol	59	4.393	4.402	-0.009	88	81768	500.0	495.5	
33 Acrylonitrile	53	4.521	4.523	-0.002	99	565071	500.0	519.2	
34 trans-1,2-Dichloroethene	96	4.564	4.566	-0.002	96	124737	50.0	47.4	
35 Methyl tert-butyl ether	73	4.576	4.578	-0.002	97	306672	50.0	47.2	
36 Hexane	57	4.990	4.992	-0.002	94	186011	50.0	45.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.205	-0.002	97	246466	50.0	49.0	
38 Vinyl acetate	43	5.245	5.253	-0.008	97	188431	50.0	43.8	
44 2,2-Dichloropropane	77	5.939	5.947	-0.008	60	107012	50.0	49.8	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	84	132376	50.0	47.5	
46 2-Butanone (MEK)	43	5.957	5.965	-0.008	59	98018	100.0	92.3	
49 Chlorobromomethane	128	6.237	6.233	0.004	93	58872	50.0	50.0	
51 Tetrahydrofuran	42	6.249	6.251	-0.002	89	82669	100.0	94.7	
52 Chloroform	83	6.377	6.385	-0.008	95	228317	50.0	49.3	
53 1,1,1-Trichloroethane	97	6.535	6.537	-0.002	96	164745	50.0	47.4	
54 Cyclohexane	56	6.620	6.616	0.004	94	235187	50.0	45.2	
56 Carbon tetrachloride	117	6.711	6.713	-0.002	94	128026	50.0	42.3	
55 1,1-Dichloropropene	75	6.730	6.732	-0.002	92	175566	50.0	46.0	
57 Isobutyl alcohol	41	6.918	6.920	-0.002	78	92753	1250.0	1272.9	
58 Benzene	78	6.942	6.944	-0.002	97	552655	50.0	50.2	
59 1,2-Dichloroethane	62	7.015	7.024	-0.009	97	179653	50.0	47.7	
62 n-Heptane	43	7.307	7.309	-0.002	93	166299	50.0	46.2	
64 Trichloroethene	130	7.679	7.681	-0.002	97	121805	50.0	46.8	
66 Methylcyclohexane	83	7.916	7.918	-0.002	92	191445	50.0	44.1	
67 1,2-Dichloropropane	63	7.946	7.948	-0.002	95	134216	50.0	50.0	
70 1,4-Dioxane	88	8.031	8.027	0.004	38	19217	1000.0	1042.2	M
68 Dibromomethane	93	8.037	8.039	-0.002	97	70433	50.0	48.5	
71 Dichlorobromomethane	83	8.232	8.234	-0.002	99	143628	50.0	49.0	
73 2-Chloroethyl vinyl ether	63	8.530	8.532	-0.002	93	140233	100.0	97.1	
74 cis-1,3-Dichloropropene	75	8.676	8.672	0.004	91	167689	50.0	49.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.824	0.004	98	233067	100.0	96.8	
76 Toluene	91	9.005	9.007	-0.002	98	556648	50.0	50.9	
77 trans-1,3-Dichloropropene	75	9.248	9.250	-0.002	97	137760	50.0	46.8	
78 Ethyl methacrylate	69	9.309	9.311	-0.002	92	132574	50.0	47.3	
79 1,1,2-Trichloroethane	97	9.443	9.445	-0.002	93	109299	50.0	51.5	
80 Tetrachloroethene	164	9.516	9.518	-0.002	95	101549	50.0	48.8	
81 1,3-Dichloropropane	76	9.601	9.603	-0.002	96	195360	50.0	50.4	
82 2-Hexanone	43	9.656	9.658	-0.002	99	137770	100.0	89.1	
84 Chlorodibromomethane	129	9.814	9.816	-0.002	91	80919	50.0	46.8	
85 Ethylene Dibromide	107	9.923	9.931	-0.008	100	97040	50.0	49.0	
86 3-Chlorobenzotrifluoride	180	10.386	10.388	-0.002	84	162359	50.0	45.3	
87 Chlorobenzene	112	10.416	10.418	-0.002	93	332471	50.0	48.7	
88 4-Chlorobenzotrifluoride	180	10.477	10.473	0.004	96	153298	50.0	45.4	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.509	-0.002	92	105671	50.0	50.1	
90 Ethylbenzene	106	10.513	10.515	-0.002	99	182830	50.0	48.7	
91 m-Xylene & p-Xylene	106	10.647	10.643	0.004	0	221230	50.0	48.8	
92 o-Xylene	106	11.031	11.026	0.005	97	213962	50.0	49.2	
93 Styrene	104	11.049	11.045	0.004	95	371932	50.0	52.3	
94 Bromoform	173	11.231	11.233	-0.002	96	40827	50.0	44.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.294	0.004	97	161214	50.0	47.8	
97 Isopropylbenzene	105	11.396	11.398	-0.002	97	529795	50.0	49.7	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.702	0.004	77	140753	50.0	52.5	
100 Bromobenzene	156	11.706	11.708	-0.002	95	125778	50.0	45.7	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.738	0.004	75	27729	50.0	29.8	
101 1,2,3-Trichloropropane	110	11.761	11.756	0.005	86	48179	50.0	49.4	
103 N-Propylbenzene	120	11.809	11.811	-0.002	99	146443	50.0	45.0	
104 2-Chlorotoluene	126	11.900	11.896	0.004	95	125705	50.0	44.8	
105 3-Chlorotoluene	126	11.961	11.963	-0.002	96	125675	50.0	43.3	

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	11.992	11.994	-0.002	93	455949	50.0	48.2	
107 4-Chlorotoluene	126	12.022	12.024	-0.002	99	143459	50.0	47.2	
108 tert-Butylbenzene	119	12.308	12.310	-0.002	94	332753	50.0	44.2	
110 1,2,4-Trimethylbenzene	105	12.369	12.365	0.004	98	447384	50.0	48.0	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.407	0.004	98	117215	50.0	43.0	
112 sec-Butylbenzene	105	12.533	12.529	0.004	95	502322	50.0	46.3	
113 1,3-Dichlorobenzene	146	12.649	12.645	0.004	97	234072	50.0	46.8	
114 4-Isopropyltoluene	119	12.685	12.687	-0.002	97	409107	50.0	46.8	
115 1,4-Dichlorobenzene	146	12.752	12.754	-0.002	94	245710	50.0	48.3	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.778	-0.002	95	113034	50.0	45.6	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.815	0.004	0	112263	50.0	41.9	
120 n-Butylbenzene	91	13.099	13.095	0.004	99	338828	50.0	45.4	
121 1,2-Dichlorobenzene	146	13.105	13.107	-0.002	95	217978	50.0	49.2	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.898	0.004	73	16849	50.0	44.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.044	0.004	0	316058	150.0	125.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.458	0.004	0	187498	100.0	81.3	
126 1,2,4-Trichlorobenzene	180	14.723	14.725	-0.002	93	69422	50.0	43.9	
127 Hexachlorobutadiene	225	14.869	14.871	-0.002	95	36842	50.0	41.9	
128 Naphthalene	128	14.991	14.987	0.004	98	159929	50.0	39.0	
129 1,2,3-Trichlorobenzene	180	15.216	15.212	0.004	93	52320	50.0	40.6	
131 2,4,5-Trichlorotoluene	159	15.989	15.991	-0.002	0	13391	50.0	35.2	
130 2,3,6-Trichlorotoluene	159	16.092	16.094	-0.002	96	13111	50.0	34.3	
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	98.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	96.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOA2ND_00138	Amount Added: 2.00	Units: uL	
voaWEE2nd Res_00004	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00009	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00001	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
VOAACR2ND_00002	Amount Added: 6.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818008.D

Injection Date: 18-Aug-2015 15:12:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

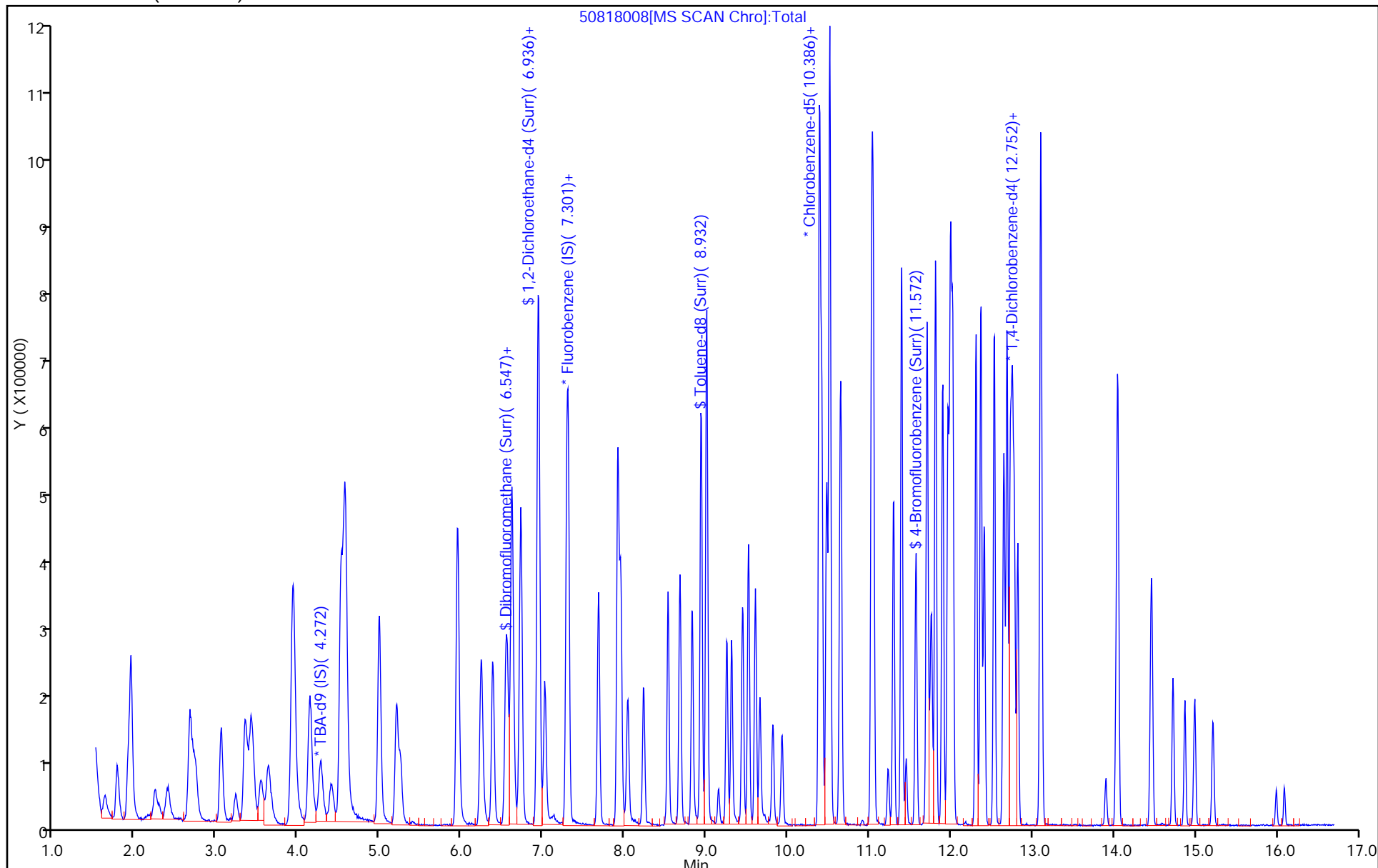
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



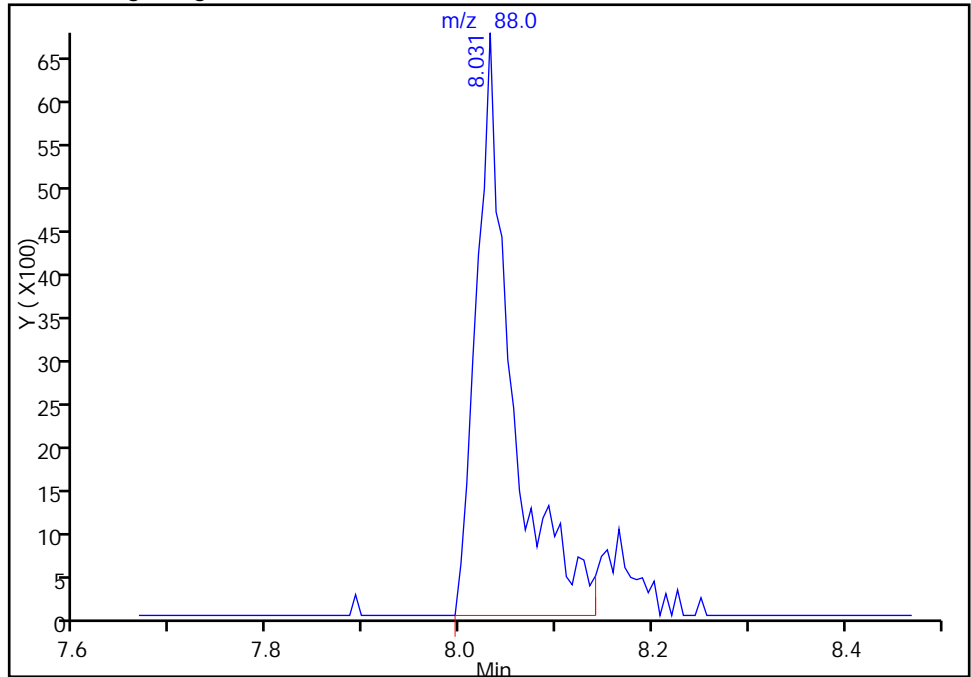
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818008.D  
Injection Date: 18-Aug-2015 15:12:30 Instrument ID: CHHP5  
Lims ID: LCS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 8  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

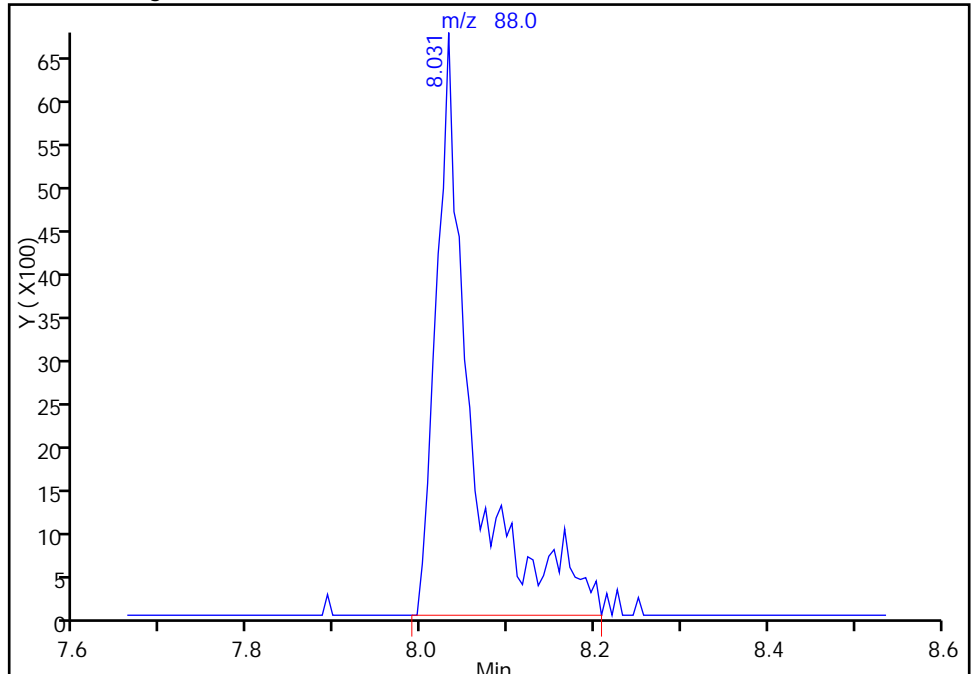
RT: 8.03  
Area: 17229  
Amount: 934.4092  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 19217  
Amount: 1042.2278  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 18-Aug-2015 15:36:44  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-151188/14  
 Matrix: Water Lab File ID: 50819014.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 16:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.3		1.0	0.28
75-01-4	Vinyl chloride	10.4		1.0	0.23
74-83-9	Bromomethane	7.87		1.0	0.31
75-00-3	Chloroethane	9.62		1.0	0.21
75-35-4	1,1-Dichloroethene	8.97		1.0	0.30
67-64-1	Acetone	23.5		5.0	2.5
75-15-0	Carbon disulfide	9.26		1.0	0.21
75-09-2	Methylene Chloride	8.30		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.38		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.93		1.0	0.18
75-34-3	1,1-Dichloroethane	9.28		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.15		1.0	0.24
74-97-5	Bromochloromethane	9.37		1.0	0.18
78-93-3	2-Butanone (MEK)	22.5		5.0	0.55
67-66-3	Chloroform	9.19		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.98		1.0	0.29
56-23-5	Carbon tetrachloride	8.39		1.0	0.14
71-43-2	Benzene	9.49		1.0	0.11
107-06-2	1,2-Dichloroethane	8.86		1.0	0.21
79-01-6	Trichloroethene	8.50		1.0	0.14
78-87-5	1,2-Dichloropropane	9.61		1.0	0.095
75-27-4	Bromodichloromethane	8.74		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.16		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.8		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.93		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.82		1.0	0.20
127-18-4	Tetrachloroethene	9.43		1.0	0.15
591-78-6	2-Hexanone	19.5		5.0	0.16
124-48-1	Dibromochloromethane	8.93		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.55		1.0	0.18
108-90-7	Chlorobenzene	9.62		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.83		1.0	0.28
100-41-4	Ethylbenzene	9.36		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	9.98		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

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 Matrix: Water Lab File ID: 50819014.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 16:27  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.13		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.3		1.0	0.20
107-13-1	Acrylonitrile	102		20	0.55
123-91-1	1,4-Dioxane	171	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		64-135
2037-26-5	Toluene-d8 (Surr)	95		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	86		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819014.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 19-Aug-2015 16:27:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008221-014  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 07:54:17 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 07:54:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.272	0.001	0	158398	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	493248	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.380	10.386	-0.006	90	105851	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.728	0.001	95	145045	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.559	0.001	93	99088	50.0	43.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.937	-0.006	0	139913	50.0	42.1	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.932	0.000	94	416232	50.0	47.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.567	11.566	0.001	84	145934	50.0	45.2	
11 Dichlorodifluoromethane	85	1.620	1.614	0.006	100	194140	50.0	58.4	
12 Chloromethane	50	1.778	1.766	0.012	99	211140	50.0	56.4	
13 Vinyl chloride	62	1.912	1.912	0.000	98	196549	50.0	52.1	
14 Butadiene	39	1.943	1.942	0.001	94	236551	50.0	58.4	
15 Bromomethane	94	2.271	2.240	0.031	89	72280	50.0	39.4	
16 Chloroethane	64	2.399	2.386	0.013	100	109328	50.0	48.1	
17 Dichlorofluoromethane	67	2.679	2.672	0.007	97	265471	50.0	52.8	
18 Trichlorofluoromethane	101	2.703	2.709	-0.006	98	198095	50.0	48.2	
20 Ethyl ether	59	3.056	3.043	0.013	95	136874	50.0	48.2	
21 Acrolein	56	3.232	3.226	0.006	99	75174	150.0	138.1	
22 1,1-Dichloroethene	96	3.348	3.347	0.001	96	125277	50.0	44.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.427	3.420	0.007	94	129500	50.0	43.9	
24 Acetone	43	3.439	3.439	0.000	98	96109	100.0	117.6	
25 Iodomethane	142	3.549	3.536	0.013	99	171163	50.0	44.3	
26 Carbon disulfide	76	3.634	3.627	0.007	100	286210	50.0	46.3	
28 3-Chloro-1-propene	76	3.926	3.919	0.007	89	71667	50.0	46.4	
30 Methyl acetate	43	3.938	3.938	0.000	98	644066	250.0	254.1	
31 Methylene Chloride	84	4.133	4.132	0.001	99	156748	50.0	41.5	
32 2-Methyl-2-propanol	59	4.406	4.412	-0.006	87	90946	500.0	502.8	
33 Acrylonitrile	53	4.522	4.522	0.000	98	627784	500.0	511.2	
34 trans-1,2-Dichloroethene	96	4.565	4.564	0.001	97	139242	50.0	46.9	
35 Methyl tert-butyl ether	73	4.583	4.576	0.007	96	326952	50.0	44.6	
36 Hexane	57	4.996	4.990	0.006	94	216336	50.0	47.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.203	0.000	97	263446	50.0	46.4	
38 Vinyl acetate	43	5.252	5.245	0.007	97	201284	50.0	41.4	
44 2,2-Dichloropropane	77	5.952	5.945	0.007	76	111522	50.0	46.0	
45 cis-1,2-Dichloroethene	96	5.958	5.951	0.007	84	143994	50.0	45.8	
46 2-Butanone (MEK)	43	5.964	5.963	0.001	80	134787	100.0	112.4	
49 Chlorobromomethane	128	6.237	6.231	0.006	93	62204	50.0	46.8	
51 Tetrahydrofuran	42	6.244	6.249	-0.005	88	88941	100.0	90.3	
52 Chloroform	83	6.383	6.383	0.000	95	239915	50.0	46.0	
53 1,1,1-Trichloroethane	97	6.542	6.541	0.001	96	176151	50.0	44.9	
54 Cyclohexane	56	6.615	6.614	0.001	95	269258	50.0	45.9	
56 Carbon tetrachloride	117	6.718	6.712	0.006	98	143180	50.0	41.9	
55 1,1-Dichloropropene	75	6.724	6.724	0.000	92	194647	50.0	45.2	
57 Isobutyl alcohol	41	6.925	6.925	0.001	80	99942	1250.0	1215.5	
58 Benzene	78	6.943	6.943	0.000	98	589728	50.0	47.4	
59 1,2-Dichloroethane	62	7.016	7.022	-0.006	96	188441	50.0	44.3	
62 n-Heptane	43	7.308	7.308	0.000	93	189996	50.0	46.8	
64 Trichloroethene	130	7.679	7.673	0.006	95	124712	50.0	42.5	
66 Methylcyclohexane	83	7.917	7.916	0.001	95	216923	50.0	44.2	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	95	145526	50.0	48.0	
70 1,4-Dioxane	88	8.032	8.026	0.006	36	17807	1000.0	855.9	
68 Dibromomethane	93	8.038	8.032	0.006	97	72168	50.0	44.0	
71 Dichlorobromomethane	83	8.233	8.226	0.007	99	144495	50.0	43.7	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	92	140682	100.0	86.3	
74 cis-1,3-Dichloropropene	75	8.677	8.670	0.007	92	175231	50.0	45.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.829	-0.006	99	236013	100.0	94.2	
76 Toluene	91	9.005	9.005	0.000	98	583969	50.0	51.3	
77 trans-1,3-Dichloropropene	75	9.249	9.248	0.001	98	136752	50.0	44.7	
78 Ethyl methacrylate	69	9.310	9.309	0.001	92	129865	50.0	44.5	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	92	108389	50.0	49.1	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	102086	50.0	47.2	
81 1,3-Dichloropropane	76	9.602	9.601	0.001	97	196202	50.0	48.6	
82 2-Hexanone	43	9.656	9.656	0.000	99	156607	100.0	97.3	
84 Chlorodibromomethane	129	9.815	9.820	-0.005	91	80275	50.0	44.7	
85 Ethylene Dibromide	107	9.924	9.930	-0.006	97	98441	50.0	47.7	
86 3-Chlorobenzotrifluoride	180	10.386	10.386	0.000	85	174586	50.0	46.8	
87 Chlorobenzene	112	10.411	10.416	-0.005	93	341665	50.0	48.1	
88 4-Chlorobenzotrifluoride	180	10.472	10.477	-0.005	96	163948	50.0	46.7	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.508	0.000	91	107808	50.0	49.2	
90 Ethylbenzene	106	10.514	10.514	0.000	99	182764	50.0	46.8	
91 m-Xylene & p-Xylene	106	10.642	10.648	-0.006	0	223165	50.0	47.3	
92 o-Xylene	106	11.025	11.025	0.000	97	215720	50.0	47.6	
93 Styrene	104	11.050	11.049	0.001	96	368915	50.0	49.9	
94 Bromoform	173	11.226	11.226	0.000	95	43562	50.0	45.6	
96 2-Chlorobenzotrifluoride	180	11.293	11.299	-0.006	95	163846	50.0	46.6	
97 Isopropylbenzene	105	11.390	11.396	-0.006	97	535776	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.706	0.001	78	143073	50.0	51.3	
100 Bromobenzene	156	11.707	11.706	0.001	96	124883	50.0	44.2	
102 trans-1,4-Dichloro-2-buten	53	11.737	11.737	0.000	71	27028	50.0	28.3	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	86	44460	50.0	44.4	
103 N-Propylbenzene	120	11.810	11.810	0.000	99	145223	50.0	43.5	
104 2-Chlorotoluene	126	11.895	11.895	0.000	95	125075	50.0	43.4	
105 3-Chlorotoluene	126	11.962	11.962	0.000	96	132458	50.0	44.5	

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	11.992	11.992	0.000	93	453371	50.0	46.7	
107 4-Chlorotoluene	126	12.023	12.016	0.007	98	136286	50.0	43.7	
108 tert-Butylbenzene	119	12.309	12.308	0.001	94	332469	50.0	43.1	
110 1,2,4-Trimethylbenzene	105	12.364	12.363	0.001	98	447265	50.0	46.8	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.412	-0.006	98	119739	50.0	42.8	
112 sec-Butylbenzene	105	12.528	12.533	-0.005	95	503641	50.0	45.3	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	226886	50.0	44.2	
114 4-Isopropyltoluene	119	12.686	12.686	0.000	97	401064	50.0	44.8	
115 1,4-Dichlorobenzene	146	12.753	12.752	0.001	95	239670	50.0	45.9	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.777	0.000	95	106252	50.0	41.8	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.819	0.001	0	121544	50.0	44.2	
120 n-Butylbenzene	91	13.094	13.093	0.001	98	333736	50.0	43.6	
121 1,2-Dichlorobenzene	146	13.106	13.111	-0.005	95	203907	50.0	44.9	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.902	0.001	73	15546	50.0	39.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.042	0.001	0	307318	150.0	119.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.456	14.462	-0.006	0	178415	100.0	75.5	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	94	61670	50.0	38.0	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	96	34909	50.0	38.7	
128 Naphthalene	128	14.986	14.991	-0.005	98	141046	50.0	33.5	
129 1,2,3-Trichlorobenzene	180	15.211	15.210	0.001	94	46558	50.0	35.2	
131 2,4,5-Trichlorotoluene	159	15.989	15.989	0.000	0	12224	50.0	31.6	
130 2,3,6-Trichlorotoluene	159	16.093	16.086	0.007	96	12505	50.0	32.1	
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	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.6	
S 133 Xylenes, Total	106				0		100.0	95.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOA2ND_00138	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00001	Amount Added: 2.00	Units: uL	
voaWEE2nd Res_00004	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00009	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
VOAACR2ND_00002	Amount Added: 6.00	Units: uL	
VOA8260SURRE_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819014.D

Injection Date: 19-Aug-2015 16:27:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

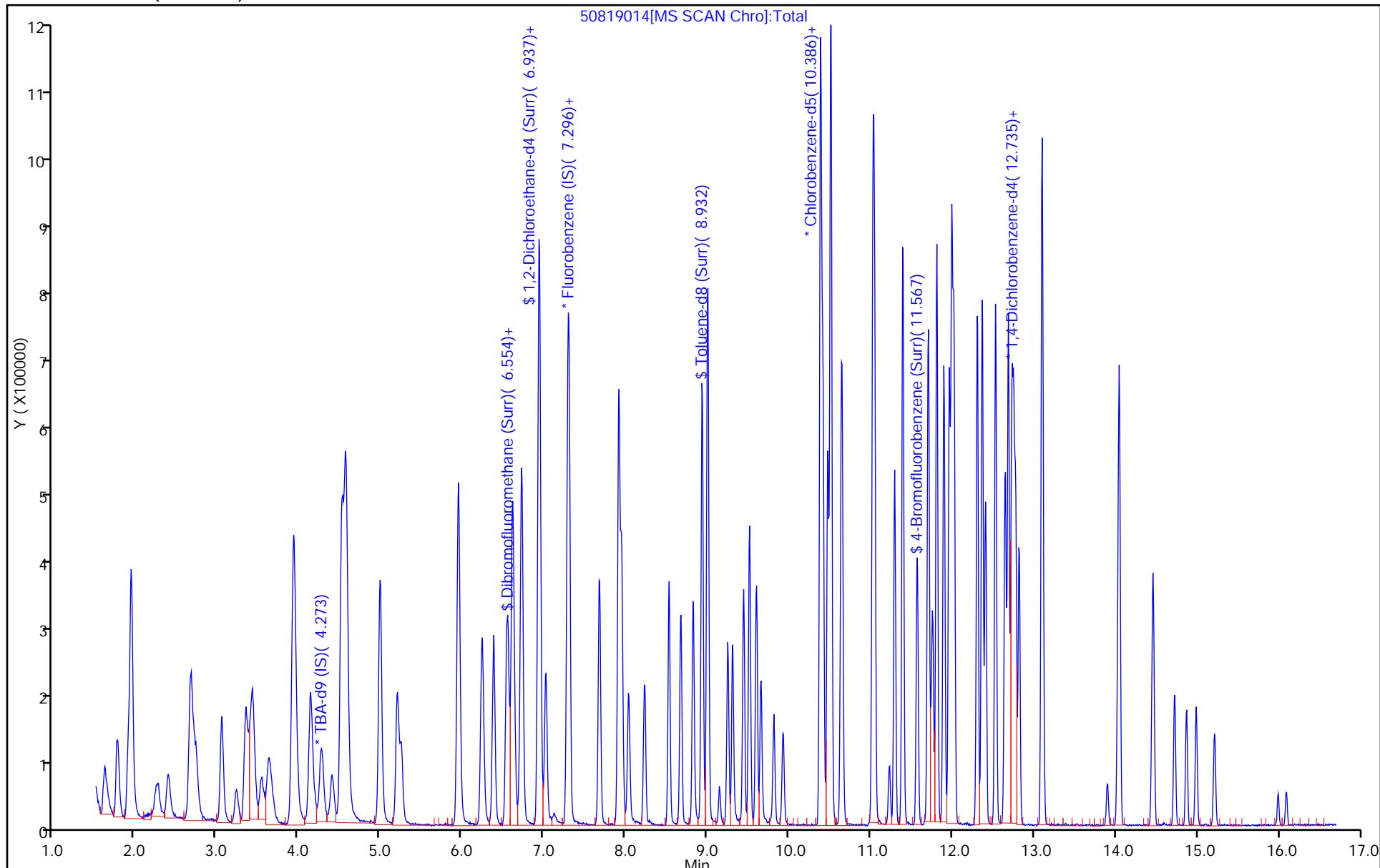
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
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 Matrix: Water Lab File ID: 50818009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 15:36  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	8.15		1.0	0.28
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75-00-3	Chloroethane	8.09		1.0	0.21
75-35-4	1,1-Dichloroethene	8.50		1.0	0.30
67-64-1	Acetone	22.3		5.0	2.5
75-15-0	Carbon disulfide	8.42		1.0	0.21
75-09-2	Methylene Chloride	9.44		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.13		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.32		1.0	0.18
75-34-3	1,1-Dichloroethane	9.41		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.38		1.0	0.24
74-97-5	Bromochloromethane	9.78		1.0	0.18
78-93-3	2-Butanone (MEK)	22.7		5.0	0.55
67-66-3	Chloroform	9.22		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.92		1.0	0.29
56-23-5	Carbon tetrachloride	8.20		1.0	0.14
71-43-2	Benzene	9.63		1.0	0.11
107-06-2	1,2-Dichloroethane	9.18		1.0	0.21
79-01-6	Trichloroethene	8.96		1.0	0.14
78-87-5	1,2-Dichloropropane	9.70		1.0	0.095
75-27-4	Bromodichloromethane	9.15		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.66		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.4		5.0	0.53
108-88-3	Toluene	9.85		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.27		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	9.25		1.0	0.15
591-78-6	2-Hexanone	20.0		5.0	0.16
124-48-1	Dibromochloromethane	9.24		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.89		1.0	0.18
108-90-7	Chlorobenzene	9.81		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	9.89		1.0	0.23
1330-20-7	Xylenes, Total	20.0		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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 180-151080/9  
 Matrix: Water Lab File ID: 50818009.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/18/2015 15:36  
 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.: 151080 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.05		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.7		1.0	0.20
107-13-1	Acrylonitrile	104		20	0.55
123-91-1	1,4-Dioxane	225		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818009.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 18-Aug-2015 15:36:30 ALS Bottle#: 8 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCSD  
 Misc. Info.: 180-0008205-009  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 18-Aug-2015 13:51:15 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: fergusond

Date: 18-Aug-2015 16:13:04

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	4.268	0.004	0	155829	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	442672	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	89	100340	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.724	0.004	94	142416	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.567	-0.007	93	98846	50.0	47.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.932	0.005	0	143916	50.0	48.3	
\$ 7 Toluene-d8 (Surr)	98	8.932	8.934	-0.002	94	411454	50.0	49.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.568	0.005	86	148021	50.0	48.3	
11 Dichlorodifluoromethane	85	1.620	1.621	-0.001	97	85697	50.0	28.7	
12 Chloromethane	50	1.772	1.773	-0.001	99	136854	50.0	40.7	
13 Vinyl chloride	62	1.906	1.907	-0.001	97	132487	50.0	39.1	
14 Butadiene	39	1.942	1.938	0.004	95	157653	50.0	43.4	
15 Bromomethane	94	2.240	2.242	-0.002	92	50527	50.0	30.7	
16 Chloroethane	64	2.386	2.394	-0.008	99	82552	50.0	40.5	
17 Dichlorofluoromethane	67	2.672	2.674	-0.002	97	197243	50.0	43.7	
18 Trichlorofluoromethane	101	2.697	2.716	-0.019	95	142927	50.0	38.8	
20 Ethyl ether	59	3.050	3.051	-0.001	94	123728	50.0	48.6	
21 Acrolein	56	3.232	3.234	-0.002	98	69325	150.0	141.9	
22 1,1-Dichloroethene	96	3.336	3.349	-0.013	97	106604	50.0	42.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.416	0.005	94	115314	50.0	43.6	
24 Acetone	43	3.439	3.446	-0.007	91	81594	100.0	111.3	
25 Iodomethane	142	3.542	3.550	-0.008	100	147455	50.0	42.6	
26 Carbon disulfide	76	3.634	3.629	0.005	100	233717	50.0	42.1	
28 3-Chloro-1-propene	76	3.920	3.927	-0.007	90	60682	50.0	43.8	
30 Methyl acetate	43	3.938	3.945	-0.007	99	576238	250.0	253.3	
31 Methylene Chloride	84	4.145	4.140	0.005	97	154685	50.0	47.2	
32 2-Methyl-2-propanol	59	4.406	4.402	0.004	91	88621	500.0	498.0	
33 Acrylonitrile	53	4.516	4.523	-0.007	99	573773	500.0	520.6	
34 trans-1,2-Dichloroethene	96	4.564	4.566	-0.002	97	121694	50.0	45.7	
35 Methyl tert-butyl ether	73	4.570	4.578	-0.008	96	306411	50.0	46.6	
36 Hexane	57	4.990	4.992	-0.002	95	179953	50.0	43.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.203	5.205	-0.002	97	239681	50.0	47.1	
38 Vinyl acetate	43	5.246	5.253	-0.007	98	197489	50.0	45.3	
44 2,2-Dichloropropane	77	5.945	5.947	-0.002	84	104257	50.0	47.9	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	84	132404	50.0	46.9	
46 2-Butanone (MEK)	43	5.957	5.965	-0.008	67	122032	100.0	113.4	
49 Chlorobromomethane	128	6.237	6.233	0.004	92	58269	50.0	48.9	
51 Tetrahydrofuran	42	6.243	6.251	-0.008	88	82672	100.0	93.5	
52 Chloroform	83	6.377	6.385	-0.008	94	216083	50.0	46.1	
53 1,1,1-Trichloroethane	97	6.541	6.537	0.004	96	156955	50.0	44.6	
54 Cyclohexane	56	6.614	6.616	-0.002	96	222610	50.0	42.2	
56 Carbon tetrachloride	117	6.712	6.713	-0.001	95	125594	50.0	41.0	
55 1,1-Dichloropropene	75	6.730	6.732	-0.002	92	170241	50.0	44.1	
57 Isobutyl alcohol	41	6.925	6.920	0.005	90	96412	1250.0	1306.6	
58 Benzene	78	6.943	6.944	-0.001	98	537234	50.0	48.2	
59 1,2-Dichloroethane	62	7.022	7.024	-0.002	97	175265	50.0	45.9	
62 n-Heptane	43	7.308	7.309	-0.001	92	156438	50.0	42.9	
64 Trichloroethene	130	7.673	7.681	-0.008	97	118081	50.0	44.8	
66 Methylcyclohexane	83	7.916	7.918	-0.002	94	183753	50.0	41.8	
67 1,2-Dichloropropane	63	7.947	7.948	-0.001	94	131788	50.0	48.5	
70 1,4-Dioxane	88	8.032	8.027	0.005	43	20998	1000.0	1124.5	
68 Dibromomethane	93	8.032	8.039	-0.007	97	67787	50.0	46.1	
71 Dichlorobromomethane	83	8.227	8.234	-0.007	97	135825	50.0	45.8	
73 2-Chloroethyl vinyl ether	63	8.531	8.532	-0.001	93	141925	100.0	97.0	
74 cis-1,3-Dichloropropene	75	8.677	8.672	0.005	92	165816	50.0	48.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.823	8.824	-0.001	98	242125	100.0	101.9	
76 Toluene	91	9.005	9.007	-0.002	98	531364	50.0	49.3	
77 trans-1,3-Dichloropropene	75	9.249	9.250	-0.001	97	134606	50.0	46.4	
78 Ethyl methacrylate	69	9.309	9.311	-0.002	92	131879	50.0	47.7	
79 1,1,2-Trichloroethane	97	9.443	9.445	-0.002	92	105923	50.0	50.6	
80 Tetrachloroethene	164	9.516	9.518	-0.002	96	94903	50.0	46.3	
81 1,3-Dichloropropane	76	9.595	9.603	-0.008	96	192828	50.0	50.4	
82 2-Hexanone	43	9.656	9.658	-0.002	98	152642	100.0	100.0	
84 Chlorodibromomethane	129	9.814	9.816	-0.002	91	78748	50.0	46.2	
85 Ethylene Dibromide	107	9.930	9.931	-0.001	97	96640	50.0	49.4	
86 3-Chlorobenzotrifluoride	180	10.386	10.388	-0.002	85	166687	50.0	47.2	
87 Chlorobenzene	112	10.417	10.418	-0.001	92	330399	50.0	49.1	
88 4-Chlorobenzotrifluoride	180	10.477	10.473	0.004	96	154260	50.0	46.3	
89 1,1,1,2-Tetrachloroethane	131	10.508	10.509	-0.001	91	104195	50.0	50.1	
90 Ethylbenzene	106	10.514	10.515	-0.001	99	183086	50.0	49.4	
91 m-Xylene & p-Xylene	106	10.648	10.643	0.005	0	223926	50.0	50.1	
92 o-Xylene	106	11.025	11.026	-0.001	97	214840	50.0	50.1	
93 Styrene	104	11.049	11.045	0.004	95	358789	50.0	51.2	
94 Bromoform	173	11.232	11.233	-0.001	95	40922	50.0	45.2	
96 2-Chlorobenzotrifluoride	180	11.293	11.294	-0.001	95	162339	50.0	48.7	
97 Isopropylbenzene	105	11.396	11.398	-0.002	97	523976	50.0	49.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.702	0.004	78	141360	50.0	53.4	
100 Bromobenzene	156	11.706	11.708	-0.002	95	127558	50.0	46.0	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.738	0.005	75	24497	50.0	26.1	
101 1,2,3-Trichloropropane	110	11.761	11.756	0.005	86	44820	50.0	45.6	
103 N-Propylbenzene	120	11.810	11.811	-0.001	99	144743	50.0	44.2	
104 2-Chlorotoluene	126	11.901	11.896	0.005	96	126948	50.0	44.9	
105 3-Chlorotoluene	126	11.962	11.963	-0.001	96	129886	50.0	44.4	

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	11.992	11.994	-0.002	93	451156	50.0	47.4	
107 4-Chlorotoluene	126	12.023	12.024	-0.001	98	140375	50.0	45.8	
108 tert-Butylbenzene	119	12.309	12.310	-0.001	94	329633	50.0	43.5	
110 1,2,4-Trimethylbenzene	105	12.363	12.365	-0.002	99	448076	50.0	47.8	
111 1,2-dichloro-4-(trifluorom	214	12.406	12.407	-0.001	98	120004	50.0	43.7	
112 sec-Butylbenzene	105	12.528	12.529	-0.001	95	491641	50.0	45.0	
113 1,3-Dichlorobenzene	146	12.649	12.645	0.004	97	233780	50.0	46.4	
114 4-Isopropyltoluene	119	12.686	12.687	-0.001	97	403121	50.0	45.8	
115 1,4-Dichlorobenzene	146	12.753	12.754	-0.001	93	243427	50.0	47.5	
116 2,4-Dichloro-1-(trifluorom	214	12.777	12.778	-0.001	95	105144	50.0	42.1	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.815	0.005	0	127239	50.0	47.1	
120 n-Butylbenzene	91	13.093	13.095	-0.002	99	338881	50.0	45.1	
121 1,2-Dichlorobenzene	146	13.106	13.107	-0.001	95	216088	50.0	48.4	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.898	-0.002	71	17352	50.0	45.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.044	-0.002	0	340226	150.0	134.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.458	0.004	0	209734	100.0	90.3	
126 1,2,4-Trichlorobenzene	180	14.724	14.725	-0.001	94	73122	50.0	45.9	
127 Hexachlorobutadiene	225	14.864	14.871	-0.007	95	38876	50.0	43.9	
128 Naphthalene	128	14.985	14.987	-0.002	98	171896	50.0	41.6	
129 1,2,3-Trichlorobenzene	180	15.210	15.212	-0.002	92	54660	50.0	42.1	
131 2,4,5-Trichlorotoluene	159	15.989	15.991	-0.002	0	15647	50.0	40.4	
130 2,3,6-Trichlorotoluene	159	16.086	16.094	-0.008	95	15335	50.0	39.4	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	100.1	
S 134 1,2-Dichloroethene, Total	96				0		100.0	92.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.7	

**QC Flag Legend**

Processing Flags

ND - Not Detected or Marked ND

**Reagents:**

VOAACR2ND_00002	Amount Added: 6.00	Units: uL	
voaWKetmix2nd_00001	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00009	Amount Added: 2.00	Units: uL	
voaWEE2nd Res_00004	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00138	Amount Added: 2.00	Units: uL	
voaW2-cle1stR_00001	Amount Added: 2.00	Units: uL	
VOA8260SURRE_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150818-8205.b\50818009.D

Injection Date: 18-Aug-2015 15:36:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: LCSD

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

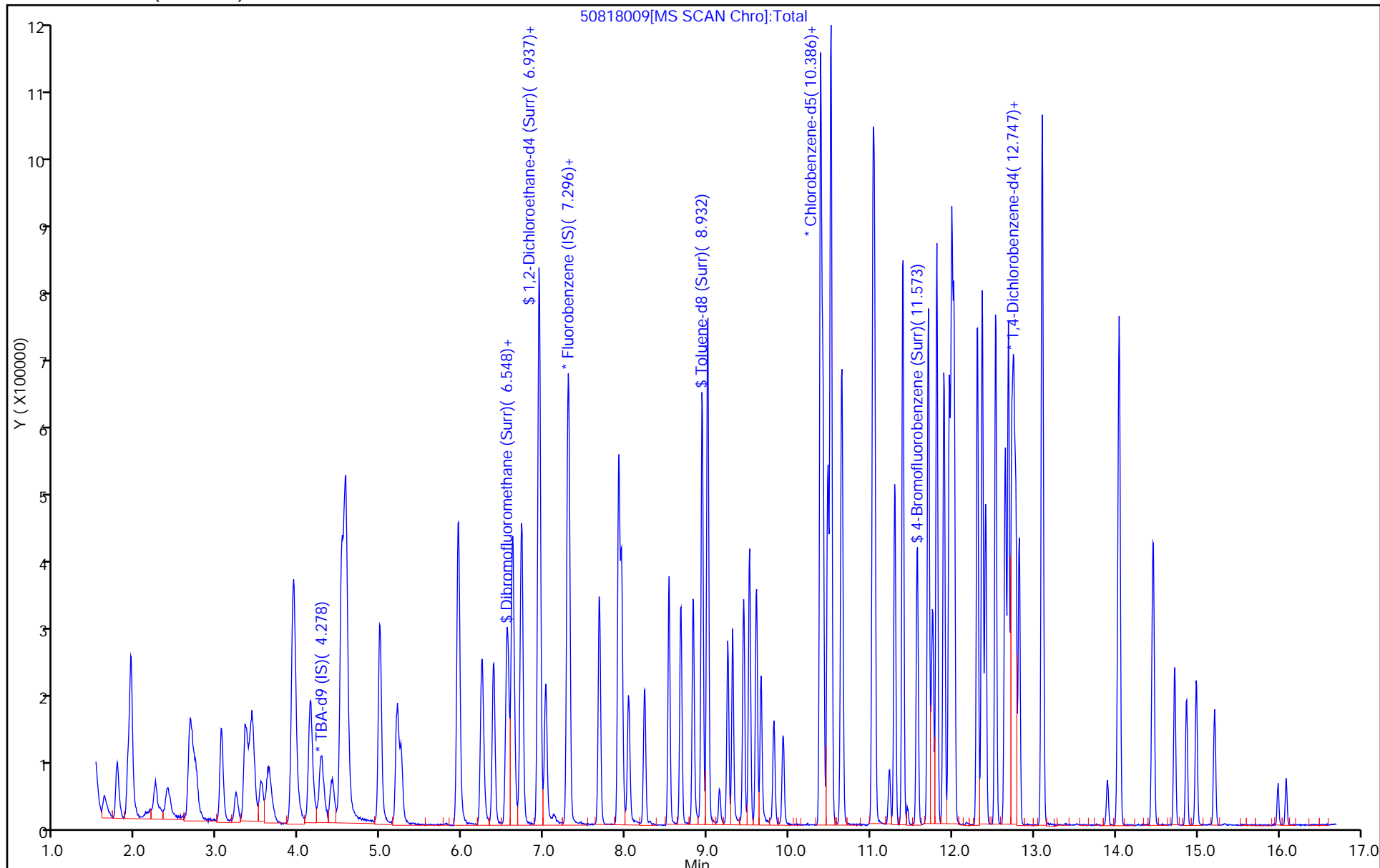
Dil. Factor: 1.0000

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-46875-12 MS  
 Matrix: Water Lab File ID: 50819011.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 15:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.8		1.0	0.28
75-01-4	Vinyl chloride	11.7		1.0	0.23
74-83-9	Bromomethane	9.00		1.0	0.31
75-00-3	Chloroethane	10.9		1.0	0.21
75-35-4	1,1-Dichloroethene	10.8		1.0	0.30
67-64-1	Acetone	25.2		5.0	2.5
75-15-0	Carbon disulfide	9.86		1.0	0.21
75-09-2	Methylene Chloride	9.44		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.7		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.70		1.0	0.18
75-34-3	1,1-Dichloroethane	10.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	22.9		1.0	0.24
74-97-5	Bromochloromethane	9.58		1.0	0.18
78-93-3	2-Butanone (MEK)	24.3		5.0	0.55
67-66-3	Chloroform	10.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.8		1.0	0.29
56-23-5	Carbon tetrachloride	9.32		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	9.67		1.0	0.21
79-01-6	Trichloroethene	24.0	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	10.5		1.0	0.095
75-27-4	Bromodichloromethane	9.47		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.05		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.4		5.0	0.53
108-88-3	Toluene	10.8		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.25		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.20
127-18-4	Tetrachloroethene	43.4	4	1.0	0.15
591-78-6	2-Hexanone	22.3		5.0	0.16
124-48-1	Dibromochloromethane	9.42		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.1		1.0	0.18
108-90-7	Chlorobenzene	10.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.99		1.0	0.28
100-41-4	Ethylbenzene	10.4		1.0	0.23
1330-20-7	Xylenes, Total	20.9		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-46875-12 MS  
 Matrix: Water Lab File ID: 50819011.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 15:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.44		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.7		1.0	0.20
107-13-1	Acrylonitrile	110		20	0.55
123-91-1	1,4-Dioxane	198	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819011.D  
 Lims ID: 180-46875-C-12 MS  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MS  
 Inject. Date: 19-Aug-2015 15:15:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-C-12 MS  
 Misc. Info.: 180-0008221-011  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 19-Aug-2015 13:26:58 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK007

First Level Reviewer: fergusond

Date: 19-Aug-2015 15:44:02

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	4.272	0.002	0	155783	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.290	-0.004	98	460782	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.386	0.002	89	101345	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.724	12.728	-0.004	94	135052	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.562	6.559	0.003	93	98319	50.0	45.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	138557	50.0	44.7	
\$ 7 Toluene-d8 (Surr)	98	8.934	8.932	0.002	94	410175	50.0	48.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.566	0.002	86	140434	50.0	45.4	
11 Dichlorodifluoromethane	85	1.622	1.614	0.008	99	207368	50.0	66.8	
12 Chloromethane	50	1.768	1.766	0.002	99	223136	50.0	63.8	
13 Vinyl chloride	62	1.914	1.912	0.002	98	206403	50.0	58.5	
14 Butadiene	39	1.944	1.942	0.002	96	247473	50.0	65.4	
15 Bromomethane	94	2.261	2.240	0.021	90	77185	50.0	45.0	
16 Chloroethane	64	2.401	2.386	0.014	100	115899	50.0	54.6	
17 Dichlorofluoromethane	67	2.668	2.672	-0.004	97	267398	50.0	56.9	
18 Trichlorofluoromethane	101	2.711	2.709	0.002	97	201628	50.0	52.6	
20 Ethyl ether	59	3.051	3.043	0.008	95	138377	50.0	52.2	
21 Acrolein	56	3.228	3.226	0.002	99	78284	150.0	153.9	
22 1,1-Dichloroethene	96	3.343	3.347	-0.004	95	141017	50.0	54.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.420	0.003	94	141387	50.0	51.3	
24 Acetone	43	3.441	3.439	0.002	99	96034	100.0	125.8	
25 Iodomethane	142	3.544	3.536	0.008	98	171815	50.0	47.6	
26 Carbon disulfide	76	3.629	3.627	0.002	100	284811	50.0	49.3	
28 3-Chloro-1-propene	76	3.921	3.919	0.002	90	73994	50.0	51.3	
30 Methyl acetate	43	3.940	3.938	0.002	98	647692	250.0	273.6	
31 Methylene Chloride	84	4.134	4.132	0.002	98	161010	50.0	47.2	
32 2-Methyl-2-propanol	59	4.402	4.412	-0.010	88	90582	500.0	509.2	
33 Acrylonitrile	53	4.518	4.522	-0.004	98	628932	500.0	548.2	
34 trans-1,2-Dichloroethene	96	4.566	4.564	0.002	96	148079	50.0	53.4	
35 Methyl tert-butyl ether	73	4.584	4.576	0.008	95	332000	50.0	48.5	
36 Hexane	57	4.986	4.990	-0.004	95	221587	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.205	5.203	0.002	96	281596	50.0	53.1	
38 Vinyl acetate	43	5.248	5.245	0.003	98	188129	50.0	41.5	
44 2,2-Dichloropropane	77	5.953	5.945	0.008	42	117657	50.0	51.9	
45 cis-1,2-Dichloroethene	96	5.953	5.951	0.002	82	336185	50.0	114.4	
46 2-Butanone (MEK)	43	5.959	5.963	-0.004	99	136105	100.0	121.5	
49 Chlorobromomethane	128	6.239	6.231	0.008	93	59404	50.0	47.9	
51 Tetrahydrofuran	42	6.245	6.249	-0.004	90	94573	100.0	102.8	
52 Chloroform	83	6.379	6.383	-0.004	95	247189	50.0	50.7	
53 1,1,1-Trichloroethane	97	6.543	6.541	0.002	96	216933	50.0	59.2	
54 Cyclohexane	56	6.616	6.614	0.002	94	283960	50.0	51.8	
56 Carbon tetrachloride	117	6.714	6.712	0.002	96	148534	50.0	46.6	
55 1,1-Dichloropropene	75	6.732	6.724	0.008	91	192995	50.0	48.0	
57 Isobutyl alcohol	41	6.921	6.925	-0.003	79	95461	1250.0	1242.8	
58 Benzene	78	6.945	6.943	0.002	98	603185	50.0	51.9	
59 1,2-Dichloroethane	62	7.018	7.022	-0.004	96	192139	50.0	48.4	
62 n-Heptane	43	7.310	7.308	0.002	94	201952	50.0	53.2	
64 Trichloroethene	130	7.675	7.673	0.002	97	328948	50.0	120.0	
66 Methylcyclohexane	83	7.912	7.916	-0.004	96	232143	50.0	50.7	
67 1,2-Dichloropropane	63	7.949	7.947	0.002	94	149234	50.0	52.7	
70 1,4-Dioxane	88	8.034	8.026	0.008	36	19244	1000.0	990.1	
68 Dibromomethane	93	8.034	8.032	0.002	96	72936	50.0	47.7	
71 Dichlorobromomethane	83	8.235	8.226	0.009	98	146282	50.0	47.3	
74 cis-1,3-Dichloropropene	75	8.673	8.670	0.003	92	161668	50.0	45.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.825	8.829	-0.004	98	232693	100.0	97.0	
76 Toluene	91	9.001	9.005	-0.004	98	587856	50.0	54.0	
77 trans-1,3-Dichloropropene	75	9.250	9.248	0.002	98	135664	50.0	46.3	
78 Ethyl methacrylate	69	9.311	9.309	0.002	93	130801	50.0	46.8	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	92	108378	50.0	51.3	
80 Tetrachloroethene	164	9.518	9.516	0.002	94	449657	50.0	217.0	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	96	201803	50.0	52.2	
82 2-Hexanone	43	9.652	9.656	-0.004	98	171705	100.0	111.4	
84 Chlorodibromomethane	129	9.816	9.820	-0.004	92	81091	50.0	47.1	
85 Ethylene Dibromide	107	9.926	9.930	-0.004	99	99910	50.0	50.6	
86 3-Chlorobenzotrifluoride	180	10.388	10.386	0.002	91	170537	50.0	47.8	
87 Chlorobenzene	112	10.412	10.416	-0.004	92	344537	50.0	50.7	
88 4-Chlorobenzotrifluoride	180	10.473	10.477	-0.004	96	159594	50.0	47.5	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.508	0.002	90	104878	50.0	49.9	
90 Ethylbenzene	106	10.516	10.514	0.002	99	194394	50.0	52.0	
91 m-Xylene & p-Xylene	106	10.644	10.648	-0.004	0	238677	50.0	52.9	
92 o-Xylene	106	11.027	11.025	0.002	97	223223	50.0	51.5	
93 Styrene	104	11.045	11.049	-0.004	95	376681	50.0	53.2	
94 Bromoform	173	11.228	11.226	0.002	95	43111	50.0	47.2	
96 2-Chlorobenzotrifluoride	180	11.295	11.299	-0.004	94	162700	50.0	48.4	
97 Isopropylbenzene	105	11.392	11.396	-0.004	97	566228	50.0	53.3	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	76	142933	50.0	53.5	
100 Bromobenzene	156	11.708	11.706	0.002	96	124220	50.0	47.2	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.737	0.002	80	26559	50.0	29.9	
101 1,2,3-Trichloropropane	110	11.757	11.761	-0.004	86	46081	50.0	49.5	
103 N-Propylbenzene	120	11.812	11.810	0.002	99	154618	50.0	49.8	
104 2-Chlorotoluene	126	11.897	11.895	0.002	95	131584	50.0	49.1	
105 3-Chlorotoluene	126	11.964	11.962	0.002	96	125280	50.0	45.2	
106 1,3,5-Trimethylbenzene	105	11.994	11.992	0.002	93	468757	50.0	51.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.018	12.016	0.002	99	145417	50.0	50.1	
108 tert-Butylbenzene	119	12.304	12.308	-0.004	94	345917	50.0	48.1	
110 1,2,4-Trimethylbenzene	105	12.365	12.363	0.002	99	453257	50.0	51.0	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.412	-0.004	98	119980	50.0	46.1	
112 sec-Butylbenzene	105	12.529	12.533	-0.004	95	517401	50.0	49.9	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	97	231379	50.0	48.4	
114 4-Isopropyltoluene	119	12.688	12.686	0.002	97	423130	50.0	50.7	
115 1,4-Dichlorobenzene	146	12.748	12.752	-0.004	94	239725	50.0	49.3	
116 2,4-Dichloro-1-(trifluorom	214	12.779	12.777	0.002	95	105434	50.0	44.6	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.819	0.002	0	115564	50.0	45.2	
120 n-Butylbenzene	91	13.095	13.093	0.002	99	349529	50.0	49.0	
121 1,2-Dichlorobenzene	146	13.107	13.111	-0.004	94	202814	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.902	0.002	76	15369	50.0	42.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.042	0.002	0	291732	150.0	121.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.462	-0.004	0	171563	100.0	77.9	
126 1,2,4-Trichlorobenzene	180	14.726	14.724	0.002	93	60376	50.0	39.9	
127 Hexachlorobutadiene	225	14.866	14.870	-0.004	96	37250	50.0	44.4	
128 Naphthalene	128	14.987	14.991	-0.004	98	138332	50.0	35.3	
129 1,2,3-Trichlorobenzene	180	15.212	15.210	0.002	95	44772	50.0	36.4	
131 2,4,5-Trichlorotoluene	159	15.985	15.989	-0.004	0	11311	50.0	31.4	
130 2,3,6-Trichlorotoluene	159	16.088	16.086	0.002	92	10780	50.0	29.8	
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	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	167.7	
S 133 Xylenes, Total	106				0		100.0	104.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	91.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOACR2ND_00002	Amount Added: 6.00	Units: uL	
voaWVA2nd Res_00009	Amount Added: 2.00	Units: uL	
voaWEE2nd Res_00004	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00001	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00138	Amount Added: 2.00	Units: uL	
VOA8260SURR_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819011.D

Injection Date: 19-Aug-2015 15:15:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-C-12 MS

Worklist Smp#: 11

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

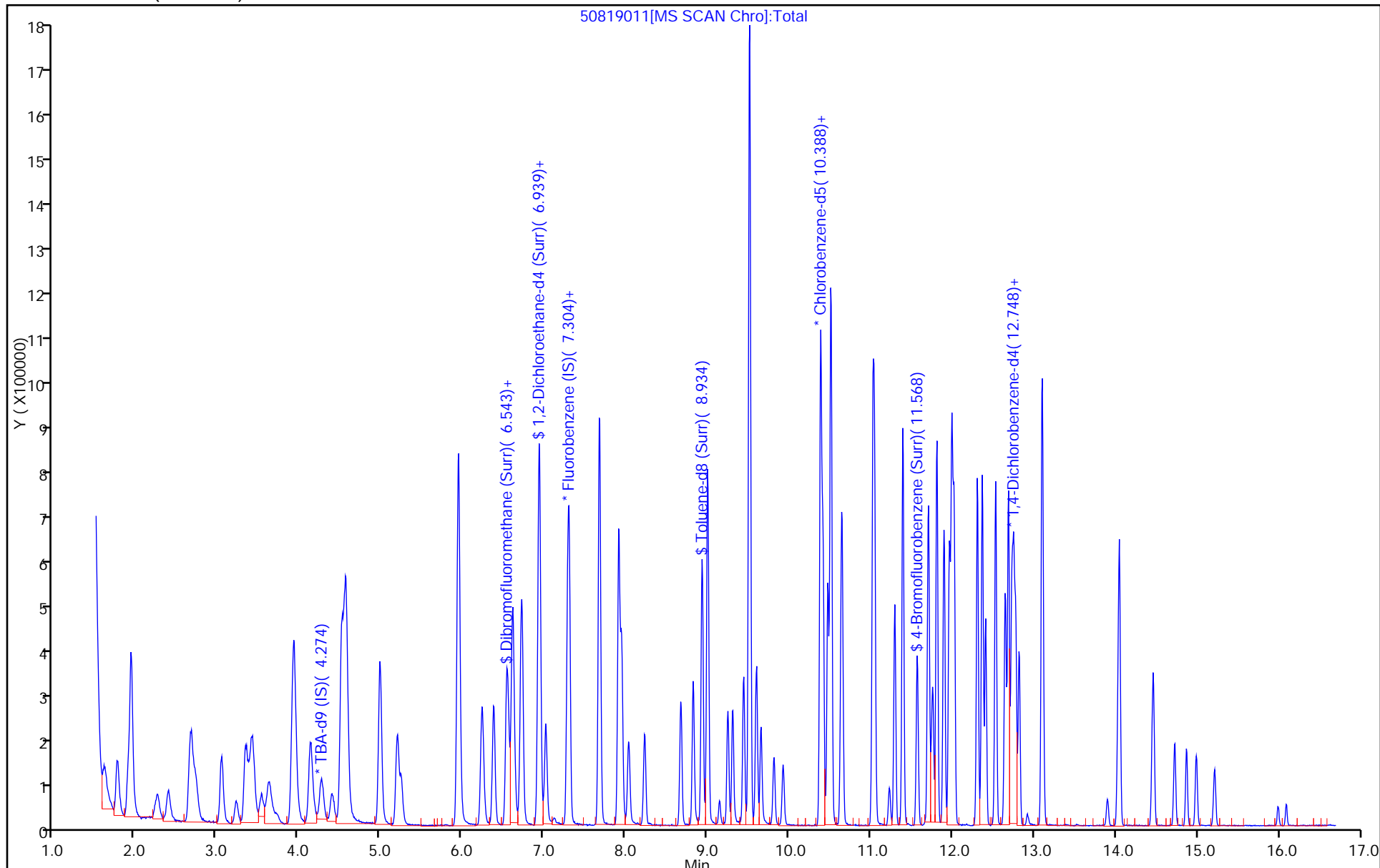
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-46875-12 MSD  
 Matrix: Water Lab File ID: 50819012.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 15:39  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.6		1.0	0.28
75-01-4	Vinyl chloride	11.4		1.0	0.23
74-83-9	Bromomethane	9.05		1.0	0.31
75-00-3	Chloroethane	10.9		1.0	0.21
75-35-4	1,1-Dichloroethene	10.4		1.0	0.30
67-64-1	Acetone	24.1		5.0	2.5
75-15-0	Carbon disulfide	9.93		1.0	0.21
75-09-2	Methylene Chloride	9.97		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.4		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.5		1.0	0.18
75-34-3	1,1-Dichloroethane	10.9		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	23.7		1.0	0.24
74-97-5	Bromochloromethane	10.4		1.0	0.18
78-93-3	2-Butanone (MEK)	25.6		5.0	0.55
67-66-3	Chloroform	10.2		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.8		1.0	0.29
56-23-5	Carbon tetrachloride	9.07		1.0	0.14
71-43-2	Benzene	10.3		1.0	0.11
107-06-2	1,2-Dichloroethane	10.0		1.0	0.21
79-01-6	Trichloroethene	24.2	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	9.77		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.16		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.7		5.0	0.53
108-88-3	Toluene	10.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.35		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	41.8	4	1.0	0.15
591-78-6	2-Hexanone	21.6		5.0	0.16
124-48-1	Dibromochloromethane	9.54		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	10.2		1.0	0.28
100-41-4	Ethylbenzene	9.91		1.0	0.23
1330-20-7	Xylenes, Total	20.1		3.0	0.49
100-42-5	Styrene	10.4		1.0	0.097



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-46875-12 MSD  
 Matrix: Water Lab File ID: 50819012.D  
 Analysis Method: 8260C Date Collected: 08/14/2015 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/19/2015 15:39  
 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.: 151188 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.25		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.7		1.0	0.20
107-13-1	Acrylonitrile	113		20	0.55
123-91-1	1,4-Dioxane	201		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819012.D  
 Lims ID: 180-46875-D-12 MSD  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MSD  
 Inject. Date: 19-Aug-2015 15:39:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-46875-D-12 MSD  
 Misc. Info.: 180-0008221-012  
 Operator ID: 001562 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 20-Aug-2015 07:52:28 Calib Date: 17-Jun-2015 18:04:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150617-7443.b\50617017.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: fergusond

Date: 20-Aug-2015 07:52:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.272	-0.001	0	143146	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.288	7.290	-0.002	98	448081	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.386	-0.001	89	100320	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.728	-0.001	94	132932	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.558	6.559	-0.001	93	100007	50.0	47.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	143436	50.0	47.6	
\$ 7 Toluene-d8 (Surr)	98	8.937	8.932	0.005	94	410353	50.0	49.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.566	0.005	85	141358	50.0	46.2	
11 Dichlorodifluoromethane	85	1.619	1.614	0.005	99	192020	50.0	63.6	
12 Chloromethane	50	1.777	1.766	0.011	99	213920	50.0	62.9	
13 Vinyl chloride	62	1.911	1.912	-0.001	98	194965	50.0	56.8	
14 Butadiene	39	1.947	1.942	0.005	94	236000	50.0	64.2	
15 Bromomethane	94	2.257	2.240	0.017	91	75528	50.0	45.3	
16 Chloroethane	64	2.397	2.386	0.011	99	112196	50.0	54.3	
17 Dichlorofluoromethane	67	2.677	2.672	0.005	97	264611	50.0	57.9	
18 Trichlorofluoromethane	101	2.720	2.709	0.011	97	193382	50.0	51.8	
20 Ethyl ether	59	3.048	3.043	0.005	94	142578	50.0	55.3	
21 Acrolein	56	3.231	3.226	0.005	99	79761	150.0	161.3	
22 1,1-Dichloroethene	96	3.346	3.347	-0.001	95	132358	50.0	52.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.419	3.420	-0.001	93	133289	50.0	49.8	
24 Acetone	43	3.444	3.439	0.005	100	89385	100.0	120.4	
25 Iodomethane	142	3.541	3.536	0.005	99	171704	50.0	49.0	
26 Carbon disulfide	76	3.632	3.627	0.005	99	278769	50.0	49.6	
28 3-Chloro-1-propene	76	3.924	3.919	0.005	89	71210	50.0	50.7	
30 Methyl acetate	43	3.943	3.938	0.005	99	660280	250.0	286.8	
31 Methylene Chloride	84	4.137	4.132	0.005	98	163166	50.0	49.8	
32 2-Methyl-2-propanol	59	4.405	4.412	-0.007	88	87299	500.0	534.1	
33 Acrylonitrile	53	4.527	4.522	0.005	99	628996	500.0	563.8	
34 trans-1,2-Dichloroethene	96	4.575	4.564	0.011	96	140306	50.0	52.0	
35 Methyl tert-butyl ether	73	4.581	4.576	0.005	96	347948	50.0	52.3	
36 Hexane	57	4.995	4.990	0.005	94	213029	50.0	51.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.203	-0.001	96	279827	50.0	54.3	
38 Vinyl acetate	43	5.251	5.245	0.005	98	204939	50.0	46.4	
44 2,2-Dichloropropane	77	5.950	5.945	0.005	41	115766	50.0	52.6	
45 cis-1,2-Dichloroethene	96	5.950	5.951	-0.001	83	338450	50.0	118.4	
46 2-Butanone (MEK)	43	5.956	5.963	-0.007	40	139548	100.0	128.1	
49 Chlorobromomethane	128	6.242	6.231	0.011	94	62938	50.0	52.2	
51 Tetrahydrofuran	42	6.254	6.249	0.005	89	92617	100.0	103.5	
52 Chloroform	83	6.388	6.383	0.005	94	241731	50.0	51.0	
53 1,1,1-Trichloroethane	97	6.546	6.541	0.005	96	209833	50.0	58.9	
54 Cyclohexane	56	6.613	6.614	-0.001	94	268018	50.0	50.2	
56 Carbon tetrachloride	117	6.717	6.712	0.005	97	140574	50.0	45.3	
55 1,1-Dichloropropene	75	6.729	6.724	0.005	93	185170	50.0	47.3	
57 Isobutyl alcohol	41	6.923	6.925	-0.001	75	85886	1250.0	1149.9	
58 Benzene	78	6.942	6.943	-0.001	98	583057	50.0	51.6	
59 1,2-Dichloroethane	62	7.021	7.022	-0.001	96	193862	50.0	50.2	
62 n-Heptane	43	7.307	7.308	-0.001	94	182428	50.0	49.4	
64 Trichloroethene	130	7.678	7.673	0.005	97	322471	50.0	120.9	
66 Methylcyclohexane	83	7.915	7.916	-0.001	95	217237	50.0	48.8	
67 1,2-Dichloropropane	63	7.952	7.947	0.005	95	143326	50.0	52.1	
70 1,4-Dioxane	88	8.031	8.026	0.005	35	18956	1000.0	1002.9	M
68 Dibromomethane	93	8.031	8.032	-0.001	95	73591	50.0	49.4	
71 Dichlorobromomethane	83	8.231	8.226	0.005	98	146815	50.0	48.9	
74 cis-1,3-Dichloropropene	75	8.675	8.670	0.005	92	159138	50.0	45.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.828	8.829	-0.001	99	234417	100.0	98.7	
76 Toluene	91	9.004	9.005	-0.001	98	568273	50.0	52.7	
77 trans-1,3-Dichloropropene	75	9.247	9.248	-0.001	98	135715	50.0	46.8	
78 Ethyl methacrylate	69	9.308	9.309	-0.001	91	136328	50.0	49.3	
79 1,1,2-Trichloroethane	97	9.442	9.443	-0.001	94	106015	50.0	50.7	
80 Tetrachloroethene	164	9.515	9.516	-0.001	96	428988	50.0	209.2	
81 1,3-Dichloropropane	76	9.600	9.601	-0.001	96	198766	50.0	52.0	
82 2-Hexanone	43	9.655	9.656	-0.001	98	164985	100.0	108.1	
84 Chlorodibromomethane	129	9.813	9.820	-0.007	91	81266	50.0	47.7	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	100	100586	50.0	51.5	
86 3-Chlorobenzotrifluoride	180	10.385	10.386	-0.001	86	167964	50.0	47.6	
87 Chlorobenzene	112	10.415	10.416	-0.001	92	338909	50.0	50.3	
88 4-Chlorobenzotrifluoride	180	10.476	10.477	-0.001	96	157110	50.0	47.2	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.508	-0.001	92	106354	50.0	51.2	
90 Ethylbenzene	106	10.513	10.514	-0.001	99	183478	50.0	49.5	
91 m-Xylene & p-Xylene	106	10.647	10.648	-0.001	0	225829	50.0	50.5	
92 o-Xylene	106	11.030	11.025	0.005	97	213417	50.0	49.7	
93 Styrene	104	11.048	11.049	-0.001	95	364470	50.0	52.0	
94 Bromoform	173	11.224	11.226	-0.002	95	41812	50.0	46.2	
96 2-Chlorobenzotrifluoride	180	11.297	11.299	-0.002	97	160610	50.0	48.2	
97 Isopropylbenzene	105	11.395	11.396	-0.001	97	530952	50.0	50.5	
99 1,1,2,2-Tetrachloroethane	83	11.705	11.706	-0.001	78	141527	50.0	53.5	
100 Bromobenzene	156	11.705	11.706	-0.001	95	121129	50.0	46.8	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.737	0.005	73	26318	50.0	30.1	
101 1,2,3-Trichloropropane	110	11.760	11.761	-0.001	85	46227	50.0	50.4	
103 N-Propylbenzene	120	11.808	11.810	-0.002	99	144262	50.0	47.2	
104 2-Chlorotoluene	126	11.900	11.895	0.005	95	123022	50.0	46.6	
105 3-Chlorotoluene	126	11.961	11.962	-0.001	96	131656	50.0	48.2	
106 1,3,5-Trimethylbenzene	105	11.991	11.992	-0.001	95	441166	50.0	49.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.021	12.016	0.005	99	137977	50.0	48.3	
108 tert-Butylbenzene	119	12.307	12.308	-0.001	94	328818	50.0	46.5	
110 1,2,4-Trimethylbenzene	105	12.368	12.363	0.005	98	430651	50.0	49.2	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	98	115985	50.0	45.2	
112 sec-Butylbenzene	105	12.532	12.533	-0.001	95	495108	50.0	48.5	
113 1,3-Dichlorobenzene	146	12.648	12.649	-0.001	97	222742	50.0	47.4	
114 4-Isopropyltoluene	119	12.685	12.686	-0.002	97	393820	50.0	48.0	
115 1,4-Dichlorobenzene	146	12.751	12.752	-0.001	93	233645	50.0	48.8	
116 2,4-Dichloro-1-(trifluorom	214	12.776	12.777	-0.001	96	109423	50.0	47.0	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.819	-0.001	0	113723	50.0	45.1	
120 n-Butylbenzene	91	13.098	13.093	0.005	99	324487	50.0	46.2	
121 1,2-Dichlorobenzene	146	13.104	13.111	-0.007	95	202740	50.0	48.7	
122 1,2-Dibromo-3-Chloropropan	75	13.895	13.902	-0.007	73	15308	50.0	42.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.041	14.042	-0.001	0	301048	150.0	127.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.455	14.462	-0.007	0	178151	100.0	82.2	
126 1,2,4-Trichlorobenzene	180	14.722	14.724	-0.002	95	62665	50.0	42.1	
127 Hexachlorobutadiene	225	14.868	14.870	-0.002	97	33558	50.0	40.6	
128 Naphthalene	128	14.990	14.991	-0.001	97	147459	50.0	38.3	
129 1,2,3-Trichlorobenzene	180	15.215	15.210	0.005	95	46747	50.0	38.6	
131 2,4,5-Trichlorotoluene	159	15.994	15.989	0.005	0	12471	50.0	34.9	
130 2,3,6-Trichlorotoluene	159	16.085	16.086	-0.001	94	12215	50.0	34.0	
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	170.4	
S 133 Xylenes, Total	106				0		100.0	100.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOA2ND_00138	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00001	Amount Added: 2.00	Units: uL	
voaWEE2nd Res_00004	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00009	Amount Added: 2.00	Units: uL	
VOAACR2ND_00002	Amount Added: 6.00	Units: uL	
VOA8260SURRE_00040	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260INT_00040	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819012.D

Injection Date: 19-Aug-2015 15:39:30

Instrument ID: CHHP5

Operator ID: 001562

Lims ID: 180-46875-D-12 MSD

Worklist Smp#: 12

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 5.000 mL

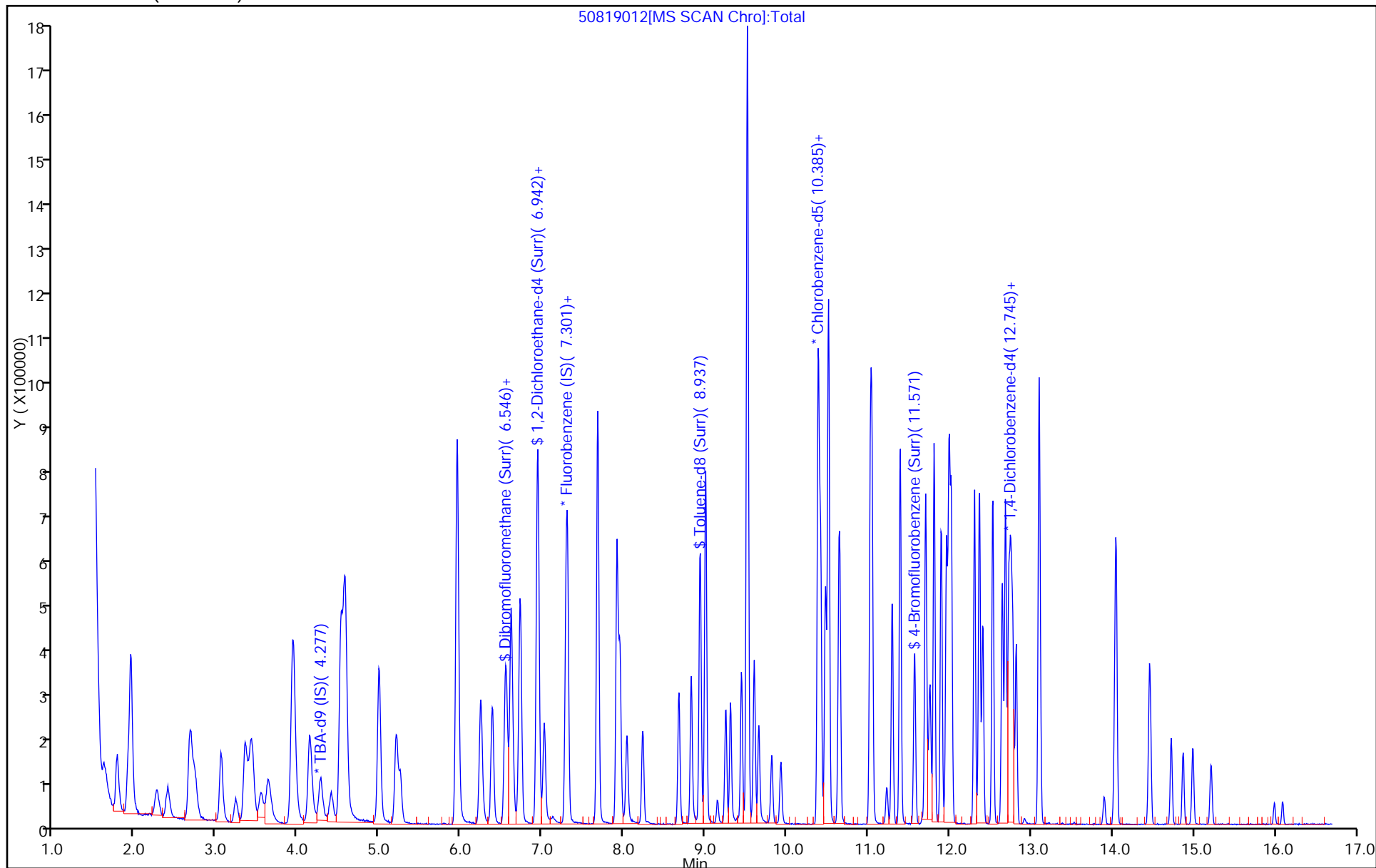
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



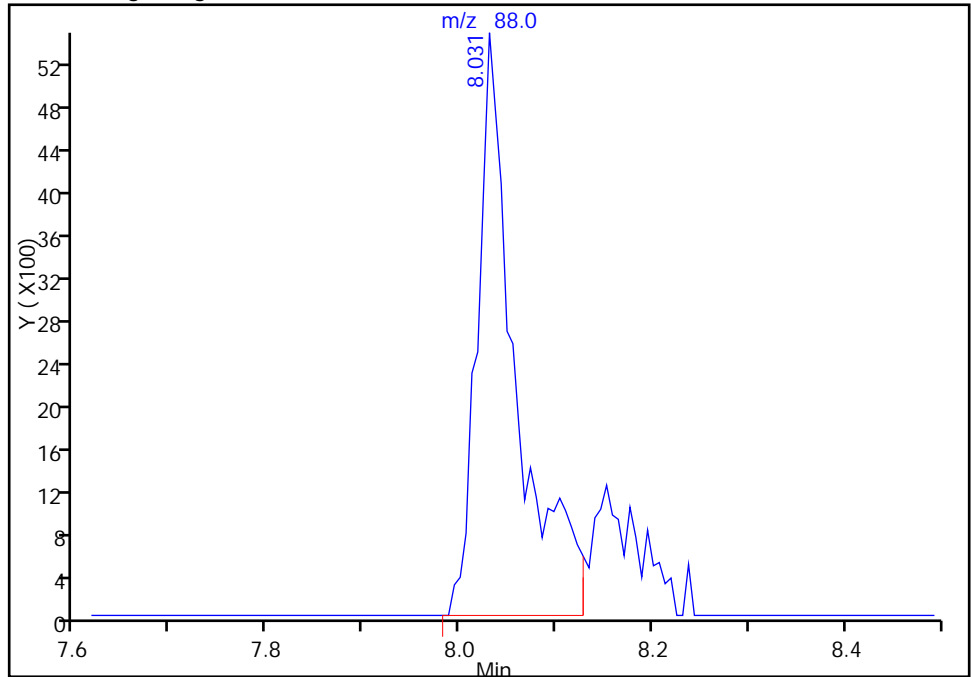
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20150819-8221.b\50819012.D  
Injection Date: 19-Aug-2015 15:39:30 Instrument ID: CHHP5  
Lims ID: 180-46875-D-12 MSD  
Client ID: HD-COD-SW-17-0/1-0  
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 12  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

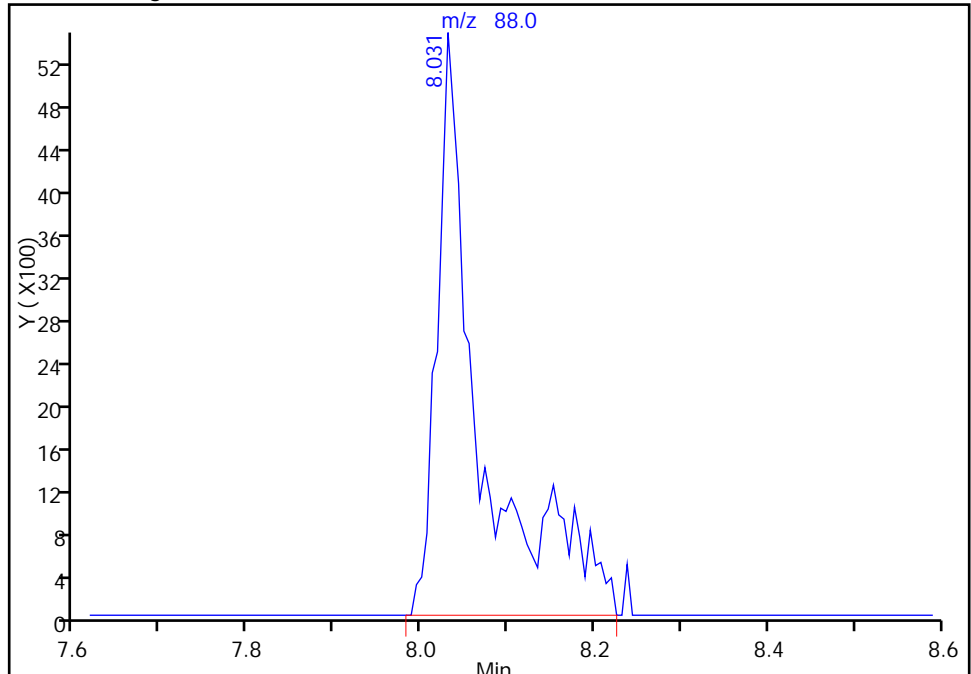
RT: 8.03  
Area: 15153  
Amount: 801.7128  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 18956  
Amount: 1002.9214  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 20-Aug-2015 07:52:28  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 06/17/2015 11:58Analysis Batch Number: 145277 End Date: 06/17/2015 18:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-145277/16		06/17/2015 11:58	1	50617016.D	DB-624 0.18 (mm)
IC 180-145277/6		06/17/2015 14:07	1	50617006.D	DB-624 0.18 (mm)
ICIS 180-145277/7		06/17/2015 14:30	1	50617007.D	DB-624 0.18 (mm)
IC 180-145277/8		06/17/2015 14:54	1	50617008.D	DB-624 0.18 (mm)
IC 180-145277/9		06/17/2015 15:18	1	50617009.D	DB-624 0.18 (mm)
IC 180-145277/10		06/17/2015 15:42	1	50617010.D	DB-624 0.18 (mm)
IC 180-145277/11		06/17/2015 16:06	1	50617011.D	DB-624 0.18 (mm)
IC 180-145277/12		06/17/2015 16:29	1	50617012.D	DB-624 0.18 (mm)
IC 180-145277/17		06/17/2015 18:04	1	50617017.D	DB-624 0.18 (mm)
LODV 180-145277/18		06/17/2015 18:27	1		DB-624 0.18 (mm)
ICV 180-145277/19		06/17/2015 18:51	1		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5Start Date: 08/18/2015 12:21Analysis Batch Number: 151080End Date: 08/19/2015 00:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-151080/5		08/18/2015 12:21	1	50818005.D	DB-624 0.18 (mm)
CCVIS 180-151080/6		08/18/2015 13:50	1	50818006.D	DB-624 0.18 (mm)
ZZZZZ		08/18/2015 13:50	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 14:14	1		DB-624 0.18 (mm)
MB 180-151080/7		08/18/2015 14:38	1	50818007.D	DB-624 0.18 (mm)
LCS 180-151080/8		08/18/2015 15:12	1	50818008.D	DB-624 0.18 (mm)
LCSD 180-151080/9		08/18/2015 15:36	1	50818009.D	DB-624 0.18 (mm)
ZZZZZ		08/18/2015 16:24	1000		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 16:48	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 17:12	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 17:36	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 18:00	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 18:25	1		DB-624 0.18 (mm)
ZZZZZ		08/18/2015 18:49	1		DB-624 0.18 (mm)
180-46875-1	HD-COD-SW-6-0/1-0	08/18/2015 19:13	1	50818018.D	DB-624 0.18 (mm)
180-46875-2	HD-COD-SW-7-0/1-0	08/18/2015 19:37	1	50818019.D	DB-624 0.18 (mm)
180-46875-3	HD-COD-SW-8-0/1-0	08/18/2015 20:01	1	50818020.D	DB-624 0.18 (mm)
180-46875-4	HD-COD-SW-9-0/1-0	08/18/2015 20:26	1	50818021.D	DB-624 0.18 (mm)
180-46875-5	HD-COD-SW-10-0/1-0	08/18/2015 20:50	1	50818022.D	DB-624 0.18 (mm)
180-46875-6	HD-COD-SW-11-0/1-0	08/18/2015 21:38	1	50818024.D	DB-624 0.18 (mm)
180-46875-7	HD-COD-SW-12-0/1-0	08/18/2015 22:02	1	50818025.D	DB-624 0.18 (mm)
180-46875-8	HD-COD-SW-13-0/1-0	08/18/2015 22:26	1	50818026.D	DB-624 0.18 (mm)
180-46875-9	HD-COD-SW-15-0/1-0	08/18/2015 22:50	1	50818027.D	DB-624 0.18 (mm)
180-46875-11	HD-QC1-0/1-2	08/18/2015 23:14	1	50818028.D	DB-624 0.18 (mm)
180-46875-10	HD-COD-SW-16-0/1-0	08/18/2015 23:38	1	50818029.D	DB-624 0.18 (mm)
180-46875-13	HD-COD-SW-20-0/1-0	08/19/2015 00:03	1	50818030.D	DB-624 0.18 (mm)



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 08/19/2015 10:45

Analysis Batch Number: 151188 End Date: 08/19/2015 22:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-151188/1		08/19/2015 10:45	1	50819001.D	DB-624 0.18 (mm)
CCVIS 180-151188/4		08/19/2015 12:12	1	50819004.D	DB-624 0.18 (mm)
ZZZZZ		08/19/2015 12:36	1		DB-624 0.18 (mm)
MB 180-151188/6		08/19/2015 13:02	1	50819006.D	DB-624 0.18 (mm)
180-46875-19	HD-QC2-0/1-2	08/19/2015 14:03	1	50819008.D	DB-624 0.18 (mm)
180-46875-12	HD-COD-SW-17-0/1-0	08/19/2015 14:27	1	50819009.D	DB-624 0.18 (mm)
180-46875-12 MS	HD-COD-SW-17-0/1-0 MS	08/19/2015 15:15	1	50819011.D	DB-624 0.18 (mm)
180-46875-12 MSD	HD-COD-SW-17-0/1-0 MSD	08/19/2015 15:39	1	50819012.D	DB-624 0.18 (mm)
LCS 180-151188/14		08/19/2015 16:27	1	50819014.D	DB-624 0.18 (mm)
180-46875-17	HD-COD-SW-29-0/1-0	08/19/2015 16:51	1	50819015.D	DB-624 0.18 (mm)
180-46875-18	HD-QC1-0/1-1	08/19/2015 20:04	1	50819023.D	DB-624 0.18 (mm)
180-46875-14	HD-COD-SW-26-0/1-0	08/19/2015 20:27	1	50819024.D	DB-624 0.18 (mm)
180-46875-15	HD-COD-SW-27-0/1-0	08/19/2015 20:52	1	50819025.D	DB-624 0.18 (mm)
180-46875-16	HD-COD-SW-28-0/1-0	08/19/2015 21:15	1	50819026.D	DB-624 0.18 (mm)
ZZZZZ		08/19/2015 21:39	1		DB-624 0.18 (mm)
ZZZZZ		08/19/2015 22:04	1		DB-624 0.18 (mm)
ZZZZZ		08/19/2015 22:28	1		DB-624 0.18 (mm)

# 300\_ORGFMS

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Anions, Ion Chromatography

FORM III  
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 08-15-2015-5.d

Lab ID: LCS 180-150875/5 Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.46	98	90-110	
Chloride	50.0	48.9	98	90-110	
Sulfate	50.0	48.6	97	90-110	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: B-ICS2100 B 08-15-2015-8.d  
 Lab ID: 180-46875-1 MS Client ID: HD-COD-SW-6-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	2.1	3.29	96	80-120	
Chloride	25.0	89	109	83	80-120	
Sulfate	25.0	34	56.2	88	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water Level: Low Lab File ID: B-ICS2100 B 08-15-2015-22.d  
 Lab ID: 180-46875-12 MS Client ID: HD-COD-SW-17-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	3.2	4.62	111	80-120	
Chloride	25.0	130	156	122	80-120	4
Sulfate	25.0	33	60.0	107	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 08-15-2015-9.d

Lab ID: 180-46875-1 MSD Client ID: HD-COD-SW-6-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Nitrate as N	1.25	3.38	103	3	20	80-120	
Chloride	25.0	112	95	3	20	80-120	
Sulfate	25.0	58.1	95	3	20	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 08-15-2015-23.d

Lab ID: 180-46875-12 MSD Client ID: HD-COD-SW-17-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Nitrate as N	1.25	4.68	115	1	20	80-120	
Chloride	25.0	151	105	3	20	80-120	4
Sulfate	25.0	57.8	98	4	20	80-120	

# Column to be used to flag recovery and RPD values

FORM IV  
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: B-ICS2100 B 08-15-2015-6.d Lab Sample ID: MB 180-150875/6  
 Matrix: Water Date Extracted: \_\_\_\_\_  
 Instrument ID: CHICS2100B Date Analyzed: 08/15/2015 11:01  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-150875/4	B-ICS2100 B 08-15-2015- 4.d	08/15/2015 10:26
	LCS 180-150875/5	B-ICS2100 B 08-15-2015- 5.d	08/15/2015 10:43
HD-COD-SW-6-0/1-0	180-46875-1	B-ICS2100 B 08-15-2015- 7.d	08/15/2015 13:44
HD-COD-SW-6-0/1-0 MS	180-46875-1 MS	B-ICS2100 B 08-15-2015- 8.d	08/15/2015 14:01
HD-COD-SW-6-0/1-0 MSD	180-46875-1 MSD	B-ICS2100 B 08-15-2015- 9.d	08/15/2015 14:19
HD-COD-SW-7-0/1-0	180-46875-2	B-ICS2100 B 08-15-2015- 10.d	08/15/2015 14:36
HD-COD-SW-8-0/1-0	180-46875-3	B-ICS2100 B 08-15-2015- 11.d	08/15/2015 14:53
HD-COD-SW-9-0/1-0	180-46875-4	B-ICS2100 B 08-15-2015- 12.d	08/15/2015 15:11
HD-COD-SW-10-0/1-0	180-46875-5	B-ICS2100 B 08-15-2015- 13.d	08/15/2015 15:28
HD-COD-SW-11-0/1-0	180-46875-6	B-ICS2100 B 08-15-2015- 14.d	08/15/2015 15:45
	CCB 180-150875/16	B-ICS2100 B 08-15-2015- 16.d	08/15/2015 16:20
HD-COD-SW-12-0/1-0	180-46875-7	B-ICS2100 B 08-15-2015- 17.d	08/15/2015 16:37
HD-COD-SW-13-0/1-0	180-46875-8	B-ICS2100 B 08-15-2015- 18.d	08/15/2015 16:55
HD-COD-SW-15-0/1-0	180-46875-9	B-ICS2100 B 08-15-2015- 19.d	08/15/2015 17:12
HD-COD-SW-16-0/1-0	180-46875-10	B-ICS2100 B 08-15-2015- 20.d	08/15/2015 17:29



FORM IV  
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: B-ICS2100 B 08-15-2015-6.d Lab Sample ID: MB 180-150875/6  
 Matrix: Water Date Extracted: \_\_\_\_\_  
 Instrument ID: CHICS2100B Date Analyzed: 08/15/2015 11:01  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-17-0/1-0	180-46875-12	B-ICS2100 B 08-15-2015- 21.d	08/15/2015 17:46
HD-COD-SW-17-0/1-0 MS	180-46875-12 MS	B-ICS2100 B 08-15-2015- 22.d	08/15/2015 18:04
HD-COD-SW-17-0/1-0 MSD	180-46875-12 MSD	B-ICS2100 B 08-15-2015- 23.d	08/15/2015 18:21
HD-COD-SW-20-0/1-0	180-46875-13	B-ICS2100 B 08-15-2015- 24.d	08/15/2015 18:38
HD-COD-SW-26-0/1-0	180-46875-14	B-ICS2100 B 08-15-2015- 25.d	08/15/2015 18:56
HD-COD-SW-27-0/1-0	180-46875-15	B-ICS2100 B 08-15-2015- 26.d	08/15/2015 19:13
	CCB 180-150875/28	B-ICS2100 B 08-15-2015- 28.d	08/15/2015 19:48
HD-COD-SW-28-0/1-0	180-46875-16	B-ICS2100 B 08-15-2015- 29.d	08/15/2015 20:05
HD-COD-SW-29-0/1-0	180-46875-17	B-ICS2100 B 08-15-2015- 30.d	08/15/2015 20:22
HD-QC1-0/1-1	180-46875-18	B-ICS2100 B 08-15-2015- 31.d	08/15/2015 20:39
	CCB 180-150875/40	B-ICS2100 B 08-15-2015- 40.d	08/15/2015 23:15

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-46875-1  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-7.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:30  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 13:44  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1		0.10	0.0062
16887-00-6	Chloride	89		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-7.d  
 Lims ID: 180-46875-A-1 Lab Sample ID: 180-46875-1  
 Client ID: HD-COD-SW-6-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 13:44:00 ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-007  
 Misc. Info.: 7 180-46875-a-1  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:23:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.625	3.642	-0.017	1553290	0.0325	
2 Chloride	4.833	4.842	-0.009	2361742126	88.6	
7 Nitrite as N		5.650			ND	
3 Sulfate	6.508	6.492	0.016	670145445	34.2	
4 Bromide		7.483			ND	
5 Nitrate as N	8.600	8.592	0.008	138082428	2.09	M
6 Orthophosphate as P		11.492			ND	

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-7.d

Injection Date: 15-Aug-2015 13:44:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-1

Lab Sample ID: 180-46875-1

Worklist Smp#: 7

Client ID: HD-COD-SW-6-0/1-0

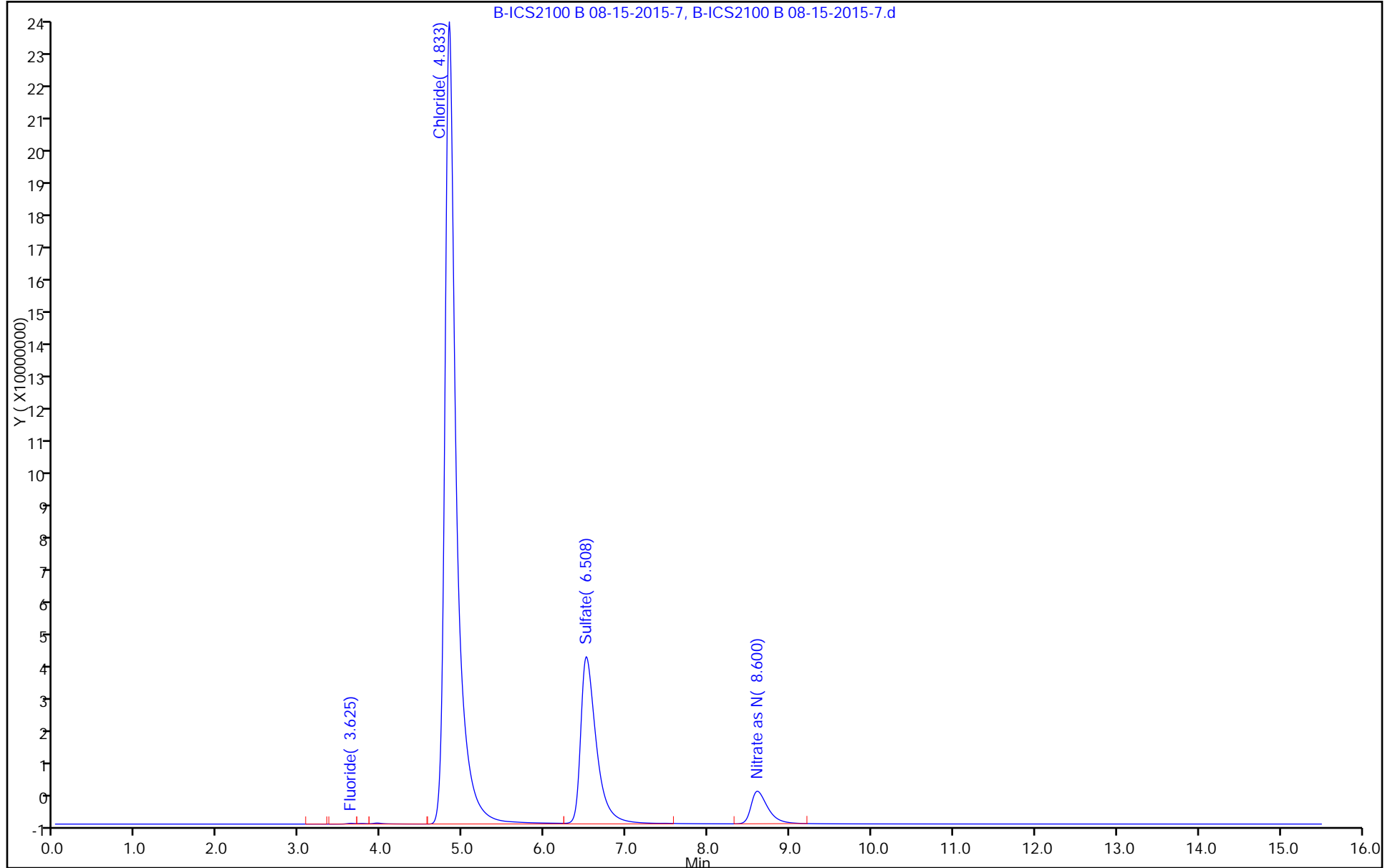
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



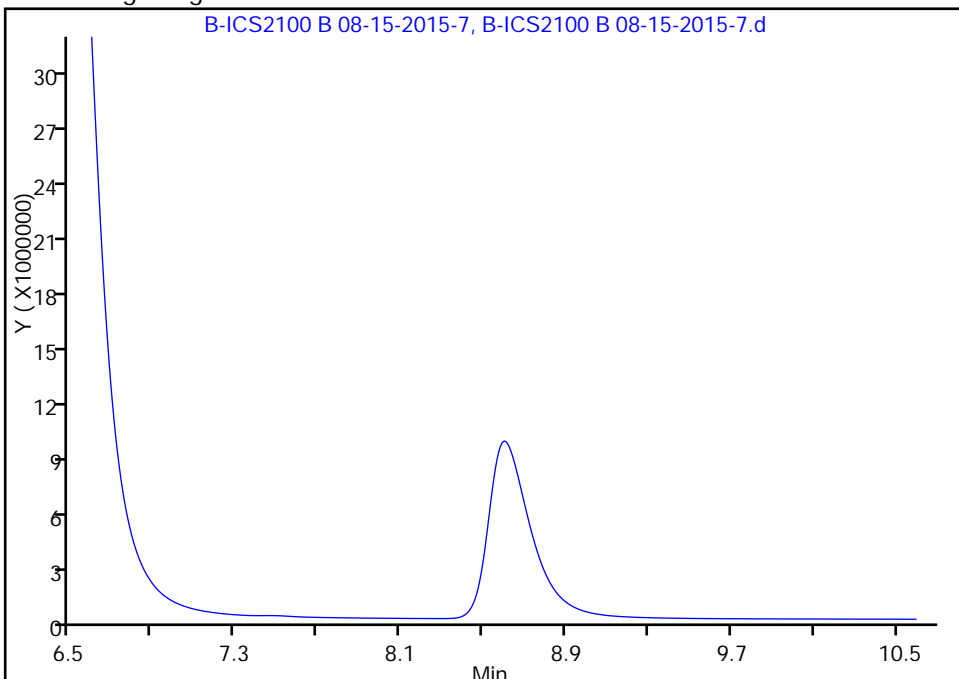
TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-7.d	Instrument ID:	CHICS2100B		
Injection Date:	15-Aug-2015 13:44:00	Lab Sample ID:	180-46875-1		
Lims ID:	180-46875-A-1	ALS Bottle#:	0	Worklist Smp#:	7
Client ID:	HD-COD-SW-6-0/1-0	Dil. Factor:	1.0000		
Operator ID:		Limit Group:	GC Anions ICAL		
Injection Vol:	10.0 ul	Detector:	0008		
Method:	300_9056_CHIC2100B				
Column:					

5 Nitrate as N, CAS: 14797-55-8

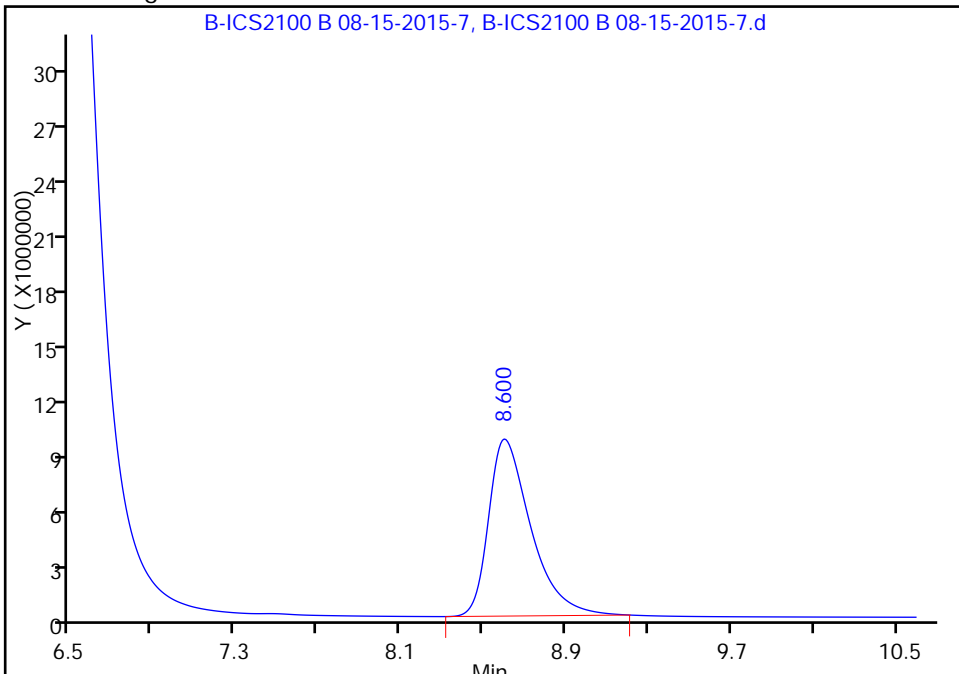
RT: 8.60  
Area: 144058876  
Amount: 2.183669  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 138082428  
Amount: 2.093435  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:23:53  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-46875-2  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-10.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 11:15  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 14:36  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.0		0.10	0.0062
16887-00-6	Chloride	69		1.0	0.20
14808-79-8	Sulfate	63		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-10.d  
 Lims ID: 180-46875-A-2 Lab Sample ID: 180-46875-2  
 Client ID: HD-COD-SW-7-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 14:36:00 ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-010  
 Misc. Info.: 10 180-46875-a-2  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:23:38

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.842	-0.009	1828108303	68.6	
3 Sulfate	6.475	6.492	-0.017	1224996068	62.7	
5 Nitrate as N	8.600	8.592	0.008	134435474	2.04	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-10.d

Injection Date: 15-Aug-2015 14:36:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-2

Lab Sample ID: 180-46875-2

Worklist Smp#: 10

Client ID: HD-COD-SW-7-0/1-0

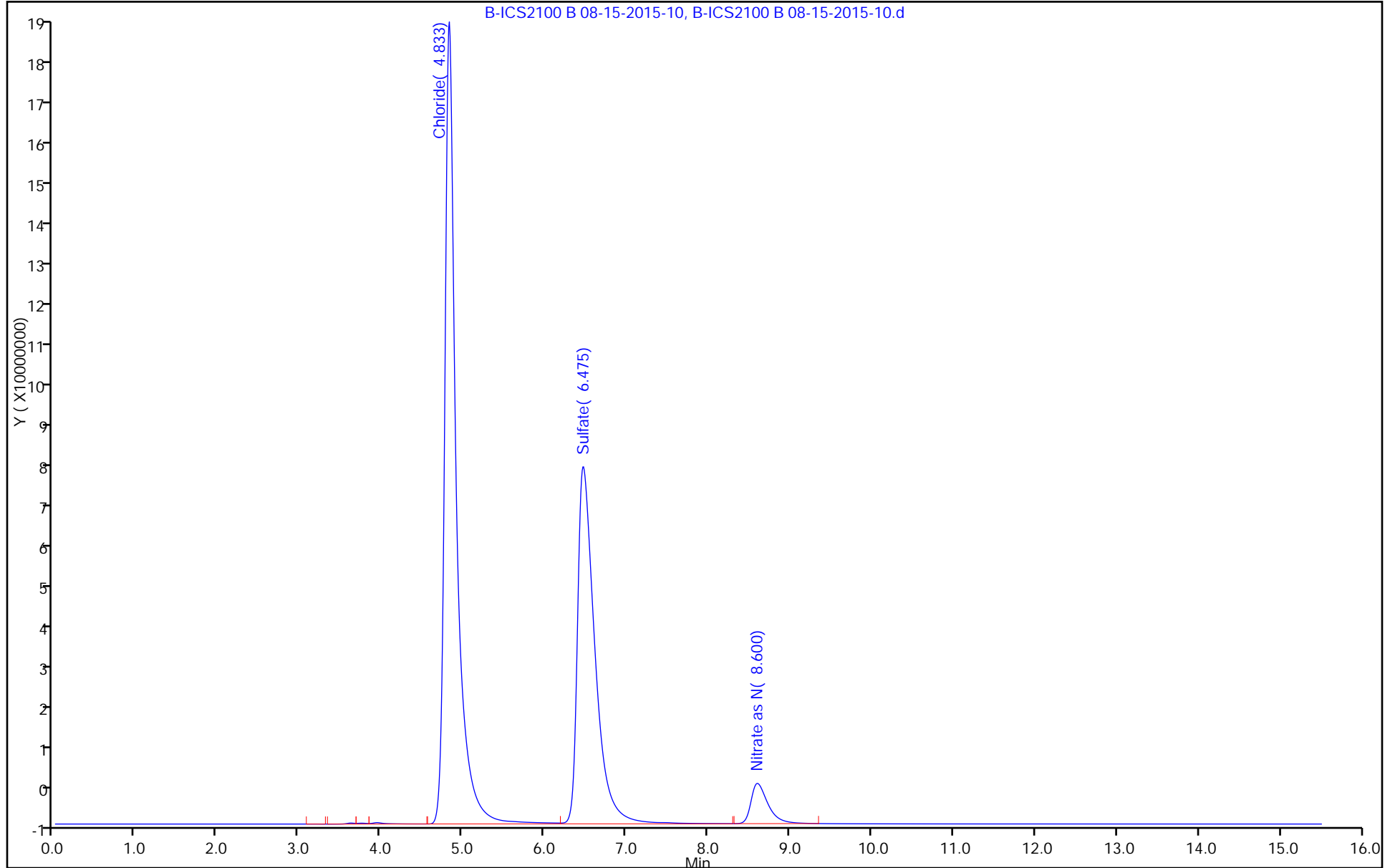
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





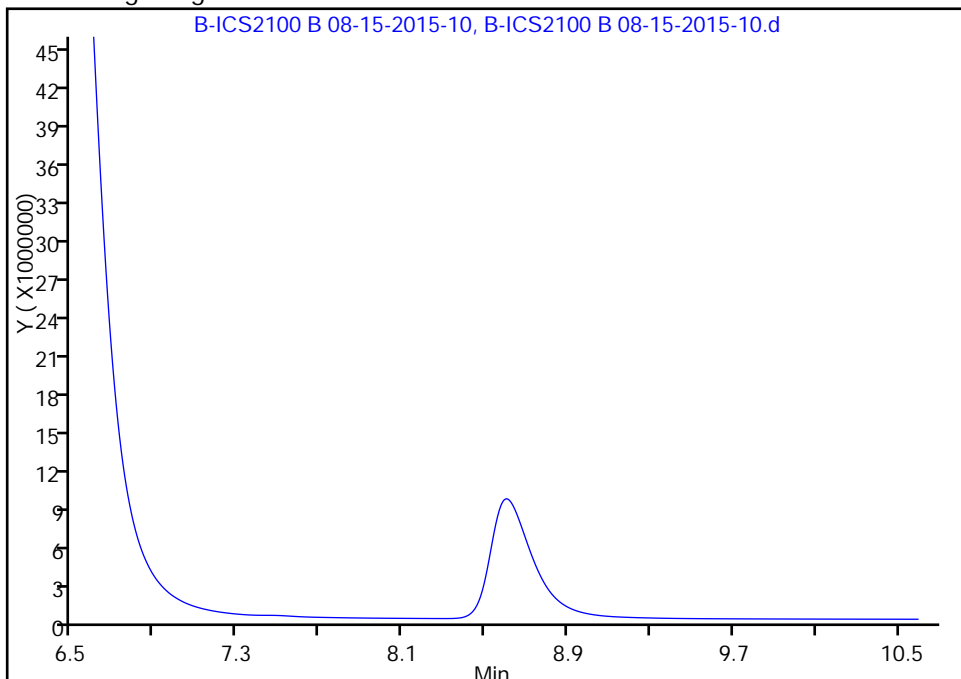
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-10.d  
Injection Date: 15-Aug-2015 14:36:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-2 Lab Sample ID: 180-46875-2  
Client ID: HD-COD-SW-7-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

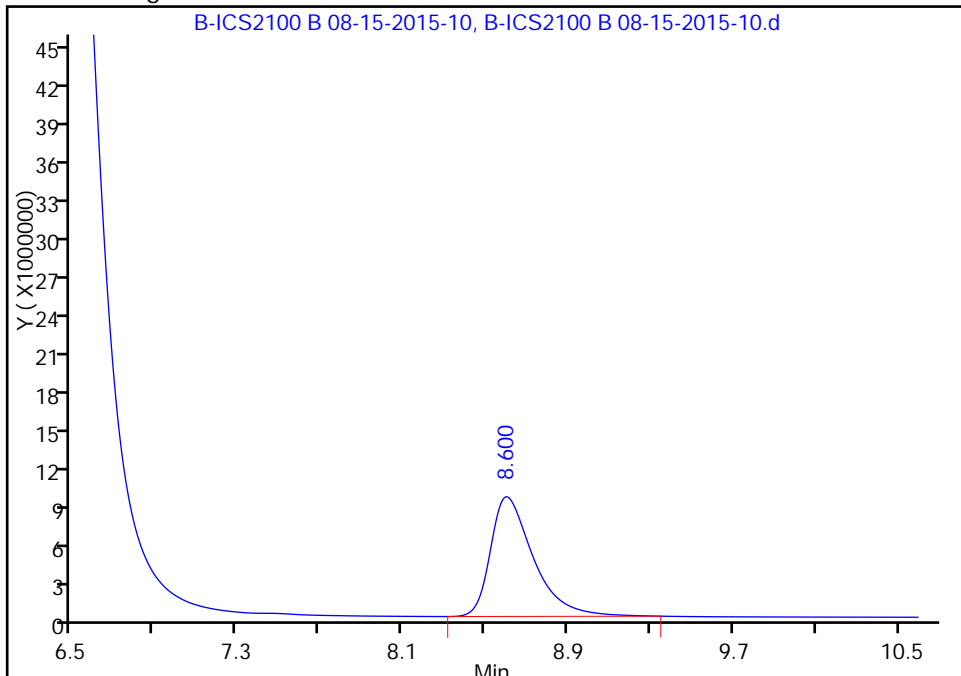
RT: 8.60  
Area: 139343382  
Amount: 2.112473  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 134435474  
Amount: 2.038372  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:24:07  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-46875-3  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-11.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 08:55  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 14:53  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.0		0.10	0.0062
16887-00-6	Chloride	71		1.0	0.20
14808-79-8	Sulfate	56		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-11.d  
 Lims ID: 180-46875-A-3 Lab Sample ID: 180-46875-3  
 Client ID: HD-COD-SW-8-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 14:53:00 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-011  
 Misc. Info.: 11 180-46875-a-3  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:24:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.842	-0.009	1885817822	70.7	
3 Sulfate	6.483	6.492	-0.009	1103752219	56.5	
5 Nitrate as N	8.608	8.592	0.016	133006298	2.02	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-11.d

Injection Date: 15-Aug-2015 14:53:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-3

Lab Sample ID: 180-46875-3

Worklist Smp#: 11

Client ID: HD-COD-SW-8-0/1-0

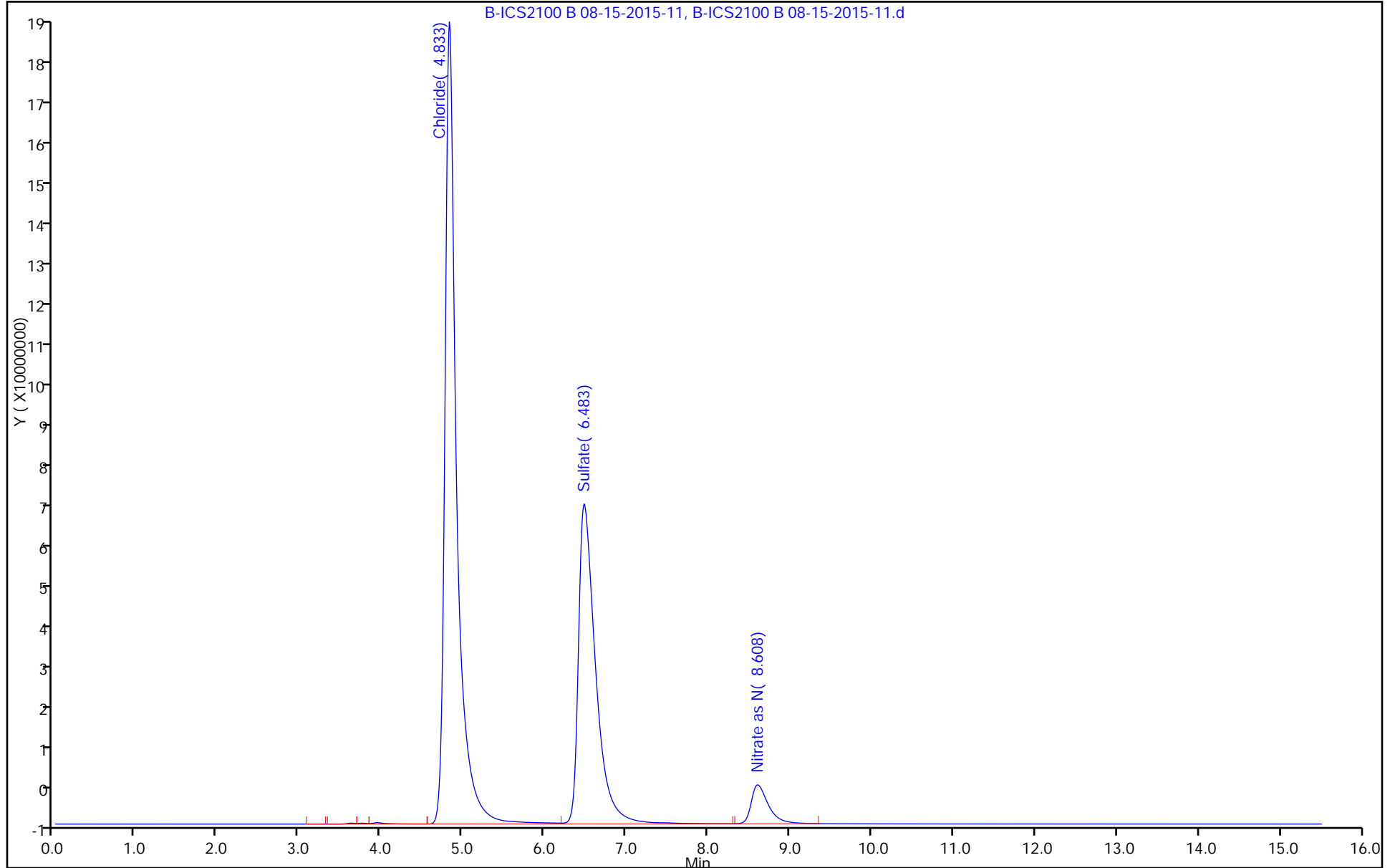
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



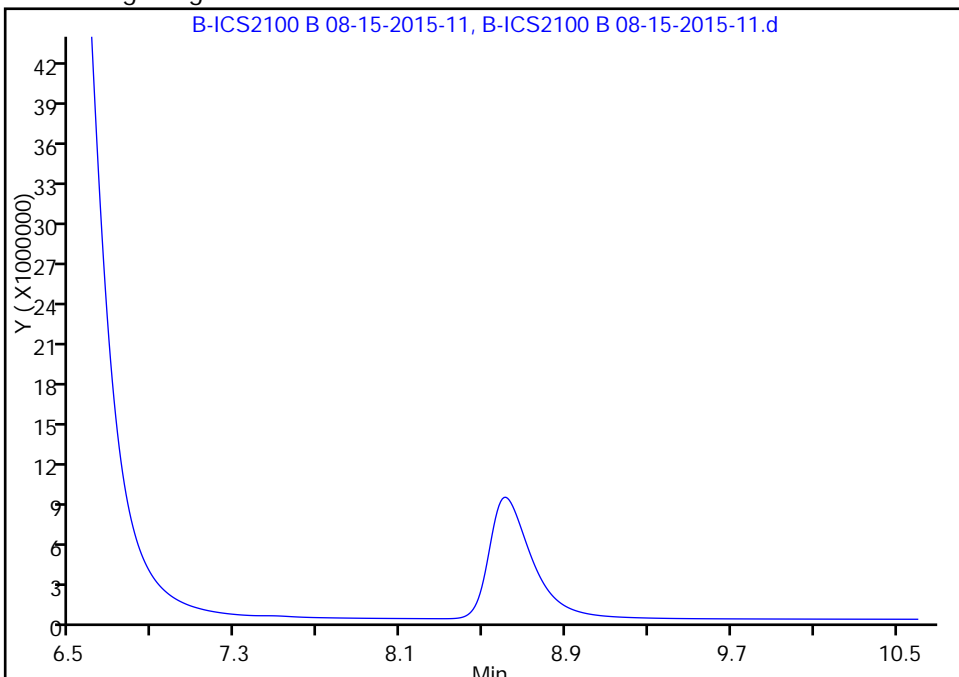
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-11.d  
Injection Date: 15-Aug-2015 14:53:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-3 Lab Sample ID: 180-46875-3  
Client ID: HD-COD-SW-8-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

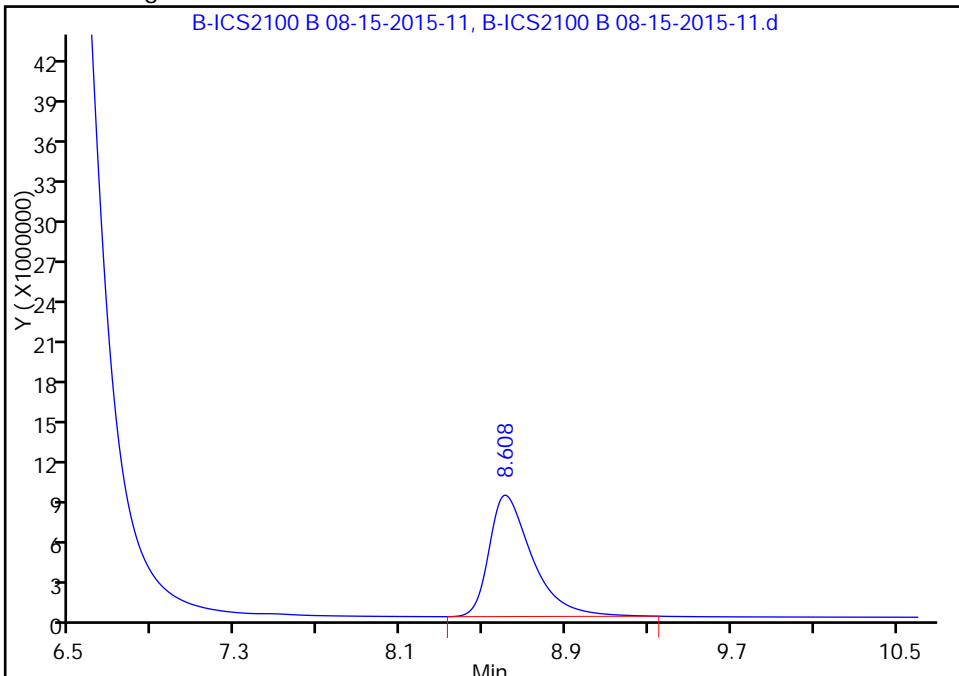
RT: 8.61  
Area: 137366228  
Amount: 2.082622  
Amount Units: ug/ml

Processing Integration Results



RT: 8.61  
Area: 133006298  
Amount: 2.016794  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:24:17  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-46875-4  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-12.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 12:15  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 15:11  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.6		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-12.d  
 Lims ID: 180-46875-A-4 Lab Sample ID: 180-46875-4  
 Client ID: HD-COD-SW-9-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 15:11:00 ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-012  
 Misc. Info.: 12 180-46875-a-4  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:24:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.825	4.842	-0.017	3491445378	130.9	
3 Sulfate	6.500	6.492	0.008	825048252	42.2	
5 Nitrate as N	8.592	8.592	0.000	174613982	2.64	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-12.d

Injection Date: 15-Aug-2015 15:11:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-4

Lab Sample ID: 180-46875-4

Worklist Smp#: 12

Client ID: HD-COD-SW-9-0/1-0

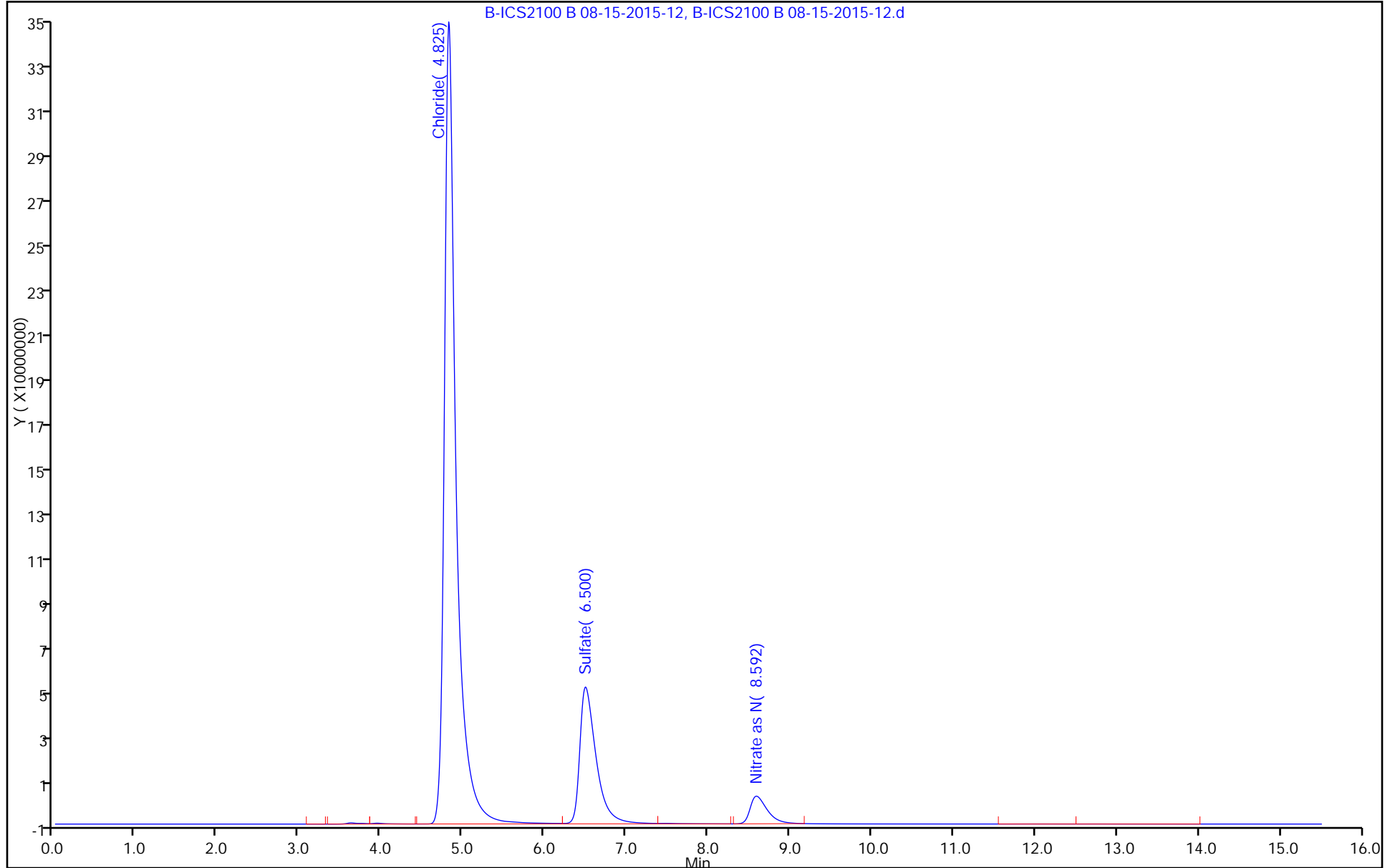
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





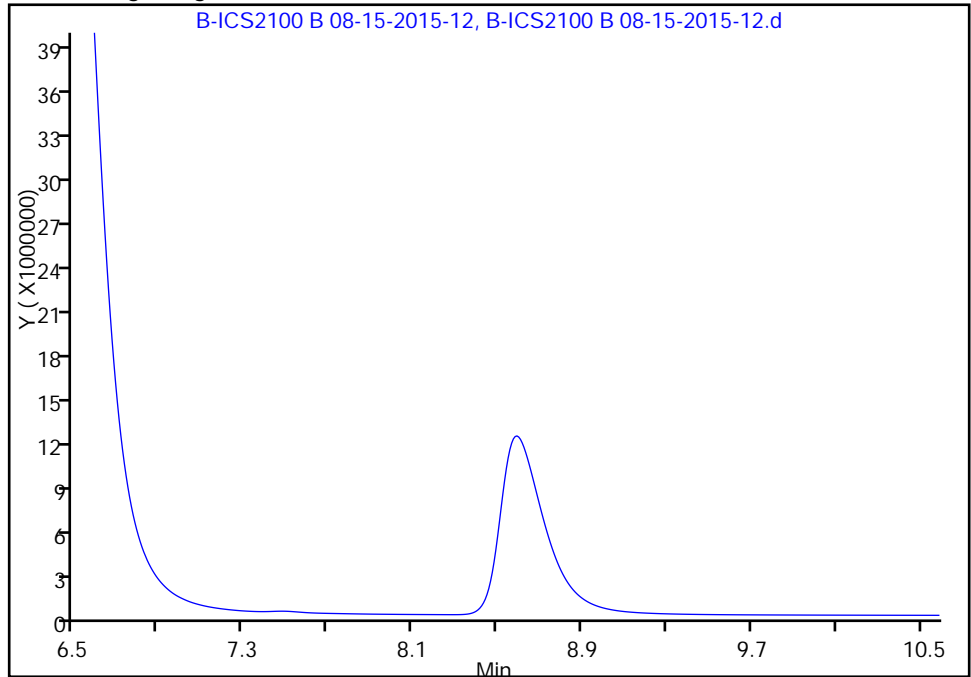
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-12.d  
Injection Date: 15-Aug-2015 15:11:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-4 Lab Sample ID: 180-46875-4  
Client ID: HD-COD-SW-9-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

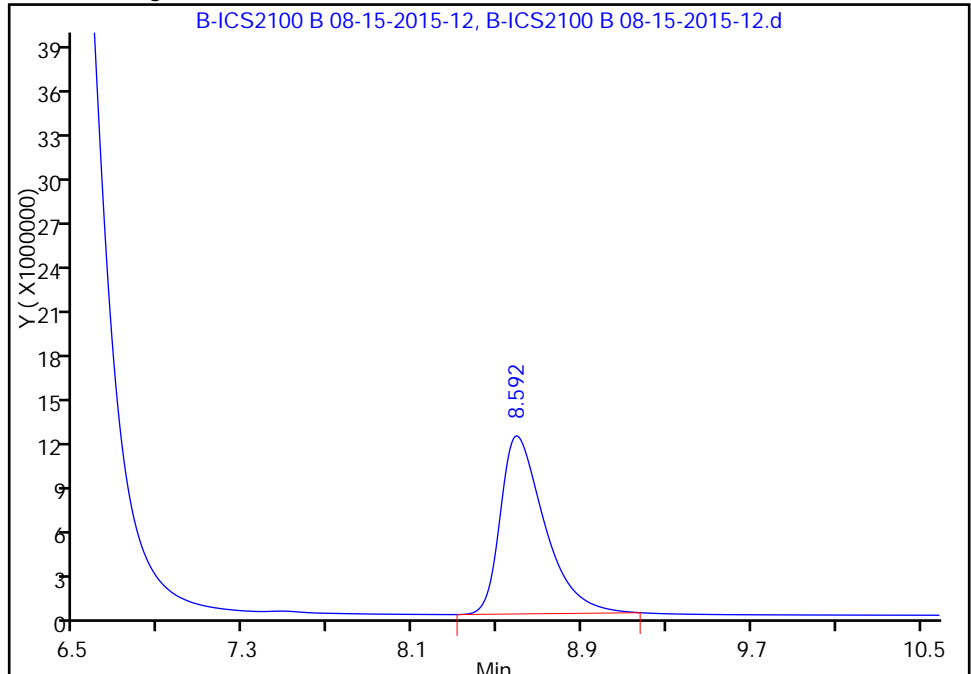
RT: 8.59  
Area: 180221714  
Amount: 2.729665  
Amount Units: ug/ml

Processing Integration Results



RT: 8.59  
Area: 174613982  
Amount: 2.644998  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:24:29  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-46875-5  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-13.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 09:25  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 15:28  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.7		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-13.d  
 Lims ID: 180-46875-A-5 Lab Sample ID: 180-46875-5  
 Client ID: HD-COD-SW-10-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 15:28:00 ALS Bottle#: 0 Worklist Smp#: 13  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-013  
 Misc. Info.: 13 180-46875-a-5  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:26:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.825	4.842	-0.017	3421384227	128.3	
3 Sulfate	6.508	6.492	0.016	652693147	33.3	
5 Nitrate as N	8.583	8.592	-0.009	175739899	2.66	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-13.d

Injection Date: 15-Aug-2015 15:28:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-5

Lab Sample ID: 180-46875-5

Worklist Smp#: 13

Client ID: HD-COD-SW-10-0/1-0

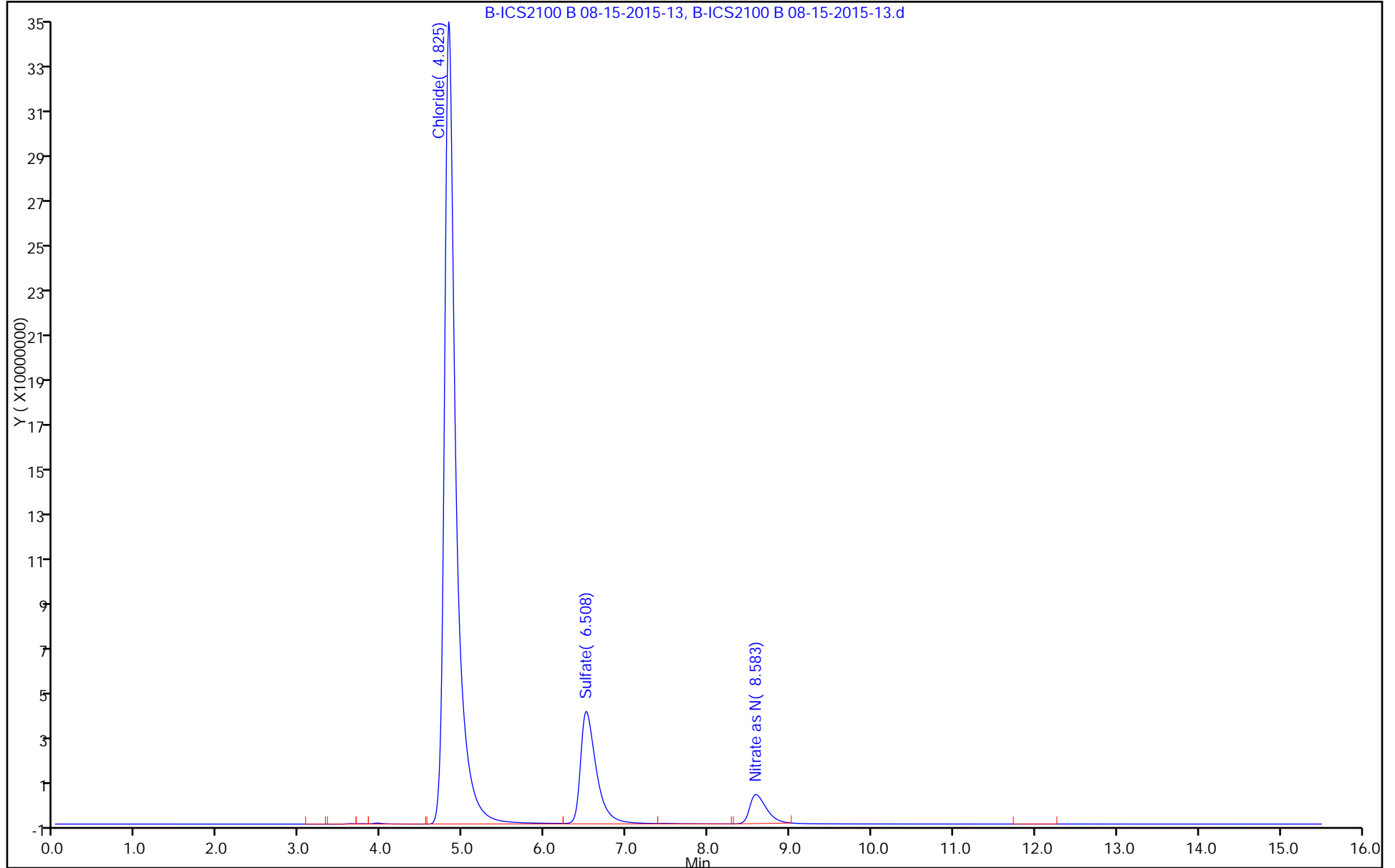
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



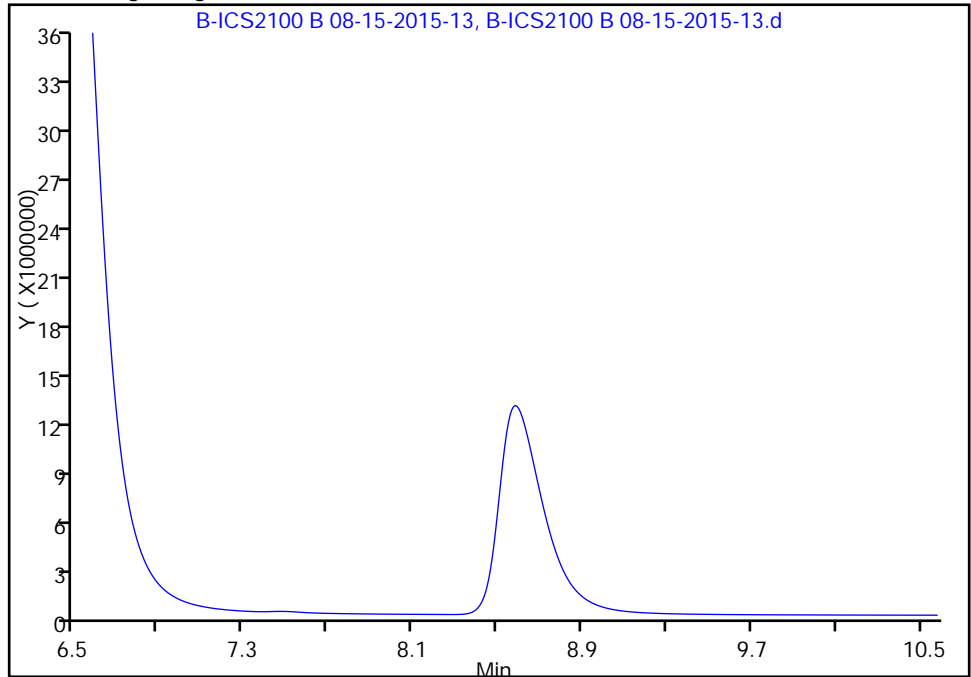
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-13.d  
Injection Date: 15-Aug-2015 15:28:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-5 Lab Sample ID: 180-46875-5  
Client ID: HD-COD-SW-10-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

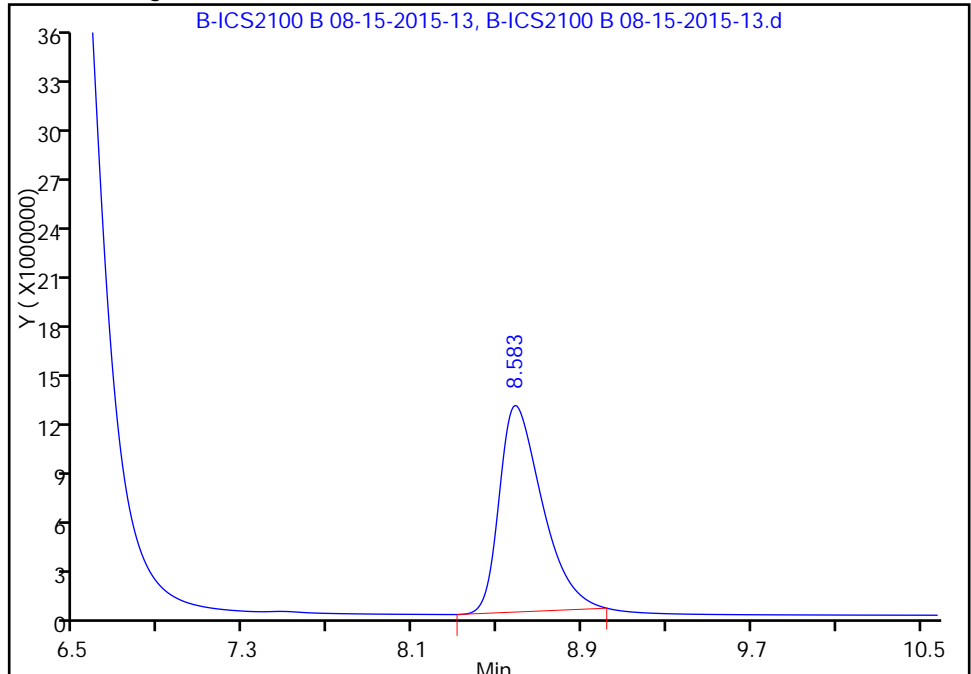
RT: 8.58  
Area: 188407574  
Amount: 2.853258  
Amount Units: ug/ml

Processing Integration Results



RT: 8.58  
Area: 175739899  
Amount: 2.661998  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:26:10  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-46875-6  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-14.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 12:35  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 15:45  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.1		0.10	0.0062
16887-00-6	Chloride	69		1.0	0.20
14808-79-8	Sulfate	21		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-14.d  
 Lims ID: 180-46875-A-6 Lab Sample ID: 180-46875-6  
 Client ID: HD-COD-SW-11-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 15:45:00 ALS Bottle#: 0 Worklist Smp#: 14  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-014  
 Misc. Info.: 14 180-46875-a-6  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:26:22

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.842	4.842	0.000	1832837995	68.7	
3 Sulfate	6.533	6.492	0.041	403465264	20.5	
5 Nitrate as N	8.567	8.592	-0.025	270423036	4.09	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-14.d

Injection Date: 15-Aug-2015 15:45:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-6

Lab Sample ID: 180-46875-6

Worklist Smp#: 14

Client ID: HD-COD-SW-11-0/1-0

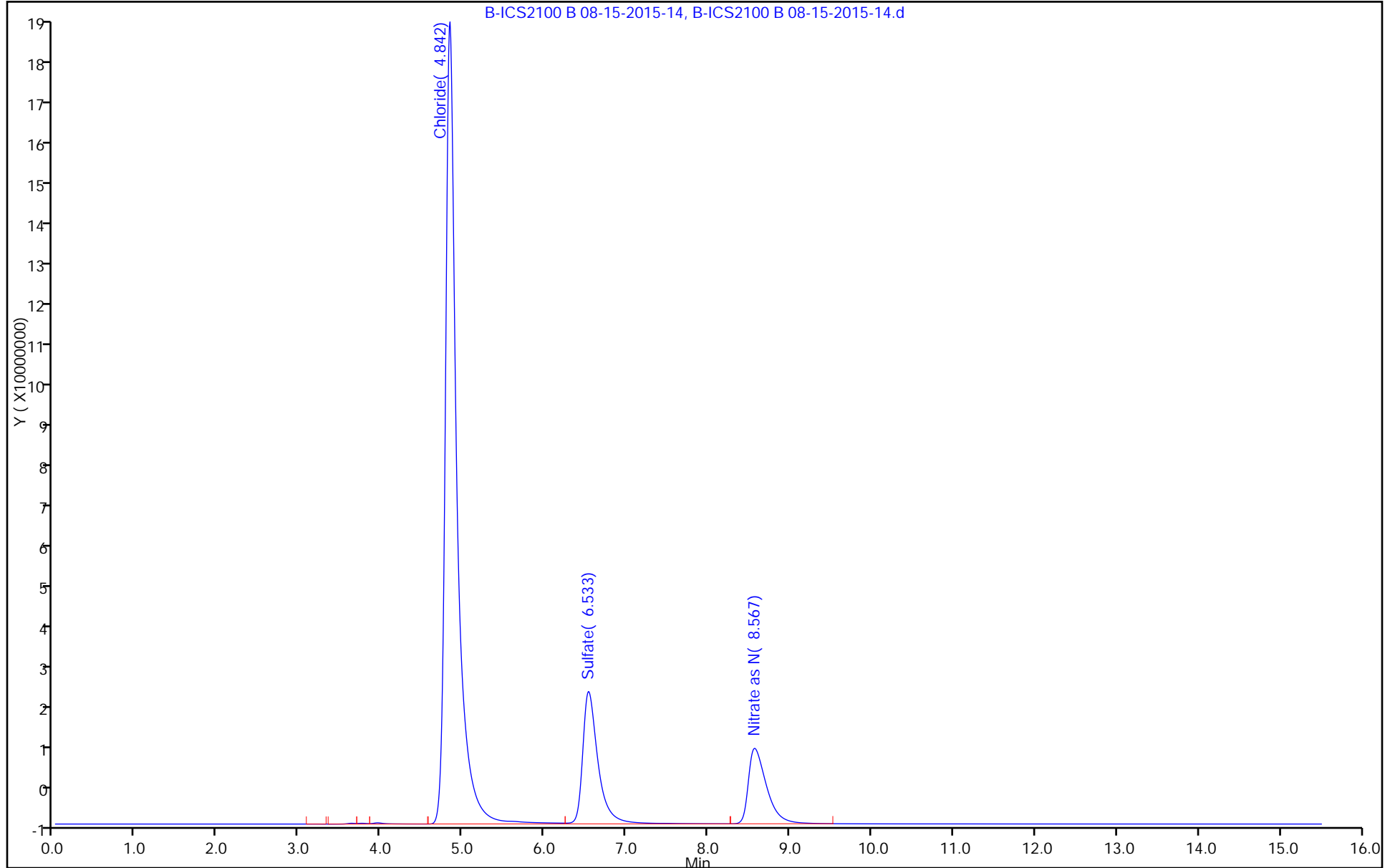
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





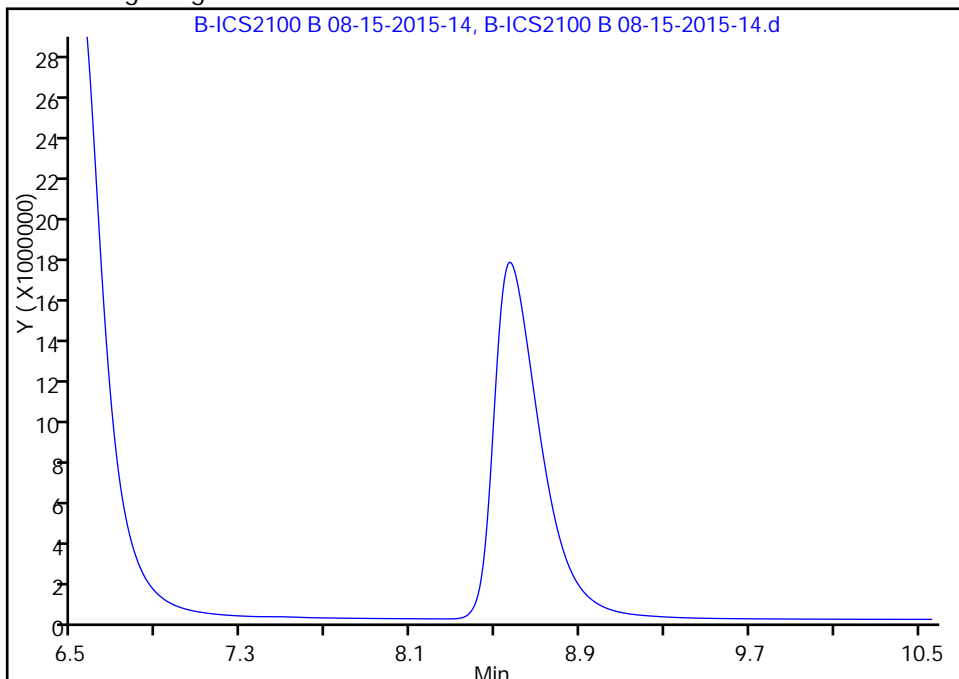
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-14.d  
Injection Date: 15-Aug-2015 15:45:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-6 Lab Sample ID: 180-46875-6  
Client ID: HD-COD-SW-11-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 14  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

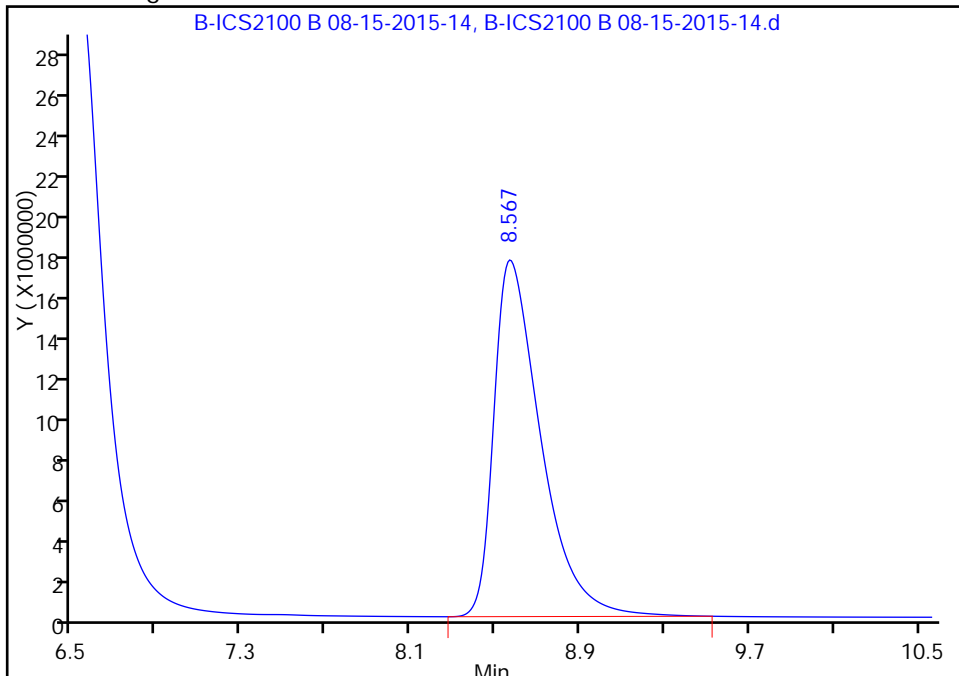
RT: 8.57  
Area: 273303413  
Amount: 4.135038  
Amount Units: ug/ml

Processing Integration Results



RT: 8.57  
Area: 270423036  
Amount: 4.091549  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:26:22  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-46875-7  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-17.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 12:50  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 16:37  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3		0.10	0.0062
16887-00-6	Chloride	150		1.0	0.20
14808-79-8	Sulfate	48		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-17.d  
 Lims ID: 180-46875-A-7 Lab Sample ID: 180-46875-7  
 Client ID: HD-COD-SW-12-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 16:37:00 ALS Bottle#: 0 Worklist Smp#: 17  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-017  
 Misc. Info.: 17 180-46875-a-7  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:30:25

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.825	4.833	-0.008	4125758036	154.7	
3 Sulfate	6.483	6.500	-0.017	931912474	47.6	
5 Nitrate as N	8.592	8.592	0.000	154565890	2.34	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-17.d

Injection Date: 15-Aug-2015 16:37:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-7

Lab Sample ID: 180-46875-7

Worklist Smp#: 17

Client ID: HD-COD-SW-12-0/1-0

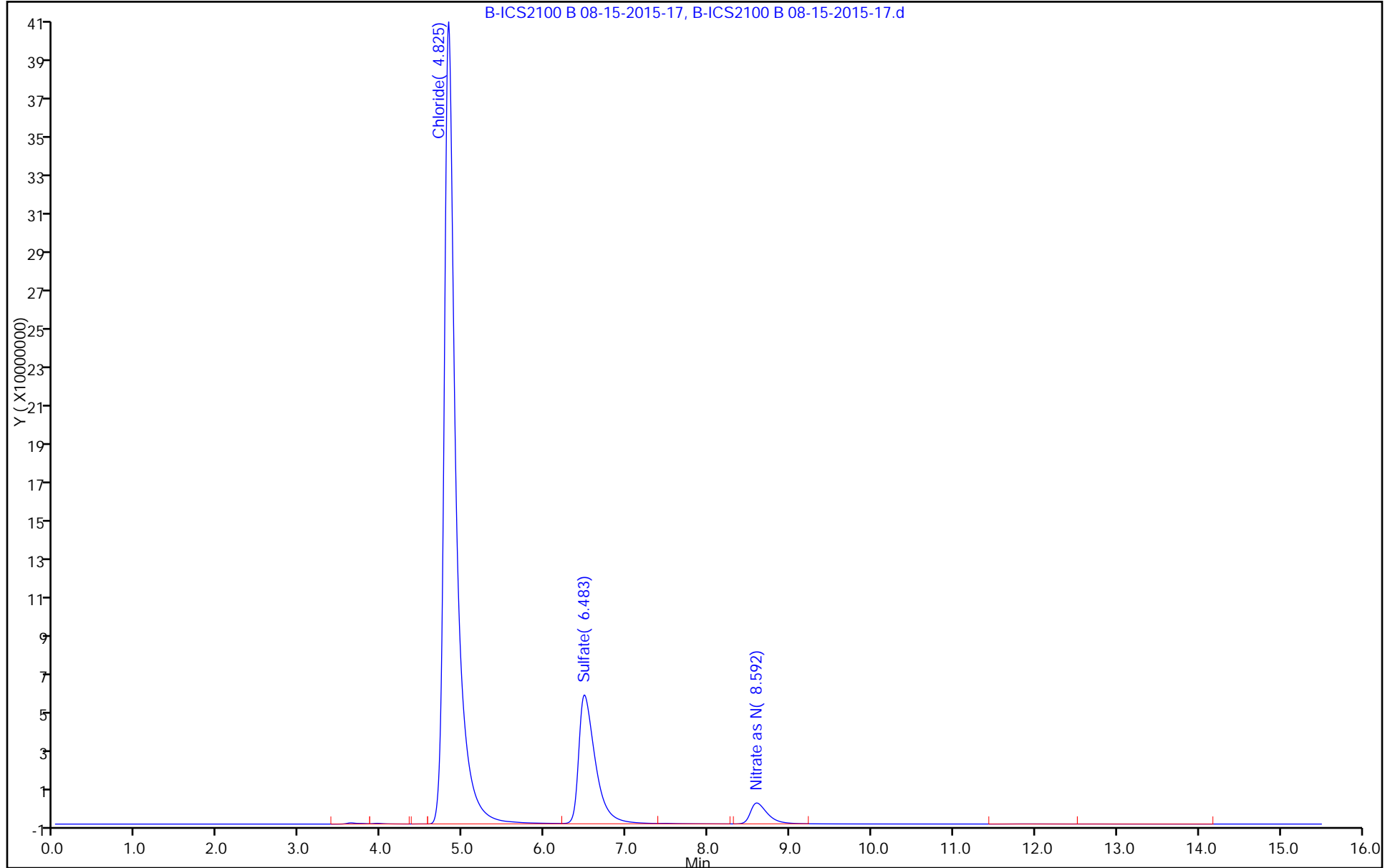
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



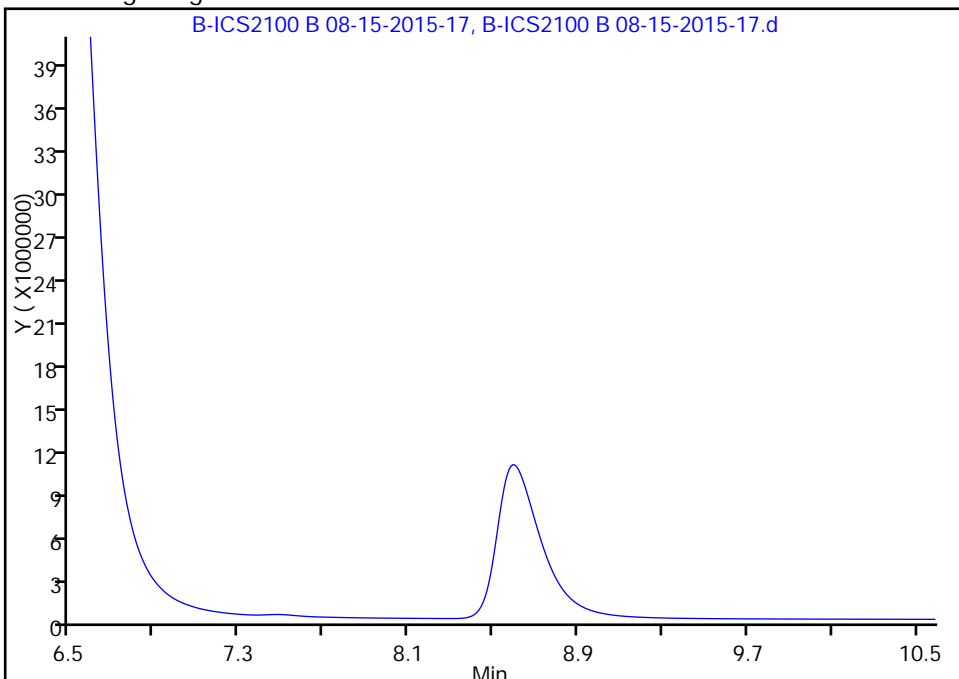
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-17.d  
Injection Date: 15-Aug-2015 16:37:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-7 Lab Sample ID: 180-46875-7  
Client ID: HD-COD-SW-12-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 17  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

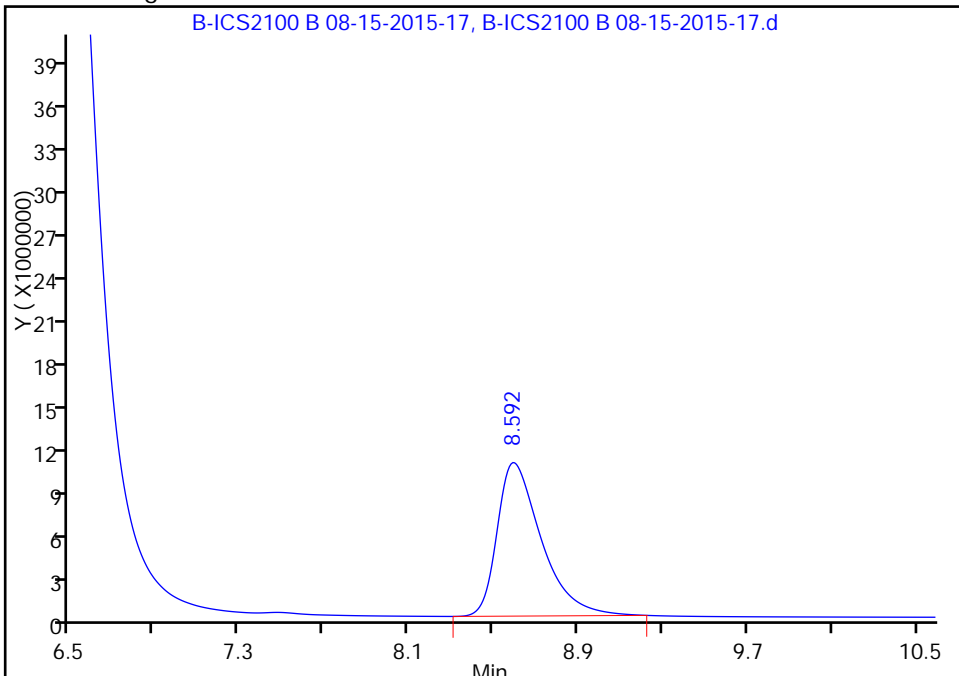
RT: 8.59  
Area: 158496940  
Amount: 2.401659  
Amount Units: ug/ml

Processing Integration Results



RT: 8.59  
Area: 154565890  
Amount: 2.342307  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:30:25  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-46875-8  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-18.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 09:20  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 16:55  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1		0.10	0.0062
16887-00-6	Chloride	76		1.0	0.20
14808-79-8	Sulfate	56		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-18.d  
 Lims ID: 180-46875-A-8 Lab Sample ID: 180-46875-8  
 Client ID: HD-COD-SW-13-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 16:55:00 ALS Bottle#: 0 Worklist Smp#: 18  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-018  
 Misc. Info.: 18 180-46875-a-8  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:30:40

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.833	0.000	2022734729	75.9	
3 Sulfate	6.475	6.500	-0.025	1097267939	56.1	
5 Nitrate as N	8.600	8.592	0.008	135227386	2.05	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-18.d

Injection Date: 15-Aug-2015 16:55:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-8

Lab Sample ID: 180-46875-8

Worklist Smp#: 18

Client ID: HD-COD-SW-13-0/1-0

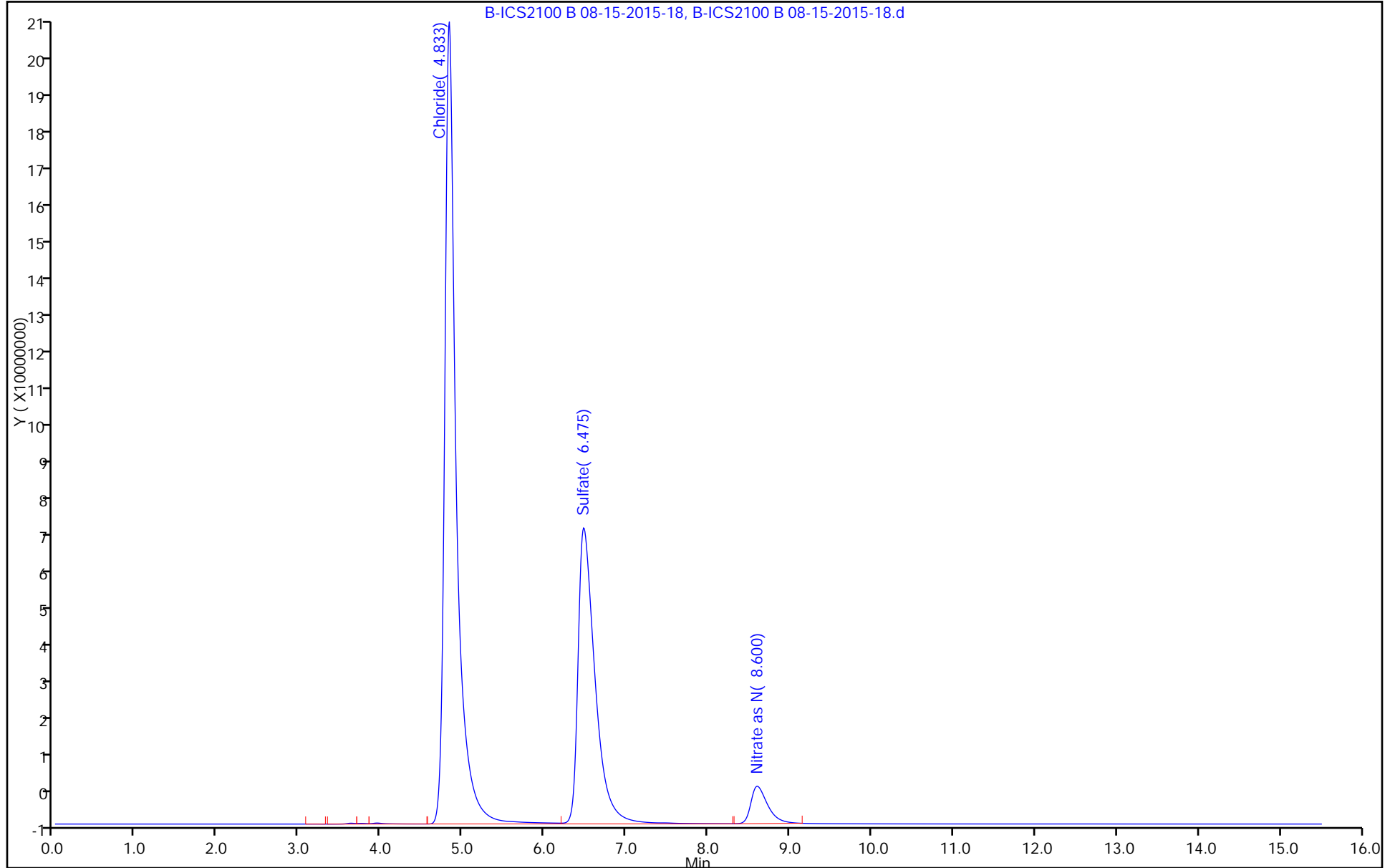
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





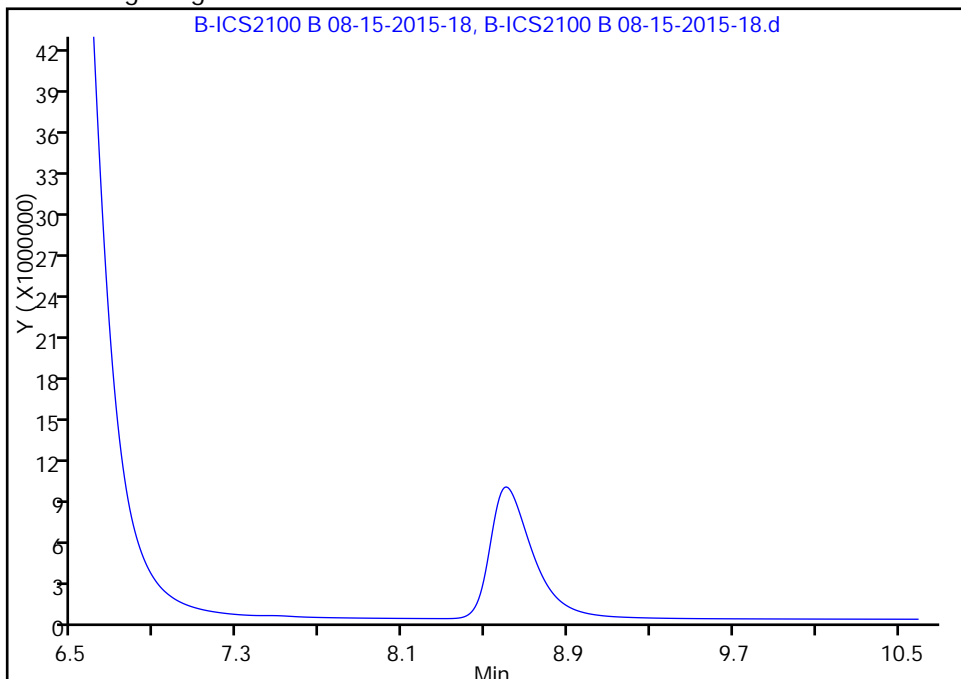
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-18.d  
Injection Date: 15-Aug-2015 16:55:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-8 Lab Sample ID: 180-46875-8  
Client ID: HD-COD-SW-13-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 18  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

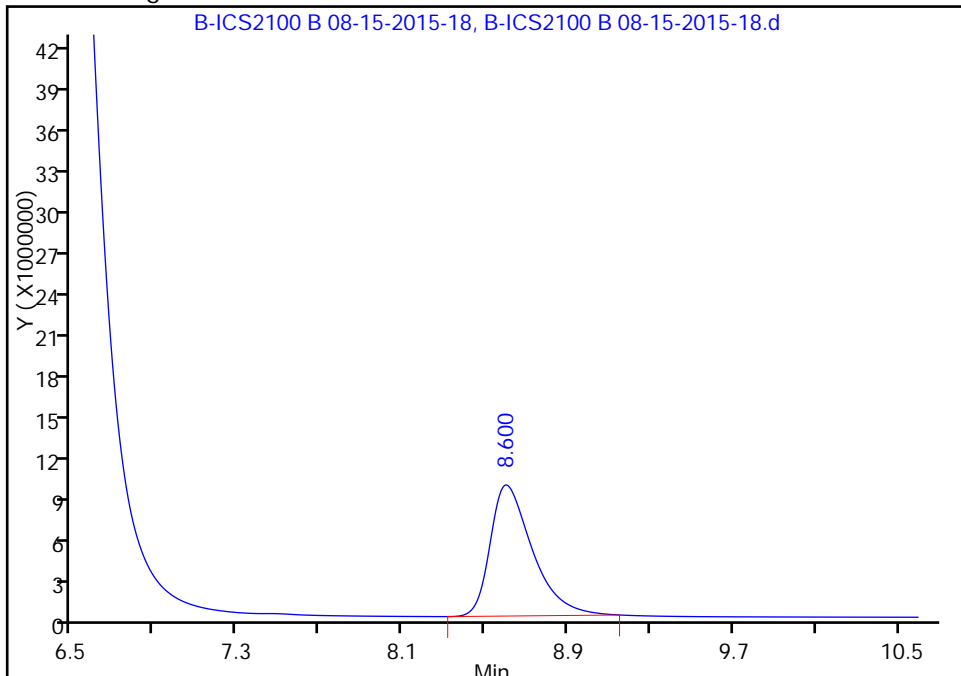
RT: 8.60  
Area: 142339667  
Amount: 2.157712  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 135227386  
Amount: 2.050329  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:30:40  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-46875-9  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-19.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 13:05  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 17:12  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.1		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	32		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-19.d  
 Lims ID: 180-46875-A-9 Lab Sample ID: 180-46875-9  
 Client ID: HD-COD-SW-15-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 17:12:00 ALS Bottle#: 0 Worklist Smp#: 19  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-019  
 Misc. Info.: 19 180-46875-a-9  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:30:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.833	0.000	3406836063	127.7	
3 Sulfate	6.517	6.500	0.017	635367062	32.4	
5 Nitrate as N	8.583	8.592	-0.009	207707632	3.14	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-19.d

Injection Date: 15-Aug-2015 17:12:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-9

Lab Sample ID: 180-46875-9

Worklist Smp#: 19

Client ID: HD-COD-SW-15-0/1-0

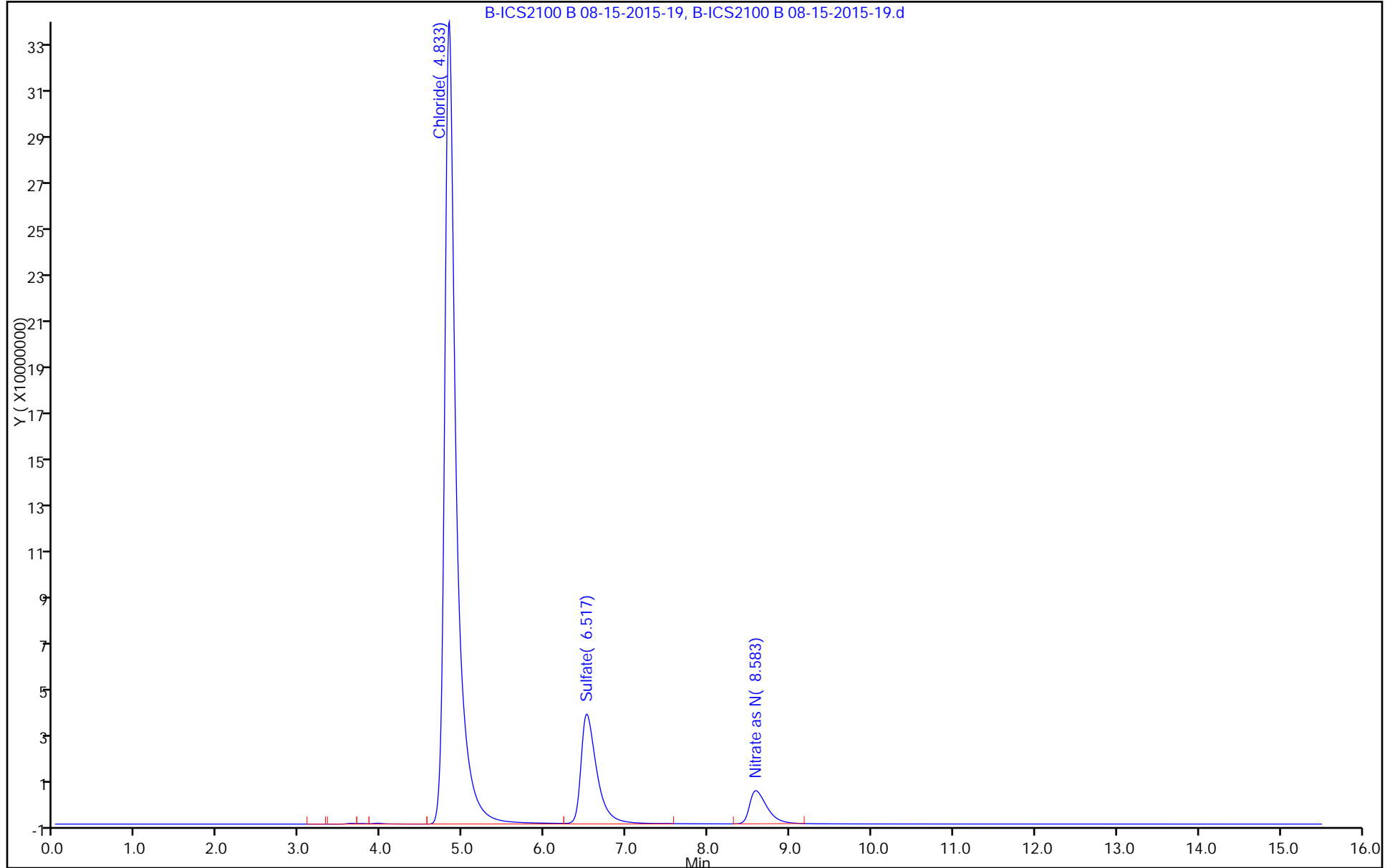
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



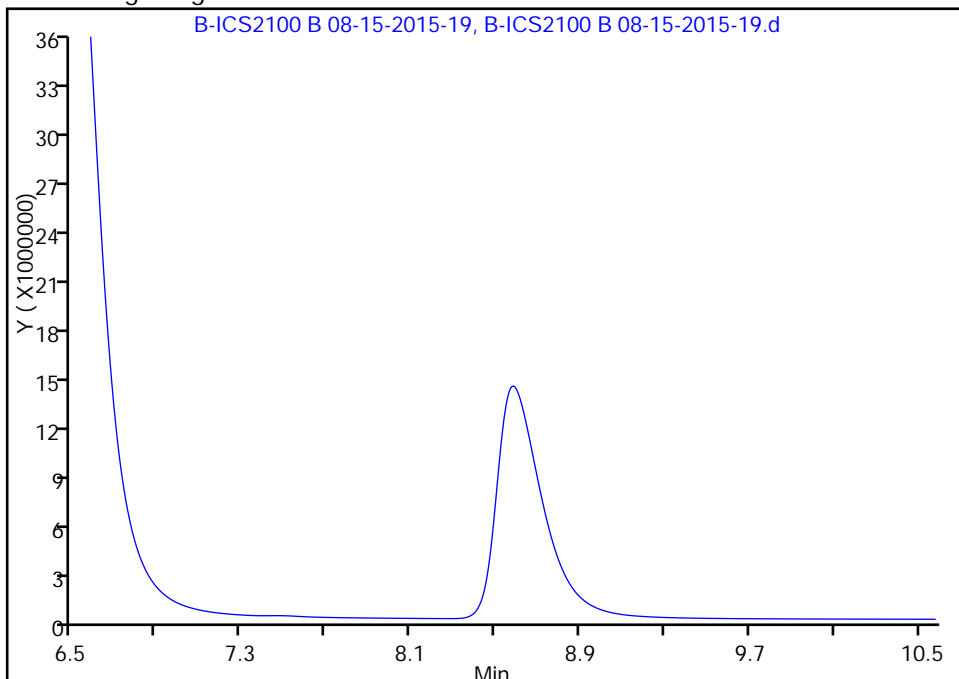
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-19.d  
Injection Date: 15-Aug-2015 17:12:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-9 Lab Sample ID: 180-46875-9  
Client ID: HD-COD-SW-15-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 19  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

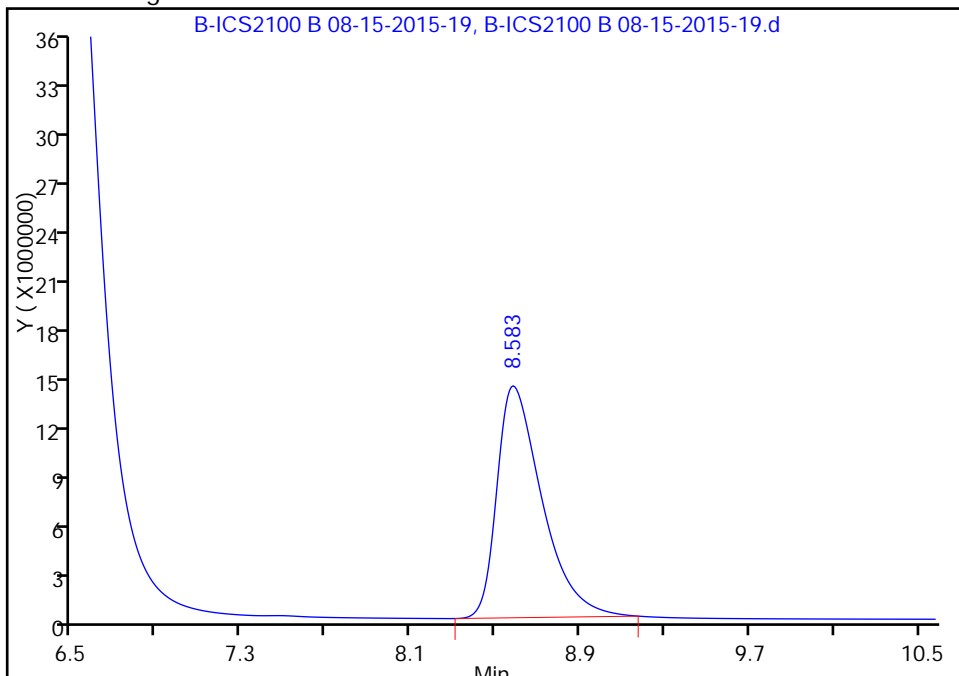
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Amount: 3.270348  
Amount Units: ug/ml

Processing Integration Results



RT: 8.58  
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Amount: 3.144655  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:30:55  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-46875-10  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-20.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 09:50  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 17:29  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.0		0.10	0.0062
16887-00-6	Chloride	72		1.0	0.20
14808-79-8	Sulfate	59		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-20.d  
 Lims ID: 180-46875-A-10 Lab Sample ID: 180-46875-10  
 Client ID: HD-COD-SW-16-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 17:29:00 ALS Bottle#: 0 Worklist Smp#: 20  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-020  
 Misc. Info.: 20 180-46875-a-10  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:31:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.833	0.000	1919414123	72.0	
3 Sulfate	6.475	6.500	-0.025	1143418228	58.5	
5 Nitrate as N	8.600	8.592	0.008	134743321	2.04	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-20.d

Injection Date: 15-Aug-2015 17:29:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-10

Lab Sample ID: 180-46875-10

Worklist Smp#: 20

Client ID: HD-COD-SW-16-0/1-0

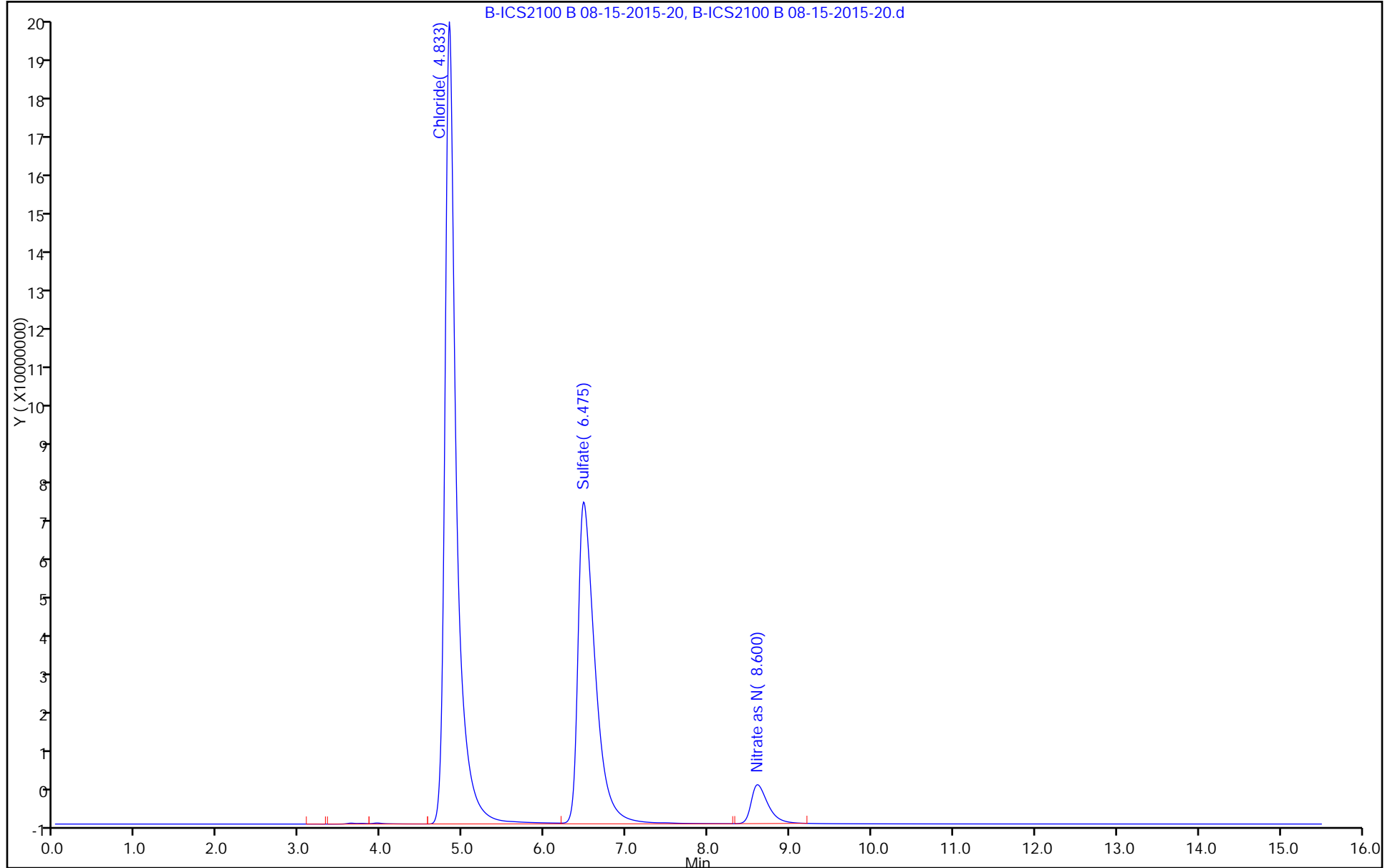
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





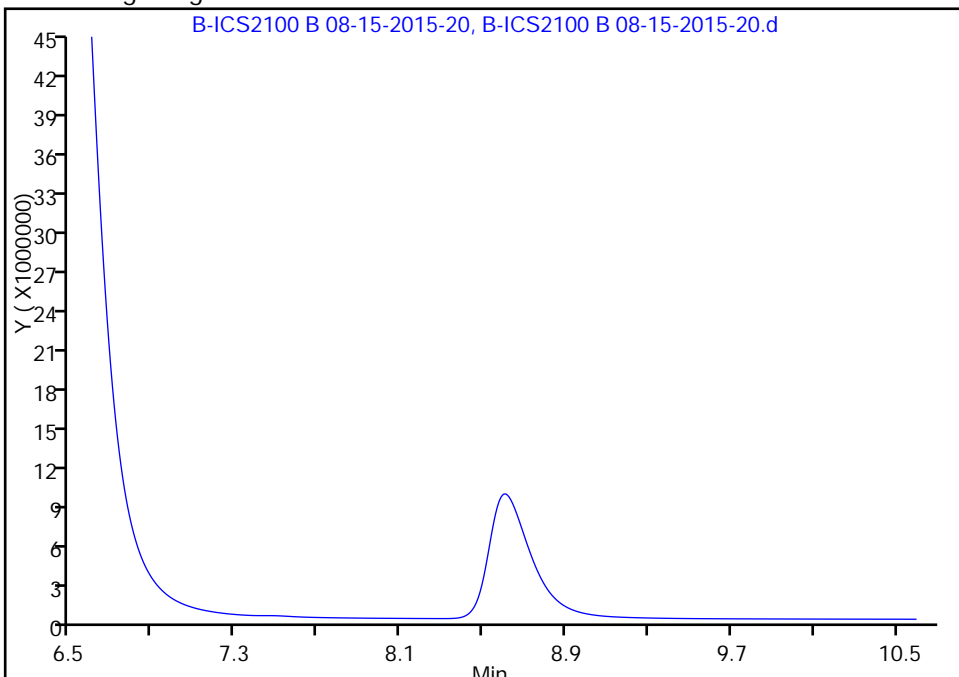
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-20.d  
Injection Date: 15-Aug-2015 17:29:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-10 Lab Sample ID: 180-46875-10  
Client ID: HD-COD-SW-16-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 20  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

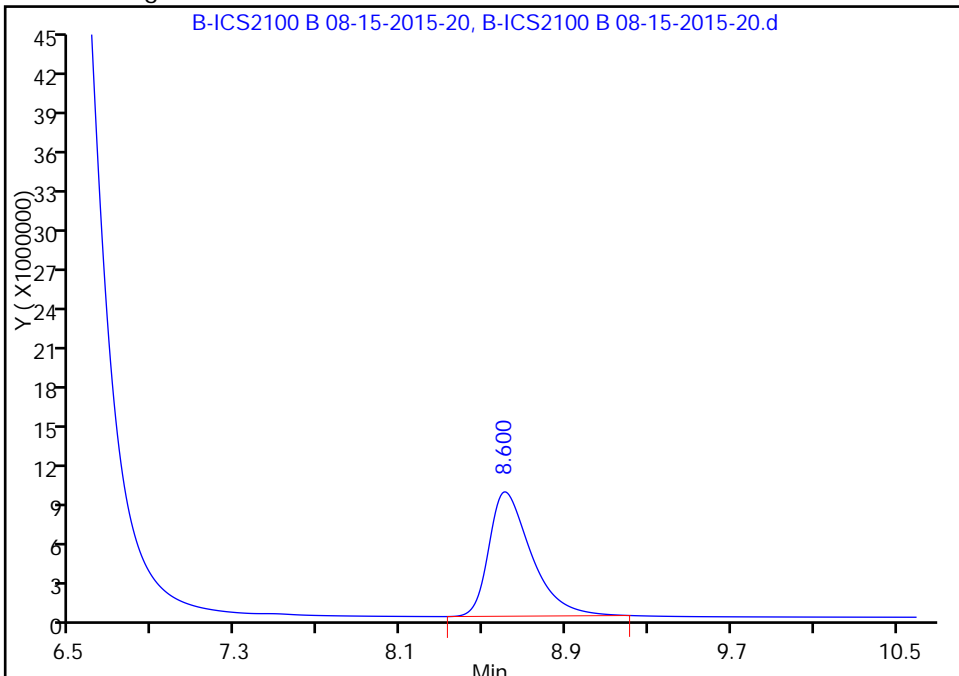
RT: 8.60  
Area: 140637356  
Amount: 2.132010  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 134743321  
Amount: 2.043020  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:31:08  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-46875-12  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-21.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:00  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 17:46  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.2		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-21.d  
 Lims ID: 180-46875-A-12 Lab Sample ID: 180-46875-12  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 17:46:00 ALS Bottle#: 0 Worklist Smp#: 21  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-021  
 Misc. Info.: 21 180-46875-a-12  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.633	3.642	-0.009	3433419	0.0758	
2 Chloride	4.825	4.833	-0.008	3337597490	125.1	
7 Nitrite as N		5.650			ND	
3 Sulfate	6.508	6.500	0.008	652380611	33.3	
4 Bromide		7.483			ND	
5 Nitrate as N	8.583	8.592	-0.009	213817243	3.24	
6 Orthophosphate as P		11.533			ND	

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-21.d

Injection Date: 15-Aug-2015 17:46:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-12

Lab Sample ID: 180-46875-12

Worklist Smp#: 21

Client ID: HD-COD-SW-17-0/1-0

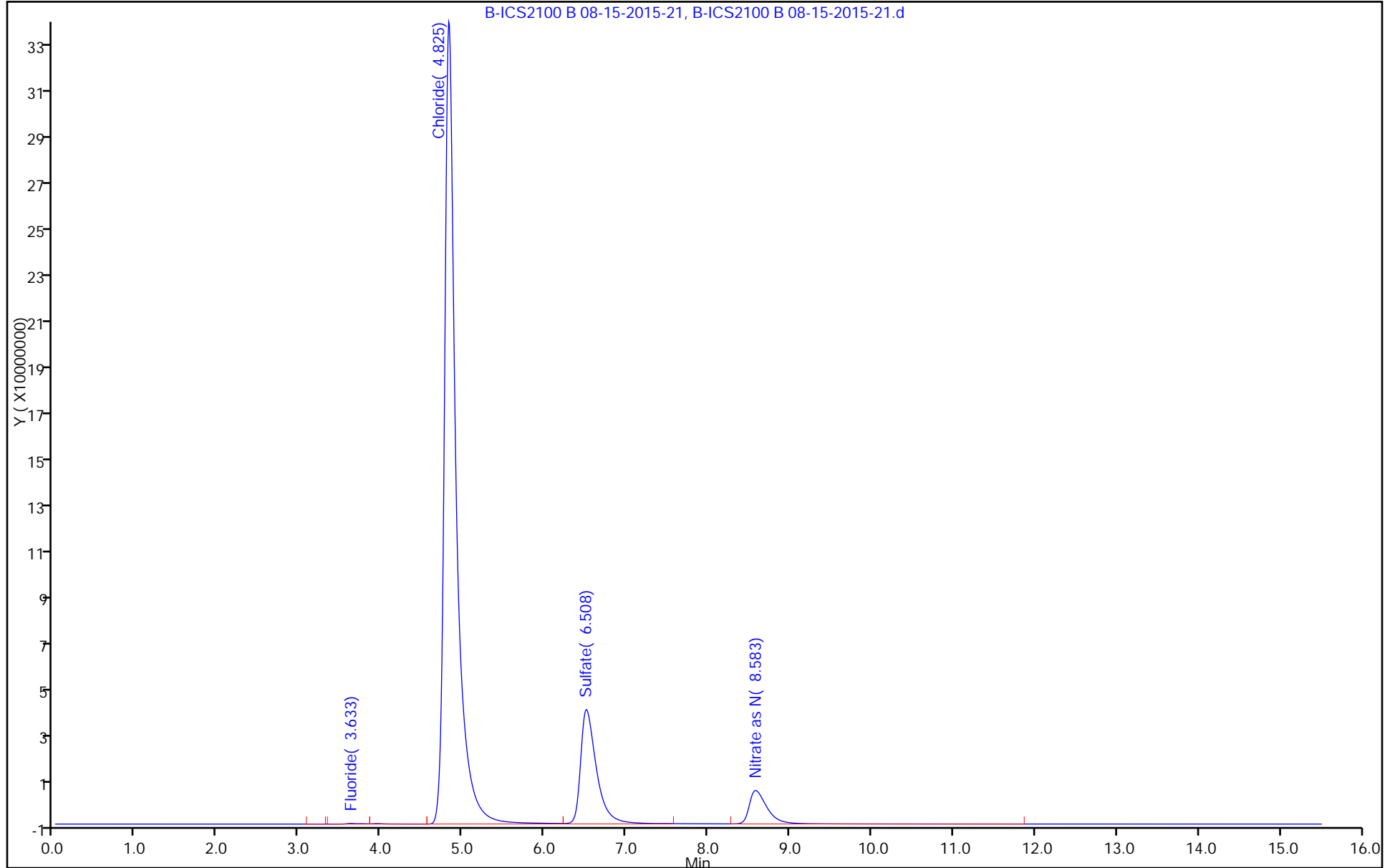
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



B-ICS2100 B 08-15-2015-21, B-ICS2100 B 08-15-2015-21.d

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-46875-13  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-24.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:35  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 18:38  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4		0.10	0.0062
16887-00-6	Chloride	100		1.0	0.20
14808-79-8	Sulfate	16		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-24.d  
 Lims ID: 180-46875-A-13 Lab Sample ID: 180-46875-13  
 Client ID: HD-COD-SW-20-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 18:38:00 ALS Bottle#: 0 Worklist Smp#: 24  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-024  
 Misc. Info.: 24 180-46875-a-13  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:33:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.833	0.000	2698032838	101.2	
3 Sulfate	6.542	6.500	0.042	324666281	16.5	
5 Nitrate as N	8.600	8.592	0.008	156814577	2.38	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-24.d

Injection Date: 15-Aug-2015 18:38:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-13

Lab Sample ID: 180-46875-13

Worklist Smp#: 24

Client ID: HD-COD-SW-20-0/1-0

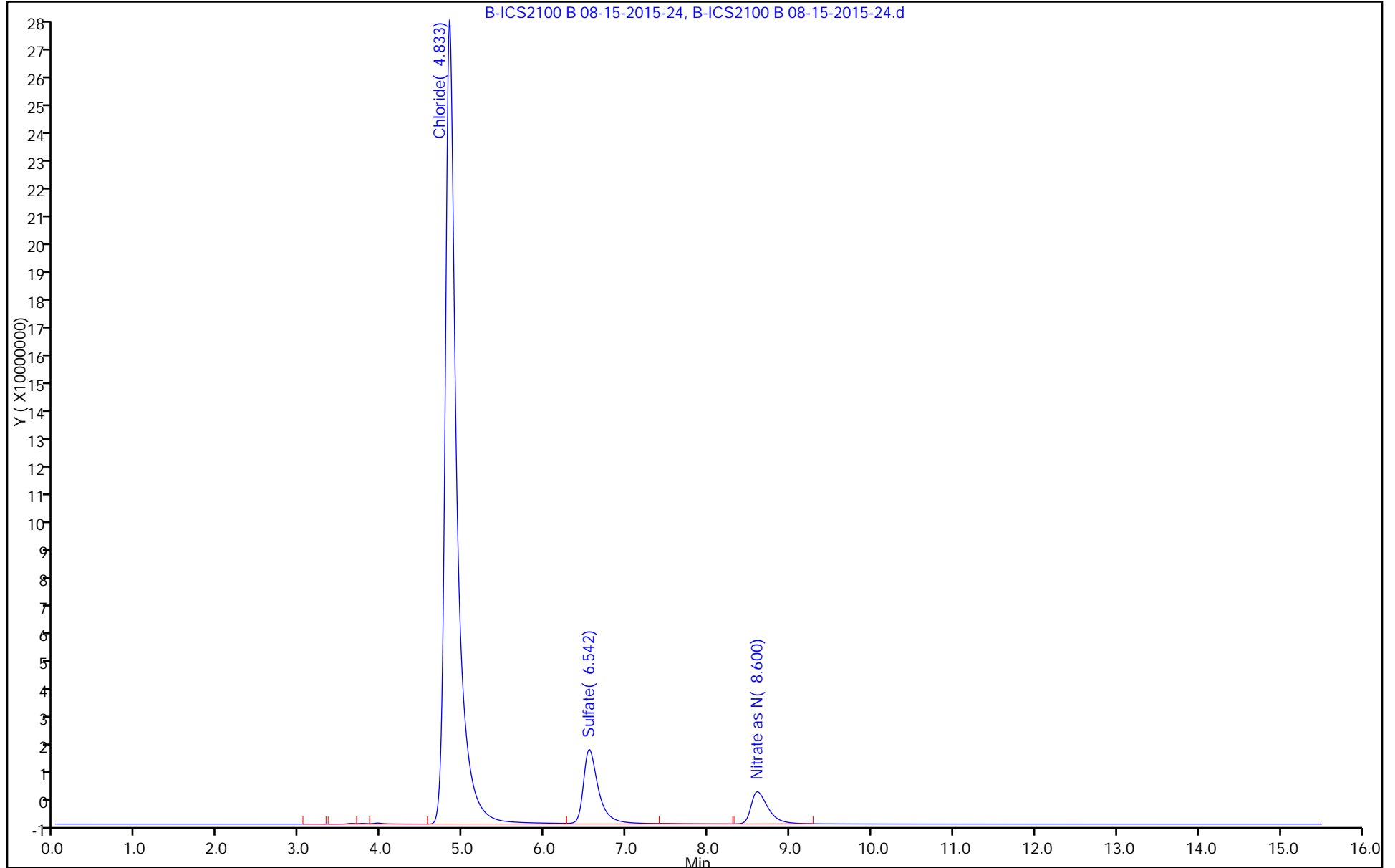
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



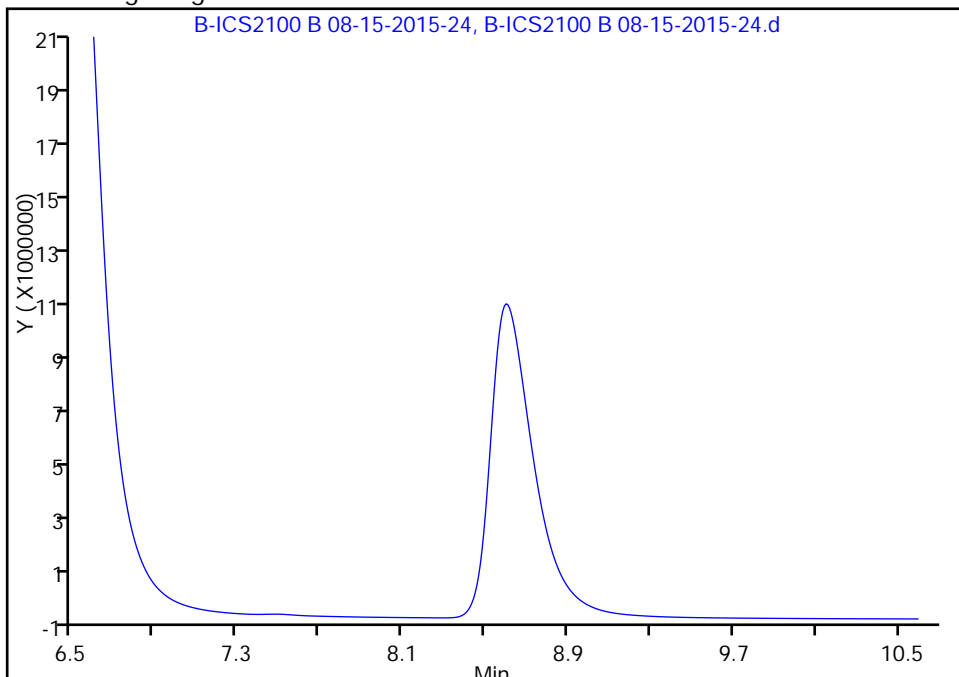
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-24.d  
Injection Date: 15-Aug-2015 18:38:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-13 Lab Sample ID: 180-46875-13  
Client ID: HD-COD-SW-20-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 24  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

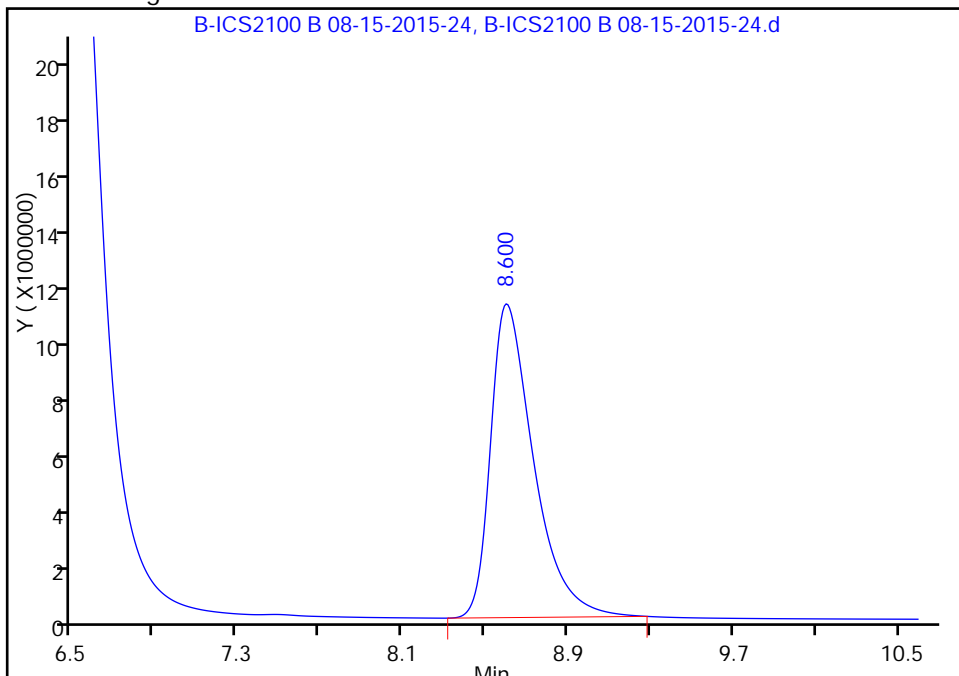
RT: 8.60  
Area: 160814984  
Amount: 2.436657  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 156814577  
Amount: 2.376258  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:33:31  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-46875-14  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-25.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:55  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 18:56  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.0		0.10	0.0062
16887-00-6	Chloride	190		1.0	0.20
14808-79-8	Sulfate	27		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-25.d  
 Lims ID: 180-46875-A-14 Lab Sample ID: 180-46875-14  
 Client ID: HD-COD-SW-26-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 18:56:00 ALS Bottle#: 0 Worklist Smp#: 25  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-025  
 Misc. Info.: 25 180-46875-a-14  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:33:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.825	4.833	-0.008	5067679000	190.0	
3 Sulfate	6.517	6.500	0.017	534504508	27.2	
5 Nitrate as N	8.567	8.592	-0.025	266655083	4.03	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-25.d

Injection Date: 15-Aug-2015 18:56:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-14

Lab Sample ID: 180-46875-14

Worklist Smp#: 25

Client ID: HD-COD-SW-26-0/1-0

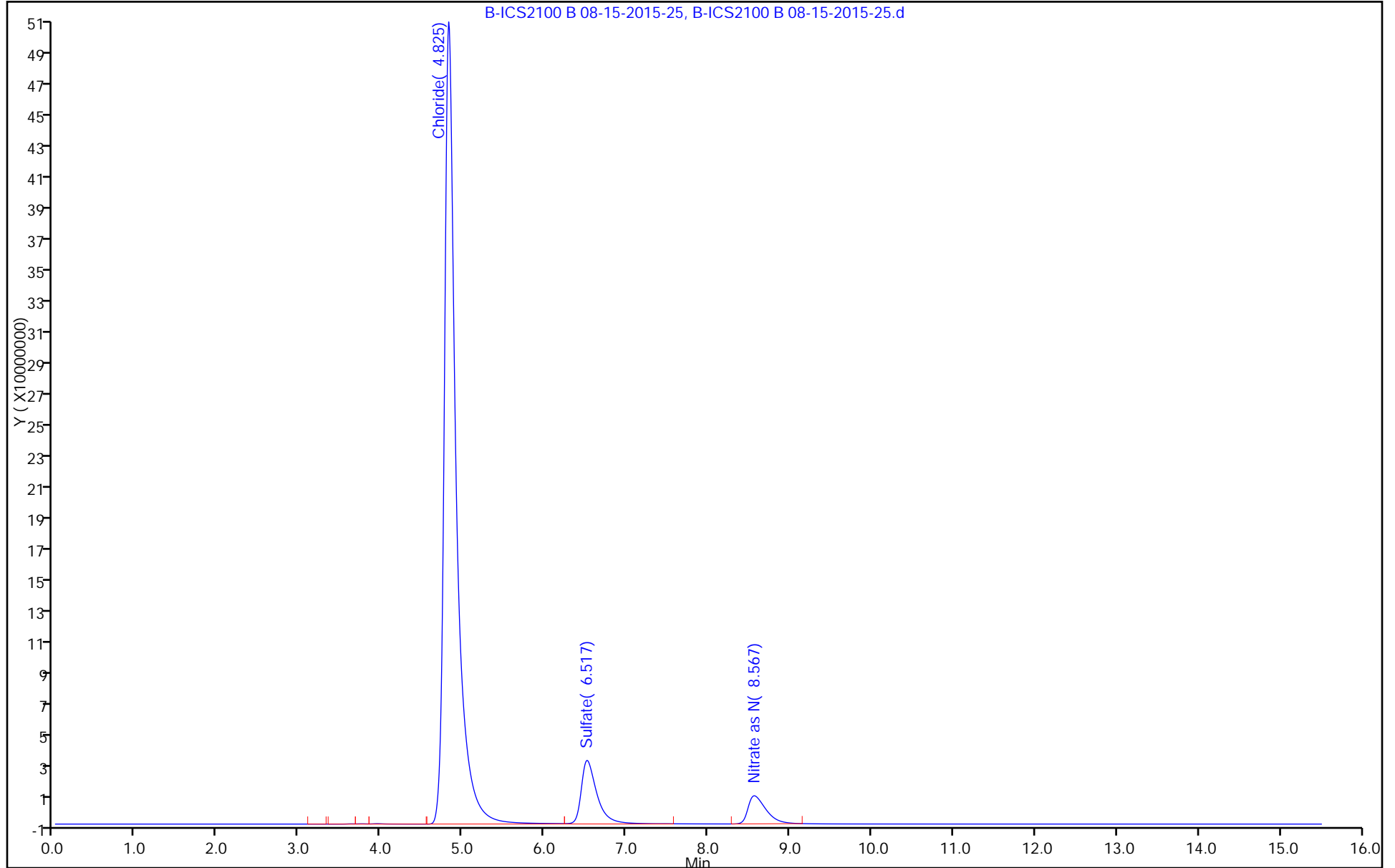
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



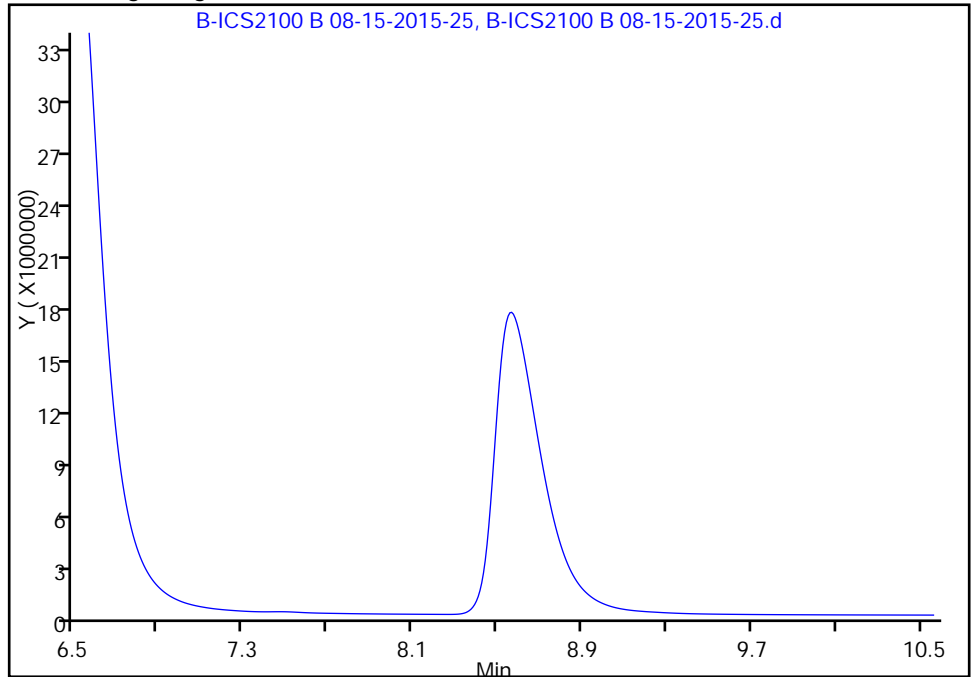
TestAmerica Pittsburgh

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Injection Date: 15-Aug-2015 18:56:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-14 Lab Sample ID: 180-46875-14  
Client ID: HD-COD-SW-26-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 25  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

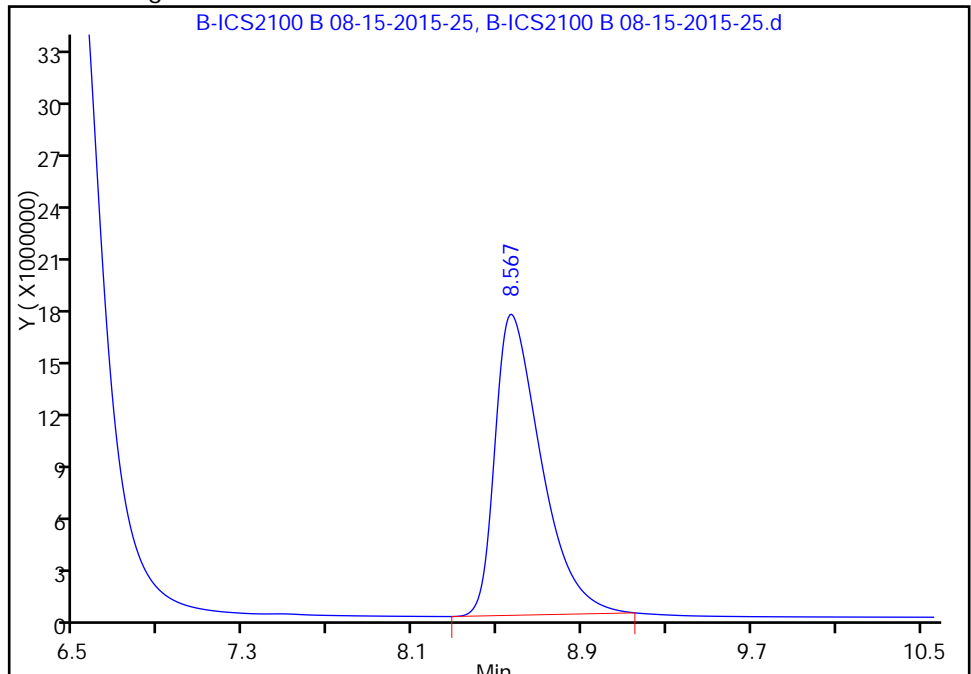
RT: 8.57  
Area: 278226799  
Amount: 4.209372  
Amount Units: ug/ml

Processing Integration Results



RT: 8.57  
Area: 266655083  
Amount: 4.034660  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:33:43  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-46875-15  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-26.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 13:15  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 19:13  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1		0.10	0.0062
16887-00-6	Chloride	73		1.0	0.20
14808-79-8	Sulfate	57		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-26.d  
 Lims ID: 180-46875-A-15 Lab Sample ID: 180-46875-15  
 Client ID: HD-COD-SW-27-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 19:13:00 ALS Bottle#: 0 Worklist Smp#: 26  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-026  
 Misc. Info.: 26 180-46875-a-15  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:33:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.833	0.000	1934775120	72.6	
3 Sulfate	6.483	6.500	-0.017	1117273297	57.2	
5 Nitrate as N	8.600	8.592	0.008	139982675	2.12	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-26.d

Injection Date: 15-Aug-2015 19:13:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-15

Lab Sample ID: 180-46875-15

Worklist Smp#: 26

Client ID: HD-COD-SW-27-0/1-0

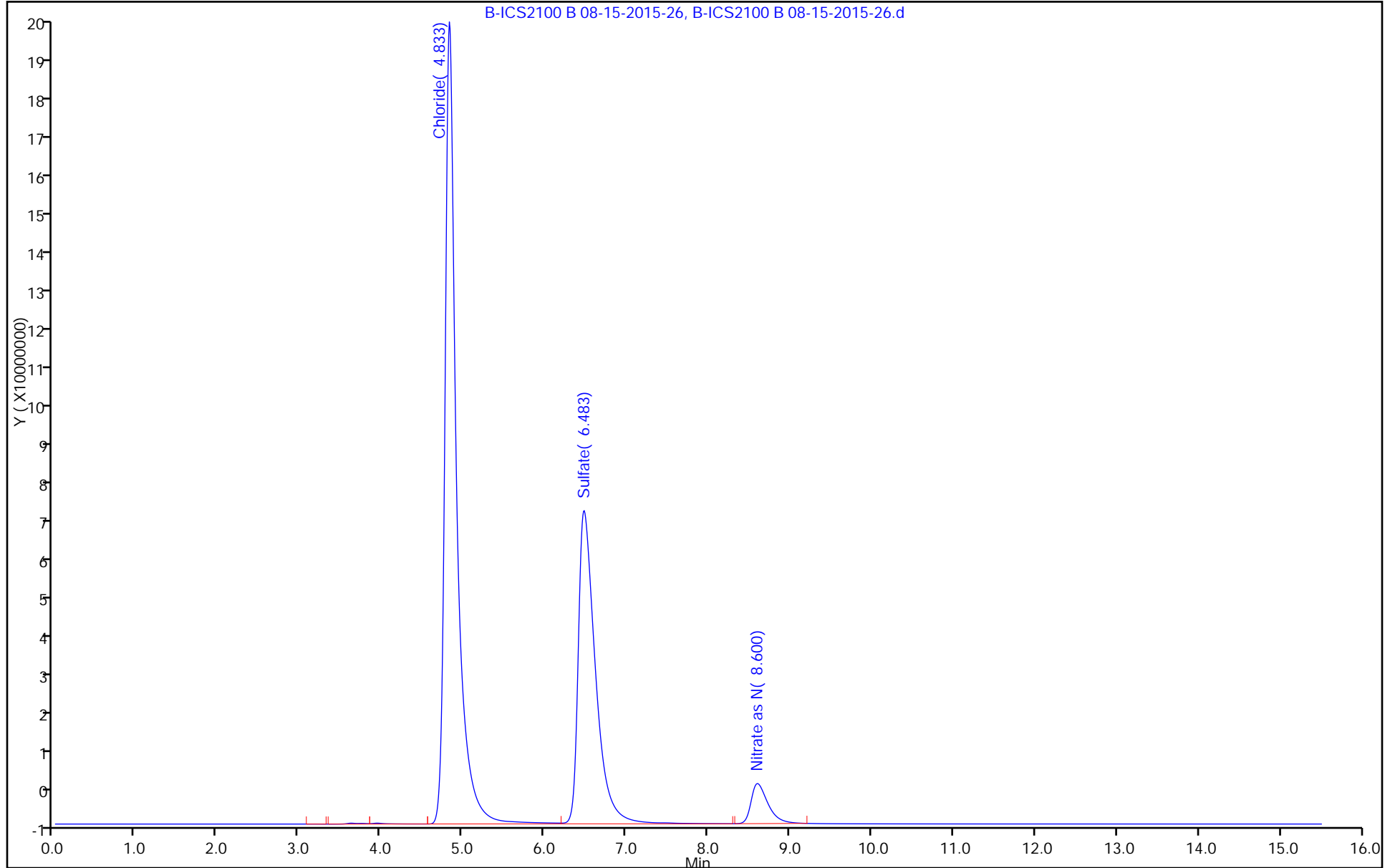
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



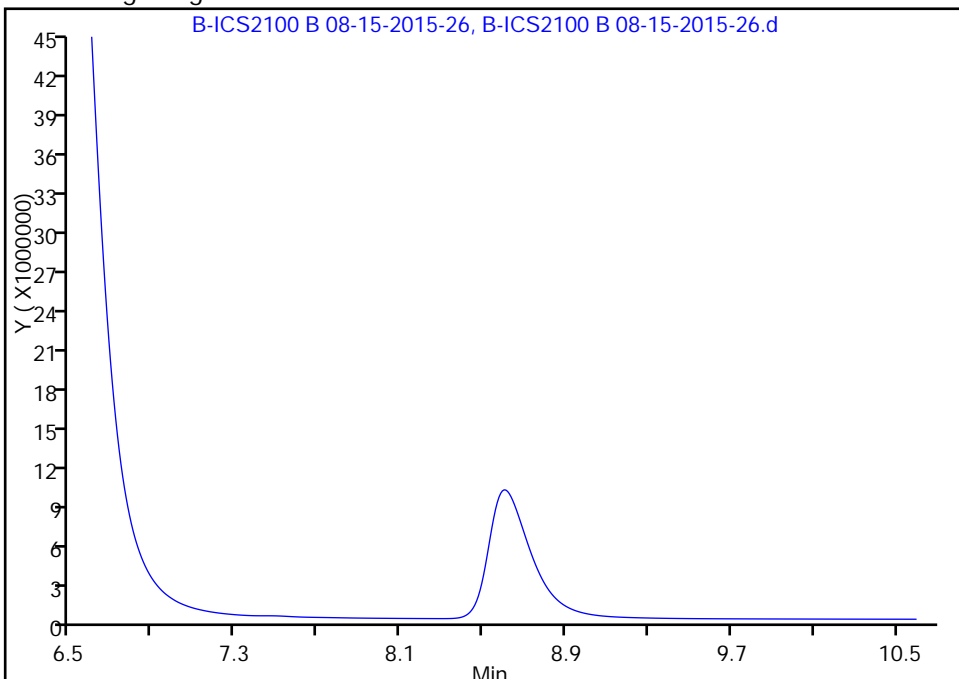
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-26.d  
Injection Date: 15-Aug-2015 19:13:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-15 Lab Sample ID: 180-46875-15  
Client ID: HD-COD-SW-27-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 26  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

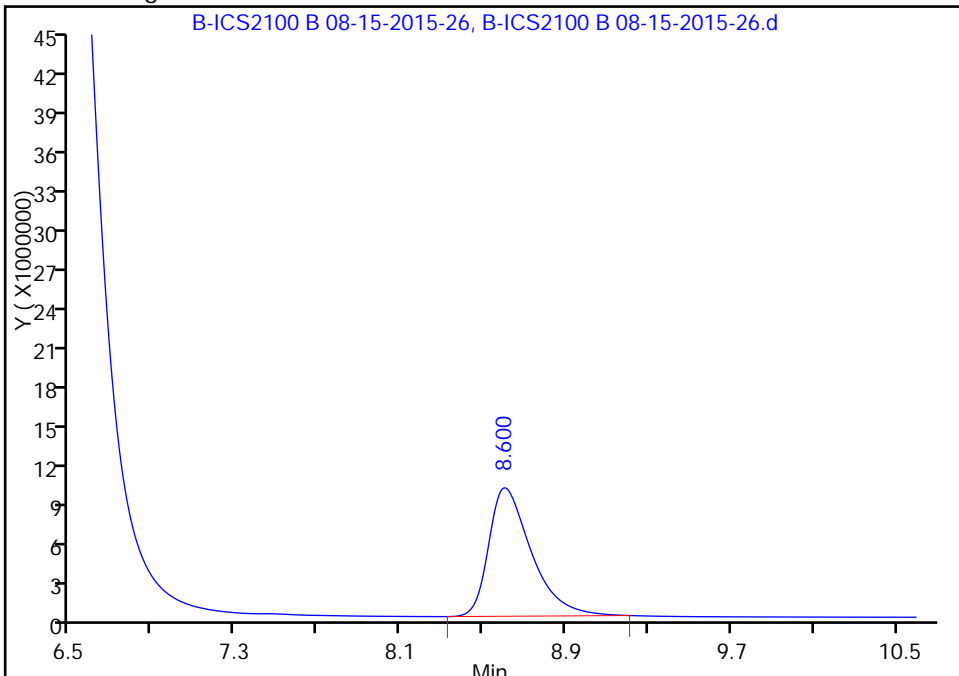
RT: 8.60  
Area: 145567968  
Amount: 2.206454  
Amount Units: ug/ml

Processing Integration Results



RT: 8.60  
Area: 139982675  
Amount: 2.122126  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:33:56  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-46875-16  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-29.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 12:25  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 20:05  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	41		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-29.d  
 Lims ID: 180-46875-A-16 Lab Sample ID: 180-46875-16  
 Client ID: HD-COD-SW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 20:05:00 ALS Bottle#: 0 Worklist Smp#: 29  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-029  
 Misc. Info.: 1210 180-46875-a-16  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:56 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:34:21

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.825	4.842	-0.017	3545406441	132.9	
3 Sulfate	6.500	6.492	0.008	799228445	40.8	
5 Nitrate as N	8.592	8.592	0.000	166042914	2.52	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-29.d

Injection Date: 15-Aug-2015 20:05:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-16

Lab Sample ID: 180-46875-16

Worklist Smp#: 29

Client ID: HD-COD-SW-28-0/1-0

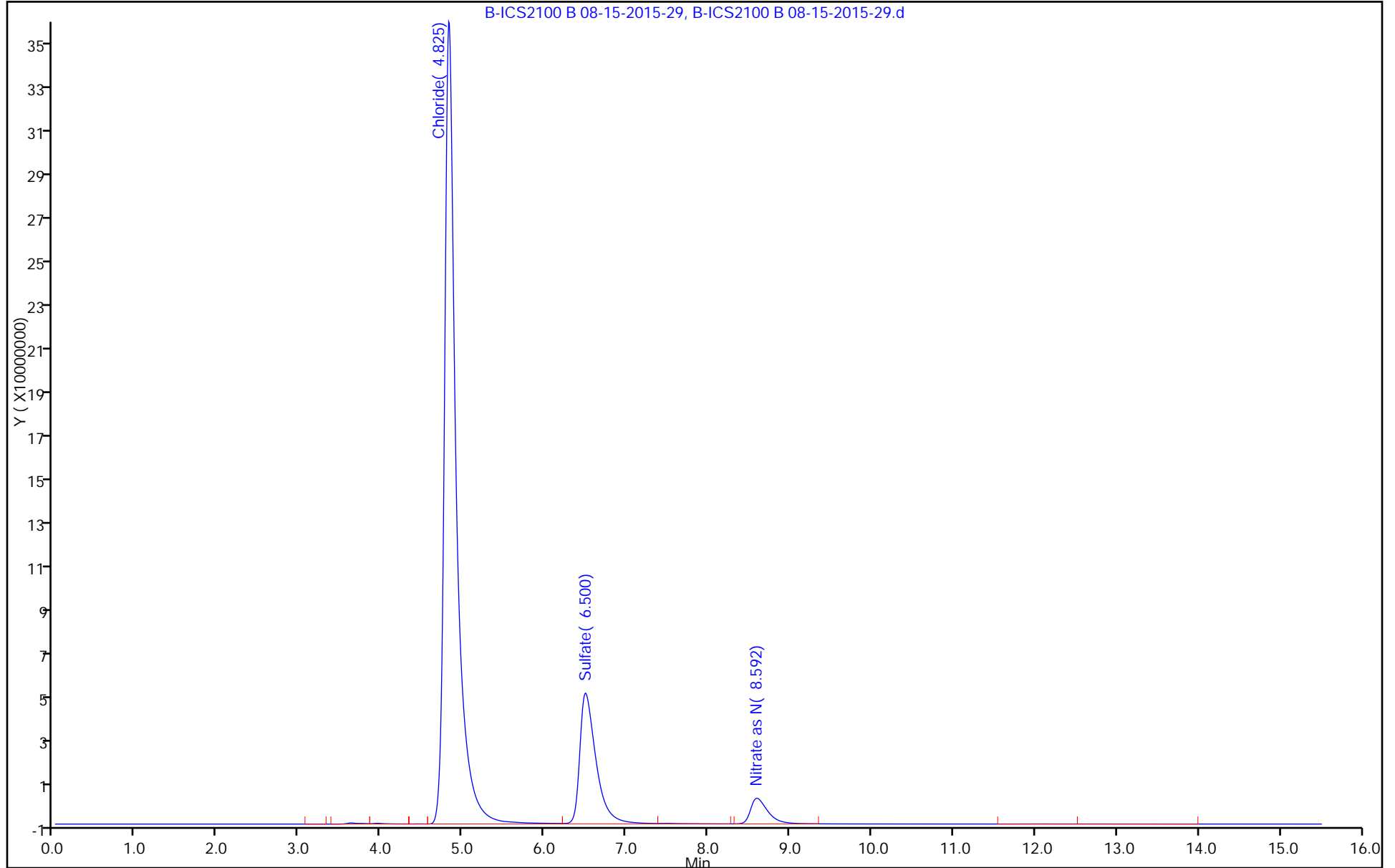
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



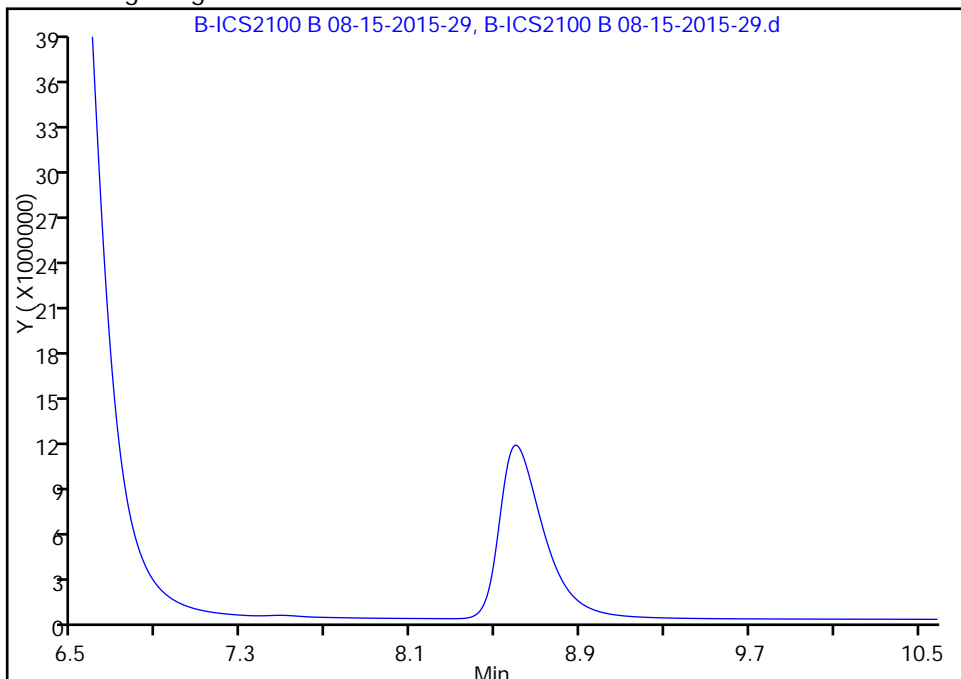
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-29.d  
Injection Date: 15-Aug-2015 20:05:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-16 Lab Sample ID: 180-46875-16  
Client ID: HD-COD-SW-28-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 29  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

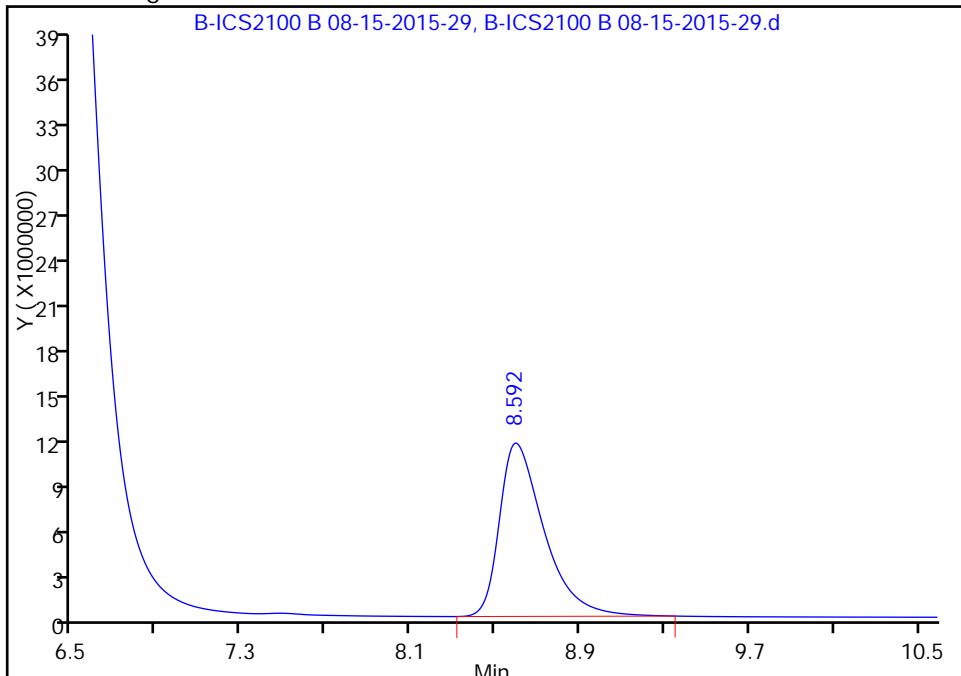
RT: 8.59  
Area: 168582689  
Amount: 2.553936  
Amount Units: ug/ml

Processing Integration Results



RT: 8.59  
Area: 166042914  
Amount: 2.515590  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:34:21  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-46875-17  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-30.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 08:45  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 20:22  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1		0.10	0.0062
16887-00-6	Chloride	74		1.0	0.20
14808-79-8	Sulfate	58		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-30.d  
 Lims ID: 180-46875-A-17 Lab Sample ID: 180-46875-17  
 Client ID: HD-COD-SW-29-0/1-0  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 20:22:00 ALS Bottle#: 0 Worklist Smp#: 30  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-030  
 Misc. Info.: 11921 180-46875-a-17  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:56 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:34:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.842	-0.009	1967972227	73.8	
3 Sulfate	6.483	6.492	-0.009	1132872807	58.0	
5 Nitrate as N	8.608	8.592	0.016	136366779	2.07	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-30.d

Injection Date: 15-Aug-2015 20:22:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-17

Lab Sample ID: 180-46875-17

Worklist Smp#: 30

Client ID: HD-COD-SW-29-0/1-0

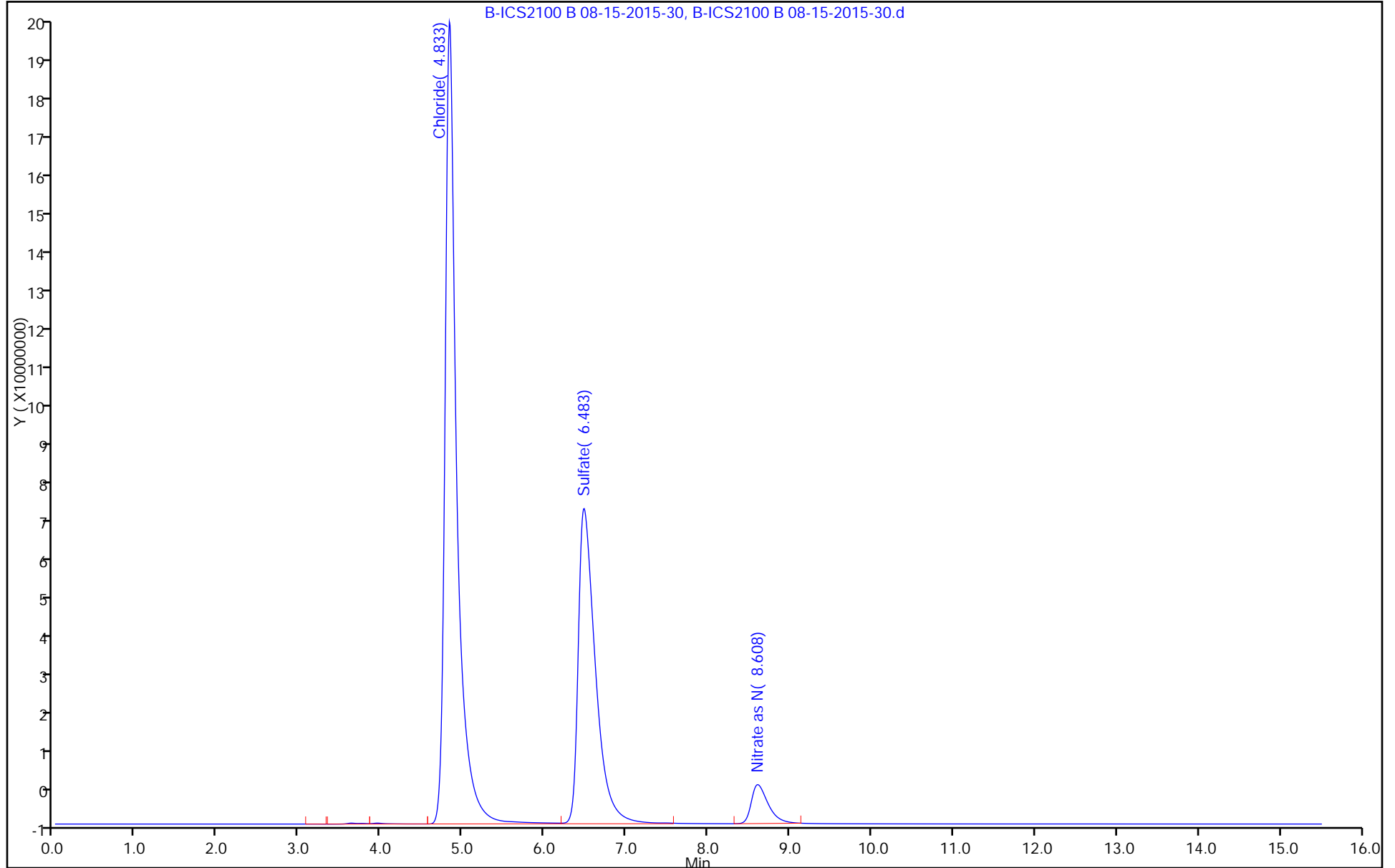
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



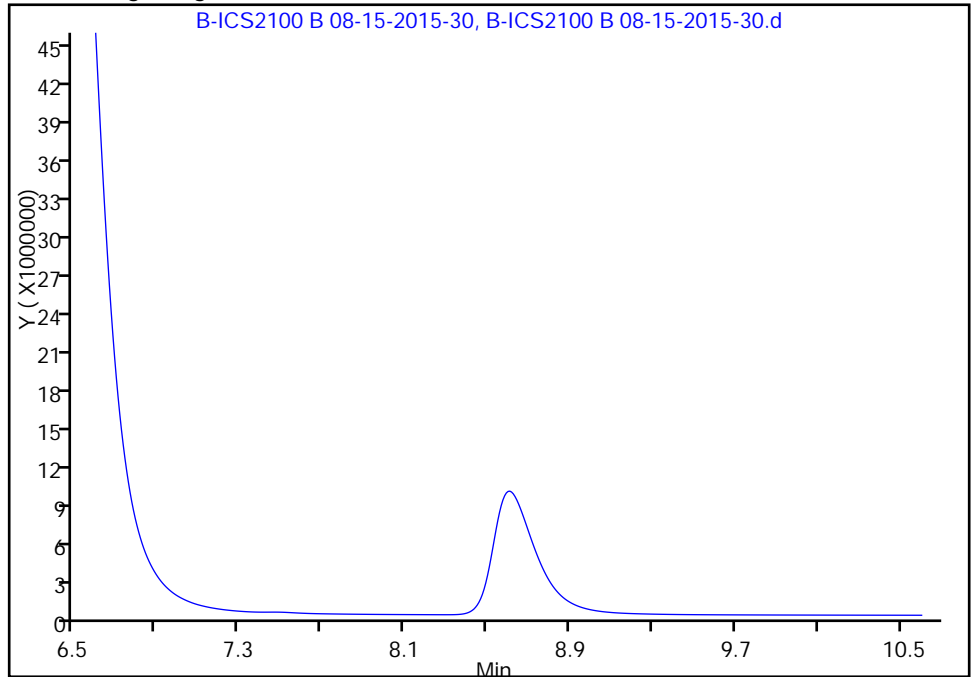
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-30.d  
Injection Date: 15-Aug-2015 20:22:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-17 Lab Sample ID: 180-46875-17  
Client ID: HD-COD-SW-29-0/1-0  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 30  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

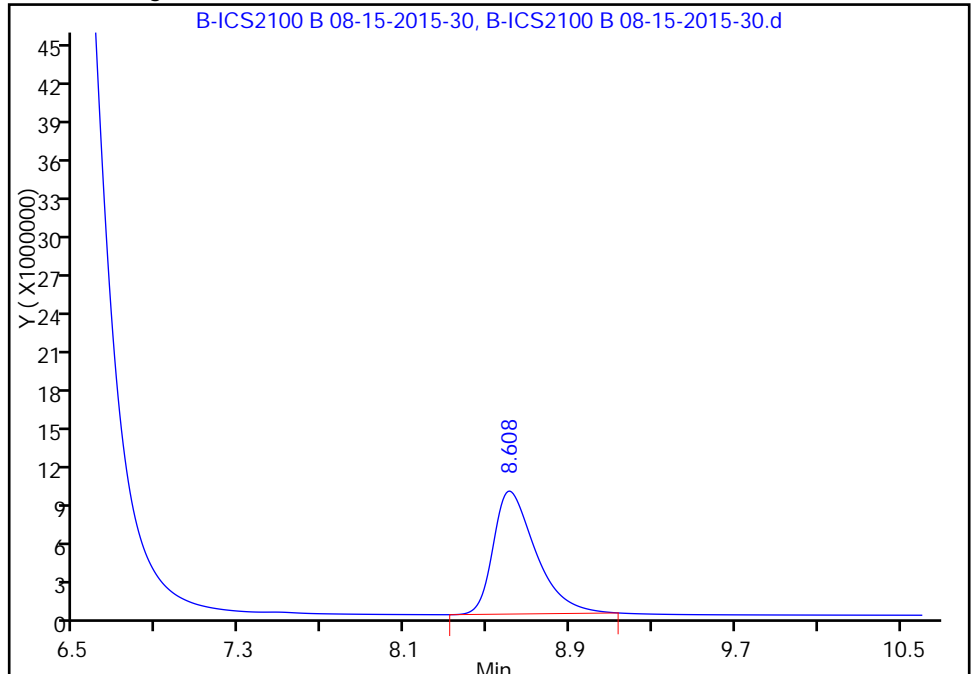
RT: 8.61  
Area: 143698720  
Amount: 2.178231  
Amount Units: ug/ml

Processing Integration Results



RT: 8.61  
Area: 136366779  
Amount: 2.067532  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:34:34  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-46875-18  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-31.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 08:00  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 20:39  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3		0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	34		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-31.d  
 Lims ID: 180-46875-A-18 Lab Sample ID: 180-46875-18  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 15-Aug-2015 20:39:00 ALS Bottle#: 0 Worklist Smp#: 31  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-031  
 Misc. Info.: 2968 180-46875-a-18  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:56 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK050

First Level Reviewer: reaglec Date: 20-Aug-2015 09:34:56

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.833	4.842	-0.009	3526976197	132.2	
3 Sulfate	6.508	6.492	0.016	659757692	33.7	
5 Nitrate as N	8.583	8.592	-0.009	217739981	3.30	M

QC Flag Legend

Review Flags

M - Manually Integrated

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-31.d

Injection Date: 15-Aug-2015 20:39:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-18

Lab Sample ID: 180-46875-18

Worklist Smp#: 31

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

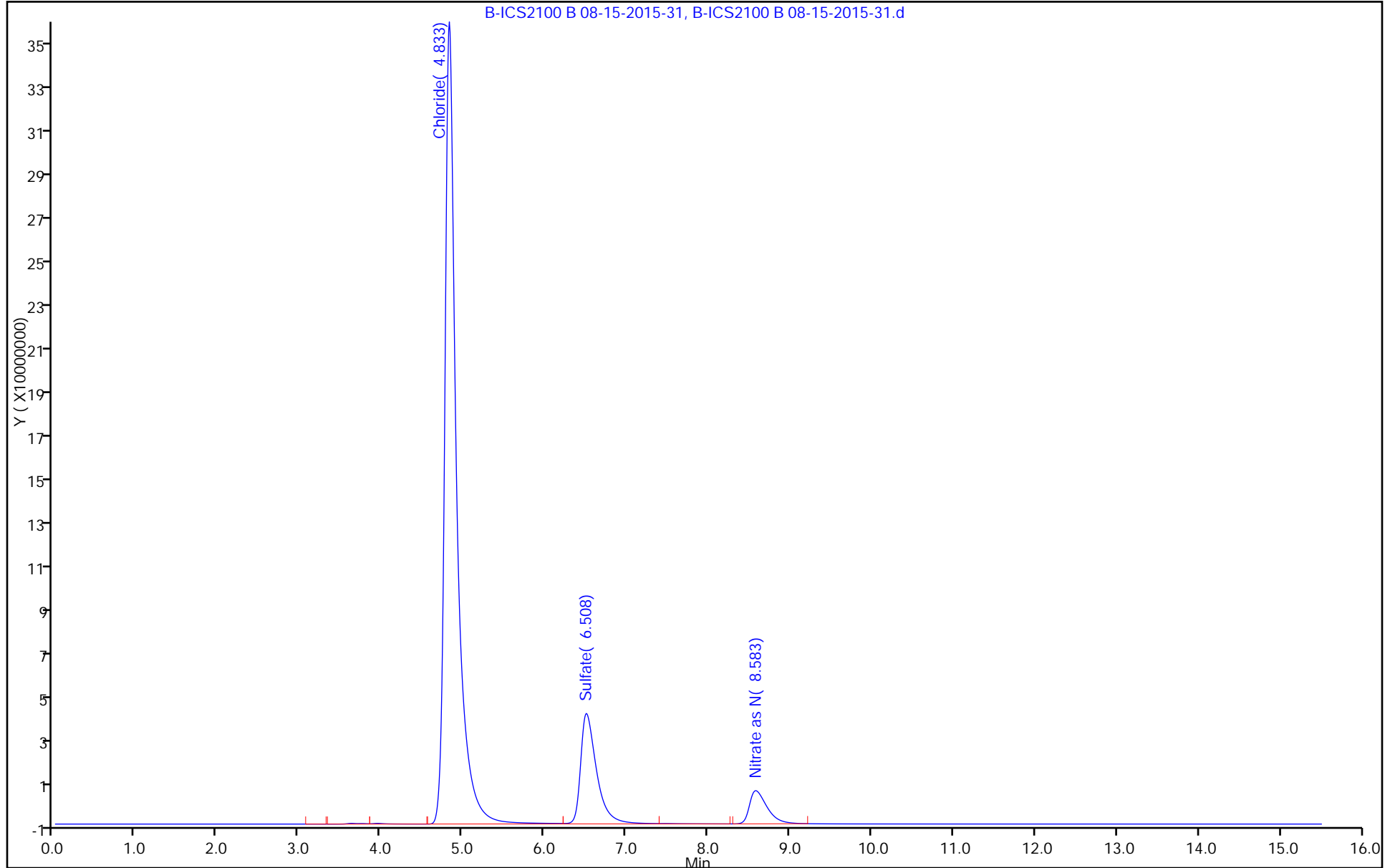
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



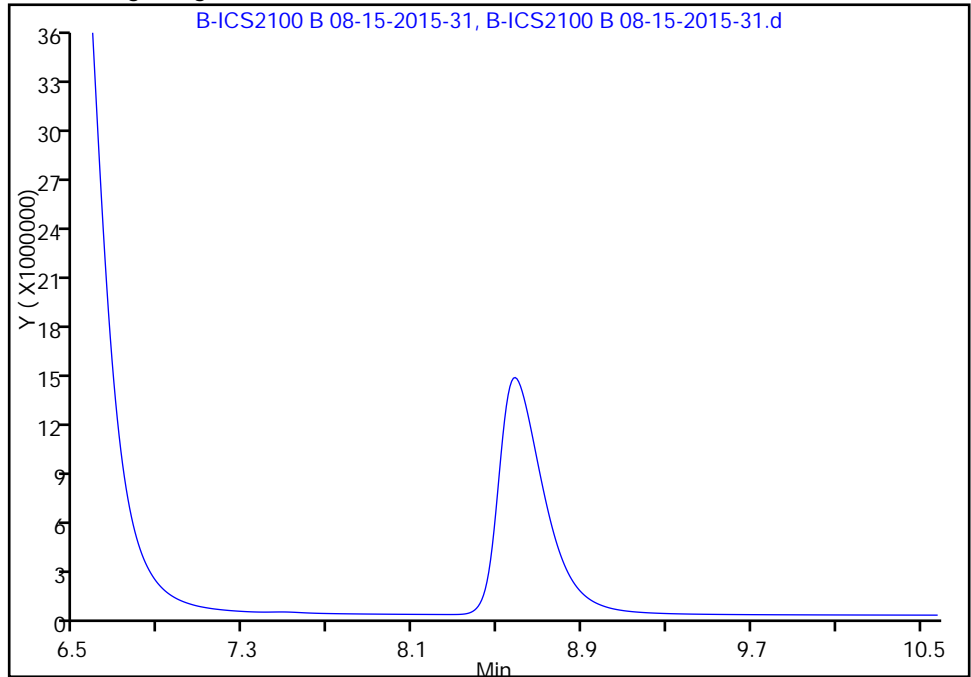
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-31.d  
Injection Date: 15-Aug-2015 20:39:00 Instrument ID: CHICS2100B  
Lims ID: 180-46875-A-18 Lab Sample ID: 180-46875-18  
Client ID: HD-QC1-0/1-1  
Operator ID: ALS Bottle#: 0 Worklist Smp#: 31  
Injection Vol: 10.0 ul Dil. Factor: 1.0000  
Method: 300\_9056\_CHIC2100B Limit Group: GC Anions ICAL  
Column: Detector 0008

5 Nitrate as N, CAS: 14797-55-8

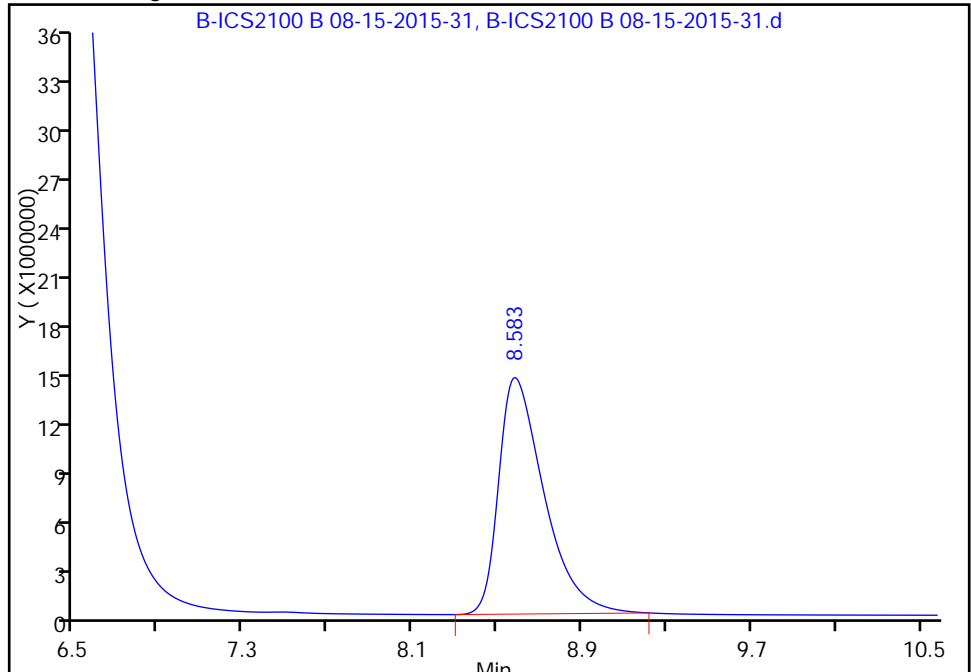
RT: 8.58  
Area: 222774871  
Amount: 3.372144  
Amount Units: ug/ml

Processing Integration Results



RT: 8.58  
Area: 217739981  
Amount: 3.296126  
Amount Units: ug/ml

Manual Integration Results



Reviewer: reaglec, 20-Aug-2015 09:34:56  
Audit Action: Manually Integrated  
Audit Reason: Baseline Smoothing

FORM VI  
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 138618

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B GC Column: AS-18 ID: \_\_\_\_\_ Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.658	3.658	3.658	3.667	3.667	3.667	3.667	3.675			3.308 - 4.008	3.665
Chloride	4.950	4.950	4.942	4.942	4.933	4.933	4.925	4.917			4.592 - 5.292	4.937
Nitrite as N	5.817	5.817	5.817	5.817	5.817	5.817	+++++	+++++			5.567 - 6.067	5.817
Sulfate	6.858	6.850	6.833	6.808	6.750	6.683	6.625	6.575			6.483 - 7.183	6.748
Bromide	7.817	7.817	7.808	7.808	7.783	7.767	7.733	7.717			7.458 - 8.158	7.781
Nitrate as N	9.100	9.100	9.083	9.067	9.017	8.967	8.917	8.875			8.833 - 9.333	9.016
Orthophosphate as P	+++++	+++++	12.633	12.600	12.467	12.317	12.183	12.083			12.133 - 13.133	12.381

FORM VI  
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 138618

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B GC Column: AS-18 ID: \_\_\_\_\_ Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4		B	M1	M2								
	LVL 5	LVL 6	LVL 7	LVL 8												
Fluoride	46484040 44488770	41188952 43022992	45611308 42521689	45839580 41976790	Lin2	142149.513	43397203.3						0.9980		0.9950	
Chloride	25085564 26660142	26222144 26369330	26666796 26648824	26747431 26853496	Lin2	-1610994.2	26686961.8						1.0000		0.9950	
Nitrite as N	76927840 57882564	60781072 54059356	61607114 ++++	61339242 ++++	Lin2	972853.413	57624405.7						0.9980		0.9950	
Sulfate	23335222 19577256	20457294 19212636	19964310 19359210	19887329 19477723	Lin2	3912770.84	19478213.4						1.0000		0.9950	
Bromide	835850 915403	853785 881845	884616 868328	909169 849773	Lin2	-9816.0251	883383.993						0.9990		0.9950	
Nitrate as N	55575600 66453469	60515684 66412101	63992838 67380292	65497209 68126262	Lin2	-571568.42	66232763.7						0.9990		0.9950	
Orthophosphate as P	++++ 26468473	++++ 26383080	23630620 26946762	24921352 27192225	Lin2	-1805036.3	27076969.6						1.0000		0.9950	

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

FORM VI  
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1 Analy Batch No.: 138618

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B GC Column: AS-18 ID: \_\_\_\_\_ Heated Purge: (Y/N) N

Calibration Start Date: 04/15/2015 15:44 Calibration End Date: 04/15/2015 17:45 Calibration ID: 23326

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-138618/2	B-ICS2100 B 04-15-2015-2.d
Level 2	IC 180-138618/3	B-ICS2100 B 04-15-2015-3.d
Level 3	ICRT 180-138618/4	B-ICS2100 B 04-15-2015-4.d
Level 4	IC 180-138618/5	B-ICS2100 B 04-15-2015-5.d
Level 5	IC 180-138618/6	B-ICS2100 B 04-15-2015-6.d
Level 6	IC 180-138618/7	B-ICS2100 B 04-15-2015-7.d
Level 7	IC 180-138618/8	B-ICS2100 B 04-15-2015-8.d
Level 8	IC 180-138618/9	B-ICS2100 B 04-15-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
		LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Fluoride	Lin2	2324202 215114961	10297238 318912666	22805654 419767900	45839580	111221925	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	25085564 2636933019	131110722 3997323672	266667960 5370699112	534948618	1333007108	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3846392 270296782	15195268 +++++	30803557 +++++	61339242	144706410	0.0500 5.00	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	23335222 1921263587	102286469 2903881535	199643096 3895544554	397746587	978862804	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	167170 17636894	853785 26049842	1769232 33990920	3636676	9154030	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2778780 332060506	15128921 505352191	31996419 681262618	65497209	166133672	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin2	++++ 131915399	++++ 202100715	11815310 271922248	24921352	66171182	++++ 5.00	++++ 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin2 = Linear 1/conc^2 by height

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d  
 Lims ID: ic L2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 15-Apr-2015 15:44:00 ALS Bottle#: 0 Worklist Smp#: 2  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-002  
 Misc. Info.: 3659 ic I2  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	2324202	0.0500	0.0503	
2 Chloride	4.950	4.942	0.008	25085564	1.00	1.00	
7 Nitrite as N	5.817	5.817	0.000	3846392	0.0500	0.0499	
3 Sulfate	6.858	6.833	0.025	23335222	1.00	1.00	
4 Bromide	7.817	7.808	0.009	167170H	0.2000	0.2004	
5 Nitrate as N	9.100	9.083	0.017	2778780	0.0500	0.0506	
6 Orthophosphate as P	12.667	12.633	0.034	870881	0.0500	0.0988	

Reagents:

ICSTDL2\_00171 Amount Added: 1.00 Units: mL



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-2.d

Injection Date: 15-Apr-2015 15:44:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L2

Worklist Smp#: 2

Client ID:

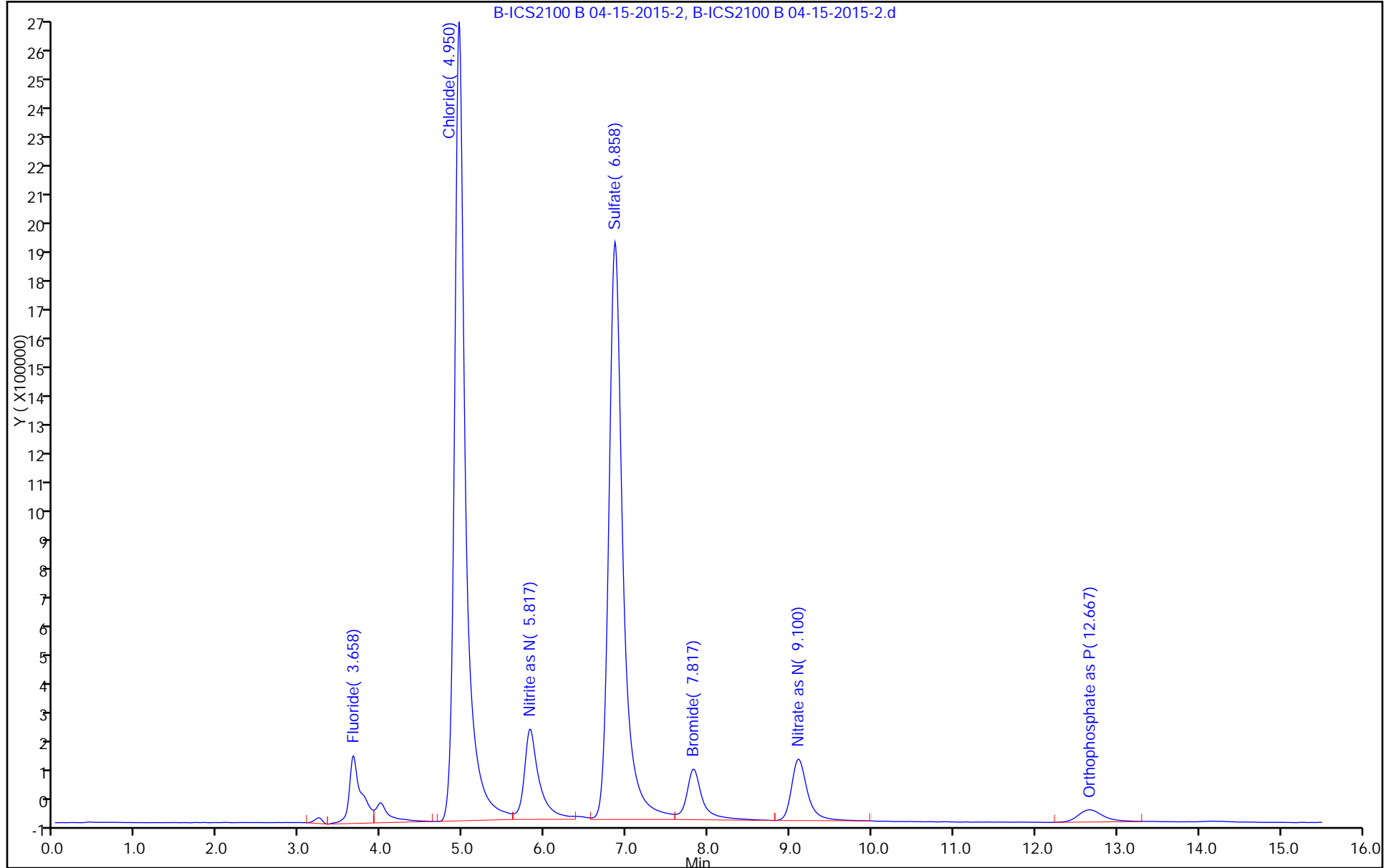
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d  
 Lims ID: ic L3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 15-Apr-2015 16:01:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-003  
 Misc. Info.: 27860 ic I3  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	10297238	0.2500	0.2340	
2 Chloride	4.950	4.942	0.008	131110722	5.00	4.97	
7 Nitrite as N	5.817	5.817	0.000	15195268	0.2500	0.2468	
3 Sulfate	6.850	6.833	0.017	102286469	5.00	5.05	
4 Bromide	7.817	7.808	0.009	853785H	1.00	0.9776	
5 Nitrate as N	9.100	9.083	0.017	15128921	0.2500	0.2371	
6 Orthophosphate as P	12.667	12.633	0.034	5299466	0.2500	0.2624	

Reagents:

ICSTDL3\_00209 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-3.d

Injection Date: 15-Apr-2015 16:01:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L3

Worklist Smp#: 3

Client ID:

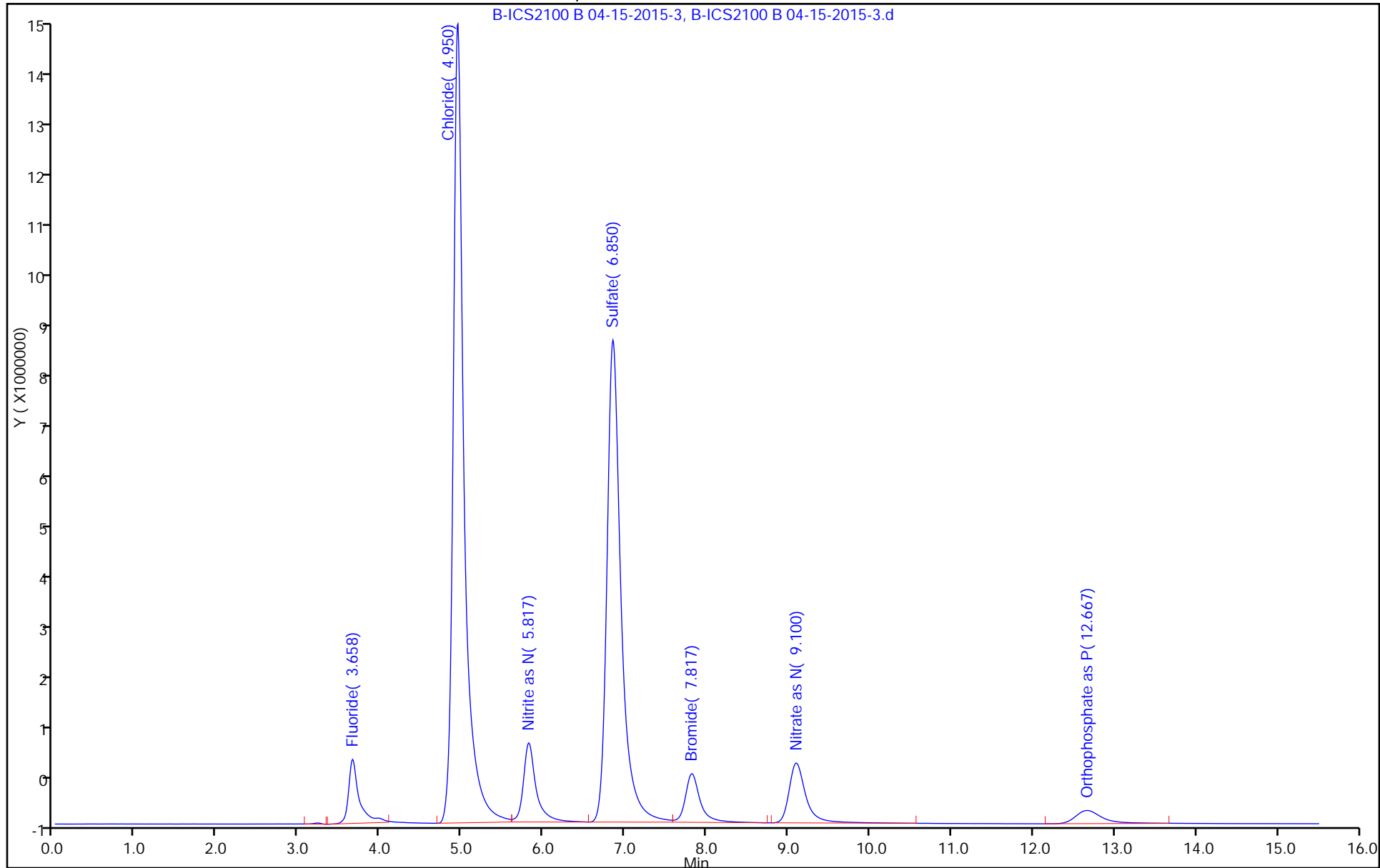
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d  
 Lims ID: icrt L4  
 Client ID:  
 Sample Type: ICRT Calib Level: 4  
 Inject. Date: 15-Apr-2015 16:19:00 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-004  
 Misc. Info.: 21504 icrt I4  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:32 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:57:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.658	3.658	0.000	22805654	0.5000	0.5222	
2 Chloride	4.942	4.942	0.000	266667960	10.0	10.1	
7 Nitrite as N	5.817	5.817	0.000	30803557	0.5000	0.5177	
3 Sulfate	6.833	6.833	0.000	199643096	10.0	10.0	
4 Bromide	7.808	7.808	0.000	1769232H	2.00	2.01	
5 Nitrate as N	9.083	9.083	0.000	31996419	0.5000	0.4917	
6 Orthophosphate as P	12.633	12.633	0.000	11815310	0.5000	0.5030	

Reagents:

ICSTDL4\_00143 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d

Injection Date: 15-Apr-2015 16:19:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: icrt L4

Worklist Smp#: 4

Client ID:

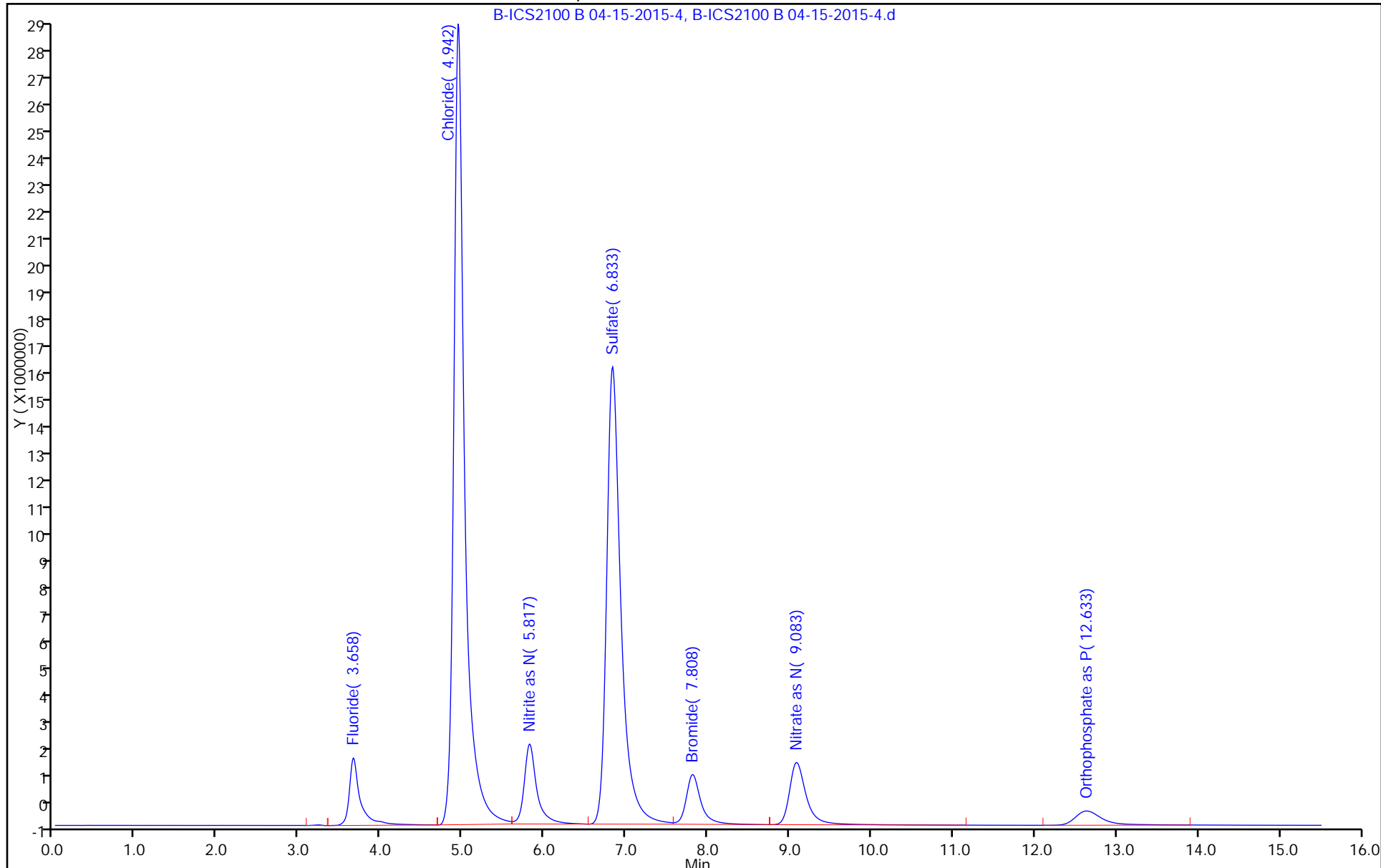
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d  
 Lims ID: ic L5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 15-Apr-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-005  
 Misc. Info.: 13847 ic I5  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	45839580	1.00	1.05	
2 Chloride	4.942	4.942	0.000	534948618	20.0	20.1	
7 Nitrite as N	5.817	5.817	0.000	61339242	1.00	1.05	
3 Sulfate	6.808	6.833	-0.025	397746587	20.0	20.2	
4 Bromide	7.808	7.808	0.000	3636676H	4.00	4.13	
5 Nitrate as N	9.067	9.083	-0.016	65497209	1.00	1.00	
6 Orthophosphate as P	12.600	12.633	-0.033	24921352	1.00	0.9871	

Reagents:

ICSTDL5\_00145 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d

Injection Date: 15-Apr-2015 16:36:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L5

Worklist Smp#: 5

Client ID:

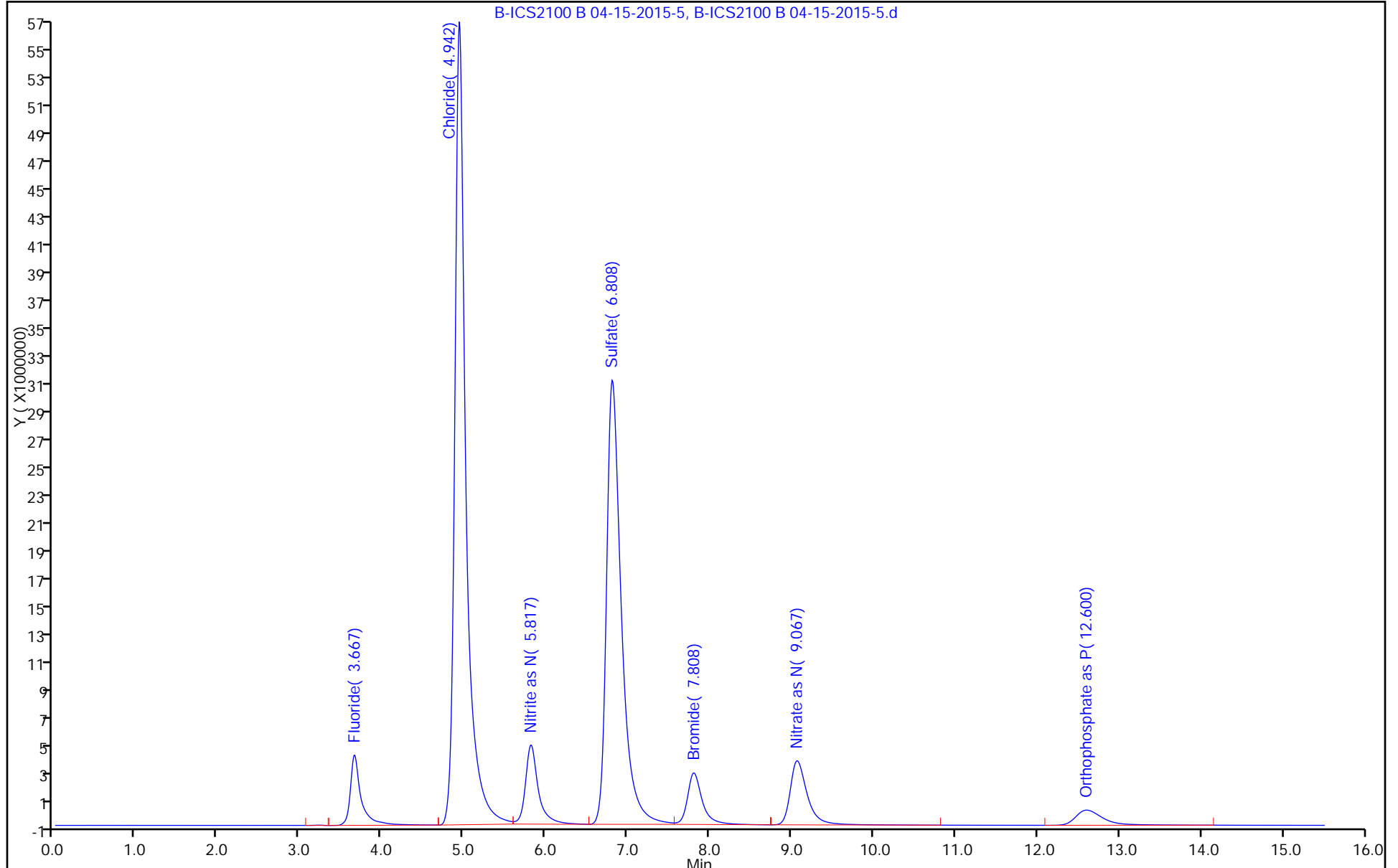
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d  
 Lims ID: ic L6  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 15-Apr-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-006  
 Misc. Info.: 10546 ic l6  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	111221925	2.50	2.56	
2 Chloride	4.933	4.942	-0.009	1333007108	50.0	50.0	
7 Nitrite as N	5.817	5.817	0.000	144706410	2.50	2.49	
3 Sulfate	6.750	6.833	-0.083	978862804	50.0	50.1	
4 Bromide	7.783	7.808	-0.025	9154030H	10.0	10.4	
5 Nitrate as N	9.017	9.083	-0.066	166133672	2.50	2.52	
6 Orthophosphate as P	12.467	12.633	-0.166	66171182	2.50	2.51	

Reagents:

ICSTDL6\_00213 Amount Added: 1.00 Units: mL



TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d

Injection Date: 15-Apr-2015 16:53:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L6

Worklist Smp#: 6

Client ID:

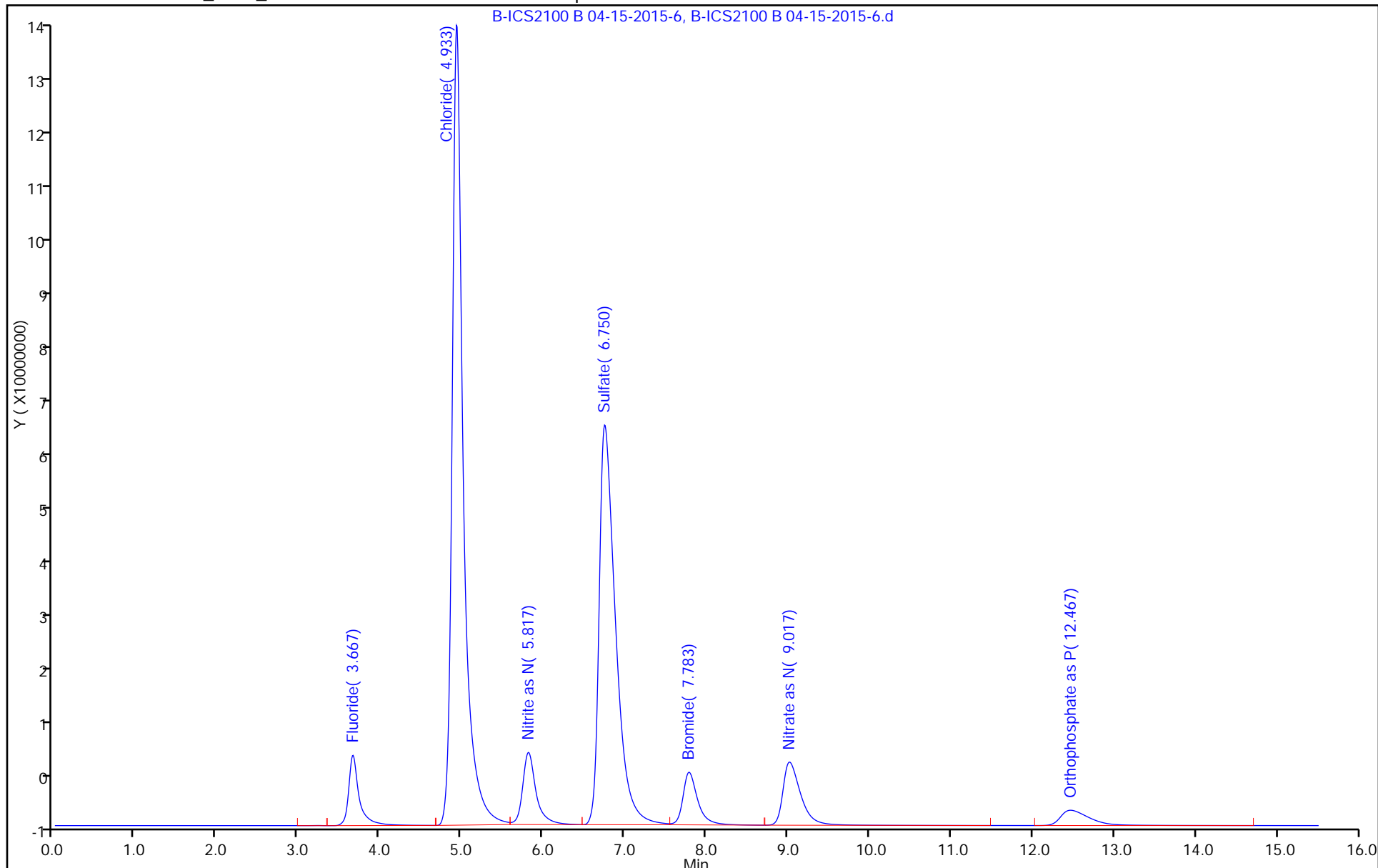
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d  
 Lims ID: ic L7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 15-Apr-2015 17:11:00 ALS Bottle#: 0 Worklist Smp#: 7  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-007  
 Misc. Info.: 9005 ic I7  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	215114961	5.00	4.95	
2 Chloride	4.933	4.942	-0.009	2636933019	100.0	98.9	
7 Nitrite as N	5.817	5.817	0.000	270296782	5.00	4.67	
3 Sulfate	6.683	6.833	-0.150	1921263587	100.0	98.4	
4 Bromide	7.767	7.808	-0.041	17636894H	20.0	20.0	
5 Nitrate as N	8.967	9.083	-0.116	332060506	5.00	5.02	
6 Orthophosphate as P	12.317	12.633	-0.316	131915399	5.00	4.94	

Reagents:

ICSTDL7\_00141 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-7.d

Injection Date: 15-Apr-2015 17:11:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L7

Worklist Smp#: 7

Client ID:

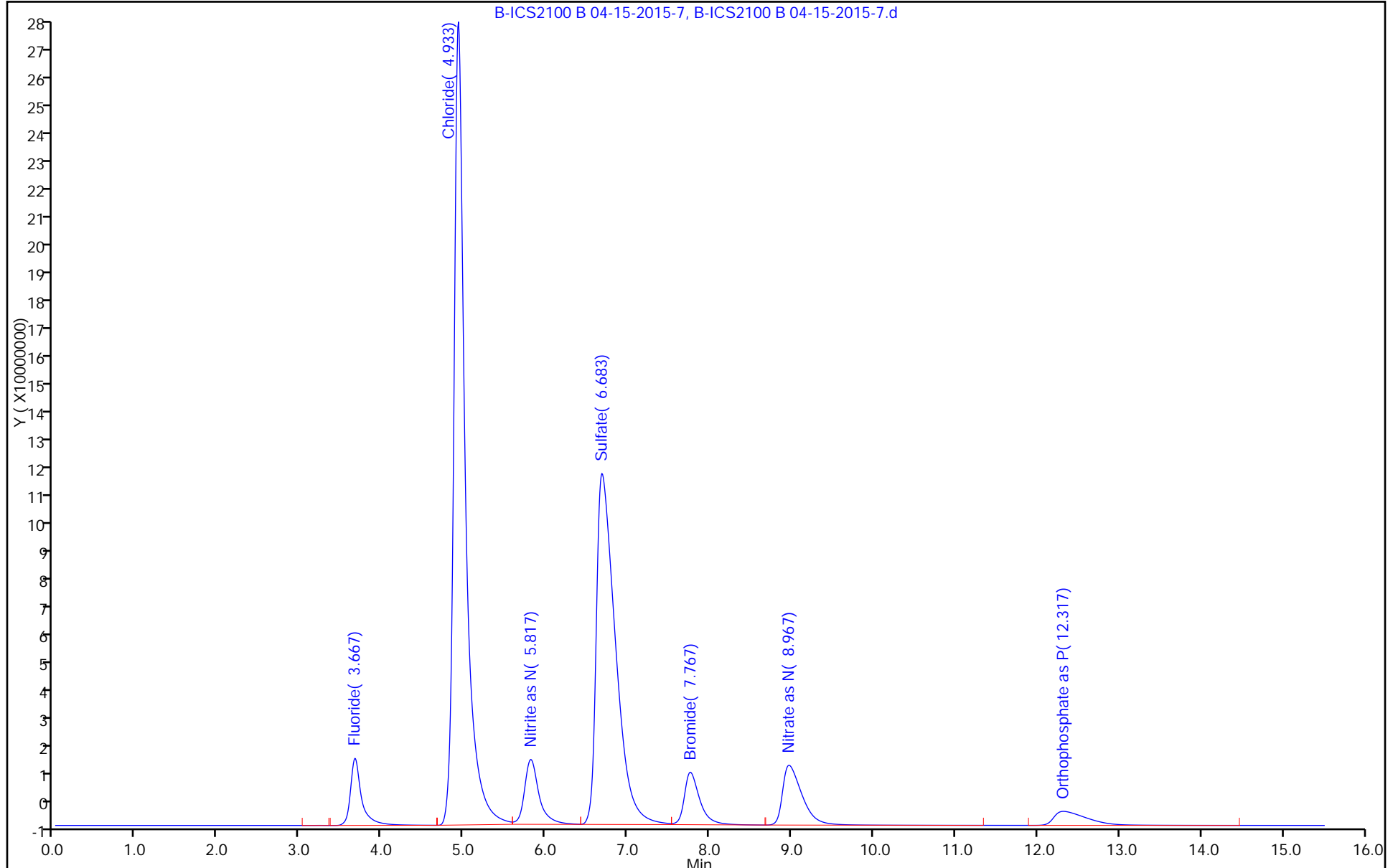
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d  
 Lims ID: ic L8  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 15-Apr-2015 17:28:00 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-008  
 Misc. Info.: 7430 ic l8  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 12:00:41

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	318912666	7.50	7.35	
2 Chloride	4.925	4.942	-0.017	3997323672	150.0	149.8	
7 Nitrite as N	5.808	5.817	-0.009	362807489	7.50	6.28	
3 Sulfate	6.625	6.833	-0.208	2903881535	150.0	148.9	
4 Bromide	7.733	7.808	-0.075	26049842H	30.0	29.5	
5 Nitrate as N	8.917	9.083	-0.166	505352191	7.50	7.64	
6 Orthophosphate as P	12.183	12.633	-0.450	202100715	7.50	7.53	

Reagents:

ICSTDL8\_00112 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d

Injection Date: 15-Apr-2015 17:28:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L8

Worklist Smp#: 8

Client ID:

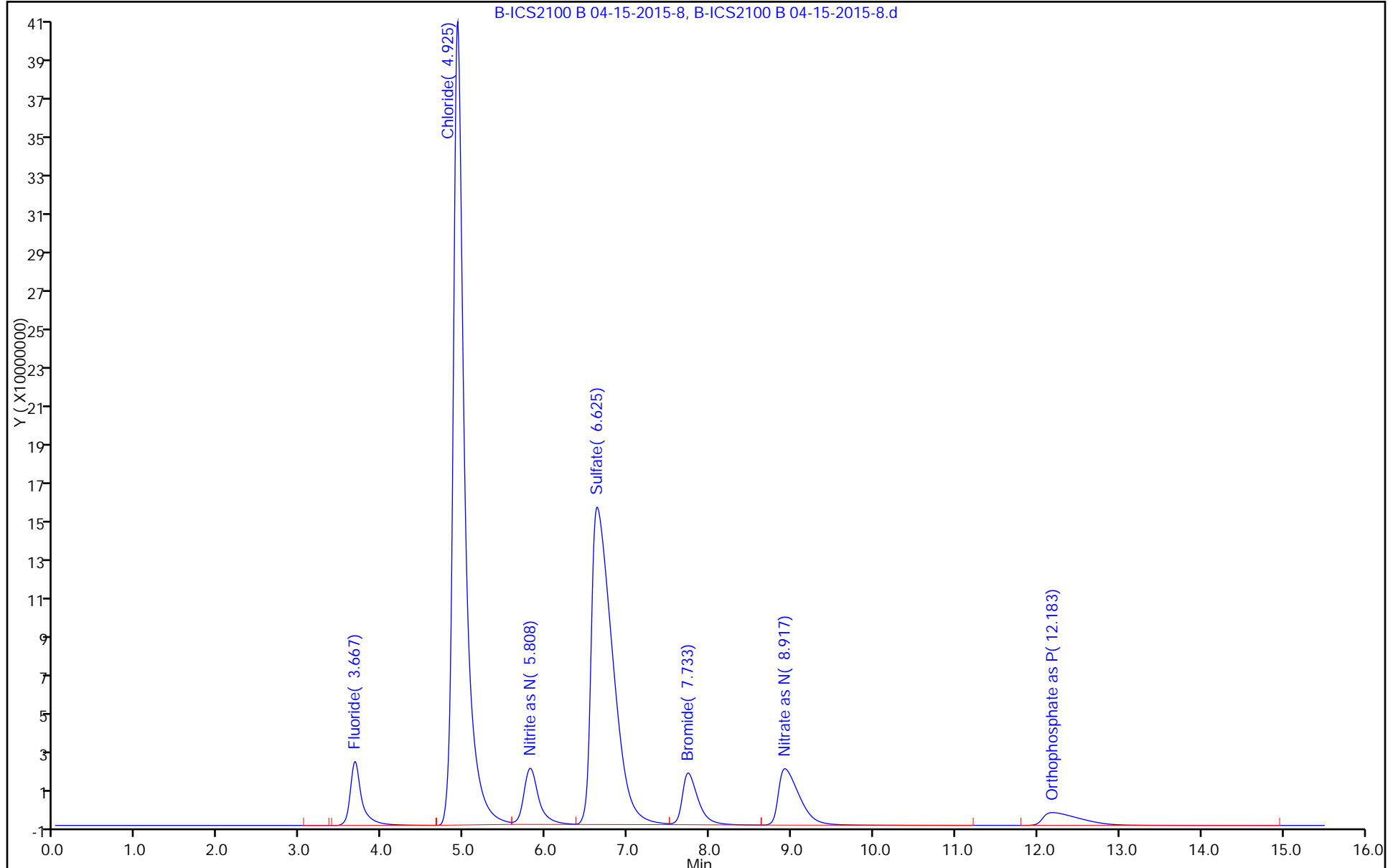
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Lims ID: ic L9  
 Client ID:  
 Sample Type: IC Calib Level: 9  
 Inject. Date: 15-Apr-2015 17:45:00 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0006484-009  
 Misc. Info.: 4878 ic I9  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 16-Apr-2015 12:08:34 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d  
 Column 1 : Det: 0008  
 Process Host: XAWRK011

First Level Reviewer: hartmanm Date: 16-Apr-2015 11:58:29

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.675	3.658	0.017	419767900	10.0	9.67	
2 Chloride	4.917	4.942	-0.025	5370699112	200.0	201.3	
7 Nitrite as N	5.808	5.817	-0.009	499624168	10.0	8.65	
3 Sulfate	6.575	6.833	-0.258	3895544554	200.0	199.8	
4 Bromide	7.717	7.808	-0.091	33990920H	40.0	38.5	
5 Nitrate as N	8.875	9.083	-0.208	681262618	10.0	10.3	
6 Orthophosphate as P	12.083	12.633	-0.550	271922248	10.0	10.1	

Reagents:

ICSTDL9\_00115 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Injection Date: 15-Apr-2015 17:45:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ic L9

Worklist Smp#: 9

Client ID:

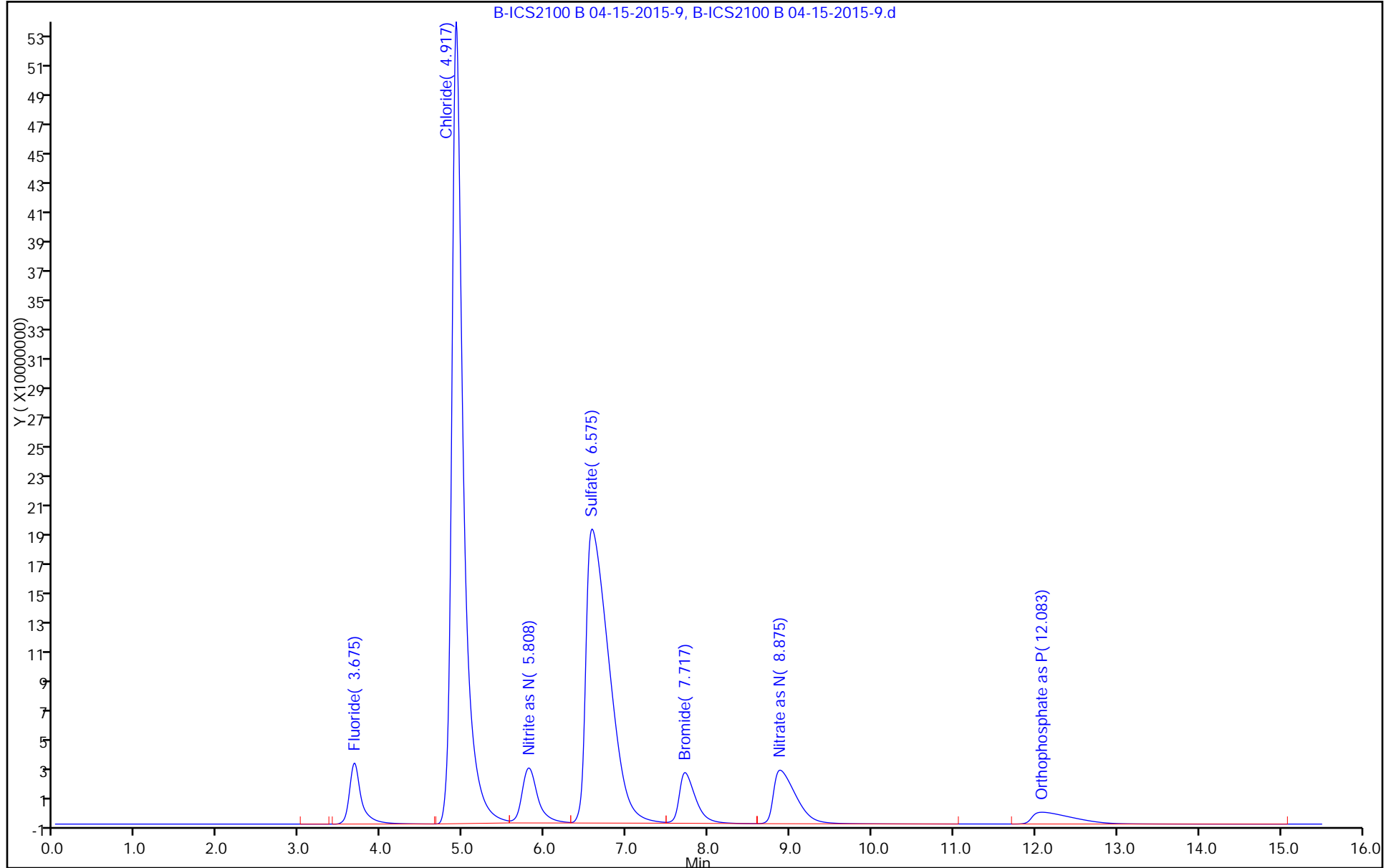
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-150875/2 Calibration Date: 08/15/2015 09:52  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		44683199		3.09	3.00	2.9	10.0
Chloride	Lin2		26234668		59.0	60.0	-1.6	10.0
Nitrite as N	Lin2	62099531	57370571		2.97	3.00	-1.0	10.0
Sulfate	Lin2		19239070		59.1	60.0	-1.6	10.0
Bromide	Lin2		899341		12.2	12.0	1.9	10.0
Nitrate as N	Lin2		64408839		2.93	3.00	-2.5	10.0
Orthophosphate as P	Lin2		22595415		2.57	3.00	-14.3*	10.0



FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-150875/2 Calibration Date: 08/15/2015 09:52  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.65	3.30	4.00
Chloride	4.84	4.49	5.19
Nitrite as N	5.64	5.40	5.90
Sulfate	6.48	6.14	6.84
Bromide	7.48	7.13	7.83
Nitrate as N	8.58	8.35	8.85
Orthophosphate as P	11.46	11.01	12.01

TestAmerica Pittsburgh  
 Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-2.d  
 Lims ID: icv  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 15-Aug-2015 09:52:00 ALS Bottle#: 0 Worklist Smp#: 2  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-002  
 Misc. Info.: 2 icv  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist:  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:31 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	134049596	3.00	3.09	
2 Chloride	4.842	4.842	0.000	1574080070	60.0	59.0	
7 Nitrite as N	5.642	5.650	-0.008	172180557	3.00	2.97	
3 Sulfate	6.475	6.492	-0.017	1154344210	60.0	59.1	
4 Bromide	7.483	7.483	0.000	10792096H	12.0	12.2	
5 Nitrate as N	8.583	8.600	-0.017	193226517	3.00	2.93	
6 Orthophosphate as P	11.458	11.508	-0.050	67786244	3.00	2.57	

Reagents:

iciv\_01320 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-2.d

Injection Date: 15-Aug-2015 09:52:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: icv

Worklist Smp#: 2

Client ID:

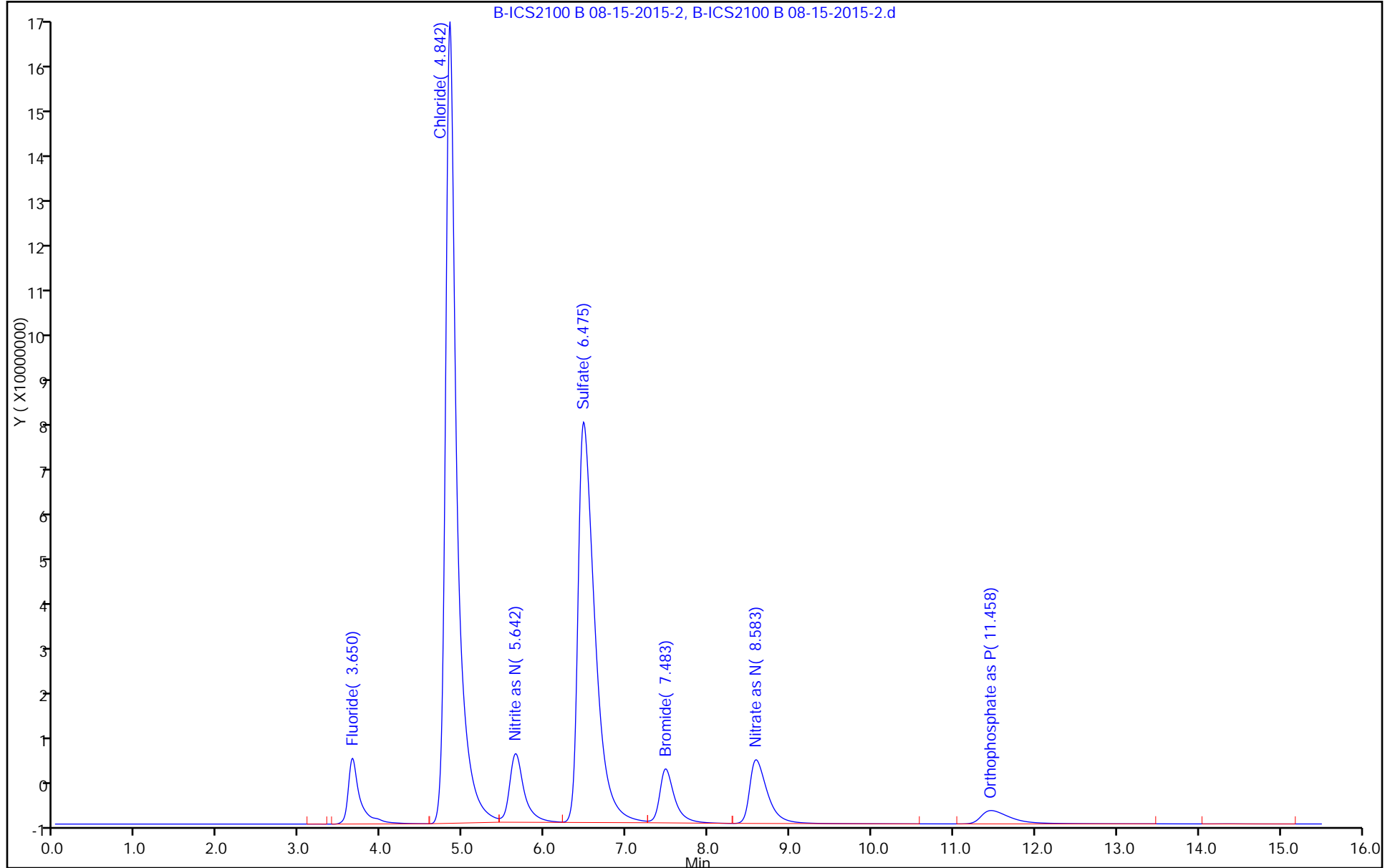
Injection Vol: 10.0 ul

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/3 Calibration Date: 08/15/2015 10:09  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		41592610		2.39	2.50	-4.3	10.0
Chloride	Lin2		25831960		48.5	50.0	-3.1	10.0
Nitrite as N	Lin2	62099531	56315198		2.43	2.50	-2.9	10.0
Sulfate	Lin2		18854666		48.2	50.0	-3.6	10.0
Bromide	Lin2		882650		10.0	10.0	0.0	10.0
Nitrate as N	Lin2		64384547		2.44	2.50	-2.4	10.0
Orthophosphate as P	Lin2		22474630		2.14	2.50	-14.3*	10.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/3 Calibration Date: 08/15/2015 10:09  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.64	3.29	3.99
Chloride	4.84	4.49	5.19
Nitrite as N	5.65	5.40	5.90
Sulfate	6.49	6.14	6.84
Bromide	7.48	7.13	7.83
Nitrate as N	8.59	8.34	8.84
Orthophosphate as P	11.49	10.99	11.99

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-3.d  
 Lims ID: ccv  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 15-Aug-2015 10:09:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-003  
 Misc. Info.: 3 ccv  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	103981525	2.50	2.39	
2 Chloride	4.842	4.842	0.000	1291598003	50.0	48.5	
7 Nitrite as N	5.650	5.650	0.000	140787995	2.50	2.43	
3 Sulfate	6.492	6.492	0.000	942733289	50.0	48.2	
4 Bromide	7.483	7.483	0.000	8826495H	10.0	10.0	
5 Nitrate as N	8.592	8.592	0.000	160961368	2.50	2.44	
6 Orthophosphate as P	11.492	11.492	0.000	56186575	2.50	2.14	

Reagents:

iccv\_01287 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-3.d

Injection Date: 15-Aug-2015 10:09:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccv

Worklist Smp#: 3

Client ID:

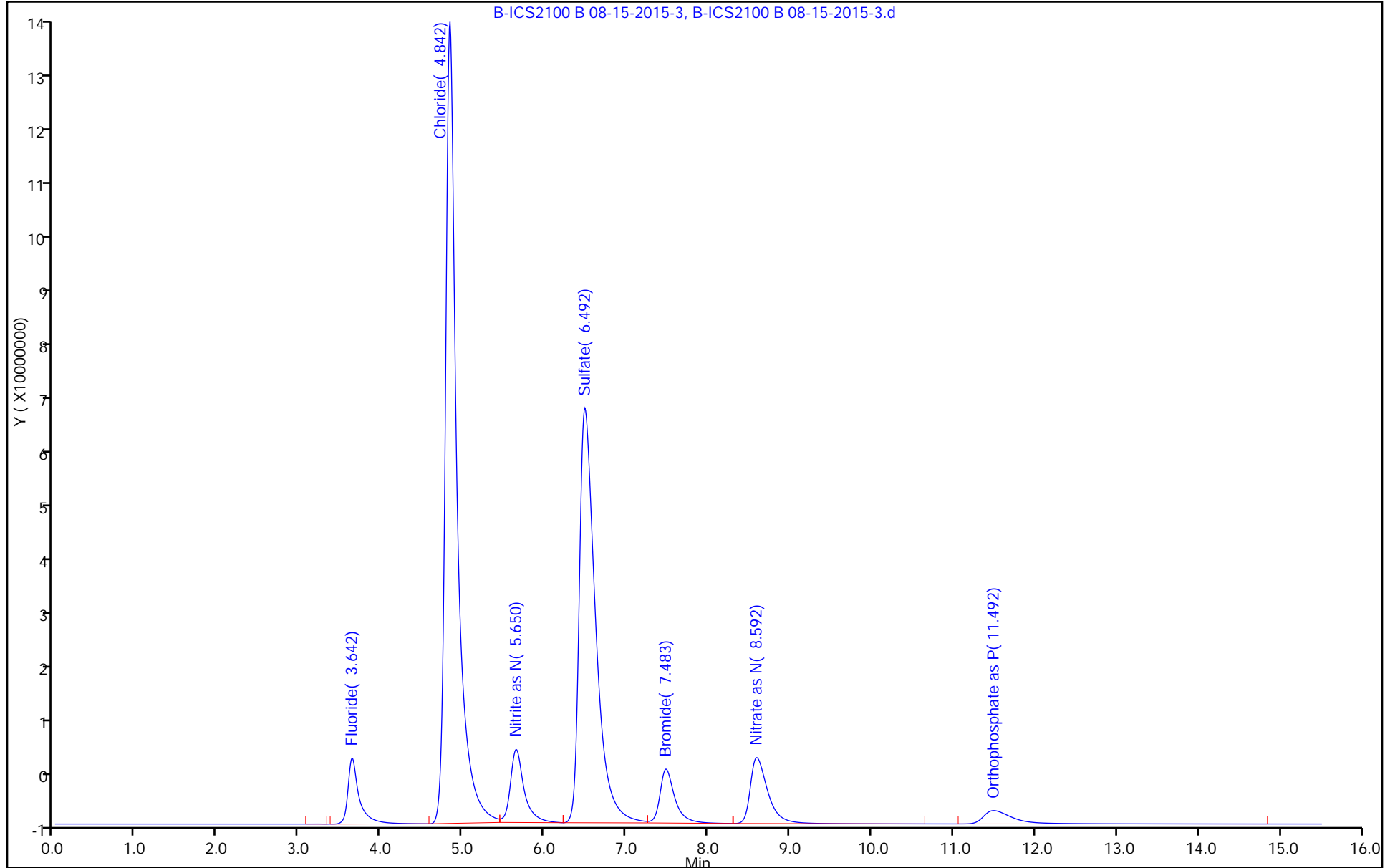
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/15 Calibration Date: 08/15/2015 16:03  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		40405770		2.32	2.50	-7.0	10.0
Chloride	Lin2		25280595		47.4	50.0	-5.1	10.0
Nitrite as N	Lin2	62099531	55024613		2.37	2.50	-5.2	10.0
Sulfate	Lin2		18304348		46.8	50.0	-6.4	10.0
Bromide	Lin2		867210		9.83	10.0	-1.7	10.0
Nitrate as N	Lin2		62854537		2.38	2.50	-4.8	10.0
Orthophosphate as P	Lin2		20688322		1.98	2.50	-20.9*	10.0



FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/15 Calibration Date: 08/15/2015 16:03  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.64	3.29	3.99
Chloride	4.83	4.48	5.18
Nitrite as N	5.65	5.40	5.90
Sulfate	6.50	6.15	6.85
Bromide	7.48	7.13	7.83
Nitrate as N	8.59	8.34	8.84
Orthophosphate as P	11.53	11.03	12.03

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-15.d  
 Lims ID: ccv  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 15-Aug-2015 16:03:00 ALS Bottle#: 0 Worklist Smp#: 15  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-015  
 Misc. Info.: 15 ccv  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	101014425	2.50	2.32	
2 Chloride	4.833	4.833	0.000	1264029770	50.0	47.4	
7 Nitrite as N	5.650	5.650	0.000	137561532	2.50	2.37	
3 Sulfate	6.500	6.500	0.000	915217378	50.0	46.8	
4 Bromide	7.483	7.483	0.000	8672100H	10.0	9.83	
5 Nitrate as N	8.592	8.592	0.000	157136343	2.50	2.38	
6 Orthophosphate as P	11.533	11.533	0.000	51720805	2.50	1.98	

Reagents:

iccv\_01287 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-15.d

Injection Date: 15-Aug-2015 16:03:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccv

Worklist Smp#: 15

Client ID:

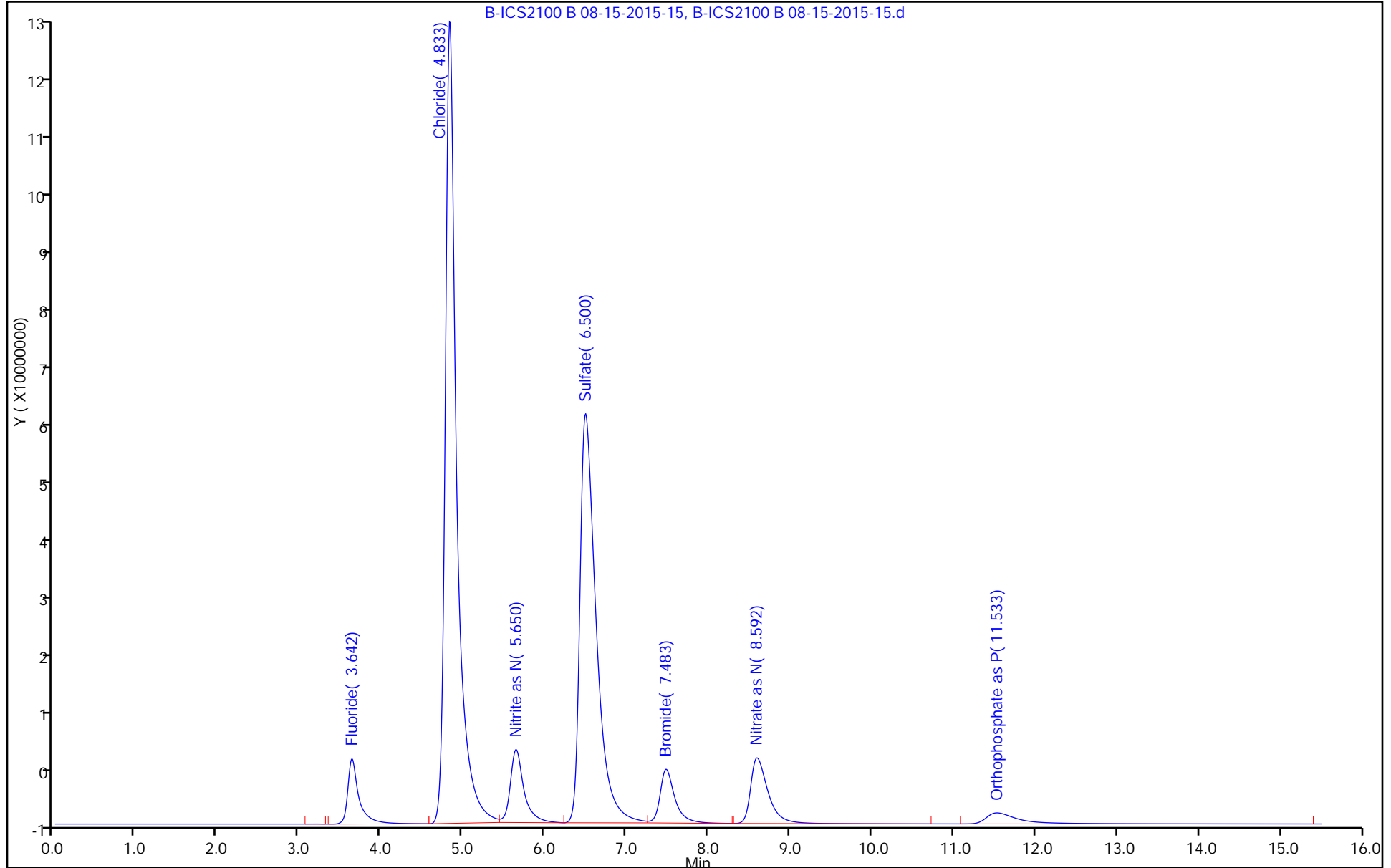
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/27 Calibration Date: 08/15/2015 19:30  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		41321896		2.38	2.50	-4.9	10.0
Chloride	Lin2		25824241		48.4	50.0	-3.1	10.0
Nitrite as N	Lin2	62099531	56201798		2.42	2.50	-3.1	10.0
Sulfate	Lin2		18821955		48.1	50.0	-3.8	10.0
Bromide	Lin2		879088		9.96	10.0	-0.4	10.0
Nitrate as N	Lin2		64153349		2.43	2.50	-2.8	10.0
Orthophosphate as P	Lin2		21041232		2.01	2.50	-19.6*	10.0

FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/27 Calibration Date: 08/15/2015 19:30  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.64	3.29	3.99
Chloride	4.84	4.49	5.19
Nitrite as N	5.65	5.40	5.90
Sulfate	6.49	6.14	6.84
Bromide	7.48	7.13	7.83
Nitrate as N	8.59	8.34	8.84
Orthophosphate as P	11.52	11.02	12.02

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-27.d  
 Lims ID: ccv  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 15-Aug-2015 19:30:00 ALS Bottle#: 0 Worklist Smp#: 27  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-027  
 Misc. Info.: 27 ccv  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:56 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	103304741	2.50	2.38	
2 Chloride	4.842	4.842	0.000	1291212069	50.0	48.4	
7 Nitrite as N	5.650	5.650	0.000	140504495	2.50	2.42	
3 Sulfate	6.492	6.492	0.000	941097763	50.0	48.1	
4 Bromide	7.483	7.483	0.000	8790881H	10.0	9.96	
5 Nitrate as N	8.592	8.592	0.000	160383373	2.50	2.43	
6 Orthophosphate as P	11.517	11.517	0.000	52603080	2.50	2.01	

Reagents:

iccv\_01287 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-27.d

Injection Date: 15-Aug-2015 19:30:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccv

Worklist Smp#: 27

Client ID:

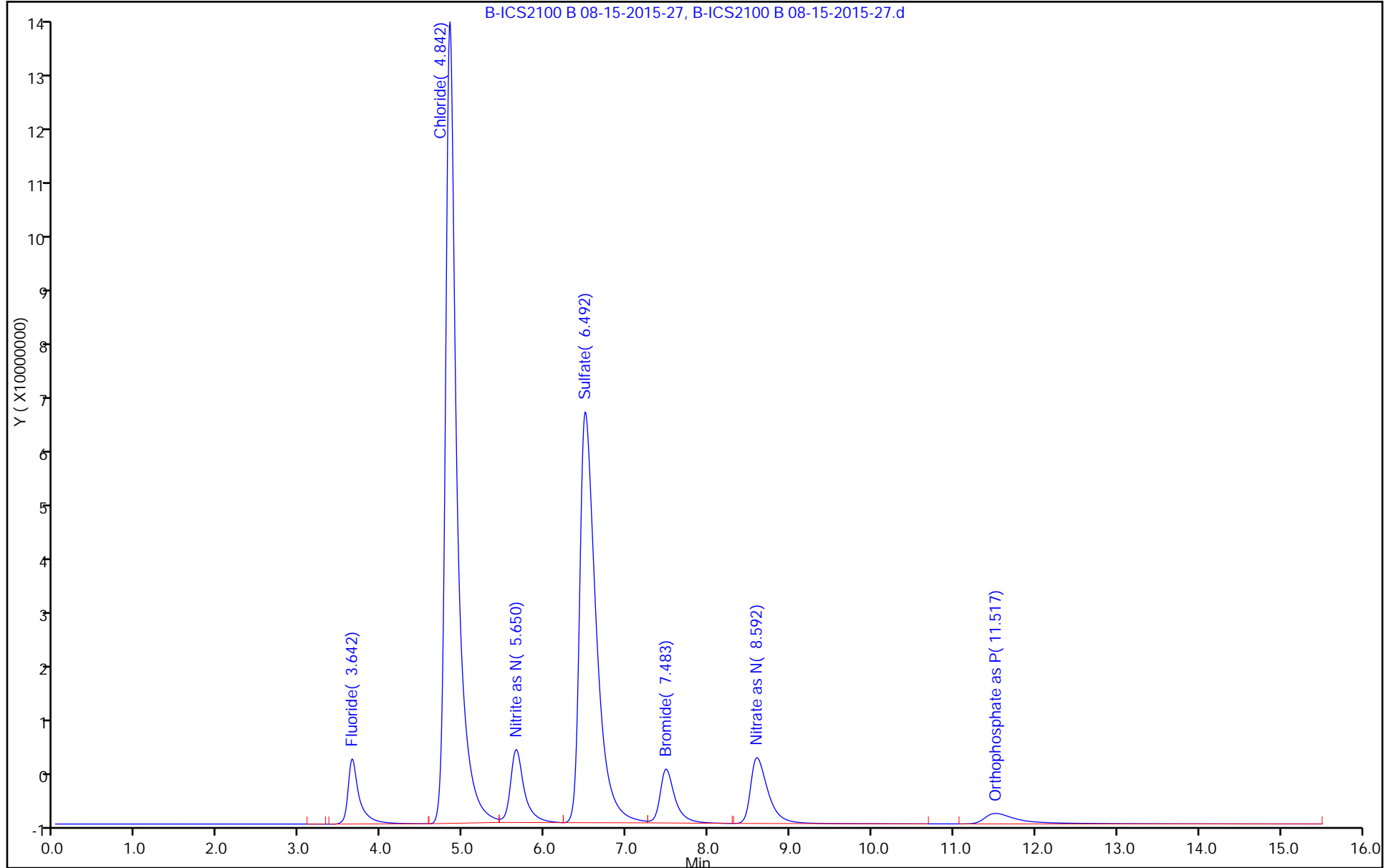
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM VII  
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/39 Calibration Date: 08/15/2015 22:58  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		40389867		2.32	2.50	-7.1	10.0
Chloride	Lin2		25367202		47.6	50.0	-4.8	10.0
Nitrite as N	Lin2	62099531	55160430		2.38	2.50	-5.0	10.0
Sulfate	Lin2		18390365		47.0	50.0	-6.0	10.0
Bromide	Lin2		861608		9.76	10.0	-2.4	10.0
Nitrate as N	Lin2		63014153		2.39	2.50	-4.5	10.0
Orthophosphate as P	Lin2		20299055		1.94	2.50	-22.4*	10.0



FORM VII  
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCV 180-150875/39 Calibration Date: 08/15/2015 22:58  
 Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44  
 GC Column: AS-18 ID: \_\_\_\_\_ Calib End Date: 04/15/2015 17:45  
 Lab File ID: B-ICS2100 B 08-15-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.65	3.30	4.00
Chloride	4.84	4.49	5.19
Nitrite as N	5.65	5.40	5.90
Sulfate	6.50	6.15	6.85
Bromide	7.48	7.13	7.83
Nitrate as N	8.60	8.35	8.85
Orthophosphate as P	11.54	11.04	12.04

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-39.d  
 Lims ID: ccv  
 Client ID:  
 Sample Type: CCV  
 Inject. Date: 15-Aug-2015 22:58:00 ALS Bottle#: 0 Worklist Smp#: 39  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-039  
 Misc. Info.: 22781 ccv  
 Operator ID: Instrument ID: CHICS2100B  
 Sublist: chrom-300\_9056\_CHIC2100B\*sub1  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:39:01 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	100974668	2.50	2.32	
2 Chloride	4.842	4.842	0.000	1268360124	50.0	47.6	
7 Nitrite as N	5.650	5.650	0.000	137901074	2.50	2.38	
3 Sulfate	6.500	6.500	0.000	919518243	50.0	47.0	
4 Bromide	7.483	7.483	0.000	8616077H	10.0	9.76	
5 Nitrate as N	8.600	8.600	0.000	157535383	2.50	2.39	
6 Orthophosphate as P	11.542	11.542	0.000	50747638	2.50	1.94	

Reagents:

iccv\_01287 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-39.d

Injection Date: 15-Aug-2015 22:58:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccv

Worklist Smp#: 39

Client ID:

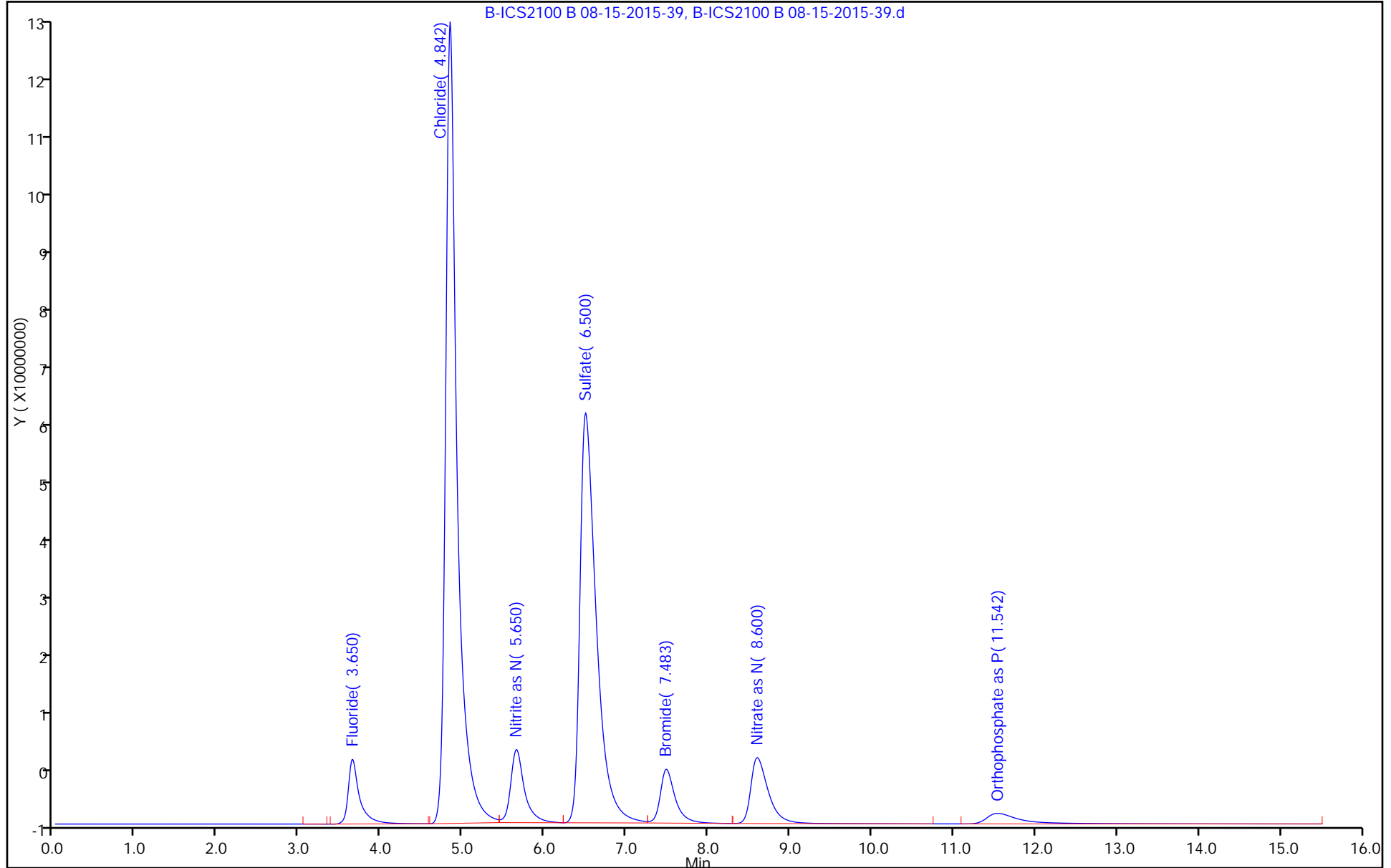
Injection Vol: 10.0 ul

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-150875/6  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-6.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 11:01  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-6.d  
 Lims ID: mb  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 15-Aug-2015 11:01:00 ALS Bottle#: 0 Worklist Smp#: 6  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-006  
 Misc. Info.: 6 MB  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.633	3.642	-0.009	246281		0.002399	
2 Chloride	4.842	4.842	0.000	198472		0.0678	
7 Nitrite as N	5.633	5.650	-0.017	1720785		0.0130	
3 Sulfate	6.567	6.492	0.075	349122		-0.1830	
4 Bromide		7.483				ND	
5 Nitrate as N		8.592				ND	
6 Orthophosphate as P	11.692	11.492	0.200	112669		0.0708	

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-6.d

Injection Date: 15-Aug-2015 11:01:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: mb

Worklist Smp#: 6

Client ID:

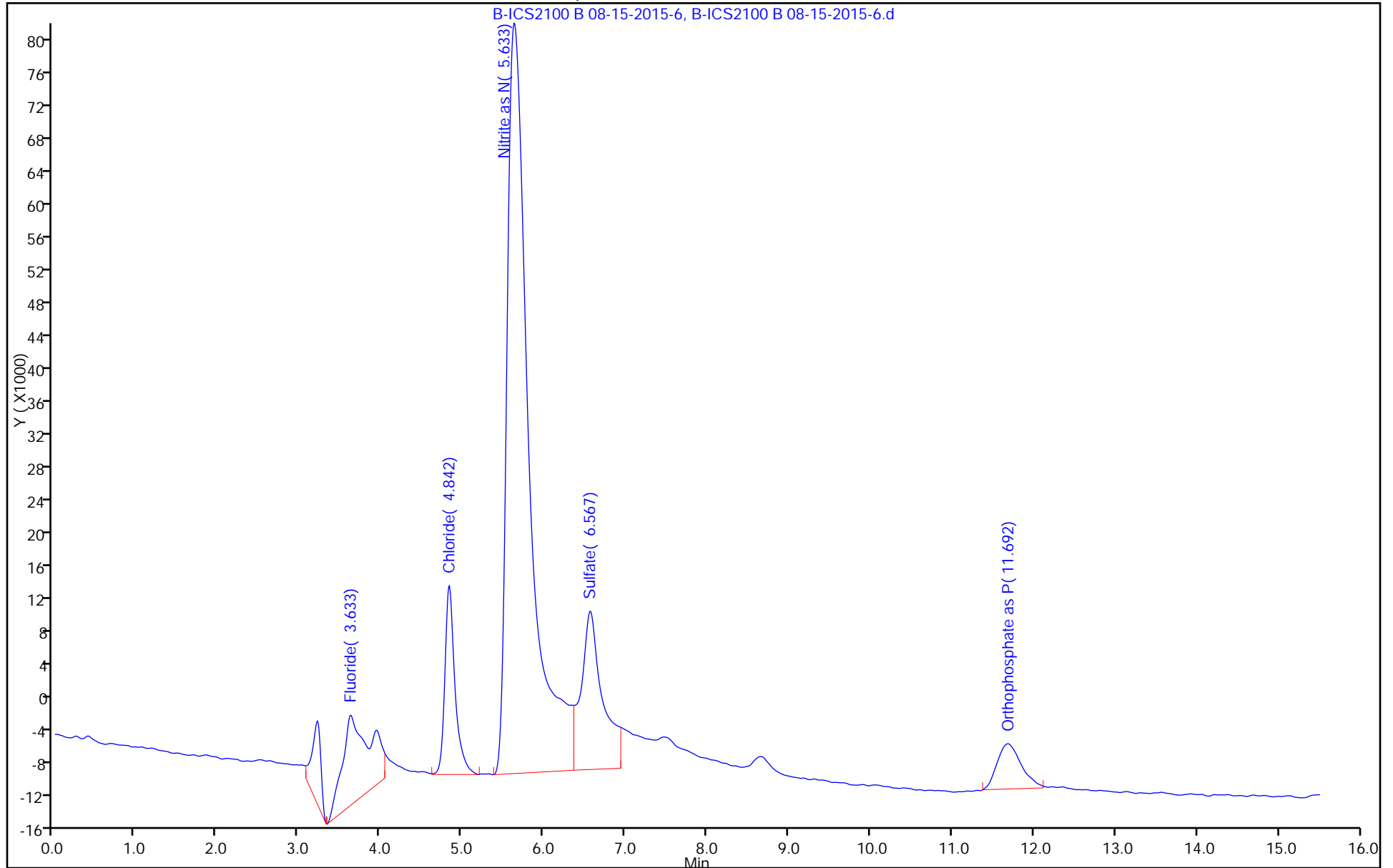
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 180-150875/4  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-4.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 10:26  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-4.d  
 Lims ID: ccb  
 Client ID:  
 Sample Type: CCB  
 Inject. Date: 15-Aug-2015 10:26:00 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-004  
 Misc. Info.: 4 ccb  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.633	3.642	-0.009	194864		0.001215	
2 Chloride	4.842	4.842	0.000	273765		0.0706	
7 Nitrite as N	5.642	5.650	-0.008	1756719		0.0136	
3 Sulfate	6.567	6.492	0.075	424266		-0.1791	
4 Bromide		7.483				ND	
5 Nitrate as N		8.592				ND	
6 Orthophosphate as P		11.492				ND	



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-4.d

Injection Date: 15-Aug-2015 10:26:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccb

Worklist Smp#: 4

Client ID:

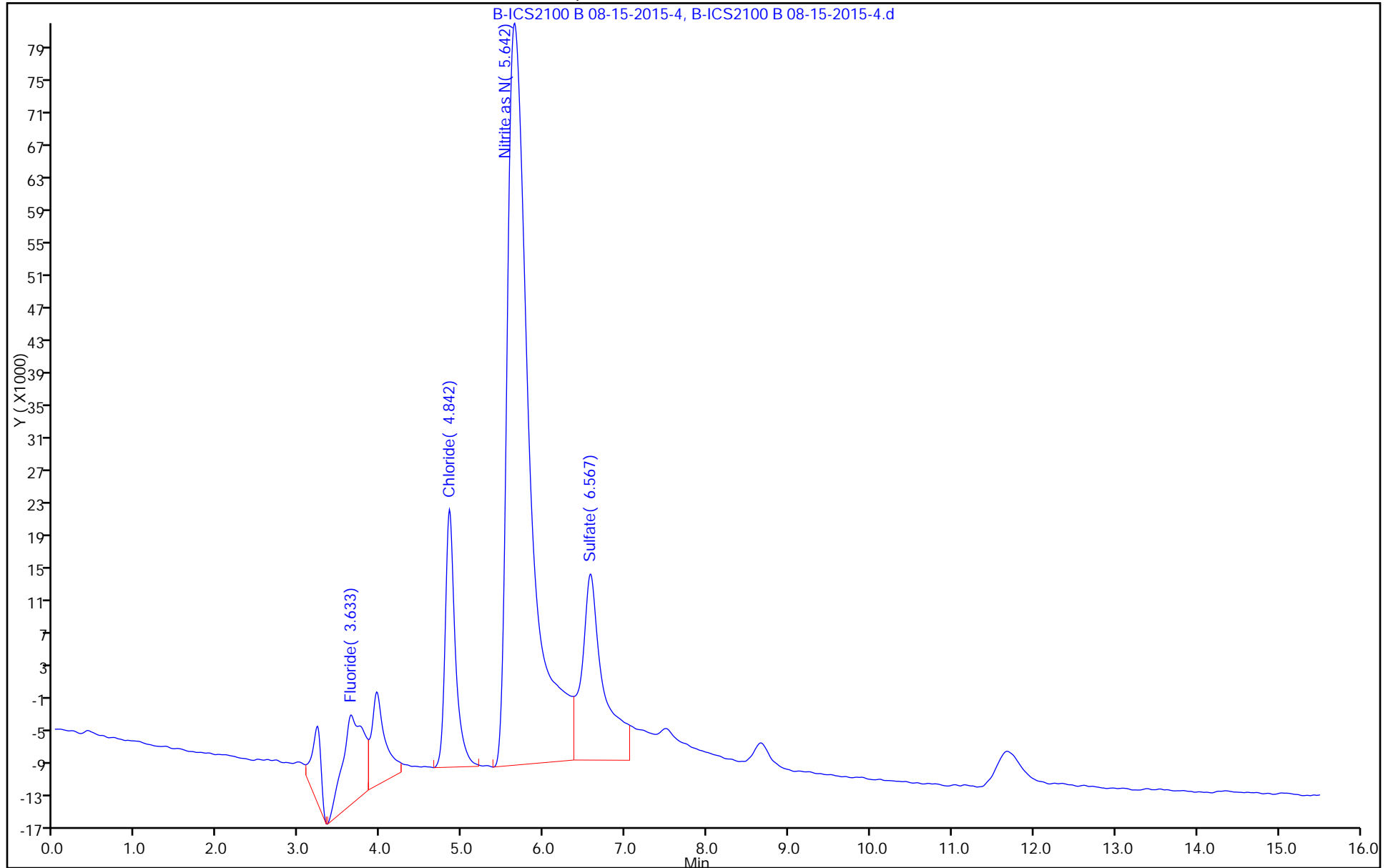
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 180-150875/16  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-16.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 16:20  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00939	J	0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-16.d  
 Lims ID: ccb  
 Client ID:  
 Sample Type: CCB  
 Inject. Date: 15-Aug-2015 16:20:00 ALS Bottle#: 0 Worklist Smp#: 16  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-016  
 Misc. Info.: 16 ccb  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.633	3.642	-0.009	231037		0.002048	
2 Chloride	4.842	4.833	0.009	765506		0.0891	
7 Nitrite as N	5.633	5.650	-0.017	1632758		0.0115	
3 Sulfate	6.575	6.500	0.075	477519		-0.1764	
4 Bromide		7.483				ND	
5 Nitrate as N	8.650	8.592	0.058	50201		0.009388	
6 Orthophosphate as P		11.533				ND	

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-16.d

Injection Date: 15-Aug-2015 16:20:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccb

Worklist Smp#: 16

Client ID:

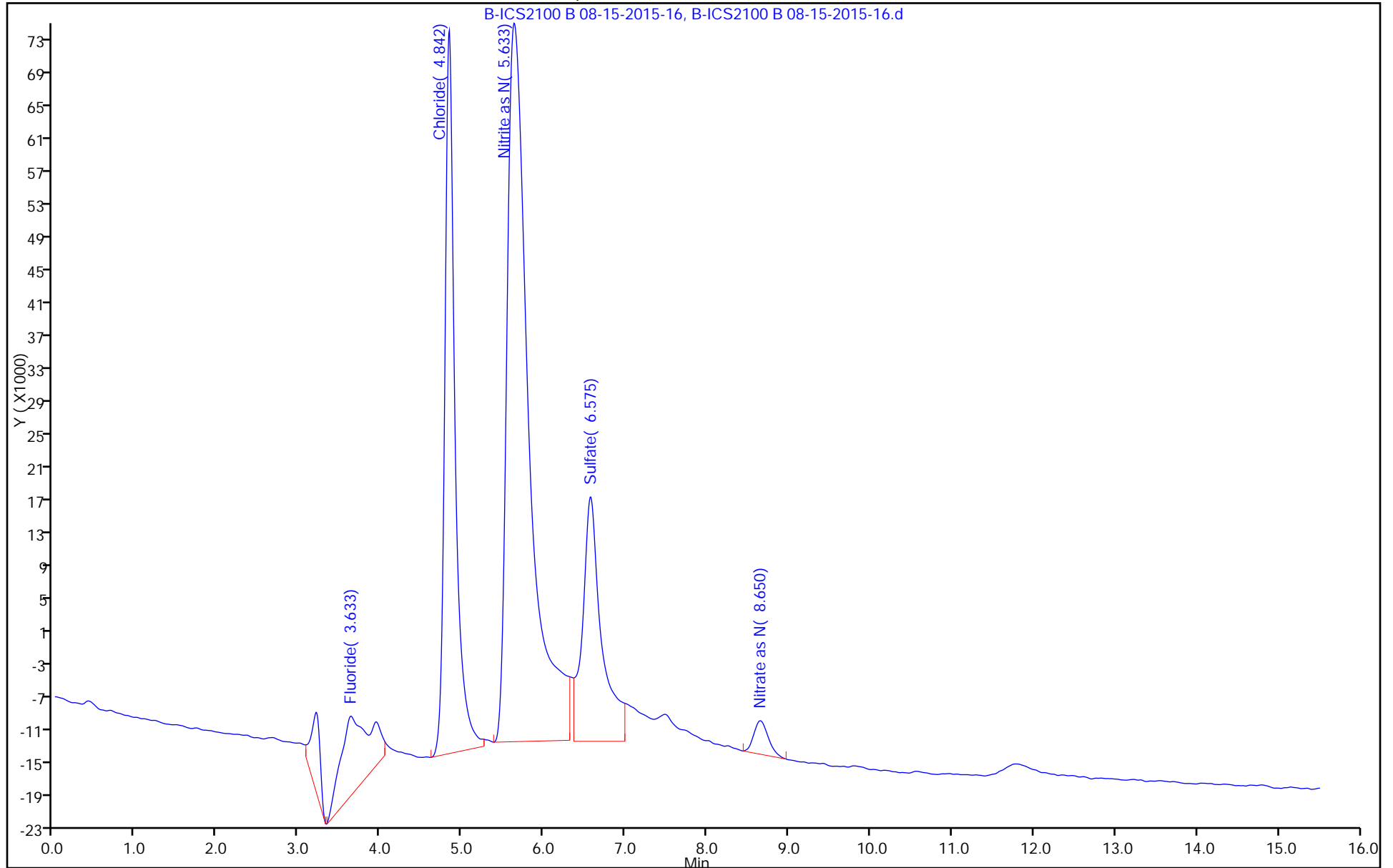
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 180-150875/28  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-28.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 19:48  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-28.d  
 Lims ID: ccb  
 Client ID:  
 Sample Type: CCB  
 Inject. Date: 15-Aug-2015 19:48:00 ALS Bottle#: 0 Worklist Smp#: 28  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-028  
 Misc. Info.: 5992 ccb  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:56 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.633	3.642	-0.009	235648		0.002154	
2 Chloride	4.842	4.842	0.000	365566		0.0741	
7 Nitrite as N	5.633	5.650	-0.017	1576341		0.0105	
3 Sulfate	6.575	6.492	0.083	423302		-0.1791	
4 Bromide		7.483				ND	
5 Nitrate as N		8.592				ND	
6 Orthophosphate as P		11.517				ND	

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-28.d

Injection Date: 15-Aug-2015 19:48:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccb

Worklist Smp#: 28

Client ID:

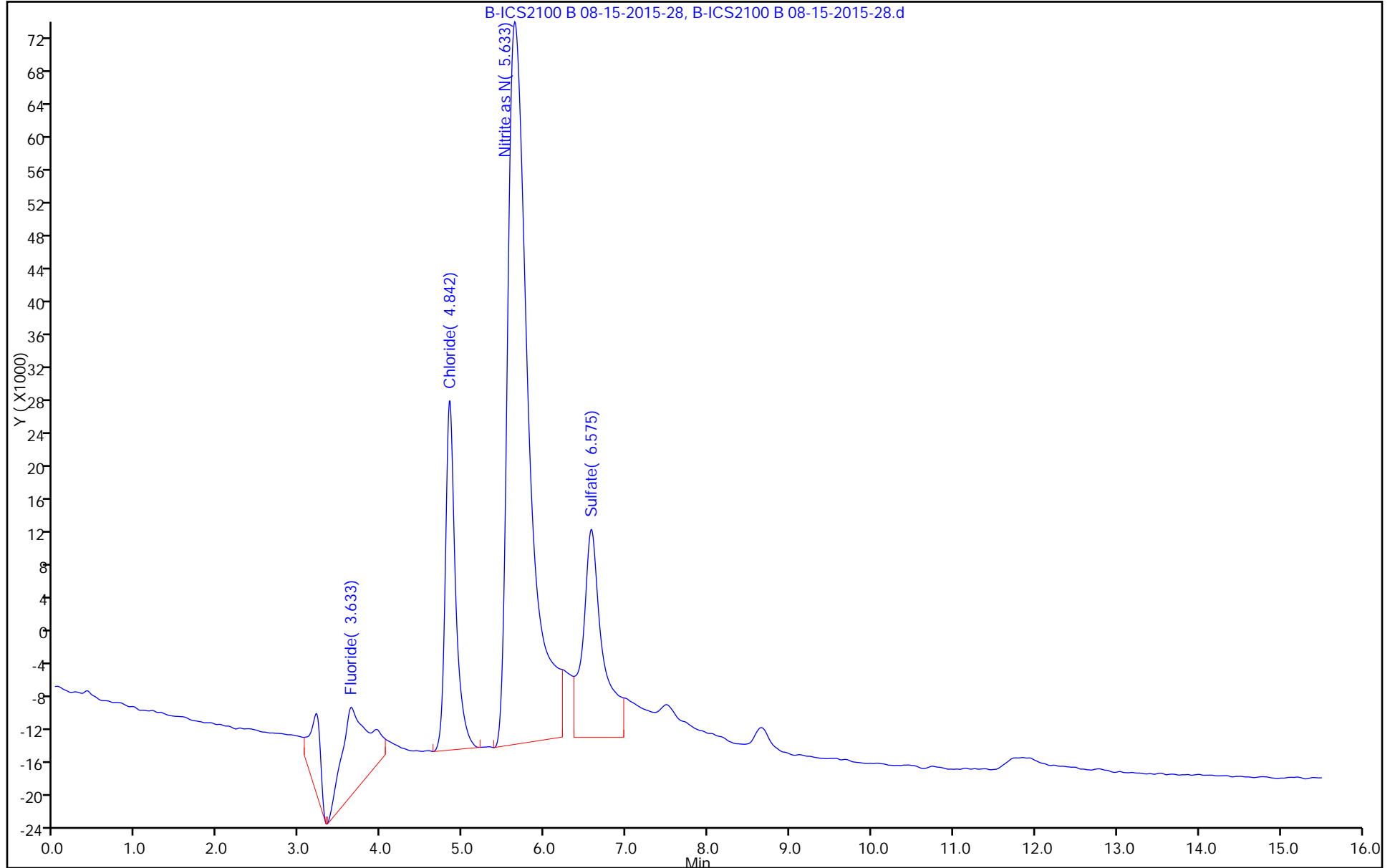
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: CCB 180-150875/40  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-40.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 23:15  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	ND		0.10	0.0062
16887-00-6	Chloride	ND		1.0	0.20
14808-79-8	Sulfate	ND		1.0	0.21



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-40.d  
 Lims ID: ccb  
 Client ID:  
 Sample Type: CCB  
 Inject. Date: 15-Aug-2015 23:15:00 ALS Bottle#: 0 Worklist Smp#: 40  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-040  
 Misc. Info.: 9933 ccb  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:39:01 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	105780		-0.000838	
2 Chloride	4.842	4.842	0.000	396650		0.0752	
7 Nitrite as N	5.642	5.650	-0.008	1734123		0.0132	
3 Sulfate	6.575	6.500	0.075	457134		-0.1774	
4 Bromide		7.483				ND	
5 Nitrate as N		8.600				ND	
6 Orthophosphate as P		11.542				ND	

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-40.d

Injection Date: 15-Aug-2015 23:15:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: ccb

Worklist Smp#: 40

Client ID:

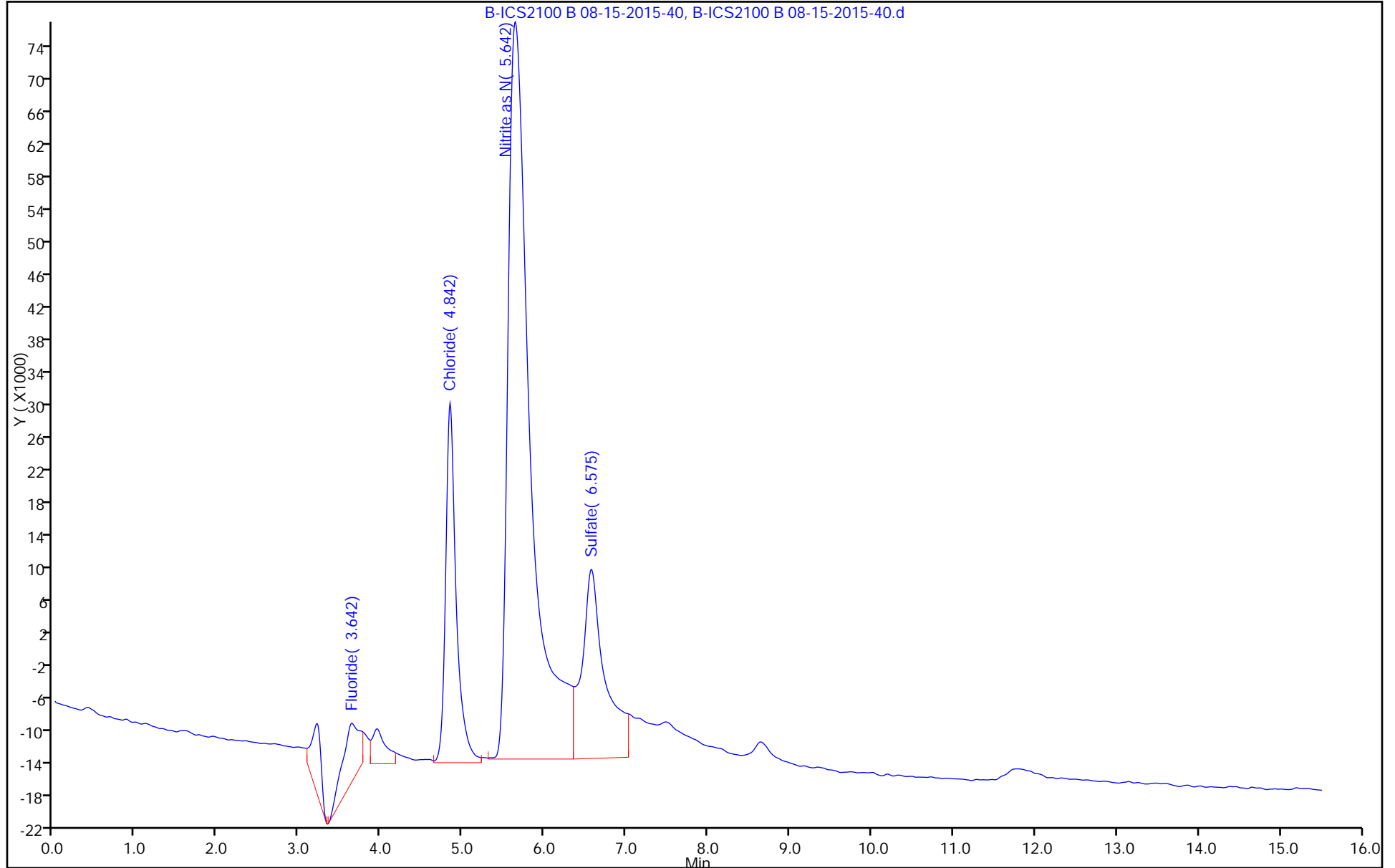
Injection Vol: 10.0 ul

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-150875/5  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-5.d  
 Analysis Method: 300.0 Date Collected: \_\_\_\_\_  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 10:43  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.46		0.10	0.0062
16887-00-6	Chloride	48.9		1.0	0.20
14808-79-8	Sulfate	48.6		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-5.d  
 Lims ID: lcs  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 15-Aug-2015 10:43:00 ALS Bottle#: 0 Worklist Smp#: 5  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-005  
 Misc. Info.: 5 LCS  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.008	104335791	2.50	2.40	
2 Chloride	4.842	4.842	0.000	1302719862	50.0	48.9	
7 Nitrite as N	5.650	5.650	0.000	141846008	2.50	2.44	
3 Sulfate	6.492	6.492	0.000	951039442	50.0	48.6	
4 Bromide	7.483	7.483	0.000	8931465H	10.0	10.1	
5 Nitrate as N	8.600	8.592	0.008	162231423	2.50	2.46	
6 Orthophosphate as P	11.492	11.492	0.000	57292813	2.50	2.18	

Reagents:

icccv\_01287 Amount Added: 1.00 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-5.d

Injection Date: 15-Aug-2015 10:43:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: lcs

Worklist Smp#: 5

Client ID:

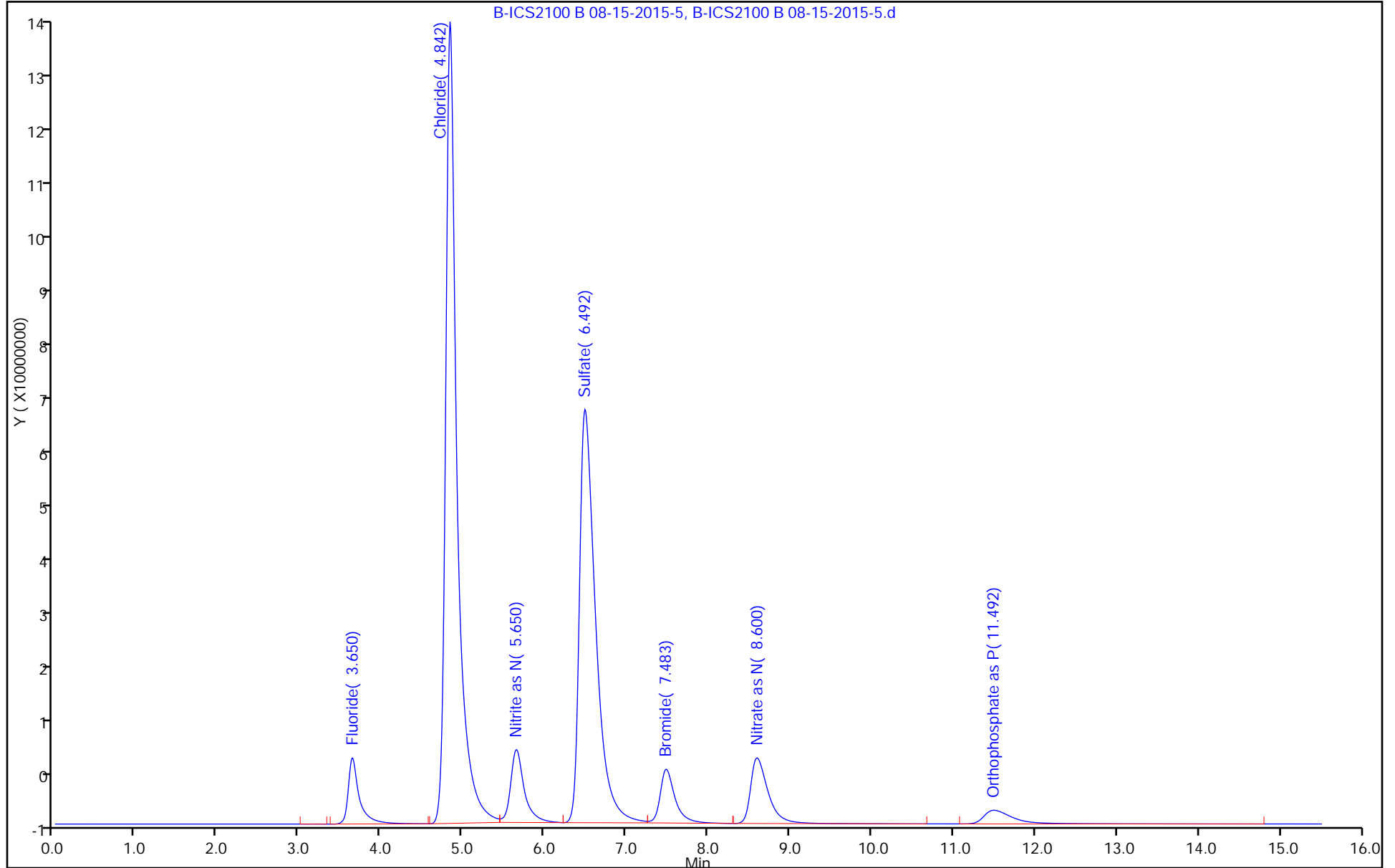
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MS Lab Sample ID: 180-46875-1 MS  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-8.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:30  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 14:01  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.29		0.10	0.0062
16887-00-6	Chloride	109		1.0	0.20
14808-79-8	Sulfate	56.2		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-8.d  
 Lims ID: 180-46875-A-1 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 15-Aug-2015 14:01:00 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-008  
 Misc. Info.: 8 180-46875-a-1 ms  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	50297658	1.25	1.16	
2 Chloride	4.825	4.842	-0.017	2918630939	25.0	109.4	
7 Nitrite as N		5.650				ND	
3 Sulfate	6.475	6.492	-0.017	1098806462	25.0	56.2	
4 Bromide	7.492	7.483	0.009	4472958H	5.00	5.07	
5 Nitrate as N	8.575	8.592	-0.017	217354376	1.25	3.29	
6 Orthophosphate as P	11.733	11.492	0.241	19199084	1.25	0.7757	

Reagents:

ICPRIMARYSTA\_00006 Amount Added: 0.15 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-8.d

Injection Date: 15-Aug-2015 14:01:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-1 MS

Worklist Smp#: 8

Client ID:

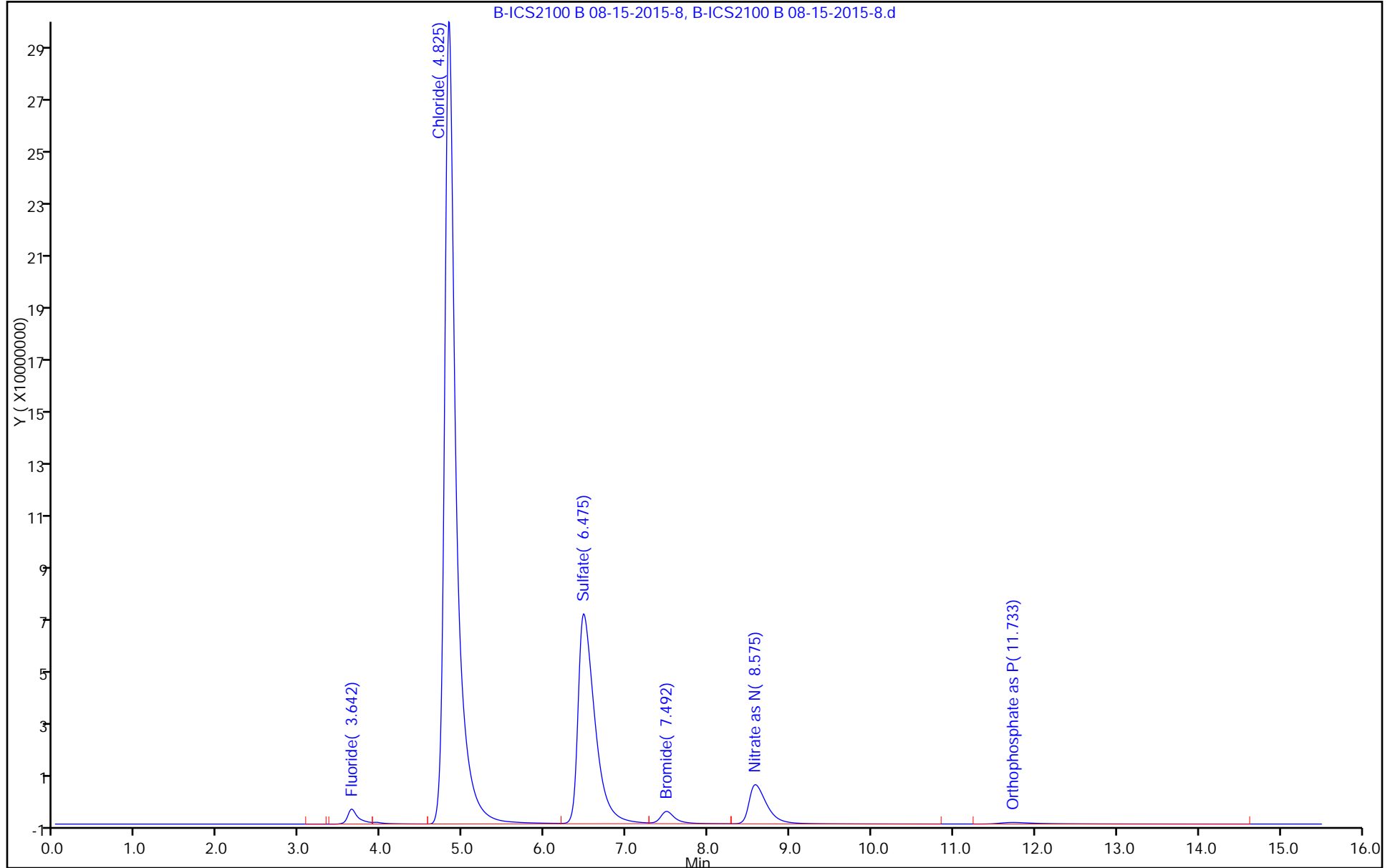
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL





FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MS Lab Sample ID: 180-46875-12 MS  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-22.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:00  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 18:04  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.62		0.10	0.0062
16887-00-6	Chloride	156	4	1.0	0.20
14808-79-8	Sulfate	60.0		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-22.d  
 Lims ID: 180-46875-A-12 MS  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MS  
 Inject. Date: 15-Aug-2015 18:04:00 ALS Bottle#: 0 Worklist Smp#: 22  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-022  
 Misc. Info.: 22 180-46875-a-12 ms  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	52724731	1.25	1.21	
2 Chloride	4.825	4.833	-0.008	4149688342	25.0	155.6	
7 Nitrite as N		5.650				ND	
3 Sulfate	6.475	6.500	-0.025	1172884299	25.0	60.0	
4 Bromide	7.492	7.483	0.009	4678992H	5.00	5.31	
5 Nitrate as N	8.558	8.592	-0.034	305432549	1.25	4.62	
6 Orthophosphate as P	11.950	11.533	0.417	16693601	1.25	0.6832	

Reagents:

ICPRIMARYSTA\_00006 Amount Added: 0.15 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-22.d

Injection Date: 15-Aug-2015 18:04:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-12 MS

Worklist Smp#: 22

Client ID: HD-COD-SW-17-0/1-0

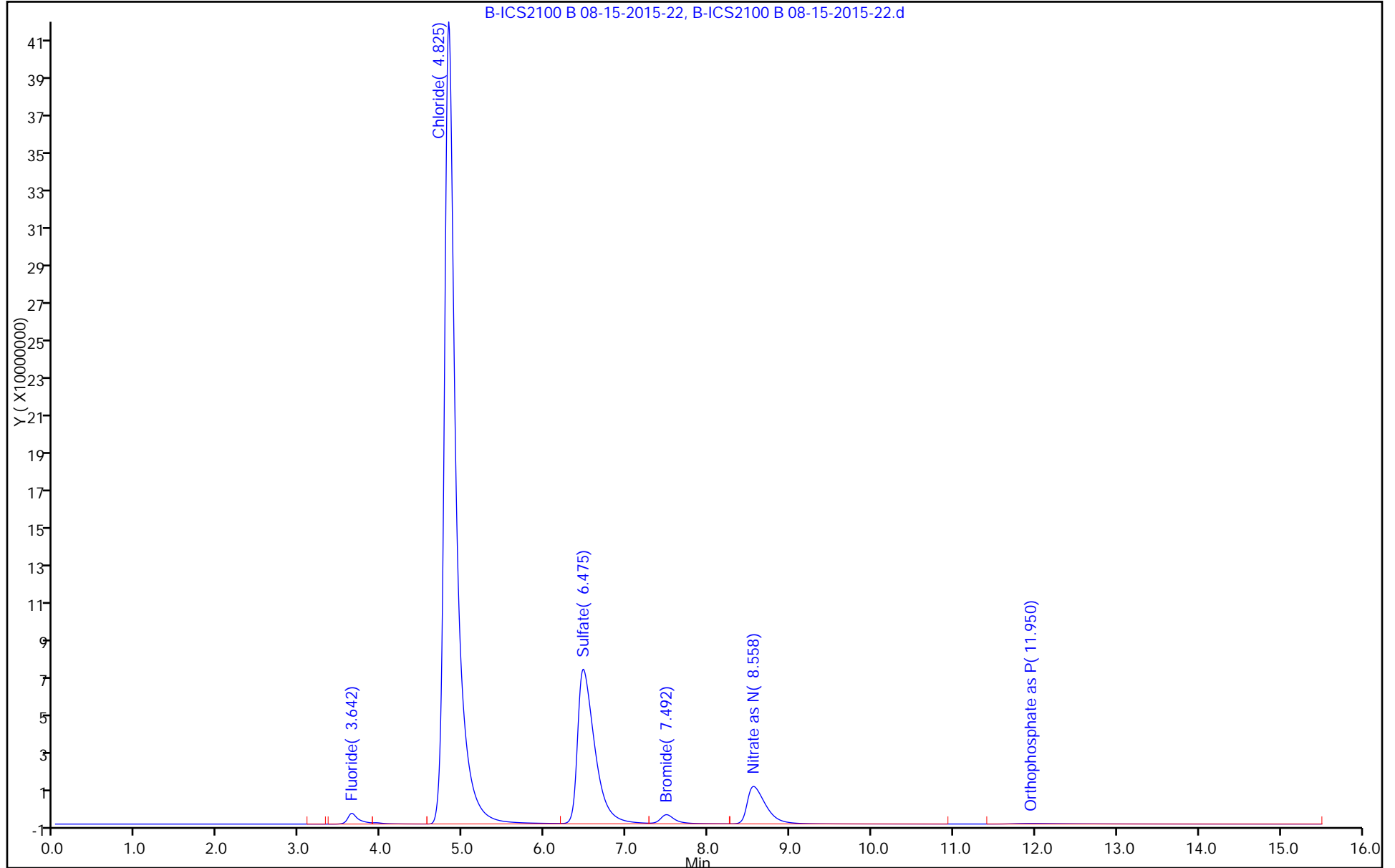
Injection Vol: 10.0 ul

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.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-0/1-0 MSD Lab Sample ID: 180-46875-1 MSD  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-9.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:30  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 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.: 150875 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.38		0.10	0.0062
16887-00-6	Chloride	112		1.0	0.20
14808-79-8	Sulfate	58.1		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-9.d  
 Lims ID: 180-46875-A-1 MSD  
 Client ID:  
 Sample Type: MSD  
 Inject. Date: 15-Aug-2015 14:19:00 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-009  
 Misc. Info.: 9 180-46875-a-1 msd  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:45 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	56686252	1.25	1.30	
2 Chloride	4.833	4.842	-0.009	2995552330	25.0	112.3	
7 Nitrite as N		5.650				ND	
3 Sulfate	6.483	6.492	-0.009	1134814482	25.0	58.1	
4 Bromide	7.492	7.483	0.009	4560690H	5.00	5.17	
5 Nitrate as N	8.575	8.592	-0.017	223095640	1.25	3.38	
6 Orthophosphate as P	11.783	11.492	0.291	19721026	1.25	0.7950	

Reagents:

ICPRIMARYSTA\_00006 Amount Added: 0.15 Units: mL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-9.d

Injection Date: 15-Aug-2015 14:19:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-1 MSD

Worklist Smp#: 9

Client ID:

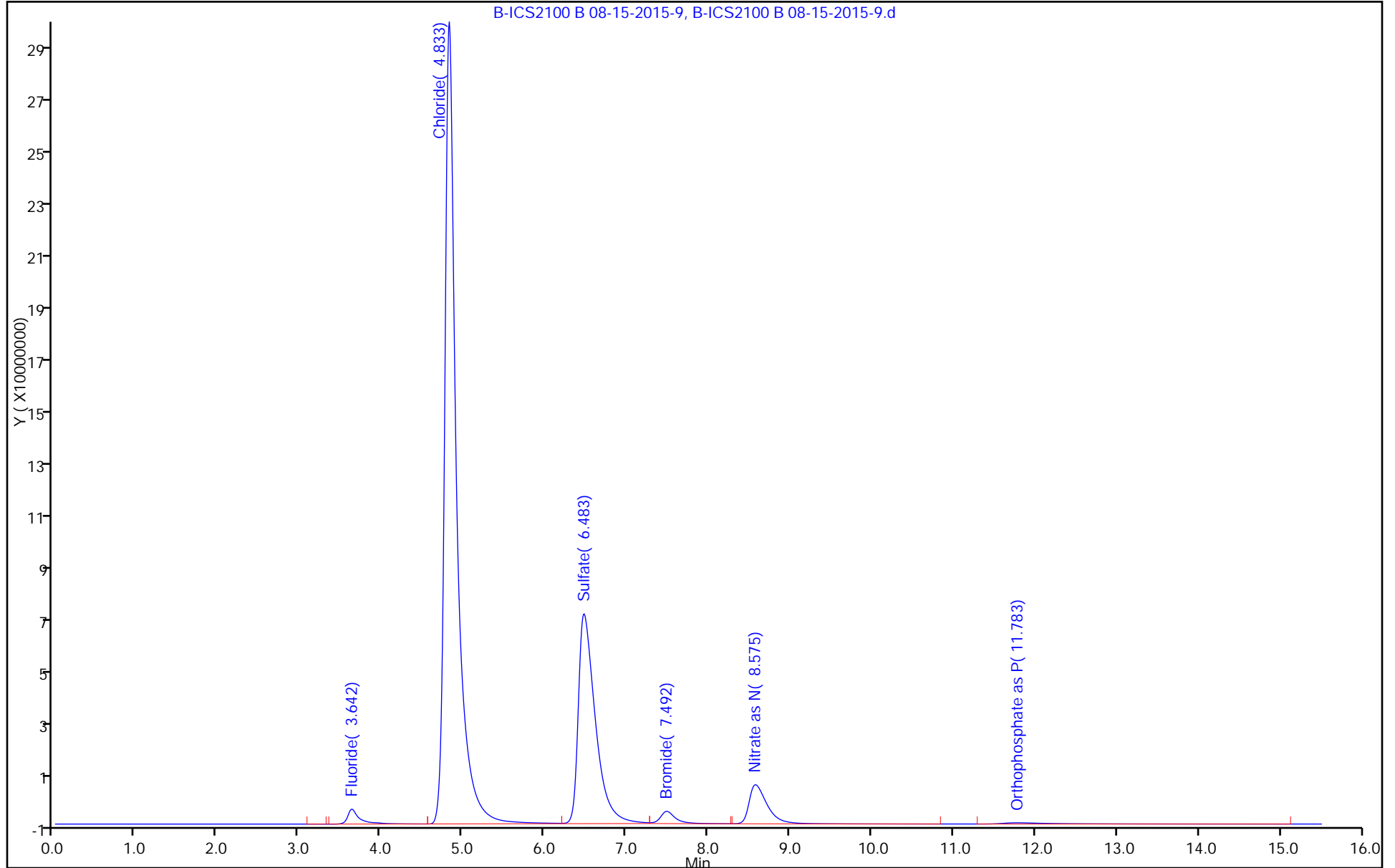
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



FORM I  
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-0/1-0 MSD Lab Sample ID: 180-46875-12 MSD  
 Matrix: Water Lab File ID: B-ICS2100 B 08-15-2015-23.d  
 Analysis Method: 300.0 Date Collected: 08/14/2015 10:00  
 Extraction Method: \_\_\_\_\_ Date Extracted: \_\_\_\_\_  
 Sample wt/vol: 1(mL) Date Analyzed: 08/15/2015 18:21  
 Con. Extract Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Injection Volume: 10(uL) GC Column: AS-18 ID: \_\_\_\_\_  
 % Moisture: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
 Analysis Batch No.: 150875 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	151	4	1.0	0.20
14808-79-8	Sulfate	57.8		1.0	0.21

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-23.d  
 Lims ID: 180-46875-A-12 MSD  
 Client ID: HD-COD-SW-17-0/1-0  
 Sample Type: MSD  
 Inject. Date: 15-Aug-2015 18:21:00 ALS Bottle#: 0 Worklist Smp#: 23  
 Injection Vol: 10.0 ul Dil. Factor: 1.0000  
 Sample Info: 180-0008176-023  
 Misc. Info.: 23 180-46875-a-12 msd  
 Operator ID: Instrument ID: CHICS2100B  
 Method: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\300\_9056\_CHIC2100B.m  
 Limit Group: GC Anions ICAL  
 Last Update: 20-Aug-2015 09:38:51 Calib Date: 15-Apr-2015 17:45:00  
 Integrator: Falcon  
 Quant Method: External Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.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	3.642	0.000	51078971	1.25	1.17	
2 Chloride	4.833	4.833	0.000	4039174079	25.0	151.4	
7 Nitrite as N		5.650				ND	
3 Sulfate	6.475	6.500	-0.025	1129110563	25.0	57.8	
4 Bromide	7.492	7.483	0.009	4497668H	5.00	5.10	
5 Nitrate as N	8.558	8.592	-0.034	309164125	1.25	4.68	
6 Orthophosphate as P	11.958	11.533	0.425	15117937	1.25	0.6250	

Reagents:

ICPRIMARYSTA\_00006 Amount Added: 0.15 Units: mL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHICS2100B\20150815-8176.b\B-ICS2100 B 08-15-2015-23.d

Injection Date: 15-Aug-2015 18:21:00

Instrument ID: CHICS2100B

Operator ID:

Lims ID: 180-46875-A-12 MSD

Worklist Smp#: 23

Client ID: HD-COD-SW-17-0/1-0

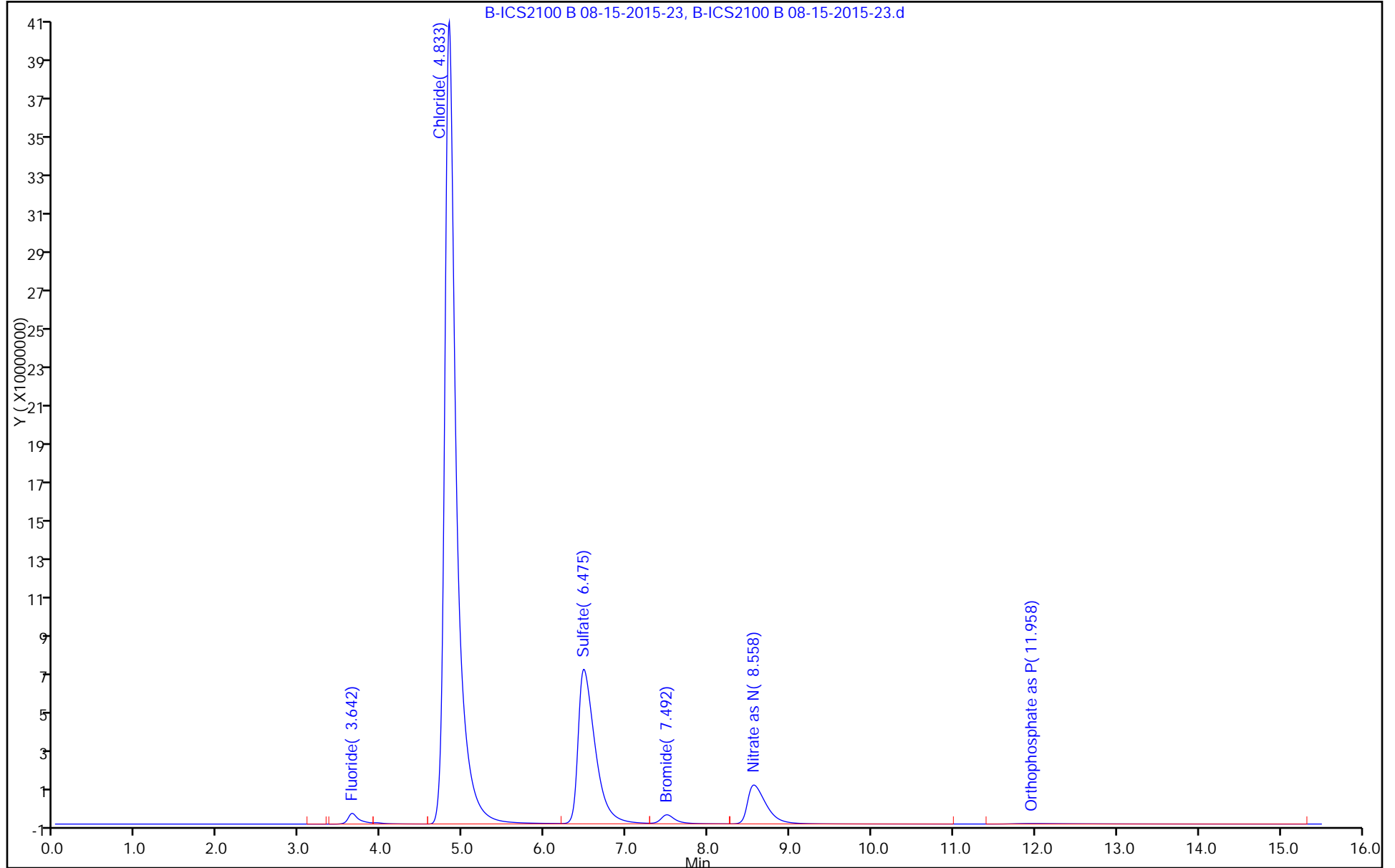
Injection Vol: 10.0 ul

Dil. Factor: 1.0000

ALS Bottle#: 0

Method: 300\_9056\_CHIC2100B

Limit Group: GC Anions ICAL



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Start Date: 04/15/2015 14:54

Analysis Batch Number: 138618 End Date: 04/15/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		04/15/2015 14:54	1		AS-18
IC 180-138618/2		04/15/2015 15:44	1	B-ICS2100 B 04-15-2015-2.d	AS-18
IC 180-138618/3		04/15/2015 16:01	1	B-ICS2100 B 04-15-2015-3.d	AS-18
ICRT 180-138618/4		04/15/2015 16:19	1	B-ICS2100 B 04-15-2015-4.d	AS-18
IC 180-138618/5		04/15/2015 16:36	1	B-ICS2100 B 04-15-2015-5.d	AS-18
IC 180-138618/6		04/15/2015 16:53	1	B-ICS2100 B 04-15-2015-6.d	AS-18
IC 180-138618/7		04/15/2015 17:11	1	B-ICS2100 B 04-15-2015-7.d	AS-18
IC 180-138618/8		04/15/2015 17:28	1	B-ICS2100 B 04-15-2015-8.d	AS-18
IC 180-138618/9		04/15/2015 17:45	1	B-ICS2100 B 04-15-2015-9.d	AS-18
ZZZZZ		04/15/2015 18:03	1		AS-18
ZZZZZ		04/15/2015 18:20	1		AS-18
ZZZZZ		04/15/2015 18:37	1		AS-18
ICV 180-138618/13		04/15/2015 18:55	1		AS-18
CCV 180-138618/14		04/15/2015 19:12	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Start Date: 08/15/2015 09:52

Analysis Batch Number: 150875 End Date: 08/16/2015 01:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICV 180-150875/2		08/15/2015 09:52	1	B-ICS2100 B 08-15-2015-2.d	AS-18
CCV 180-150875/3		08/15/2015 10:09	1	B-ICS2100 B 08-15-2015-3.d	AS-18
CCB 180-150875/4		08/15/2015 10:26	1	B-ICS2100 B 08-15-2015-4.d	AS-18
LCS 180-150875/5		08/15/2015 10:43	1	B-ICS2100 B 08-15-2015-5.d	AS-18
MB 180-150875/6		08/15/2015 11:01	1	B-ICS2100 B 08-15-2015-6.d	AS-18
180-46875-1	HD-COD-SW-6-0/1-0	08/15/2015 13:44	1	B-ICS2100 B 08-15-2015-7.d	AS-18
180-46875-1 MS	HD-COD-SW-6-0/1-0 MS	08/15/2015 14:01	1	B-ICS2100 B 08-15-2015-8.d	AS-18
180-46875-1 MSD	HD-COD-SW-6-0/1-0 MSD	08/15/2015 14:19	1	B-ICS2100 B 08-15-2015-9.d	AS-18
180-46875-2	HD-COD-SW-7-0/1-0	08/15/2015 14:36	1	B-ICS2100 B 08-15-2015-10.d	AS-18
180-46875-3	HD-COD-SW-8-0/1-0	08/15/2015 14:53	1	B-ICS2100 B 08-15-2015-11.d	AS-18
180-46875-4	HD-COD-SW-9-0/1-0	08/15/2015 15:11	1	B-ICS2100 B 08-15-2015-12.d	AS-18
180-46875-5	HD-COD-SW-10-0/1-0	08/15/2015 15:28	1	B-ICS2100 B 08-15-2015-13.d	AS-18
180-46875-6	HD-COD-SW-11-0/1-0	08/15/2015 15:45	1	B-ICS2100 B 08-15-2015-14.d	AS-18
CCV 180-150875/15		08/15/2015 16:03	1	B-ICS2100 B 08-15-2015-15.d	AS-18
CCB 180-150875/16		08/15/2015 16:20	1	B-ICS2100 B 08-15-2015-16.d	AS-18
180-46875-7	HD-COD-SW-12-0/1-0	08/15/2015 16:37	1	B-ICS2100 B 08-15-2015-17.d	AS-18
180-46875-8	HD-COD-SW-13-0/1-0	08/15/2015 16:55	1	B-ICS2100 B 08-15-2015-18.d	AS-18
180-46875-9	HD-COD-SW-15-0/1-0	08/15/2015 17:12	1	B-ICS2100 B 08-15-2015-19.d	AS-18
180-46875-10	HD-COD-SW-16-0/1-0	08/15/2015 17:29	1	B-ICS2100 B 08-15-2015-20.d	AS-18
180-46875-12	HD-COD-SW-17-0/1-0	08/15/2015 17:46	1	B-ICS2100 B 08-15-2015-21.d	AS-18
180-46875-12 MS	HD-COD-SW-17-0/1-0 MS	08/15/2015 18:04	1	B-ICS2100 B 08-15-2015-22.d	AS-18
180-46875-12 MSD	HD-COD-SW-17-0/1-0 MSD	08/15/2015 18:21	1	B-ICS2100 B 08-15-2015-23.d	AS-18
180-46875-13	HD-COD-SW-20-0/1-0	08/15/2015 18:38	1	B-ICS2100 B 08-15-2015-24.d	AS-18
180-46875-14	HD-COD-SW-26-0/1-0	08/15/2015 18:56	1	B-ICS2100 B 08-15-2015-25.d	AS-18
180-46875-15	HD-COD-SW-27-0/1-0	08/15/2015 19:13	1	B-ICS2100 B 08-15-2015-26.d	AS-18
CCV 180-150875/27		08/15/2015 19:30	1	B-ICS2100 B 08-15-2015-27.d	AS-18
CCB 180-150875/28		08/15/2015 19:48	1	B-ICS2100 B 08-15-2015-28.d	AS-18
180-46875-16	HD-COD-SW-28-0/1-0	08/15/2015 20:05	1	B-ICS2100 B 08-15-2015-29.d	AS-18
180-46875-17	HD-COD-SW-29-0/1-0	08/15/2015 20:22	1	B-ICS2100 B 08-15-2015-30.d	AS-18
180-46875-18	HD-QC1-0/1-1	08/15/2015 20:39	1	B-ICS2100 B 08-15-2015-31.d	AS-18
ZZZZZ		08/15/2015 20:57	1		AS-18
ZZZZZ		08/15/2015 21:14	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: CHICS2100B Start Date: 08/15/2015 09:52

Analysis Batch Number: 150875 End Date: 08/16/2015 01:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/15/2015 21:31	1		AS-18
ZZZZZ		08/15/2015 21:49	1		AS-18
ZZZZZ		08/15/2015 22:06	1		AS-18
ZZZZZ		08/15/2015 22:23	2.5		AS-18
ZZZZZ		08/15/2015 22:41	25		AS-18
CCV 180-150875/39		08/15/2015 22:58	1	B-ICS2100 B 08-15-2015-39.d	AS-18
CCB 180-150875/40		08/15/2015 23:15	1	B-ICS2100 B 08-15-2015-40.d	AS-18
ZZZZZ		08/15/2015 23:33	1		AS-18
ZZZZZ		08/15/2015 23:50	1		AS-18
ZZZZZ		08/16/2015 00:07	1		AS-18
ZZZZZ		08/16/2015 00:24	100		AS-18
ZZZZZ		08/16/2015 00:42	1000		AS-18
ZZZZZ		08/16/2015 00:59	100		AS-18
ZZZZZ		08/16/2015 01:16	1000		AS-18
CCV 180-150875/48		08/16/2015 01:34	1		AS-18
CCB 180-150875/49		08/16/2015 01:51	1		AS-18

# **METALS**

COVER PAGE  
METALS

Lab Name: TestAmerica Pittsburgh

Job Number: 180-46875-1

SDG No.: \_\_\_\_\_

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-46875-1
HD-COD-SW-7-0/1-0	180-46875-2
HD-COD-SW-8-0/1-0	180-46875-3
HD-COD-SW-9-0/1-0	180-46875-4
HD-COD-SW-10-0/1-0	180-46875-5
HD-COD-SW-11-0/1-0	180-46875-6
HD-COD-SW-12-0/1-0	180-46875-7
HD-COD-SW-13-0/1-0	180-46875-8
HD-COD-SW-15-0/1-0	180-46875-9
HD-COD-SW-16-0/1-0	180-46875-10
HD-COD-SW-17-0/1-0	180-46875-12
HD-COD-SW-20-0/1-0	180-46875-13
HD-COD-SW-26-0/1-0	180-46875-14
HD-COD-SW-27-0/1-0	180-46875-15
HD-COD-SW-28-0/1-0	180-46875-16
HD-COD-SW-29-0/1-0	180-46875-17
HD-QC1-0/1-1	180-46875-18

Comments:

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-6-0/1-0

Lab Sample ID: 180-46875-1

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:30

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	47000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	58000	500	3.8	ug/L		B	1	6020A

1A-IN  
 INORGANIC ANALYSIS DATA SHEET  
 METALS

Client Sample ID: HD-COD-SW-7-0/1-0

Lab Sample ID: 180-46875-2

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 11:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	38000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8300	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	67000	500	3.8	ug/L		B	1	6020A



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-8-0/1-0

Lab Sample ID: 180-46875-3

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:55

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	41000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8100	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	64000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-9-0/1-0

Lab Sample ID: 180-46875-4

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.:

Matrix: Water

Date Sampled: 08/14/2015 12:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	72000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	17000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	14000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	84000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-10-0/1-0

Lab Sample ID: 180-46875-5

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:25

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	9400	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	19000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	54000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-11-0/1-0

Lab Sample ID: 180-46875-6

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:35

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	73000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2500	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	19000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	33000	500	3.8	ug/L		B	1	6020A

1A-IN  
 INORGANIC ANALYSIS DATA SHEET  
 METALS

Client Sample ID: HD-COD-SW-12-0/1-0

Lab Sample ID: 180-46875-7

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:50

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	76000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	22000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	12000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	96000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-13-0/1-0

Lab Sample ID: 180-46875-8

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:20

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	46000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8300	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	65000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-15-0/1-0

Lab Sample ID: 180-46875-9

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 13:05

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	91000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6100	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	64000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-16-0/1-0

Lab Sample ID: 180-46875-10

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:50

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	41000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	9900	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	63000	500	3.8	ug/L		B	1	6020A



1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-17-0/1-0

Lab Sample ID: 180-46875-12

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.:

Matrix: Water

Date Sampled: 08/14/2015 10:00

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	94000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6100	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	21000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	61000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-20-0/1-0

Lab Sample ID: 180-46875-13

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:35

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	57000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3300	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	12000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	48000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-26-0/1-0

Lab Sample ID: 180-46875-14

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:55

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3700	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	91000	500	3.8	ug/L		B	1	6020A

1A-IN  
INORGANIC ANALYSIS DATA SHEET  
METALS

Client Sample ID: HD-COD-SW-27-0/1-0

Lab Sample ID: 180-46875-15

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 13:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	44000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7900	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	63000	500	3.8	ug/L		B	1	6020A

1A-IN  
 INORGANIC ANALYSIS DATA SHEET  
 METALS

Client Sample ID: HD-COD-SW-28-0/1-0

Lab Sample ID: 180-46875-16

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:25

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	77000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	18000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	14000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	82000	500	3.8	ug/L		B	1	6020A

1A-IN  
 INORGANIC ANALYSIS DATA SHEET  
 METALS

Client Sample ID: HD-COD-SW-29-0/1-0

Lab Sample ID: 180-46875-17

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:45

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	43000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	8900	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	66000	500	3.8	ug/L		B	1	6020A

1A-IN  
 INORGANIC ANALYSIS DATA SHEET  
 METALS

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

Lab Sample ID: 180-46875-18

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:00

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	92000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6200	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L		B	1	6020A
7440-23-5	Sodium	65000	500	3.8	ug/L		B	1	6020A

2A-IN  
 CALIBRATION VERIFICATIONS  
 METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00034 Concentration Units: ug/L

CCV Source: MCCV1X\_00079

Analyte	ICV 180-151557/5 08/21/2015 11:30				CCV 180-151557/10 08/21/2015 11:55				CCV 180-151557/34 08/21/2015 14:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Calcium</b>	40300		40000	101	50900		50000	102	45500		50000	91
<b>Magnesium</b>	39600		40000	99	50600		50000	101	51400		50000	103
<i>Potassium</i>	39800		40000	99	50800		50000	102	48100		50000	96
<i>Sodium</i>	41000		40000	103	51100		50000	102				

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.: 180-46875-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00034 Concentration Units: ug/L

CCV Source: MCCV1X\_00079

Analyte	CCV 180-151557/46 08/21/2015 16:06				CCV 180-151557/58 08/21/2015 17:10				CCV 180-151557/69 08/21/2015 18:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Calcium</b>	48200		50000	96	48400		50000	97	49000		50000	98
<b>Magnesium</b>	53800		50000	108	52200		50000	104	51900		50000	104
<i>Potassium</i>	50000		50000	100	50400		50000	101	50500		50000	101
<i>Sodium</i>												

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.: 180-46875-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00034 Concentration Units: ug/L

CCV Source: MCCV1X\_00079

Analyte	ICV 180-151671/5 08/24/2015 09:32				CCV 180-151671/10 08/24/2015 09:58				CCV 180-151671/21 08/24/2015 10:57			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Potassium</b>	40800		40000	102	50700		50000	101	49900		50000	100
<b>Sodium</b>	39900		40000	100	50900		50000	102	47000		50000	94
<i>Calcium</i>	38500		40000	96	48200		50000	96	47700		50000	95
<i>Magnesium</i>	40500		40000	101	50400		50000	101	49000		50000	98

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.: 180-46875-1

SDG No.: \_\_\_\_\_

ICV Source: MICVX\_00034 Concentration Units: ug/L

CCV Source: MCCV1X\_00079

Analyte	CCV 180-151671/33 08/24/2015 11:59				CCV 180-151671/44 08/24/2015 12:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
<b>Potassium</b>	51600		50000	103	50700		50000	101				
<b>Sodium</b>	48200		50000	96	49200		50000	98				
<i>Calcium</i>	48700		50000	97	47900		50000	96				
<i>Magnesium</i>	50800		50000	102	51400		50000	103				

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.: 180-46875-1

SDG No.: \_\_\_\_\_

Method: 6020A Instrument ID: X

Lab Sample ID: CRI 180-151557/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX\_00070

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	487	J	97	70-130
Potassium	500	523		105	70-130
Magnesium	500	464	J	93	70-130
Sodium	500	468	J	94	70-130

Lab Sample ID: CRI 180-151557/66 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX\_00070

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	511		102	70-130
Magnesium	500	536		107	70-130

Lab Sample ID: CRI 180-151671/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX\_00070

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	449	J	90	70-130
Potassium	500	533		107	70-130
Magnesium	500	545		109	70-130
Sodium	500	530		106	70-130

Lab Sample ID: CRI 180-151671/41 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX\_00070

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Potassium	500	580		116	70-130
Sodium	500	597		119	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICB 180-151557/6 08/21/2015 11:35		CCB1 180-151557/11 08/21/2015 12:04		CCB3 180-151557/35 08/21/2015 15:06		CCB4 180-151557/47 08/21/2015 16:14	
		Found	C	Found	C	Found	C	Found	C
<b>Calcium</b>	500	ND		4.07	J	52.2	J	77.1	J
<b>Magnesium</b>	500	4.73	J	7.64	J	101	J	91.0	J
<i>Potassium</i>	500	27.2	J	51.5	J	602		462	J
<i>Sodium</i>	500	48.8	J	108	J	5400		1250	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB5 180-151557/59 08/21/2015 17:19		CCB6 180-151557/70 08/21/2015 18:28					
		Found	C	Found	C	Found	C	Found	C
<b>Calcium</b>	500	51.3	J	25.9	J				
<b>Magnesium</b>	500	21.0	J	15.2	J				
<i>Potassium</i>	500	437	J	394	J				
<i>Sodium</i>	500	850		401	J				

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	ICB 180-151671/6 08/24/2015 09:37		CCB1 180-151671/11 08/24/2015 10:03		CCB2 180-151671/22 08/24/2015 11:03		CCB3 180-151671/34 08/24/2015 12:04	
		Found	C	Found	C	Found	C	Found	C
<b>Potassium</b>	500	27.0	J	79.4	J	44.3	J	79.0	J
<b>Sodium</b>	500	40.1	J	95.9	J	126	J	96.9	J
<i>Calcium</i>	500	ND		ND		3.94	J	ND	
<i>Magnesium</i>	500	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN  
INSTRUMENT BLANKS  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Concentration Units: ug/L

Analyte	RL	CCB4 180-151671/45 08/24/2015 13:03							
		Found	C	Found	C	Found	C	Found	C
<b>Potassium</b>	500	77.2	J						
<b>Sodium</b>	500	65.9	J						
<i>Calcium</i>	500	ND							
<i>Magnesium</i>	500	ND							

Italicized analytes were not requested for this sequence.



3-IN  
METHOD BLANK  
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
SDG No.: \_\_\_\_\_  
Concentration Units: ug/L Lab Sample ID: MB 180-150950/1-A  
Instrument Code: X Batch No.: 151557

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	72.6	J		6020A
7439-95-4	Magnesium	111	J		6020A

3-IN  
METHOD BLANK  
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
SDG No.: \_\_\_\_\_  
Concentration Units: ug/L Lab Sample ID: MB 180-150950/1-A  
Instrument Code: X Batch No.: 151671

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	25.6	J		6020A
7440-23-5	Sodium	90.2	J		6020A

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICSA 180-151557/8

Instrument ID: X

Lab File ID: X50821A.xml

ICS Source: MICSAX\_00069

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution A	Solution A	
<b>Calcium</b>	<b>100000</b>	<b>99130</b>	<b>99</b>
<b>Magnesium</b>	<b>100000</b>	<b>98010</b>	<b>98</b>
<i>Aluminum</i>	<i>100000</i>	<i>103400</i>	<i>103</i>
<i>Antimony</i>		<i>-0.263</i>	
<i>Arsenic</i>		<i>0.0570</i>	
<i>Barium</i>		<i>0.145</i>	
<i>Beryllium</i>		<i>-0.0220</i>	
<i>Boron</i>		<i>-6.17</i>	
<i>Cadmium</i>		<i>0.660</i>	
<i>Chromium</i>		<i>1.81</i>	
<i>Cobalt</i>		<i>0.148</i>	
<i>Copper</i>		<i>1.28</i>	
<i>Iron</i>	<i>100000</i>	<i>98090</i>	<i>98</i>
<i>Lead</i>		<i>0.216</i>	
<i>Manganese</i>		<i>0.993</i>	
<i>Molybdenum</i>	<i>2000</i>	<i>2126</i>	<i>106</i>
<i>Potassium</i>	<i>100000</i>	<i>98040</i>	<i>98</i>
<i>Selenium</i>		<i>-0.0450</i>	
<i>Silicon</i>		<i>25.8</i>	
<i>Silver</i>		<i>-0.806</i>	
<i>Sodium</i>	<i>100000</i>	<i>99180</i>	<i>99</i>
<i>Strontium</i>		<i>0.647</i>	
<i>Thallium</i>		<i>0.0030</i>	
<i>Tin</i>		<i>-0.674</i>	
<i>Titanium</i>	<i>2000</i>	<i>2107</i>	<i>105</i>
<i>Vanadium</i>		<i>0.337</i>	
<i>Zinc</i>		<i>1.58</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICSAB 180-151557/9

Instrument ID: X

Lab File ID: X50821A.xml

ICS Source: MICSABX\_00073

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Calcium</b>	<b>100000</b>	<b>101900</b>	<b>102</b>
<b>Magnesium</b>	<b>100000</b>	<b>101600</b>	<b>102</b>
<i>Aluminum</i>	<i>100000</i>	<i>106733</i>	<i>107</i>
<i>Antimony</i>	<i>20.0</i>	<i>20.5</i>	<i>102</i>
<i>Arsenic</i>	<i>20.0</i>	<i>20.0</i>	<i>100</i>
<i>Barium</i>	<i>20.0</i>	<i>20.5</i>	<i>102</i>
<i>Beryllium</i>	<i>20.0</i>	<i>19.0</i>	<i>95</i>
<i>Boron</i>	<i>50.0</i>	<i>43.4</i>	<i>87</i>
<i>Cadmium</i>	<i>20.0</i>	<i>21.8</i>	<i>109</i>
<i>Chromium</i>	<i>20.0</i>	<i>21.8</i>	<i>109</i>
<i>Cobalt</i>	<i>20.0</i>	<i>19.8</i>	<i>99</i>
<i>Copper</i>	<i>20.0</i>	<i>22.0</i>	<i>110</i>
<i>Iron</i>	<i>100000</i>	<i>102433</i>	<i>102</i>
<i>Lead</i>	<i>20.0</i>	<i>20.1</i>	<i>101</i>
<i>Manganese</i>	<i>22.5</i>	<i>20.6</i>	<i>92</i>
<i>Molybdenum</i>	<i>2000</i>	<i>2142</i>	<i>107</i>
<i>Nickel</i>	<i>20.0</i>	<i>23.0</i>	<i>115</i>
<i>Potassium</i>	<i>100000</i>	<i>99967</i>	<i>100</i>
<i>Selenium</i>	<i>50.0</i>	<i>51.3</i>	<i>103</i>
<i>Silicon</i>	<i>500</i>	<i>518</i>	<i>104</i>
<i>Silver</i>	<i>20.0</i>	<i>18.8</i>	<i>94</i>
<i>Sodium</i>	<i>100000</i>	<i>101833</i>	<i>102</i>
<i>Strontium</i>	<i>25.0</i>	<i>20.8</i>	<i>83</i>
<i>Thallium</i>	<i>20.0</i>	<i>20.1</i>	<i>100</i>
<i>Tin</i>	<i>100</i>	<i>105</i>	<i>105</i>
<i>Titanium</i>	<i>2000</i>	<i>2167</i>	<i>108</i>
<i>Vanadium</i>	<i>20.0</i>	<i>19.8</i>	<i>99</i>
<i>Zinc</i>	<i>25.0</i>	<i>23.1</i>	<i>93</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICSA 180-151671/8

Instrument ID: X

Lab File ID: X50824A.xml

ICS Source: MICSAX\_00069

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution A	Solution A	
<b>Potassium</b>	<b>100000</b>	<b>96670</b>	<b>97</b>
<b>Sodium</b>	<b>100000</b>	<b>97070</b>	<b>97</b>
<i>Aluminum</i>	<i>100000</i>	<i>94810</i>	<i>95</i>
<i>Antimony</i>		<i>-0.0080</i>	
<i>Arsenic</i>		<i>0.272</i>	
<i>Barium</i>		<i>-0.821</i>	
<i>Beryllium</i>		<i>-0.0350</i>	
<i>Boron</i>		<i>3.50</i>	
<i>Cadmium</i>		<i>1.01</i>	
<i>Calcium</i>	<i>100000</i>	<i>97340</i>	<i>97</i>
<i>Chromium</i>		<i>1.58</i>	
<i>Cobalt</i>		<i>0.200</i>	
<i>Copper</i>		<i>1.14</i>	
<i>Iron</i>	<i>100000</i>	<i>95320</i>	<i>95</i>
<i>Lead</i>		<i>0.224</i>	
<i>Magnesium</i>	<i>100000</i>	<i>99700</i>	<i>100</i>
<i>Manganese</i>		<i>1.71</i>	
<i>Molybdenum</i>	<i>2000</i>	<i>2083</i>	<i>104</i>
<i>Selenium</i>		<i>0.218</i>	
<i>Silicon</i>		<i>34.0</i>	
<i>Silver</i>		<i>0.0070</i>	
<i>Strontium</i>		<i>0.803</i>	
<i>Thallium</i>		<i>0.0050</i>	
<i>Tin</i>		<i>0.0220</i>	
<i>Titanium</i>	<i>2000</i>	<i>2130</i>	<i>107</i>
<i>Vanadium</i>		<i>-0.818</i>	
<i>Zinc</i>		<i>1.31</i>	

Calculations are performed before rounding to avoid round-off errors in calculated results.

4A-IN  
INTERFERENCE CHECK STANDARD  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICSAB 180-151671/9

Instrument ID: X

Lab File ID: X50824A.xml

ICS Source: MICSABX\_00073

Concentration Units: ug/L

Analyte	True	Found	Percent Recovery
	Solution AB	Solution AB	
<b>Potassium</b>	<b>100000</b>	<b>99587</b>	<b>100</b>
<b>Sodium</b>	<b>100000</b>	<b>98440</b>	<b>98</b>
<i>Aluminum</i>	<i>100000</i>	<i>96813</i>	<i>97</i>
<i>Antimony</i>	<i>20.0</i>	<i>20.6</i>	<i>103</i>
<i>Arsenic</i>	<i>20.0</i>	<i>20.0</i>	<i>100</i>
<i>Barium</i>	<i>20.0</i>	<i>17.2</i>	<i>86</i>
<i>Beryllium</i>	<i>20.0</i>	<i>20.0</i>	<i>100</i>
<i>Boron</i>	<i>50.0</i>	<i>54.1</i>	<i>108</i>
<i>Cadmium</i>	<i>20.0</i>	<i>20.3</i>	<i>102</i>
<i>Calcium</i>	<i>100000</i>	<i>100567</i>	<i>101</i>
<i>Chromium</i>	<i>20.0</i>	<i>21.5</i>	<i>107</i>
<i>Cobalt</i>	<i>20.0</i>	<i>20.3</i>	<i>101</i>
<i>Copper</i>	<i>20.0</i>	<i>21.0</i>	<i>105</i>
<i>Iron</i>	<i>100000</i>	<i>99167</i>	<i>99</i>
<i>Lead</i>	<i>20.0</i>	<i>20.4</i>	<i>102</i>
<i>Magnesium</i>	<i>100000</i>	<i>100767</i>	<i>101</i>
<i>Manganese</i>	<i>22.5</i>	<i>21.1</i>	<i>94</i>
<i>Molybdenum</i>	<i>2000</i>	<i>2114</i>	<i>106</i>
<i>Nickel</i>	<i>20.0</i>	<i>22.2</i>	<i>111</i>
<i>Selenium</i>	<i>50.0</i>	<i>47.5</i>	<i>95</i>
<i>Silicon</i>	<i>500</i>	<i>580</i>	<i>116</i>
<i>Silver</i>	<i>20.0</i>	<i>19.8</i>	<i>99</i>
<i>Thallium</i>	<i>20.0</i>	<i>20.3</i>	<i>102</i>
<i>Tin</i>	<i>100</i>	<i>105</i>	<i>105</i>
<i>Titanium</i>	<i>2000</i>	<i>2191</i>	<i>110</i>
<i>Vanadium</i>	<i>20.0</i>	<i>20.4</i>	<i>102</i>
<i>Zinc</i>	<i>25.0</i>	<i>21.8</i>	<i>87</i>

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN  
 MATRIX SPIKE SAMPLE RECOVERY  
 METALS

Client ID: HD-COD-SW-17-0/1-0 MS

Lab ID: 180-46875-12 MS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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	148000	94000	50000	108	75-125		6020A
Potassium	59100	6100	50000	106	75-125		6020A
Magnesium	75600	21000	50000	110	75-125		6020A
Sodium	113000	61000	50000	104	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

5A-IN  
 MATRIX SPIKE DUPLICATE SAMPLE RECOVERY  
 METALS

Client ID: HD-COD-SW-17-0/1-0 MSD

Lab ID: 180-46875-12 MSD

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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	144000	50000	100	75-125	3	20		6020A
Potassium	57800	50000	103	75-125	2	20		6020A
Magnesium	73600	50000	106	75-125	3	20		6020A
Sodium	109000	50000	97	75-125	3	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.



5B-IN  
 POST DIGESTION SPIKE SAMPLE RECOVERY  
 METALS

Client ID: HD-COD-SW-17-0/1-0 PDS

Lab ID: 180-46875-12 PDS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

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	143000	94000	50000	98	75-125		6020A
Potassium	60900	6100	50000	110	75-125		6020A
Magnesium	75300	21000	50000	109	75-125		6020A
Sodium	111000	61000	50000	101	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN  
 LAB CONTROL SAMPLE  
 METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-150950/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Sample Matrix: Water

LCS Source: MTAPITMSA\_00026

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49100		98	80	120		6020A
Magnesium	50000	52900		106	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN  
 LAB CONTROL SAMPLE  
 METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-150950/2-A

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

Sample Matrix: Water

LCS Source: MTAPITMSA\_00026

Analyte	Water (ug/L)							
	True	Found	C	%R	Limits		Q	Method
Potassium	50000	51000		102	80	120		6020A
Sodium	50000	50400		101	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: 180-46875-12

SDG No: \_\_\_\_\_

Lab Name: TestAmerica Pittsburgh

Job No: 180-46875-1

Matrix: Water

Concentration Units: ug/L

Analyte	Initial Sample Result (I) C	Serial Dilution Result (S) C	% Difference	Q	Method
Calcium	94000	92200	2.2		6020A
Potassium	6100	6590	8.1		6020A
Magnesium	21000	20200	3.1		6020A
Sodium	61000	62900	3.7		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: 180-46875-1

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	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-46875-1  
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	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

11-IN  
LINEAR RANGES  
METALS

Lab Name: TestAmerica Pittsburgh

Job No: 180-46875-1

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.: 180-46875-1

SDG No.: \_\_\_\_\_

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-150950/1-A	08/17/2015 10:40	150950		50	50
LCS 180-150950/2-A	08/17/2015 10:40	150950		50	50
180-46875-1	08/17/2015 10:40	150950		50	50
180-46875-2	08/17/2015 10:40	150950		50	50
180-46875-3	08/17/2015 10:40	150950		50	50
180-46875-4	08/17/2015 10:40	150950		50	50
180-46875-5	08/17/2015 10:40	150950		50	50
180-46875-6	08/17/2015 10:40	150950		50	50
180-46875-7	08/17/2015 10:40	150950		50	50
180-46875-8	08/17/2015 10:40	150950		50	50
180-46875-9	08/17/2015 10:40	150950		50	50
180-46875-10	08/17/2015 10:40	150950		50	50
180-46875-12	08/17/2015 10:40	150950		50	50
180-46875-12 MS	08/17/2015 10:40	150950		50	50
180-46875-12 MSD	08/17/2015 10:40	150950		50	50
180-46875-13	08/17/2015 10:40	150950		50	50
180-46875-14	08/17/2015 10:40	150950		50	50
180-46875-15	08/17/2015 10:40	150950		50	50
180-46875-16	08/17/2015 10:40	150950		50	50
180-46875-17	08/17/2015 10:40	150950		50	50
180-46875-18	08/17/2015 10:40	150950		50	50



13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X

Analysis Method: 6020A

Start Date: 08/21/2015 10:03

End Date: 08/21/2015 22:38

Lab Sample Id	D/F	Type	Time	Analytes																											
				C	M																										
ITUNE 180-151557/1			10:03																												
STD1 180-151557/2 IC	1		11:15	X	X																										
STD2 180-151557/3 IC	1		11:19	X	X																										
STD3 180-151557/4 IC	1		11:24	X	X																										
ICV 180-151557/5	1		11:30	X	X																										
ICB 180-151557/6	1		11:35	X	X																										
CRI 180-151557/7	1		11:40	X	X																										
ICSA 180-151557/8	1		11:45	X	X																										
ICSAB 180-151557/9	1		11:50	X	X																										
CCV 180-151557/10	1		11:55	X	X																										
CCB1 180-151557/11	1		12:04	X	X																										
ZZZZZZ			12:09																												
ZZZZZZ			12:14																												
ZZZZZZ			12:19																												
ZZZZZZ			12:24																												
ZZZZZZ			12:29																												
ZZZZZZ			12:34																												
ZZZZZZ			12:39																												
ZZZZZZ			12:44																												
ZZZZZZ			12:50																												
ZZZZZZ			12:55																												
CCV 180-151557/22			13:00																												
CCB2 180-151557/23			13:09																												
ZZZZZZ			13:14																												
ZZZZZZ			13:19																												
ZZZZZZ			14:17																												
ZZZZZZ			14:22																												
ZZZZZZ			14:27																												
ZZZZZZ			14:32																												
ZZZZZZ			14:37																												
ZZZZZZ			14:42																												
ZZZZZZ			14:47																												
ZZZZZZ			14:52																												
CCV 180-151557/34	1		14:57	X	X																										
CCB3 180-151557/35	1		15:06	X	X																										
ZZZZZZ			15:11																												
ZZZZZZ			15:16																												
ZZZZZZ			15:21																												
180-46875-1	1	T	15:30	X	X																										
180-46875-2	1	T	15:35	X	X																										
180-46875-3	1	T	15:40	X	X																										
180-46875-4	1	T	15:45	X	X																										

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X

Analysis Method: 6020A

Start Date: 08/21/2015 10:03

End Date: 08/21/2015 22:38

Lab Sample Id	D/F	T y p e	Time	Analytes																											
				C	M																										
180-46875-5	1	T	15:50	X	X																										
180-46875-6	1	T	15:55	X	X																										
180-46875-7	1	T	16:00	X	X																										
CCV 180-151557/46	1		16:06	X	X																										
CCB4 180-151557/47	1		16:14	X	X																										
MB 180-150950/1-A	1	R	16:20	X	X																										
LCS 180-150950/2-A	1	R	16:25	X	X																										
180-46875-8	1	T	16:30	X	X																										
180-46875-9	1	T	16:35	X	X																										
180-46875-10	1	T	16:40	X	X																										
180-46875-12	1	T	16:45	X	X																										
180-46875-12 SD	5	T	16:50	X	X																										
180-46875-12 MS	1	T	16:55	X	X																										
180-46875-12 MSD	1	T	17:00	X	X																										
180-46875-12 PDS	1	T	17:05	X	X																										
CCV 180-151557/58	1		17:10	X	X																										
CCB5 180-151557/59	1		17:19	X	X																										
180-46875-13	1	T	17:24	X	X																										
180-46875-14	1	T	17:29	X	X																										
180-46875-15	1	T	17:34	X	X																										
180-46875-16	1	T	17:39	X	X																										
180-46875-17	1	T	17:45	X	X																										
180-46875-18	1	T	17:50	X	X																										
CRI 180-151557/66	1		17:59	X	X																										
ZZZZZZ			18:09																												
ZZZZZZ			18:14																												
CCV 180-151557/69	1		18:19	X	X																										
CCB6 180-151557/70	1		18:28	X	X																										
ZZZZZZ			18:33																												
ZZZZZZ			18:38																												
ZZZZZZ			18:43																												
ZZZZZZ			18:48																												
ZZZZZZ			18:53																												
ZZZZZZ			18:58																												
ZZZZZZ			19:03																												
ZZZZZZ			19:08																												
ZZZZZZ			19:13																												
ZZZZZZ			19:18																												
CCV 180-151557/81			19:23																												
CCB7 180-151557/82			19:32																												
ZZZZZZ			19:37																												
ZZZZZZ			19:42																												

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X Analysis Method: 6020A

Start Date: 08/21/2015 10:03 End Date: 08/21/2015 22:38

Lab Sample Id	D/F	Type	Time	Analytes																											
				C	M																										
ZZZZZZ			19:47																												
ZZZZZZ			19:53																												
ZZZZZZ			19:58																												
ZZZZZZ			20:03																												
ZZZZZZ			20:08																												
ZZZZZZ			20:13																												
ZZZZZZ			20:18																												
ZZZZZZ			20:23																												
CCV 180-151557/93			20:28																												
CCB8 180-151557/94			20:37																												
ZZZZZZ			20:42																												
ZZZZZZ			20:47																												
ZZZZZZ			20:52																												
ZZZZZZ			21:01																												
ZZZZZZ			21:06																												
ZZZZZZ			21:11																												
ZZZZZZ			21:16																												
ZZZZZZ			21:21																												
ZZZZZZ			21:26																												
CCV 180-151557/104			21:31																												
CCB9 180-151557/105			21:40																												
ZZZZZZ			21:45																												
ZZZZZZ			21:50																												
ZZZZZZ			21:55																												
ZZZZZZ			22:00																												
ZZZZZZ			22:05																												
ZZZZZZ			22:11																												
CRI 180-151557/112			22:24																												
CCV 180-151557/113			22:30																												
CCB10 180-151557/114			22:38																												

Prep Types: \_\_\_\_\_  
R = Total Recoverable  
T = Total/NA

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X

Analysis Method: 6020A

Start Date: 08/24/2015 07:56

End Date: 08/24/2015 18:08

Lab Sample Id	D/F	Type	Time	Analytes																											
				K	N	a																									
ITUNE 180-151671/1			07:56																												
STD1 180-151671/2 IC	1		09:17	X	X																										
STD2 180-151671/3 IC	1		09:22	X	X																										
STD3 180-151671/4 IC	1		09:27	X	X																										
ICV 180-151671/5	1		09:32	X	X																										
ICB 180-151671/6	1		09:37	X	X																										
CRI 180-151671/7	1		09:43	X	X																										
ICSA 180-151671/8	1		09:48	X	X																										
ICSAB 180-151671/9	1		09:53	X	X																										
CCV 180-151671/10	1		09:58	X	X																										
CCB1 180-151671/11	1		10:03	X	X																										
ZZZZZZ			10:08																												
ZZZZZZ			10:13																												
180-46875-1	1	T	10:18	X	X																										
180-46875-2	1	T	10:23	X	X																										
180-46875-3	1	T	10:28	X	X																										
180-46875-4	1	T	10:33	X	X																										
180-46875-5	1	T	10:38	X	X																										
180-46875-6	1	T	10:44	X	X																										
180-46875-7	1	T	10:49	X	X																										
CCV 180-151671/21	1		10:57	X	X																										
CCB2 180-151671/22	1		11:03	X	X																										
MB 180-150950/1-A	1	R	11:08	X	X																										
LCS 180-150950/2-A	1	R	11:13	X	X																										
180-46875-8	1	T	11:18	X	X																										
180-46875-9	1	T	11:23	X	X																										
180-46875-10	1	T	11:28	X	X																										
180-46875-12	1	T	11:33	X	X																										
180-46875-12 SD	5	T	11:38	X	X																										
180-46875-12 MS	1	T	11:43	X	X																										
180-46875-12 MSD	1	T	11:48	X	X																										
180-46875-12 PDS	1	T	11:54	X	X																										
CCV 180-151671/33	1		11:59	X	X																										
CCB3 180-151671/34	1		12:04	X	X																										
180-46875-13	1	T	12:09	X	X																										
180-46875-14	1	T	12:14	X	X																										
180-46875-15	1	T	12:19	X	X																										
180-46875-16	1	T	12:24	X	X																										
180-46875-17	1	T	12:29	X	X																										
180-46875-18	1	T	12:34	X	X																										
CRI 180-151671/41	1		12:43	X	X																										
ZZZZZZ			12:48																												

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X Analysis Method: 6020A

Start Date: 08/24/2015 07:56 End Date: 08/24/2015 18:08

Lab Sample Id	D/F	Type	Time	Analytes																											
				K	N																										
ZZZZZZ			12:53																												
CCV 180-151671/44	1		12:58	X	X																										
CCB4 180-151671/45	1		13:03	X	X																										
ZZZZZZ			13:08																												
ZZZZZZ			13:13																												
ZZZZZZ			13:19																												
ZZZZZZ			13:24																												
ZZZZZZ			13:29																												
ZZZZZZ			13:34																												
ZZZZZZ			13:39																												
ZZZZZZ			13:44																												
ZZZZZZ			13:49																												
ZZZZZZ			13:54																												
CCV 180-151671/56			13:59																												
CCB5 180-151671/57			14:04																												
ZZZZZZ			14:09																												
ZZZZZZ			14:14																												
ZZZZZZ			14:19																												
ZZZZZZ			14:24																												
ZZZZZZ			14:29																												
ZZZZZZ			14:34																												
ZZZZZZ			14:39																												
ZZZZZZ			14:45																												
ZZZZZZ			14:50																												
ZZZZZZ			14:55																												
CCV 180-151671/68			15:00																												
CCB6 180-151671/69			15:05																												
ZZZZZZ			15:10																												
ZZZZZZ			15:15																												
ZZZZZZ			15:20																												
ZZZZZZ			15:29																												
ZZZZZZ			15:34																												
ZZZZZZ			15:39																												
ZZZZZZ			15:44																												
ZZZZZZ			15:49																												
ZZZZZZ			15:54																												
CCV 180-151671/79			15:59																												
CCB7 180-151671/80			16:04																												
ZZZZZZ			16:09																												
ZZZZZZ			16:14																												
ZZZZZZ			16:20																												
ZZZZZZ			16:25																												

13-IN  
ANALYSIS RUN LOG  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Instrument ID: X Analysis Method: 6020A

Start Date: 08/24/2015 07:56 End Date: 08/24/2015 18:08

Lab Sample Id	D/F	Type	Time	Analytes																											
				K	N																										
ZZZZZZ			16:30																												
ZZZZZZ			16:35																												
CRI 180-151671/87			16:44																												
ZZZZZZ			16:49																												
ZZZZZZ			16:54																												
CCV 180-151671/90			16:59																												
CCB8 180-151671/91			17:04																												
ZZZZZZ			17:09																												
ZZZZZZ			17:14																												
ZZZZZZ			17:19																												
ZZZZZZ			17:24																												
ZZZZZZ			17:29																												
ZZZZZZ			17:34																												
ZZZZZZ			17:39																												
ZZZZZZ			17:44																												
ZZZZZZ			17:49																												
CRI 180-151671/101			17:58																												
CCV 180-151671/102			18:03																												
CCB9 180-151671/103			18:08																												

Prep Types: \_\_\_\_\_  
R = Total Recoverable  
T = Total/NA

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 08/21/2015 End Date: 08/21/2015

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 180-151557/2 I	11:15	100		100		100		100		100	
STD2 180-151557/3 I	11:19	94		103		106		99		98	
STD3 180-151557/4 I	11:24	105		110		109		104		104	
ICV 180-151557/5	11:30	97		107		106		99		98	
ICB 180-151557/6	11:35	101		107		110		107		106	
CRI 180-151557/7	11:40	100		109		113		107		105	
ICSA 180-151557/8	11:45	95		99		101		94		95	
ICSAB 180-151557/9	11:50	91		97		101		90		91	
CCV 180-151557/10	11:55	90		102		107		99		97	
CCB1 180-151557/11	12:04	94		103		110		108		103	
CCV 180-151557/34	14:57	73		58		47		42		41	
CCB3 180-151557/35	15:06	61		55		50		48		45	
180-46875-1	15:30	55		53		46		42		40	
180-46875-2	15:35	65		53		44		40		39	
180-46875-3	15:40	71		52		44		40		38	
180-46875-4	15:45	71		54		45		41		39	
180-46875-5	15:50	70		54		44		41		39	
180-46875-6	15:55	70		55		45		43		41	
180-46875-7	16:00	70		56		46		42		40	
CCV 180-151557/46	16:06	61		58		50		45		44	
CCB4 180-151557/47	16:14	68		61		53		51		47	
MB 180-150950/1-A	16:20	68		61		55		51		49	
LCS 180-150950/2-A	16:25	70		61		51		47		45	
180-46875-8	16:30	82		60		50		46		43	
180-46875-9	16:35	77		62		51		48		45	
180-46875-10	16:40	78		63		52		48		46	
180-46875-12	16:45	76		63		51		47		45	
180-46875-12 SD	16:50	72		66		55		53		50	
180-46875-12 MS	16:55	80		64		51		47		43	
180-46875-12 MSD	17:00	75		64		52		49		46	
180-46875-12 PDS	17:05	74		64		53		48		46	
CCV 180-151557/58	17:10	76		67		56		52		49	
CCB5 180-151557/59	17:19	74		69		58		54		51	
180-46875-13	17:24	81		65		54		50		49	
180-46875-14	17:29	80		66		57		49		47	
180-46875-15	17:34	79		64		52		49		47	
180-46875-16	17:39	77		65		53		50		48	
180-46875-17	17:45	78		65		53		49		46	
180-46875-18	17:50	76		64		53		49		47	
CRI 180-151557/66	17:59	74		67		57		55		51	
CCV 180-151557/69	18:19	71		70		58		54		51	
CCB6 180-151557/70	18:28	76		71		61		59		56	

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 08/21/2015 End Date: 08/21/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-151557/2 I	11:15	100		100		100					
STD2 180-151557/3 I	11:19	94		93		89					
STD3 180-151557/4 I	11:24	95		94		90					
ICV 180-151557/5	11:30	92		93		87					
ICB 180-151557/6	11:35	98		97		94					
CRI 180-151557/7	11:40	98		97		93					
ICSA 180-151557/8	11:45	93		92		92					
ICSAB 180-151557/9	11:50	89		90		82					
CCV 180-151557/10	11:55	94		93		84					
CCB1 180-151557/11	12:04	98		97		93					
CCV 180-151557/34	14:57	38		44		35					
CCB3 180-151557/35	15:06	42		42		40					
180-46875-1	15:30	38		37		35					
180-46875-2	15:35	37		37		31					
180-46875-3	15:40	38		38		35					
180-46875-4	15:45	39		38		37					
180-46875-5	15:50	39		39		34					
180-46875-6	15:55	41		41		37					
180-46875-7	16:00	40		39		36					
CCV 180-151557/46	16:06	43		43		41					
CCB4 180-151557/47	16:14	46		45		43					
MB 180-150950/1-A	16:20	46		45		46					
LCS 180-150950/2-A	16:25	45		45		40					
180-46875-8	16:30	43		42		37					
180-46875-9	16:35	45		45		41					
180-46875-10	16:40	47		46		41					
180-46875-12	16:45	45		44		42					
180-46875-12 SD	16:50	50		50		44					
180-46875-12 MS	16:55	45		45		38					
180-46875-12 MSD	17:00	48		48		41					
180-46875-12 PDS	17:05	47		46		43					
CCV 180-151557/58	17:10	49		48		45					
CCB5 180-151557/59	17:19	48		47		42					
180-46875-13	17:24	47		47		43					
180-46875-14	17:29	48		48		42					
180-46875-15	17:34	46		45		43					
180-46875-16	17:39	48		47		44					
180-46875-17	17:45	47		45		40					
180-46875-18	17:50	48		47		44					
CRI 180-151557/66	17:59	50		49		46					
CCV 180-151557/69	18:19	51		50		45					
CCB6 180-151557/70	18:28	52		51		49					



15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 08/24/2015 End Date: 08/24/2015

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 180-151671/2 I	09:17	100		100		100		100		100	
STD2 180-151671/3 I	09:22	91		99		97		93		94	
STD3 180-151671/4 I	09:27	97		101		102		105		104	
ICV 180-151671/5	09:32	93		100		100		97		98	
ICB 180-151671/6	09:37	96		99		104		104		104	
CRI 180-151671/7	09:43	97		102		94		102		103	
ICSA 180-151671/8	09:48	91		97		95		88		92	
ICSAB 180-151671/9	09:53	84		93		93		88		91	
CCV 180-151671/10	09:58	83		92		94		90		92	
CCB1 180-151671/11	10:03	87		92		99		99		100	
180-46875-1	10:18	87		89		88		85		85	
180-46875-2	10:23	117		90		86		83		82	
180-46875-3	10:28	120		87		86		84		85	
180-46875-4	10:33	110		86		81		81		80	
180-46875-5	10:38	104		85		81		80		79	
180-46875-6	10:44	105		85		81		81		80	
180-46875-7	10:49	100		86		80		78		78	
CCV 180-151671/21	10:57	84		91		87		86		86	
CCB2 180-151671/22	11:03	89		90		90		90		88	
MB 180-150950/1-A	11:08	89		91		90		94		91	
LCS 180-150950/2-A	11:13	105		86		82		80		78	
180-46875-8	11:18	105		81		80		80		79	
180-46875-9	11:23	99		82		81		78		78	
180-46875-10	11:28	96		81		79		78		77	
180-46875-12	11:33	93		81		79		78		78	
180-46875-12 SD	11:38	86		84		84		84		83	
180-46875-12 MS	11:43	90		78		77		76		74	
180-46875-12 MSD	11:48	88		77		76		73		72	
180-46875-12 PDS	11:54	87		78		76		73		71	
CCV 180-151671/33	11:59	87		84		81		80		79	
CCB3 180-151671/34	12:04	82		82		82		84		82	
180-46875-13	12:09	93		76		75		75		75	
180-46875-14	12:14	86		75		79		71		71	
180-46875-15	12:19	88		74		72		71		71	
180-46875-16	12:24	82		74		74		73		70	
180-46875-17	12:29	81		75		74		73		71	
180-46875-18	12:34	82		73		72		72		71	
CRI 180-151671/41	12:43	82		81		79		79		77	
CCV 180-151671/44	12:58	75		78		77		76		75	
CCB4 180-151671/45	13:03	79		79		80		79		78	

15-IN  
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY  
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

ICP-MS Instrument ID: X Start Date: 08/24/2015 End Date: 08/24/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-151671/2 I	09:17	100		100		100					
STD2 180-151671/3 I	09:22	96		95		94					
STD3 180-151671/4 I	09:27	105		104		98					
ICV 180-151671/5	09:32	98		99		98					
ICB 180-151671/6	09:37	102		102		100					
CRI 180-151671/7	09:43	102		101		98					
ICSA 180-151671/8	09:48	97		96		92					
ICSAB 180-151671/9	09:53	96		96		90					
CCV 180-151671/10	09:58	91		91		85					
CCB1 180-151671/11	10:03	98		97		95					
180-46875-1	10:18	88		90		81					
180-46875-2	10:23	85		85		79					
180-46875-3	10:28	90		90		85					
180-46875-4	10:33	89		88		83					
180-46875-5	10:38	86		88		83					
180-46875-6	10:44	88		88		84					
180-46875-7	10:49	86		86		78					
CCV 180-151671/21	10:57	93		93		91					
CCB2 180-151671/22	11:03	92		93		89					
MB 180-150950/1-A	11:08	95		94		94					
LCS 180-150950/2-A	11:13	85		85		79					
180-46875-8	11:18	85		86		85					
180-46875-9	11:23	86		87		81					
180-46875-10	11:28	84		85		82					
180-46875-12	11:33	86		86		81					
180-46875-12 SD	11:38	90		90		87					
180-46875-12 MS	11:43	84		83		80					
180-46875-12 MSD	11:48	81		82		74					
180-46875-12 PDS	11:54	81		81		78					
CCV 180-151671/33	11:59	86		89		84					
CCB3 180-151671/34	12:04	87		87		83					
180-46875-13	12:09	80		81		80					
180-46875-14	12:14	78		80		71					
180-46875-15	12:19	78		79		73					
180-46875-16	12:24	79		79		77					
180-46875-17	12:29	80		79		77					
180-46875-18	12:34	78		78		75					
CRI 180-151671/41	12:43	81		83		74					
CCV 180-151671/44	12:58	80		81		76					
CCB4 180-151671/45	13:03	81		81		78					

## Dilution Corrected Concentrations

STD1 1671385 8/21/2015 11:15:42 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:45	99.937%	0.009	1.584	-0.518	0.000	0.683	-0.008	0.678
2	11:14:55	100.008%	-0.024	-1.142	-0.372	0.000	-1.035	-0.202	-0.041
3	11:15:04	100.056%	0.015	-0.441	0.889	0.000	0.352	0.210	-0.637
X		100.000%	-0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000
σ		0.060%	0.021	1.416	0.773	0.000	0.912	0.206	0.659
%RSD		0.060	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	11:14:45	0.187	0.749	0.000	1.958	2.344	-0.441	98.990%	-0.104
2	11:14:55	-0.168	-1.636	0.000	-2.378	1.876	2.444	100.426%	-0.187
3	11:15:04	-0.019	0.887	0.000	0.420	-4.220	-2.003	100.584%	0.291
X		0.000	0.000	0.000	0.000	-0.000	0.000	100.000%	-0.000
σ		0.178	1.419	0.000	2.199	3.662	2.256	0.878%	0.255
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.878	0.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:14:45	-0.066	0.007	0.030	-0.067	1.099	-0.005	-0.104	-0.060
2	11:14:55	0.057	0.001	-0.034	-0.002	-0.048	0.010	0.008	0.100
3	11:15:04	0.009	-0.009	0.005	0.069	-1.051	-0.005	0.096	-0.040
X		-0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	-0.000
σ		0.062	0.008	0.032	0.068	1.076	0.009	0.100	0.087
%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	11:14:45	-0.041	-0.075	0.085	0.009	-0.045	-2.262	0.000	0.005
2	11:14:55	0.289	0.106	-0.043	-0.005	0.091	0.526	0.000	-0.010
3	11:15:04	-0.248	-0.031	-0.042	-0.004	-0.045	1.735	0.000	0.005
X		0.000	0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.271	0.095	0.074	0.008	0.078	2.050	0.000	0.009
%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	11:14:45	97.659%	0.051	0.011	98.710%	-0.027	-0.145	-0.010	0.017
2	11:14:55	101.852%	-0.016	-0.006	100.176%	0.018	0.035	-0.011	-0.009
3	11:15:04	100.489%	-0.035	-0.006	101.114%	0.010	0.110	0.021	-0.009
X		100.000%	-0.000	0.000	100.000%	0.000	-0.000	-0.000	-0.000
σ		2.139%	0.045	0.010	1.212%	0.024	0.131	0.018	0.015
%RSD		2.139	0.000	0.000	1.212	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	11:14:45	98.915%	-0.158	0.015	-0.005	0.000	0.000	98.898%	99.232%
2	11:14:55	99.761%	0.165	-0.061	0.096	0.000	0.000	99.795%	99.766%
3	11:15:04	101.324%	-0.007	0.046	-0.091	0.000	0.000	101.306%	101.003%
X		100.000%	-0.000	-0.000	0.000	0.000	0.000	100.000%	100.000%
σ		1.222%	0.162	0.055	0.093	0.000	0.000	1.217%	0.908%
%RSD		1.222	0.000	0.000	0.000	0.000	0.000	1.217	0.908
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:14:45	-0.004	0.000	0.005	0.000	-0.002	98.505%		
2	11:14:55	-0.004	-0.002	-0.009	-0.000	-0.007	100.958%		
3	11:15:04	0.007	0.002	0.004	-0.000	0.009	100.537%		
X		0.000	-0.000	-0.000	-0.000	0.000	100.000%		
σ		0.006	0.002	0.008	0.000	0.008	1.312%		
%RSD		0.000	0.000	0.000	0.000	0.000	1.312		

STD2 1671388 8/21/2015 11:19:52 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	95.106%	199.200	-3.160	-1.855	0.000	99380.000	99070.000	100300.000	
2	11:19:04	92.196%	203.100	-2.668	-1.323	0.000	101000.000	100700.000	99980.000	
3	11:19:13	94.073%	197.800	-1.629	-2.363	0.000	99670.000	100200.000	99720.000	
X		93.792%	200.000	-2.486	-1.847	0.000	100000.000	100000.000	100000.000	
		σ	1.475%	2.753	0.782	0.520	0.000	841.400	849.800	289.900
		%RSD	1.573	1.376	31.440	28.140	0.000	0.841	0.850	0.290
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	1002.000	12.260	0.000	100200.000	99630.000	99850.000	102.948%	0.004	
2	11:19:04	998.100	16.660	0.000	99730.000	99820.000	99610.000	103.040%	0.120	
3	11:19:13	999.700	14.910	0.000	100100.000	100500.000	100500.000	103.157%	0.197	
X		1000.000	14.610	0.000	100000.000	100000.000	100000.000	103.049%	0.107	
		σ	2.082	2.217	0.000	231.800	483.900	483.400	0.105%	0.097
		%RSD	0.208	15.180	0.000	0.232	0.484	0.483	0.102	91.070
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	196.300	196.900	995.100	49420.000	49230.000	199.800	201.100	199.400	
2	11:19:04	200.900	200.500	1003.000	50170.000	50400.000	199.000	200.200	202.200	
3	11:19:13	202.800	202.600	1002.000	50410.000	50380.000	201.200	198.700	198.400	
X		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000	
		σ	3.338	2.885	4.217	513.700	670.100	1.133	1.184	1.929
		%RSD	1.669	1.443	0.422	1.027	1.340	0.566	0.592	0.965
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	197.800	200.800	198.500	200.500	196.900	199.000	0.000	201.200	
2	11:19:04	202.300	198.200	201.500	201.100	204.400	202.200	0.000	199.500	
3	11:19:13	199.900	201.000	200.000	198.400	198.700	198.800	0.000	199.300	
X		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000	
		σ	2.203	1.570	1.459	1.429	3.919	1.916	0.000	1.065
		%RSD	1.101	0.785	0.729	0.715	1.960	0.958	0.000	0.532
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	103.347%	0.065	0.201	98.239%	200.600	201.800	203.000	200.500	
2	11:19:04	106.384%	0.178	0.004	99.393%	199.100	201.200	194.500	197.800	
3	11:19:13	108.210%	-0.001	-0.033	100.558%	200.300	197.100	202.600	201.700	
X		105.980%	0.081	0.057	99.396%	200.000	200.000	200.000	200.000	
		σ	2.457%	0.091	0.126	1.160%	0.801	2.565	4.781	2.001
		%RSD	2.318	112.500	219.700	1.167	0.400	1.283	2.390	1.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:18:54	96.033%	-0.166	0.106	0.146	202.600	200.900	92.731%	92.549%	
2	11:19:04	98.496%	-0.239	0.136	0.028	198.800	197.200	93.006%	93.813%	
3	11:19:13	98.625%	-0.347	0.050	0.145	198.500	201.900	94.795%	92.488%	
X		97.718%	-0.251	0.097	0.106	200.000	200.000	93.511%	92.950%	
		σ	1.461%	0.091	0.044	0.068	2.288	2.489	1.120%	0.748%
		%RSD	1.495	36.420	44.800	63.800	1.144	1.244	1.198	0.805
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	11:18:54	200.000	198.900	198.700	197.400	198.100	89.454%			
2	11:19:04	202.100	202.000	202.400	202.500	201.300	88.268%			
3	11:19:13	197.900	199.100	198.900	200.000	200.600	88.405%			
X		200.000	200.000	200.000	200.000	200.000	88.709%			
		σ	2.127	1.771	2.107	2.536	1.650	0.649%		
		%RSD	1.064	0.886	1.053	1.268	0.825	0.732		

STD3 1671389 8/21/2015 11:24:54 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	11:23:59	106.752%	0.077	193.200	197.900	0.000	122.100	13.250	15.140
2	11:24:09	104.180%	0.064	207.800	200.200	0.000	119.100	15.010	16.720
3	11:24:18	103.713%	0.090	199.000	201.900	0.000	118.700	14.420	14.580
X		104.882%	0.077	200.000	200.000	0.000	120.000	14.230	15.480
σ		1.637%	0.013	7.346	2.027	0.000	1.896	0.899	1.107
%RSD		1.561	16.630	3.673	1.014	0.000	1.581	6.317	7.152
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:59	4.003	9931.000	0.000	11.570	29.920	157.900	110.852%	196.700
2	11:24:09	4.057	10030.000	0.000	15.470	39.640	155.300	109.937%	203.600
3	11:24:18	4.194	10040.000	0.000	21.080	42.160	166.800	108.918%	199.700
X		4.085	10000.000	0.000	16.040	37.240	160.000	109.902%	200.000
σ		0.098	59.670	0.000	4.781	6.462	6.044	0.967%	3.456
%RSD		2.402	0.597	0.000	29.810	17.350	3.777	0.880	1.728
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:59	-0.059	0.069	0.154	14.680	14.440	0.022	0.117	0.287
2	11:24:09	-0.122	0.046	0.122	14.790	15.360	0.057	0.223	0.099
3	11:24:18	0.069	0.046	0.085	13.970	15.450	0.043	0.358	0.507
X		-0.037	0.054	0.120	14.480	15.080	0.041	0.233	0.297
σ		0.097	0.013	0.035	0.444	0.561	0.018	0.121	0.204
%RSD		259.100	24.620	28.950	3.068	3.720	42.920	52.060	68.660
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:59	-0.044	0.896	1.037	0.070	0.339	1.703	0.000	0.077
2	11:24:09	0.251	1.480	1.556	0.049	0.207	1.978	0.000	0.018
3	11:24:18	-0.272	1.396	1.084	0.156	-0.045	1.044	0.000	0.046
X		-0.022	1.257	1.225	0.092	0.167	1.575	0.000	0.047
σ		0.262	0.316	0.287	0.057	0.195	0.480	0.000	0.029
%RSD		1201.000	25.100	23.420	61.830	117.000	30.480	0.000	62.680
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:59	106.680%	199.600	200.000	102.796%	-0.361	-0.266	0.084	3.493
2	11:24:09	109.112%	199.100	199.800	103.189%	-0.378	-0.434	0.113	4.013
3	11:24:18	110.139%	201.400	200.200	104.418%	-0.188	-0.280	0.173	3.695
X		108.644%	200.000	200.000	103.468%	-0.309	-0.327	0.123	3.734
σ		1.776%	1.220	0.173	0.846%	0.105	0.093	0.046	0.262
%RSD		1.635	0.610	0.086	0.818	34.110	28.540	37.030	7.025
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:59	102.466%	199.700	198.500	199.400	0.551	0.466	92.207%	91.959%
2	11:24:09	104.364%	200.500	200.300	200.100	0.382	0.411	96.095%	94.940%
3	11:24:18	105.307%	199.800	201.200	200.500	0.532	0.246	96.160%	96.205%
X		104.046%	200.000	200.000	200.000	0.488	0.374	94.820%	94.368%
σ		1.447%	0.428	1.378	0.525	0.093	0.115	2.264%	2.180%
%RSD		1.391	0.214	0.689	0.263	18.950	30.690	2.388	2.310
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:23:59	0.033	0.039	0.181	0.130	0.183	88.651%		
2	11:24:09	0.075	0.038	0.246	0.212	0.200	89.648%		
3	11:24:18	0.044	0.020	0.109	0.167	0.159	91.269%		
X		0.051	0.032	0.179	0.170	0.181	89.856%		
σ		0.022	0.011	0.069	0.041	0.021	1.321%		
%RSD		42.840	32.810	38.290	24.350	11.530	1.471		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	96.952%	82.240	88.750	85.900	0.000	40620.000	39880.000	39710.000
2	11:29:13	98.101%	82.060	82.140	86.980	0.000	41180.000	39410.000	39260.000
3	11:29:23	97.248%	83.310	89.840	88.820	0.000	41260.000	39710.000	39820.000
X		97.434%	103.171%	108.639%	109.044%	0.000	102.550%	99.162%	98.994%
σ		0.596%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.612	0.821	4.792	1.689	0.000	0.848	0.603	0.748
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	414.800	4337.000	0.000	40100.000	40370.000	40430.000	105.191%	82.330
2	11:29:13	410.200	4365.000	0.000	39580.000	40420.000	40470.000	107.699%	81.520
3	11:29:23	414.000	4424.000	0.000	39670.000	40210.000	40000.000	107.513%	83.830
X		103.256%	109.381%	0.000	99.455%	100.842%	100.749%	106.801%	103.199%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.397%	n/a
%RSD		0.590	1.011	0.000	0.697	0.272	0.642	1.308	1.416
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	81.550	81.540	402.400	19250.000	19190.000	78.150	77.780	80.180
2	11:29:13	79.220	79.920	398.800	19650.000	19670.000	82.540	80.860	80.820
3	11:29:23	76.170	79.040	400.400	19600.000	19610.000	82.390	81.860	81.870
X		98.730%	100.206%	100.139%	97.488%	97.436%	101.285%	100.206%	101.195%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.415	1.584	0.454	1.107	1.338	3.075	2.654	1.056
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	83.900	81.140	80.960	79.110	83.030	84.190	0.000	81.290
2	11:29:13	82.230	82.970	83.900	84.730	77.800	79.820	0.000	82.680
3	11:29:23	82.690	80.510	83.020	82.540	82.480	80.670	0.000	82.110
X		103.676%	101.924%	103.287%	102.658%	101.378%	101.951%	0.000	102.532%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.040	1.564	1.825	3.448	3.541	2.843	0.000	0.855
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	105.440%	83.360	84.240	97.371%	79.640	80.700	81.520	80.480
2	11:29:13	105.544%	82.670	86.300	99.552%	81.100	80.450	80.790	80.850
3	11:29:23	106.047%	83.040	83.650	100.638%	79.550	78.990	81.090	81.690
X		105.677%	103.783%	105.915%	99.187%	100.116%	100.062%	101.421%	101.254%
σ		0.324%	n/a	n/a	1.664%	n/a	n/a	n/a	n/a
%RSD		0.307	0.414	1.639	1.678	1.086	1.152	0.452	0.763
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:29:04	96.696%	86.200	83.870	82.440	83.520	81.360	90.431%	90.412%
2	11:29:13	96.117%	84.540	85.110	87.400	82.800	80.980	93.531%	93.680%
3	11:29:23	99.836%	81.690	83.350	84.400	85.990	79.760	93.123%	93.712%
X		97.550%	105.181%	105.140%	105.935%	105.130%	100.872%	92.361%	92.601%
σ		2.001%	n/a	n/a	n/a	n/a	n/a	1.685%	1.896%
%RSD		2.052	2.713	1.074	2.948	1.991	1.035	1.824	2.047
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:29:04	84.620	83.890	81.060	78.220	80.180	86.701%		
2	11:29:13	84.140	83.020	80.830	77.620	79.010	87.415%		
3	11:29:23	85.660	85.150	82.000	80.220	80.460	87.552%		
X		106.009%	105.024%	101.625%	98.359%	99.859%	87.223%		
σ		n/a	n/a	n/a	n/a	n/a	0.457%		
%RSD		0.915	1.270	0.764	1.729	0.963	0.524		

ICB 8/21/2015 11:35:08 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	100.170%	-0.011	-7.293	-4.784	0.000	51.780	3.356	4.742
2	11:34:21	99.916%	-0.004	-6.975	-4.920	0.000	47.760	4.496	5.246
3	11:34:31	101.385%	-0.031	-6.343	-6.099	0.000	46.820	3.646	4.186
X		100.490%	-0.015	-6.871	-5.267	0.000	48.780	3.833	4.725
σ		0.785%	0.014	0.484	0.723	0.000	2.637	0.593	0.530
%RSD		0.781	91.610	7.038	13.730	0.000	5.405	15.470	11.220
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	-0.400	9.827	0.000	25.570	-1.910	5.357	106.653%	-0.046
2	11:34:21	-0.341	11.300	0.000	24.370	5.330	1.084	107.731%	-0.198
3	11:34:31	-0.399	11.450	0.000	31.510	5.406	1.849	107.504%	-0.160
X		-0.380	10.860	0.000	27.150	2.942	2.763	107.296%	-0.135
σ		0.033	0.896	0.000	3.823	4.202	2.278	0.568%	0.079
%RSD		8.805	8.248	0.000	14.080	142.800	82.450	0.530	58.680
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	-0.046	0.004	-0.089	3.575	2.496	-0.013	0.206	-0.152
2	11:34:21	0.032	-0.005	-0.104	3.149	2.428	-0.006	-0.015	-0.119
3	11:34:31	-0.332	0.033	-0.023	2.662	4.281	0.001	0.199	0.105
X		-0.115	0.011	-0.072	3.129	3.068	-0.006	0.130	-0.056
σ		0.192	0.020	0.043	0.457	1.051	0.007	0.125	0.140
%RSD		165.900	187.000	60.320	14.610	34.250	123.800	96.460	251.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	-0.359	0.006	0.240	0.000	0.082	1.227	0.000	0.004
2	11:34:21	-0.636	0.302	0.124	-0.059	0.081	0.577	0.000	0.004
3	11:34:31	-0.098	0.257	0.347	0.047	-0.045	1.916	0.000	-0.010
X		-0.364	0.188	0.237	-0.004	0.039	1.240	0.000	-0.001
σ		0.269	0.160	0.112	0.053	0.073	0.669	0.000	0.008
%RSD		73.820	84.710	47.210	1411.000	187.100	53.980	0.000	816.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	109.319%	0.126	0.073	106.389%	-0.615	-0.719	0.051	-0.009
2	11:34:21	109.966%	0.143	-0.007	107.113%	-0.677	-0.688	0.050	0.003
3	11:34:31	112.034%	0.065	0.057	107.475%	-0.665	-0.572	-0.011	-0.010
X		110.440%	0.111	0.041	106.992%	-0.652	-0.660	0.030	-0.005
σ		1.418%	0.041	0.042	0.553%	0.033	0.077	0.035	0.007
%RSD		1.284	36.570	104.100	0.517	4.997	11.700	118.100	128.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:34:12	104.215%	-0.549	-0.252	-0.322	0.000	0.000	96.454%	96.302%
2	11:34:21	106.537%	-0.691	-0.256	-0.262	0.000	0.000	98.636%	97.336%
3	11:34:31	108.283%	-0.664	-0.296	-0.276	0.000	0.000	98.547%	97.712%
X		106.345%	-0.635	-0.268	-0.287	0.000	0.000	97.879%	97.117%
σ		2.041%	0.075	0.025	0.031	0.000	0.000	1.235%	0.730%
%RSD		1.919	11.840	9.172	10.870	0.000	0.000	1.261	0.752
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:34:12	0.002	0.015	-0.001	-0.007	-0.005	92.255%		
2	11:34:21	0.002	0.003	0.006	0.001	0.000	93.957%		
3	11:34:31	0.008	0.002	-0.002	0.017	0.004	95.414%		
X		0.004	0.007	0.001	0.004	-0.000	93.875%		
σ		0.003	0.007	0.004	0.012	0.004	1.581%		
%RSD		79.010	107.700	435.500	340.100	1287.000	1.684		

CRI 1645747 8/21/2015 11:40:13 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	98.922%	1.007	14.810	15.260	0.000	473.100	472.600	466.000
2	11:39:28	100.712%	0.981	12.670	13.330	0.000	461.800	464.600	455.900
3	11:39:38	99.609%	0.929	14.470	15.030	0.000	470.400	475.000	468.900
X		99.748%	97.223%	279.670%	290.778%	0.000	585.553%	470.725%	463.611%
σ		0.903%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.905	4.113	8.238	7.222	0.000	1.254	1.153	1.473
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	29.390	497.100	0.000	527.000	521.800	490.200	108.288%	4.571
2	11:39:28	28.820	487.100	0.000	510.100	525.200	483.300	110.536%	4.653
3	11:39:38	29.650	497.000	0.000	530.900	470.000	487.000	107.750%	4.596
X		97.618%	98.746%	0.000	522.690%	505.640%	486.827%	108.858%	92.133%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.478%	n/a
%RSD		1.441	1.171	0.000	2.114	6.120	0.713	1.358	0.903
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	0.734	1.767	4.799	44.730	45.550	0.381	0.710	2.086
2	11:39:28	0.831	1.922	4.820	45.980	46.380	0.559	1.164	2.283
3	11:39:38	0.841	1.968	4.960	47.710	54.560	0.573	1.340	2.113
X		80.210%	94.284%	97.188%	92.285%	97.658%	100.901%	107.116%	108.028%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		7.394	5.590	1.803	3.246	10.200	21.240	30.360	4.935
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	2.472	5.541	5.220	1.027	5.477	4.942	0.000	4.753
2	11:39:28	1.570	4.187	6.043	0.900	4.878	6.515	0.000	5.050
3	11:39:38	2.002	4.792	4.836	0.906	3.500	5.958	0.000	5.343
X		100.725%	96.806%	107.325%	94.396%	92.364%	116.103%	0.000	100.976%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		22.410	14.020	11.490	7.590	21.950	13.730	0.000	5.840
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	110.373%	4.793	4.773	107.411%	0.402	0.224	0.979	1.125
2	11:39:28	112.488%	4.670	4.666	107.292%	0.489	0.297	1.333	1.057
3	11:39:38	114.556%	4.733	4.739	107.164%	0.393	0.490	1.503	1.202
X		112.472%	94.638%	94.525%	107.289%	42.791%	33.679%	127.156%	112.780%
σ		2.092%	n/a	n/a	0.123%	n/a	n/a	n/a	n/a
%RSD		1.860	1.309	1.154	0.115	12.330	40.740	21.050	6.431
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:39:19	102.829%	5.757	1.767	1.367	9.702	9.813	97.747%	96.888%
2	11:39:28	104.806%	9.180	2.039	1.763	10.870	9.338	98.131%	96.217%
3	11:39:38	106.150%	5.903	1.865	1.593	10.200	9.608	98.030%	97.979%
X		104.595%	138.928%	94.520%	78.730%	102.581%	95.864%	97.969%	97.028%
σ		1.671%	n/a	n/a	n/a	n/a	n/a	0.199%	0.889%
%RSD		1.597	27.860	7.263	12.620	5.713	2.487	0.203	0.917
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:39:19	1.110	1.026	1.099	0.933	0.999	91.526%		
2	11:39:28	1.008	1.034	1.011	1.025	1.068	92.981%		
3	11:39:38	1.038	1.027	0.872	1.120	1.002	93.786%		
X		105.202%	102.888%	99.397%	102.576%	102.297%	92.764%		
σ		n/a	n/a	n/a	n/a	n/a	1.145%		
%RSD		4.991	0.429	11.490	9.115	3.810	1.235		



ICSA 1645909 8/21/2015 11:45:19 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	95.766%	0.002	-6.788	-5.813	0.000	99570.000	99410.000	98700.000
2	11:44:32	94.213%	0.004	-5.861	-6.007	0.000	98420.000	98920.000	97530.000
3	11:44:42	95.755%	-0.072	-7.397	-6.689	0.000	99550.000	98090.000	97810.000
X		95.245%	-0.022	-6.682	-6.169	0.000	99180.000	98810.000	98010.000
σ		0.893%	0.043	0.773	0.460	0.000	661.800	665.800	609.100
%RSD		0.938	195.500	11.570	7.459	0.000	0.667	0.674	0.621
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	104300.000	26.530	0.000	98200.000	97530.000	98640.000	99.627%	2113.000
2	11:44:32	103200.000	26.340	0.000	98040.000	98830.000	100100.000	99.037%	2116.000
3	11:44:42	102700.000	24.660	0.000	97870.000	97710.000	98680.000	99.390%	2094.000
X		103400.000	25.840	0.000	98040.000	98020.000	99130.000	99.351%	2107.000
σ		798.100	1.032	0.000	165.600	701.100	813.100	0.297%	11.940
%RSD		0.772	3.992	0.000	0.169	0.715	0.820	0.299	0.566
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	1.368	1.619	1.039	96900.000	96900.000	0.157	4.636	1.209
2	11:44:32	0.949	1.981	1.034	99990.000	98880.000	0.094	3.720	1.194
3	11:44:42	-1.306	1.829	0.907	97380.000	97080.000	0.194	3.787	0.979
X		0.337	1.810	0.993	98090.000	97620.000	0.148	4.048	1.127
σ		1.438	0.182	0.075	1661.000	1094.000	0.050	0.511	0.129
%RSD		426.600	10.040	7.572	1.693	1.121	33.970	12.620	11.420
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	1.312	1.596	1.246	0.094	-0.045	5.088	0.000	0.474
2	11:44:32	1.462	1.665	1.492	0.016	-0.045	3.531	0.000	0.790
3	11:44:42	1.069	1.488	1.500	0.060	-0.045	2.544	0.000	0.678
X		1.281	1.583	1.413	0.057	-0.045	3.721	0.000	0.647
σ		0.198	0.089	0.144	0.039	0.000	1.283	0.000	0.160
%RSD		15.460	5.612	10.200	68.760	0.000	34.470	0.000	24.720
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	99.194%	2053.000	2136.000	93.780%	-0.804	-0.777	0.677	0.665
2	11:44:32	102.803%	2054.000	2120.000	95.451%	-0.798	-0.902	0.464	0.589
3	11:44:42	101.432%	2068.000	2122.000	93.034%	-0.816	-0.774	0.838	0.597
X		101.143%	2058.000	2126.000	94.088%	-0.806	-0.818	0.660	0.617
σ		1.821%	8.272	8.763	1.238%	0.009	0.073	0.188	0.042
%RSD		1.801	0.402	0.412	1.316	1.137	8.913	28.440	6.756
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:44:23	93.710%	-0.608	-0.224	-0.354	0.249	0.089	91.076%	91.418%
2	11:44:32	94.799%	-0.779	-0.282	-0.301	0.000	0.260	95.126%	92.015%
3	11:44:42	95.882%	-0.636	-0.282	-0.288	0.081	0.087	93.200%	92.940%
X		94.797%	-0.674	-0.263	-0.314	0.110	0.145	93.134%	92.125%
σ		1.086%	0.091	0.033	0.035	0.127	0.099	2.026%	0.767%
%RSD		1.146	13.570	12.690	11.220	115.400	68.270	2.175	0.833
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:44:23	-0.004	0.005	0.190	0.175	0.203	91.590%		
2	11:44:32	0.002	0.000	0.240	0.182	0.214	92.132%		
3	11:44:42	-0.004	0.003	0.278	0.224	0.232	91.686%		
X		-0.002	0.003	0.236	0.194	0.216	91.803%		
σ		0.003	0.002	0.044	0.027	0.014	0.290%		
%RSD		208.300	92.890	18.630	13.720	6.595	0.316		

ICSAB 1645911 8/21/2015 11:50:24 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	91.278%	19.400	47.500	44.030	0.000	100500.000	101000.000	100900.000
2	11:49:39	91.000%	18.820	45.500	44.070	0.000	101400.000	102000.000	101200.000
3	11:49:48	91.815%	18.790	43.170	42.150	0.000	103600.000	103400.000	102700.000
X		91.364%	95.004%	90.784%	86.841%	0.000	101.837%	102.146%	101.602%
σ		0.414%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.453	1.801	4.778	2.528	0.000	1.552	1.144	0.987
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	105800.000	519.900	0.000	99830.000	100000.000	101100.000	97.411%	2149.000
2	11:49:39	106300.000	514.800	0.000	99270.000	99950.000	101900.000	96.804%	2170.000
3	11:49:48	108100.000	519.000	0.000	100800.000	101600.000	102700.000	95.171%	2183.000
X		106.734%	103.583%	0.000	99.955%	100.543%	101.913%	96.462%	108.355%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.159%	n/a
%RSD		1.131	0.534	0.000	0.755	0.953	0.810	1.201	0.797
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	21.230	21.930	20.490	103400.000	102900.000	20.650	22.930	20.900
2	11:49:39	18.050	21.310	20.520	100300.000	99450.000	19.620	22.780	21.510
3	11:49:48	20.160	22.300	20.800	103600.000	102000.000	19.270	23.200	21.870
X		99.067%	109.225%	103.019%	102.403%	101.457%	99.235%	114.842%	107.120%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		8.183	2.282	0.808	1.813	1.766	3.599	0.912	2.293
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	23.010	22.630	20.950	20.200	47.580	59.690	0.000	21.150
2	11:49:39	22.560	22.000	20.510	20.010	53.860	58.590	0.000	20.540
3	11:49:48	20.480	24.800	21.080	19.930	52.500	51.360	0.000	20.710
X		110.085%	92.575%	83.385%	100.240%	102.634%	113.093%	0.000	104.003%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.136	6.334	1.421	0.693	6.440	8.002	0.000	1.507
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	98.747%	2077.000	2156.000	90.310%	19.160	19.390	21.210	23.020
2	11:49:39	101.439%	2071.000	2132.000	89.184%	19.040	19.130	21.920	22.210
3	11:49:48	103.106%	2062.000	2139.000	90.963%	18.280	18.770	22.130	22.350
X		101.097%	103.490%	107.124%	90.152%	94.137%	95.492%	108.782%	112.639%
σ		2.199%	n/a	n/a	0.900%	n/a	n/a	n/a	n/a
%RSD		2.176	0.379	0.570	0.998	2.528	1.624	2.217	1.919
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:29	89.336%	106.200	20.530	21.490	20.180	20.730	88.562%	89.916%
2	11:49:39	92.431%	106.200	20.430	20.310	20.070	19.880	88.558%	89.459%
3	11:49:48	92.378%	102.900	20.430	19.490	19.080	20.840	90.907%	90.885%
X		91.382%	105.095%	102.309%	102.145%	98.884%	102.411%	89.342%	90.087%
σ		1.772%	n/a	n/a	n/a	n/a	n/a	1.355%	0.728%
%RSD		1.939	1.791	0.280	4.918	3.063	2.553	1.517	0.808
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:49:29	20.660	20.080	20.140	20.790	20.110	80.797%		
2	11:49:39	20.700	20.060	20.920	20.150	20.040	82.357%		
3	11:49:48	20.010	20.030	20.380	20.330	20.240	81.996%		
X		102.266%	100.281%	102.407%	102.112%	100.649%	81.717%		
σ		n/a	n/a	n/a	n/a	n/a	0.817%		
%RSD		1.892	0.116	1.951	1.638	0.525	0.999		

CCV 1671387 8/21/2015 11:55:30 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	89.887%	103.500	104.600	105.700	0.000	51620.000	50360.000	50670.000
2	11:54:42	89.719%	104.000	106.000	105.500	0.000	50830.000	50750.000	51050.000
3	11:54:52	89.009%	103.500	107.100	104.700	0.000	50950.000	50180.000	50000.000
X		89.538%	103.648%	105.913%	105.295%	0.000	102.263%	100.864%	101.142%
σ		0.466%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.520	0.296	1.170	0.499	0.000	0.833	0.582	1.048
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	512.900	5406.000	0.000	50970.000	50340.000	51020.000	101.155%	108.100
2	11:54:42	510.300	5321.000	0.000	50960.000	50980.000	51100.000	100.985%	105.900
3	11:54:52	501.900	5343.000	0.000	50600.000	50880.000	50590.000	102.261%	101.500
X		101.671%	107.130%	0.000	101.688%	101.462%	101.812%	101.467%	105.157%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.693%	n/a
%RSD		1.132	0.827	0.000	0.408	0.681	0.537	0.683	3.207
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	105.000	102.900	511.400	25120.000	25250.000	102.100	103.300	105.100
2	11:54:42	107.600	103.200	519.900	25130.000	24760.000	100.700	103.400	107.200
3	11:54:52	108.100	106.000	513.400	25650.000	25930.000	102.500	101.600	104.500
X		106.920%	104.020%	102.984%	101.207%	101.250%	101.742%	102.746%	105.599%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.550	1.630	0.866	1.184	2.307	0.931	1.002	1.305
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	106.800	101.000	103.000	101.700	113.100	108.000	0.000	101.300
2	11:54:42	106.100	109.500	105.600	103.700	96.220	97.360	0.000	103.500
3	11:54:52	99.970	99.590	99.210	100.600	101.100	96.800	0.000	102.500
X		104.292%	103.353%	102.615%	101.987%	103.471%	100.717%	0.000	102.434%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.607	5.189	3.153	1.534	8.407	6.268	0.000	1.077
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	104.869%	105.700	109.400	97.743%	102.900	101.900	104.600	103.600
2	11:54:42	107.149%	107.100	108.300	99.205%	102.000	101.900	101.100	105.000
3	11:54:52	109.650%	105.700	107.300	101.103%	100.400	99.480	96.300	104.000
X		107.222%	106.142%	108.294%	99.350%	101.762%	101.097%	100.641%	104.218%
σ		2.391%	n/a	n/a	1.685%	n/a	n/a	n/a	n/a
%RSD		2.230	0.773	0.971	1.696	1.209	1.386	4.122	0.701
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:54:33	95.570%	102.200	102.100	101.100	99.340	97.560	92.437%	93.009%
2	11:54:42	97.640%	104.800	105.100	104.300	103.500	98.440	93.821%	93.017%
3	11:54:52	99.138%	103.300	106.500	103.300	100.600	96.440	95.013%	93.506%
X		97.449%	103.435%	104.594%	102.908%	101.127%	97.480%	93.757%	93.177%
σ		1.792%	n/a	n/a	n/a	n/a	n/a	1.289%	0.285%
%RSD		1.839	1.302	2.142	1.603	2.086	1.026	1.375	0.305
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:54:33	109.400	108.100	107.100	105.600	106.300	83.074%		
2	11:54:42	109.400	107.300	106.700	108.800	107.800	84.243%		
3	11:54:52	106.100	105.200	105.100	106.200	105.500	85.244%		
X		108.283%	106.850%	106.273%	106.880%	106.546%	84.187%		
σ		n/a	n/a	n/a	n/a	n/a	1.086%		
%RSD		1.762	1.406	1.004	1.588	1.088	1.290		

CCB1 8/21/2015 12:04:24 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	94.290%	-0.037	-8.261	-6.646	0.000	106.800	5.868	6.239
2	12:03:38	94.214%	-0.050	-7.367	-6.787	0.000	106.100	7.290	7.267
3	12:03:47	92.517%	-0.076	-7.230	-7.194	0.000	110.500	6.518	9.421
X		93.674%	-0.055	-7.619	-6.876	0.000	107.800	6.559	7.642
		1.003%	0.020	0.560	0.284	0.000	2.318	0.712	1.624
		1.070	36.870	7.346	4.134	0.000	2.150	10.850	21.250
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	0.497	3.196	0.000	48.290	5.030	3.900	102.927%	0.043
2	12:03:38	0.613	1.336	0.000	47.630	4.861	7.565	103.418%	0.234
3	12:03:47	0.600	4.692	0.000	58.550	3.436	0.735	101.785%	0.244
X		0.570	3.075	0.000	51.490	4.442	4.067	102.710%	0.174
		0.064	1.681	0.000	6.121	0.876	3.418	0.838%	0.114
		11.170	54.690	0.000	11.890	19.710	84.040	0.816	65.380
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	0.214	0.011	-0.094	6.413	8.607	0.017	-0.032	-0.282
2	12:03:38	-0.051	0.015	-0.039	6.576	3.638	-0.013	0.049	0.312
3	12:03:47	0.024	0.006	-0.077	6.214	5.626	0.002	-0.089	-0.232
X		0.062	0.010	-0.070	6.401	5.957	0.002	-0.024	-0.067
		0.137	0.005	0.028	0.182	2.501	0.015	0.070	0.329
		219.600	45.740	39.950	2.839	41.990	765.000	292.900	488.100
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	-0.592	0.185	0.190	-0.038	-0.045	2.422	0.000	-0.010
2	12:03:38	-0.018	0.312	0.361	-0.019	0.082	0.571	0.000	-0.010
3	12:03:47	-0.543	0.137	0.127	-0.039	0.080	3.529	0.000	0.003
X		-0.384	0.211	0.226	-0.032	0.039	2.174	0.000	-0.006
		0.318	0.091	0.121	0.012	0.073	1.495	0.000	0.008
		82.750	42.830	53.640	35.850	186.900	68.750	0.000	135.900
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	107.748%	0.714	0.435	106.690%	-0.712	-0.728	-0.011	-0.022
2	12:03:38	109.567%	0.573	0.384	107.199%	-0.647	-0.864	0.020	-0.009
3	12:03:47	112.936%	0.464	0.437	109.068%	-0.674	-0.756	0.050	0.015
X		110.084%	0.584	0.419	107.652%	-0.678	-0.783	0.020	-0.005
		2.633%	0.125	0.030	1.252%	0.033	0.072	0.030	0.019
		2.391	21.460	7.144	1.163	4.807	9.195	154.300	367.500
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:28	100.740%	-0.638	-0.175	-0.280	0.078	0.000	95.974%	96.540%
2	12:03:38	103.702%	-0.665	-0.252	-0.322	0.000	0.000	98.256%	97.009%
3	12:03:47	104.176%	-0.751	-0.193	-0.184	0.000	0.000	98.426%	97.914%
X		102.873%	-0.685	-0.207	-0.262	0.026	0.000	97.552%	97.154%
		1.862%	0.059	0.040	0.071	0.045	0.000	1.369%	0.698%
		1.810	8.615	19.450	26.940	173.200	0.000	1.404	0.719
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:03:28	0.020	0.030	-0.008	0.026	0.011	92.187%		
2	12:03:38	0.037	0.017	0.013	0.009	0.007	94.337%		
3	12:03:47	0.014	0.012	0.013	0.009	0.006	93.627%		
X		0.024	0.020	0.006	0.015	0.008	93.383%		
		0.012	0.009	0.012	0.010	0.003	1.095%		
		50.640	45.920	214.500	66.630	36.290	1.173		

MB 180-151181/1-A 8/21/2015 12:09:29 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	12:08:33	92.650%	-0.028	-7.289	-6.395	0.000	84.880	-0.260	1.925	
2	12:08:42	93.569%	-0.050	-6.273	-6.252	0.000	80.320	0.827	2.372	
3	12:08:52	93.197%	-0.049	-7.438	-7.102	0.000	79.920	0.759	1.712	
X		93.139%	-0.042	-7.000	-6.583	0.000	81.710	0.442	2.003	
		$\sigma$	0.462%	0.012	0.634	0.456	0.000	2.753	0.609	0.337
		%RSD	0.496	29.160	9.058	6.919	0.000	3.370	137.700	16.810
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:08:33	141.900	9.140	0.000	40.330	17.160	6.910	102.248%	0.163	
2	12:08:42	143.600	8.238	0.000	42.670	1.042	2.669	103.087%	0.003	
3	12:08:52	142.800	8.596	0.000	37.680	14.700	4.968	103.327%	-0.036	
X		142.800	8.658	0.000	40.230	10.970	4.849	102.887%	0.043	
		$\sigma$	0.842	0.454	0.000	2.496	8.682	2.123	0.567%	0.105
		%RSD	0.590	5.245	0.000	6.206	79.170	43.780	0.551	244.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:08:33	-0.191	0.061	0.359	3.615	1.781	-0.005	0.139	0.129	
2	12:08:42	0.180	0.035	0.373	3.358	5.594	0.002	-0.145	0.006	
3	12:08:52	-0.307	0.020	0.273	3.290	5.460	-0.006	-0.175	0.268	
X		-0.106	0.039	0.335	3.421	4.278	-0.003	-0.060	0.134	
		$\sigma$	0.255	0.021	0.054	0.172	2.164	0.004	0.173	0.131
		%RSD	240.300	53.630	16.090	5.015	50.580	139.300	286.500	97.590
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:08:33	-0.175	0.935	0.781	-0.028	0.084	2.184	0.000	0.033	
2	12:08:42	-0.448	0.312	0.884	-0.039	0.209	1.277	0.000	0.004	
3	12:08:52	0.033	0.303	0.805	-0.040	0.078	1.728	0.000	0.003	
X		-0.197	0.517	0.823	-0.036	0.124	1.729	0.000	0.013	
		$\sigma$	0.241	0.362	0.054	0.007	0.074	0.453	0.000	0.017
		%RSD	122.600	70.130	6.543	18.470	59.750	26.210	0.000	128.800
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:08:33	107.748%	0.070	0.072	107.694%	-0.954	-0.906	-0.011	-0.022	
2	12:08:42	110.104%	0.305	0.100	109.743%	-0.860	-0.933	0.019	0.039	
3	12:08:52	114.880%	0.222	0.117	109.753%	-0.925	-0.966	-0.011	0.015	
X		110.911%	0.199	0.096	109.063%	-0.913	-0.935	-0.001	0.011	
		$\sigma$	3.634%	0.119	0.023	1.186%	0.048	0.030	0.017	0.031
		%RSD	3.276	59.920	23.630	1.087	5.293	3.185	2226.000	283.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:08:33	102.736%	-0.713	-0.311	-0.270	0.153	0.041	97.703%	96.512%	
2	12:08:42	105.369%	-0.820	-0.323	-0.311	0.150	0.040	99.500%	100.283%	
3	12:08:52	106.346%	-0.822	-0.344	-0.312	0.000	0.119	100.830%	99.127%	
X		104.817%	-0.785	-0.326	-0.297	0.101	0.067	99.344%	98.641%	
		$\sigma$	1.867%	0.062	0.017	0.024	0.087	0.045	1.569%	1.932%
		%RSD	1.781	7.952	5.063	7.960	86.620	67.900	1.580	1.959
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	12:08:33	0.019	0.012	0.027	0.001	0.023	95.040%			
2	12:08:42	0.002	0.014	0.012	0.016	0.015	96.566%			
3	12:08:52	0.019	0.005	0.025	0.023	0.020	98.053%			
X		0.013	0.010	0.021	0.013	0.019	96.553%			
		$\sigma$	0.010	0.005	0.008	0.012	0.004	1.507%		
		%RSD	73.590	48.360	37.880	85.960	19.430	1.561		

LB 180-151071/8-B

8/21/2015 12:14:32 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	12:13:37	110.124%	-0.081	76.550	78.540	0.000	10730.000	67.180	66.040	
2	12:13:46	107.416%	-0.049	81.170	83.530	0.000	10840.000	67.800	66.270	
3	12:13:56	107.634%	-0.050	76.710	81.810	0.000	10660.000	68.040	67.430	
X		108.391%	-0.060	78.140	81.290	0.000	10740.000	67.670	66.580	
		σ	1.505%	0.018	2.625	2.532	0.000	89.100	0.445	0.743
		%RSD	1.388	30.100	3.359	3.115	0.000	0.830	0.657	1.116
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:13:37	22.040	213.600	0.000	92.530	308.100	377.500	92.215%	0.739	
2	12:13:46	21.310	229.100	0.000	91.070	265.800	373.900	91.702%	0.876	
3	12:13:56	22.250	226.300	0.000	92.100	400.600	374.000	90.765%	0.448	
X		21.870	223.000	0.000	91.900	324.800	375.100	91.561%	0.688	
		σ	0.494	8.274	0.000	0.751	68.950	2.033	0.735%	0.219
		%RSD	2.257	3.710	0.000	0.817	21.230	0.542	0.803	31.820
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:13:37	35.160	11.850	1.613	11.380	11.240	0.061	0.498	1.046	
2	12:13:46	21.190	11.480	1.839	11.100	13.280	0.052	0.582	1.340	
3	12:13:56	38.630	12.920	1.920	11.170	4.721	0.028	0.840	0.998	
X		31.660	12.080	1.791	11.220	9.747	0.047	0.640	1.128	
		σ	9.234	0.750	0.159	0.147	4.471	0.017	0.178	0.185
		%RSD	29.170	6.210	8.885	1.308	45.870	36.000	27.810	16.400
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:13:37	0.841	27.060	26.510	0.335	-0.045	1.603	0.000	0.212	
2	12:13:46	0.822	27.650	30.340	0.226	0.093	4.079	0.000	0.157	
3	12:13:56	0.671	26.700	29.080	0.261	0.234	5.845	0.000	0.173	
X		0.778	27.140	28.640	0.274	0.094	3.842	0.000	0.181	
		σ	0.093	0.479	1.951	0.056	0.140	2.131	0.000	0.028
		%RSD	11.930	1.765	6.811	20.320	148.500	55.460	0.000	15.620
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:13:37	97.831%	0.573	0.412	96.799%	-0.694	-0.783	0.024	0.035	
2	12:13:46	102.300%	0.250	0.425	97.289%	-0.622	-0.676	-0.011	0.061	
3	12:13:56	101.473%	0.514	0.302	98.064%	-0.597	-0.755	-0.011	0.006	
X		100.535%	0.446	0.380	97.384%	-0.638	-0.738	0.001	0.034	
		σ	2.378%	0.172	0.068	0.638%	0.050	0.055	0.020	0.028
		%RSD	2.365	38.690	17.840	0.655	7.916	7.506	2712.000	81.140
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:13:37	90.724%	1.244	0.191	0.233	0.170	0.137	89.333%	88.797%	
2	12:13:46	93.116%	1.599	0.055	-0.061	0.670	0.225	89.946%	89.693%	
3	12:13:56	93.186%	1.128	0.087	0.189	0.249	0.356	91.649%	91.805%	
X		92.342%	1.323	0.111	0.120	0.363	0.239	90.309%	90.099%	
		σ	1.402%	0.246	0.071	0.158	0.269	0.110	1.200%	1.545%
		%RSD	1.518	18.560	64.210	131.500	73.980	46.060	1.329	1.714
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	12:13:37	0.016	0.009	0.056	0.111	0.082	83.622%			
2	12:13:46	-0.004	0.008	0.086	0.117	0.101	85.619%			
3	12:13:56	-0.004	0.011	0.135	0.101	0.131	84.707%			
X		0.003	0.009	0.092	0.110	0.105	84.650%			
		σ	0.011	0.002	0.039	0.008	0.025	1.000%		
		%RSD	392.400	16.370	42.650	7.657	23.550	1.181		

LCS 180-151181/2-A 8/21/2015 12:19:37 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	99.208%	43.980	937.400	932.100	0.000	52780.000	53980.000	53770.000
2	12:18:50	103.512%	41.590	882.100	877.000	0.000	51790.000	53560.000	53180.000
3	12:19:00	102.178%	41.580	899.000	896.100	0.000	51900.000	53430.000	52470.000
X		101.633%	42.390	906.200	901.700	0.000	52160.000	53660.000	53140.000
σ		2.203%	1.383	28.300	27.980	0.000	542.700	284.800	650.000
%RSD		2.168	3.264	3.124	3.103	0.000	1.041	0.531	1.223
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	2191.000	9990.000	0.000	53130.000	51490.000	51090.000	87.576%	1022.000
2	12:18:50	2160.000	9600.000	0.000	52870.000	51640.000	50430.000	88.837%	1034.000
3	12:19:00	2156.000	9405.000	0.000	52500.000	51580.000	50070.000	88.090%	1026.000
X		2169.000	9665.000	0.000	52840.000	51570.000	50530.000	88.168%	1028.000
σ		19.060	298.300	0.000	316.400	78.450	517.700	0.634%	6.178
%RSD		0.879	3.086	0.000	0.599	0.152	1.025	0.719	0.601
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	513.400	227.200	550.400	972.200	1171.000	536.200	530.100	273.000
2	12:18:50	500.000	225.700	543.500	952.400	1198.000	528.300	513.100	272.100
3	12:19:00	578.400	226.400	548.300	974.200	1259.000	547.200	538.100	273.800
X		530.600	226.400	547.400	966.300	1209.000	537.200	527.100	273.000
σ		41.960	0.793	3.541	12.030	44.790	9.465	12.770	0.872
%RSD		7.907	0.350	0.647	1.245	3.704	1.762	2.422	0.320
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	280.800	535.900	521.400	40.460	10.090	9.220	0.000	1010.000
2	12:18:50	269.100	526.100	510.100	40.560	9.327	11.910	0.000	993.800
3	12:19:00	269.500	514.400	523.900	42.340	8.930	12.170	0.000	1000.000
X		273.100	525.500	518.500	41.120	9.449	11.100	0.000	1001.000
σ		6.634	10.730	7.340	1.059	0.591	1.632	0.000	7.963
%RSD		2.429	2.042	1.416	2.576	6.253	14.710	0.000	0.795
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	92.352%	1102.000	1131.000	89.029%	52.440	51.690	50.470	88.620
2	12:18:50	96.048%	1085.000	1114.000	90.407%	51.340	52.120	52.100	85.830
3	12:19:00	95.725%	1097.000	1106.000	92.504%	50.830	49.680	51.800	85.710
X		94.708%	1095.000	1117.000	90.647%	51.540	51.160	51.460	86.720
σ		2.047%	8.847	12.820	1.750%	0.825	1.303	0.869	1.648
%RSD		2.161	0.808	1.148	1.930	1.602	2.547	1.688	1.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:41	85.975%	2048.000	503.200	510.600	1889.000	1862.000	90.677%	90.182%
2	12:18:50	89.069%	2020.000	506.100	505.300	1893.000	1872.000	91.254%	92.484%
3	12:19:00	88.563%	2046.000	521.800	520.300	1912.000	1912.000	92.848%	92.173%
X		87.869%	2038.000	510.400	512.100	1898.000	1882.000	91.593%	91.613%
σ		1.659%	15.690	10.020	7.645	12.260	26.450	1.125%	1.249%
%RSD		1.888	0.770	1.962	1.493	0.646	1.405	1.228	1.363
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:41	54.860	54.190	21.610	21.930	21.670	83.138%		
2	12:18:50	54.420	54.620	20.740	21.390	21.140	83.668%		
3	12:19:00	54.930	54.000	22.030	21.460	21.430	83.999%		
X		54.740	54.270	21.460	21.590	21.410	83.602%		
σ		0.274	0.317	0.659	0.292	0.265	0.435%		
%RSD		0.500	0.585	3.070	1.350	1.239	0.520		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	102.485%	40.430	869.900	861.900	0.000	51510.000	52740.000	52570.000
2	12:23:54	97.620%	40.960	892.300	891.700	0.000	52380.000	53800.000	53230.000
3	12:24:04	100.375%	42.090	886.200	894.900	0.000	52660.000	54090.000	53270.000
X		100.160%	41.160	882.800	882.800	0.000	52180.000	53550.000	53020.000
σ		2.440%	0.850	11.590	18.170	0.000	598.900	709.100	394.900
%RSD		2.436	2.065	1.313	2.058	0.000	1.148	1.324	0.745
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	2097.000	9289.000	0.000	52540.000	50790.000	49690.000	87.205%	982.600
2	12:23:54	2146.000	9581.000	0.000	52990.000	50270.000	50250.000	85.921%	1002.000
3	12:24:04	2161.000	9665.000	0.000	53470.000	51300.000	50880.000	86.801%	1011.000
X		2135.000	9512.000	0.000	53000.000	50790.000	50270.000	86.642%	998.500
σ		33.490	197.400	0.000	467.800	512.800	594.500	0.657%	14.590
%RSD		1.569	2.075	0.000	0.883	1.010	1.183	0.758	1.461
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	532.200	221.100	528.900	962.100	1171.000	531.800	523.100	274.500
2	12:23:54	522.100	225.100	541.100	969.800	1137.000	539.300	541.000	278.600
3	12:24:04	512.400	225.500	541.300	962.200	1219.000	527.700	523.800	273.400
X		522.200	223.900	537.100	964.700	1175.000	533.000	529.300	275.500
σ		9.889	2.425	7.083	4.427	41.090	5.887	10.150	2.734
%RSD		1.894	1.083	1.319	0.459	3.495	1.104	1.917	0.992
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	271.300	517.900	523.900	41.270	11.560	11.290	0.000	970.700
2	12:23:54	280.400	529.700	528.000	42.040	13.850	13.860	0.000	986.100
3	12:24:04	279.100	535.400	516.300	42.860	10.500	20.040	0.000	966.700
X		277.000	527.700	522.700	42.060	11.970	15.060	0.000	974.500
σ		4.937	8.924	5.919	0.798	1.714	4.497	0.000	10.250
%RSD		1.782	1.691	1.132	1.898	14.320	29.860	0.000	1.052
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	92.951%	1079.000	1105.000	90.772%	51.440	51.830	51.060	88.340
2	12:23:54	94.561%	1080.000	1113.000	90.908%	50.980	51.030	52.570	84.700
3	12:24:04	96.847%	1076.000	1115.000	90.557%	52.510	50.630	51.180	85.920
X		94.786%	1078.000	1111.000	90.746%	51.640	51.170	51.610	86.320
σ		1.958%	2.176	5.490	0.177%	0.785	0.612	0.842	1.854
%RSD		2.065	0.202	0.494	0.195	1.521	1.196	1.632	2.148
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:45	85.207%	2042.000	510.200	520.700	1875.000	1866.000	90.552%	91.268%
2	12:23:54	88.278%	2006.000	510.000	503.200	1885.000	1838.000	92.364%	92.415%
3	12:24:04	88.389%	2027.000	500.900	503.900	1898.000	1852.000	91.783%	93.207%
X		87.291%	2025.000	507.000	509.300	1886.000	1852.000	91.566%	92.297%
σ		1.806%	18.010	5.323	9.877	11.500	13.800	0.925%	0.975%
%RSD		2.069	0.889	1.050	1.939	0.610	0.745	1.011	1.056
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:23:45	54.920	54.620	21.300	21.120	21.440	82.178%		
2	12:23:54	54.150	55.190	21.550	21.210	21.630	83.959%		
3	12:24:04	54.110	53.760	21.240	21.580	21.260	85.104%		
X		54.390	54.520	21.370	21.310	21.440	83.747%		
σ		0.460	0.716	0.163	0.241	0.183	1.475%		
%RSD		0.845	1.313	0.761	1.131	0.855	1.761		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	101.084%	0.159	296.200	299.100	0.000	19150.000	577.300	560.600
2	12:29:00	102.316%	0.130	294.800	291.100	0.000	18220.000	560.400	561.700
3	12:29:09	97.066%	0.165	310.600	305.100	0.000	18530.000	573.600	569.800
X		100.155%	0.151	300.500	298.400	0.000	18630.000	570.400	564.000
σ		2.746%	0.018	8.746	7.026	0.000	470.000	8.882	5.013
%RSD		2.741	12.160	2.910	2.354	0.000	2.522	1.557	0.889
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	4903.000	9198.000	0.000	1493.000	497.900	622.800	88.236%	48.990
2	12:29:00	4831.000	8898.000	0.000	1444.000	456.600	595.300	90.736%	45.420
3	12:29:09	4913.000	9138.000	0.000	1479.000	442.900	621.300	88.219%	50.360
X		4882.000	9078.000	0.000	1472.000	465.800	613.100	89.064%	48.260
σ		44.280	159.100	0.000	25.100	28.660	15.470	1.449%	2.549
%RSD		0.907	1.752	0.000	1.705	6.153	2.523	1.626	5.283
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	-20.040	19.130	176.500	5398.000	5463.000	2.262	5.420	5.584
2	12:29:00	-55.400	18.180	173.700	5316.000	5304.000	2.220	5.024	6.473
3	12:29:09	61.240	20.990	178.400	5630.000	5634.000	2.280	5.823	6.791
X		-4.734	19.430	176.200	5448.000	5467.000	2.254	5.422	6.283
σ		59.810	1.429	2.355	162.600	165.200	0.031	0.400	0.626
%RSD		1263.000	7.353	1.337	2.984	3.021	1.366	7.371	9.962
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	5.321	49.860	51.630	1.807	0.099	0.604	0.000	2.986
2	12:29:00	5.016	51.690	48.810	1.509	0.095	4.896	0.000	2.814
3	12:29:09	6.069	50.970	52.410	1.956	0.238	4.390	0.000	3.580
X		5.469	50.840	50.950	1.758	0.144	3.297	0.000	3.127
σ		0.542	0.919	1.893	0.227	0.081	2.346	0.000	0.402
%RSD		9.906	1.807	3.716	12.940	56.450	71.160	0.000	12.860
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	98.575%	1.268	1.223	94.816%	-0.807	-0.875	0.024	0.021
2	12:29:00	100.702%	0.877	1.185	95.095%	-0.756	-0.832	0.095	0.036
3	12:29:09	100.936%	1.011	0.860	96.863%	-0.829	-0.794	0.059	0.063
X		100.071%	1.052	1.090	95.591%	-0.797	-0.834	0.059	0.040
σ		1.301%	0.199	0.200	1.110%	0.038	0.040	0.035	0.021
%RSD		1.300	18.880	18.320	1.161	4.738	4.834	59.390	53.420
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:50	89.865%	0.527	-0.138	-0.037	21.080	21.900	91.641%	91.814%
2	12:29:00	89.580%	0.260	-0.045	-0.123	22.580	21.830	92.211%	92.944%
3	12:29:09	90.446%	0.382	-0.196	-0.083	23.410	21.750	93.502%	93.700%
X		89.964%	0.390	-0.126	-0.081	22.350	21.830	92.451%	92.819%
σ		0.441%	0.134	0.076	0.043	1.180	0.076	0.954%	0.949%
%RSD		0.491	34.270	60.260	52.900	5.280	0.350	1.032	1.023
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:28:50	0.116	0.092	2.986	2.733	2.750	86.756%		
2	12:29:00	0.199	0.136	3.103	2.454	2.798	88.962%		
3	12:29:09	0.057	0.112	2.872	2.614	2.681	89.289%		
X		0.124	0.113	2.987	2.600	2.743	88.336%		
σ		0.071	0.022	0.115	0.140	0.059	1.378%		
%RSD		57.300	19.330	3.858	5.380	2.146	1.560		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	97.161%	-0.027	198.800	189.100	0.000	15940.000	5092.000	5068.000
2	12:34:03	95.610%	0.009	191.000	186.400	0.000	15950.000	5244.000	5179.000
3	12:34:12	93.682%	0.018	192.200	193.500	0.000	15900.000	5254.000	5195.000
X		95.484%	0.000	194.000	189.700	0.000	15930.000	5197.000	5148.000
		1.743%	0.024	4.236	3.576	0.000	25.580	90.980	69.150
		1.826	19160.000	2.183	1.886	0.000	0.161	1.751	1.343
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	1377.000	4630.000	0.000	675.600	9810.000	9526.000	90.259%	47.620
2	12:34:03	1354.000	4518.000	0.000	695.600	10030.000	9753.000	88.116%	43.880
3	12:34:12	1405.000	4798.000	0.000	685.000	9820.000	9595.000	89.098%	39.660
X		1379.000	4649.000	0.000	685.400	9886.000	9625.000	89.158%	43.720
		25.680	140.600	0.000	9.986	122.200	116.500	1.073%	3.983
		1.863	3.024	0.000	1.457	1.236	1.210	1.203	9.111
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	-27.220	13.850	29.370	1181.000	1311.000	0.529	0.899	2.967
2	12:34:03	45.780	13.910	29.770	1231.000	1386.000	0.440	1.383	2.929
3	12:34:12	34.640	14.380	29.770	1219.000	1293.000	0.607	1.612	3.340
X		17.730	14.050	29.630	1210.000	1330.000	0.526	1.298	3.078
		39.330	0.295	0.231	26.370	49.720	0.084	0.364	0.227
		221.800	2.099	0.779	2.179	3.738	15.950	28.050	7.371
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	3.129	24.350	21.170	0.723	0.101	2.365	0.000	28.750
2	12:34:03	3.138	22.990	23.440	0.438	0.241	6.478	0.000	28.310
3	12:34:12	3.064	22.500	20.190	0.540	-0.045	5.352	0.000	27.870
X		3.110	23.280	21.600	0.567	0.099	4.732	0.000	28.310
		0.040	0.958	1.666	0.144	0.143	2.125	0.000	0.442
		1.296	4.115	7.712	25.380	144.600	44.920	0.000	1.560
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	95.449%	0.437	0.369	96.327%	-0.880	-0.880	-0.011	-0.008
2	12:34:03	99.291%	0.274	0.388	98.947%	-0.875	-0.921	-0.011	-0.022
3	12:34:12	101.274%	0.414	0.328	97.524%	-0.911	-0.954	-0.011	-0.022
X		98.671%	0.375	0.362	97.599%	-0.889	-0.918	-0.011	-0.017
		2.961%	0.088	0.031	1.311%	0.020	0.037	0.000	0.008
		3.001	23.570	8.432	1.344	2.196	4.055	0.498	47.850
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:53	91.596%	-0.241	-0.233	-0.284	8.106	8.062	94.241%	90.679%
2	12:34:03	92.418%	-0.304	-0.268	-0.313	8.449	7.117	94.956%	93.445%
3	12:34:12	92.227%	-0.491	-0.223	-0.257	6.552	7.015	95.542%	95.397%
X		92.080%	-0.345	-0.241	-0.284	7.702	7.398	94.913%	93.174%
		0.430%	0.130	0.023	0.028	1.011	0.577	0.651%	2.371%
		0.467	37.630	9.733	9.817	13.130	7.802	0.686	2.544
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:33:53	0.034	0.024	0.626	0.792	0.719	87.953%		
2	12:34:03	0.027	0.031	0.653	0.771	0.684	89.334%		
3	12:34:12	-0.004	0.038	0.726	0.583	0.662	89.507%		
X		0.019	0.031	0.669	0.715	0.689	88.931%		
		0.020	0.007	0.052	0.115	0.029	0.852%		
		104.700	23.780	7.728	16.070	4.194	0.958		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	97.537%	0.045	229.100	228.000	0.000	15390.000	801.500	778.900
2	12:39:06	97.760%	0.005	237.600	226.600	0.000	15130.000	804.000	789.200
3	12:39:15	96.028%	0.088	234.800	234.900	0.000	15330.000	821.200	789.800
X		97.108%	0.046	233.800	229.800	0.000	15290.000	808.900	786.000
σ		0.942%	0.041	4.353	4.480	0.000	137.800	10.740	6.122
%RSD		0.970	89.550	1.862	1.949	0.000	0.902	1.327	0.779
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	2777.000	6208.000	0.000	998.600	1040.000	1187.000	87.832%	70.610
2	12:39:06	2834.000	6270.000	0.000	986.900	1094.000	1167.000	89.055%	44.490
3	12:39:15	2823.000	6301.000	0.000	990.400	1044.000	1193.000	88.143%	57.630
X		2811.000	6260.000	0.000	991.900	1059.000	1182.000	88.343%	57.580
σ		30.000	47.330	0.000	5.999	30.080	13.470	0.636%	13.060
%RSD		1.067	0.756	0.000	0.605	2.839	1.140	0.719	22.680
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	-57.140	16.820	69.470	2909.000	3100.000	0.934	2.237	3.831
2	12:39:06	46.340	16.670	68.680	2937.000	3030.000	1.099	2.473	3.524
3	12:39:15	-4.931	16.350	70.150	2944.000	3155.000	1.037	3.025	4.422
X		-5.245	16.610	69.430	2930.000	3095.000	1.024	2.579	3.926
σ		51.740	0.239	0.734	18.180	62.350	0.083	0.405	0.457
%RSD		986.500	1.440	1.058	0.621	2.014	8.130	15.690	11.630
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	2.777	33.350	34.760	1.177	0.246	4.971	0.000	3.636
2	12:39:06	3.061	34.150	34.840	0.879	0.097	-0.891	0.000	3.447
3	12:39:15	2.995	32.440	33.840	0.965	0.096	5.363	0.000	4.510
X		2.944	33.310	34.480	1.007	0.146	3.148	0.000	3.864
σ		0.149	0.857	0.556	0.154	0.086	3.503	0.000	0.567
%RSD		5.053	2.571	1.611	15.260	59.140	111.300	0.000	14.670
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	97.170%	0.035	0.032	93.567%	-0.798	-0.866	-0.011	-0.022
2	12:39:06	100.275%	0.009	0.201	95.277%	-0.810	-0.841	-0.011	0.063
3	12:39:15	101.177%	0.050	0.262	95.163%	-0.752	-0.889	0.024	0.035
X		99.541%	0.031	0.165	94.669%	-0.786	-0.866	0.001	0.025
σ		2.102%	0.020	0.119	0.956%	0.030	0.024	0.020	0.043
%RSD		2.112	65.000	72.280	1.010	3.835	2.800	2444.000	169.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:38:56	89.495%	-0.590	-0.251	-0.280	9.506	9.229	91.553%	90.860%
2	12:39:06	91.016%	-0.577	-0.321	-0.197	9.458	10.600	90.713%	91.672%
3	12:39:15	91.045%	-0.349	-0.321	-0.339	12.080	10.240	90.665%	91.373%
X		90.519%	-0.505	-0.298	-0.272	10.350	10.020	90.977%	91.302%
σ		0.887%	0.136	0.040	0.071	1.498	0.709	0.499%	0.411%
%RSD		0.980	26.870	13.580	26.270	14.480	7.075	0.549	0.450
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:38:56	0.029	0.035	1.591	1.496	1.454	84.295%		
2	12:39:06	0.054	0.022	1.478	1.221	1.314	84.794%		
3	12:39:15	0.046	0.047	1.470	1.386	1.353	87.272%		
X		0.043	0.035	1.513	1.368	1.374	85.454%		
σ		0.013	0.013	0.068	0.139	0.072	1.594%		
%RSD		30.340	36.580	4.468	10.150	5.273	1.866		

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8/21/2015 12:44:59 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	12:44:03	98.960%	0.178	245.100	248.700	0.000	15990.000	499.600	489.800
2	12:44:13	96.644%	0.106	254.400	252.200	0.000	15960.000	496.700	478.400
3	12:44:22	96.480%	0.047	250.800	248.900	0.000	15730.000	488.100	480.100
X		97.361%	0.111	250.100	249.900	0.000	15890.000	494.800	482.800
σ		1.387%	0.066	4.677	2.005	0.000	139.100	6.006	6.181
%RSD		1.424	59.410	1.870	0.802	0.000	0.875	1.214	1.280
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:03	3773.000	7469.000	0.000	1218.000	511.700	602.900	88.605%	40.110
2	12:44:13	3714.000	7423.000	0.000	1216.000	482.000	592.200	88.607%	41.870
3	12:44:22	3811.000	7302.000	0.000	1189.000	448.400	603.200	87.617%	39.690
X		3766.000	7398.000	0.000	1208.000	480.700	599.400	88.276%	40.560
σ		49.120	86.470	0.000	15.910	31.670	6.290	0.571%	1.155
%RSD		1.304	1.169	0.000	1.318	6.587	1.049	0.646	2.848
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:03	30.360	17.110	125.300	4130.000	4227.000	1.611	4.544	5.184
2	12:44:13	64.760	17.370	126.500	4184.000	4303.000	1.534	4.025	4.422
3	12:44:22	50.460	18.130	126.500	4251.000	4363.000	1.598	4.264	5.087
X		48.530	17.530	126.100	4188.000	4298.000	1.581	4.278	4.897
σ		17.280	0.532	0.677	60.180	68.070	0.042	0.260	0.415
%RSD		35.610	3.034	0.537	1.437	1.584	2.639	6.073	8.470
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:03	5.206	43.230	44.140	1.242	0.243	4.454	0.000	2.090
2	12:44:13	4.906	45.400	42.870	1.226	0.385	3.387	0.000	2.220
3	12:44:22	4.781	47.090	44.590	1.264	0.382	-0.170	0.000	2.377
X		4.964	45.240	43.870	1.244	0.337	2.557	0.000	2.229
σ		0.219	1.932	0.890	0.019	0.081	2.421	0.000	0.144
%RSD		4.404	4.270	2.028	1.532	24.150	94.690	0.000	6.436
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:03	98.389%	0.137	0.129	95.202%	-0.887	-0.849	0.025	0.065
2	12:44:13	98.946%	0.050	0.099	97.442%	-0.892	-0.940	0.024	0.021
3	12:44:22	100.330%	0.089	0.096	97.878%	-0.922	-0.906	0.024	0.006
X		99.222%	0.092	0.108	96.841%	-0.901	-0.898	0.024	0.031
σ		1.000%	0.043	0.018	1.436%	0.019	0.046	0.001	0.030
%RSD		1.008	46.980	16.810	1.483	2.122	5.118	2.211	99.230
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:03	88.854%	-0.471	-0.297	-0.035	17.600	16.580	93.995%	93.058%
2	12:44:13	90.410%	-0.442	-0.185	-0.268	17.630	15.750	94.621%	95.090%
3	12:44:22	91.799%	-0.639	-0.233	-0.158	17.010	16.720	95.328%	94.807%
X		90.355%	-0.517	-0.239	-0.154	17.420	16.350	94.648%	94.318%
σ		1.473%	0.107	0.056	0.116	0.349	0.521	0.667%	1.101%
%RSD		1.630	20.590	23.440	75.690	2.001	3.187	0.704	1.167
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:44:03	0.027	0.054	2.010	2.041	2.002	88.856%		
2	12:44:13	0.039	0.073	1.835	1.756	1.831	90.335%		
3	12:44:22	0.068	0.045	1.972	1.857	1.863	91.987%		
X		0.044	0.057	1.939	1.885	1.899	90.393%		
σ		0.021	0.014	0.092	0.144	0.091	1.566%		
%RSD		47.090	25.310	4.752	7.659	4.795	1.733		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	94.383%	0.072	193.000	198.100	0.000	13100.000	870.600	861.800
2	12:49:19	94.217%	0.011	197.000	198.200	0.000	13440.000	904.900	877.200
3	12:49:28	93.331%	0.060	205.000	199.200	0.000	13330.000	891.200	884.000
X		93.977%	0.048	198.300	198.500	0.000	13290.000	888.900	874.300
σ		0.565%	0.032	6.090	0.601	0.000	175.700	17.290	11.410
%RSD		0.602	68.010	3.071	0.302	0.000	1.322	1.945	1.305
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	1710.000	4852.000	0.000	825.500	1292.000	1441.000	89.363%	95.220
2	12:49:19	1788.000	4991.000	0.000	873.100	1403.000	1483.000	87.525%	-859.600
3	12:49:28	1711.000	4896.000	0.000	832.700	1476.000	1458.000	88.404%	58.870
X		1736.000	4913.000	0.000	843.800	1390.000	1461.000	88.431%	-235.200
σ		45.010	71.430	0.000	25.660	92.680	21.260	0.919%	541.100
%RSD		2.592	1.454	0.000	3.041	6.666	1.455	1.040	230.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	0.323	13.100	37.080	1881.000	1924.000	0.589	1.699	2.991
2	12:49:19	-46.110	15.350	38.180	1907.000	1946.000	0.800	1.894	2.803
3	12:49:28	-8.916	14.370	38.200	1897.000	2045.000	0.683	2.023	3.138
X		-18.230	14.280	37.820	1895.000	1972.000	0.691	1.872	2.977
σ		24.580	1.127	0.642	12.980	64.520	0.106	0.163	0.168
%RSD		134.800	7.896	1.696	0.685	3.272	15.330	8.717	5.653
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	2.271	22.870	25.840	0.831	-0.045	5.235	0.000	5.199
2	12:49:19	1.709	22.670	27.440	1.025	-0.045	2.375	0.000	5.725
3	12:49:28	2.191	25.560	25.630	0.667	0.234	3.065	0.000	4.739
X		2.057	23.700	26.300	0.841	0.048	3.558	0.000	5.221
σ		0.304	1.617	0.988	0.179	0.161	1.493	0.000	0.493
%RSD		14.790	6.823	3.758	21.290	337.600	41.950	0.000	9.451
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	96.909%	-0.114	-0.111	97.490%	-0.854	-0.916	-0.011	-0.022
2	12:49:19	100.909%	0.047	-0.052	98.581%	-0.903	-0.899	-0.011	0.006
3	12:49:28	102.885%	-0.036	0.066	99.708%	-0.835	-0.826	0.023	0.019
X		100.234%	-0.034	-0.032	98.593%	-0.864	-0.880	0.000	0.001
σ		3.045%	0.081	0.090	1.109%	0.035	0.048	0.019	0.021
%RSD		3.038	234.400	281.500	1.125	4.092	5.471	6605.000	1890.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:49:09	90.784%	-0.521	-0.254	-0.311	7.106	7.073	95.517%	94.564%
2	12:49:19	93.950%	-0.445	-0.357	-0.328	6.129	6.824	96.644%	96.641%
3	12:49:28	94.601%	-0.467	-0.368	-0.247	6.575	6.743	97.056%	95.453%
X		93.112%	-0.478	-0.327	-0.295	6.604	6.880	96.406%	95.553%
σ		2.042%	0.039	0.063	0.043	0.489	0.172	0.797%	1.042%
%RSD		2.193	8.131	19.310	14.510	7.405	2.498	0.826	1.090
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:49:09	0.032	0.017	0.985	0.970	0.987	92.787%		
2	12:49:19	0.008	0.032	1.086	0.810	0.919	93.379%		
3	12:49:28	0.025	0.022	0.987	0.889	0.936	95.392%		
X		0.022	0.024	1.019	0.890	0.948	93.853%		
σ		0.012	0.007	0.057	0.080	0.035	1.366%		
%RSD		56.470	31.480	5.640	9.026	3.743	1.455		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	92.069%	0.007	36.200	35.380	0.000	2615.000	176.100	174.800
2	12:54:23	92.739%	-0.056	36.400	32.700	0.000	2639.000	176.900	170.700
3	12:54:32	94.265%	-0.071	30.880	32.550	0.000	2630.000	181.600	181.200
X		93.024%	-0.040	34.500	33.540	0.000	2628.000	178.200	175.500
σ		1.126%	0.041	3.131	1.591	0.000	12.060	2.965	5.275
%RSD		1.210	104.200	9.076	4.744	0.000	0.459	1.664	3.005
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	359.800	995.900	0.000	186.000	328.700	317.600	94.817%	16.080
2	12:54:23	310.300	1006.000	0.000	182.600	308.600	316.700	95.068%	8.920
3	12:54:32	310.200	1006.000	0.000	184.400	300.600	329.000	94.300%	11.370
X		326.800	1002.000	0.000	184.300	312.600	321.100	94.728%	12.120
σ		28.590	5.713	0.000	1.727	14.490	6.837	0.392%	3.640
%RSD		8.749	0.570	0.000	0.937	4.636	2.129	0.413	30.020
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	-6.292	2.695	7.471	357.700	368.700	0.090	0.529	1.190
2	12:54:23	5.014	3.479	7.519	362.900	369.500	0.097	0.197	0.738
3	12:54:32	-4.974	3.330	7.664	369.800	364.400	0.121	0.468	0.719
X		-2.084	3.168	7.551	363.500	367.600	0.103	0.398	0.882
σ		6.182	0.417	0.100	6.087	2.740	0.016	0.177	0.267
%RSD		296.600	13.150	1.329	1.675	0.746	15.960	44.430	30.210
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	0.565	6.711	5.045	0.039	0.091	0.779	0.000	0.997
2	12:54:23	0.167	5.704	7.369	0.102	0.226	1.976	0.000	0.991
3	12:54:32	0.772	6.073	5.991	0.080	0.225	3.455	0.000	1.351
X		0.501	6.163	6.135	0.074	0.181	2.070	0.000	1.113
σ		0.308	0.510	1.169	0.032	0.078	1.341	0.000	0.206
%RSD		61.330	8.268	19.050	43.630	42.910	64.780	0.000	18.490
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	103.298%	-0.017	-0.079	100.868%	-0.967	-0.927	0.022	-0.008
2	12:54:23	103.918%	-0.019	-0.104	103.190%	-0.849	-0.920	-0.011	-0.008
3	12:54:32	105.068%	-0.098	-0.092	102.475%	-0.913	-0.915	-0.011	-0.022
X		104.095%	-0.045	-0.092	102.178%	-0.910	-0.921	0.000	-0.013
σ		0.898%	0.046	0.013	1.189%	0.059	0.006	0.019	0.008
%RSD		0.863	103.100	13.840	1.164	6.495	0.646	9882.000	60.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:54:13	95.361%	-0.853	-0.390	-0.329	1.125	1.939	95.675%	95.433%
2	12:54:23	96.651%	-0.856	-0.369	-0.370	2.212	2.244	97.723%	97.478%
3	12:54:32	97.824%	-0.946	-0.380	-0.344	2.201	2.656	97.359%	97.894%
X		96.612%	-0.885	-0.380	-0.347	1.846	2.280	96.919%	96.935%
σ		1.232%	0.053	0.010	0.021	0.625	0.360	1.093%	1.317%
%RSD		1.275	6.000	2.761	6.006	33.830	15.800	1.127	1.359
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:54:13	0.008	0.015	0.174	0.190	0.168	92.022%		
2	12:54:23	0.008	0.015	0.136	0.236	0.203	93.009%		
3	12:54:32	0.032	0.020	0.202	0.254	0.192	92.628%		
X		0.016	0.017	0.171	0.227	0.188	92.553%		
σ		0.014	0.003	0.033	0.033	0.018	0.498%		
%RSD		84.810	16.980	19.360	14.520	9.520	0.538		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	88.350%	105.200	103.100	104.500	0.000	49930.000	50670.000	50290.000
2	12:59:29	89.836%	104.600	102.100	104.600	0.000	50640.000	51510.000	51510.000
3	12:59:38	89.128%	104.200	101.400	104.200	0.000	50550.000	50590.000	51450.000
X		89.105%	104.688%	102.201%	104.429%	0.000	100.741%	101.846%	102.171%
σ		0.743%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.834	0.464	0.819	0.210	0.000	0.768	0.994	1.347
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	514.800	5403.000	0.000	50740.000	49880.000	49900.000	103.488%	102.400
2	12:59:29	527.700	5483.000	0.000	51470.000	50290.000	50540.000	102.261%	104.100
3	12:59:38	517.100	5387.000	0.000	50990.000	49090.000	50040.000	102.464%	97.440
X		103.969%	108.485%	0.000	102.138%	99.512%	100.318%	102.738%	101.301%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.658%	n/a
%RSD		1.329	0.946	0.000	0.728	1.228	0.680	0.640	3.401
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	103.000	101.500	498.800	24850.000	24610.000	98.450	98.380	100.400
2	12:59:29	103.300	102.900	506.600	25530.000	25280.000	101.500	98.400	100.100
3	12:59:38	99.440	102.200	508.500	25920.000	25900.000	104.300	104.000	104.400
X		101.915%	102.205%	100.929%	101.729%	101.052%	101.423%	100.274%	101.643%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.110	0.656	1.016	2.139	2.546	2.896	3.259	2.341
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	102.400	102.000	107.300	99.810	100.600	102.900	0.000	101.700
2	12:59:29	106.100	101.600	104.200	100.300	107.100	95.400	0.000	100.300
3	12:59:38	107.600	106.500	105.600	102.700	91.430	101.600	0.000	98.320
X		105.382%	103.357%	105.693%	100.942%	99.711%	99.958%	0.000	100.125%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.510	2.621	1.471	1.507	7.885	3.995	0.000	1.714
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	104.814%	107.300	106.100	100.587%	101.600	100.400	103.000	103.700
2	12:59:29	108.961%	102.600	103.600	101.656%	101.000	103.400	103.600	102.600
3	12:59:38	108.602%	102.200	104.800	102.333%	100.300	101.400	101.300	101.900
X		107.459%	104.055%	104.802%	101.525%	100.943%	101.743%	102.624%	102.724%
σ		2.298%	n/a	n/a	0.880%	n/a	n/a	n/a	n/a
%RSD		2.138	2.704	1.197	0.867	0.644	1.507	1.187	0.873
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:19	95.890%	101.900	104.800	103.000	109.700	96.200	91.565%	90.606%
2	12:59:29	97.280%	102.900	104.500	105.000	102.800	98.230	93.898%	93.013%
3	12:59:38	98.870%	101.600	103.400	102.600	101.600	94.580	93.838%	94.144%
X		97.347%	102.123%	104.239%	103.547%	104.732%	96.336%	93.100%	92.588%
σ		1.491%	n/a	n/a	n/a	n/a	n/a	1.330%	1.807%
%RSD		1.532	0.631	0.681	1.253	4.177	1.900	1.429	1.952
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:59:19	106.000	106.000	107.900	107.500	106.300	84.620%		
2	12:59:29	103.400	105.500	104.100	103.100	103.600	86.004%		
3	12:59:38	106.300	105.200	103.100	105.600	103.700	85.626%		
X		105.214%	105.532%	105.052%	105.403%	104.545%	85.417%		
σ		n/a	n/a	n/a	n/a	n/a	0.716%		
%RSD		1.537	0.385	2.434	2.081	1.458	0.838		

CCB2 8/21/2015 1:09:09 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	13:08:12	96.652%	-0.019	-9.691	-8.302	0.000	5.804	5.910	6.862
2	13:08:22	95.330%	-0.011	-9.542	-8.434	0.000	4.302	4.786	5.697
3	13:08:31	96.905%	-0.053	-9.453	-9.353	0.000	0.760	4.678	6.478
X		96.296%	-0.028	-9.562	-8.696	0.000	3.622	5.125	6.346
σ		0.846%	0.022	0.121	0.572	0.000	2.590	0.682	0.594
%RSD		0.878	79.360	1.261	6.581	0.000	71.510	13.310	9.356
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:12	0.845	14.270	0.000	43.540	-1.026	10.420	103.446%	0.002
2	13:08:22	0.724	14.800	0.000	46.670	2.893	8.700	103.443%	-0.269
3	13:08:31	0.868	11.240	0.000	29.880	0.296	7.343	105.593%	-0.271
X		0.812	13.440	0.000	40.030	0.721	8.821	104.161%	-0.179
σ		0.077	1.919	0.000	8.929	1.994	1.542	1.241%	0.157
%RSD		9.510	14.280	0.000	22.310	276.600	17.480	1.191	87.570
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:12	-0.385	0.085	-0.064	4.971	6.611	0.031	0.080	0.382
2	13:08:22	0.095	0.090	-0.044	5.210	5.600	-0.013	-0.089	0.002
3	13:08:31	0.023	0.141	-0.022	4.421	3.495	0.016	-0.011	0.628
X		-0.089	0.105	-0.043	4.867	5.235	0.011	-0.007	0.337
σ		0.259	0.031	0.021	0.405	1.590	0.022	0.084	0.316
%RSD		291.400	29.530	48.000	8.313	30.370	194.500	1250.000	93.650
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:12	-0.253	0.228	0.190	-0.018	-0.045	1.227	0.000	0.004
2	13:08:22	-0.330	0.052	0.246	0.042	0.083	1.464	0.000	0.032
3	13:08:31	0.380	0.092	-0.047	-0.019	0.081	1.227	0.000	-0.010
X		-0.068	0.124	0.130	0.001	0.040	1.306	0.000	0.009
σ		0.389	0.092	0.155	0.035	0.074	0.137	0.000	0.022
%RSD		575.900	74.480	119.700	2684.000	185.400	10.470	0.000	251.900
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:12	107.507%	0.018	0.036	101.411%	-0.778	-0.903	-0.011	-0.022
2	13:08:22	108.802%	0.110	0.019	104.550%	-0.777	-0.842	0.053	0.004
3	13:08:31	110.042%	-0.005	-0.016	104.326%	-0.846	-0.828	0.021	-0.009
X		108.784%	0.041	0.013	103.429%	-0.800	-0.857	0.021	-0.009
σ		1.268%	0.061	0.026	1.751%	0.039	0.040	0.032	0.013
%RSD		1.165	148.100	199.800	1.693	4.911	4.658	152.100	148.600
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:12	98.036%	-0.875	-0.242	-0.276	0.000	0.044	90.648%	89.843%
2	13:08:22	99.203%	-0.859	-0.255	-0.278	0.080	0.000	92.235%	91.822%
3	13:08:31	100.815%	-0.845	-0.226	-0.227	0.000	0.043	92.408%	90.630%
X		99.351%	-0.860	-0.241	-0.260	0.027	0.029	91.764%	90.765%
σ		1.395%	0.015	0.014	0.029	0.046	0.025	0.970%	0.996%
%RSD		1.405	1.764	6.007	10.990	173.200	86.620	1.057	1.098
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:08:12	0.009	0.014	0.000	-0.015	-0.002	83.388%		
2	13:08:22	0.009	0.027	0.016	0.011	0.007	85.480%		
3	13:08:31	0.022	0.011	-0.000	0.011	0.001	86.466%		
X		0.013	0.017	0.005	0.002	0.002	85.111%		
σ		0.007	0.008	0.009	0.015	0.005	1.572%		
%RSD		53.400	49.220	171.800	627.900	200.900	1.847		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	94.754%	-0.051	-8.217	-7.341	0.000	-9.163	-1.805	-0.822	
2	13:13:29	93.235%	-0.049	-8.785	-7.632	0.000	-11.200	-1.746	-0.360	
3	13:13:38	96.158%	-0.032	-10.260	-9.087	0.000	-10.790	-0.307	0.943	
X		94.716%	-0.044	-9.087	-8.020	0.000	-10.380	-1.286	-0.080	
		σ	1.462%	0.010	1.054	0.935	0.000	1.078	0.849	0.916
		%RSD	1.543	23.550	11.600	11.660	0.000	10.380	65.990	1149.000
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	0.299	16.770	0.000	20.990	2.386	4.121	105.044%	-0.080	
2	13:13:29	0.081	19.780	0.000	19.680	-5.515	3.862	105.815%	-0.119	
3	13:13:38	0.456	15.400	0.000	25.880	18.120	4.549	104.401%	0.076	
X		0.279	17.320	0.000	22.180	4.996	4.177	105.087%	-0.041	
		σ	0.188	2.242	0.000	3.267	12.030	0.347	0.708%	0.103
		%RSD	67.650	12.950	0.000	14.730	240.800	8.309	0.674	250.400
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	-0.860	0.073	-0.084	1.204	3.577	0.002	-0.174	0.133	
2	13:13:29	-0.293	0.126	-0.010	1.131	-0.355	-0.006	-0.013	0.051	
3	13:13:38	-0.046	0.069	-0.041	0.812	1.619	-0.006	-0.065	0.081	
X		-0.399	0.089	-0.045	1.049	1.614	-0.003	-0.084	0.088	
		σ	0.417	0.032	0.037	0.208	1.966	0.004	0.082	0.041
		%RSD	104.500	35.360	82.170	19.870	121.800	135.000	98.380	46.530
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	-0.381	0.399	0.711	-0.049	0.084	1.039	0.000	0.047	
2	13:13:29	-0.410	0.815	0.922	-0.049	0.205	1.507	0.000	0.017	
3	13:13:38	-0.219	0.736	0.356	-0.039	0.081	1.923	0.000	0.017	
X		-0.337	0.650	0.663	-0.046	0.123	1.490	0.000	0.027	
		σ	0.103	0.221	0.286	0.006	0.071	0.442	0.000	0.017
		%RSD	30.600	33.980	43.190	12.180	57.780	29.670	0.000	62.730
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	107.707%	-0.042	-0.163	104.456%	-0.928	-0.927	0.021	-0.009	
2	13:13:29	111.475%	-0.082	-0.130	105.950%	-0.926	-0.990	-0.011	0.004	
3	13:13:38	111.234%	-0.101	-0.153	107.725%	-0.944	-0.948	-0.011	-0.022	
X		110.139%	-0.075	-0.149	106.044%	-0.933	-0.955	-0.000	-0.009	
		σ	2.110%	0.030	0.017	1.636%	0.010	0.032	0.018	0.013
		%RSD	1.916	40.450	11.330	1.543	1.026	3.347	5330.000	141.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:13:19	100.864%	-0.949	-0.319	-0.254	0.000	0.127	93.511%	92.096%	
2	13:13:29	101.870%	-1.001	-0.371	-0.281	0.000	0.000	95.065%	92.306%	
3	13:13:38	101.894%	-0.898	-0.320	-0.320	0.077	0.083	96.067%	95.134%	
X		101.543%	-0.949	-0.337	-0.285	0.026	0.070	94.881%	93.179%	
		σ	0.588%	0.051	0.030	0.033	0.045	0.065	1.288%	1.696%
		%RSD	0.579	5.404	8.829	11.670	173.200	92.100	1.357	1.821
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	13:13:19	0.008	0.000	0.014	-0.015	0.008	90.256%			
2	13:13:29	0.014	0.003	0.029	0.010	0.019	90.898%			
3	13:13:38	-0.004	0.008	0.014	0.010	0.010	90.890%			
X		0.006	0.004	0.019	0.001	0.012	90.682%			
		σ	0.009	0.004	0.009	0.014	0.006	0.368%		
		%RSD	143.200	106.900	45.170	965.300	46.960	0.406		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	105.176%	41.550	895.400	897.600	0.000	53130.000	54210.000	53760.000
2	13:18:32	102.725%	43.000	914.400	906.500	0.000	53740.000	54820.000	54750.000
3	13:18:42	103.026%	41.690	903.300	892.600	0.000	53320.000	54560.000	54010.000
X		103.642%	42.080	904.400	898.900	0.000	53400.000	54530.000	54170.000
σ		1.336%	0.797	9.503	7.013	0.000	315.700	309.600	515.800
%RSD		1.289	1.895	1.051	0.780	0.000	0.591	0.568	0.952
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	2156.000	9548.000	0.000	52620.000	50840.000	50420.000	90.141%	1012.000
2	13:18:32	2186.000	9704.000	0.000	53670.000	51330.000	51060.000	88.228%	1014.000
3	13:18:42	2181.000	9722.000	0.000	53080.000	51550.000	50550.000	87.995%	1010.000
X		2174.000	9658.000	0.000	53120.000	51240.000	50680.000	88.788%	1012.000
σ		15.820	95.490	0.000	525.100	361.900	337.000	1.178%	2.136
%RSD		0.728	0.989	0.000	0.989	0.706	0.665	1.326	0.211
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	544.500	220.300	524.800	946.600	1118.000	518.100	509.800	265.500
2	13:18:32	582.300	228.200	535.200	980.100	1147.000	532.700	521.600	269.800
3	13:18:42	572.400	227.500	537.600	978.700	1154.000	539.900	543.000	277.400
X		566.400	225.300	532.500	968.500	1139.000	530.200	524.800	270.900
σ		19.650	4.380	6.823	19.000	19.000	11.100	16.840	6.007
%RSD		3.469	1.944	1.281	1.962	1.668	2.093	3.208	2.218
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	260.600	537.000	520.300	40.870	9.971	11.290	0.000	1000.000
2	13:18:32	267.400	517.100	513.700	41.030	12.770	11.100	0.000	974.500
3	13:18:42	280.400	541.800	527.000	43.070	9.439	11.320	0.000	981.000
X		269.500	532.000	520.300	41.660	10.730	11.240	0.000	985.300
σ		10.050	13.050	6.656	1.225	1.791	0.119	0.000	13.520
%RSD		3.730	2.453	1.279	2.940	16.690	1.059	0.000	1.372
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	92.923%	1092.000	1107.000	89.132%	51.370	51.180	52.330	88.600
2	13:18:32	95.491%	1088.000	1108.000	89.641%	50.630	51.200	48.000	89.540
3	13:18:42	94.823%	1081.000	1114.000	90.429%	50.980	51.830	51.370	87.640
X		94.412%	1087.000	1110.000	89.734%	51.000	51.400	50.570	88.590
σ		1.332%	5.896	3.896	0.653%	0.371	0.367	2.272	0.952
%RSD		1.411	0.542	0.351	0.728	0.727	0.715	4.493	1.075
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:23	84.306%	2042.000	515.300	513.400	1915.000	1852.000	88.554%	87.203%
2	13:18:32	84.092%	2072.000	520.800	524.700	1942.000	1902.000	88.921%	88.099%
3	13:18:42	86.140%	2033.000	525.800	524.800	1934.000	1890.000	89.813%	90.428%
X		84.846%	2049.000	520.700	521.000	1930.000	1881.000	89.096%	88.577%
σ		1.126%	20.380	5.258	6.570	14.280	26.150	0.647%	1.665%
%RSD		1.327	0.994	1.010	1.261	0.740	1.390	0.727	1.880
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:18:23	54.110	53.410	22.750	22.370	22.210	81.146%		
2	13:18:32	53.410	52.950	22.230	20.910	21.420	81.971%		
3	13:18:42	54.050	54.180	21.410	21.280	21.290	81.210%		
X		53.860	53.510	22.130	21.520	21.640	81.442%		
σ		0.388	0.622	0.675	0.759	0.497	0.459%		
%RSD		0.721	1.162	3.048	3.526	2.297	0.564		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	51.747%	0.059	462.300	472.800	0.000	2252000.000	256500.000	252800.000
2	14:16:15	54.632%	-0.057	426.800	447.500	0.000	2254000.000	256200.000	251300.000
3	14:16:24	53.985%	-0.056	436.600	447.800	0.000	2192000.000	249200.000	247700.000
X		53.455%	-0.018	441.900	456.000	0.000	2233000.000	254000.000	250600.000
σ		1.514%	0.067	18.330	14.510	0.000	35040.000	4148.000	2623.000
%RSD		2.833	376.200	4.149	3.182	0.000	1.569	1.633	1.047
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	4.278	552.600	0.000	77640.000	81910.000	81520.000	50.383%	3.707
2	14:16:15	4.537	533.100	0.000	76890.000	81430.000	81290.000	50.909%	3.114
3	14:16:24	3.928	526.900	0.000	76160.000	79330.000	79450.000	51.338%	2.617
X		4.248	537.500	0.000	76900.000	80890.000	80750.000	50.877%	3.146
σ		0.305	13.390	0.000	740.900	1376.000	1133.000	0.478%	0.545
%RSD		7.190	2.491	0.000	0.964	1.701	1.403	0.940	17.330
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	-9.147	3.707	37.880	-3.606	371.600	0.319	0.354	4.426
2	14:16:15	12.860	4.348	38.310	-2.381	387.500	0.207	0.410	3.025
3	14:16:24	10.060	4.333	37.420	-2.360	380.200	0.205	0.404	3.692
X		4.593	4.129	37.870	-2.782	379.700	0.243	0.389	3.714
σ		11.980	0.365	0.443	0.713	7.969	0.065	0.031	0.701
%RSD		260.900	8.851	1.170	25.630	2.099	26.770	7.868	18.860
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	2.117	3.268	1.332	1.832	1.743	343.900	0.000	1493.000
2	14:16:15	2.095	2.672	3.406	1.321	0.549	287.000	0.000	1524.000
3	14:16:24	1.520	2.172	2.174	1.447	0.250	313.800	0.000	1526.000
X		1.911	2.704	2.304	1.534	0.847	314.900	0.000	1514.000
σ		0.339	0.549	1.043	0.266	0.790	28.480	0.000	18.250
%RSD		17.730	20.300	45.290	17.370	93.240	9.045	0.000	1.205
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	45.026%	7.595	7.639	42.688%	-0.884	-0.958	0.067	0.010
2	14:16:15	45.040%	6.712	7.799	43.416%	-0.962	-0.878	-0.011	0.042
3	14:16:24	45.383%	7.148	7.767	43.283%	-0.949	-0.919	0.067	-0.022
X		45.150%	7.152	7.735	43.129%	-0.932	-0.918	0.041	0.010
σ		0.202%	0.442	0.085	0.388%	0.042	0.040	0.045	0.032
%RSD		0.448	6.173	1.096	0.899	4.505	4.343	109.400	313.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:06	40.592%	-0.822	0.270	0.318	9.483	9.257	42.122%	43.219%
2	14:16:15	40.416%	-0.907	0.245	0.285	9.017	10.230	43.362%	42.059%
3	14:16:24	40.758%	-0.865	0.365	0.186	8.767	10.060	43.631%	43.011%
X		40.589%	-0.865	0.293	0.263	9.089	9.848	43.038%	42.763%
σ		0.171%	0.043	0.063	0.069	0.363	0.519	0.805%	0.619%
%RSD		0.423	4.916	21.570	26.210	3.996	5.270	1.870	1.447
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:16:06	-0.004	-0.002	0.069	0.042	0.098	39.601%		
2	14:16:15	0.010	0.009	0.049	0.039	0.065	41.692%		
3	14:16:24	0.023	0.025	0.065	0.057	0.069	41.839%		
X		0.009	0.010	0.061	0.046	0.077	41.044%		
σ		0.013	0.014	0.011	0.010	0.018	1.252%		
%RSD		138.200	131.200	17.330	20.840	23.410	3.051		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	53.209%	0.030	466.000	494.600	0.000	2280000.000	256000.000	248200.000
2	14:21:18	52.736%	0.031	479.800	504.500	0.000	2238000.000	253600.000	249100.000
3	14:21:28	53.805%	-0.008	478.900	489.900	0.000	2231000.000	257400.000	250100.000
X		53.250%	0.018	474.900	496.300	0.000	2250000.000	255700.000	249100.000
σ		0.536%	0.022	7.752	7.462	0.000	26240.000	1949.000	917.400
%RSD		1.007	124.900	1.632	1.503	0.000	1.166	0.762	0.368
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	1.328	519.200	0.000	77790.000	78810.000	77340.000	52.784%	3.295
2	14:21:18	1.330	526.100	0.000	78500.000	76790.000	77690.000	52.917%	3.210
3	14:21:28	1.360	527.900	0.000	79380.000	78800.000	78180.000	52.347%	2.713
X		1.339	524.400	0.000	78560.000	78130.000	77730.000	52.682%	3.073
σ		0.018	4.555	0.000	798.700	1163.000	421.400	0.298%	0.314
%RSD		1.346	0.869	0.000	1.017	1.488	0.542	0.565	10.220
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	13.880	3.619	1.664	-3.533	332.900	0.126	0.989	4.989
2	14:21:18	6.901	3.542	1.460	-3.221	302.500	0.171	0.628	5.723
3	14:21:28	0.224	3.285	1.598	-3.547	253.800	0.189	1.121	4.970
X		7.001	3.482	1.574	-3.434	296.400	0.162	0.913	5.227
σ		6.827	0.175	0.104	0.185	39.890	0.033	0.255	0.429
%RSD		97.520	5.018	6.616	5.377	13.460	20.150	27.960	8.216
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	3.733	4.463	4.199	3.509	2.046	273.900	0.000	1465.000
2	14:21:18	3.052	5.751	5.231	4.563	2.614	329.600	0.000	1474.000
3	14:21:28	4.536	5.859	5.115	4.406	2.975	330.600	0.000	1542.000
X		3.774	5.358	4.848	4.159	2.545	311.400	0.000	1494.000
σ		0.743	0.777	0.565	0.569	0.468	32.460	0.000	42.140
%RSD		19.680	14.500	11.660	13.680	18.390	10.420	0.000	2.821
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	44.272%	22.850	21.350	40.606%	-0.790	-0.832	-0.011	-0.022
2	14:21:18	44.882%	21.600	22.500	41.135%	-0.954	-0.839	-0.011	-0.022
3	14:21:28	43.778%	20.680	22.820	40.871%	-0.952	-0.934	-0.011	0.044
X		44.311%	21.710	22.220	40.871%	-0.899	-0.869	-0.011	0.000
σ		0.553%	1.089	0.769	0.265%	0.094	0.057	0.000	0.038
%RSD		1.248	5.017	3.460	0.647	10.470	6.567	1.377	10710.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:21:09	38.632%	-0.542	1.154	1.586	11.730	12.450	40.031%	39.574%
2	14:21:18	39.665%	-0.641	1.510	0.829	13.350	12.860	39.690%	40.501%
3	14:21:28	39.029%	-0.724	0.982	1.074	11.660	11.340	40.067%	41.332%
X		39.109%	-0.636	1.215	1.163	12.240	12.220	39.929%	40.469%
σ		0.522%	0.091	0.269	0.386	0.954	0.785	0.208%	0.880%
%RSD		1.334	14.350	22.150	33.210	7.793	6.425	0.521	2.174
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:21:09	-0.004	0.016	0.252	0.186	0.239	37.590%		
2	14:21:18	0.011	0.010	0.343	0.187	0.258	37.373%		
3	14:21:28	-0.004	0.035	0.317	0.401	0.276	36.167%		
X		0.001	0.020	0.304	0.258	0.258	37.044%		
σ		0.008	0.013	0.047	0.124	0.018	0.767%		
%RSD		695.400	65.200	15.360	48.110	7.111	2.070		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	52.022%	-0.028	416.400	440.000	0.000	2213000.000	247900.000	238100.000	
2	14:26:24	52.044%	0.009	430.600	434.400	0.000	2284000.000	254000.000	249400.000	
3	14:26:34	53.135%	-0.054	408.700	426.200	0.000	2267000.000	251700.000	244500.000	
X		52.400%	-0.024	418.600	433.500	0.000	2255000.000	251200.000	244000.000	
		$\sigma$	0.636%	0.032	11.120	6.939	0.000	37040.000	3079.000	5647.000
		%RSD	1.214	129.900	2.657	1.601	0.000	1.643	1.225	2.314
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	2.442	512.000	0.000	73650.000	74520.000	75710.000	52.887%	2.531	
2	14:26:24	1.536	503.600	0.000	77050.000	78970.000	78630.000	51.279%	3.089	
3	14:26:34	1.665	499.500	0.000	75390.000	78490.000	77800.000	52.129%	1.727	
X		1.881	505.000	0.000	75360.000	77330.000	77380.000	52.098%	2.449	
		$\sigma$	0.490	6.382	0.000	1700.000	2442.000	1502.000	0.804%	0.685
		%RSD	26.050	1.264	0.000	2.255	3.158	1.941	1.544	27.950
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	-1.009	3.926	11.540	-4.409	250.300	0.111	0.461	3.035	
2	14:26:24	-4.782	4.086	11.180	-4.010	306.300	0.191	0.471	3.107	
3	14:26:34	7.842	3.692	12.090	-3.671	273.600	0.096	0.283	3.710	
X		0.684	3.901	11.600	-4.030	276.700	0.133	0.405	3.284	
		$\sigma$	6.480	0.198	0.458	0.370	28.170	0.051	0.106	0.371
		%RSD	947.800	5.086	3.943	9.174	10.180	38.660	26.130	11.290
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	0.890	4.784	4.321	1.896	1.768	374.800	0.000	1481.000	
2	14:26:24	2.361	4.910	5.298	2.029	1.456	366.500	0.000	1485.000	
3	14:26:34	2.017	4.569	5.242	2.057	1.147	364.400	0.000	1496.000	
X		1.756	4.754	4.954	1.994	1.457	368.600	0.000	1488.000	
		$\sigma$	0.769	0.172	0.548	0.086	0.311	5.511	0.000	7.851
		%RSD	43.820	3.626	11.070	4.294	21.330	1.495	0.000	0.528
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	43.607%	8.040	8.069	41.319%	-0.967	-0.909	-0.011	-0.022	
2	14:26:24	44.347%	7.212	8.233	41.869%	-0.930	-0.925	-0.011	0.011	
3	14:26:34	44.587%	7.784	8.383	41.481%	-0.929	-0.952	-0.011	-0.022	
X		44.180%	7.678	8.229	41.556%	-0.942	-0.928	-0.011	-0.011	
		$\sigma$	0.511%	0.424	0.157	0.282%	0.022	0.022	0.000	0.019
		%RSD	1.157	5.521	1.909	0.680	2.307	2.378	0.300	174.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:26:15	39.372%	-0.991	0.495	0.336	11.510	10.790	42.330%	42.051%	
2	14:26:24	39.504%	-0.991	0.671	0.526	9.923	9.802	42.924%	43.360%	
3	14:26:34	39.773%	-0.774	0.438	0.171	9.641	9.610	41.624%	41.075%	
X		39.550%	-0.919	0.535	0.344	10.360	10.070	42.293%	42.162%	
		$\sigma$	0.205%	0.125	0.122	0.178	1.009	0.635	0.651%	1.146%
		%RSD	0.517	13.650	22.780	51.650	9.737	6.303	1.539	2.719
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	14:26:15	0.025	0.010	0.092	0.005	0.044	37.172%			
2	14:26:24	-0.004	0.022	0.037	0.124	0.090	37.822%			
3	14:26:34	0.024	0.015	0.137	0.061	0.086	39.673%			
X		0.015	0.015	0.089	0.063	0.073	38.222%			
		$\sigma$	0.016	0.006	0.050	0.060	0.026	1.298%		
		%RSD	107.400	38.000	56.200	93.870	35.120	3.395		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	51.558%	0.135	521.100	541.500	0.000	2179000.000	241600.000	236300.000
2	14:31:28	52.160%	0.033	512.900	539.600	0.000	2167000.000	243100.000	237900.000
3	14:31:37	51.570%	0.010	508.500	533.900	0.000	2150000.000	242800.000	236200.000
X		51.763%	0.059	514.200	538.300	0.000	2165000.000	242500.000	236800.000
σ		0.344%	0.066	6.353	3.947	0.000	14340.000	787.100	996.300
%RSD		0.664	111.500	1.236	0.733	0.000	0.662	0.325	0.421
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	1.300	562.000	0.000	76880.000	75350.000	74710.000	52.821%	4.884
2	14:31:28	1.621	545.700	0.000	78060.000	75910.000	76480.000	52.417%	2.327
3	14:31:37	1.138	552.700	0.000	77200.000	76160.000	75160.000	52.542%	3.159
X		1.353	553.500	0.000	77380.000	75810.000	75450.000	52.593%	3.457
σ		0.246	8.192	0.000	612.100	412.900	919.400	0.207%	1.304
%RSD		18.150	1.480	0.000	0.791	0.545	1.219	0.393	37.730
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	6.832	4.098	0.990	-3.663	212.500	0.049	0.279	3.615
2	14:31:28	8.749	4.283	0.944	-3.425	265.500	0.096	0.105	4.570
3	14:31:37	6.474	3.566	0.860	-3.541	290.200	0.141	0.752	4.318
X		7.351	3.982	0.932	-3.543	256.100	0.095	0.379	4.168
σ		1.223	0.372	0.066	0.119	39.700	0.046	0.335	0.495
%RSD		16.640	9.352	7.064	3.351	15.500	48.510	88.450	11.870
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	1.952	3.694	5.571	1.781	1.148	320.600	0.000	1318.000
2	14:31:28	2.479	2.954	3.101	1.749	2.060	305.800	0.000	1350.000
3	14:31:37	1.899	3.213	2.770	1.683	1.440	340.100	0.000	1361.000
X		2.110	3.287	3.814	1.738	1.549	322.200	0.000	1343.000
σ		0.320	0.375	1.531	0.050	0.466	17.230	0.000	22.570
%RSD		15.190	11.420	40.130	2.890	30.050	5.348	0.000	1.681
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	44.354%	11.920	11.600	40.649%	-0.977	-0.861	-0.011	0.012
2	14:31:28	44.004%	13.350	14.710	40.722%	-0.951	-0.991	-0.011	0.011
3	14:31:37	44.677%	14.010	13.860	40.330%	-0.832	-0.935	-0.011	-0.022
X		44.345%	13.090	13.390	40.567%	-0.920	-0.929	-0.011	0.000
σ		0.336%	1.067	1.607	0.208%	0.077	0.065	0.000	0.019
%RSD		0.758	8.146	12.000	0.514	8.409	7.000	0.746	4051.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:18	38.622%	-0.945	2.212	2.345	14.770	13.310	40.553%	40.007%
2	14:31:28	39.019%	-0.858	2.187	1.399	14.280	13.010	40.697%	40.862%
3	14:31:37	39.906%	-0.818	1.908	1.918	11.290	12.000	40.340%	40.389%
X		39.182%	-0.874	2.102	1.887	13.450	12.780	40.530%	40.419%
σ		0.657%	0.065	0.169	0.474	1.885	0.688	0.180%	0.428%
%RSD		1.677	7.479	8.022	25.090	14.020	5.388	0.443	1.060
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:31:18	-0.004	0.004	0.076	0.088	0.081	36.345%		
2	14:31:28	-0.004	0.023	0.022	0.048	0.079	35.505%		
3	14:31:37	-0.004	0.004	0.021	0.088	0.067	36.495%		
X		-0.004	0.010	0.040	0.075	0.076	36.115%		
σ		0.000	0.011	0.032	0.023	0.007	0.534%		
%RSD		0.000	107.300	79.930	30.700	9.794	1.478		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	52.104%	-0.004	557.600	588.900	0.000	2193000.000	246200.000	236900.000	
2	14:36:30	51.742%	0.010	556.200	587.200	0.000	2168000.000	238900.000	230300.000	
3	14:36:40	51.539%	0.048	577.800	591.900	0.000	2167000.000	244800.000	235900.000	
X		51.795%	0.018	563.900	589.400	0.000	2176000.000	243300.000	234400.000	
		σ	0.286%	0.027	12.110	2.376	0.000	14720.000	3842.000	3523.000
		%RSD	0.552	148.000	2.147	0.403	0.000	0.677	1.579	1.503
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	2.335	628.700	0.000	74450.000	73160.000	73130.000	51.082%	2.319	
2	14:36:30	1.922	617.300	0.000	73420.000	72820.000	71670.000	51.712%	2.131	
3	14:36:40	2.305	627.200	0.000	73840.000	71600.000	72270.000	51.242%	4.186	
X		2.187	624.400	0.000	73900.000	72530.000	72360.000	51.345%	2.879	
		σ	0.230	6.165	0.000	520.100	819.000	735.300	0.328%	1.136
		%RSD	10.520	0.987	0.000	0.704	1.129	1.016	0.638	39.460
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	0.311	4.283	0.616	-2.367	245.300	0.052	0.306	2.945	
2	14:36:30	7.600	3.515	0.584	-2.544	282.500	0.161	-0.009	3.812	
3	14:36:40	5.354	4.241	0.449	-2.092	275.000	0.034	0.350	3.615	
X		4.422	4.013	0.550	-2.334	267.600	0.082	0.216	3.457	
		σ	3.733	0.432	0.089	0.228	19.690	0.069	0.196	0.454
		%RSD	84.430	10.760	16.200	9.758	7.358	83.430	90.760	13.140
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	2.244	3.182	2.697	1.448	1.217	290.000	0.000	1314.000	
2	14:36:30	2.409	2.229	3.032	1.410	1.491	275.200	0.000	1287.000	
3	14:36:40	1.655	2.294	3.069	1.585	3.549	300.700	0.000	1247.000	
X		2.103	2.568	2.933	1.481	2.086	288.600	0.000	1283.000	
		σ	0.396	0.533	0.205	0.092	12.760	0.000	33.440	
		%RSD	18.830	20.740	6.987	6.213	61.140	4.420	2.607	
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	41.686%	10.330	10.490	39.337%	-0.971	-0.924	-0.011	-0.022	
2	14:36:30	42.982%	10.710	10.360	39.636%	-0.822	-0.985	-0.011	0.013	
3	14:36:40	44.505%	9.950	9.970	40.673%	-0.885	-0.934	-0.011	-0.022	
X		43.058%	10.330	10.270	39.882%	-0.893	-0.948	-0.011	-0.010	
		σ	1.411%	0.378	0.270	0.701%	0.075	0.032	0.000	0.020
		%RSD	3.277	3.661	2.633	1.758	8.398	3.418	0.586	193.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:36:21	37.260%	-0.803	1.558	0.993	11.530	11.150	40.368%	41.184%	
2	14:36:30	37.579%	-0.989	1.168	1.160	13.000	10.910	39.397%	38.988%	
3	14:36:40	39.264%	-0.859	1.521	1.881	10.580	12.880	40.645%	40.393%	
X		38.034%	-0.884	1.416	1.345	11.700	11.650	40.137%	40.188%	
		σ	1.077%	0.095	0.215	0.472	1.215	1.073	0.655%	1.112%
		%RSD	2.831	10.780	15.200	35.110	10.390	9.214	1.633	2.767
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	14:36:21	-0.004	-0.002	0.159	0.116	0.101	34.394%			
2	14:36:30	0.011	0.016	0.128	0.127	0.105	37.303%			
3	14:36:40	0.025	0.010	0.108	0.123	0.098	38.116%			
X		0.011	0.008	0.131	0.122	0.101	36.604%			
		σ	0.014	0.009	0.026	0.006	0.003	1.957%		
		%RSD	132.800	119.300	19.530	4.515	3.457	5.346		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	57.455%	0.084	123.700	124.000	0.000	453900.000	47350.000	44850.000	
2	14:41:36	58.163%	0.026	109.300	120.600	0.000	446700.000	46550.000	44490.000	
3	14:41:45	58.198%	0.092	114.100	121.900	0.000	450300.000	47240.000	44910.000	
X		57.938%	0.068	115.700	122.100	0.000	450300.000	47050.000	44750.000	
		σ	0.419%	0.036	7.352	1.709	0.000	3631.000	432.500	226.100
		%RSD	0.724	53.140	6.354	1.399	0.000	0.806	0.919	0.505
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	0.654	177.200	0.000	14840.000	14170.000	13830.000	55.630%	3.468	
2	14:41:36	0.099	174.300	0.000	14650.000	13860.000	13700.000	56.459%	3.554	
3	14:41:45	0.156	175.300	0.000	14720.000	14120.000	13850.000	56.465%	2.419	
X		0.303	175.600	0.000	14740.000	14050.000	13800.000	56.185%	3.147	
		σ	0.305	1.439	0.000	94.880	164.300	79.870	0.480%	0.632
		%RSD	100.900	0.819	0.000	0.644	1.170	0.579	0.855	20.080
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	5.771	1.724	0.230	-0.778	62.130	0.016	-0.089	2.120	
2	14:41:36	-0.972	1.589	0.268	-0.734	40.480	0.030	-0.146	2.407	
3	14:41:45	4.206	1.516	0.363	-0.680	47.670	0.030	-0.093	2.071	
X		3.002	1.610	0.287	-0.731	50.090	0.026	-0.110	2.199	
		σ	3.529	0.106	0.069	11.030	0.008	0.032	0.181	
		%RSD	117.600	6.561	23.980	6.684	22.020	31.320	29.210	8.248
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	0.243	0.776	0.785	0.374	0.793	49.570	0.000	254.600	
2	14:41:36	0.637	0.946	1.099	0.478	1.344	61.340	0.000	257.000	
3	14:41:45	0.243	1.107	0.923	0.447	2.135	53.920	0.000	252.600	
X		0.374	0.943	0.936	0.433	1.424	54.940	0.000	254.700	
		σ	0.228	0.166	0.157	0.053	0.674	5.953	0.000	2.228
		%RSD	60.810	17.600	16.800	12.340	47.350	10.840	0.000	0.875
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	47.503%	1.815	1.704	44.861%	-0.933	-0.994	-0.011	-0.022	
2	14:41:36	47.675%	1.900	2.046	44.805%	-0.849	-1.008	-0.011	-0.022	
3	14:41:45	48.882%	2.169	2.021	44.993%	-0.898	-0.995	-0.011	-0.022	
X		48.020%	1.961	1.924	44.886%	-0.894	-0.999	-0.011	-0.022	
		σ	0.752%	0.185	0.191	0.096%	0.042	0.008	0.000	0.000
		%RSD	1.565	9.425	9.920	0.214	4.713	0.762	0.717	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:41:26	42.773%	-0.994	-0.074	0.166	2.895	1.748	41.977%	41.754%	
2	14:41:36	43.199%	-0.995	0.089	-0.110	3.026	2.960	43.001%	44.364%	
3	14:41:45	43.121%	-0.874	-0.077	-0.050	1.427	2.009	42.912%	42.292%	
X		43.031%	-0.954	-0.021	0.002	2.449	2.239	42.630%	42.803%	
		σ	0.227%	0.070	0.095	0.146	0.888	0.638	0.567%	1.378%
		%RSD	0.527	7.297	461.900	6908.000	36.250	28.480	1.330	3.220
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	14:41:26	-0.004	0.009	0.106	0.043	0.076	38.593%			
2	14:41:36	-0.004	0.004	0.109	0.025	0.078	37.327%			
3	14:41:45	0.010	0.003	0.068	0.023	0.052	39.836%			
X		0.001	0.006	0.094	0.030	0.069	38.585%			
		σ	0.008	0.003	0.023	0.014	1.255%			
		%RSD	858.700	61.400	23.920	37.270	20.910	3.251		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	52.449%	11.920	795.900	817.900	0.000	2173000.000	254300.000	247800.000
2	14:46:41	52.234%	11.670	801.700	820.800	0.000	2164000.000	255300.000	246700.000
3	14:46:50	53.548%	10.810	770.100	800.700	0.000	2184000.000	258600.000	249400.000
X		52.743%	11.470	789.300	813.100	0.000	2174000.000	256100.000	248000.000
σ		0.705%	0.583	16.820	10.840	0.000	9735.000	2298.000	1343.000
%RSD		1.336	5.081	2.131	1.333	0.000	0.448	0.897	0.542
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	427.100	2825.000	0.000	85270.000	83930.000	84630.000	54.093%	206.200
2	14:46:41	430.400	2870.000	0.000	86070.000	84490.000	85290.000	54.097%	212.300
3	14:46:50	428.600	2805.000	0.000	86220.000	85900.000	85390.000	53.420%	204.600
X		428.700	2833.000	0.000	85850.000	84780.000	85100.000	53.870%	207.700
σ		1.674	33.260	0.000	510.600	1013.000	416.100	0.390%	4.042
%RSD		0.391	1.174	0.000	0.595	1.195	0.489	0.723	1.946
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	92.490	40.130	90.040	167.100	485.000	98.190	97.300	55.390
2	14:46:41	102.200	39.830	92.540	172.300	459.400	95.870	93.610	52.240
3	14:46:50	106.900	42.790	94.060	176.100	547.200	98.260	99.100	53.780
X		100.500	40.920	92.210	171.800	497.200	97.440	96.670	53.800
σ		7.353	1.631	2.025	4.540	45.120	1.361	2.797	1.571
%RSD		7.315	3.985	2.196	2.642	9.075	1.397	2.894	2.920
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	54.520	93.330	97.010	9.657	1.453	307.200	0.000	1528.000
2	14:46:41	51.710	99.280	93.700	9.467	3.190	300.200	0.000	1532.000
3	14:46:50	55.910	99.160	96.700	9.931	5.044	348.800	0.000	1521.000
X		54.050	97.260	95.800	9.685	3.229	318.700	0.000	1527.000
σ		2.140	3.403	1.829	0.234	1.796	26.250	0.000	5.525
%RSD		3.959	3.499	1.909	2.413	55.600	8.237	0.000	0.362
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	43.805%	230.400	230.100	40.585%	10.190	9.120	11.500	17.370
2	14:46:41	44.869%	223.800	230.600	40.948%	8.963	9.630	10.220	18.010
3	14:46:50	44.025%	228.800	234.000	41.124%	9.101	9.599	9.203	15.690
X		44.233%	227.700	231.500	40.886%	9.419	9.450	10.310	17.020
σ		0.561%	3.430	2.153	0.275%	0.674	0.286	1.150	1.196
%RSD		1.269	1.506	0.930	0.673	7.155	3.022	11.160	7.026
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:31	39.399%	381.300	97.570	95.480	379.500	368.600	41.913%	41.766%
2	14:46:41	39.566%	393.200	101.700	101.100	388.700	384.900	40.264%	41.164%
3	14:46:50	39.318%	393.600	100.700	104.800	411.000	386.400	41.319%	40.939%
X		39.427%	389.400	99.970	100.500	393.100	379.900	41.165%	41.289%
σ		0.126%	7.006	2.137	4.704	16.190	9.875	0.835%	0.428%
%RSD		0.321	1.799	2.137	4.682	4.120	2.599	2.029	1.036
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:46:31	11.070	11.290	4.995	4.227	4.446	36.526%		
2	14:46:41	10.780	10.610	4.788	4.461	4.370	39.290%		
3	14:46:50	10.430	10.080	4.367	4.632	4.420	36.948%		
X		10.760	10.660	4.717	4.440	4.412	37.588%		
σ		0.321	0.608	0.320	0.204	0.039	1.489%		
%RSD		2.987	5.706	6.778	4.583	0.882	3.961		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	52.468%	10.640	784.400	798.800	0.000	2211000.000	256500.000	247800.000
2	14:51:47	49.757%	11.180	851.200	868.700	0.000	2230000.000	260100.000	251100.000
3	14:51:56	50.435%	11.580	820.000	854.000	0.000	2193000.000	260700.000	253000.000
X		50.887%	11.130	818.500	840.500	0.000	2211000.000	259100.000	250600.000
σ		1.410%	0.473	33.410	36.870	0.000	18520.000	2299.000	2608.000
%RSD		2.772	4.246	4.082	4.387	0.000	0.837	0.887	1.041
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	410.200	2741.000	0.000	84690.000	84300.000	83800.000	52.807%	202.100
2	14:51:47	414.000	2860.000	0.000	86680.000	86020.000	86120.000	52.584%	210.200
3	14:51:56	421.300	2802.000	0.000	86750.000	84920.000	85580.000	52.336%	199.600
X		415.100	2801.000	0.000	86040.000	85080.000	85170.000	52.576%	204.000
σ		5.636	59.320	0.000	1173.000	873.600	1214.000	0.236%	5.572
%RSD		1.358	2.118	0.000	1.363	1.027	1.426	0.448	2.732
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	96.800	40.740	90.470	167.400	509.000	94.840	90.210	53.690
2	14:51:47	103.100	40.370	91.320	167.400	477.300	98.510	100.100	54.730
3	14:51:56	96.330	41.470	91.250	168.200	512.500	96.380	96.370	56.430
X		98.760	40.860	91.010	167.700	499.600	96.580	95.540	54.950
σ		3.809	0.561	0.475	0.492	19.380	1.843	4.975	1.386
%RSD		3.857	1.373	0.522	0.293	3.880	1.908	5.207	2.522
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	50.900	93.570	93.130	9.723	6.867	362.000	0.000	1516.000
2	14:51:47	55.270	102.900	98.280	9.247	6.085	436.900	0.000	1535.000
3	14:51:56	51.420	99.820	98.140	10.430	2.391	405.700	0.000	1537.000
X		52.530	98.780	96.520	9.801	5.115	401.500	0.000	1529.000
σ		2.388	4.768	2.936	0.598	2.391	37.610	0.000	11.390
%RSD		4.547	4.827	3.042	6.100	46.750	9.365	0.000	0.745
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	43.943%	213.300	230.500	40.123%	9.511	9.929	11.020	15.810
2	14:51:47	42.900%	235.600	232.900	40.507%	9.116	9.233	8.102	16.860
3	14:51:56	43.318%	229.900	231.900	40.521%	8.506	9.424	8.201	16.070
X		43.387%	226.200	231.800	40.384%	9.044	9.529	9.107	16.250
σ		0.525%	11.600	1.164	0.226%	0.506	0.360	1.656	0.547
%RSD		1.209	5.125	0.502	0.558	5.595	3.774	18.180	3.369
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:38	38.728%	388.300	97.310	96.450	368.500	366.400	39.618%	40.043%
2	14:51:47	38.223%	389.400	100.700	97.770	386.900	376.100	41.215%	40.280%
3	14:51:56	39.832%	380.700	93.180	93.620	376.500	389.500	39.943%	41.404%
X		38.928%	386.100	97.060	95.940	377.300	377.300	40.258%	40.576%
σ		0.823%	4.734	3.770	2.121	9.240	11.580	0.844%	0.727%
%RSD		2.113	1.226	3.884	2.210	2.449	3.068	2.097	1.792
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:51:38	10.520	10.600	4.586	4.508	4.355	36.994%		
2	14:51:47	10.200	10.650	4.884	4.389	4.645	35.891%		
3	14:51:56	11.200	10.860	4.206	4.593	4.367	36.402%		
X		10.640	10.700	4.559	4.497	4.456	36.429%		
σ		0.510	0.139	0.340	0.103	0.164	0.552%		
%RSD		4.796	1.298	7.459	2.285	3.687	1.515		

CCV 1671387 8/21/2015 2:57:37 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	14:56:41	73.737%	92.790	104.900	106.900	0.000	70990.000	54040.000	51170.000
2	14:56:51	72.639%	91.730	109.600	109.200	0.000	70480.000	54490.000	51610.000
3	14:57:00	72.294%	93.540	112.200	108.900	0.000	70590.000	54470.000	51550.000
X		72.890%	92.689%	108.901%	108.348%	0.000	141.374%	108.670%	102.883%
σ		0.754%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.034	0.978	3.367	1.180	0.000	0.382	0.465	0.463
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:41	523.400	5091.000	0.000	47880.000	45430.000	45450.000	57.911%	100.600
2	14:56:51	531.200	5139.000	0.000	48160.000	46010.000	45620.000	57.740%	103.200
3	14:57:00	529.700	5140.000	0.000	48110.000	45600.000	45280.000	57.459%	102.300
X		105.622%	102.461%	0.000	96.101%	91.359%	90.900%	57.703%	102.038%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.228%	n/a
%RSD		0.780	0.549	0.000	0.318	0.647	0.365	0.396	1.283
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:41	100.100	96.560	460.800	23540.000	23580.000	97.130	96.700	105.500
2	14:56:51	99.420	96.030	469.200	23320.000	23570.000	93.820	94.100	104.300
3	14:57:00	100.800	96.750	466.300	24190.000	24820.000	95.350	95.270	109.000
X		100.134%	96.447%	93.089%	94.727%	95.960%	95.435%	95.353%	106.257%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.702	0.391	0.916	1.919	2.981	1.737	1.365	2.264
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:41	106.200	99.200	98.560	98.440	96.630	117.900	0.000	98.670
2	14:56:51	106.700	98.060	98.860	91.290	96.560	115.000	0.000	95.580
3	14:57:00	103.100	96.230	95.210	103.300	102.200	112.100	0.000	105.500
X		105.349%	97.833%	97.541%	97.692%	98.465%	115.004%	0.000	99.932%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.879	1.530	2.078	6.205	3.286	2.496	0.000	5.108
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:41	45.987%	103.800	103.800	41.975%	101.700	100.700	98.720	98.430
2	14:56:51	48.841%	102.200	105.500	42.021%	100.800	101.300	95.300	103.200
3	14:57:00	46.474%	98.620	105.600	41.959%	99.330	100.700	102.500	98.120
X		47.101%	101.535%	104.967%	41.985%	100.604%	100.898%	98.830%	99.925%
σ		1.527%	n/a	n/a	0.032%	n/a	n/a	n/a	n/a
%RSD		3.241	2.602	0.959	0.077	1.199	0.347	3.625	2.868
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:41	41.065%	89.030	96.010	91.450	97.700	93.700	38.599%	43.933%
2	14:56:51	40.784%	96.220	92.400	91.670	93.670	102.300	38.891%	44.071%
3	14:57:00	41.120%	97.580	89.310	90.010	95.560	96.100	37.427%	43.383%
X		40.989%	94.275%	92.572%	91.045%	95.642%	97.380%	38.306%	43.796%
σ		0.180%	n/a	n/a	n/a	n/a	n/a	0.775%	0.364%
%RSD		0.439	4.875	3.620	0.990	2.108	4.577	2.023	0.831
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:56:41	106.300	105.400	106.500	102.300	103.600	35.991%		
2	14:56:51	104.200	104.400	101.200	103.000	100.600	35.155%		
3	14:57:00	104.600	105.000	103.400	103.200	102.900	34.949%		
X		105.033%	104.959%	103.696%	102.851%	102.390%	35.365%		
σ		n/a	n/a	n/a	n/a	n/a	0.552%		
%RSD		1.021	0.489	2.570	0.480	1.525	1.560		

CCB3 8/21/2015 3:06:31 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	60.132%	0.170	3.626	3.176	0.000	5599.000	114.500	105.900
2	15:05:46	62.547%	0.240	1.015	0.916	0.000	5348.000	111.100	99.560
3	15:05:55	60.807%	0.283	-0.450	1.949	0.000	5264.000	109.600	97.940
X		61.162%	0.231	1.397	2.014	0.000	5403.000	111.800	101.100
σ		1.246%	0.057	2.065	1.131	0.000	174.300	2.508	4.230
%RSD		2.038	24.590	147.800	56.180	0.000	3.226	2.244	4.182
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	0.232	68.860	0.000	628.100	33.810	56.970	53.647%	2.639
2	15:05:46	0.331	66.640	0.000	594.700	10.270	51.960	54.801%	2.138
3	15:05:55	0.476	73.330	0.000	583.700	35.350	47.560	55.471%	1.963
X		0.347	69.610	0.000	602.200	26.480	52.160	54.640%	2.247
σ		0.123	3.408	0.000	23.110	14.060	4.708	0.922%	0.351
%RSD		35.490	4.895	0.000	3.838	53.100	9.026	1.688	15.610
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	-1.837	0.498	0.105	4.212	4.642	-0.013	-0.087	1.768
2	15:05:46	0.581	0.678	0.139	4.407	-1.292	0.117	-0.202	0.910
3	15:05:55	0.614	0.833	0.215	3.855	4.382	0.073	-0.092	1.226
X		-0.214	0.670	0.153	4.158	2.577	0.059	-0.127	1.301
σ		1.406	0.168	0.056	0.280	3.354	0.066	0.065	0.434
%RSD		657.100	25.050	36.940	6.733	130.100	111.500	51.130	33.330
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	-0.031	0.507	0.622	-0.015	0.504	1.336	0.000	0.021
2	15:05:46	0.158	0.494	0.015	-0.037	0.493	2.842	0.000	-0.010
3	15:05:55	-0.301	0.229	0.370	-0.058	-0.045	4.766	0.000	0.052
X		-0.058	0.410	0.336	-0.037	0.317	2.981	0.000	0.021
σ		0.231	0.157	0.305	0.021	0.314	1.719	0.000	0.031
%RSD		398.400	38.230	90.980	58.450	98.980	57.660	0.000	149.500
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	49.143%	0.096	-0.071	47.216%	-0.943	-0.916	-0.011	-0.022
2	15:05:46	50.152%	0.257	0.001	47.785%	-0.923	-0.870	0.200	-0.022
3	15:05:55	49.712%	0.134	-0.023	47.970%	-0.743	-0.945	-0.011	0.063
X		49.669%	0.163	-0.031	47.657%	-0.870	-0.910	0.059	0.007
σ		0.506%	0.084	0.037	0.393%	0.110	0.038	0.122	0.049
%RSD		1.018	51.840	119.000	0.824	12.690	4.140	204.800	733.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:05:36	44.557%	-0.761	-0.342	-0.203	0.000	0.097	40.866%	40.429%
2	15:05:46	45.003%	-0.764	-0.296	-0.323	0.000	0.095	42.005%	42.384%
3	15:05:55	45.420%	-0.882	-0.321	-0.266	0.000	0.093	43.314%	42.300%
X		44.993%	-0.802	-0.320	-0.264	0.000	0.095	42.062%	41.704%
σ		0.432%	0.069	0.023	0.060	0.000	0.002	1.225%	1.105%
%RSD		0.959	8.600	7.103	22.570	0.000	1.966	2.913	2.651
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:05:36	0.010	0.009	0.034	0.022	0.014	40.956%		
2	15:05:46	0.010	0.026	0.018	0.041	0.019	40.356%		
3	15:05:55	0.039	0.027	0.019	0.024	0.020	38.459%		
X		0.019	0.021	0.023	0.029	0.018	39.924%		
σ		0.017	0.010	0.009	0.010	0.003	1.303%		
%RSD		85.600	49.440	38.000	36.180	17.440	3.264		

180-46614-C-10-B PDS @5

8/21/2015 3:11:36 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	15:10:40	54.919%	10.730	757.800	784.500	0.000	2084000.000	243900.000	235400.000
2	15:10:50	54.741%	10.850	765.900	788.200	0.000	2123000.000	245800.000	236900.000
3	15:10:59	55.063%	12.370	744.600	776.800	0.000	2075000.000	242400.000	234800.000
X		54.907%	11.320	756.100	783.200	0.000	2094000.000	244000.000	235700.000
σ		0.161%	0.912	10.750	5.799	0.000	25810.000	1727.000	1058.000
%RSD		0.294	8.061	1.421	0.740	0.000	1.233	0.708	0.449
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:40	433.200	2875.000	0.000	81180.000	80930.000	80600.000	53.885%	212.700
2	15:10:50	436.500	2894.000	0.000	82030.000	81360.000	81850.000	53.470%	220.600
3	15:10:59	434.700	2840.000	0.000	81600.000	79760.000	80740.000	53.995%	212.900
X		434.800	2869.000	0.000	81600.000	80690.000	81070.000	53.783%	215.400
σ		1.641	27.580	0.000	428.400	827.500	685.000	0.277%	4.482
%RSD		0.377	0.961	0.000	0.525	1.026	0.845	0.515	2.081
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:40	103.400	41.110	95.060	169.600	509.700	99.890	102.100	55.100
2	15:10:50	104.000	42.670	95.570	175.500	505.700	99.830	107.500	54.670
3	15:10:59	108.300	41.640	93.960	174.000	494.500	99.680	98.300	52.520
X		105.200	41.810	94.860	173.000	503.300	99.800	102.600	54.100
σ		2.631	0.791	0.821	3.049	7.861	0.110	4.603	1.382
%RSD		2.500	1.893	0.866	1.762	1.562	0.111	4.485	2.555
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:40	52.030	107.800	103.900	10.590	2.643	267.500	0.000	1475.000
2	15:10:50	55.690	99.750	106.900	10.380	3.203	307.900	0.000	1468.000
3	15:10:59	52.470	99.630	101.700	8.238	2.584	273.300	0.000	1435.000
X		53.400	102.400	104.200	9.736	2.810	282.900	0.000	1459.000
σ		1.996	4.657	2.570	1.301	0.342	21.840	0.000	21.360
%RSD		3.738	4.549	2.467	13.370	12.170	7.722	0.000	1.464
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:40	44.039%	233.300	238.200	40.465%	8.929	10.140	9.982	17.060
2	15:10:50	44.780%	237.500	234.700	41.031%	9.129	9.758	11.640	18.630
3	15:10:59	45.294%	235.700	235.800	40.865%	8.515	8.581	8.596	18.050
X		44.704%	235.500	236.200	40.787%	8.858	9.493	10.070	17.910
σ		0.631%	2.068	1.807	0.291%	0.313	0.813	1.526	0.794
%RSD		1.412	0.878	0.765	0.713	3.538	8.561	15.140	4.435
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:40	39.799%	404.900	100.400	100.800	400.900	391.200	39.790%	40.626%
2	15:10:50	38.879%	409.700	104.400	106.600	391.400	393.500	40.059%	40.943%
3	15:10:59	39.714%	413.200	103.800	102.600	413.500	391.700	39.846%	40.228%
X		39.464%	409.200	102.900	103.300	401.900	392.100	39.899%	40.599%
σ		0.508%	4.178	2.167	2.978	11.070	1.203	0.142%	0.358%
%RSD		1.288	1.021	2.107	2.881	2.754	0.307	0.355	0.882
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:10:40	11.260	11.000	5.072	4.284	4.483	38.808%		
2	15:10:50	11.120	10.270	4.842	4.418	4.421	37.209%		
3	15:10:59	10.880	10.380	4.726	4.344	4.346	38.989%		
X		11.090	10.550	4.880	4.349	4.417	38.335%		
σ		0.193	0.397	0.176	0.067	0.069	0.980%		
%RSD		1.738	3.767	3.613	1.552	1.556	2.555		

180-46611-L-1-A @5 8/21/2015 3:16:41 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	15:15:46	51.787%	0.245	878.500	901.700	0.000	2246000.000	253900.000	244800.000	
2	15:15:55	52.731%	0.104	845.200	895.600	0.000	2214000.000	251100.000	243700.000	
3	15:16:05	54.510%	0.061	835.800	868.500	0.000	2223000.000	252500.000	243900.000	
X		53.009%	0.137	853.200	888.600	0.000	2228000.000	252500.000	244100.000	
		$\sigma$	1.383%	0.096	22.430	17.690	0.000	16870.000	1397.000	597.500
		%RSD	2.608	70.300	2.630	1.990	0.000	0.757	0.553	0.245
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:15:46	2.965	478.600	0.000	70320.000	74060.000	74110.000	51.859%	3.823	
2	15:15:55	2.904	475.800	0.000	69880.000	73730.000	73620.000	52.580%	5.060	
3	15:16:05	2.589	473.000	0.000	70220.000	74040.000	73710.000	52.218%	1.801	
X		2.819	475.800	0.000	70140.000	73940.000	73810.000	52.219%	3.561	
		$\sigma$	0.202	2.770	0.000	229.800	181.700	261.600	0.361%	1.646
		%RSD	7.156	0.582	0.000	0.328	0.246	0.355	0.691	46.210
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:15:46	-4.488	3.264	0.771	-0.574	263.700	0.082	-0.069	3.819	
2	15:15:55	-4.118	3.581	0.802	-0.433	299.300	0.080	0.341	2.756	
3	15:16:05	-5.590	3.285	0.833	-0.874	262.900	0.081	0.467	3.835	
X		-4.732	3.376	0.802	-0.627	275.300	0.081	0.246	3.470	
		$\sigma$	0.766	0.178	0.031	0.225	20.780	0.001	0.281	0.618
		%RSD	16.180	5.257	3.911	35.890	7.546	1.200	113.900	17.810
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:15:46	1.858	2.625	2.195	0.656	1.497	199.700	0.000	1339.000	
2	15:15:55	2.860	2.273	2.270	0.705	1.153	201.500	0.000	1285.000	
3	15:16:05	1.860	2.977	2.469	0.972	0.562	185.000	0.000	1320.000	
X		2.193	2.625	2.311	0.778	1.070	195.400	0.000	1315.000	
		$\sigma$	0.578	0.352	0.142	0.170	9.037	0.000	27.340	
		%RSD	26.350	13.410	6.135	21.840	44.180	4.625	2.080	
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:15:46	42.735%	2.640	2.591	39.704%	-1.028	-1.014	-0.011	0.012	
2	15:15:55	44.169%	2.055	2.056	39.864%	-1.057	-0.947	0.152	0.011	
3	15:16:05	43.538%	2.601	2.529	40.042%	-0.815	-0.975	-0.011	-0.022	
X		43.481%	2.432	2.392	39.870%	-0.966	-0.979	0.043	0.001	
		$\sigma$	0.718%	0.327	0.293	0.169%	0.132	0.034	0.019	
		%RSD	1.652	13.430	12.250	0.424	13.680	3.455	216.600	3081.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:15:46	37.750%	-0.485	-0.249	-0.206	9.739	10.950	39.694%	39.554%	
2	15:15:55	39.499%	-0.552	-0.152	-0.279	10.030	9.305	40.103%	41.457%	
3	15:16:05	39.004%	-0.457	-0.201	-0.244	7.876	9.397	38.940%	39.650%	
X		38.751%	-0.498	-0.201	-0.243	9.216	9.885	39.579%	40.220%	
		$\sigma$	0.902%	0.049	0.049	0.037	1.170	0.926	0.590%	1.072%
		%RSD	2.327	9.860	24.350	15.030	12.700	9.365	1.491	2.665
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	15:15:46	0.101	0.041	0.077	0.047	0.072	36.278%			
2	15:15:55	0.011	0.047	0.040	-0.015	0.027	36.251%			
3	15:16:05	0.040	0.040	0.073	0.025	0.060	37.825%			
X		0.051	0.043	0.063	0.019	0.053	36.785%			
		$\sigma$	0.046	0.004	0.020	0.032	0.023	0.901%		
		%RSD	90.660	9.493	32.430	166.600	44.080	2.450		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	53.274%	0.078	825.900	851.000	0.000	2209000.000	247400.000	239500.000
2	15:21:02	53.056%	0.139	812.600	847.800	0.000	2196000.000	243700.000	236600.000
3	15:21:11	51.787%	0.208	830.100	872.100	0.000	2177000.000	246300.000	237300.000
X		52.706%	0.141	822.900	857.000	0.000	2194000.000	245800.000	237800.000
σ		0.803%	0.065	9.096	13.190	0.000	15850.000	1884.000	1503.000
%RSD		1.523	45.970	1.105	1.539	0.000	0.722	0.766	0.632
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	2.980	503.600	0.000	69430.000	72200.000	72080.000	52.408%	4.161
2	15:21:02	2.986	508.800	0.000	68680.000	70810.000	71390.000	52.543%	3.616
3	15:21:11	2.910	515.700	0.000	69260.000	71720.000	71760.000	52.512%	2.704
X		2.959	509.300	0.000	69120.000	71580.000	71740.000	52.487%	3.494
σ		0.043	6.088	0.000	390.500	706.500	345.600	0.071%	0.737
%RSD		1.439	1.195	0.000	0.565	0.987	0.482	0.135	21.080
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	5.599	3.271	0.704	-0.311	322.600	0.050	0.413	3.401
2	15:21:02	-3.435	3.938	0.638	-1.160	284.900	0.081	0.111	2.968
3	15:21:11	0.737	3.676	0.474	-0.585	283.100	0.176	0.051	2.997
X		0.967	3.629	0.605	-0.685	296.900	0.103	0.192	3.122
σ		4.521	0.336	0.118	0.434	22.320	0.065	0.194	0.242
%RSD		467.500	9.263	19.520	63.270	7.516	63.850	101.500	7.754
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	2.613	1.251	2.330	1.015	1.194	286.400	0.000	1299.000
2	15:21:02	1.801	2.328	1.490	0.778	1.504	320.300	0.000	1287.000
3	15:21:11	1.654	1.350	2.201	0.898	0.886	376.000	0.000	1308.000
X		2.023	1.643	2.007	0.897	1.195	327.600	0.000	1298.000
σ		0.517	0.596	0.452	0.119	0.309	45.220	0.000	10.690
%RSD		25.540	36.250	22.550	13.250	25.880	13.800	0.000	0.824
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	42.379%	2.183	2.610	38.849%	-1.053	-0.980	-0.011	-0.022
2	15:21:02	42.324%	1.981	3.025	39.002%	-0.954	-1.024	-0.011	0.014
3	15:21:11	42.242%	2.044	2.444	38.577%	-0.899	-0.996	0.075	0.013
X		42.315%	2.069	2.693	38.809%	-0.969	-1.000	0.018	0.002
σ		0.069%	0.103	0.300	0.215%	0.078	0.022	0.049	0.020
%RSD		0.163	4.976	11.130	0.555	8.054	2.239	280.900	1158.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:20:52	36.677%	-0.847	-0.189	-0.305	8.561	9.266	38.883%	37.804%
2	15:21:02	36.173%	-0.653	-0.243	-0.269	11.300	12.190	38.839%	39.509%
3	15:21:11	37.191%	-0.477	-0.192	-0.135	11.860	10.100	39.453%	38.590%
X		36.680%	-0.659	-0.208	-0.236	10.570	10.520	39.059%	38.634%
σ		0.509%	0.185	0.030	0.090	1.765	1.508	0.342%	0.854%
%RSD		1.388	28.030	14.500	38.020	16.690	14.330	0.877	2.210
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:20:52	0.026	0.010	-0.016	0.026	0.022	36.306%		
2	15:21:02	0.028	0.011	0.024	0.052	0.025	33.724%		
3	15:21:11	0.013	-0.002	0.064	0.030	0.035	33.403%		
X		0.022	0.006	0.024	0.036	0.028	34.477%		
σ		0.009	0.007	0.040	0.014	0.007	1.592%		
%RSD		38.510	118.000	166.100	38.020	24.540	4.617		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	55.047%	0.338	27.930	30.110	0.000	80780.000	11850.000	11220.000
2	15:29:52	55.005%	0.339	25.610	30.170	0.000	82130.000	12120.000	11530.000
3	15:30:01	56.184%	0.283	28.130	29.350	0.000	81010.000	11970.000	11290.000
X		55.412%	0.320	27.220	29.880	0.000	81300.000	11980.000	11350.000
σ		0.669%	0.032	1.399	0.459	0.000	722.700	132.700	164.800
%RSD		1.208	10.000	5.138	1.535	0.000	0.889	1.108	1.452
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	63.550	2743.000	0.000	5267.000	45810.000	46700.000	53.402%	4.527
2	15:29:52	69.410	2779.000	0.000	5424.000	47270.000	47710.000	52.435%	5.992
3	15:30:01	67.850	2729.000	0.000	5307.000	47080.000	47160.000	53.052%	5.691
X		66.940	2750.000	0.000	5333.000	46720.000	47190.000	52.963%	5.403
σ		3.031	25.780	0.000	81.910	794.100	505.400	0.490%	0.774
%RSD		4.528	0.938	0.000	1.536	1.700	1.071	0.925	14.320
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	10.090	9.191	28.600	125.200	350.900	0.170	0.564	5.292
2	15:29:52	-11.670	10.310	29.480	123.600	374.400	0.248	0.806	5.612
3	15:30:01	14.780	9.732	29.340	128.100	328.900	0.244	0.615	8.091
X		4.402	9.744	29.140	125.600	351.400	0.221	0.662	6.332
σ		14.110	0.559	0.475	2.255	22.780	0.044	0.127	1.532
%RSD		320.600	5.734	1.629	1.795	6.484	19.930	19.240	24.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	3.663	3.179	5.883	0.648	-0.045	23.430	0.000	152.700
2	15:29:52	5.930	5.174	5.384	0.758	1.128	19.520	0.000	157.100
3	15:30:01	8.349	3.225	5.160	0.654	0.242	13.870	0.000	154.900
X		5.981	3.859	5.476	0.687	0.442	18.940	0.000	154.900
σ		2.343	1.139	0.370	0.062	0.612	4.806	0.000	2.203
%RSD		39.180	29.500	6.761	9.057	138.400	25.380	0.000	1.422
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	44.876%	1.574	2.208	41.582%	-0.902	-0.993	-0.011	0.011
2	15:29:52	45.417%	1.840	1.773	41.668%	-0.955	-0.979	-0.011	0.044
3	15:30:01	46.419%	1.674	1.890	41.909%	-1.008	-1.064	0.068	-0.022
X		45.571%	1.696	1.957	41.720%	-0.955	-1.012	0.016	0.011
σ		0.783%	0.134	0.225	0.170%	0.053	0.046	0.046	0.033
%RSD		1.718	7.910	11.510	0.407	5.583	4.522	294.100	294.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:29:42	39.135%	-0.012	0.012	0.057	43.880	44.900	37.347%	36.335%
2	15:29:52	39.351%	-0.240	-0.228	-0.113	45.360	43.840	38.759%	39.104%
3	15:30:01	40.018%	-0.250	-0.203	-0.246	44.390	41.780	36.577%	36.439%
X		39.501%	-0.167	-0.140	-0.101	44.550	43.500	37.561%	37.293%
σ		0.460%	0.135	0.132	0.152	0.753	1.588	1.107%	1.570%
%RSD		1.164	80.520	94.480	150.400	1.691	3.650	2.946	4.209
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:29:42	-0.004	0.017	0.716	0.723	0.627	35.862%		
2	15:29:52	-0.004	0.032	0.708	0.710	0.637	33.173%		
3	15:30:01	-0.004	0.010	0.591	0.625	0.654	36.628%		
X		-0.004	0.020	0.672	0.686	0.640	35.221%		
σ		0.000	0.011	0.070	0.053	0.014	1.814%		
%RSD		0.000	56.250	10.380	7.710	2.148	5.152		



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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	63.224%	0.429	28.740	31.350	0.000	91910.000	10780.000	10200.000
2	15:34:54	65.194%	0.569	29.650	29.470	0.000	91710.000	10860.000	10380.000
3	15:35:03	66.369%	0.537	28.380	30.200	0.000	91130.000	10800.000	10220.000
X		64.929%	0.511	28.930	30.340	0.000	91580.000	10810.000	10270.000
σ		1.589%	0.073	0.656	0.947	0.000	404.400	44.230	100.800
%RSD		2.447	14.360	2.267	3.120	0.000	0.442	0.409	0.982
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	140.000	2502.000	0.000	8554.000	37360.000	37680.000	53.047%	6.296
2	15:34:54	138.100	2500.000	0.000	8650.000	38050.000	38030.000	52.950%	7.594
3	15:35:03	139.900	2470.000	0.000	8575.000	37810.000	37770.000	53.234%	6.874
X		139.300	2491.000	0.000	8593.000	37740.000	37830.000	53.077%	6.921
σ		1.040	17.750	0.000	50.370	348.800	185.000	0.144%	0.650
%RSD		0.747	0.713	0.000	0.586	0.924	0.489	0.272	9.393
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	1.096	10.470	56.820	199.000	389.500	0.498	1.117	16.700
2	15:34:54	6.568	11.280	57.010	196.200	369.000	0.341	0.752	16.070
3	15:35:03	-7.949	10.780	56.710	194.500	345.000	0.401	0.218	14.600
X		-0.095	10.840	56.850	196.500	367.800	0.413	0.695	15.790
σ		7.332	0.413	0.151	2.288	22.290	0.079	0.452	1.075
%RSD		7720.000	3.810	0.266	1.164	6.059	19.200	65.040	6.807
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	16.540	5.958	5.554	0.716	0.259	24.880	0.000	118.500
2	15:34:54	15.180	6.086	5.404	0.888	1.451	24.890	0.000	118.100
3	15:35:03	15.490	5.868	6.750	0.884	1.147	9.442	0.000	122.800
X		15.740	5.971	5.902	0.829	0.952	19.740	0.000	119.800
σ		0.715	0.110	0.738	0.098	0.619	8.915	0.000	2.578
%RSD		4.543	1.835	12.490	11.860	65.040	45.170	0.000	2.151
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	43.216%	2.945	2.615	40.247%	-0.908	-0.944	-0.011	0.012
2	15:34:54	44.155%	2.956	2.798	40.240%	-0.936	-0.874	0.071	-0.022
3	15:35:03	44.320%	3.153	2.576	39.932%	-0.922	-0.917	-0.011	0.011
X		43.897%	3.018	2.663	40.140%	-0.922	-0.912	0.016	0.001
σ		0.596%	0.117	0.119	0.180%	0.014	0.035	0.048	0.019
%RSD		1.357	3.871	4.455	0.447	1.526	3.860	288.100	2937.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:45	38.137%	-0.534	-0.060	-0.002	46.050	38.860	37.475%	36.503%
2	15:34:54	38.730%	-0.721	-0.172	-0.176	40.690	42.360	38.595%	37.366%
3	15:35:03	38.911%	-0.452	-0.198	-0.309	45.960	43.180	35.747%	36.206%
X		38.592%	-0.569	-0.143	-0.162	44.230	41.470	37.272%	36.692%
σ		0.405%	0.138	0.073	0.154	3.069	2.294	1.435%	0.602%
%RSD		1.049	24.280	51.170	94.920	6.940	5.533	3.849	1.642
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:34:45	0.014	0.019	1.061	0.810	0.911	30.970%		
2	15:34:54	-0.004	0.005	0.677	0.595	0.678	30.740%		
3	15:35:03	0.013	0.019	0.934	1.007	0.805	32.400%		
X		0.008	0.014	0.891	0.804	0.798	31.370%		
σ		0.010	0.008	0.195	0.206	0.117	0.899%		
%RSD		127.500	56.480	21.950	25.640	14.620	2.867		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	70.709%	0.713	27.470	28.020	0.000	87180.000	11110.000	10490.000
2	15:39:58	72.067%	0.803	25.230	27.170	0.000	87690.000	11270.000	10690.000
3	15:40:08	71.067%	0.636	23.250	26.860	0.000	87080.000	11190.000	10640.000
X		71.281%	0.718	25.310	27.350	0.000	87310.000	11190.000	10610.000
σ		0.704%	0.084	2.111	0.601	0.000	327.000	82.690	101.900
%RSD		0.988	11.650	8.339	2.199	0.000	0.375	0.739	0.960
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	166.300	2521.000	0.000	8298.000	39860.000	40550.000	52.389%	6.303
2	15:39:58	166.900	2528.000	0.000	8373.000	41740.000	41370.000	51.956%	6.050
3	15:40:08	164.800	2527.000	0.000	8290.000	41530.000	41130.000	51.976%	5.585
X		166.000	2525.000	0.000	8320.000	41040.000	41020.000	52.107%	5.979
σ		1.073	3.701	0.000	45.970	1028.000	418.200	0.245%	0.364
%RSD		0.646	0.147	0.000	0.553	2.504	1.020	0.469	6.086
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	7.285	10.990	66.070	250.300	448.800	0.348	1.076	13.070
2	15:39:58	11.250	11.080	67.360	255.600	448.400	0.361	1.004	11.350
3	15:40:08	1.887	10.970	67.300	251.100	432.400	0.565	1.126	10.390
X		6.809	11.010	66.910	252.400	443.200	0.425	1.069	11.600
σ		4.701	0.056	0.729	2.879	9.372	0.121	0.061	1.355
%RSD		69.050	0.512	1.090	1.141	2.115	28.550	5.719	11.680
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	11.550	6.536	7.447	0.491	1.190	20.460	0.000	130.000
2	15:39:58	8.377	7.596	6.497	0.547	0.557	22.160	0.000	128.500
3	15:40:08	11.790	6.548	9.905	0.921	-0.045	21.100	0.000	132.400
X		10.570	6.893	7.950	0.653	0.567	21.240	0.000	130.300
σ		1.906	0.609	1.759	0.234	0.618	0.859	0.000	1.944
%RSD		18.030	8.831	22.120	35.810	108.900	4.044	0.000	1.492
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	42.530%	3.275	3.617	40.004%	-1.015	-1.088	-0.011	0.114
2	15:39:58	44.073%	2.950	3.164	40.504%	-0.827	-0.987	0.156	0.046
3	15:40:08	43.888%	3.809	3.387	40.747%	-0.898	-1.019	0.071	0.143
X		43.497%	3.345	3.389	40.418%	-0.913	-1.031	0.072	0.101
σ		0.843%	0.434	0.227	0.379%	0.095	0.052	0.084	0.050
%RSD		1.937	12.970	6.691	0.937	10.400	5.006	116.000	49.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:49	37.871%	0.021	-0.248	-0.341	50.030	42.680	36.581%	37.165%
2	15:39:58	37.724%	0.297	-0.085	-0.103	50.640	45.420	38.759%	38.454%
3	15:40:08	38.856%	0.127	-0.093	-0.310	48.960	47.750	38.546%	38.960%
X		38.150%	0.148	-0.142	-0.251	49.880	45.280	37.962%	38.193%
σ		0.615%	0.139	0.092	0.130	0.851	2.534	1.201%	0.925%
%RSD		1.613	93.640	64.410	51.510	1.706	5.595	3.163	2.422
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:39:49	0.043	0.004	1.391	1.588	1.486	35.311%		
2	15:39:58	0.012	0.004	1.566	1.005	1.304	34.693%		
3	15:40:08	0.028	0.011	1.601	1.432	1.456	34.305%		
X		0.028	0.006	1.519	1.342	1.415	34.770%		
σ		0.015	0.004	0.112	0.302	0.098	0.508%		
%RSD		55.840	60.110	7.394	22.490	6.921	1.460		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	70.715%	0.740	97.590	101.500	0.000	110700.000	14320.000	13750.000
2	15:45:01	70.494%	0.625	99.130	101.700	0.000	110900.000	14430.000	13850.000
3	15:45:11	71.860%	0.521	99.410	97.470	0.000	110200.000	14530.000	13910.000
X		71.023%	0.628	98.710	100.200	0.000	110600.000	14430.000	13840.000
σ		0.733%	0.110	0.984	2.382	0.000	332.700	109.100	81.790
%RSD		1.033	17.440	0.996	2.376	0.000	0.301	0.756	0.591
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	110.400	4001.000	0.000	16940.000	69740.000	71430.000	54.094%	6.167
2	15:45:01	111.100	3971.000	0.000	17020.000	71360.000	72160.000	53.463%	5.870
3	15:45:11	113.500	3963.000	0.000	17050.000	70950.000	72150.000	53.617%	7.196
X		111.700	3978.000	0.000	17000.000	70680.000	71910.000	53.725%	6.411
σ		1.639	20.150	0.000	59.090	842.800	417.800	0.329%	0.696
%RSD		1.468	0.507	0.000	0.348	1.192	0.581	0.612	10.860
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	2.047	10.250	34.150	146.300	454.300	0.607	1.663	10.160
2	15:45:01	7.881	10.580	34.050	145.200	470.200	0.806	1.085	8.993
3	15:45:11	17.800	10.700	34.350	147.600	487.900	0.688	1.385	8.476
X		9.242	10.510	34.180	146.400	470.800	0.700	1.378	9.210
σ		7.962	0.233	0.152	1.188	16.810	0.100	0.289	0.863
%RSD		86.160	2.220	0.445	0.812	3.570	14.270	20.980	9.373
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	9.084	25.370	23.950	0.557	0.250	15.150	0.000	187.900
2	15:45:01	10.580	25.330	23.930	0.644	-0.045	9.416	0.000	190.600
3	15:45:11	9.742	24.400	29.010	0.858	0.252	18.580	0.000	188.200
X		9.801	25.030	25.630	0.686	0.152	14.380	0.000	188.900
σ		0.749	0.551	2.926	0.155	0.171	4.629	0.000	1.472
%RSD		7.640	2.201	11.420	22.550	112.400	32.190	0.000	0.779
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	44.594%	24.270	23.440	40.952%	-1.031	-0.990	-0.011	0.012
2	15:45:01	45.205%	22.330	24.160	41.259%	-1.005	-1.062	-0.011	0.078
3	15:45:11	44.409%	23.390	22.760	41.105%	-1.006	-1.034	-0.011	0.110
X		44.736%	23.330	23.450	41.105%	-1.014	-1.029	-0.011	0.066
σ		0.416%	0.975	0.698	0.154%	0.015	0.036	0.000	0.050
%RSD		0.931	4.177	2.976	0.374	1.471	3.495	0.201	75.370
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:44:52	38.685%	-0.586	0.095	0.025	33.650	30.980	38.370%	38.181%
2	15:45:01	38.583%	-0.541	-0.012	-0.109	30.570	28.320	39.321%	38.089%
3	15:45:11	39.102%	-0.547	0.036	0.186	29.300	33.020	38.924%	38.233%
X		38.790%	-0.558	0.040	0.034	31.170	30.770	38.871%	38.167%
σ		0.275%	0.025	0.054	0.148	2.236	2.357	0.478%	0.073%
%RSD		0.709	4.418	135.600	435.800	7.173	7.660	1.229	0.192
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:44:52	-0.004	0.016	1.406	1.275	1.330	36.871%		
2	15:45:01	0.011	-0.002	1.460	1.741	1.507	37.883%		
3	15:45:11	-0.004	-0.002	1.363	1.369	1.387	36.539%		
X		0.001	0.004	1.410	1.462	1.408	37.098%		
σ		0.008	0.011	0.049	0.247	0.091	0.700%		
%RSD		703.200	275.000	3.442	16.870	6.430	1.887		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	70.450%	0.470	36.400	38.720	0.000	71710.000	19870.000	19000.000	
2	15:50:04	69.933%	0.484	38.350	38.980	0.000	72350.000	20060.000	19000.000	
3	15:50:13	70.362%	0.389	39.130	38.770	0.000	71600.000	20080.000	19130.000	
X		70.248%	0.448	37.960	38.830	0.000	71880.000	20000.000	19040.000	
		σ	0.277%	0.051	1.409	0.138	403.500	116.400	74.520	
		%RSD	0.394	11.450	3.711	0.357	0.561	0.582	0.391	
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	6.066	4921.000	0.000	9721.000	100500.000	103100.000	54.020%	5.435	
2	15:50:04	6.296	4895.000	0.000	9665.000	99330.000	102300.000	54.153%	4.755	
3	15:50:13	5.736	4900.000	0.000	9601.000	99390.000	101800.000	54.315%	5.772	
X		6.033	4905.000	0.000	9662.000	99750.000	102400.000	54.163%	5.321	
		σ	0.281	13.930	0.000	59.820	633.900	0.148%	0.518	
		%RSD	4.663	0.284	0.000	0.619	0.619	0.273	9.734	
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	-4.086	17.870	21.440	7.028	399.600	0.543	1.529	6.431	
2	15:50:04	1.480	17.250	20.980	6.332	366.500	0.307	0.976	6.420	
3	15:50:13	-11.170	17.590	20.750	5.803	329.500	0.379	0.963	6.089	
X		-4.591	17.570	21.060	6.388	365.200	0.410	1.156	6.313	
		σ	6.338	0.312	0.355	0.615	35.030	0.121	0.323	
		%RSD	138.100	1.776	1.683	9.621	9.591	29.490	3.078	
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	6.497	3.944	3.038	0.417	0.571	11.730	0.000	230.900	
2	15:50:04	6.788	3.964	5.809	0.405	0.255	9.850	0.000	232.600	
3	15:50:13	6.251	4.572	6.918	0.421	0.250	4.129	0.000	229.600	
X		6.512	4.160	5.255	0.414	0.359	8.570	0.000	231.000	
		σ	0.269	0.357	1.998	0.008	3.958	0.000	1.510	
		%RSD	4.129	8.579	38.030	1.944	51.310	46.190	0.654	
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	42.283%	0.528	0.390	40.530%	-0.882	-0.974	0.072	0.112	
2	15:50:04	43.696%	0.465	0.466	40.977%	-1.005	-0.848	-0.011	0.144	
3	15:50:13	44.587%	0.890	0.756	40.413%	-0.937	-1.033	0.071	-0.022	
X		43.522%	0.628	0.537	40.640%	-0.941	-0.952	0.044	0.078	
		σ	1.162%	0.229	0.193	0.297%	0.061	0.094	0.088	
		%RSD	2.670	36.500	35.980	0.732	6.497	9.930	108.100	
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:49:55	38.348%	-0.674	-0.358	-0.175	55.370	58.240	39.694%	39.325%	
2	15:50:04	38.573%	-0.721	-0.359	-0.243	60.100	55.860	39.983%	39.722%	
3	15:50:13	39.043%	-0.590	-0.201	-0.344	49.360	52.010	38.663%	38.871%	
X		38.655%	-0.662	-0.306	-0.254	54.940	55.370	39.446%	39.306%	
		σ	0.355%	0.066	0.091	0.085	5.384	3.143	0.694%	
		%RSD	0.918	9.997	29.830	33.300	9.799	5.676	1.759	
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	15:49:55	0.045	0.018	0.104	0.188	0.124	33.297%			
2	15:50:04	0.012	0.004	0.004	0.230	0.074	33.704%			
3	15:50:13	0.027	0.010	0.097	0.027	0.060	35.693%			
X		0.028	0.011	0.068	0.148	0.086	34.232%			
		σ	0.016	0.007	0.056	0.107	0.034	1.282%		
		%RSD	58.190	62.330	81.700	72.190	39.310	3.745		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	69.545%	0.580	5.530	7.687	0.000	42800.000	20090.000	19090.000
2	15:55:10	70.860%	0.467	3.633	5.569	0.000	43160.000	20080.000	19300.000
3	15:55:19	69.409%	0.323	5.394	5.528	0.000	43130.000	20280.000	19440.000
X		69.938%	0.456	4.852	6.261	0.000	43030.000	20150.000	19280.000
σ		0.802%	0.129	1.058	1.235	0.000	198.500	115.600	178.300
%RSD		1.146	28.230	21.810	19.720	0.000	0.461	0.574	0.925
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	29.700	3718.000	0.000	2829.000	70460.000	71940.000	55.724%	3.103
2	15:55:10	28.380	3702.000	0.000	2846.000	71540.000	72640.000	55.491%	3.189
3	15:55:19	29.490	3763.000	0.000	2879.000	71780.000	73040.000	55.108%	3.286
X		29.190	3727.000	0.000	2852.000	71260.000	72540.000	55.441%	3.193
σ		0.709	31.680	0.000	25.490	705.700	553.300	0.311%	0.092
%RSD		2.429	0.850	0.000	0.894	0.990	0.763	0.561	2.881
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	-3.316	9.431	5.324	24.840	294.500	0.106	0.716	6.302
2	15:55:10	-9.655	9.449	5.483	23.500	279.500	0.061	0.312	7.668
3	15:55:19	10.900	9.562	5.415	25.970	285.800	0.091	0.203	6.988
X		-0.689	9.481	5.407	24.770	286.600	0.086	0.410	6.986
σ		10.530	0.071	0.080	1.236	7.557	0.023	0.270	0.683
%RSD		1529.000	0.749	1.478	4.992	2.637	26.630	65.860	9.774
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	7.593	4.613	5.216	0.305	0.543	11.230	0.000	111.900
2	15:55:10	5.933	5.940	5.735	0.254	-0.045	13.210	0.000	114.300
3	15:55:19	4.665	4.792	6.297	0.460	0.831	5.631	0.000	114.000
X		6.064	5.115	5.749	0.340	0.443	10.020	0.000	113.400
σ		1.468	0.720	0.540	0.107	0.446	3.930	0.000	1.335
%RSD		24.210	14.080	9.400	31.500	100.800	39.210	0.000	1.177
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	44.512%	0.544	0.280	42.236%	-0.958	-1.038	-0.011	0.010
2	15:55:10	45.589%	0.211	0.301	42.632%	-0.973	-1.012	-0.011	0.041
3	15:55:19	45.068%	0.397	0.274	42.802%	-0.961	-0.986	-0.011	-0.022
X		45.056%	0.384	0.285	42.557%	-0.964	-1.012	-0.011	0.010
σ		0.539%	0.167	0.014	0.290%	0.008	0.026	0.000	0.031
%RSD		1.195	43.500	4.976	0.683	0.795	2.559	0.236	313.600
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:00	40.347%	-0.648	-0.335	-0.378	31.350	29.150	40.986%	40.397%
2	15:55:10	40.709%	-0.694	-0.336	-0.315	26.560	29.200	40.761%	41.637%
3	15:55:19	41.087%	-0.866	-0.387	-0.189	36.080	29.040	40.553%	39.550%
X		40.714%	-0.736	-0.353	-0.294	31.330	29.130	40.767%	40.528%
σ		0.370%	0.115	0.029	0.096	4.756	0.082	0.217%	1.050%
%RSD		0.909	15.590	8.357	32.710	15.180	0.281	0.532	2.591
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:55:00	-0.004	0.004	0.325	0.086	0.240	37.425%		
2	15:55:10	-0.004	0.017	0.300	0.257	0.315	35.873%		
3	15:55:19	-0.004	0.004	0.192	0.179	0.219	38.859%		
X		-0.004	0.008	0.272	0.174	0.258	37.386%		
σ		0.000	0.007	0.071	0.086	0.050	1.494%		
%RSD		0.000	93.340	25.920	49.380	19.560	3.995		

180-46875-B-7-A 8/21/2015 4:00:58 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	16:00:03	70.336%	0.380	127.800	133.200	0.000	122900.000	12360.000	11660.000
2	16:00:13	70.623%	0.260	131.700	128.100	0.000	125500.000	12510.000	12030.000
3	16:00:22	69.997%	0.383	129.800	131.000	0.000	123100.000	12340.000	11970.000
X		70.319%	0.341	129.800	130.800	0.000	123800.000	12400.000	11890.000
σ		0.313%	0.070	1.953	2.572	0.000	1448.000	94.810	200.000
%RSD		0.445	20.530	1.506	1.966	0.000	1.170	0.764	1.683
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:03	17.150	4114.000	0.000	21740.000	73930.000	74890.000	56.691%	3.468
2	16:00:13	17.220	4197.000	0.000	22180.000	74370.000	75980.000	56.057%	3.582
3	16:00:22	17.870	4186.000	0.000	21990.000	74080.000	75780.000	56.446%	3.484
X		17.420	4166.000	0.000	21970.000	74130.000	75550.000	56.398%	3.511
σ		0.397	45.060	0.000	222.500	225.600	577.000	0.320%	0.062
%RSD		2.281	1.082	0.000	1.013	0.304	0.764	0.567	1.764
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:03	-8.825	7.365	18.840	40.900	334.500	0.782	1.353	7.066
2	16:00:13	10.390	7.874	18.650	46.380	324.700	0.513	1.147	7.142
3	16:00:22	-2.798	8.592	18.910	45.120	283.100	0.642	2.093	7.642
X		-0.411	7.944	18.800	44.130	314.100	0.646	1.531	7.283
σ		9.828	0.617	0.135	2.871	27.310	0.135	0.497	0.313
%RSD		2394.000	7.765	0.720	6.505	8.696	20.830	32.490	4.295
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:03	6.928	30.360	29.870	0.530	1.086	8.803	0.000	211.500
2	16:00:13	7.958	33.950	30.470	0.536	1.383	9.840	0.000	212.600
3	16:00:22	5.926	31.440	34.850	0.580	0.526	13.090	0.000	213.300
X		6.937	31.920	31.730	0.548	0.998	10.580	0.000	212.500
σ		1.016	1.842	2.718	0.027	0.435	2.236	0.000	0.933
%RSD		14.650	5.770	8.565	4.987	43.560	21.140	0.000	0.439
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:03	46.577%	31.790	31.140	41.428%	-0.916	-0.967	0.069	0.011
2	16:00:13	46.131%	29.660	33.620	41.702%	-0.969	-0.953	-0.011	0.043
3	16:00:22	46.001%	30.710	31.460	41.719%	-0.968	-0.980	-0.011	0.011
X		46.236%	30.720	32.070	41.616%	-0.951	-0.966	0.016	0.021
σ		0.302%	1.068	1.351	0.163%	0.030	0.014	0.046	0.019
%RSD		0.654	3.478	4.211	0.391	3.177	1.407	294.700	86.730
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:03	39.993%	-0.298	0.129	-0.119	26.620	20.850	40.151%	39.754%
2	16:00:13	39.729%	-0.554	0.238	0.080	29.800	26.130	39.008%	38.759%
3	16:00:22	39.479%	-0.332	0.318	-0.083	29.110	27.570	39.618%	39.630%
X		39.734%	-0.395	0.228	-0.041	28.510	24.850	39.592%	39.381%
σ		0.257%	0.139	0.095	0.106	1.671	3.543	0.572%	0.542%
%RSD		0.647	35.280	41.680	260.900	5.862	14.250	1.445	1.377
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:00:03	0.012	0.017	0.719	0.452	0.591	35.490%		
2	16:00:13	-0.004	0.023	0.649	0.608	0.659	36.300%		
3	16:00:22	0.027	0.004	0.835	0.772	0.788	35.366%		
X		0.012	0.015	0.735	0.611	0.679	35.719%		
σ		0.015	0.009	0.094	0.161	0.100	0.508%		
%RSD		131.400	65.390	12.770	26.280	14.700	1.421		

CCV 1671387 8/21/2015 4:06:03 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	60.878%	116.900	111.200	110.500	0.000	64340.000	55900.000	53760.000
2	16:05:16	61.921%	114.400	103.800	108.000	0.000	63940.000	55810.000	53460.000
3	16:05:25	61.508%	114.000	110.800	109.000	0.000	64610.000	56540.000	54220.000
X		61.436%	115.089%	108.599%	109.170%	0.000	128.596%	112.171%	107.627%
σ		0.525%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.855	1.373	3.837	1.167	0.000	0.528	0.714	0.711
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	540.500	5648.000	0.000	49900.000	48700.000	47980.000	58.390%	104.300
2	16:05:16	543.900	5605.000	0.000	49950.000	47410.000	48280.000	58.421%	103.600
3	16:05:25	556.100	5650.000	0.000	50270.000	48390.000	48470.000	57.862%	103.900
X		109.370%	112.689%	0.000	100.077%	96.335%	96.489%	58.225%	103.917%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.314%	n/a
%RSD		1.496	0.453	0.000	0.409	1.400	0.509	0.539	0.324
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	97.430	97.210	470.600	24260.000	24120.000	97.520	99.250	100.200
2	16:05:16	104.800	99.140	469.700	24450.000	24550.000	99.090	100.200	102.200
3	16:05:25	101.800	98.820	475.200	24770.000	24630.000	99.440	94.960	101.100
X		101.334%	98.390%	94.370%	97.972%	97.726%	98.682%	98.143%	101.169%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.640	1.052	0.628	1.045	1.132	1.035	2.854	1.007
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	104.500	95.090	93.290	99.870	107.300	107.800	0.000	101.400
2	16:05:16	106.300	100.100	96.670	97.530	103.800	85.230	0.000	103.800
3	16:05:25	106.300	94.720	95.740	96.370	93.620	92.800	0.000	102.900
X		105.717%	96.621%	95.234%	97.923%	101.575%	95.266%	0.000	102.659%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.008	3.084	1.832	1.821	6.996	12.040	0.000	1.183
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	48.608%	103.400	102.900	44.757%	100.700	100.200	97.380	100.300
2	16:05:16	49.376%	100.300	100.400	45.593%	98.810	102.100	104.800	101.100
3	16:05:25	50.982%	101.800	103.100	45.998%	99.040	101.200	98.470	100.700
X		49.655%	101.830%	102.119%	45.449%	99.523%	101.207%	100.234%	100.691%
σ		1.211%	n/a	n/a	0.633%	n/a	n/a	n/a	n/a
%RSD		2.440	1.526	1.466	1.392	1.048	0.931	4.024	0.432
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:05:07	42.835%	95.640	95.430	93.800	91.400	100.900	42.258%	41.850%
2	16:05:16	43.236%	98.650	92.850	96.130	95.480	99.900	42.387%	43.083%
3	16:05:25	44.479%	97.030	94.210	95.090	93.510	95.810	43.422%	43.083%
X		43.517%	97.109%	94.161%	95.006%	93.463%	98.871%	42.689%	42.672%
σ		0.857%	n/a	n/a	n/a	n/a	n/a	0.638%	0.712%
%RSD		1.969	1.551	1.369	1.229	2.179	2.725	1.495	1.668
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:05:07	103.700	103.600	104.200	104.200	103.500	40.758%		
2	16:05:16	101.600	104.000	106.100	106.800	105.400	41.173%		
3	16:05:25	103.800	101.600	104.400	105.200	104.900	41.487%		
X		103.022%	103.066%	104.890%	105.428%	104.615%	41.140%		
σ		n/a	n/a	n/a	n/a	n/a	0.366%		
%RSD		1.210	1.278	0.988	1.250	0.950	0.889		

CCB4 8/21/2015 4:14:57 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	68.154%	0.322	-5.393	-3.015	0.000	1258.000	96.680	89.570
2	16:14:10	67.202%	0.319	-5.286	-4.281	0.000	1248.000	106.600	90.650
3	16:14:19	68.120%	0.435	-5.816	-4.845	0.000	1246.000	100.000	92.760
X		67.825%	0.358	-5.499	-4.047	0.000	1250.000	101.100	90.990
σ		0.541%	0.066	0.280	0.937	0.000	6.324	5.051	1.622
%RSD		0.797	18.460	5.097	23.160	0.000	0.506	4.996	1.783
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	0.432	59.360	0.000	459.600	25.910	80.900	61.172%	0.766
2	16:14:10	0.119	63.260	0.000	465.700	42.690	74.650	60.993%	0.704
3	16:14:19	0.222	61.960	0.000	460.500	29.010	75.800	61.389%	0.502
X		0.258	61.530	0.000	461.900	32.540	77.120	61.185%	0.657
σ		0.159	1.987	0.000	3.270	8.928	3.325	0.198%	0.138
%RSD		61.830	3.229	0.000	0.708	27.440	4.312	0.324	21.060
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	3.878	0.994	0.185	5.568	5.373	0.053	-0.210	-0.929
2	16:14:10	0.743	1.071	0.260	5.301	17.560	0.014	-0.211	-0.559
3	16:14:19	-2.563	1.124	0.194	4.503	1.813	0.053	-0.061	-0.739
X		0.686	1.063	0.213	5.124	8.247	0.040	-0.161	-0.742
σ		3.221	0.066	0.041	0.554	8.255	0.023	0.086	0.185
%RSD		469.500	6.183	19.220	10.810	100.100	57.030	53.750	24.920
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	-0.498	0.450	0.558	-0.040	0.209	3.618	0.000	-0.010
2	16:14:10	-0.758	0.121	0.335	-0.001	0.458	0.483	0.000	0.019
3	16:14:19	-0.974	0.281	0.223	-0.002	0.205	-0.918	0.000	0.019
X		-0.744	0.284	0.372	-0.014	0.291	1.061	0.000	0.009
σ		0.238	0.164	0.171	0.022	0.145	2.322	0.000	0.017
%RSD		32.070	57.830	45.980	156.100	49.960	218.900	0.000	187.500
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	52.190%	0.160	0.110	50.398%	-0.988	-0.930	-0.011	-0.022
2	16:14:10	52.931%	0.156	0.037	50.765%	-0.924	-0.828	-0.011	-0.022
3	16:14:19	53.370%	0.078	0.061	50.268%	-0.924	-0.933	-0.011	0.005
X		52.830%	0.131	0.070	50.477%	-0.945	-0.897	-0.011	-0.013
σ		0.597%	0.046	0.037	0.257%	0.037	0.060	0.000	0.015
%RSD		1.129	35.130	53.610	0.510	3.886	6.647	0.390	123.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	46.729%	-0.923	-0.301	-0.243	0.000	0.089	45.301%	45.449%
2	16:14:10	47.165%	-0.888	-0.258	-0.300	0.000	0.000	45.803%	44.356%
3	16:14:19	47.753%	-0.926	-0.303	-0.301	0.000	0.000	46.256%	46.449%
X		47.216%	-0.912	-0.288	-0.281	0.000	0.030	45.787%	45.418%
σ		0.514%	0.021	0.025	0.033	0.000	0.052	0.478%	1.047%
%RSD		1.089	2.346	8.838	11.780	0.000	173.200	1.044	2.305
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:14:01	0.009	-0.002	0.032	0.003	0.014	41.992%		
2	16:14:10	0.021	0.008	0.014	-0.015	0.012	44.605%		
3	16:14:19	-0.004	0.008	0.032	0.021	0.018	41.977%		
X		0.009	0.005	0.026	0.003	0.014	42.858%		
σ		0.012	0.006	0.010	0.018	0.003	1.513%		
%RSD		138.700	128.600	38.840	637.500	19.470	3.530		



MB 180-150950/1-A 8/21/2015 4:20:02 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	16:19:07	67.735%	0.079	-1.992	-3.512	0.000	1277.000	119.300	108.100
2	16:19:16	68.862%	0.131	-5.334	-4.806	0.000	1271.000	127.000	114.500
3	16:19:26	68.622%	0.244	-5.414	-5.415	0.000	1255.000	125.000	111.400
X		68.407%	0.151	-4.247	-4.578	0.000	1267.000	123.700	111.300
σ		0.594%	0.084	1.953	0.972	0.000	11.300	3.987	3.183
%RSD		0.868	55.850	45.980	21.230	0.000	0.892	3.222	2.860
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:07	-0.425	61.860	0.000	480.500	79.380	82.210	60.918%	0.771
2	16:19:16	-0.312	57.140	0.000	466.700	66.000	61.070	60.961%	0.179
3	16:19:26	-0.438	61.410	0.000	466.900	49.610	74.490	60.782%	0.708
X		-0.392	60.130	0.000	471.400	65.000	72.590	60.887%	0.553
σ		0.069	2.605	0.000	7.925	14.910	10.700	0.093%	0.325
%RSD		17.690	4.333	0.000	1.681	22.940	14.740	0.153	58.820
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:07	-0.231	0.992	0.226	1.668	5.311	0.013	-0.211	-0.662
2	16:19:16	-1.644	0.957	0.187	1.888	12.260	0.000	0.040	-0.699
3	16:19:26	2.097	1.098	0.312	4.071	1.764	-0.013	-0.312	-0.797
X		0.074	1.016	0.242	2.542	6.445	0.000	-0.161	-0.720
σ		1.889	0.074	0.064	1.328	5.338	0.013	0.181	0.070
%RSD		2548.000	7.258	26.480	52.250	82.830	3404.000	112.600	9.687
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:07	-0.807	0.120	0.222	-0.060	-0.045	-1.007	0.000	0.018
2	16:19:16	-0.932	0.200	0.114	-0.040	-0.045	3.095	0.000	0.018
3	16:19:26	-0.704	-0.043	0.642	0.015	-0.045	3.481	0.000	0.017
X		-0.814	0.092	0.326	-0.028	-0.045	1.856	0.000	0.018
σ		0.114	0.124	0.279	0.039	0.000	2.487	0.000	0.001
%RSD		14.010	134.600	85.520	135.600	0.000	134.000	0.000	3.680
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:07	53.741%	-0.156	-0.150	50.251%	-0.849	-0.968	0.055	0.005
2	16:19:16	53.665%	-0.117	-0.174	51.117%	-0.948	-0.958	-0.011	0.005
3	16:19:26	55.979%	0.031	-0.152	52.104%	-0.973	-0.951	-0.011	0.005
X		54.462%	-0.081	-0.159	51.158%	-0.924	-0.959	0.011	0.005
σ		1.314%	0.099	0.013	0.927%	0.065	0.009	0.038	0.000
%RSD		2.413	122.200	8.323	1.813	7.079	0.898	343.400	6.449
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:19:07	48.308%	-0.963	-0.347	-0.329	0.000	0.000	45.377%	44.344%
2	16:19:16	47.969%	-0.962	-0.390	-0.328	0.000	0.000	44.361%	45.159%
3	16:19:26	49.092%	-1.000	-0.285	-0.330	0.000	0.000	46.839%	45.609%
X		48.456%	-0.975	-0.341	-0.329	0.000	0.000	45.526%	45.038%
σ		0.576%	0.021	0.053	0.001	0.000	0.000	1.245%	0.641%
%RSD		1.189	2.191	15.490	0.363	0.000	0.000	2.735	1.424
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:19:07	-0.004	-0.002	0.029	0.019	0.005	44.925%		
2	16:19:16	0.008	0.003	0.014	0.002	0.008	45.322%		
3	16:19:26	0.008	-0.002	-0.001	-0.015	0.004	46.677%		
X		0.004	-0.001	0.014	0.002	0.006	45.641%		
σ		0.007	0.003	0.015	0.017	0.002	0.918%		
%RSD		159.300	480.400	109.300	1011.000	40.170	2.012		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	68.082%	55.870	1096.000	1095.000	0.000	66580.000	54970.000	52690.000	
2	16:24:21	69.622%	55.610	1085.000	1073.000	0.000	65900.000	55290.000	52950.000	
3	16:24:31	72.776%	51.440	1010.000	1036.000	0.000	65010.000	54820.000	53180.000	
X		70.160%	54.300	1064.000	1068.000	0.000	65830.000	55030.000	52940.000	
		σ	2.393%	2.486	46.420	30.080	0.000	785.300	239.800	244.400
		%RSD	3.411	4.579	4.364	2.817	0.000	1.193	0.436	0.462
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	2234.000	10750.000	0.000	50170.000	48970.000	48830.000	61.315%	1023.000	
2	16:24:21	2239.000	10640.000	0.000	50340.000	49680.000	49340.000	61.186%	1034.000	
3	16:24:31	2248.000	10460.000	0.000	50480.000	49310.000	49110.000	61.229%	1024.000	
X		2240.000	10620.000	0.000	50330.000	49320.000	49090.000	61.243%	1027.000	
		σ	7.041	150.900	0.000	153.400	356.800	255.400	0.066%	6.241
		%RSD	0.314	1.422	0.000	0.305	0.723	0.520	0.107	0.608
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	513.700	203.100	470.000	908.300	1179.000	501.400	505.900	271.700	
2	16:24:21	499.800	202.100	478.200	882.700	1077.000	496.300	494.700	270.400	
3	16:24:31	500.000	199.500	473.600	895.900	1090.000	504.300	508.800	276.400	
X		504.500	201.600	473.900	895.600	1115.000	500.700	503.100	272.800	
		σ	7.993	1.861	4.136	12.810	55.440	4.034	7.431	3.154
		%RSD	1.584	0.923	0.873	1.430	4.971	0.806	1.477	1.156
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	271.300	476.400	491.800	40.010	11.890	18.930	0.000	973.700	
2	16:24:21	282.300	492.300	498.200	37.650	9.744	20.130	0.000	986.700	
3	16:24:31	286.100	494.700	487.500	41.070	11.490	9.633	0.000	969.100	
X		279.900	487.800	492.500	39.580	11.040	16.230	0.000	976.500	
		σ	7.657	9.950	5.406	1.749	1.142	5.745	0.000	9.120
		%RSD	2.736	2.040	1.098	4.419	10.340	35.400	0.000	0.934
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	50.865%	1044.000	1079.000	47.030%	52.230	51.160	51.010	84.700	
2	16:24:21	51.366%	1071.000	1072.000	46.952%	49.760	51.150	49.630	84.570	
3	16:24:31	51.654%	1061.000	1093.000	46.875%	50.370	50.480	49.910	84.860	
X		51.295%	1059.000	1082.000	46.952%	50.790	50.930	50.180	84.710	
		σ	0.399%	13.550	10.730	0.077%	1.286	0.387	0.726	0.142
		%RSD	0.779	1.279	0.992	0.164	2.533	0.759	1.447	0.168
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:24:12	44.159%	1970.000	495.500	484.900	1914.000	1898.000	43.522%	43.870%	
2	16:24:21	44.399%	1926.000	474.500	467.200	1908.000	1868.000	45.353%	45.312%	
3	16:24:31	44.818%	1919.000	471.500	478.000	1918.000	1880.000	46.277%	45.465%	
X		44.458%	1938.000	480.500	476.700	1913.000	1882.000	45.051%	44.882%	
		σ	0.334%	27.300	13.080	8.906	5.346	15.250	1.402%	0.880%
		%RSD	0.751	1.408	2.721	1.868	0.279	0.810	3.111	1.960
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	16:24:12	50.950	52.030	20.740	21.890	21.430	40.877%			
2	16:24:21	55.800	54.710	21.200	20.960	21.160	40.482%			
3	16:24:31	54.890	54.900	22.900	21.200	21.560	39.047%			
X		53.880	53.880	21.620	21.350	21.380	40.135%			
		σ	2.576	1.607	1.139	0.479	0.206	0.963%		
		%RSD	4.781	2.983	5.271	2.245	0.962	2.399		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	84.053%	0.319	25.870	27.610	0.000	82020.000	11480.000	10970.000
2	16:29:26	81.582%	0.372	27.790	27.670	0.000	83640.000	11750.000	11190.000
3	16:29:35	81.033%	0.264	25.880	26.830	0.000	84000.000	11710.000	11230.000
X		82.222%	0.318	26.510	27.370	0.000	83220.000	11640.000	11130.000
σ		1.609%	0.054	1.106	0.465	0.000	1056.000	145.500	139.200
%RSD		1.956	16.850	4.173	1.700	0.000	1.269	1.249	1.250
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	93.450	2557.000	0.000	8347.000	45520.000	46110.000	61.239%	2.465
2	16:29:26	92.980	2629.000	0.000	8505.000	46720.000	46670.000	59.993%	2.323
3	16:29:35	96.220	2618.000	0.000	8517.000	46180.000	46440.000	60.108%	3.451
X		94.220	2601.000	0.000	8456.000	46140.000	46410.000	60.447%	2.746
σ		1.750	38.710	0.000	94.710	605.100	280.200	0.689%	0.614
%RSD		1.858	1.488	0.000	1.120	1.311	0.604	1.140	22.360
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	3.538	10.320	53.460	155.400	363.400	0.376	0.720	6.629
2	16:29:26	16.210	10.350	54.470	159.900	370.200	0.463	0.523	6.038
3	16:29:35	-16.090	10.410	53.630	152.600	344.000	0.378	0.308	5.717
X		1.222	10.360	53.850	156.000	359.200	0.406	0.517	6.128
σ		16.270	0.043	0.541	3.694	13.590	0.049	0.206	0.463
%RSD		1332.000	0.418	1.004	2.369	3.784	12.200	39.780	7.549
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	6.485	4.897	5.213	0.671	-0.045	4.922	0.000	139.700
2	16:29:26	5.864	4.856	6.890	0.755	-0.045	8.697	0.000	139.600
3	16:29:35	5.988	5.295	4.884	0.321	0.474	5.727	0.000	138.200
X		6.112	5.016	5.662	0.583	0.128	6.449	0.000	139.200
σ		0.328	0.242	1.076	0.230	0.300	1.988	0.000	0.860
%RSD		5.374	4.832	19.000	39.480	234.500	30.830	0.000	0.618
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	49.836%	4.404	4.991	44.959%	-0.959	-0.971	-0.011	-0.022
2	16:29:26	49.946%	4.181	4.675	46.066%	-0.961	-1.086	-0.011	0.008
3	16:29:35	51.057%	4.177	3.939	45.905%	-0.913	-1.009	-0.011	-0.022
X		50.280%	4.254	4.535	45.643%	-0.944	-1.022	-0.011	-0.012
σ		0.676%	0.130	0.540	0.598%	0.027	0.058	0.000	0.017
%RSD		1.344	3.060	11.900	1.310	2.908	5.718	0.153	147.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:17	43.888%	0.119	-0.103	-0.080	47.820	42.260	40.039%	40.670%
2	16:29:26	42.997%	-0.228	-0.149	-0.140	54.890	45.220	43.458%	41.991%
3	16:29:35	42.787%	-0.387	-0.124	-0.139	56.440	49.740	44.109%	43.673%
X		43.224%	-0.166	-0.125	-0.120	53.050	45.740	42.535%	42.111%
σ		0.585%	0.259	0.023	0.034	4.597	3.768	2.186%	1.505%
%RSD		1.353	156.500	18.380	28.640	8.666	8.238	5.140	3.575
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:29:17	0.155	0.106	0.695	0.385	0.560	37.701%		
2	16:29:26	0.085	0.121	0.768	0.662	0.684	36.629%		
3	16:29:35	0.143	0.096	0.658	0.724	0.670	36.593%		
X		0.128	0.108	0.707	0.590	0.638	36.975%		
σ		0.038	0.012	0.056	0.181	0.068	0.630%		
%RSD		29.460	11.620	7.932	30.580	10.610	1.703		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	76.618%	0.112	38.120	39.430	0.000	80440.000	20620.000	19850.000	
2	16:34:30	76.584%	0.313	35.530	39.430	0.000	80030.000	20640.000	20050.000	
3	16:34:40	78.401%	0.237	35.470	37.170	0.000	81340.000	21050.000	20250.000	
X		77.201%	0.221	36.370	38.670	0.000	80600.000	20770.000	20050.000	
		$\sigma$	1.039%	0.101	1.512	1.303	0.000	668.900	239.500	204.600
		%RSD	1.346	45.970	4.157	3.370	0.000	0.830	1.153	1.021
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	57.610	4411.000	0.000	6171.000	87850.000	90530.000	61.734%	1.794	
2	16:34:30	57.270	4439.000	0.000	6165.000	88850.000	90780.000	62.192%	1.843	
3	16:34:40	57.910	4386.000	0.000	6237.000	89620.000	91910.000	60.997%	2.673	
X		57.600	4412.000	0.000	6191.000	88770.000	91080.000	61.641%	2.103	
		$\sigma$	0.317	26.700	0.000	40.270	890.000	737.000	0.603%	0.494
		%RSD	0.550	0.605	0.000	0.650	1.003	0.809	0.978	23.500
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	4.272	13.730	14.670	15.020	343.400	0.080	0.096	3.587	
2	16:34:30	17.460	14.100	14.760	15.550	416.200	0.172	0.397	3.934	
3	16:34:40	-14.440	13.590	14.620	14.380	335.000	0.187	0.661	3.721	
X		2.430	13.800	14.690	14.980	364.900	0.146	0.385	3.747	
		$\sigma$	16.030	0.262	0.070	0.585	44.640	0.058	0.283	0.175
		%RSD	659.400	1.900	0.478	3.904	12.230	39.570	73.510	4.670
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	2.922	10.030	9.756	0.380	1.252	7.584	0.000	200.800	
2	16:34:30	3.829	8.661	7.002	0.318	0.472	5.715	0.000	195.700	
3	16:34:40	3.789	9.553	8.013	0.339	0.213	5.122	0.000	193.700	
X		3.513	9.414	8.257	0.346	0.646	6.141	0.000	196.700	
		$\sigma$	0.513	0.693	1.393	0.031	0.541	1.285	0.000	3.639
		%RSD	14.590	7.365	16.870	9.043	83.740	20.920	0.000	1.849
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	50.783%	11.730	10.880	47.594%	-0.980	-1.078	-0.011	0.091	
2	16:34:30	50.941%	11.060	11.070	47.844%	-1.025	-0.943	-0.011	0.093	
3	16:34:40	51.126%	10.800	11.750	47.842%	-0.924	-0.908	-0.011	0.007	
X		50.950%	11.200	11.230	47.760%	-0.976	-0.976	-0.011	0.064	
		$\sigma$	0.172%	0.479	0.459	0.144%	0.051	0.090	0.000	0.049
		%RSD	0.337	4.276	4.086	0.301	5.222	9.196	1.062	77.440
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:34:21	45.404%	-0.615	-0.321	-0.353	43.810	43.900	45.329%	44.601%	
2	16:34:30	44.758%	-0.764	-0.159	-0.323	43.170	44.270	45.233%	44.268%	
3	16:34:40	45.287%	-0.651	-0.298	-0.266	45.780	39.840	43.775%	45.862%	
X		45.150%	-0.676	-0.259	-0.314	44.260	42.670	44.779%	44.910%	
		$\sigma$	0.345%	0.078	0.088	0.044	1.361	2.458	0.871%	0.841%
		%RSD	0.763	11.510	33.780	14.030	3.076	5.760	1.944	1.873
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	16:34:21	0.050	0.025	0.148	0.096	0.143	40.844%			
2	16:34:30	-0.004	0.031	0.162	0.058	0.137	41.465%			
3	16:34:40	0.023	0.003	0.114	0.058	0.133	41.342%			
X		0.023	0.020	0.141	0.070	0.137	41.217%			
		$\sigma$	0.027	0.015	0.025	0.022	0.005	0.329%		
		%RSD	116.500	73.760	17.640	31.110	3.628	0.798		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	76.866%	0.211	25.890	24.970	0.000	77020.000	10190.000	9791.000
2	16:39:35	77.746%	0.207	22.600	23.960	0.000	77740.000	10340.000	10070.000
3	16:39:45	77.936%	0.165	26.420	23.340	0.000	78370.000	10340.000	9923.000
X		77.516%	0.195	24.970	24.090	0.000	77710.000	10290.000	9927.000
σ		0.571%	0.025	2.065	0.826	0.000	679.000	88.940	137.900
%RSD		0.737	13.070	8.269	3.430	0.000	0.874	0.865	1.390
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	116.100	2454.000	0.000	8068.000	40500.000	40350.000	63.454%	1.988
2	16:39:35	118.900	2480.000	0.000	8173.000	41660.000	41040.000	62.497%	2.921
3	16:39:45	116.500	2421.000	0.000	8141.000	40660.000	41030.000	63.131%	2.761
X		117.100	2452.000	0.000	8127.000	40940.000	40810.000	63.027%	2.557
σ		1.549	29.590	0.000	53.830	626.300	397.800	0.487%	0.499
%RSD		1.323	1.207	0.000	0.662	1.530	0.975	0.772	19.510
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	-12.790	9.380	54.240	163.500	266.400	0.349	0.632	5.358
2	16:39:35	-0.328	10.040	54.970	170.600	340.400	0.406	0.743	4.498
3	16:39:45	-3.812	10.130	54.260	165.300	347.800	0.337	0.436	5.135
X		-5.644	9.850	54.490	166.500	318.200	0.364	0.604	4.997
σ		6.430	0.410	0.418	3.726	45.030	0.036	0.156	0.446
%RSD		113.900	4.158	0.766	2.238	14.150	10.020	25.800	8.932
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	4.761	5.516	6.615	0.525	0.208	6.112	0.000	128.200
2	16:39:35	4.909	7.439	6.524	0.824	0.210	6.519	0.000	129.100
3	16:39:45	6.025	7.707	6.956	0.682	0.462	8.881	0.000	125.200
X		5.232	6.887	6.698	0.677	0.294	7.171	0.000	127.500
σ		0.691	1.195	0.228	0.149	0.146	1.495	0.000	2.038
%RSD		13.210	17.350	3.397	22.080	49.780	20.850	0.000	1.599
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	51.867%	3.245	3.553	47.983%	-0.936	-1.018	0.127	0.006
2	16:39:35	51.648%	3.692	3.352	48.202%	-0.971	-1.043	0.058	-0.022
3	16:39:45	51.901%	2.909	3.240	48.379%	-0.971	-1.007	-0.011	-0.022
X		51.805%	3.282	3.381	48.188%	-0.959	-1.023	0.058	-0.012
σ		0.138%	0.393	0.159	0.199%	0.020	0.018	0.069	0.016
%RSD		0.266	11.970	4.701	0.412	2.076	1.793	118.700	131.500
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:39:26	45.973%	-0.507	-0.188	-0.157	44.410	46.460	45.963%	45.947%
2	16:39:35	45.933%	-0.356	-0.121	-0.101	45.340	43.160	46.554%	46.553%
3	16:39:45	45.840%	-0.317	-0.345	-0.073	43.590	42.620	47.260%	45.690%
X		45.915%	-0.393	-0.218	-0.110	44.450	44.080	46.592%	46.063%
σ		0.068%	0.100	0.115	0.043	0.871	2.080	0.649%	0.443%
%RSD		0.148	25.460	52.770	38.530	1.960	4.718	1.394	0.963
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:39:26	0.049	0.036	0.744	0.640	0.726	41.395%		
2	16:39:35	0.009	0.036	0.453	0.512	0.540	41.403%		
3	16:39:45	0.023	0.014	0.732	0.771	0.658	41.190%		
X		0.027	0.029	0.643	0.641	0.642	41.329%		
σ		0.020	0.013	0.165	0.130	0.094	0.121%		
%RSD		74.210	43.770	25.640	20.200	14.690	0.292		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	75.411%	0.277	36.070	37.940	0.000	76240.000	21370.000	20580.000
2	16:44:39	76.361%	0.289	38.800	39.940	0.000	76300.000	21620.000	21000.000
3	16:44:48	76.274%	0.164	34.100	37.240	0.000	76480.000	21480.000	20860.000
X		76.015%	0.243	36.320	38.370	0.000	76340.000	21490.000	20810.000
σ		0.525%	0.069	2.359	1.397	0.000	126.200	126.900	216.600
%RSD		0.691	28.500	6.493	3.639	0.000	0.165	0.591	1.041
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	47.500	4578.000	0.000	6193.000	90540.000	92890.000	62.958%	1.689
2	16:44:39	47.990	4636.000	0.000	6305.000	92670.000	95530.000	62.213%	2.035
3	16:44:48	47.760	4585.000	0.000	6299.000	91870.000	94440.000	62.211%	1.327
X		47.750	4600.000	0.000	6266.000	91690.000	94290.000	62.461%	1.684
σ		0.245	31.600	0.000	62.800	1078.000	1327.000	0.431%	0.354
%RSD		0.513	0.687	0.000	1.002	1.176	1.408	0.690	21.030
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	9.267	12.300	36.500	111.700	445.600	0.275	0.342	4.666
2	16:44:39	-6.314	12.790	37.240	111.500	472.500	0.359	0.249	5.407
3	16:44:48	12.880	12.430	35.830	118.800	494.800	0.264	0.905	4.581
X		5.277	12.510	36.520	114.000	470.900	0.299	0.498	4.885
σ		10.200	0.255	0.703	4.134	24.620	0.052	0.355	0.454
%RSD		193.300	2.037	1.926	3.627	5.227	17.230	71.180	9.294
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	5.861	7.144	7.226	0.713	0.986	8.040	0.000	201.500
2	16:44:39	6.566	8.735	9.308	0.524	1.263	8.637	0.000	207.300
3	16:44:48	5.870	7.683	6.898	0.418	0.214	3.771	0.000	204.700
X		6.099	7.854	7.811	0.552	0.821	6.816	0.000	204.500
σ		0.405	0.809	1.307	0.149	0.544	2.654	0.000	2.884
%RSD		6.632	10.300	16.730	27.080	66.260	38.940	0.000	1.410
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	50.906%	8.462	8.199	46.640%	-0.964	-1.025	0.061	0.008
2	16:44:39	50.131%	8.402	7.398	46.738%	-0.955	-0.954	0.130	0.035
3	16:44:48	50.845%	7.825	8.231	47.456%	-0.944	-0.879	0.060	0.007
X		50.627%	8.230	7.943	46.945%	-0.954	-0.953	0.084	0.017
σ		0.431%	0.352	0.472	0.446%	0.010	0.073	0.040	0.016
%RSD		0.851	4.273	5.940	0.949	1.068	7.669	47.520	95.120
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	43.875%	-0.561	-0.295	-0.292	42.670	42.470	44.301%	43.525%
2	16:44:39	45.507%	-0.653	-0.185	-0.267	44.890	42.060	44.703%	44.621%
3	16:44:48	44.287%	-0.644	-0.273	-0.149	46.700	43.610	45.955%	44.605%
X		44.556%	-0.619	-0.251	-0.236	44.750	42.720	44.986%	44.250%
σ		0.849%	0.051	0.058	0.077	2.019	0.802	0.863%	0.628%
%RSD		1.905	8.234	23.160	32.440	4.512	1.878	1.918	1.420
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:44:29	0.009	0.046	1.424	1.532	1.573	42.502%		
2	16:44:39	0.022	0.030	2.038	1.703	1.881	42.156%		
3	16:44:48	-0.004	0.036	1.852	1.343	1.667	41.642%		
X		0.009	0.037	1.772	1.526	1.707	42.100%		
σ		0.013	0.008	0.315	0.180	0.158	0.433%		
%RSD		139.400	21.590	17.760	11.800	9.229	1.028		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	72.723%	0.161	2.293	3.269	0.000	16210.000	4193.000	3997.000
2	16:49:43	71.488%	0.175	1.289	1.714	0.000	16320.000	4215.000	4052.000
3	16:49:52	73.034%	0.151	-0.934	1.195	0.000	16090.000	4214.000	4048.000
X		72.415%	0.162	0.883	2.059	0.000	16210.000	4208.000	4032.000
σ		0.817%	0.012	1.651	1.079	0.000	112.100	12.450	30.630
%RSD		1.129	7.495	187.100	52.400	0.000	0.692	0.296	0.760
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	9.424	956.600	0.000	1671.000	18330.000	18370.000	65.702%	0.812
2	16:49:43	8.838	971.900	0.000	1691.000	19300.000	18600.000	65.577%	0.142
3	16:49:52	9.239	956.100	0.000	1671.000	19180.000	18360.000	65.756%	0.323
X		9.167	961.500	0.000	1678.000	18940.000	18440.000	65.678%	0.426
σ		0.299	8.969	0.000	11.590	530.000	133.400	0.092%	0.346
%RSD		3.267	0.933	0.000	0.691	2.798	0.723	0.140	81.330
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	-6.513	3.945	7.590	22.680	106.500	0.111	-0.216	1.134
2	16:49:43	0.002	4.062	7.420	21.980	93.350	0.074	0.165	0.865
3	16:49:52	-4.303	4.103	7.270	21.800	71.420	0.172	0.019	0.729
X		-3.605	4.037	7.427	22.150	90.410	0.119	-0.011	0.909
σ		3.313	0.082	0.160	0.464	17.700	0.049	0.193	0.206
%RSD		91.910	2.037	2.153	2.096	19.580	41.390	1781.000	22.640
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	0.180	1.806	1.563	0.033	0.197	0.868	0.000	41.910
2	16:49:43	0.576	2.190	1.769	0.051	0.437	4.407	0.000	41.070
3	16:49:52	0.668	1.021	1.886	0.086	0.192	2.567	0.000	40.830
X		0.475	1.672	1.739	0.057	0.276	2.614	0.000	41.270
σ		0.259	0.596	0.164	0.027	0.140	1.770	0.000	0.570
%RSD		54.640	35.630	9.415	47.590	50.920	67.700	0.000	1.380
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	54.571%	1.802	1.314	53.025%	-0.925	-0.956	-0.011	-0.022
2	16:49:43	54.764%	1.615	1.250	52.734%	-0.976	-0.943	-0.011	-0.022
3	16:49:52	55.814%	1.226	1.357	52.520%	-0.996	-0.987	0.116	0.030
X		55.050%	1.547	1.307	52.760%	-0.966	-0.962	0.031	-0.004
σ		0.669%	0.294	0.054	0.254%	0.036	0.023	0.073	0.030
%RSD		1.215	19.000	4.120	0.481	3.752	2.345	233.500	667.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:49:33	50.304%	-1.000	-0.391	-0.410	6.424	8.204	50.012%	49.197%
2	16:49:43	49.901%	-0.827	-0.412	-0.410	10.110	9.525	50.333%	49.680%
3	16:49:52	49.945%	-0.722	-0.350	-0.332	8.892	10.190	50.192%	49.623%
X		50.050%	-0.850	-0.384	-0.384	8.475	9.307	50.179%	49.500%
σ		0.221%	0.141	0.032	0.045	1.878	1.011	0.161%	0.264%
%RSD		0.441	16.530	8.193	11.670	22.160	10.870	0.321	0.533
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:49:33	0.009	0.008	0.411	0.516	0.397	43.906%		
2	16:49:43	0.009	-0.002	0.289	0.311	0.303	43.890%		
3	16:49:52	0.046	0.008	0.516	0.361	0.400	43.981%		
X		0.021	0.005	0.405	0.396	0.367	43.926%		
σ		0.021	0.006	0.114	0.107	0.055	0.048%		
%RSD		101.500	129.900	28.080	27.060	14.920	0.110		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	79.395%	47.350	983.800	983.200	0.000	135300.000	76700.000	74270.000
2	16:54:46	80.024%	49.120	1009.000	997.600	0.000	139600.000	79380.000	76570.000
3	16:54:55	79.351%	48.160	989.900	1014.000	0.000	137600.000	78270.000	75980.000
X		79.590%	48.210	994.200	998.300	0.000	137500.000	78120.000	75600.000
σ		0.377%	0.888	13.020	15.350	0.000	2154.000	1350.000	1196.000
%RSD		0.473	1.842	1.310	1.537	0.000	1.567	1.729	1.582
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	2236.000	15060.000	0.000	55380.000	140200.000	146900.000	64.490%	995.500
2	16:54:46	2331.000	15320.000	0.000	57350.000	144100.000	150900.000	63.449%	1028.000
3	16:54:55	2303.000	15320.000	0.000	56320.000	143000.000	147500.000	64.423%	1029.000
X		2290.000	15230.000	0.000	56350.000	142500.000	148400.000	64.121%	1018.000
σ		48.890	149.700	0.000	984.000	2004.000	2144.000	0.583%	19.170
%RSD		2.135	0.983	0.000	1.746	1.407	1.444	0.909	1.884
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	482.900	198.800	491.100	1042.000	1549.000	479.800	479.000	258.400
2	16:54:46	504.700	203.500	513.800	1099.000	1702.000	498.600	498.000	258.700
3	16:54:55	494.100	199.600	505.800	1059.000	1555.000	491.500	499.100	265.500
X		493.900	200.600	503.600	1067.000	1602.000	489.900	492.000	260.900
σ		10.920	2.529	11.540	29.470	86.640	9.478	11.290	3.990
%RSD		2.210	1.260	2.292	2.763	5.408	1.935	2.295	1.529
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	268.500	488.700	472.100	39.130	10.200	18.290	0.000	1191.000
2	16:54:46	268.500	503.800	495.200	39.100	12.970	16.150	0.000	1201.000
3	16:54:55	272.500	479.100	484.300	41.350	12.410	17.550	0.000	1184.000
X		269.800	490.500	483.900	39.860	11.860	17.330	0.000	1192.000
σ		2.312	12.460	11.580	1.290	1.462	1.084	0.000	8.372
%RSD		0.857	2.541	2.393	3.235	12.330	6.252	0.000	0.702
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	50.989%	1064.000	1092.000	46.277%	50.650	50.260	54.010	85.150
2	16:54:46	51.476%	1076.000	1100.000	46.715%	51.300	51.090	54.120	86.030
3	16:54:55	51.517%	1077.000	1115.000	46.703%	51.080	49.250	51.190	84.880
X		51.327%	1072.000	1102.000	46.565%	51.010	50.200	53.110	85.350
σ		0.294%	7.140	11.550	0.249%	0.330	0.921	1.663	0.602
%RSD		0.573	0.666	1.048	0.535	0.646	1.834	3.131	0.706
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:54:37	43.117%	1978.000	474.000	476.600	1911.000	1896.000	44.265%	44.043%
2	16:54:46	43.311%	2033.000	510.400	508.400	2023.000	1988.000	43.896%	43.673%
3	16:54:55	43.801%	1970.000	498.400	502.000	1995.000	1956.000	45.502%	45.702%
X		43.410%	1993.000	494.300	495.700	1976.000	1946.000	44.554%	44.473%
σ		0.353%	34.050	18.530	16.800	57.920	46.590	0.841%	1.080%
%RSD		0.813	1.708	3.749	3.390	2.931	2.394	1.888	2.429
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:54:37	55.830	55.940	24.120	26.490	24.800	37.095%		
2	16:54:46	52.180	51.160	22.910	24.300	23.690	38.734%		
3	16:54:55	56.520	55.600	25.870	23.620	24.700	36.542%		
X		54.840	54.230	24.300	24.800	24.390	37.457%		
σ		2.331	2.665	1.487	1.502	0.616	1.140%		
%RSD		4.250	4.914	6.119	6.058	2.526	3.042		



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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	75.484%	50.400	1020.000	1022.000	0.000	135100.000	76500.000	74180.000
2	16:59:50	76.549%	48.560	1006.000	1017.000	0.000	134100.000	75730.000	73700.000
3	16:59:59	74.171%	50.660	1035.000	1039.000	0.000	131800.000	75740.000	73050.000
X		75.401%	49.870	1020.000	1026.000	0.000	133700.000	75990.000	73640.000
		1.191%	1.144	14.560	11.750	0.000	1714.000	440.700	568.400
		1.580	2.294	1.427	1.146	0.000	1.282	0.580	0.772
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	2230.000	15050.000	0.000	56780.000	142300.000	145500.000	63.001%	1006.000
2	16:59:50	2220.000	14980.000	0.000	56420.000	140100.000	144800.000	63.864%	1008.000
3	16:59:59	2206.000	14980.000	0.000	55420.000	140500.000	142000.000	64.017%	985.700
X		2219.000	15000.000	0.000	56210.000	141000.000	144100.000	63.628%	999.800
		11.990	43.550	0.000	706.200	1201.000	1832.000	0.548%	12.310
		0.540	0.290	0.000	1.256	0.852	1.272	0.861	1.231
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	474.500	195.000	490.400	964.300	1518.000	489.900	494.500	260.300
2	16:59:50	481.900	194.300	491.100	934.600	1533.000	477.400	478.900	253.200
3	16:59:59	477.000	197.900	483.600	962.400	1579.000	488.200	483.400	260.500
X		477.800	195.700	488.400	953.800	1543.000	485.200	485.600	258.000
		3.788	1.904	4.132	16.650	31.800	6.773	8.008	4.172
		0.793	0.973	0.846	1.746	2.060	1.396	1.649	1.617
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	264.900	476.600	476.200	39.730	9.756	13.530	0.000	1140.000
2	16:59:50	261.100	482.300	468.800	40.200	7.233	13.160	0.000	1165.000
3	16:59:59	264.300	490.600	493.500	39.640	9.775	16.900	0.000	1166.000
X		263.400	483.200	479.500	39.860	8.921	14.530	0.000	1157.000
		2.063	7.031	12.700	0.301	1.462	2.063	0.000	14.600
		0.783	1.455	2.649	0.756	16.390	14.200	0.000	1.262
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	52.588%	1059.000	1087.000	48.500%	49.110	49.270	51.400	83.470
2	16:59:50	52.478%	1047.000	1089.000	48.595%	51.110	50.980	50.190	85.010
3	16:59:59	52.224%	1068.000	1096.000	49.134%	49.760	49.760	51.970	85.340
X		52.430%	1058.000	1091.000	48.743%	49.990	50.000	51.190	84.610
		0.187%	10.510	5.047	0.342%	1.019	0.879	0.911	0.999
		0.356	0.993	0.463	0.702	2.039	1.758	1.779	1.181
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:41	45.729%	1913.000	470.200	476.800	1867.000	1867.000	47.662%	47.260%
2	16:59:50	45.544%	1932.000	478.600	476.900	1897.000	1907.000	46.991%	48.402%
3	16:59:59	45.778%	1933.000	470.000	483.500	1913.000	1885.000	48.734%	47.494%
X		45.683%	1926.000	472.900	479.100	1892.000	1886.000	47.796%	47.719%
		0.123%	11.170	4.893	3.813	23.470	20.070	0.879%	0.603%
		0.270	0.580	1.035	0.796	1.240	1.064	1.839	1.264
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:59:41	58.050	55.750	24.220	23.100	23.960	39.944%		
2	16:59:50	56.740	55.440	23.140	22.450	23.230	41.807%		
3	16:59:59	54.150	54.870	24.090	22.830	22.760	41.835%		
X		56.310	55.360	23.820	22.790	23.320	41.195%		
		1.986	0.445	0.592	0.327	0.606	1.084%		
		3.526	0.804	2.484	1.436	2.598	2.631		

180-46875-B-12-A PDS

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	75.315%	52.360	1074.000	1081.000	0.000	133900.000	77220.000	75270.000	
2	17:04:56	74.074%	53.800	1089.000	1108.000	0.000	131300.000	76740.000	75260.000	
3	17:05:05	73.580%	53.750	1091.000	1113.000	0.000	131600.000	77080.000	75270.000	
X		74.323%	53.300	1085.000	1101.000	0.000	132300.000	77010.000	75270.000	
		σ	0.894%	0.814	8.965	16.790	0.000	1411.000	249.200	6.644
		%RSD	1.202	1.527	0.827	1.525	0.000	1.067	0.324	0.009
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	2388.000	15590.000	0.000	58990.000	140400.000	143900.000	64.197%	1057.000	
2	17:04:56	2368.000	15660.000	0.000	58560.000	141800.000	143200.000	64.419%	1048.000	
3	17:05:05	2367.000	15620.000	0.000	58290.000	141000.000	142800.000	64.506%	1050.000	
X		2374.000	15620.000	0.000	58610.000	141100.000	143300.000	64.374%	1052.000	
		σ	11.620	31.320	0.000	350.300	744.200	551.300	0.159%	4.809
		%RSD	0.489	0.201	0.000	0.598	0.528	0.385	0.247	0.457
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	528.000	210.700	511.600	1042.000	1612.000	513.000	497.200	267.200	
2	17:04:56	529.600	211.500	516.100	1045.000	1628.000	510.800	515.800	271.200	
3	17:05:05	513.700	208.600	516.200	1025.000	1531.000	511.400	525.200	269.800	
X		523.800	210.300	514.600	1037.000	1590.000	511.700	512.700	269.400	
		σ	8.735	1.482	2.583	11.020	52.170	1.154	14.220	2.059
		%RSD	1.668	0.705	0.502	1.063	3.281	0.226	2.773	0.764
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	278.600	528.300	503.300	41.640	11.860	12.230	0.000	1230.000	
2	17:04:56	271.600	499.000	524.000	40.690	9.916	16.250	0.000	1221.000	
3	17:05:05	273.000	500.400	499.600	43.410	13.220	12.520	0.000	1192.000	
X		274.400	509.300	508.900	41.910	11.660	13.670	0.000	1214.000	
		σ	3.685	16.510	13.160	1.382	1.658	2.243	0.000	19.750
		%RSD	1.343	3.241	2.586	3.297	14.220	16.410	0.000	1.627
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	51.785%	1131.000	1141.000	48.112%	53.660	53.180	55.220	90.640	
2	17:04:56	52.876%	1116.000	1131.000	48.288%	51.900	53.640	51.650	91.650	
3	17:05:05	53.809%	1107.000	1131.000	48.695%	51.660	52.520	52.710	90.590	
X		52.823%	1118.000	1134.000	48.365%	52.410	53.110	53.190	90.960	
		σ	1.013%	12.180	5.924	0.299%	1.093	0.560	1.834	0.595
		%RSD	1.918	1.089	0.522	0.619	2.085	1.055	3.448	0.654
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:04:46	44.705%	2092.000	519.400	512.700	2073.000	2009.000	46.702%	45.316%	
2	17:04:56	45.858%	2071.000	511.800	509.700	2074.000	2000.000	46.409%	45.907%	
3	17:05:05	46.264%	2040.000	511.500	509.300	2045.000	1994.000	47.598%	47.385%	
X		45.609%	2068.000	514.300	510.600	2064.000	2001.000	46.903%	46.203%	
		σ	0.808%	26.050	4.476	1.844	16.500	7.679	0.619%	1.066%
		%RSD	1.773	1.260	0.870	0.361	0.799	0.384	1.320	2.307
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:04:46	53.860	55.020	24.850	25.630	24.550	42.853%			
2	17:04:56	55.900	53.620	24.010	24.870	24.370	43.091%			
3	17:05:05	55.330	53.600	25.070	23.650	23.760	42.553%			
X		55.030	54.080	24.640	24.710	24.230	42.833%			
		σ	1.056	0.816	0.556	1.000	0.414	0.270%		
		%RSD	1.918	1.509	2.257	4.045	1.708	0.630		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	75.804%	101.900	100.700	102.500	0.000	61820.000	54170.000	52460.000
2	17:09:58	75.948%	97.890	98.630	101.600	0.000	59370.000	52750.000	51180.000
3	17:10:08	75.399%	104.200	100.800	106.300	0.000	61320.000	54420.000	52990.000
X		75.717%	101.331%	100.049%	103.442%	0.000	121.668%	107.562%	104.417%
σ		0.285%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.376	3.170	1.231	2.404	0.000	2.131	1.672	1.783
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	537.200	5462.000	0.000	50550.000	48650.000	48680.000	66.489%	105.000
2	17:09:58	528.000	5370.000	0.000	49420.000	47420.000	47560.000	67.122%	94.950
3	17:10:08	544.300	5509.000	0.000	51080.000	49370.000	48980.000	66.372%	103.700
X		107.302%	108.939%	0.000	100.706%	96.953%	96.809%	66.661%	101.223%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.404%	n/a
%RSD		1.522	1.302	0.000	1.685	2.029	1.549	0.606	5.405
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	101.900	98.220	463.900	24790.000	24720.000	98.180	99.480	100.800
2	17:09:58	92.690	94.470	449.900	23940.000	24510.000	98.840	98.140	102.600
3	17:10:08	98.810	97.440	467.700	24310.000	23670.000	98.220	100.800	97.390
X		97.788%	96.709%	92.100%	97.399%	97.190%	98.413%	99.470%	100.247%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.773	2.050	2.045	1.753	2.289	0.375	1.338	2.626
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	100.500	106.000	109.000	97.860	104.400	107.100	0.000	99.180
2	17:09:58	108.600	99.850	103.300	100.800	102.600	115.600	0.000	100.200
3	17:10:08	103.700	95.760	95.240	98.650	90.330	104.800	0.000	101.200
X		104.268%	100.536%	102.490%	99.093%	99.088%	109.164%	0.000	100.188%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.918	5.130	6.731	1.511	7.710	5.201	0.000	0.991
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	54.935%	104.000	105.900	51.086%	101.400	101.900	100.600	102.200
2	17:09:58	55.697%	105.200	105.300	51.977%	100.100	102.900	97.270	102.800
3	17:10:08	57.503%	102.100	105.700	51.867%	102.300	101.900	99.300	102.500
X		56.045%	103.766%	105.640%	51.643%	101.286%	102.205%	99.057%	102.496%
σ		1.319%	n/a	n/a	0.486%	n/a	n/a	n/a	n/a
%RSD		2.353	1.511	0.286	0.940	1.119	0.549	1.692	0.304
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:49	49.364%	101.700	97.010	95.520	93.510	94.500	48.039%	46.228%
2	17:09:58	48.885%	98.900	100.600	96.770	96.530	95.440	49.795%	48.498%
3	17:10:08	49.674%	100.300	96.480	95.380	102.500	93.140	48.011%	47.630%
X		49.308%	100.286%	98.022%	95.891%	97.509%	94.362%	48.615%	47.452%
σ		0.398%	n/a	n/a	n/a	n/a	n/a	1.022%	1.145%
%RSD		0.807	1.394	2.275	0.794	4.681	1.225	2.101	2.414
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:09:49	101.500	101.000	102.400	104.300	103.600	45.237%		
2	17:09:58	110.500	110.700	106.900	107.100	106.100	42.902%		
3	17:10:08	103.300	104.300	102.300	103.200	103.600	46.406%		
X		105.083%	105.306%	103.871%	104.876%	104.405%	44.848%		
σ		n/a	n/a	n/a	n/a	n/a	1.784%		
%RSD		4.537	4.708	2.553	1.940	1.377	3.978		

CCB5 8/21/2015 5:19:37 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	17:18:41	73.036%	0.300	-2.249	-1.753	0.000	855.800	24.850	21.320	
2	17:18:50	73.214%	0.237	-3.995	-2.984	0.000	844.800	23.850	21.180	
3	17:19:00	75.430%	0.235	-4.664	-3.094	0.000	849.200	22.130	20.530	
X		73.893%	0.257	-3.636	-2.610	0.000	850.000	23.610	21.010	
		σ	1.334%	0.037	1.247	0.745	0.000	5.558	1.378	0.423
		%RSD	1.805	14.280	34.300	28.520	0.000	0.654	5.838	2.014
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:41	0.333	59.800	0.000	452.000	29.050	52.800	68.169%	0.124	
2	17:18:50	0.328	58.090	0.000	431.500	19.410	46.560	69.155%	0.117	
3	17:19:00	1.773	55.450	0.000	427.100	43.330	54.430	68.711%	0.062	
X		0.811	57.780	0.000	436.900	30.590	51.260	68.678%	0.101	
		σ	0.833	2.193	0.000	13.280	12.030	4.151	0.494%	0.034
		%RSD	102.600	3.795	0.000	3.039	39.340	8.097	0.719	33.800
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:41	5.611	1.522	0.239	5.284	-0.393	0.011	-0.175	-0.950	
2	17:18:50	3.583	1.758	0.202	4.999	2.680	0.034	-0.176	-1.094	
3	17:19:00	-0.633	1.860	0.254	4.609	11.990	0.058	-0.267	-1.051	
X		2.854	1.713	0.232	4.964	4.758	0.034	-0.206	-1.031	
		σ	3.185	0.174	0.027	0.339	6.446	0.023	0.053	0.074
		%RSD	111.600	10.140	11.650	6.826	135.500	67.810	25.640	7.164
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:41	-0.787	0.836	0.793	0.010	0.185	3.392	0.000	-0.010	
2	17:18:50	-1.097	0.464	0.293	-0.008	0.414	0.454	0.000	-0.010	
3	17:19:00	-1.141	0.241	0.190	-0.027	0.181	1.652	0.000	-0.010	
X		-1.008	0.514	0.425	-0.008	0.260	1.832	0.000	-0.010	
		σ	0.193	0.301	0.323	0.018	0.134	1.477	0.000	0.000
		%RSD	19.120	58.560	75.830	219.900	51.400	80.630	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:41	57.551%	0.463	0.397	53.536%	-0.927	-0.968	-0.011	0.004	
2	17:18:50	57.461%	0.460	0.611	54.222%	-0.919	-0.894	-0.011	0.029	
3	17:19:00	58.793%	0.166	0.257	54.278%	-0.971	-1.026	0.050	-0.022	
X		57.935%	0.363	0.422	54.012%	-0.939	-0.963	0.009	0.004	
		σ	0.745%	0.171	0.178	0.413%	0.028	0.066	0.035	0.025
		%RSD	1.285	47.040	42.210	0.765	2.994	6.879	373.300	664.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:41	50.514%	-0.690	-0.165	-0.072	0.000	0.000	46.770%	45.758%	
2	17:18:50	50.436%	-0.897	-0.227	0.030	0.000	0.000	48.031%	46.577%	
3	17:19:00	51.878%	-0.766	-0.292	-0.233	0.000	0.165	48.309%	47.514%	
X		50.943%	-0.784	-0.228	-0.092	0.000	0.055	47.704%	46.616%	
		σ	0.811%	0.105	0.064	0.133	0.000	0.095	0.820%	0.878%
		%RSD	1.592	13.370	27.910	144.300	0.000	173.200	1.719	1.885
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:18:41	0.060	0.003	-0.016	0.003	0.002	42.439%			
2	17:18:50	0.035	0.030	0.016	-0.015	0.017	42.340%			
3	17:19:00	0.049	0.047	0.001	0.003	0.010	40.908%			
X		0.048	0.027	0.000	-0.003	0.010	41.896%			
		σ	0.013	0.022	0.016	0.010	0.008	0.857%		
		%RSD	26.710	83.390	7235.000	338.400	79.320	2.045		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	78.499%	0.139	11.320	12.720	0.000	61090.000	12830.000	12250.000
2	17:23:57	81.347%	0.168	11.600	10.730	0.000	61130.000	12810.000	12370.000
3	17:24:07	83.997%	0.189	8.801	10.350	0.000	59660.000	12720.000	12360.000
X		81.281%	0.165	10.570	11.270	0.000	60620.000	12790.000	12330.000
σ		2.750%	0.025	1.543	1.276	0.000	836.300	55.110	68.290
%RSD		3.383	15.340	14.590	11.330	0.000	1.380	0.431	0.554
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	35.270	2638.000	0.000	3486.000	55900.000	57210.000	65.029%	2.363
2	17:23:57	37.090	2650.000	0.000	3497.000	56710.000	57430.000	65.064%	1.931
3	17:24:07	36.050	2589.000	0.000	3493.000	57230.000	57680.000	64.839%	1.383
X		36.140	2626.000	0.000	3492.000	56610.000	57440.000	64.977%	1.892
σ		0.912	31.900	0.000	5.687	670.300	237.800	0.121%	0.491
%RSD		2.525	1.215	0.000	0.163	1.184	0.414	0.186	25.960
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	4.153	9.280	11.670	88.850	317.900	0.277	0.366	5.658
2	17:23:57	-18.140	10.090	11.920	88.340	281.700	0.263	0.411	4.837
3	17:24:07	-9.947	9.598	11.430	87.830	267.000	0.336	0.310	5.093
X		-7.979	9.656	11.680	88.340	288.900	0.292	0.363	5.196
σ		11.280	0.408	0.246	0.508	26.200	0.039	0.051	0.420
%RSD		141.300	4.227	2.102	0.575	9.070	13.250	13.950	8.078
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	5.404	3.097	3.790	0.415	0.696	3.656	0.000	192.700
2	17:23:57	4.712	3.933	4.006	0.542	0.689	5.375	0.000	187.600
3	17:24:07	5.280	3.887	4.299	0.587	0.195	2.226	0.000	190.000
X		5.132	3.639	4.032	0.515	0.527	3.753	0.000	190.100
σ		0.369	0.470	0.256	0.089	0.287	1.577	0.000	2.532
%RSD		7.188	12.920	6.345	17.350	54.560	42.030	0.000	1.332
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	53.254%	0.944	1.204	49.639%	-0.954	-1.000	0.056	0.005
2	17:23:57	53.926%	0.967	0.949	50.480%	-0.968	-0.957	-0.011	0.112
3	17:24:07	55.285%	0.986	0.633	50.942%	-1.077	-1.018	-0.011	0.185
X		54.155%	0.966	0.929	50.354%	-1.000	-0.992	0.011	0.101
σ		1.035%	0.021	0.286	0.661%	0.067	0.031	0.039	0.090
%RSD		1.911	2.135	30.830	1.312	6.710	3.162	338.700	89.640
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:48	47.566%	-0.231	0.196	0.081	42.870	46.640	46.513%	46.650%
2	17:23:57	48.101%	-0.421	0.232	0.102	39.580	45.480	47.634%	48.482%
3	17:24:07	49.787%	-0.371	0.254	-0.149	41.690	45.290	48.023%	46.714%
X		48.485%	-0.341	0.227	0.012	41.380	45.800	47.390%	47.282%
σ		1.160%	0.099	0.029	0.139	1.664	0.729	0.784%	1.040%
%RSD		2.392	28.880	12.690	1202.000	4.021	1.593	1.654	2.199
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:23:48	0.034	0.034	0.599	0.296	0.475	43.657%		
2	17:23:57	0.061	0.030	0.493	0.379	0.395	42.018%		
3	17:24:07	0.058	0.003	0.496	0.374	0.368	44.636%		
X		0.051	0.022	0.529	0.349	0.413	43.437%		
σ		0.015	0.017	0.060	0.046	0.055	1.323%		
%RSD		28.960	76.270	11.410	13.290	13.350	3.045		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	79.330%	0.378	12.390	13.240	0.000	107800.000	20120.000	19600.000
2	17:29:00	80.398%	0.371	12.050	12.010	0.000	109600.000	20600.000	19930.000
3	17:29:10	79.206%	0.411	11.010	13.080	0.000	109200.000	20610.000	19920.000
X		79.645%	0.387	11.820	12.780	0.000	108900.000	20440.000	19820.000
σ		0.655%	0.021	0.716	0.671	0.000	964.500	284.000	190.100
%RSD		0.823	5.534	6.063	5.249	0.000	0.886	1.389	0.959
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	1784.000	5361.000	0.000	3729.000	114500.000	118200.000	66.318%	12.210
2	17:29:00	1814.000	5422.000	0.000	3780.000	117100.000	120600.000	65.566%	14.250
3	17:29:10	1818.000	5436.000	0.000	3809.000	119400.000	120800.000	65.077%	12.940
X		1805.000	5406.000	0.000	3773.000	117000.000	119900.000	65.654%	13.140
σ		18.990	39.830	0.000	40.600	2469.000	1450.000	0.625%	1.032
%RSD		1.052	0.737	0.000	1.076	2.110	1.210	0.952	7.857
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	-14.720	11.050	196.200	3429.000	4026.000	5.567	3.878	16.370
2	17:29:00	15.880	11.750	198.400	3618.000	4399.000	6.370	4.493	17.720
3	17:29:10	-9.995	11.660	199.400	3508.000	4219.000	5.920	4.625	16.580
X		-2.946	11.490	198.000	3518.000	4215.000	5.952	4.332	16.890
σ		16.470	0.379	1.641	94.910	186.700	0.402	0.399	0.724
%RSD		559.200	3.296	0.829	2.698	4.431	6.760	9.204	4.287
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	16.300	88.180	83.160	2.000	1.117	9.081	0.000	147.400
2	17:29:00	18.550	91.670	88.770	2.098	1.837	5.297	0.000	149.000
3	17:29:10	16.740	88.160	89.040	1.842	1.117	4.804	0.000	152.000
X		17.200	89.330	86.990	1.980	1.357	6.394	0.000	149.400
σ		1.195	2.022	3.321	0.129	0.416	2.340	0.000	2.322
%RSD		6.952	2.264	3.818	6.524	30.640	36.600	0.000	1.554
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	57.297%	0.185	0.106	49.215%	-1.019	-0.999	0.258	0.330
2	17:29:00	56.583%	0.111	0.201	49.106%	-0.974	-1.069	0.329	0.225
3	17:29:10	57.599%	0.222	0.105	49.198%	-1.030	-1.011	0.326	0.223
X		57.159%	0.173	0.137	49.173%	-1.008	-1.026	0.304	0.259
σ		0.522%	0.056	0.055	0.058%	0.030	0.037	0.040	0.061
%RSD		0.913	32.600	40.240	0.119	2.938	3.625	13.190	23.590
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:28:51	47.434%	-0.633	-0.173	-0.219	80.240	84.830	47.658%	49.258%
2	17:29:00	46.752%	-0.405	-0.258	-0.245	88.670	87.000	47.883%	47.795%
3	17:29:10	47.204%	-0.778	-0.195	-0.192	87.710	89.560	48.879%	48.084%
X		47.130%	-0.605	-0.209	-0.219	85.540	87.130	48.140%	48.379%
σ		0.347%	0.188	0.044	0.026	4.614	2.364	0.650%	0.775%
%RSD		0.736	31.080	21.180	12.010	5.394	2.713	1.350	1.601
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:28:51	0.060	0.046	41.200	37.300	38.310	42.046%		
2	17:29:00	0.022	0.067	41.240	36.210	38.100	42.003%		
3	17:29:10	0.072	0.051	40.470	37.120	38.510	42.608%		
X		0.052	0.055	40.970	36.880	38.310	42.219%		
σ		0.026	0.011	0.435	0.582	0.203	0.337%		
%RSD		50.950	20.780	1.060	1.579	0.529	0.799		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	79.780%	0.078	26.240	25.270	0.000	76870.000	11450.000	11010.000
2	17:34:06	79.397%	0.160	24.140	25.600	0.000	76400.000	11540.000	11150.000
3	17:34:16	79.148%	0.136	24.380	24.330	0.000	76270.000	11560.000	11120.000
X		79.442%	0.125	24.920	25.060	0.000	76520.000	11520.000	11100.000
σ		0.319%	0.042	1.152	0.659	0.000	314.000	53.580	73.460
%RSD		0.401	33.760	4.623	2.631	0.000	0.410	0.465	0.662
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	129.900	2517.000	0.000	7983.000	43620.000	43020.000	64.132%	3.587
2	17:34:06	137.200	2531.000	0.000	8053.000	43740.000	44150.000	63.405%	3.632
3	17:34:16	134.100	2528.000	0.000	8073.000	43920.000	43870.000	63.429%	2.115
X		133.700	2525.000	0.000	8036.000	43760.000	43680.000	63.656%	3.111
σ		3.654	7.603	0.000	47.350	151.700	587.400	0.413%	0.863
%RSD		2.732	0.301	0.000	0.589	0.347	1.345	0.649	27.730
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	9.189	12.580	56.110	193.300	397.900	0.529	0.729	4.869
2	17:34:06	29.100	13.420	56.380	192.700	330.400	0.490	0.926	4.441
3	17:34:16	25.020	12.940	56.360	193.300	419.800	0.397	0.475	3.980
X		21.100	12.980	56.280	193.100	382.700	0.472	0.710	4.430
σ		10.520	0.419	0.149	0.343	46.580	0.068	0.227	0.445
%RSD		49.840	3.229	0.264	0.178	12.170	14.360	31.890	10.040
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	5.010	10.350	11.760	0.920	0.210	5.083	0.000	130.500
2	17:34:06	4.690	10.700	10.410	0.831	0.458	10.240	0.000	126.900
3	17:34:16	4.462	10.270	9.725	1.009	0.451	10.560	0.000	123.100
X		4.721	10.440	10.630	0.920	0.373	8.628	0.000	126.800
σ		0.275	0.227	1.034	0.089	0.141	3.074	0.000	3.689
%RSD		5.835	2.172	9.722	9.695	37.890	35.630	0.000	2.908
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	51.332%	3.809	3.116	48.700%	-0.938	-0.971	0.058	0.174
2	17:34:06	52.368%	3.738	3.323	49.459%	-0.975	-1.022	0.057	0.006
3	17:34:16	53.377%	4.013	3.493	49.408%	-0.964	-0.917	0.192	-0.022
X		52.359%	3.853	3.311	49.189%	-0.959	-0.970	0.102	0.053
σ		1.023%	0.143	0.189	0.424%	0.019	0.053	0.078	0.106
%RSD		1.953	3.712	5.711	0.863	1.974	5.448	76.000	200.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:57	45.820%	-0.239	-0.232	0.015	41.020	43.760	45.032%	44.292%
2	17:34:06	46.993%	-0.518	-0.149	-0.162	38.050	45.360	47.003%	46.304%
3	17:34:16	46.998%	-0.703	-0.083	-0.135	41.560	41.420	47.188%	45.649%
X		46.604%	-0.487	-0.155	-0.094	40.210	43.510	46.408%	45.415%
σ		0.678%	0.234	0.074	0.095	1.893	1.980	1.195%	1.027%
%RSD		1.456	48.020	48.090	101.200	4.709	4.550	2.575	2.260
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:33:57	0.047	0.024	1.394	1.273	1.249	43.422%		
2	17:34:06	0.035	0.008	1.282	0.893	1.074	42.316%		
3	17:34:16	0.009	0.024	1.339	1.127	1.216	43.620%		
X		0.030	0.019	1.338	1.098	1.180	43.119%		
σ		0.019	0.009	0.056	0.192	0.093	0.703%		
%RSD		64.270	47.650	4.189	17.460	7.847	1.630		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	77.486%	0.093	103.300	107.300	0.000	99760.000	14070.000	13560.000	
2	17:39:13	76.630%	0.145	110.500	103.500	0.000	98750.000	13910.000	13530.000	
3	17:39:22	76.926%	0.119	100.200	105.200	0.000	99560.000	14070.000	13760.000	
X		77.014%	0.119	104.700	105.400	0.000	99360.000	14020.000	13620.000	
		$\sigma$	0.435%	0.026	5.271	1.920	0.000	537.900	89.260	126.400
		%RSD	0.564	22.130	5.036	1.822	0.000	0.541	0.637	0.928
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	215.500	4152.000	0.000	17630.000	76110.000	77020.000	65.255%	3.581	
2	17:39:13	214.500	4139.000	0.000	17620.000	75780.000	77130.000	64.987%	3.905	
3	17:39:22	218.700	4171.000	0.000	17810.000	78120.000	78050.000	64.239%	4.328	
X		216.200	4154.000	0.000	17690.000	76670.000	77400.000	64.827%	3.938	
		$\sigma$	2.201	16.060	0.000	107.400	1269.000	564.700	0.527%	0.375
		%RSD	1.018	0.387	0.000	0.607	1.655	0.730	0.812	9.522
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	16.880	10.720	66.280	347.800	624.800	1.246	1.430	8.340	
2	17:39:13	18.620	11.750	66.550	346.000	709.500	0.857	1.820	7.974	
3	17:39:22	-8.551	12.110	67.530	347.300	624.900	0.761	1.636	7.882	
X		8.982	11.530	66.790	347.000	653.100	0.955	1.629	8.065	
		$\sigma$	15.210	0.721	0.658	0.908	48.850	0.257	0.196	0.242
		%RSD	169.300	6.253	0.985	0.262	7.480	26.910	12.000	3.003
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	9.202	43.180	39.510	0.681	0.449	8.222	0.000	188.200	
2	17:39:13	8.363	40.790	41.450	0.889	0.696	6.816	0.000	191.200	
3	17:39:22	8.431	40.880	42.790	0.604	0.201	6.795	0.000	189.300	
X		8.665	41.620	41.250	0.725	0.449	7.278	0.000	189.600	
		$\sigma$	0.466	1.357	1.647	0.148	0.247	0.818	0.000	1.530
		%RSD	5.382	3.261	3.992	20.400	55.120	11.230	0.000	0.807
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	53.185%	20.130	22.770	50.110%	-0.967	-0.910	0.188	0.112	
2	17:39:13	53.288%	22.210	22.940	50.359%	-0.947	-1.015	0.055	0.243	
3	17:39:22	53.624%	22.240	23.220	49.818%	-0.988	-1.001	0.256	0.140	
X		53.366%	21.530	22.970	50.096%	-0.967	-0.975	0.166	0.165	
		$\sigma$	0.230%	1.210	0.227	0.271%	0.020	0.057	0.102	0.069
		%RSD	0.430	5.621	0.989	0.541	2.100	5.844	61.650	41.720
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:39:03	48.042%	-0.601	0.126	0.022	37.760	39.060	46.991%	46.397%	
2	17:39:13	48.572%	-0.571	0.076	0.202	38.690	40.310	48.614%	47.172%	
3	17:39:22	47.591%	-0.634	0.151	0.187	39.770	40.750	47.754%	47.682%	
X		48.068%	-0.602	0.118	0.137	38.740	40.040	47.786%	47.084%	
		$\sigma$	0.491%	0.032	0.038	0.100	1.005	0.873	0.812%	0.647%
		%RSD	1.021	5.271	32.430	72.640	2.595	2.180	1.699	1.375
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:39:03	0.107	0.013	11.050	10.010	10.240	44.427%			
2	17:39:13	0.081	0.018	9.640	10.370	10.120	44.932%			
3	17:39:22	-0.004	0.003	11.260	10.750	10.770	43.303%			
X		0.062	0.011	10.650	10.380	10.380	44.221%			
		$\sigma$	0.058	0.008	0.881	0.371	0.347	0.834%		
		%RSD	94.050	67.620	8.269	3.575	3.343	1.886		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	77.470%	0.151	33.850	33.400	0.000	78410.000	10450.000	10090.000
2	17:44:18	79.009%	0.088	30.050	29.210	0.000	78010.000	10650.000	10410.000
3	17:44:27	77.509%	0.134	29.890	31.590	0.000	80350.000	10850.000	10510.000
X		77.996%	0.124	31.260	31.400	0.000	78920.000	10650.000	10340.000
σ		0.878%	0.032	2.240	2.100	0.000	1250.000	199.300	216.300
%RSD		1.125	26.000	7.165	6.689	0.000	1.584	1.871	2.092
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	249.300	2682.000	0.000	8896.000	42320.000	42020.000	66.205%	4.189
2	17:44:18	252.000	2680.000	0.000	8945.000	43080.000	42600.000	64.969%	4.522
3	17:44:27	256.800	2732.000	0.000	9183.000	43530.000	43350.000	64.166%	5.332
X		252.700	2698.000	0.000	9008.000	42980.000	42660.000	65.113%	4.681
σ		3.781	29.280	0.000	153.700	613.300	663.100	1.027%	0.588
%RSD		1.496	1.085	0.000	1.706	1.427	1.555	1.578	12.550
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	-4.774	10.990	83.120	378.000	558.100	0.664	1.133	4.222
2	17:44:18	25.270	11.940	85.690	385.000	577.600	0.515	1.184	3.909
3	17:44:27	15.860	12.130	86.430	387.200	567.700	0.621	1.050	4.298
X		12.120	11.690	85.080	383.400	567.800	0.600	1.123	4.143
σ		15.370	0.614	1.738	4.801	9.746	0.077	0.068	0.206
%RSD		126.800	5.253	2.043	1.252	1.716	12.760	6.013	4.981
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	4.093	10.620	9.984	1.314	0.203	5.088	0.000	138.100
2	17:44:18	4.397	10.570	12.390	0.788	0.445	7.783	0.000	132.700
3	17:44:27	3.668	11.040	9.841	0.697	0.692	0.597	0.000	130.600
X		4.053	10.740	10.740	0.933	0.447	4.489	0.000	133.800
σ		0.366	0.256	1.432	0.333	0.244	3.630	0.000	3.835
%RSD		9.025	2.378	13.330	35.710	54.700	80.860	0.000	2.867
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	52.581%	3.121	5.007	48.567%	-0.994	-0.995	-0.011	0.035
2	17:44:18	53.892%	4.697	4.860	49.381%	-0.963	-1.010	-0.011	0.033
3	17:44:27	53.830%	4.360	5.121	49.085%	-0.950	-0.887	0.058	0.063
X		53.434%	4.059	4.996	49.011%	-0.969	-0.964	0.012	0.044
σ		0.740%	0.830	0.131	0.412%	0.022	0.067	0.040	0.017
%RSD		1.384	20.440	2.616	0.841	2.317	6.933	330.200	38.360
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:44:09	45.655%	-0.694	-0.165	-0.184	41.860	44.040	46.871%	46.011%
2	17:44:18	46.640%	-0.774	-0.036	-0.160	49.670	42.550	46.016%	44.509%
3	17:44:27	45.414%	-0.615	0.018	-0.127	50.270	50.540	46.614%	44.605%
X		45.903%	-0.694	-0.061	-0.157	47.270	45.710	46.500%	45.042%
σ		0.650%	0.079	0.094	0.029	4.691	4.249	0.439%	0.841%
%RSD		1.415	11.440	153.800	18.510	9.925	9.295	0.944	1.867
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:44:09	0.011	0.021	1.989	2.166	2.251	37.843%		
2	17:44:18	-0.004	0.020	2.212	2.215	2.066	40.893%		
3	17:44:27	0.023	0.014	2.165	1.936	2.064	40.528%		
X		0.010	0.019	2.122	2.106	2.127	39.755%		
σ		0.013	0.004	0.118	0.149	0.107	1.666%		
%RSD		133.900	19.690	5.541	7.058	5.030	4.190		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	76.286%	0.063	40.060	38.720	0.000	79920.000	20900.000	20400.000
2	17:49:24	75.623%	0.141	37.190	39.880	0.000	78480.000	20760.000	20220.000
3	17:49:34	76.677%	0.087	36.390	37.930	0.000	78670.000	21020.000	20200.000
X		76.196%	0.097	37.880	38.840	0.000	79030.000	20900.000	20270.000
σ		0.533%	0.040	1.928	0.982	0.000	782.000	131.600	111.300
%RSD		0.699	41.290	5.089	2.529	0.000	0.990	0.630	0.549
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	117.000	4563.000	0.000	6247.000	90110.000	92280.000	63.733%	2.669
2	17:49:24	114.100	4521.000	0.000	6204.000	90060.000	91010.000	64.247%	3.206
3	17:49:34	116.900	4521.000	0.000	6210.000	90150.000	91360.000	64.341%	1.956
X		116.000	4535.000	0.000	6220.000	90110.000	91550.000	64.107%	2.610
σ		1.622	24.390	0.000	23.630	44.370	653.600	0.327%	0.627
%RSD		1.398	0.538	0.000	0.380	0.049	0.714	0.510	24.020
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	13.780	15.880	58.410	189.900	482.000	0.576	0.819	5.030
2	17:49:24	1.455	15.220	58.870	184.500	491.400	0.278	0.853	4.392
3	17:49:34	3.225	14.920	58.160	188.200	479.000	0.445	0.617	4.504
X		6.154	15.340	58.480	187.600	484.100	0.433	0.763	4.642
σ		6.665	0.491	0.360	2.789	6.475	0.149	0.128	0.341
%RSD		108.300	3.200	0.615	1.487	1.338	34.480	16.720	7.343
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	4.184	11.330	9.176	0.707	0.952	6.491	0.000	199.000
2	17:49:24	5.274	11.320	9.251	0.619	1.670	3.993	0.000	193.600
3	17:49:34	5.548	8.904	9.178	0.667	0.453	6.859	0.000	195.700
X		5.002	10.520	9.202	0.665	1.025	5.781	0.000	196.100
σ		0.722	1.397	0.043	0.044	0.612	1.559	0.000	2.767
%RSD		14.430	13.280	0.469	6.652	59.710	26.970	0.000	1.411
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	52.965%	10.790	10.620	48.570%	-0.995	-1.056	0.331	0.338
2	17:49:24	54.022%	9.055	9.117	49.076%	-1.007	-1.068	0.058	0.200
3	17:49:34	52.910%	9.854	9.992	49.304%	-1.052	-1.046	0.260	0.224
X		53.299%	9.900	9.910	48.983%	-1.018	-1.057	0.216	0.254
σ		0.627%	0.869	0.755	0.376%	0.030	0.011	0.142	0.073
%RSD		1.176	8.780	7.619	0.767	2.959	1.071	65.700	28.940
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:49:15	46.409%	-0.586	-0.256	-0.326	48.360	46.810	46.260%	45.891%
2	17:49:24	46.297%	-0.811	-0.279	-0.354	40.800	45.550	47.505%	46.971%
3	17:49:34	46.885%	-0.814	-0.325	-0.246	48.390	45.190	49.160%	47.915%
X		46.531%	-0.737	-0.287	-0.309	45.850	45.850	47.642%	46.926%
σ		0.312%	0.130	0.035	0.056	4.375	0.850	1.455%	1.013%
%RSD		0.671	17.700	12.110	18.230	9.541	1.855	3.053	2.159
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:49:15	0.021	0.023	4.708	4.481	4.740	44.699%		
2	17:49:24	-0.004	0.013	5.110	5.303	5.004	44.114%		
3	17:49:34	0.021	0.034	4.309	4.405	4.550	43.991%		
X		0.013	0.023	4.709	4.729	4.765	44.268%		
σ		0.014	0.010	0.400	0.498	0.228	0.378%		
%RSD		111.300	44.110	8.497	10.530	4.786	0.855		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	74.856%	1.119	15.340	14.760	0.000	1124.000	545.300	540.800
2	17:58:18	74.381%	0.955	14.650	14.900	0.000	1126.000	561.800	527.200
3	17:58:27	73.319%	1.032	14.090	13.860	0.000	1119.000	547.800	539.000
X		74.185%	103.532%	293.815%	290.125%	0.000	1403.918%	551.653%	535.677%
σ		0.787%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.061	7.935	4.263	3.874	0.000	0.300	1.611	1.380
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	33.690	574.100	0.000	939.400	520.300	489.400	67.351%	5.599
2	17:58:18	32.750	575.000	0.000	906.900	556.200	516.200	67.377%	6.547
3	17:58:27	32.450	570.900	0.000	928.700	518.300	528.700	67.596%	5.103
X		109.877%	114.674%	0.000	925.001%	531.600%	511.444%	67.441%	114.993%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.134%	n/a
%RSD		1.949	0.375	0.000	1.790	4.010	3.921	0.199	12.760
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	3.745	3.450	4.808	45.200	52.460	0.362	0.943	1.101
2	17:58:18	5.288	3.594	4.792	45.470	69.560	0.492	0.749	1.637
3	17:58:27	-5.616	3.352	4.855	43.820	48.470	0.428	0.602	0.782
X		113.879%	173.278%	96.370%	89.655%	113.667%	85.457%	76.466%	58.673%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		518.200	3.502	0.673	1.978	19.710	15.130	22.390	36.820
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	0.826	5.890	5.318	1.008	3.959	4.427	0.000	5.223
2	17:58:18	1.028	6.420	6.259	0.903	6.445	7.421	0.000	4.957
3	17:58:27	1.527	6.125	6.147	0.977	6.116	4.746	0.000	4.466
X		56.346%	122.905%	118.161%	96.277%	110.140%	110.624%	0.000	97.644%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		32.060	4.321	8.696	5.610	24.520	29.730	0.000	7.862
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	56.068%	4.144	4.654	54.131%	0.155	-0.002	0.742	1.024
2	17:58:18	57.228%	4.684	4.838	54.859%	0.093	0.137	1.035	1.376
3	17:58:27	58.340%	3.814	4.551	54.768%	0.238	0.065	1.148	1.260
X		57.212%	84.281%	93.624%	54.586%	16.209%	6.683%	97.507%	122.012%
σ		1.136%	n/a	n/a	0.397%	n/a	n/a	n/a	n/a
%RSD		1.986	10.430	3.106	0.727	44.730	103.800	21.490	14.680
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:58:09	50.123%	10.980	1.325	1.618	12.030	10.570	48.007%	48.293%
2	17:58:18	51.278%	7.163	1.420	1.411	9.341	9.377	50.534%	48.325%
3	17:58:27	51.958%	7.938	1.820	1.744	10.510	10.960	50.176%	50.033%
X		51.120%	173.874%	76.074%	79.551%	106.238%	103.038%	49.573%	48.884%
σ		0.928%	n/a	n/a	n/a	n/a	n/a	1.367%	0.996%
%RSD		1.815	23.210	17.250	10.590	12.670	8.014	2.758	2.036
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:58:09	1.236	1.120	0.861	1.035	1.081	46.764%		
2	17:58:18	0.993	1.035	0.950	1.151	0.985	46.633%		
3	17:58:27	1.152	1.204	0.954	0.944	1.001	45.551%		
X		112.666%	111.986%	92.176%	104.319%	102.231%	46.316%		
σ		n/a	n/a	n/a	n/a	n/a	0.666%		
%RSD		10.960	7.513	5.706	9.937	5.019	1.438		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	75.036%	0.015	-4.987	-5.565	0.000	498.700	29.890	23.230
2	18:08:29	76.531%	0.004	-6.482	-6.375	0.000	503.500	29.210	24.520
3	18:08:38	76.656%	0.012	-7.099	-7.122	0.000	500.600	28.090	21.880
X		76.074%	0.010	-6.189	-6.354	0.000	501.000	29.060	23.210
σ		0.901%	0.006	1.086	0.779	0.000	2.411	0.912	1.320
%RSD		1.185	58.570	17.550	12.260	0.000	0.481	3.137	5.688
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	-0.550	58.790	0.000	391.800	4.430	26.980	69.799%	0.457
2	18:08:29	-0.555	57.900	0.000	403.000	13.550	28.530	69.152%	0.175
3	18:08:38	-0.373	56.420	0.000	397.200	-4.499	27.380	70.384%	0.109
X		-0.493	57.700	0.000	397.300	4.493	27.630	69.778%	0.247
σ		0.103	1.194	0.000	5.583	9.024	0.805	0.616%	0.185
%RSD		20.960	2.070	0.000	1.405	200.800	2.912	0.883	74.910
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	2.034	1.446	0.098	0.016	-3.579	0.034	-0.267	-1.131
2	18:08:29	3.911	1.388	0.083	-0.204	2.608	-0.013	-0.088	-1.191
3	18:08:38	-1.831	1.300	0.106	0.013	-0.535	0.033	-0.046	-1.283
X		1.372	1.378	0.096	-0.058	-0.502	0.018	-0.134	-1.202
σ		2.928	0.073	0.011	0.126	3.094	0.027	0.118	0.077
%RSD		213.500	5.313	12.000	216.000	616.300	147.400	87.970	6.380
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	-1.113	0.236	0.187	0.025	-0.045	2.489	0.000	-0.010
2	18:08:29	-0.810	0.310	0.481	-0.027	-0.045	2.070	0.000	-0.010
3	18:08:38	-1.226	0.522	0.380	-0.010	-0.045	2.490	0.000	-0.010
X		-1.050	0.356	0.349	-0.004	-0.045	2.350	0.000	-0.010
σ		0.215	0.148	0.149	0.026	0.000	0.242	0.000	0.000
%RSD		20.470	41.560	42.750	645.900	0.000	10.300	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	59.295%	-0.085	-0.133	55.092%	-0.973	-1.048	-0.011	-0.022
2	18:08:29	59.205%	-0.050	-0.112	55.432%	-0.924	-0.996	-0.011	0.003
3	18:08:38	59.150%	-0.156	-0.155	55.716%	-0.896	-0.997	-0.011	-0.022
X		59.217%	-0.097	-0.134	55.413%	-0.931	-1.014	-0.011	-0.013
σ		0.073%	0.054	0.021	0.313%	0.039	0.030	0.000	0.014
%RSD		0.123	55.440	16.000	0.565	4.175	2.966	0.074	106.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:08:19	52.074%	-1.002	-0.412	-0.410	0.000	0.000	49.007%	47.956%
2	18:08:29	51.903%	-0.968	-0.392	-0.359	0.000	0.000	47.899%	47.429%
3	18:08:38	52.231%	-0.935	-0.392	-0.385	0.000	0.000	49.112%	49.776%
X		52.069%	-0.968	-0.399	-0.385	0.000	0.000	48.673%	48.387%
σ		0.164%	0.033	0.012	0.025	0.000	0.000	0.672%	1.231%
%RSD		0.316	3.442	2.895	6.574	0.000	0.000	1.381	2.545
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:08:19	-0.004	0.003	-0.000	0.002	-0.002	43.139%		
2	18:08:29	-0.004	0.008	-0.001	0.018	-0.003	45.372%		
3	18:08:38	-0.004	-0.002	-0.016	-0.015	-0.010	42.431%		
X		-0.004	0.003	-0.006	0.002	-0.005	43.647%		
σ		0.000	0.005	0.009	0.017	0.004	1.535%		
%RSD		0.000	178.800	154.800	934.900	84.370	3.516		

LCS 180-151030/2-A 8/21/2015 6:14:18 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	18:13:23	82.424%	48.030	970.800	966.700	0.000	61520.000	54640.000	53300.000
2	18:13:32	88.339%	45.530	918.900	907.600	0.000	62560.000	55230.000	52940.000
3	18:13:42	89.069%	45.750	903.000	898.600	0.000	62140.000	54850.000	53430.000
X		86.611%	46.430	930.900	924.300	0.000	62070.000	54910.000	53220.000
σ		3.644%	1.385	35.430	37.020	0.000	520.400	302.100	254.800
%RSD		4.208	2.983	3.806	4.006	0.000	0.838	0.550	0.479
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:23	2236.000	10180.000	0.000	50780.000	50560.000	49550.000	65.766%	1020.000
2	18:13:32	2234.000	10060.000	0.000	50960.000	49170.000	49800.000	66.302%	1018.000
3	18:13:42	2250.000	10070.000	0.000	51170.000	50510.000	50010.000	65.952%	1021.000
X		2240.000	10100.000	0.000	50970.000	50080.000	49790.000	66.006%	1020.000
σ		8.501	64.990	0.000	196.100	791.200	230.400	0.272%	1.531
%RSD		0.380	0.643	0.000	0.385	1.580	0.463	0.412	0.150
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:23	493.300	199.500	458.100	885.700	1193.000	507.900	510.900	264.800
2	18:13:32	486.200	197.800	462.600	881.100	1143.000	494.700	498.900	265.400
3	18:13:42	500.800	202.100	464.300	876.000	1003.000	483.400	484.000	254.800
X		493.500	199.800	461.700	881.000	1113.000	495.300	497.900	261.700
σ		7.323	2.174	3.220	4.872	98.330	12.240	13.460	5.928
%RSD		1.484	1.088	0.698	0.553	8.833	2.471	2.704	2.266
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:23	278.200	484.900	494.500	40.090	9.044	11.420	0.000	970.800
2	18:13:32	276.000	491.900	495.800	41.100	10.230	8.170	0.000	966.900
3	18:13:42	254.600	483.700	486.100	38.900	8.214	16.840	0.000	957.300
X		269.600	486.800	492.100	40.030	9.164	12.150	0.000	965.000
σ		13.040	4.445	5.243	1.098	1.015	4.382	0.000	6.926
%RSD		4.836	0.913	1.065	2.744	11.080	36.080	0.000	0.718
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:23	53.501%	1085.000	1088.000	51.186%	50.080	50.050	52.120	83.710
2	18:13:32	55.272%	1060.000	1085.000	51.218%	49.730	50.210	54.230	86.130
3	18:13:42	56.274%	1051.000	1065.000	51.432%	49.400	49.890	51.150	83.960
X		55.015%	1066.000	1079.000	51.278%	49.730	50.050	52.500	84.600
σ		1.404%	17.380	12.350	0.134%	0.339	0.158	1.578	1.329
%RSD		2.552	1.631	1.145	0.261	0.681	0.315	3.006	1.571
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:13:23	47.629%	1924.000	473.100	483.500	1960.000	1898.000	48.811%	49.008%
2	18:13:32	47.275%	1967.000	495.400	494.000	1939.000	1888.000	49.405%	49.700%
3	18:13:42	48.486%	1963.000	484.400	484.500	1894.000	1861.000	48.505%	48.080%
X		47.797%	1951.000	484.300	487.400	1931.000	1882.000	48.907%	48.929%
σ		0.622%	24.210	11.140	5.800	33.790	18.740	0.458%	0.813%
%RSD		1.302	1.241	2.300	1.190	1.750	0.996	0.936	1.661
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:13:23	53.410	53.410	21.850	20.850	21.420	42.673%		
2	18:13:32	55.650	53.620	19.980	20.620	20.280	43.607%		
3	18:13:42	50.220	52.400	21.120	21.260	21.230	46.071%		
X		53.090	53.140	20.980	20.910	20.980	44.117%		
σ		2.733	0.650	0.942	0.324	0.609	1.756%		
%RSD		5.148	1.224	4.488	1.551	2.901	3.979		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	70.651%	112.300	116.700	111.600	0.000	59500.000	52610.000	51390.000
2	18:18:35	71.604%	112.000	106.700	108.500	0.000	59640.000	53270.000	51950.000
3	18:18:44	70.733%	112.300	110.300	108.800	0.000	59940.000	53840.000	52250.000
X		70.996%	112.179%	111.205%	109.612%	0.000	119.386%	106.480%	103.726%
σ		0.528%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.744	0.160	4.552	1.559	0.000	0.374	1.160	0.847
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	529.200	5601.000	0.000	50010.000	48240.000	48290.000	71.042%	98.270
2	18:18:35	535.600	5656.000	0.000	50340.000	48990.000	49300.000	70.229%	98.320
3	18:18:44	539.300	5685.000	0.000	51090.000	49430.000	49510.000	69.417%	104.300
X		106.948%	112.945%	0.000	100.964%	97.774%	98.068%	70.229%	100.287%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.813%	n/a
%RSD		0.958	0.750	0.000	1.088	1.237	1.333	1.157	3.440
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	93.960	95.910	452.100	23360.000	23330.000	94.220	96.020	96.890
2	18:18:35	94.990	94.890	459.100	24450.000	24890.000	98.260	103.100	101.500
3	18:18:44	94.310	98.810	460.400	24900.000	25000.000	100.700	102.800	101.800
X		94.421%	96.535%	91.439%	96.939%	97.624%	97.737%	100.626%	100.080%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.556	2.105	0.982	3.264	3.840	3.359	3.963	2.764
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	100.900	99.420	97.840	99.210	106.300	95.290	0.000	96.910
2	18:18:35	106.000	98.250	94.640	101.400	100.700	120.700	0.000	102.300
3	18:18:44	103.400	96.150	100.800	100.400	95.390	103.600	0.000	97.380
X		103.440%	97.942%	97.768%	100.312%	100.796%	106.530%	0.000	98.850%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.457	1.693	3.163	1.071	5.388	12.150	0.000	3.004
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	57.413%	104.000	105.500	53.528%	100.400	102.000	101.000	98.880
2	18:18:35	58.272%	105.600	106.300	53.942%	100.800	103.000	101.500	101.700
3	18:18:44	58.224%	104.200	105.600	54.448%	99.010	101.400	98.620	97.760
X		57.970%	104.597%	105.778%	53.973%	100.084%	102.130%	100.370%	99.430%
σ		0.482%	n/a	n/a	0.461%	n/a	n/a	n/a	n/a
%RSD		0.832	0.852	0.406	0.854	0.951	0.790	1.528	2.015
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:18:25	50.664%	98.910	98.000	94.650	99.160	97.340	50.401%	48.751%
2	18:18:35	51.214%	97.150	102.700	98.410	92.710	96.630	52.571%	50.709%
3	18:18:44	52.047%	98.830	97.100	95.730	104.800	98.030	50.996%	49.434%
X		51.308%	98.297%	99.257%	96.266%	98.887%	97.333%	51.323%	49.631%
σ		0.696%	n/a	n/a	n/a	n/a	n/a	1.121%	0.993%
%RSD		1.357	1.009	3.018	2.011	6.110	0.723	2.184	2.002
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:18:25	109.800	110.300	110.000	108.400	109.700	45.236%		
2	18:18:35	112.000	112.300	108.200	107.600	109.500	43.164%		
3	18:18:44	106.900	104.100	105.000	101.300	104.600	45.182%		
X		109.578%	108.900%	107.733%	105.761%	107.906%	44.527%		
σ		n/a	n/a	n/a	n/a	n/a	1.181%		
%RSD		2.300	3.935	2.319	3.693	2.680	2.652		

CCB6 8/21/2015 6:28:14 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	18:27:19	75.275%	0.125	-5.747	-4.891	0.000	410.500	15.900	15.520
2	18:27:28	75.864%	0.115	-6.112	-5.282	0.000	397.900	15.350	14.220
3	18:27:37	76.118%	0.046	-7.136	-5.963	0.000	395.500	15.690	15.920
X		75.752%	0.095	-6.332	-5.379	0.000	401.300	15.650	15.220
σ		0.432%	0.043	0.720	0.543	0.000	8.041	0.280	0.893
%RSD		0.571	44.820	11.380	10.090	0.000	2.004	1.787	5.868
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:19	0.198	57.340	0.000	404.400	15.660	26.190	70.387%	-0.062
2	18:27:28	0.120	54.600	0.000	387.900	20.800	25.170	71.227%	0.328
3	18:27:37	0.219	54.090	0.000	390.100	12.630	26.450	70.624%	0.164
X		0.179	55.340	0.000	394.100	16.360	25.940	70.746%	0.143
σ		0.052	1.746	0.000	8.981	4.132	0.681	0.433%	0.196
%RSD		29.060	3.156	0.000	2.279	25.250	2.626	0.612	136.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:19	-4.949	1.052	0.156	4.637	8.483	0.044	-0.224	-1.524
2	18:27:28	3.079	0.999	0.059	4.737	-0.605	0.021	-0.181	-1.493
3	18:27:37	1.156	1.045	0.041	4.117	6.877	0.010	-0.225	-1.450
X		-0.238	1.032	0.085	4.497	4.918	0.025	-0.210	-1.489
σ		4.192	0.029	0.062	0.333	4.850	0.018	0.025	0.037
%RSD		1759.000	2.812	72.230	7.408	98.610	69.580	12.010	2.498
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:19	-1.491	0.440	0.656	0.039	-0.045	2.455	0.000	0.015
2	18:27:28	-1.492	0.370	0.086	-0.028	0.174	0.490	0.000	-0.010
3	18:27:37	-1.136	0.852	0.365	0.004	0.384	-0.298	0.000	0.014
X		-1.373	0.554	0.369	0.005	0.171	0.882	0.000	0.006
σ		0.205	0.260	0.285	0.034	0.215	1.418	0.000	0.014
%RSD		14.960	46.980	77.190	672.600	125.600	160.600	0.000	230.700
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:19	61.135%	0.320	0.212	57.852%	-0.964	-1.015	-0.011	0.002
2	18:27:28	60.517%	0.252	0.271	58.661%	-0.919	-1.046	-0.011	0.002
3	18:27:37	62.268%	0.276	0.322	59.497%	-0.922	-1.008	-0.011	0.001
X		61.307%	0.283	0.269	58.670%	-0.935	-1.023	-0.011	0.001
σ		0.888%	0.035	0.055	0.823%	0.025	0.020	0.000	0.000
%RSD		1.449	12.230	20.490	1.403	2.674	1.967	0.236	7.914
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:27:19	55.557%	-0.816	-0.337	-0.293	0.141	0.000	53.383%	51.786%
2	18:27:28	55.582%	-0.784	-0.262	-0.316	0.000	0.000	51.924%	50.596%
3	18:27:37	55.989%	-0.785	-0.319	-0.293	0.000	0.000	51.161%	49.828%
X		55.710%	-0.795	-0.306	-0.300	0.047	0.000	52.156%	50.737%
σ		0.243%	0.018	0.039	0.013	0.081	0.000	1.129%	0.986%
%RSD		0.435	2.253	12.780	4.441	173.200	0.000	2.165	1.944
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:27:19	0.031	0.036	0.041	0.017	0.028	47.068%		
2	18:27:28	-0.004	0.044	-0.016	-0.015	-0.010	49.625%		
3	18:27:37	0.007	0.029	-0.003	0.029	0.006	51.175%		
X		0.011	0.036	0.008	0.010	0.008	49.290%		
σ		0.018	0.007	0.030	0.023	0.019	2.074%		
%RSD		154.200	20.150	391.800	221.600	248.700	4.208		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	92.146%	0.244	-2.433	-1.078	0.000	5290.000	12100.000	11650.000
2	18:32:35	94.174%	0.215	-2.754	-1.439	0.000	5084.000	12150.000	11730.000
3	18:32:44	95.359%	0.157	-4.248	-2.720	0.000	4904.000	12160.000	11840.000
X		93.893%	0.205	-3.145	-1.746	0.000	5093.000	12140.000	11740.000
σ		1.624%	0.044	0.969	0.863	0.000	193.100	31.930	95.340
%RSD		1.730	21.560	30.800	49.420	0.000	3.791	0.263	0.812
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	435.600	5305.000	0.000	4554.000	68110.000	68370.000	69.469%	3.746
2	18:32:35	438.500	5268.000	0.000	4597.000	67940.000	69280.000	68.758%	3.788
3	18:32:44	444.300	5239.000	0.000	4616.000	68860.000	69420.000	68.244%	2.646
X		439.500	5271.000	0.000	4589.000	68300.000	69030.000	68.824%	3.393
σ		4.429	32.820	0.000	31.910	490.600	570.100	0.615%	0.648
%RSD		1.008	0.623	0.000	0.695	0.718	0.826	0.894	19.090
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	15.640	8.602	1615.000	65.420	298.900	20.790	3.381	28.070
2	18:32:35	-9.044	8.737	1628.000	62.360	234.900	20.670	3.987	28.790
3	18:32:44	2.238	9.553	1641.000	63.960	215.900	21.820	3.915	29.730
X		2.944	8.964	1628.000	63.910	249.900	21.090	3.761	28.860
σ		12.360	0.514	12.820	1.531	43.530	0.634	0.331	0.831
%RSD		419.700	5.736	0.787	2.395	17.420	3.006	8.797	2.878
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	27.570	150.900	150.500	0.408	1.550	4.304	0.000	83.610
2	18:32:35	29.700	156.400	146.900	0.713	1.687	4.672	0.000	83.100
3	18:32:44	29.100	152.000	149.000	0.535	1.975	3.922	0.000	83.570
X		28.790	153.100	148.800	0.552	1.738	4.299	0.000	83.430
σ		1.097	2.903	1.816	0.154	0.217	0.375	0.000	0.282
%RSD		3.811	1.896	1.220	27.790	12.490	8.715	0.000	0.338
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	124.036%	0.158	0.080	51.648%	-1.057	-1.097	0.627	0.363
2	18:32:35	124.326%	0.106	0.099	51.561%	-1.035	-1.029	0.508	0.345
3	18:32:44	122.774%	0.159	0.247	51.816%	-1.025	-0.974	0.501	0.365
X		123.712%	0.141	0.142	51.675%	-1.039	-1.033	0.545	0.358
σ		0.825%	0.030	0.091	0.130%	0.016	0.062	0.071	0.011
%RSD		0.667	21.530	64.140	0.251	1.550	5.954	12.950	3.090
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:32:25	50.092%	-0.446	-0.165	-0.152	23.020	23.790	49.887%	49.977%
2	18:32:35	48.915%	-0.398	-0.349	-0.279	26.250	23.060	50.695%	50.897%
3	18:32:44	49.694%	-0.408	-0.268	-0.358	29.900	26.480	51.659%	51.918%
X		49.567%	-0.417	-0.261	-0.263	26.390	24.440	50.747%	50.931%
σ		0.599%	0.025	0.092	0.104	3.439	1.803	0.887%	0.971%
%RSD		1.208	6.057	35.400	39.660	13.030	7.375	1.748	1.907
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:32:25	0.129	0.124	0.059	0.086	0.136	44.802%		
2	18:32:35	0.186	0.109	0.110	0.127	0.141	42.401%		
3	18:32:44	0.126	0.123	0.258	0.149	0.165	41.209%		
X		0.147	0.118	0.142	0.120	0.147	42.804%		
σ		0.034	0.008	0.104	0.032	0.015	1.830%		
%RSD		23.040	6.960	72.750	26.510	10.440	4.275		



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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	89.533%	0.119	-2.278	-1.466	0.000	4665.000	9473.000	9117.000	
2	18:37:37	86.625%	0.061	-1.724	-1.989	0.000	4597.000	9386.000	9067.000	
3	18:37:47	86.752%	0.031	-2.565	-2.756	0.000	4583.000	9425.000	9067.000	
X		87.637%	0.070	-2.189	-2.070	0.000	4615.000	9428.000	9083.000	
		σ	1.643%	0.045	0.427	0.649	0.000	43.990	43.470	28.850
		%RSD	1.875	63.520	19.520	31.360	0.000	0.953	0.461	0.318
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	13.690	6156.000	0.000	6454.000	65840.000	67580.000	67.164%	2.694	
2	18:37:37	14.520	6144.000	0.000	6406.000	66740.000	67210.000	67.237%	2.512	
3	18:37:47	13.520	6160.000	0.000	6412.000	66700.000	66930.000	67.089%	2.518	
X		13.910	6153.000	0.000	6424.000	66430.000	67240.000	67.163%	2.575	
		σ	0.535	8.504	0.000	26.000	510.400	326.000	0.074%	0.103
		%RSD	3.847	0.138	0.000	0.405	0.768	0.485	0.110	4.011
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	-0.708	10.200	40.190	9.044	230.400	0.332	0.872	4.377	
2	18:37:37	-2.502	10.470	40.980	9.746	218.500	0.344	0.444	3.969	
3	18:37:47	21.090	9.903	40.520	9.480	257.300	0.389	0.718	3.257	
X		5.960	10.190	40.560	9.423	235.400	0.355	0.678	3.868	
		σ	13.130	0.283	0.397	0.355	19.860	0.030	0.217	0.567
		%RSD	220.400	2.773	0.979	3.762	8.438	8.545	32.000	14.650
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	4.225	9.501	8.411	0.426	0.442	5.010	0.000	209.800	
2	18:37:37	3.137	9.086	7.587	0.443	0.683	2.700	0.000	203.900	
3	18:37:47	3.469	7.758	8.847	0.470	-0.045	3.660	0.000	200.400	
X		3.610	8.782	8.282	0.447	0.360	3.790	0.000	204.700	
		σ	0.558	0.910	0.640	0.022	0.371	1.160	4.774	
		%RSD	15.450	10.370	7.723	4.958	103.100	30.620	2.332	
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	53.707%	0.311	0.202	50.282%	-1.000	-1.037	0.055	-0.022	
2	18:37:37	53.988%	0.462	0.478	50.785%	-1.044	-1.049	-0.011	0.058	
3	18:37:47	55.395%	0.529	0.242	50.729%	-0.882	-1.049	0.055	0.032	
X		54.363%	0.434	0.307	50.599%	-0.975	-1.045	0.033	0.023	
		σ	0.905%	0.112	0.149	0.276%	0.083	0.007	0.038	0.041
		%RSD	1.664	25.810	48.620	0.545	8.547	0.681	115.200	177.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:37:28	47.786%	-0.053	-0.239	-0.165	32.380	28.490	46.425%	45.320%	
2	18:37:37	48.076%	-0.132	-0.262	-0.302	32.520	31.790	47.710%	47.992%	
3	18:37:47	47.806%	0.054	-0.153	-0.194	27.260	29.490	47.911%	47.863%	
X		47.889%	-0.044	-0.218	-0.220	30.720	29.920	47.349%	47.058%	
		σ	0.162%	0.093	0.057	0.072	2.996	1.695	0.806%	1.507%
		%RSD	0.338	213.800	26.200	32.830	9.752	5.665	1.703	3.202
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	18:37:28	0.059	0.049	0.168	0.140	0.158	43.937%			
2	18:37:37	0.048	0.046	0.256	0.093	0.194	41.710%			
3	18:37:47	0.021	0.059	0.150	0.019	0.142	44.342%			
X		0.043	0.052	0.192	0.084	0.165	43.330%			
		σ	0.019	0.007	0.057	0.061	0.027	1.417%		
		%RSD	45.770	12.800	29.630	72.630	16.390	3.270		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	83.119%	0.046	-2.321	-3.794	0.000	4397.000	8922.000	8551.000	
2	18:42:42	80.343%	0.100	-4.608	-2.982	0.000	4446.000	8974.000	8716.000	
3	18:42:52	82.418%	0.094	-4.877	-4.503	0.000	4435.000	9091.000	8722.000	
X		81.960%	0.080	-3.935	-3.760	0.000	4426.000	8996.000	8663.000	
		$\sigma$	1.444%	0.030	1.404	0.761	0.000	25.750	86.570	97.390
		%RSD	1.762	37.010	35.690	20.240	0.000	0.582	0.962	1.124
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	4.980	5891.000	0.000	5933.000	58590.000	59910.000	66.006%	1.595	
2	18:42:42	4.171	6090.000	0.000	5950.000	60690.000	60120.000	66.208%	2.133	
3	18:42:52	4.352	6268.000	0.000	5952.000	60930.000	60220.000	66.226%	2.556	
X		4.501	6083.000	0.000	5945.000	60070.000	60080.000	66.147%	2.095	
		$\sigma$	0.425	188.800	0.000	10.450	1287.000	157.900	0.122%	0.482
		%RSD	9.436	3.104	0.000	0.176	2.143	0.263	0.184	22.990
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	16.890	10.090	4501.000	73.400	304.600	1.233	0.683	1.569	
2	18:42:42	-4.104	9.973	4494.000	71.840	246.200	1.025	0.875	2.217	
3	18:42:52	-16.650	10.240	4545.000	70.170	242.900	0.963	0.969	1.366	
X		-1.290	10.100	4514.000	71.800	264.600	1.073	0.842	1.717	
		$\sigma$	16.950	0.136	27.530	1.614	34.750	0.141	0.146	0.445
		%RSD	1314.000	1.346	0.610	2.247	13.130	13.170	17.320	25.880
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	1.785	3.246	4.204	0.345	-0.045	5.739	0.000	147.000	
2	18:42:42	2.036	4.718	4.015	0.459	0.196	0.966	0.000	152.600	
3	18:42:52	1.678	5.331	4.534	0.292	-0.045	5.775	0.000	149.800	
X		1.833	4.432	4.251	0.366	0.035	4.160	0.000	149.800	
		$\sigma$	0.184	1.072	0.263	0.085	0.139	2.766	0.000	2.838
		%RSD	10.020	24.190	6.188	23.350	396.100	66.500	0.000	1.894
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	55.148%	0.110	0.056	51.062%	-1.001	-1.004	0.121	0.032	
2	18:42:42	54.606%	-0.041	-0.128	50.583%	-1.023	-1.027	0.120	-0.022	
3	18:42:52	54.619%	-0.002	-0.081	50.524%	-1.033	-1.038	-0.011	0.005	
X		54.791%	0.022	-0.051	50.723%	-1.019	-1.023	0.076	0.005	
		$\sigma$	0.309%	0.079	0.095	0.295%	0.016	0.017	0.076	0.027
		%RSD	0.564	350.000	187.400	0.581	1.573	1.698	98.940	529.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:42:33	48.116%	-0.566	-0.262	-0.302	32.770	34.390	47.867%	46.577%	
2	18:42:42	48.901%	-0.750	-0.370	-0.383	35.430	28.710	47.156%	48.337%	
3	18:42:52	48.405%	-0.856	-0.369	-0.383	29.220	30.240	48.228%	49.069%	
X		48.474%	-0.724	-0.334	-0.356	32.470	31.110	47.750%	47.995%	
		$\sigma$	0.397%	0.147	0.062	0.047	3.114	2.936	0.546%	1.281%
		%RSD	0.819	20.250	18.610	13.110	9.588	9.438	1.142	2.668
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	18:42:33	-0.004	0.012	0.187	0.131	0.149	46.497%			
2	18:42:42	-0.004	0.042	0.101	0.165	0.129	46.116%			
3	18:42:52	0.008	0.018	0.119	0.069	0.103	44.896%			
X		0.000	0.024	0.135	0.122	0.127	45.837%			
		$\sigma$	0.007	0.016	0.046	0.049	0.023	0.836%		
		%RSD	1786.000	65.350	33.660	40.100	18.030	1.824		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	80.007%	0.206	-4.293	-3.472	0.000	4499.000	9216.000	8910.000	
2	18:47:43	78.564%	0.204	-4.213	-2.774	0.000	4485.000	9308.000	9003.000	
3	18:47:53	78.665%	0.154	-4.389	-3.771	0.000	4518.000	9362.000	9070.000	
X		79.079%	0.188	-4.299	-3.339	0.000	4500.000	9295.000	8994.000	
		σ	0.806%	0.029	0.088	0.511	0.000	16.700	73.520	80.340
		%RSD	1.019	15.440	2.050	15.320	0.000	0.371	0.791	0.893
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	18.360	6160.000	0.000	5778.000	62560.000	62770.000	65.949%	1.718	
2	18:47:43	17.820	6274.000	0.000	5842.000	61660.000	62980.000	65.095%	2.668	
3	18:47:53	17.750	6300.000	0.000	5896.000	63820.000	63300.000	64.502%	1.764	
X		17.980	6245.000	0.000	5838.000	62680.000	63020.000	65.182%	2.050	
		σ	0.337	74.760	0.000	58.810	1083.000	265.900	0.728%	0.535
		%RSD	1.874	1.197	0.000	1.007	1.728	0.422	1.117	26.120
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	-19.220	9.683	2964.000	60.330	269.000	0.343	0.126	0.913	
2	18:47:43	-7.652	9.901	2987.000	62.200	235.400	0.333	0.437	1.021	
3	18:47:53	-3.713	10.540	3011.000	64.440	262.100	0.394	0.265	0.961	
X		-10.190	10.040	2987.000	62.320	255.500	0.357	0.276	0.965	
		σ	8.059	0.444	23.480	2.055	17.730	0.033	0.156	0.054
		%RSD	79.050	4.417	0.786	3.298	6.940	9.138	56.390	5.616
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	1.851	2.693	4.702	0.396	-0.045	5.717	0.000	122.900	
2	18:47:43	1.325	3.456	3.569	0.363	0.157	2.421	0.000	123.600	
3	18:47:53	1.453	2.924	2.296	0.365	0.563	4.958	0.000	120.300	
X		1.543	3.024	3.522	0.375	0.225	4.365	0.000	122.300	
		σ	0.274	0.391	1.204	0.018	0.310	1.726	0.000	1.721
		%RSD	17.780	12.930	34.170	4.912	137.900	39.540	0.000	1.407
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	68.753%	-0.087	-0.020	48.937%	-0.984	-0.997	-0.011	0.034	
2	18:47:43	69.488%	-0.122	-0.087	48.866%	-1.028	-1.019	-0.011	-0.022	
3	18:47:53	69.302%	0.017	-0.153	48.900%	-0.917	-1.080	-0.011	-0.022	
X		69.181%	-0.064	-0.087	48.901%	-0.977	-1.032	-0.011	-0.003	
		σ	0.382%	0.072	0.067	0.035%	0.056	0.043	0.000	0.032
		%RSD	0.553	112.300	76.590	0.072	5.700	4.166	0.584	1030.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:47:34	46.307%	-0.735	-0.345	-0.382	52.460	47.830	46.787%	47.232%	
2	18:47:43	45.777%	-0.618	-0.367	-0.297	53.410	49.480	46.220%	46.168%	
3	18:47:53	46.361%	-0.699	-0.257	-0.354	52.350	48.890	47.602%	48.607%	
X		46.148%	-0.684	-0.323	-0.345	52.740	48.730	46.870%	47.336%	
		σ	0.322%	0.060	0.058	0.043	0.588	0.833	0.694%	1.223%
		%RSD	0.699	8.757	18.050	12.570	1.114	1.709	1.482	2.583
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	18:47:34	0.021	0.019	0.139	0.089	0.096	43.338%			
2	18:47:43	0.021	0.008	0.166	0.155	0.134	44.423%			
3	18:47:53	-0.004	0.019	0.110	0.038	0.102	42.464%			
X		0.013	0.015	0.138	0.094	0.111	43.408%			
		σ	0.014	0.006	0.028	0.059	0.020	0.982%		
		%RSD	111.000	41.240	20.150	62.300	18.490	2.261		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	79.914%	0.190	-5.166	-2.822	0.000	1974.000	5226.000	5009.000
2	18:52:48	80.256%	0.157	-2.410	-4.047	0.000	1940.000	5261.000	5096.000
3	18:52:57	78.355%	0.164	-4.232	-4.323	0.000	2019.000	5353.000	5170.000
X		79.508%	0.170	-3.936	-3.731	0.000	1977.000	5280.000	5091.000
σ		1.013%	0.018	1.402	0.799	0.000	39.340	65.470	80.700
%RSD		1.275	10.320	35.610	21.430	0.000	1.990	1.240	1.585
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	250.100	4679.000	0.000	3838.000	17500.000	17130.000	63.867%	4.418
2	18:52:48	255.700	4692.000	0.000	3793.000	17660.000	17440.000	63.966%	3.284
3	18:52:57	256.800	4701.000	0.000	3925.000	18040.000	17510.000	62.302%	1.774
X		254.200	4691.000	0.000	3852.000	17730.000	17360.000	63.378%	3.159
σ		3.602	11.360	0.000	66.810	279.900	203.700	0.933%	1.326
%RSD		1.417	0.242	0.000	1.734	1.578	1.173	1.473	41.990
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	-11.760	11.560	724.700	591.200	786.800	7.661	2.159	153.400
2	18:52:48	-13.600	12.380	727.300	593.400	680.600	7.956	2.341	151.600
3	18:52:57	16.560	12.570	746.900	621.500	767.000	7.736	2.171	153.800
X		-2.933	12.170	733.000	602.000	744.800	7.784	2.224	152.900
σ		16.900	0.539	12.120	16.870	56.480	0.153	0.102	1.200
%RSD		576.300	4.433	1.654	2.802	7.583	1.969	4.574	0.785
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	152.300	240.600	234.400	0.556	0.682	4.870	0.000	49.980
2	18:52:48	156.000	248.700	231.800	0.329	0.677	4.033	0.000	51.520
3	18:52:57	156.800	244.900	230.200	0.438	0.432	0.971	0.000	51.670
X		155.000	244.700	232.100	0.441	0.597	3.291	0.000	51.060
σ		2.419	4.050	2.143	0.114	0.143	2.053	0.000	0.936
%RSD		1.561	1.655	0.923	25.740	23.960	62.360	0.000	1.833
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	54.860%	-0.040	-0.104	50.006%	-1.031	-1.070	0.258	0.359
2	18:52:48	55.361%	-0.041	-0.058	50.184%	-1.020	-1.082	0.525	0.358
3	18:52:57	56.445%	-0.043	-0.060	51.026%	-0.958	-1.048	0.189	0.492
X		55.555%	-0.042	-0.074	50.405%	-1.003	-1.067	0.324	0.403
σ		0.811%	0.001	0.026	0.545%	0.040	0.017	0.178	0.077
%RSD		1.459	3.508	35.020	1.080	3.955	1.600	54.840	19.070
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:52:38	47.047%	-0.629	-0.368	-0.355	31.190	28.530	45.855%	46.642%
2	18:52:48	47.180%	-0.925	-0.325	-0.383	27.580	24.470	48.698%	48.454%
3	18:52:57	47.307%	-0.705	-0.368	-0.219	27.030	25.000	48.184%	48.325%
X		47.178%	-0.753	-0.354	-0.319	28.600	26.000	47.579%	47.807%
σ		0.130%	0.154	0.025	0.087	2.262	2.208	1.515%	1.011%
%RSD		0.276	20.430	7.063	27.420	7.910	8.492	3.184	2.115
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:52:38	0.127	0.136	0.232	0.165	0.204	46.107%		
2	18:52:48	0.198	0.145	0.203	0.247	0.193	46.112%		
3	18:52:57	0.090	0.104	0.199	0.226	0.210	46.962%		
X		0.138	0.129	0.211	0.213	0.202	46.394%		
σ		0.055	0.022	0.018	0.042	0.009	0.492%		
%RSD		39.680	16.780	8.676	19.930	4.334	1.061		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	78.818%	0.414	-5.209	-3.863	0.000	5098.000	9067.000	8751.000	
2	18:57:50	78.667%	0.488	-7.944	-5.262	0.000	5134.000	9170.000	8949.000	
3	18:58:00	76.963%	0.710	-6.109	-5.512	0.000	5150.000	9174.000	8888.000	
X		78.149%	0.537	-6.421	-4.879	0.000	5127.000	9137.000	8863.000	
		$\sigma$	1.030%	0.154	1.394	0.889	0.000	26.760	60.280	101.300
		%RSD	1.318	28.690	21.710	18.220	0.000	0.522	0.660	1.143
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	1594.000	6514.000	0.000	5326.000	33490.000	32410.000	62.488%	2.024	
2	18:57:50	1612.000	6669.000	0.000	5395.000	33390.000	32940.000	61.500%	2.128	
3	18:58:00	1595.000	6725.000	0.000	5344.000	33250.000	32880.000	62.275%	1.968	
X		1600.000	6636.000	0.000	5355.000	33380.000	32740.000	62.088%	2.040	
		$\sigma$	9.869	109.700	0.000	35.730	121.500	289.100	0.520%	0.081
		%RSD	0.617	1.653	0.000	0.667	0.364	0.883	0.838	3.963
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	27.090	11.950	2197.000	2049.000	2276.000	21.370	8.154	331.000	
2	18:57:50	15.670	12.400	2223.000	2059.000	2256.000	21.770	6.993	341.900	
3	18:58:00	23.510	12.340	2225.000	2042.000	2351.000	21.760	8.239	335.900	
X		22.090	12.230	2215.000	2050.000	2295.000	21.630	7.795	336.300	
		$\sigma$	5.839	0.246	15.390	8.760	49.800	0.226	0.696	5.461
		%RSD	26.430	2.014	0.695	0.427	2.171	1.047	8.929	1.624
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	323.300	761.000	756.000	0.543	1.199	9.933	0.000	47.190	
2	18:57:50	335.600	780.700	745.600	0.454	2.415	6.647	0.000	45.360	
3	18:58:00	333.900	786.800	738.900	0.395	1.003	2.434	0.000	48.090	
X		330.900	776.200	746.800	0.464	1.539	6.338	0.000	46.880	
		$\sigma$	6.687	13.530	8.610	0.075	0.765	3.759	0.000	1.391
		%RSD	2.021	1.743	1.153	16.130	49.710	59.310	0.000	2.968
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	84.310%	-0.061	-0.112	48.057%	-1.002	-1.064	1.553	1.281	
2	18:57:50	86.366%	-0.061	-0.134	47.909%	-1.025	-1.102	1.190	1.671	
3	18:58:00	86.648%	-0.125	-0.113	48.021%	-0.992	-1.042	1.456	1.392	
X		85.775%	-0.082	-0.120	47.996%	-1.006	-1.069	1.400	1.448	
		$\sigma$	1.277%	0.037	0.012	0.077%	0.017	0.030	0.188	0.201
		%RSD	1.488	44.750	10.250	0.161	1.687	2.831	13.410	13.880
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	18:57:41	44.145%	-0.800	-0.389	-0.352	30.000	25.290	46.730%	46.477%	
2	18:57:50	44.586%	-0.531	-0.343	-0.381	29.560	27.760	47.092%	47.056%	
3	18:58:00	45.292%	-0.538	-0.367	-0.325	28.280	25.910	47.172%	46.654%	
X		44.674%	-0.623	-0.366	-0.353	29.280	26.320	46.998%	46.729%	
		$\sigma$	0.578%	0.153	0.023	0.028	0.891	1.286	0.235%	0.296%
		%RSD	1.295	24.610	6.236	7.985	3.041	4.885	0.501	0.634
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	18:57:41	0.170	0.158	0.871	0.552	0.779	43.881%			
2	18:57:50	0.213	0.221	0.708	0.445	0.660	42.530%			
3	18:58:00	0.173	0.255	0.716	0.440	0.675	43.044%			
X		0.185	0.211	0.765	0.479	0.705	43.152%			
		$\sigma$	0.024	0.049	0.092	0.063	0.064	0.682%		
		%RSD	12.890	23.370	12.030	13.210	9.120	1.580		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	78.379%	0.155	-5.460	-4.461	0.000	6693.000	26180.000	25540.000
2	19:02:52	78.015%	0.140	-5.993	-5.493	0.000	6894.000	26810.000	26090.000
3	19:03:02	78.272%	0.221	-6.457	-5.876	0.000	6737.000	26450.000	25790.000
X		78.222%	0.172	-5.970	-5.276	0.000	6774.000	26480.000	25810.000
σ		0.187%	0.043	0.499	0.732	0.000	105.700	313.800	278.000
%RSD		0.239	24.970	8.356	13.870	0.000	1.560	1.185	1.077
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	86.080	3324.000	0.000	8862.000	126200.000	127800.000	62.695%	1.442
2	19:02:52	91.650	3404.000	0.000	9072.000	126000.000	130000.000	61.202%	1.943
3	19:03:02	90.860	3382.000	0.000	9022.000	127600.000	130300.000	61.565%	1.214
X		89.530	3370.000	0.000	8986.000	126600.000	129400.000	61.821%	1.533
σ		3.013	41.300	0.000	109.500	879.800	1412.000	0.779%	0.373
%RSD		3.366	1.225	0.000	1.218	0.695	1.091	1.260	24.320
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	-9.114	8.321	2054.000	183.200	537.800	16.840	1.755	-0.314
2	19:02:52	12.410	8.754	2102.000	197.200	554.400	17.340	2.674	-0.196
3	19:03:02	14.360	9.627	2094.000	193.100	511.400	17.200	2.172	0.060
X		5.884	8.901	2084.000	191.100	534.500	17.130	2.201	-0.150
σ		13.030	0.665	25.540	7.216	21.720	0.259	0.460	0.191
%RSD		221.400	7.473	1.226	3.775	4.064	1.510	20.920	127.600
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	0.465	11.380	10.630	0.960	2.919	6.060	0.000	58.610
2	19:02:52	0.355	11.760	10.140	0.872	3.126	8.089	0.000	56.290
3	19:03:02	-0.004	9.979	11.670	0.872	3.971	13.860	0.000	57.210
X		0.272	11.040	10.810	0.901	3.339	9.335	0.000	57.370
σ		0.246	0.937	0.781	0.051	0.557	4.045	0.000	1.167
%RSD		90.230	8.491	7.221	5.630	16.680	43.330	0.000	2.034
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	274.424%	-0.156	-0.087	46.183%	-0.902	-1.035	0.503	0.305
2	19:02:52	279.741%	-0.156	-0.198	46.702%	-1.011	-1.000	0.205	0.298
3	19:03:02	276.368%	-0.065	-0.179	46.716%	-0.988	-1.088	0.419	0.325
X		276.844%	-0.126	-0.155	46.533%	-0.967	-1.041	0.376	0.310
σ		2.690%	0.053	0.059	0.304%	0.057	0.044	0.153	0.014
%RSD		0.972	41.930	38.270	0.653	5.924	4.234	40.860	4.508
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:02:43	43.052%	-0.756	-0.342	-0.352	12.480	13.090	52.097%	57.641%
2	19:02:52	44.052%	-0.840	-0.366	-0.353	14.590	12.190	53.395%	57.331%
3	19:03:02	44.346%	-0.610	-0.344	-0.354	13.830	14.110	53.990%	58.663%
X		43.816%	-0.735	-0.351	-0.353	13.630	13.130	53.160%	57.878%
σ		0.678%	0.117	0.014	0.001	1.071	0.962	0.968%	0.697%
%RSD		1.548	15.870	3.862	0.259	7.854	7.328	1.821	1.204
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:02:43	0.355	0.386	0.096	0.039	0.069	41.207%		
2	19:02:52	0.495	0.312	0.047	0.038	0.048	42.491%		
3	19:03:02	0.262	0.285	0.143	0.128	0.131	41.686%		
X		0.371	0.328	0.095	0.068	0.083	41.795%		
σ		0.117	0.052	0.048	0.052	0.043	0.649%		
%RSD		31.640	15.880	50.490	75.790	52.220	1.553		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	75.258%	0.083	1.687	1.170	0.000	3265.000	5497.000	5279.000
2	19:07:56	74.802%	0.015	0.798	0.447	0.000	3254.000	5473.000	5299.000
3	19:08:05	73.830%	0.009	-0.150	0.245	0.000	3234.000	5403.000	5302.000
X		74.630%	0.036	0.779	0.621	0.000	3251.000	5458.000	5293.000
σ		0.729%	0.041	0.919	0.486	0.000	15.850	48.820	12.530
%RSD		0.977	114.900	118.000	78.370	0.000	0.488	0.895	0.237
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	68.050	6130.000	0.000	2655.000	50500.000	49800.000	61.162%	4.498
2	19:07:56	68.780	6177.000	0.000	2671.000	50890.000	50220.000	61.098%	4.700
3	19:08:05	69.710	6200.000	0.000	2625.000	50030.000	49960.000	61.523%	4.274
X		68.850	6169.000	0.000	2650.000	50470.000	49990.000	61.261%	4.491
σ		0.832	35.960	0.000	23.230	432.200	209.500	0.229%	0.213
%RSD		1.209	0.583	0.000	0.876	0.856	0.419	0.374	4.738
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	14.310	10.490	656.400	96.760	295.000	0.818	0.599	3.719
2	19:07:56	14.290	11.460	660.100	98.850	308.200	0.579	0.596	2.625
3	19:08:05	-1.002	10.710	652.800	98.100	257.000	0.951	1.087	2.743
X		9.202	10.890	656.400	97.900	286.700	0.782	0.761	3.029
σ		8.836	0.508	3.680	1.061	26.560	0.189	0.282	0.600
%RSD		96.030	4.668	0.561	1.083	9.263	24.090	37.130	19.810
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	3.203	81.450	85.640	0.429	0.208	3.606	0.000	121.400
2	19:07:56	2.508	81.610	74.730	0.503	0.206	0.485	0.000	124.600
3	19:08:05	2.835	78.490	81.880	0.515	0.203	3.553	0.000	124.600
X		2.849	80.510	80.750	0.482	0.206	2.548	0.000	123.500
σ		0.348	1.757	5.544	0.046	0.003	1.787	0.000	1.866
%RSD		12.200	2.183	6.866	9.642	1.281	70.140	0.000	1.510
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	52.485%	0.124	0.021	48.440%	-1.072	-1.066	0.199	0.092
2	19:07:56	53.054%	-0.037	-0.004	48.575%	-1.072	-1.079	-0.011	0.174
3	19:08:05	53.823%	0.082	-0.077	48.159%	-1.015	-1.041	0.129	0.149
X		53.121%	0.056	-0.020	48.391%	-1.053	-1.062	0.106	0.139
σ		0.672%	0.083	0.051	0.212%	0.033	0.019	0.107	0.042
%RSD		1.264	148.000	251.800	0.439	3.141	1.801	101.100	30.250
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:47	44.860%	-0.572	-0.366	-0.353	41.170	41.560	45.843%	46.192%
2	19:07:56	45.747%	-0.542	-0.412	-0.353	46.620	48.300	45.421%	45.907%
3	19:08:05	44.983%	-0.765	-0.320	-0.410	38.310	41.600	45.630%	46.658%
X		45.197%	-0.626	-0.366	-0.372	42.030	43.820	45.631%	46.252%
σ		0.481%	0.121	0.046	0.033	4.223	3.878	0.211%	0.379%
%RSD		1.064	19.390	12.490	8.851	10.050	8.849	0.462	0.820
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:07:47	-0.004	0.027	0.071	0.066	0.103	46.447%		
2	19:07:56	0.032	0.022	0.114	0.066	0.085	46.818%		
3	19:08:05	0.067	0.047	0.158	0.163	0.134	46.630%		
X		0.032	0.032	0.114	0.098	0.107	46.632%		
σ		0.035	0.013	0.043	0.056	0.025	0.185%		
%RSD		111.500	40.450	37.760	57.050	23.400	0.398		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	76.464%	0.289	-6.636	-5.279	0.000	3436.000	5164.000	5013.000
2	19:12:59	79.898%	0.342	-6.417	-6.367	0.000	3460.000	5241.000	5073.000
3	19:13:09	77.081%	0.410	-8.076	-6.232	0.000	3465.000	5337.000	5091.000
X		77.814%	0.347	-7.043	-5.960	0.000	3454.000	5247.000	5059.000
		1.831%	0.061	0.901	0.593	0.000	15.810	86.780	40.870
		2.353	17.520	12.790	9.954	0.000	0.458	1.654	0.808
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	306.900	5016.000	0.000	2658.000	19290.000	18520.000	61.443%	1.869
2	19:12:59	311.000	4929.000	0.000	2652.000	19300.000	18430.000	61.262%	2.203
3	19:13:09	309.000	4987.000	0.000	2691.000	19520.000	18900.000	60.598%	2.164
X		309.000	4977.000	0.000	2667.000	19370.000	18620.000	61.101%	2.079
		2.052	43.830	0.000	21.150	128.500	247.100	0.445%	0.182
		0.664	0.881	0.000	0.793	0.663	1.328	0.728	8.776
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	20.030	11.570	1017.000	43.760	114.100	15.150	3.529	18.960
2	19:12:59	-27.720	11.490	1016.000	43.170	91.580	15.380	4.587	20.260
3	19:13:09	9.751	12.830	1029.000	45.530	123.400	15.180	4.354	20.320
X		0.687	11.960	1021.000	44.150	109.700	15.240	4.156	19.850
		25.140	0.752	7.109	1.226	16.380	0.126	0.556	0.768
		3659.000	6.284	0.696	2.778	14.930	0.828	13.370	3.872
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	18.710	182.800	190.500	0.284	1.296	2.184	0.000	23.700
2	19:12:59	19.460	190.500	189.500	0.297	0.623	-0.830	0.000	24.130
3	19:13:09	20.840	198.600	186.700	0.317	1.825	5.954	0.000	24.420
X		19.670	190.600	188.900	0.299	1.248	2.436	0.000	24.080
		1.082	7.897	1.996	0.016	0.603	3.399	0.000	0.365
		5.504	4.143	1.056	5.477	48.280	139.500	0.000	1.514
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	92.710%	-0.065	-0.135	48.347%	-0.992	-1.041	0.483	0.381
2	19:12:59	93.329%	-0.095	-0.031	47.917%	-1.026	-1.078	0.129	0.319
3	19:13:09	91.375%	-0.156	-0.135	48.317%	-1.027	-1.079	0.265	0.480
X		92.472%	-0.105	-0.100	48.193%	-1.015	-1.066	0.293	0.393
		0.999%	0.047	0.060	0.240%	0.020	0.022	0.179	0.082
		1.080	44.310	60.040	0.498	1.980	2.041	61.050	20.740
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:12:50	44.444%	-0.762	-0.366	-0.294	27.650	24.330	46.244%	47.747%
2	19:12:59	45.189%	-0.767	-0.367	-0.410	28.560	25.430	48.132%	49.832%
3	19:13:09	45.969%	-0.809	-0.412	-0.410	23.880	22.840	48.128%	48.799%
X		45.200%	-0.780	-0.381	-0.371	26.700	24.200	47.501%	48.793%
		0.762%	0.026	0.026	0.067	2.484	1.297	1.089%	1.043%
		1.687	3.298	6.913	17.960	9.305	5.361	2.292	2.137
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:12:50	0.055	0.140	0.173	0.164	0.174	46.428%		
2	19:12:59	0.105	0.089	0.194	0.237	0.188	44.732%		
3	19:13:09	0.070	0.085	0.076	0.088	0.139	43.985%		
X		0.077	0.104	0.147	0.163	0.167	45.048%		
		0.026	0.031	0.063	0.075	0.025	1.252%		
		33.370	29.310	42.780	45.960	15.030	2.779		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	76.453%	0.071	-3.906	-4.739	0.000	449.200	20.770	19.100
2	19:18:04	77.324%	0.052	-6.540	-4.443	0.000	443.600	22.280	21.000
3	19:18:14	76.336%	0.004	-6.400	-5.203	0.000	439.100	21.630	20.760
X		76.704%	0.042	-5.615	-4.795	0.000	444.000	21.560	20.290
σ		0.540%	0.034	1.482	0.383	0.000	5.048	0.760	1.035
%RSD		0.704	81.800	26.400	7.987	0.000	1.137	3.524	5.101
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	1.480	59.980	0.000	386.200	10.030	149.500	60.135%	0.386
2	19:18:04	1.557	59.110	0.000	374.900	29.360	150.300	61.035%	0.572
3	19:18:14	1.185	58.700	0.000	365.400	16.040	148.000	61.075%	1.096
X		1.407	59.260	0.000	375.500	18.480	149.300	60.748%	0.685
σ		0.197	0.656	0.000	10.460	9.891	1.149	0.531%	0.368
%RSD		13.980	1.106	0.000	2.785	53.530	0.770	0.875	53.760
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	21.220	12.580	1.596	1.470	0.222	0.028	-0.002	0.092
2	19:18:04	-2.211	11.900	1.764	1.385	5.316	0.000	0.091	0.462
3	19:18:14	-10.620	12.830	1.582	1.381	0.133	-0.013	0.094	0.128
X		2.797	12.440	1.647	1.412	1.890	0.005	0.061	0.227
σ		16.500	0.484	0.101	0.050	2.967	0.021	0.055	0.204
%RSD		590.200	3.888	6.134	3.540	157.000	404.100	89.830	89.880
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	0.601	2.954	2.031	0.201	-0.045	3.278	0.000	0.050
2	19:18:04	0.156	2.221	2.296	0.172	0.455	2.634	0.000	0.076
3	19:18:14	-0.034	2.001	1.551	0.274	0.717	3.137	0.000	0.078
X		0.241	2.392	1.959	0.215	0.376	3.016	0.000	0.068
σ		0.326	0.499	0.377	0.052	0.387	0.339	0.000	0.016
%RSD		135.200	20.850	19.260	24.360	103.100	11.230	0.000	23.290
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	51.256%	-0.076	-0.198	49.532%	-0.962	-1.056	-0.011	-0.022
2	19:18:04	53.418%	-0.117	-0.127	50.790%	-1.031	-1.069	-0.011	0.006
3	19:18:14	52.286%	0.001	-0.127	50.553%	-1.097	-1.071	-0.011	0.005
X		52.320%	-0.064	-0.150	50.292%	-1.030	-1.065	-0.011	-0.003
σ		1.081%	0.060	0.041	0.668%	0.067	0.008	0.000	0.016
%RSD		2.067	94.390	27.050	1.329	6.548	0.791	0.210	494.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:17:55	45.322%	-0.882	-0.344	-0.353	0.000	0.090	46.244%	46.192%
2	19:18:04	45.611%	-0.845	-0.322	-0.382	0.000	0.000	46.670%	46.091%
3	19:18:14	47.385%	-0.705	-0.390	-0.383	0.000	0.000	46.991%	48.197%
X		46.106%	-0.811	-0.352	-0.372	0.000	0.030	46.635%	46.827%
σ		1.117%	0.093	0.035	0.017	0.000	0.052	0.375%	1.188%
%RSD		2.424	11.500	9.904	4.508	0.000	173.200	0.803	2.536
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:17:55	0.020	0.003	0.013	0.065	0.021	47.546%		
2	19:18:04	0.019	0.021	0.040	0.048	0.044	48.301%		
3	19:18:14	0.019	0.016	0.025	0.000	0.020	49.464%		
X		0.019	0.013	0.026	0.037	0.028	48.437%		
σ		0.000	0.010	0.014	0.033	0.014	0.967%		
%RSD		2.415	72.920	53.100	89.080	49.130	1.995		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	67.898%	107.200	97.190	100.800	0.000	57930.000	52390.000	51610.000
2	19:23:06	67.650%	108.700	97.240	99.010	0.000	59010.000	54430.000	53080.000
3	19:23:16	68.586%	108.800	96.410	96.800	0.000	58900.000	54220.000	53230.000
X		68.045%	108.248%	96.945%	98.861%	0.000	117.222%	107.359%	105.273%
σ		0.485%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.712	0.800	0.482	2.015	0.000	1.018	2.096	1.701
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	531.500	5448.000	0.000	50400.000	49250.000	48640.000	66.484%	100.000
2	19:23:06	550.700	5578.000	0.000	52130.000	49800.000	49870.000	64.434%	101.700
3	19:23:16	552.700	5626.000	0.000	52230.000	50800.000	50340.000	64.794%	101.200
X		108.996%	111.010%	0.000	103.174%	99.905%	99.232%	65.237%	100.970%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.095%	n/a
%RSD		2.147	1.661	0.000	1.996	1.567	1.773	1.678	0.840
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	95.800	93.380	450.700	24220.000	24250.000	98.000	99.050	103.100
2	19:23:06	100.600	98.180	462.400	23870.000	24070.000	92.280	95.410	101.900
3	19:23:16	100.900	98.110	468.800	25050.000	24680.000	100.400	103.400	100.300
X		99.090%	96.556%	92.124%	97.508%	97.326%	96.899%	99.290%	101.774%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.877	2.849	1.993	2.497	1.286	4.312	4.029	1.405
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	101.300	99.160	99.940	99.860	108.900	106.400	0.000	95.280
2	19:23:06	105.300	95.180	97.800	100.500	102.300	106.000	0.000	98.730
3	19:23:16	100.000	97.400	93.990	101.100	98.420	104.600	0.000	98.940
X		102.208%	97.247%	97.245%	100.471%	103.221%	105.642%	0.000	97.652%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.697	2.054	3.103	0.594	5.138	0.863	0.000	2.105
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	54.331%	96.900	103.600	50.462%	102.000	102.100	96.970	101.700
2	19:23:06	54.345%	105.200	103.400	49.786%	102.000	102.500	99.120	103.700
3	19:23:16	54.777%	100.500	106.300	50.645%	100.200	101.200	96.890	105.700
X		54.484%	100.879%	104.435%	50.298%	101.402%	101.909%	97.663%	103.702%
σ		0.254%	n/a	n/a	0.453%	n/a	n/a	n/a	n/a
%RSD		0.466	4.151	1.539	0.900	1.001	0.635	1.295	1.921
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:57	47.571%	96.370	94.910	98.400	96.020	97.130	49.337%	48.048%
2	19:23:06	47.626%	101.000	96.680	95.810	92.700	92.480	49.064%	48.438%
3	19:23:16	46.928%	100.600	99.290	96.890	98.530	92.740	48.240%	47.465%
X		47.375%	99.320%	96.961%	97.034%	95.752%	94.116%	48.880%	47.984%
σ		0.388%	n/a	n/a	n/a	n/a	n/a	0.571%	0.489%
%RSD		0.819	2.582	2.272	1.343	3.055	2.773	1.168	1.020
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:22:57	111.600	109.500	108.900	107.500	108.900	42.417%		
2	19:23:06	110.300	113.400	113.000	110.100	109.900	42.880%		
3	19:23:16	106.900	105.500	104.200	107.000	106.700	43.083%		
X		109.589%	109.483%	108.663%	108.189%	108.499%	42.793%		
σ		n/a	n/a	n/a	n/a	n/a	0.341%		
%RSD		2.174	3.568	4.048	1.533	1.506	0.797		

CCB7 8/21/2015 7:32:44 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	19:31:50	74.291%	0.042	-7.784	-6.951	0.000	318.100	13.800	13.130
2	19:31:59	75.380%	0.057	-9.417	-8.355	0.000	310.900	13.390	12.120
3	19:32:08	74.302%	0.154	-10.140	-8.683	0.000	314.800	13.120	11.550
X		74.658%	0.084	-9.115	-7.996	0.000	314.600	13.440	12.270
σ		0.626%	0.061	1.209	0.920	0.000	3.620	0.342	0.796
%RSD		0.838	72.210	13.260	11.510	0.000	1.151	2.543	6.489
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:50	0.293	44.690	0.000	328.000	23.970	13.510	67.077%	0.012
2	19:31:59	0.122	43.420	0.000	326.900	-3.321	15.400	67.325%	0.129
3	19:32:08	0.311	43.730	0.000	320.400	11.820	14.650	67.180%	0.011
X		0.242	43.950	0.000	325.100	10.820	14.520	67.194%	0.051
σ		0.104	0.662	0.000	4.146	13.670	0.954	0.125%	0.068
%RSD		43.100	1.507	0.000	1.275	126.300	6.572	0.185	134.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:50	3.220	1.222	0.144	4.534	17.500	-0.000	-0.265	-1.525
2	19:31:59	1.112	1.235	0.082	4.815	2.866	0.023	-0.219	-1.363
3	19:32:08	-0.862	1.193	0.115	4.041	12.570	-0.001	-0.125	-1.774
X		1.157	1.217	0.114	4.463	10.980	0.007	-0.203	-1.554
σ		2.041	0.021	0.031	0.392	7.447	0.014	0.071	0.207
%RSD		176.500	1.732	27.040	8.774	67.830	185.300	35.160	13.310
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:50	-1.380	0.487	0.515	-0.042	-0.045	1.680	0.000	-0.010
2	19:31:59	-1.118	0.252	1.111	0.083	0.657	-0.348	0.000	-0.010
3	19:32:08	-1.462	0.483	0.613	0.013	-0.045	3.017	0.000	0.045
X		-1.320	0.407	0.746	0.018	0.189	1.450	0.000	0.008
σ		0.180	0.135	0.319	0.063	0.406	1.694	0.000	0.032
%RSD		13.600	33.060	42.810	348.900	214.700	116.800	0.000	395.900
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:50	54.784%	0.029	0.068	54.557%	-1.000	-0.992	-0.011	0.029
2	19:31:59	56.528%	0.061	-0.003	55.418%	-0.965	-0.966	-0.011	-0.022
3	19:32:08	55.512%	-0.010	-0.088	55.287%	-0.935	-0.996	-0.011	-0.022
X		55.608%	0.027	-0.008	55.087%	-0.966	-0.985	-0.011	-0.005
σ		0.876%	0.035	0.078	0.464%	0.033	0.017	0.000	0.029
%RSD		1.575	131.100	1020.000	0.843	3.404	1.683	0.220	622.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:31:50	50.588%	-1.001	-0.269	-0.180	0.000	0.163	50.622%	49.913%
2	19:31:59	52.683%	-0.969	-0.294	-0.237	0.000	0.080	50.662%	51.593%
3	19:32:08	52.373%	-0.869	-0.274	-0.262	0.000	0.000	51.816%	51.364%
X		51.881%	-0.946	-0.279	-0.226	0.000	0.081	51.033%	50.956%
σ		1.131%	0.069	0.013	0.042	0.000	0.081	0.678%	0.911%
%RSD		2.179	7.250	4.677	18.510	0.000	100.700	1.328	1.788
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:31:50	0.008	0.026	0.026	0.000	0.020	48.510%		
2	19:31:59	-0.004	0.012	0.012	0.000	-0.003	48.262%		
3	19:32:08	0.030	0.030	0.012	-0.015	0.003	48.718%		
X		0.011	0.023	0.017	-0.005	0.007	48.497%		
σ		0.017	0.010	0.008	0.009	0.012	0.228%		
%RSD		151.100	42.640	48.510	190.400	184.600	0.471		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	87.424%	0.103	-4.779	-1.982	0.000	4633.000	11890.000	11360.000
2	19:37:05	87.553%	0.037	-4.798	-3.683	0.000	4499.000	11760.000	11320.000
3	19:37:14	86.726%	0.002	-4.293	-3.893	0.000	4401.000	11860.000	11690.000
X		87.234%	0.047	-4.623	-3.186	0.000	4511.000	11840.000	11460.000
σ		0.445%	0.052	0.286	1.048	0.000	116.600	62.670	199.600
%RSD		0.510	109.300	6.187	32.890	0.000	2.586	0.529	1.742
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	121.600	4948.000	0.000	4439.000	65700.000	66790.000	65.539%	2.403
2	19:37:05	124.100	4943.000	0.000	4448.000	66780.000	67430.000	65.051%	1.500
3	19:37:14	125.500	4873.000	0.000	4508.000	67310.000	67390.000	63.888%	1.784
X		123.700	4921.000	0.000	4465.000	66600.000	67200.000	64.826%	1.896
σ		1.945	41.730	0.000	37.660	822.100	359.600	0.848%	0.462
%RSD		1.572	0.848	0.000	0.843	1.234	0.535	1.309	24.340
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	-13.680	8.658	1520.000	11.990	196.200	21.510	4.033	17.540
2	19:37:05	13.960	8.236	1548.000	12.120	180.400	22.160	3.840	16.840
3	19:37:14	-12.190	8.895	1538.000	12.200	175.100	21.300	3.347	17.310
X		-3.968	8.596	1535.000	12.100	183.900	21.660	3.740	17.230
σ		15.550	0.333	13.970	0.107	10.980	0.449	0.354	0.356
%RSD		391.700	3.878	0.910	0.887	5.972	2.071	9.466	2.068
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	18.850	146.500	138.700	0.349	0.588	4.052	0.000	134.200
2	19:37:05	18.880	135.200	133.000	0.440	0.370	-1.601	0.000	132.700
3	19:37:14	18.840	143.400	141.700	0.522	0.169	6.787	0.000	141.700
X		18.860	141.700	137.800	0.437	0.376	3.079	0.000	136.200
σ		0.026	5.834	4.444	0.087	0.210	4.278	0.000	4.824
%RSD		0.136	4.118	3.225	19.900	55.780	138.900	0.000	3.541
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	65.173%	0.020	0.001	50.165%	-1.086	-1.094	0.387	0.486
2	19:37:05	66.788%	-0.053	-0.024	51.173%	-1.033	-0.991	0.322	0.411
3	19:37:14	64.432%	0.056	-0.087	50.260%	-1.021	-1.094	0.453	0.246
X		65.464%	0.007	-0.037	50.533%	-1.047	-1.060	0.387	0.381
σ		1.205%	0.055	0.045	0.556%	0.034	0.060	0.066	0.123
%RSD		1.840	742.600	124.200	1.101	3.294	5.632	16.970	32.270
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:36:55	47.949%	-0.493	-0.198	-0.249	25.540	26.010	48.883%	49.591%
2	19:37:05	47.262%	-0.265	-0.216	-0.192	20.930	24.490	48.172%	47.831%
3	19:37:14	47.910%	-0.818	-0.283	-0.060	20.790	21.600	48.895%	47.907%
X		47.707%	-0.525	-0.232	-0.167	22.420	24.030	48.650%	48.443%
σ		0.386%	0.278	0.045	0.097	2.706	2.243	0.414%	0.995%
%RSD		0.809	52.920	19.380	57.860	12.070	9.332	0.851	2.054
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:36:55	0.140	0.123	0.147	0.101	0.117	45.278%		
2	19:37:05	0.132	0.101	0.054	0.078	0.071	48.603%		
3	19:37:14	0.078	0.124	0.070	0.033	0.067	47.007%		
X		0.117	0.116	0.090	0.071	0.085	46.963%		
σ		0.034	0.013	0.050	0.035	0.028	1.663%		
%RSD		29.010	11.000	55.200	48.950	32.750	3.541		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	80.940%	0.027	-5.217	-2.628	0.000	4389.000	9344.000	9012.000	
2	19:42:09	79.646%	0.014	-4.496	-3.434	0.000	4275.000	9252.000	8961.000	
3	19:42:18	80.722%	0.099	-5.753	-3.881	0.000	4287.000	9112.000	8904.000	
X		80.436%	0.047	-5.156	-3.315	0.000	4317.000	9236.000	8959.000	
		$\sigma$	0.693%	0.046	0.631	0.635	0.000	62.390	116.400	54.020
		%RSD	0.861	97.760	12.230	19.150	0.000	1.445	1.261	0.603
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	6.767	6172.000	0.000	6327.000	66580.000	67060.000	63.140%	2.063	
2	19:42:09	6.947	6043.000	0.000	6286.000	67020.000	66770.000	63.439%	2.115	
3	19:42:18	7.427	6036.000	0.000	6247.000	66370.000	65130.000	62.298%	1.775	
X		7.047	6084.000	0.000	6287.000	66660.000	66320.000	62.959%	1.984	
		$\sigma$	0.342	76.580	0.000	39.830	328.700	1046.000	0.592%	0.184
		%RSD	4.846	1.259	0.000	0.634	0.493	1.577	0.940	9.248
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	9.875	9.861	36.210	4.817	188.900	0.182	0.787	1.781	
2	19:42:09	-15.250	10.330	35.880	5.081	208.100	0.378	0.891	2.117	
3	19:42:18	-0.452	10.310	35.230	5.029	198.300	0.248	0.940	2.115	
X		-1.943	10.170	35.770	4.976	198.400	0.270	0.873	2.004	
		$\sigma$	12.630	0.265	0.501	0.140	9.615	0.100	0.078	0.194
		%RSD	650.000	2.606	1.400	2.811	4.846	37.020	8.907	9.664
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	2.750	8.870	9.729	0.294	0.210	7.003	0.000	202.500	
2	19:42:09	1.682	9.412	10.420	0.436	0.213	4.152	0.000	206.200	
3	19:42:18	2.033	9.657	13.220	0.291	-0.045	3.603	0.000	202.000	
X		2.155	9.313	11.120	0.340	0.126	4.920	0.000	203.600	
		$\sigma$	0.544	0.403	1.851	0.083	1.825	0.000	2.298	
		%RSD	25.260	4.323	16.640	24.420	117.800	37.100	0.000	1.129
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	51.531%	0.169	0.048	48.084%	-1.014	-0.956	-0.011	0.007	
2	19:42:09	50.749%	-0.033	0.100	47.797%	-0.992	-1.030	-0.011	0.034	
3	19:42:18	52.402%	0.004	0.021	48.343%	-1.016	-1.007	-0.011	0.034	
X		51.561%	0.047	0.056	48.075%	-1.008	-0.998	-0.011	0.025	
		$\sigma$	0.827%	0.107	0.040	0.273%	0.013	0.038	0.000	0.016
		%RSD	1.605	229.500	70.840	0.568	1.313	3.808	0.265	62.730
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:41:59	44.958%	-0.688	-0.321	-0.210	26.830	32.800	46.132%	45.891%	
2	19:42:09	45.978%	-0.734	-0.367	-0.242	29.590	29.490	46.975%	46.879%	
3	19:42:18	46.002%	-0.470	-0.211	-0.214	30.710	28.470	46.509%	46.919%	
X		45.646%	-0.630	-0.299	-0.222	29.040	30.250	46.539%	46.563%	
		$\sigma$	0.596%	0.141	0.080	0.018	1.998	2.266	0.422%	0.583%
		%RSD	1.305	22.390	26.840	7.944	6.881	7.491	0.908	1.251
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	19:41:59	0.080	0.018	0.454	0.446	0.462	45.907%			
2	19:42:09	0.046	0.054	0.424	0.428	0.409	44.244%			
3	19:42:18	0.009	0.003	0.478	0.406	0.469	44.858%			
X		0.045	0.025	0.452	0.427	0.447	45.003%			
		$\sigma$	0.036	0.026	0.027	0.020	0.033	0.841%		
		%RSD	79.980	106.400	6.008	4.774	7.367	1.868		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	78.746%	0.065	-4.721	-3.629	0.000	4327.000	9198.000	8897.000
2	19:47:12	78.885%	0.032	-5.748	-3.984	0.000	4308.000	9249.000	9041.000
3	19:47:21	77.936%	0.132	-4.215	-5.043	0.000	4163.000	9178.000	8884.000
X		78.522%	0.076	-4.894	-4.219	0.000	4266.000	9208.000	8941.000
σ		0.513%	0.051	0.781	0.736	0.000	89.960	36.670	87.120
%RSD		0.653	67.360	15.960	17.440	0.000	2.109	0.398	0.974
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	7.650	6269.000	0.000	6016.000	62050.000	61390.000	63.367%	2.118
2	19:47:12	7.998	6194.000	0.000	6023.000	62940.000	61320.000	62.157%	2.037
3	19:47:21	7.161	6200.000	0.000	5993.000	61750.000	61100.000	63.041%	1.877
X		7.603	6221.000	0.000	6011.000	62250.000	61270.000	62.855%	2.011
σ		0.421	41.710	0.000	15.950	619.000	151.700	0.626%	0.123
%RSD		5.530	0.670	0.000	0.265	0.995	0.248	0.996	6.109
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	14.740	11.010	4492.000	10.590	192.000	1.078	0.836	0.249
2	19:47:12	-14.150	11.220	4542.000	10.030	203.600	1.187	0.890	0.231
3	19:47:21	-25.450	11.320	4499.000	9.678	169.900	1.002	0.674	0.525
X		-8.288	11.190	4511.000	10.100	188.500	1.089	0.800	0.335
σ		20.730	0.159	26.940	0.460	17.110	0.093	0.112	0.165
%RSD		250.100	1.420	0.597	4.558	9.076	8.531	14.000	49.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	0.868	5.548	4.973	0.373	0.210	2.777	0.000	154.500
2	19:47:12	0.362	5.774	4.986	0.348	-0.045	3.598	0.000	151.200
3	19:47:21	0.656	4.172	5.340	0.380	0.947	1.793	0.000	154.900
X		0.629	5.165	5.100	0.367	0.371	2.722	0.000	153.500
σ		0.254	0.867	0.208	0.017	0.515	0.904	0.000	2.014
%RSD		40.430	16.780	4.081	4.503	139.000	33.190	0.000	1.312
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	51.380%	0.006	-0.100	48.762%	-0.981	-1.029	-0.011	-0.022
2	19:47:12	52.574%	0.044	-0.003	48.344%	-0.948	-1.066	-0.011	-0.022
3	19:47:21	53.453%	-0.077	-0.101	48.274%	-1.038	-1.078	-0.011	0.063
X		52.469%	-0.009	-0.068	48.460%	-0.989	-1.058	-0.011	0.007
σ		1.040%	0.062	0.056	0.264%	0.046	0.026	0.000	0.049
%RSD		1.983	688.500	82.470	0.544	4.606	2.438	0.234	729.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:47:03	44.267%	-0.722	-0.412	-0.323	34.930	30.390	46.526%	45.999%
2	19:47:12	45.361%	-0.806	-0.322	-0.353	30.180	29.550	47.421%	47.678%
3	19:47:21	45.307%	-0.806	-0.321	-0.410	28.280	30.010	47.148%	47.469%
X		44.978%	-0.778	-0.352	-0.362	31.130	29.980	47.031%	47.049%
σ		0.616%	0.048	0.052	0.044	3.420	0.417	0.459%	0.915%
%RSD		1.370	6.199	14.840	12.170	10.990	1.391	0.976	1.945
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:47:03	-0.004	0.003	0.028	0.034	0.046	46.669%		
2	19:47:12	-0.004	0.018	0.073	0.085	0.055	45.200%		
3	19:47:21	0.008	0.028	0.087	0.051	0.062	45.611%		
X		0.000	0.016	0.063	0.057	0.054	45.827%		
σ		0.007	0.013	0.031	0.026	0.008	0.757%		
%RSD		1960.000	78.690	49.800	46.310	14.480	1.653		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	78.941%	0.097	-4.963	-4.137	0.000	4382.000	9182.000	8988.000	
2	19:52:13	76.358%	0.163	-5.638	-4.117	0.000	4388.000	9280.000	9070.000	
3	19:52:23	78.639%	0.073	-6.136	-5.213	0.000	4427.000	9434.000	9148.000	
X		77.979%	0.111	-5.579	-4.489	0.000	4399.000	9299.000	9069.000	
		σ	1.412%	0.047	0.589	0.627	0.000	24.100	127.100	79.960
		%RSD	1.811	42.190	10.550	13.970	0.000	0.548	1.366	0.882
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	12.990	5944.000	0.000	5777.000	61880.000	62120.000	62.604%	2.148	
2	19:52:13	13.480	6128.000	0.000	5799.000	62560.000	62940.000	61.938%	1.593	
3	19:52:23	14.400	5960.000	0.000	5915.000	63050.000	63110.000	61.420%	2.261	
X		13.630	6010.000	0.000	5830.000	62500.000	62720.000	61.987%	2.001	
		σ	0.715	102.000	0.000	73.980	591.100	531.200	0.594%	0.358
		%RSD	5.247	1.697	0.000	1.269	0.946	0.847	0.958	17.880
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	11.280	10.760	2990.000	54.470	296.900	0.547	0.340	-0.190	
2	19:52:13	-8.489	10.940	3042.000	51.780	244.900	0.497	0.013	-0.338	
3	19:52:23	-12.460	11.770	3056.000	53.060	240.000	0.591	0.206	-0.187	
X		-3.222	11.160	3029.000	53.100	260.600	0.545	0.186	-0.238	
		σ	12.710	0.541	34.430	1.344	31.520	0.047	0.164	0.086
		%RSD	394.600	4.849	1.137	2.531	12.100	8.583	88.220	36.070
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	0.196	1.780	2.769	0.209	0.172	-0.930	0.000	122.700	
2	19:52:13	0.482	2.635	2.379	0.254	0.381	5.156	0.000	123.300	
3	19:52:23	0.254	2.313	2.491	0.313	-0.045	3.008	0.000	127.700	
X		0.311	2.243	2.546	0.259	0.169	2.412	0.000	124.600	
		σ	0.151	0.432	0.201	0.052	3.086	0.000	2.731	
		%RSD	48.620	19.250	7.883	20.010	125.900	128.000	0.000	2.192
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	63.697%	-0.045	-0.127	46.549%	-1.069	-1.100	-0.011	0.008	
2	19:52:13	65.654%	-0.011	-0.058	46.603%	-0.987	-1.037	-0.011	-0.022	
3	19:52:23	63.896%	0.065	-0.127	46.653%	-0.988	-0.914	-0.011	-0.022	
X		64.416%	0.003	-0.104	46.602%	-1.014	-1.017	-0.011	-0.012	
		σ	1.077%	0.056	0.040	0.052%	0.047	0.095	0.000	0.017
		%RSD	1.673	1976.000	38.340	0.112	4.632	9.312	0.579	144.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	19:52:04	43.468%	-0.676	-0.294	-0.351	46.200	47.250	44.691%	44.645%	
2	19:52:13	43.625%	-0.797	-0.341	-0.263	47.920	49.000	44.923%	44.834%	
3	19:52:23	44.219%	-0.839	-0.319	-0.236	57.160	47.950	45.935%	45.907%	
X		43.771%	-0.771	-0.318	-0.283	50.430	48.060	45.183%	45.129%	
		σ	0.396%	0.085	0.024	0.060	5.891	0.879	0.662%	0.680%
		%RSD	0.904	10.960	7.471	21.270	11.680	1.828	1.464	1.507
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	19:52:04	-0.004	0.009	0.049	0.076	0.058	41.386%			
2	19:52:13	0.009	0.003	0.000	0.075	0.053	41.744%			
3	19:52:23	-0.004	-0.002	0.082	0.021	0.070	41.222%			
X		0.001	0.003	0.044	0.058	0.060	41.451%			
		σ	0.008	0.005	0.041	0.031	0.267%			
		%RSD	1068.000	172.400	93.760	54.380	14.350	0.645		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	77.698%	0.076	-4.873	-4.918	0.000	1745.000	4968.000	4736.000
2	19:57:17	75.628%	0.141	-5.084	-4.714	0.000	1752.000	4981.000	4823.000
3	19:57:26	78.049%	0.066	-6.533	-4.903	0.000	1749.000	4998.000	4862.000
X		77.125%	0.094	-5.496	-4.845	0.000	1749.000	4983.000	4807.000
σ		1.308%	0.041	0.904	0.114	0.000	3.125	14.990	64.440
%RSD		1.696	43.010	16.440	2.343	0.000	0.179	0.301	1.341
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	37.370	4300.000	0.000	3557.000	17090.000	16350.000	62.643%	1.635
2	19:57:17	38.400	4303.000	0.000	3604.000	17150.000	16450.000	61.870%	1.789
3	19:57:26	38.840	4344.000	0.000	3639.000	17070.000	16630.000	61.372%	1.089
X		38.200	4316.000	0.000	3600.000	17100.000	16470.000	61.962%	1.504
σ		0.754	24.510	0.000	40.890	38.820	141.500	0.641%	0.368
%RSD		1.974	0.568	0.000	1.136	0.227	0.859	1.034	24.460
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	21.340	11.730	669.900	39.890	141.200	7.245	2.991	39.380
2	19:57:17	20.450	11.820	675.400	38.780	91.710	7.437	3.150	39.070
3	19:57:26	10.330	13.170	684.900	39.670	109.300	7.025	3.222	42.290
X		17.370	12.240	676.700	39.440	114.100	7.236	3.121	40.250
σ		6.113	0.807	7.631	0.589	25.090	0.206	0.118	1.778
%RSD		35.190	6.591	1.128	1.493	22.000	2.850	3.772	4.417
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	41.180	197.400	194.900	0.253	-0.045	-2.295	0.000	50.390
2	19:57:17	40.520	190.500	198.200	0.426	0.711	5.016	0.000	49.630
3	19:57:26	42.120	208.800	202.100	0.142	-0.045	5.646	0.000	52.630
X		41.270	198.900	198.400	0.274	0.207	2.789	0.000	50.880
σ		0.802	9.222	3.609	0.143	0.436	4.414	0.000	1.557
%RSD		1.944	4.637	1.819	52.370	211.100	158.300	0.000	3.060
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	51.956%	0.003	-0.126	49.544%	-1.106	-1.056	0.334	0.231
2	19:57:17	52.677%	-0.077	-0.150	49.617%	-0.996	-1.020	0.749	0.147
3	19:57:26	50.591%	-0.035	-0.149	49.619%	-1.041	-1.069	0.464	0.502
X		51.741%	-0.036	-0.142	49.594%	-1.048	-1.048	0.516	0.293
σ		1.060%	0.040	0.014	0.043%	0.056	0.025	0.212	0.185
%RSD		2.048	111.500	9.766	0.087	5.323	2.422	41.140	63.080
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:57:08	45.488%	-0.807	-0.299	-0.325	25.560	20.970	47.156%	46.095%
2	19:57:17	45.371%	-0.882	-0.322	-0.325	27.040	24.240	47.385%	46.819%
3	19:57:26	46.484%	-0.923	-0.368	-0.355	28.150	23.460	48.638%	49.000%
X		45.781%	-0.871	-0.330	-0.335	26.920	22.890	47.726%	47.305%
σ		0.611%	0.059	0.035	0.017	1.297	1.705	0.798%	1.512%
%RSD		1.336	6.799	10.620	5.101	4.818	7.447	1.672	3.197
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:57:08	0.150	0.091	0.071	0.083	0.068	46.389%		
2	19:57:17	0.101	0.094	0.112	0.065	0.090	47.408%		
3	19:57:26	0.031	0.113	0.041	0.129	0.077	47.258%		
X		0.094	0.099	0.075	0.092	0.078	47.019%		
σ		0.060	0.012	0.036	0.033	0.011	0.550%		
%RSD		63.720	12.020	47.630	35.850	14.510	1.170		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	77.216%	0.467	-5.714	-4.619	0.000	4729.000	8675.000	8418.000
2	20:02:21	75.439%	0.651	-6.823	-5.276	0.000	4793.000	9004.000	8694.000
3	20:02:30	78.528%	0.604	-8.034	-6.223	0.000	4729.000	8796.000	8520.000
X		77.061%	0.574	-6.857	-5.372	0.000	4750.000	8825.000	8544.000
σ		1.551%	0.096	1.160	0.806	0.000	37.050	166.600	139.200
%RSD		2.012	16.660	16.920	15.010	0.000	0.780	1.887	1.629
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	1485.000	6173.000	0.000	5131.000	32690.000	31670.000	63.461%	1.483
2	20:02:21	1531.000	6533.000	0.000	5255.000	33110.000	32210.000	61.425%	1.023
3	20:02:30	1530.000	6460.000	0.000	5229.000	32800.000	32580.000	61.686%	2.185
X		1515.000	6388.000	0.000	5205.000	32870.000	32150.000	62.190%	1.564
σ		26.200	190.400	0.000	65.010	217.600	458.700	1.108%	0.585
%RSD		1.729	2.981	0.000	1.249	0.662	1.427	1.781	37.440
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	14.770	10.910	2113.000	1880.000	2121.000	19.940	7.147	323.600
2	20:02:21	24.170	11.770	2141.000	1981.000	2248.000	21.190	7.522	334.200
3	20:02:30	-19.180	11.540	2164.000	1904.000	2076.000	20.890	8.172	323.800
X		6.583	11.410	2139.000	1922.000	2148.000	20.670	7.614	327.200
σ		22.800	0.448	25.900	52.870	89.310	0.653	0.518	6.080
%RSD		346.400	3.930	1.210	2.751	4.157	3.161	6.809	1.858
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	322.700	747.100	728.500	0.388	2.624	5.217	0.000	44.350
2	20:02:21	322.900	761.900	742.300	0.320	2.456	2.968	0.000	45.770
3	20:02:30	325.500	764.100	740.800	0.487	1.375	0.610	0.000	45.540
X		323.700	757.700	737.200	0.398	2.152	2.932	0.000	45.220
σ		1.573	9.257	7.540	0.084	0.678	2.303	0.000	0.762
%RSD		0.486	1.222	1.023	21.140	31.500	78.570	0.000	1.684
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	83.601%	-0.093	-0.114	49.242%	-1.062	-0.984	1.022	1.488
2	20:02:21	84.358%	-0.062	-0.177	49.481%	-1.073	-1.068	1.774	1.346
3	20:02:30	84.970%	-0.156	-0.177	49.051%	-1.016	-1.079	1.104	1.795
X		84.310%	-0.104	-0.156	49.258%	-1.050	-1.044	1.300	1.543
σ		0.686%	0.048	0.036	0.216%	0.030	0.052	0.413	0.230
%RSD		0.813	46.180	23.330	0.438	2.868	4.955	31.750	14.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:02:11	45.738%	-0.620	-0.323	-0.298	24.170	26.180	49.349%	50.086%
2	20:02:21	45.817%	-0.809	-0.323	-0.382	23.540	24.370	49.927%	50.282%
3	20:02:30	45.017%	-0.805	-0.299	-0.353	25.910	26.540	49.140%	50.516%
X		45.524%	-0.745	-0.315	-0.345	24.540	25.700	49.472%	50.295%
σ		0.440%	0.108	0.014	0.043	1.227	1.160	0.408%	0.215%
%RSD		0.967	14.520	4.411	12.350	4.998	4.514	0.824	0.428
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:02:11	0.192	0.192	0.755	0.716	0.671	44.230%		
2	20:02:21	0.207	0.207	0.734	0.633	0.719	46.510%		
3	20:02:30	0.288	0.202	0.904	0.567	0.728	46.644%		
X		0.229	0.200	0.797	0.639	0.706	45.795%		
σ		0.052	0.008	0.093	0.075	0.030	1.357%		
%RSD		22.530	3.942	11.630	11.740	4.318	2.963		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	73.792%	0.122	-5.966	-4.241	0.000	6308.000	25110.000	24490.000
2	20:07:22	74.938%	0.101	-5.973	-5.294	0.000	6545.000	26140.000	25000.000
3	20:07:31	75.080%	0.185	-5.661	-5.817	0.000	6506.000	25890.000	25280.000
X		74.603%	0.136	-5.867	-5.117	0.000	6453.000	25710.000	24920.000
σ		0.707%	0.044	0.178	0.802	0.000	127.000	537.700	399.900
%RSD		0.947	32.520	3.037	15.680	0.000	1.968	2.091	1.604
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	40.370	3213.000	0.000	8726.000	123600.000	123500.000	61.672%	1.926
2	20:07:22	42.500	3281.000	0.000	8949.000	126000.000	127400.000	60.420%	0.847
3	20:07:31	43.400	3288.000	0.000	8964.000	125900.000	126000.000	60.424%	1.642
X		42.090	3261.000	0.000	8880.000	125200.000	125600.000	60.839%	1.471
σ		1.558	41.550	0.000	133.400	1384.000	1947.000	0.722%	0.560
%RSD		3.702	1.274	0.000	1.502	1.106	1.550	1.186	38.030
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	17.330	8.787	1972.000	135.600	493.100	17.660	3.167	1.552
2	20:07:22	-9.099	8.543	2023.000	135.600	420.400	16.960	3.509	1.487
3	20:07:31	-17.150	8.580	2035.000	137.300	433.800	16.740	4.046	1.488
X		-2.970	8.637	2010.000	136.200	449.100	17.120	3.574	1.509
σ		18.040	0.132	33.710	1.004	38.670	0.482	0.443	0.038
%RSD		607.300	1.523	1.677	0.737	8.611	2.815	12.400	2.489
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	1.201	19.860	18.280	0.579	4.247	8.139	0.000	58.170
2	20:07:22	1.733	21.240	18.280	0.777	2.924	3.821	0.000	58.700
3	20:07:31	1.452	21.160	19.070	0.820	2.160	0.198	0.000	58.640
X		1.462	20.750	18.540	0.726	3.111	4.053	0.000	58.500
σ		0.266	0.774	0.455	0.128	1.056	3.975	0.000	0.292
%RSD		18.220	3.731	2.451	17.690	33.940	98.100	0.000	0.498
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	261.749%	-0.111	-0.162	47.505%	-1.070	-1.025	0.206	0.332
2	20:07:22	266.845%	-0.133	-0.179	47.193%	-1.048	-1.090	0.269	0.260
3	20:07:31	266.086%	-0.110	-0.125	47.075%	-1.024	-1.039	0.132	0.180
X		264.893%	-0.118	-0.155	47.258%	-1.047	-1.051	0.203	0.257
σ		2.750%	0.013	0.028	0.222%	0.023	0.034	0.069	0.076
%RSD		1.038	11.150	17.860	0.469	2.190	3.223	33.910	29.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:07:13	43.302%	-0.600	-0.296	-0.295	13.840	12.390	54.287%	58.023%
2	20:07:22	45.591%	-0.696	-0.390	-0.163	14.580	13.280	55.091%	60.518%
3	20:07:31	44.577%	-0.958	-0.322	-0.326	16.750	13.260	54.448%	60.236%
X		44.490%	-0.752	-0.336	-0.261	15.060	12.980	54.608%	59.592%
σ		1.147%	0.185	0.048	0.087	1.509	0.511	0.425%	1.366%
%RSD		2.578	24.640	14.410	33.180	10.030	3.941	0.779	2.293
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:07:13	0.343	0.329	0.193	0.321	0.236	44.472%		
2	20:07:22	0.412	0.357	0.296	0.236	0.232	44.571%		
3	20:07:31	0.267	0.354	0.146	0.168	0.218	45.029%		
X		0.341	0.347	0.212	0.242	0.229	44.691%		
σ		0.072	0.015	0.077	0.077	0.009	0.297%		
%RSD		21.270	4.464	36.250	31.890	4.030	0.665		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	74.938%	0.032	-1.573	0.743	0.000	3134.000	5363.000	5243.000
2	20:12:26	75.425%	0.048	0.261	-0.193	0.000	3279.000	5542.000	5397.000
3	20:12:35	75.442%	0.048	-1.292	-0.637	0.000	3176.000	5517.000	5349.000
X		75.269%	0.043	-0.868	-0.029	0.000	3196.000	5474.000	5330.000
σ		0.287%	0.009	0.988	0.705	0.000	74.780	97.190	79.220
%RSD		0.381	21.420	113.800	2451.000	0.000	2.340	1.776	1.486
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	34.750	6107.000	0.000	2615.000	49240.000	49240.000	62.267%	3.640
2	20:12:26	34.940	6244.000	0.000	2662.000	50840.000	50870.000	60.862%	3.864
3	20:12:35	35.790	6084.000	0.000	2631.000	51000.000	50570.000	60.650%	4.869
X		35.160	6145.000	0.000	2636.000	50360.000	50230.000	61.260%	4.125
σ		0.553	86.400	0.000	23.860	975.200	867.100	0.879%	0.654
%RSD		1.574	1.406	0.000	0.905	1.936	1.726	1.434	15.870
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	2.173	10.610	638.900	50.610	214.600	0.825	1.096	1.069
2	20:12:26	12.000	10.940	667.500	53.870	215.900	0.822	1.011	1.157
3	20:12:35	5.601	10.290	654.500	53.330	246.400	0.765	0.699	0.492
X		6.590	10.620	653.600	52.610	225.600	0.804	0.936	0.906
σ		4.985	0.324	14.340	1.748	17.980	0.034	0.209	0.361
%RSD		75.650	3.053	2.194	3.322	7.970	4.225	22.330	39.890
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	1.089	12.720	13.890	0.313	0.210	2.871	0.000	124.300
2	20:12:26	0.649	9.791	9.928	0.373	-0.045	-3.734	0.000	127.100
3	20:12:35	1.045	9.125	9.082	0.347	0.456	0.957	0.000	126.000
X		0.927	10.550	10.970	0.344	0.207	0.031	0.000	125.800
σ		0.242	1.914	2.569	0.030	0.251	3.398	0.000	1.379
%RSD		26.130	18.150	23.430	8.698	121.200	10830.000	0.000	1.096
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	51.840%	-0.036	-0.028	48.999%	-1.039	-1.115	0.059	0.007
2	20:12:26	52.155%	0.084	-0.028	48.875%	-1.061	-1.103	0.058	0.007
3	20:12:35	53.356%	0.003	-0.005	48.520%	-1.083	-1.030	0.128	0.007
X		52.451%	0.017	-0.020	48.798%	-1.061	-1.083	0.082	0.007
σ		0.800%	0.061	0.014	0.249%	0.022	0.046	0.040	0.000
%RSD		1.526	360.000	66.720	0.509	2.107	4.220	49.150	2.984
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:12:17	44.905%	-0.881	-0.321	-0.353	37.150	40.790	48.031%	48.245%
2	20:12:26	45.591%	-0.883	-0.322	-0.326	40.950	40.470	47.594%	47.530%
3	20:12:35	45.410%	-0.768	-0.389	-0.325	43.040	43.420	46.746%	46.939%
X		45.302%	-0.844	-0.344	-0.335	40.380	41.560	47.457%	47.571%
σ		0.356%	0.066	0.039	0.016	2.984	1.616	0.653%	0.654%
%RSD		0.785	7.807	11.380	4.799	7.391	3.890	1.377	1.375
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:12:17	0.046	0.008	0.197	0.190	0.184	44.008%		
2	20:12:26	-0.004	0.028	0.162	0.151	0.196	45.381%		
3	20:12:35	-0.004	0.022	0.112	0.192	0.176	47.605%		
X		0.013	0.019	0.157	0.178	0.185	45.664%		
σ		0.028	0.010	0.043	0.023	0.010	1.816%		
%RSD		222.500	52.840	27.390	12.910	5.415	3.976		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	77.704%	0.438	-6.002	-6.090	0.000	3438.000	5329.000	5153.000
2	20:17:29	75.652%	0.395	-8.728	-6.708	0.000	3437.000	5312.000	5217.000
3	20:17:38	78.614%	0.358	-8.309	-6.813	0.000	3391.000	5346.000	5174.000
X		77.323%	0.397	-7.680	-6.537	0.000	3422.000	5329.000	5181.000
σ		1.518%	0.040	1.468	0.390	0.000	26.610	16.930	32.750
%RSD		1.963	10.090	19.120	5.972	0.000	0.778	0.318	0.632
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	294.100	4963.000	0.000	2688.000	18960.000	19050.000	61.374%	1.676
2	20:17:29	299.800	5047.000	0.000	2676.000	19600.000	19160.000	60.855%	1.891
3	20:17:38	290.800	4978.000	0.000	2691.000	19810.000	19140.000	61.309%	1.874
X		294.900	4996.000	0.000	2685.000	19460.000	19120.000	61.179%	1.814
σ		4.558	44.870	0.000	7.853	441.400	55.590	0.283%	0.119
%RSD		1.545	0.898	0.000	0.293	2.269	0.291	0.462	6.585
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	-25.900	11.670	1040.000	37.660	85.350	15.370	32.100	17.390
2	20:17:29	33.160	11.810	1053.000	39.110	94.830	15.780	31.480	17.590
3	20:17:38	-14.540	13.080	1048.000	38.040	87.200	16.600	32.840	17.820
X		-2.424	12.190	1047.000	38.270	89.130	15.920	32.140	17.600
σ		31.340	0.773	6.678	0.750	5.023	0.626	0.679	0.219
%RSD		1293.000	6.340	0.638	1.958	5.636	3.931	2.113	1.246
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	17.800	199.400	185.800	0.296	0.621	4.311	0.000	24.450
2	20:17:29	16.170	190.400	192.300	0.294	1.943	2.882	0.000	24.990
3	20:17:38	17.710	198.800	192.500	0.245	1.133	1.546	0.000	26.810
X		17.230	196.200	190.200	0.279	1.232	2.913	0.000	25.410
σ		0.917	5.062	3.809	0.029	0.666	1.383	0.000	1.235
%RSD		5.324	2.580	2.003	10.350	54.080	47.480	0.000	4.859
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	93.598%	-0.156	-0.029	47.211%	-1.023	-0.988	0.277	0.475
2	20:17:29	94.809%	-0.156	-0.052	48.004%	-1.013	-1.064	0.559	0.269
3	20:17:38	92.242%	-0.125	-0.198	47.343%	-1.047	-1.125	0.775	0.414
X		93.550%	-0.146	-0.093	47.519%	-1.028	-1.059	0.537	0.386
σ		1.284%	0.018	0.091	0.425%	0.017	0.069	0.250	0.106
%RSD		1.373	12.260	98.250	0.894	1.674	6.487	46.520	27.480
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:17:19	43.767%	-0.640	-0.295	-0.381	27.090	26.690	46.024%	46.790%
2	20:17:29	44.027%	-0.760	-0.365	-0.352	26.980	27.860	46.108%	45.690%
3	20:17:38	44.091%	-0.761	-0.365	-0.410	26.480	24.060	46.642%	48.374%
X		43.962%	-0.720	-0.342	-0.381	26.850	26.200	46.258%	46.951%
σ		0.171%	0.070	0.041	0.029	0.324	1.950	0.335%	1.349%
%RSD		0.390	9.653	11.900	7.650	1.208	7.441	0.725	2.873
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:17:19	0.073	0.062	0.253	0.127	0.246	42.323%		
2	20:17:29	0.047	0.076	0.170	0.124	0.145	43.320%		
3	20:17:38	0.088	0.091	0.180	0.168	0.174	40.966%		
X		0.069	0.076	0.201	0.140	0.188	42.203%		
σ		0.021	0.015	0.045	0.025	0.052	1.182%		
%RSD		30.300	19.130	22.600	17.570	27.440	2.800		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	74.936%	0.049	-11.540	-9.369	0.000	935.600	1070.000	1024.000	
2	20:22:31	70.014%	0.053	-10.060	-9.512	0.000	924.100	1063.000	1030.000	
3	20:22:41	74.046%	0.077	-11.470	-10.160	0.000	918.300	1077.000	1044.000	
X		72.999%	0.060	-11.030	-9.679	0.000	926.000	1070.000	1033.000	
		$\sigma$	2.623%	0.015	0.835	0.420	0.000	8.757	6.926	10.020
		%RSD	3.594	25.400	7.575	4.336	0.000	0.946	0.647	0.970
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	57.110	1002.000	0.000	762.000	3800.000	3770.000	63.510%	0.221	
2	20:22:31	57.470	1015.000	0.000	771.800	3996.000	3846.000	62.388%	0.873	
3	20:22:41	55.980	1012.000	0.000	771.900	3791.000	3801.000	62.496%	0.422	
X		56.850	1010.000	0.000	768.600	3862.000	3806.000	62.798%	0.506	
		$\sigma$	0.778	6.665	0.000	5.661	115.700	38.270	0.619%	0.334
		%RSD	1.369	0.660	0.000	0.737	2.996	1.006	0.986	66.040
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	-5.759	3.262	202.300	8.213	20.940	3.550	0.954	3.468	
2	20:22:31	3.114	3.688	205.300	9.418	29.300	3.442	0.911	3.194	
3	20:22:41	-5.566	3.521	205.700	8.635	25.910	3.392	0.812	3.257	
X		-2.737	3.490	204.400	8.755	25.380	3.461	0.892	3.306	
		$\sigma$	5.068	0.215	1.886	0.612	4.204	0.080	0.072	0.144
		%RSD	185.200	6.147	0.923	6.985	16.560	2.320	8.115	4.339
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	3.346	49.620	47.570	-0.026	0.629	-1.522	0.000	8.081	
2	20:22:31	3.839	50.920	43.460	-0.010	0.398	2.136	0.000	7.450	
3	20:22:41	2.741	48.160	46.940	0.093	1.056	1.635	0.000	8.330	
X		3.309	49.570	45.990	0.019	0.694	0.750	0.000	7.954	
		$\sigma$	0.550	1.379	2.214	0.065	0.334	1.983	0.000	0.454
		%RSD	16.630	2.783	4.813	343.200	48.070	264.500	0.000	5.705
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	60.675%	-0.120	-0.175	51.041%	-1.034	-1.016	0.120	0.057	
2	20:22:31	62.131%	-0.085	-0.198	51.802%	-0.993	-1.040	-0.011	0.005	
3	20:22:41	62.646%	-0.156	-0.198	52.331%	-0.974	-1.030	0.053	0.030	
X		61.817%	-0.120	-0.190	51.725%	-1.000	-1.029	0.054	0.031	
		$\sigma$	1.022%	0.035	0.013	0.649%	0.031	0.012	0.065	0.026
		%RSD	1.654	29.460	6.785	1.254	3.063	1.153	121.100	85.350
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	20:22:22	48.675%	-0.892	-0.412	-0.410	5.200	5.153	48.738%	49.322%	
2	20:22:31	48.602%	-0.893	-0.412	-0.410	5.278	5.068	50.482%	51.291%	
3	20:22:41	49.396%	-0.754	-0.370	-0.384	4.316	4.542	50.269%	49.909%	
X		48.891%	-0.846	-0.398	-0.401	4.931	4.921	49.830%	50.174%	
		$\sigma$	0.439%	0.080	0.024	0.015	0.534	0.331	0.951%	1.011%
		%RSD	0.898	9.426	6.036	3.755	10.840	6.731	1.909	2.015
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	20:22:22	0.019	0.031	0.070	0.113	0.059	47.275%			
2	20:22:31	0.019	0.036	0.041	-0.015	0.035	47.383%			
3	20:22:41	0.040	0.025	-0.002	-0.015	0.016	50.238%			
X		0.026	0.031	0.036	0.027	0.037	48.299%			
		$\sigma$	0.012	0.006	0.036	0.074	0.022	1.680%		
		%RSD	45.550	17.930	100.500	268.600	59.570	3.479		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	70.616%	105.600	96.680	93.530	0.000	57760.000	52810.000	51690.000
2	20:27:34	67.442%	106.600	105.000	98.790	0.000	56840.000	52580.000	51870.000
3	20:27:43	68.569%	107.800	98.870	97.310	0.000	58560.000	53310.000	52650.000
X		68.876%	106.679%	100.170%	96.541%	0.000	115.443%	105.799%	104.142%
σ		1.609%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.336	1.045	4.281	2.810	0.000	1.495	0.703	0.975
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	533.500	5364.000	0.000	50910.000	49830.000	48580.000	67.000%	96.380
2	20:27:34	535.200	5524.000	0.000	50960.000	49750.000	48960.000	66.924%	98.530
3	20:27:43	544.100	5503.000	0.000	51890.000	50290.000	50010.000	65.793%	101.000
X		107.517%	109.269%	0.000	102.504%	99.911%	98.364%	66.572%	98.642%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.676%	n/a
%RSD		1.055	1.592	0.000	1.072	0.581	1.505	1.016	2.353
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	93.480	96.160	453.300	24440.000	24050.000	98.770	95.920	96.870
2	20:27:34	99.550	96.840	454.000	23970.000	23750.000	93.550	96.390	95.560
3	20:27:43	99.380	98.000	463.700	24030.000	23980.000	95.460	96.980	95.830
X		97.471%	97.000%	91.397%	96.581%	95.711%	95.928%	96.426%	96.087%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.544	0.961	1.277	1.063	0.649	2.756	0.551	0.724
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	100.600	97.330	98.320	100.200	106.400	103.900	0.000	97.710
2	20:27:34	100.200	95.320	95.440	98.400	103.000	105.200	0.000	99.190
3	20:27:43	98.420	100.800	94.550	98.630	93.510	89.890	0.000	100.100
X		99.761%	97.816%	96.102%	99.072%	100.969%	99.647%	0.000	99.014%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.186	2.829	2.049	0.983	6.616	8.503	0.000	1.238
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	54.915%	100.400	104.100	51.868%	102.400	102.600	95.770	103.300
2	20:27:34	55.924%	104.400	106.000	51.958%	101.300	102.500	103.800	105.900
3	20:27:43	57.702%	98.640	102.800	51.569%	101.000	101.800	100.100	97.440
X		56.180%	101.146%	104.329%	51.798%	101.553%	102.302%	99.861%	102.200%
σ		1.411%	n/a	n/a	0.204%	n/a	n/a	n/a	n/a
%RSD		2.512	2.895	1.535	0.394	0.735	0.432	3.999	4.227
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:27:25	48.167%	98.660	97.500	100.500	96.740	96.800	49.566%	48.526%
2	20:27:34	47.951%	101.600	100.400	98.760	95.870	95.050	50.687%	50.082%
3	20:27:43	50.915%	95.570	94.610	99.360	94.440	95.260	49.939%	48.723%
X		49.011%	98.604%	97.518%	99.530%	95.682%	95.702%	50.064%	49.110%
σ		1.652%	n/a	n/a	n/a	n/a	n/a	0.571%	0.847%
%RSD		3.371	3.042	2.987	0.871	1.211	0.999	1.140	1.724
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:27:25	107.800	105.200	109.000	109.400	108.200	47.190%		
2	20:27:34	110.400	109.200	110.000	112.700	109.900	47.669%		
3	20:27:43	109.000	109.300	109.500	110.700	108.700	47.171%		
X		109.066%	107.908%	109.471%	110.917%	108.905%	47.343%		
σ		n/a	n/a	n/a	n/a	n/a	0.282%		
%RSD		1.216	2.139	0.470	1.504	0.815	0.596		

CCB8 8/21/2015 8:37:11 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	20:36:17	75.906%	0.022	-9.527	-8.435	0.000	250.700	10.590	8.552
2	20:36:26	75.333%	0.057	-10.300	-9.628	0.000	250.200	8.209	12.030
3	20:36:36	75.812%	0.013	-9.958	-10.090	0.000	245.100	9.077	10.570
X		75.683%	0.031	-9.928	-9.383	0.000	248.700	9.291	10.390
σ		0.307%	0.023	0.387	0.853	0.000	3.117	1.203	1.747
%RSD		0.406	75.610	3.895	9.087	0.000	1.254	12.950	16.820
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:17	0.146	36.910	0.000	313.900	-0.114	7.995	66.887%	0.073
2	20:36:26	0.208	39.590	0.000	318.400	15.210	12.300	66.636%	-0.226
3	20:36:36	0.352	40.690	0.000	311.200	-3.271	6.855	67.201%	0.071
X		0.235	39.060	0.000	314.500	3.941	9.051	66.908%	-0.028
σ		0.106	1.942	0.000	3.644	9.885	2.873	0.283%	0.172
%RSD		44.860	4.972	0.000	1.158	250.800	31.740	0.423	623.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:17	-0.716	0.782	0.034	4.591	1.317	0.012	-0.265	-1.583
2	20:36:26	-1.323	0.803	0.145	4.195	4.454	-0.001	-0.219	-1.625
3	20:36:36	1.268	0.710	0.090	4.448	1.213	0.011	-0.220	-1.647
X		-0.257	0.765	0.090	4.411	2.328	0.007	-0.235	-1.618
σ		1.355	0.049	0.055	0.200	1.842	0.007	0.026	0.032
%RSD		526.900	6.402	61.810	4.536	79.130	94.710	11.140	2.007
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:17	-1.268	0.783	0.100	-0.042	-0.045	2.116	0.000	-0.010
2	20:36:26	-1.316	0.026	0.197	-0.043	-0.045	2.090	0.000	0.016
3	20:36:36	-1.358	0.319	0.691	0.009	0.183	0.034	0.000	-0.010
X		-1.314	0.376	0.329	-0.026	0.031	1.413	0.000	-0.002
σ		0.045	0.382	0.317	0.030	0.132	1.194	0.000	0.015
%RSD		3.450	101.500	96.300	117.800	428.100	84.520	0.000	992.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:17	56.013%	0.027	-0.044	54.525%	-1.012	-0.984	-0.011	-0.022
2	20:36:26	58.011%	0.058	0.061	55.198%	-0.994	-1.007	-0.011	-0.022
3	20:36:36	58.464%	-0.086	-0.007	56.379%	-0.939	-0.979	-0.011	-0.022
X		57.496%	0.000	0.003	55.368%	-0.981	-0.990	-0.011	-0.022
σ		1.304%	0.076	0.053	0.939%	0.038	0.015	0.000	0.000
%RSD		2.268	233600.000	1616.000	1.695	3.890	1.530	0.855	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:36:17	52.221%	-0.902	-0.313	-0.235	0.150	0.081	49.682%	50.202%
2	20:36:26	52.810%	-0.903	-0.334	-0.361	0.147	0.079	51.201%	51.026%
3	20:36:36	53.276%	-0.871	-0.373	-0.262	0.000	0.000	49.614%	49.294%
X		52.769%	-0.892	-0.340	-0.286	0.099	0.053	50.166%	50.174%
σ		0.529%	0.018	0.031	0.066	0.086	0.046	0.897%	0.866%
%RSD		1.002	2.017	9.007	23.110	86.620	86.620	1.788	1.727
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:36:17	-0.004	0.002	-0.002	0.000	0.013	49.252%		
2	20:36:26	-0.004	-0.002	-0.002	0.000	0.003	48.848%		
3	20:36:36	0.007	0.007	0.011	0.029	0.015	51.201%		
X		-0.000	0.002	0.002	0.010	0.010	49.767%		
σ		0.006	0.004	0.007	0.017	0.006	1.258%		
%RSD		13780.000	199.800	337.100	168.500	61.700	2.528		

180-46891-C-9-B MS 8/21/2015 8:42:17 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	20:41:21	83.528%	46.880	913.400	901.400	0.000	61800.000	58820.000	57100.000
2	20:41:30	84.048%	45.510	891.200	895.600	0.000	61610.000	58510.000	57500.000
3	20:41:39	81.867%	46.840	917.700	912.600	0.000	62590.000	60170.000	58530.000
X		83.148%	46.410	907.400	903.200	0.000	62000.000	59160.000	57710.000
σ		1.140%	0.782	14.230	8.681	0.000	515.100	881.700	736.300
%RSD		1.371	1.685	1.569	0.961	0.000	0.831	1.490	1.276
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:21	2490.000	14360.000	0.000	51980.000	67820.000	68580.000	63.992%	990.800
2	20:41:30	2466.000	14160.000	0.000	52690.000	69660.000	69670.000	63.318%	992.000
3	20:41:39	2546.000	14510.000	0.000	52860.000	69100.000	69710.000	62.321%	1011.000
X		2501.000	14340.000	0.000	52510.000	68860.000	69320.000	63.210%	998.100
σ		40.610	171.800	0.000	466.000	941.800	644.200	0.841%	11.580
%RSD		1.624	1.198	0.000	0.887	1.368	0.929	1.330	1.160
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:21	462.500	184.800	1470.000	813.900	1097.000	412.800	397.700	210.100
2	20:41:30	461.400	180.600	1493.000	803.400	1061.000	429.100	415.700	225.000
3	20:41:39	482.600	191.900	1503.000	819.800	1067.000	424.200	405.000	219.100
X		468.800	185.700	1489.000	812.300	1075.000	422.000	406.200	218.100
σ		11.950	5.728	16.720	8.290	19.650	8.348	9.055	7.494
%RSD		2.550	3.084	1.123	1.021	1.828	1.978	2.229	3.436
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:21	207.100	544.000	528.300	27.120	6.086	9.670	0.000	562.100
2	20:41:30	224.000	562.800	546.700	28.090	7.985	8.413	0.000	563.400
3	20:41:39	212.300	553.900	540.800	27.860	7.290	10.600	0.000	566.300
X		214.500	553.600	538.600	27.690	7.120	9.561	0.000	563.900
σ		8.665	9.382	9.428	0.508	0.961	1.098	0.000	2.123
%RSD		4.040	1.695	1.750	1.836	13.490	11.480	0.000	0.376
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:21	96.179%	804.600	915.200	47.156%	50.440	50.310	53.530	87.920
2	20:41:30	94.465%	808.600	911.400	47.273%	50.940	50.880	55.230	85.980
3	20:41:39	95.986%	795.600	912.900	47.049%	49.810	52.920	52.940	85.950
X		95.543%	803.000	913.200	47.159%	50.400	51.370	53.900	86.620
σ		0.939%	6.676	1.924	0.112%	0.563	1.370	1.189	1.127
%RSD		0.983	0.831	0.211	0.238	1.116	2.667	2.205	1.301
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:41:21	43.738%	1996.000	502.600	489.100	1904.000	1835.000	46.148%	47.373%
2	20:41:30	44.138%	1966.000	488.900	486.300	1891.000	1861.000	48.413%	48.498%
3	20:41:39	44.945%	1950.000	487.300	484.100	1938.000	1853.000	46.345%	48.329%
X		44.274%	1970.000	492.900	486.500	1911.000	1850.000	46.969%	48.067%
σ		0.615%	23.160	8.410	2.503	24.420	13.610	1.255%	0.607%
%RSD		1.389	1.175	1.706	0.515	1.278	0.736	2.671	1.262
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:41:21	51.310	49.580	20.210	20.670	21.200	43.175%		
2	20:41:30	57.730	55.390	22.940	20.400	21.900	39.970%		
3	20:41:39	53.060	53.080	22.370	21.890	22.170	42.424%		
X		54.040	52.680	21.840	20.980	21.760	41.856%		
σ		3.317	2.926	1.437	0.795	0.501	1.676%		
%RSD		6.138	5.555	6.579	3.788	2.305	4.005		



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User Pre-dilution: 1.000

Run	Time	6Li ppb	9Be ppb	10B ppb	11B ppb	13C ppb	23Na ppb	25Mg ppb	26Mg ppb
1	20:46:25	80.995%	46.280	901.400	914.600	0.000	61540.000	60210.000	58810.000
2	20:46:34	77.570%	47.320	924.300	940.300	0.000	61470.000	60400.000	58620.000
3	20:46:44	79.045%	45.650	922.800	921.300	0.000	62110.000	59110.000	57670.000
X		79.204%	46.420	916.200	925.400	0.000	61710.000	59910.000	58370.000
$\sigma$		1.718%	0.845	12.780	13.300	0.000	352.700	695.800	611.600
%RSD		2.169	1.820	1.395	1.437	0.000	0.572	1.162	1.048
Run	Time	27Al ppb	28Si ppb	37Cl ppb	39K ppb	43Ca ppb	44Ca ppb	45Sc ppb	47Ti ppb
1	20:46:25	2516.000	14380.000	0.000	52800.000	69470.000	68290.000	61.720%	983.500
2	20:46:34	2507.000	14770.000	0.000	53390.000	68360.000	68250.000	61.775%	985.200
3	20:46:44	2457.000	14250.000	0.000	53320.000	69130.000	68350.000	61.300%	978.700
X		2493.000	14470.000	0.000	53170.000	68990.000	68300.000	61.598%	982.500
$\sigma$		32.160	268.100	0.000	322.200	570.700	50.710	0.260%	3.366
%RSD		1.290	1.853	0.000	0.606	0.827	0.074	0.422	0.343
Run	Time	51V ppb	52Cr ppb	55Mn ppb	56Fe ppb	57Fe ppb	59Co ppb	60Ni ppb	63Cu ppb
1	20:46:25	454.800	184.200	1480.000	787.200	1078.000	411.300	396.500	213.600
2	20:46:34	453.300	181.700	1488.000	775.700	996.900	410.400	388.900	212.500
3	20:46:44	464.000	185.600	1474.000	806.000	1143.000	431.200	422.700	224.500
X		457.400	183.800	1481.000	789.600	1073.000	417.600	402.700	216.900
$\sigma$		5.799	1.969	7.351	15.320	73.010	11.790	17.720	6.643
%RSD		1.268	1.071	0.497	1.940	6.807	2.823	4.399	3.063
Run	Time	65Cu ppb	66Zn ppb	68Zn ppb	75As ppb	78Se ppb	82Se ppb	83Kr ppb	88Sr ppb
1	20:46:25	211.900	550.200	531.700	27.820	8.372	10.880	0.000	557.600
2	20:46:34	209.500	551.500	519.600	27.120	9.425	13.750	0.000	560.300
3	20:46:44	222.800	548.400	533.200	27.840	6.128	2.324	0.000	555.800
X		214.700	550.000	528.200	27.590	7.975	8.985	0.000	557.900
$\sigma$		7.092	1.552	7.464	0.408	1.684	5.944	0.000	2.277
%RSD		3.303	0.282	1.413	1.479	21.120	66.160	0.000	0.408
Run	Time	89Y ppb	95Mo ppb	98Mo ppb	103Rh ppb	107Ag ppb	109Ag ppb	111Cd ppb	114Cd ppb
1	20:46:25	91.898%	780.000	907.500	46.592%	49.560	49.470	47.850	81.500
2	20:46:34	93.680%	784.000	899.600	46.716%	49.140	49.920	51.540	85.090
3	20:46:44	93.453%	785.700	902.900	47.251%	50.140	49.770	49.600	79.710
X		93.011%	783.200	903.300	46.853%	49.610	49.720	49.660	82.100
$\sigma$		0.970%	2.923	3.968	0.350%	0.503	0.229	1.844	2.740
%RSD		1.043	0.373	0.439	0.747	1.014	0.461	3.714	3.338
Run	Time	115In ppb	118Sn ppb	121Sb ppb	123Sb ppb	135Ba ppb	137Ba ppb	159Tb ppb	165Ho ppb
1	20:46:25	44.365%	1897.000	466.400	459.200	1810.000	1752.000	47.461%	48.715%
2	20:46:34	44.715%	1888.000	463.300	467.100	1786.000	1759.000	48.060%	48.759%
3	20:46:44	44.593%	1900.000	476.800	475.200	1840.000	1787.000	49.779%	50.037%
X		44.558%	1895.000	468.800	467.200	1812.000	1766.000	48.433%	49.171%
$\sigma$		0.178%	6.001	7.041	7.978	27.090	18.580	1.203%	0.751%
%RSD		0.400	0.317	1.502	1.708	1.495	1.052	2.484	1.527
Run	Time	203Tl ppb	205Tl ppb	206Pb ppb	207Pb ppb	208Pb ppb	209Bi ppb		
1	20:46:25	53.470	51.460	21.790	21.320	21.430	42.880%		
2	20:46:34	52.910	53.720	22.500	21.350	21.410	42.790%		
3	20:46:44	52.820	52.800	21.220	20.730	21.070	41.764%		
X		53.070	52.660	21.840	21.140	21.300	42.478%		
$\sigma$		0.348	1.136	0.644	0.348	0.205	0.620%		
%RSD		0.656	2.158	2.951	1.648	0.962	1.460		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	77.296%	0.218	-0.542	-0.193	0.000	345.900	12.650	9.743
2	20:51:41	76.227%	0.105	0.076	-0.962	0.000	343.100	12.660	10.820
3	20:51:50	75.442%	0.073	-1.292	-1.588	0.000	342.300	9.930	10.990
X		76.322%	0.132	-0.586	-0.914	0.000	343.800	11.750	10.520
σ		0.931%	0.076	0.685	0.699	0.000	1.861	1.574	0.676
%RSD		1.220	57.400	116.900	76.420	0.000	0.541	13.400	6.431
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	3.693	45.610	0.000	360.700	114.600	207.400	61.492%	1.086
2	20:51:41	3.658	48.060	0.000	366.500	88.310	194.800	61.458%	1.022
3	20:51:50	3.656	44.980	0.000	364.900	93.740	206.100	60.402%	0.648
X		3.669	46.220	0.000	364.000	98.880	202.700	61.117%	0.919
σ		0.021	1.625	0.000	2.993	13.890	6.939	0.620%	0.237
%RSD		0.567	3.516	0.000	0.822	14.040	3.423	1.014	25.760
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	20.170	12.670	1.967	9.703	5.309	0.171	0.293	-0.206
2	20:51:41	5.621	13.420	2.003	8.269	1.846	0.198	0.345	-0.051
3	20:51:50	18.600	13.240	2.298	9.629	7.189	0.239	0.197	0.171
X		14.800	13.110	2.089	9.200	4.782	0.203	0.278	-0.029
σ		7.985	0.392	0.182	0.807	2.710	0.034	0.075	0.190
%RSD		53.970	2.991	8.702	8.772	56.680	16.990	26.850	659.700
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	-0.340	3.448	2.857	0.038	0.207	0.854	0.000	0.107
2	20:51:41	-0.210	2.806	2.974	0.156	-0.045	0.376	0.000	0.108
3	20:51:50	0.264	2.412	2.876	0.117	-0.045	-3.217	0.000	0.048
X		-0.095	2.889	2.902	0.103	0.039	-0.662	0.000	0.088
σ		0.318	0.523	0.063	0.060	0.146	2.225	0.000	0.034
%RSD		334.100	18.110	2.173	57.930	374.800	335.900	0.000	38.960
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	52.615%	1.286	0.806	51.368%	-1.043	-1.105	-0.011	-0.022
2	20:51:41	52.396%	1.132	0.619	51.467%	-1.075	-1.105	0.056	-0.022
3	20:51:50	52.746%	0.776	0.662	51.634%	-1.044	-1.083	-0.011	-0.022
X		52.585%	1.065	0.696	51.489%	-1.054	-1.098	0.011	-0.022
σ		0.177%	0.262	0.098	0.134%	0.018	0.013	0.039	0.000
%RSD		0.336	24.570	14.040	0.261	1.754	1.194	339.500	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	20:51:31	46.443%	-0.475	-0.346	-0.271	0.164	0.263	47.421%	48.213%
2	20:51:41	46.320%	-0.214	-0.324	-0.327	0.323	0.345	49.128%	48.402%
3	20:51:50	46.664%	-0.367	-0.346	-0.272	0.807	0.173	48.642%	48.024%
X		46.476%	-0.352	-0.338	-0.290	0.431	0.260	48.397%	48.213%
σ		0.174%	0.131	0.013	0.032	0.335	0.086	0.879%	0.189%
%RSD		0.374	37.280	3.781	10.990	77.720	33.130	1.817	0.392
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	20:51:31	0.088	0.093	0.069	0.048	0.075	47.874%		
2	20:51:41	0.112	0.070	0.070	0.097	0.091	47.192%		
3	20:51:50	0.065	0.088	0.040	0.032	0.054	48.236%		
X		0.088	0.083	0.060	0.059	0.074	47.767%		
σ		0.024	0.012	0.017	0.034	0.018	0.530%		
%RSD		26.950	14.340	28.220	57.410	24.750	1.109		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	74.824%	-0.010	-9.247	-8.002	0.000	233.700	2.829	2.801
2	21:00:33	74.534%	0.033	-8.095	-8.309	0.000	234.000	4.034	3.764
3	21:00:42	73.634%	0.000	-7.699	-8.457	0.000	236.700	3.263	3.765
X		74.331%	0.008	-8.347	-8.256	0.000	234.800	3.375	3.443
σ		0.620%	0.023	0.804	0.232	0.000	1.630	0.610	0.556
%RSD		0.835	293.700	9.631	2.814	0.000	0.694	18.080	16.160
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	-1.013	38.080	0.000	318.900	8.521	9.817	67.671%	-0.051
2	21:00:33	-0.897	37.080	0.000	298.300	-0.474	-0.203	67.692%	0.304
3	21:00:42	-0.854	39.110	0.000	310.800	26.710	3.338	67.413%	-0.168
X		-0.921	38.090	0.000	309.400	11.590	4.317	67.592%	0.029
σ		0.082	1.014	0.000	10.380	13.850	5.082	0.155%	0.246
%RSD		8.945	2.663	0.000	3.354	119.500	117.700	0.230	862.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	-0.606	0.867	0.069	-0.018	9.187	0.047	-0.035	-1.452
2	21:00:33	3.814	1.061	0.131	-0.158	-0.364	0.011	-0.266	-1.473
3	21:00:42	-1.853	1.174	0.047	0.149	1.229	0.011	-0.312	-1.422
X		0.452	1.034	0.082	-0.009	3.351	0.023	-0.204	-1.449
σ		2.978	0.155	0.044	0.154	5.116	0.021	0.148	0.026
%RSD		659.400	15.020	52.960	1729.000	152.700	89.650	72.690	1.792
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	-1.506	0.176	0.199	-0.043	0.188	3.862	0.000	-0.010
2	21:00:33	-1.164	0.100	0.197	-0.061	-0.045	-2.068	0.000	-0.010
3	21:00:42	-1.049	-0.048	0.297	-0.008	-0.045	-4.134	0.000	-0.010
X		-1.240	0.076	0.231	-0.037	0.033	-0.780	0.000	-0.010
σ		0.238	0.114	0.057	0.027	0.135	4.151	0.000	0.000
%RSD		19.190	150.300	24.790	72.920	414.400	532.300	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	56.672%	0.101	-0.065	53.536%	-0.907	-1.034	-0.011	0.004
2	21:00:33	57.304%	-0.012	-0.025	55.348%	-0.974	-1.007	-0.011	-0.022
3	21:00:42	57.551%	0.096	0.019	55.018%	-0.934	-1.039	-0.011	-0.022
X		57.175%	0.061	-0.024	54.634%	-0.939	-1.026	-0.011	-0.013
σ		0.453%	0.064	0.042	0.965%	0.033	0.017	0.000	0.015
%RSD		0.793	104.000	176.500	1.767	3.560	1.681	0.450	110.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:00:23	50.863%	-0.899	-0.371	-0.410	0.000	0.081	50.823%	49.664%
2	21:00:33	52.251%	-0.935	-0.392	-0.385	0.000	0.079	51.390%	51.247%
3	21:00:42	52.805%	-0.871	-0.412	-0.385	0.146	0.000	52.145%	51.348%
X		51.973%	-0.901	-0.392	-0.394	0.049	0.053	51.453%	50.753%
σ		1.001%	0.032	0.020	0.014	0.084	0.046	0.663%	0.945%
%RSD		1.925	3.600	5.171	3.622	173.200	86.610	1.289	1.861
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:00:23	0.008	0.044	-0.002	-0.015	-0.004	49.127%		
2	21:00:33	0.008	0.026	-0.002	-0.015	-0.004	48.734%		
3	21:00:42	0.030	0.021	-0.002	0.031	0.003	48.908%		
X		0.015	0.030	-0.002	0.000	-0.001	48.923%		
σ		0.013	0.012	0.000	0.027	0.004	0.197%		
%RSD		85.980	40.480	1.857	8831.000	280.200	0.402		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	82.384%	45.710	898.500	902.700	0.000	59890.000	54860.000	53850.000
2	21:05:36	80.657%	46.480	936.800	920.400	0.000	59040.000	54680.000	53260.000
3	21:05:45	79.455%	45.630	934.800	932.100	0.000	59850.000	54730.000	54130.000
X		80.832%	45.940	923.400	918.400	0.000	59590.000	54760.000	53750.000
σ		1.473%	0.467	21.540	14.810	0.000	481.200	91.650	443.900
%RSD		1.822	1.016	2.333	1.612	0.000	0.808	0.167	0.826
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	2264.000	5356.000	0.000	52880.000	51800.000	51030.000	62.318%	1005.000
2	21:05:36	2259.000	5306.000	0.000	52650.000	50960.000	50690.000	62.262%	1026.000
3	21:05:45	2277.000	5318.000	0.000	52610.000	51620.000	50730.000	61.982%	1006.000
X		2267.000	5327.000	0.000	52710.000	51460.000	50810.000	62.188%	1013.000
σ		9.597	25.800	0.000	143.200	443.400	183.300	0.180%	11.950
%RSD		0.423	0.484	0.000	0.272	0.862	0.361	0.289	1.180
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	484.500	204.300	471.300	883.900	1077.000	505.200	504.200	271.900
2	21:05:36	511.900	204.700	477.600	901.300	1206.000	509.800	521.000	267.700
3	21:05:45	529.000	211.900	470.600	926.500	1175.000	509.300	493.000	262.700
X		508.500	207.000	473.200	903.900	1153.000	508.100	506.100	267.400
σ		22.450	4.274	3.855	21.420	67.390	2.502	14.110	4.602
%RSD		4.415	2.065	0.815	2.369	5.845	0.493	2.788	1.721
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	273.700	496.300	488.700	40.080	10.180	16.150	0.000	971.800
2	21:05:36	278.500	494.900	492.200	39.700	11.890	10.630	0.000	982.200
3	21:05:45	263.000	484.000	484.000	40.460	11.890	12.700	0.000	977.800
X		271.800	491.800	488.300	40.080	11.320	13.160	0.000	977.300
σ		7.962	6.731	4.137	0.379	0.989	2.790	0.000	5.186
%RSD		2.930	1.369	0.847	0.945	8.739	21.200	0.000	0.531
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	51.620%	1091.000	1132.000	48.406%	53.020	52.090	51.570	83.280
2	21:05:36	50.659%	1098.000	1104.000	49.624%	50.680	50.830	52.620	86.760
3	21:05:45	52.100%	1079.000	1107.000	48.863%	49.960	51.260	52.230	86.460
X		51.460%	1089.000	1114.000	48.964%	51.220	51.390	52.140	85.500
σ		0.734%	9.929	15.180	0.615%	1.600	0.643	0.533	1.930
%RSD		1.426	0.912	1.362	1.256	3.124	1.250	1.022	2.257
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:05:26	46.368%	1959.000	465.500	476.900	1814.000	1805.000	50.088%	48.747%
2	21:05:36	45.536%	1986.000	485.300	488.600	1838.000	1859.000	48.220%	49.133%
3	21:05:45	45.125%	2040.000	494.100	483.800	1896.000	1858.000	47.333%	47.236%
X		45.676%	1995.000	481.600	483.100	1850.000	1840.000	48.547%	48.372%
σ		0.633%	41.150	14.670	5.918	42.160	30.670	1.406%	1.002%
%RSD		1.386	2.063	3.047	1.225	2.279	1.666	2.897	2.072
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:05:26	56.510	55.150	22.470	22.230	22.000	44.730%		
2	21:05:36	54.020	56.000	22.450	21.230	21.460	44.950%		
3	21:05:45	53.030	50.640	21.190	21.210	21.710	46.369%		
X		54.520	53.930	22.040	21.560	21.720	45.350%		
σ		1.793	2.880	0.732	0.582	0.270	0.890%		
%RSD		3.289	5.340	3.323	2.702	1.243	1.962		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	76.877%	2.969	6.715	7.251	0.000	1888.000	36220.000	34840.000
2	21:10:38	78.138%	2.927	7.449	6.507	0.000	1901.000	36680.000	35430.000
3	21:10:47	78.529%	2.586	5.571	6.014	0.000	1821.000	35510.000	34990.000
X		77.848%	2.827	6.578	6.590	0.000	1870.000	36140.000	35090.000
σ		0.863%	0.210	0.946	0.623	0.000	42.740	593.700	306.200
%RSD		1.109	7.440	14.380	9.448	0.000	2.286	1.643	0.873
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	30030.000	2494.000	0.000	3304.000	43380.000	43720.000	65.222%	1703.000
2	21:10:38	30260.000	2460.000	0.000	3392.000	45900.000	44570.000	63.198%	1713.000
3	21:10:47	29930.000	2402.000	0.000	3324.000	44700.000	43190.000	63.649%	1671.000
X		30080.000	2452.000	0.000	3340.000	44660.000	43820.000	64.023%	1696.000
σ		171.500	46.450	0.000	46.390	1264.000	697.700	1.063%	21.990
%RSD		0.570	1.894	0.000	1.389	2.830	1.592	1.660	1.297
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	113.700	90.000	1226.000	149500.000	152300.000	34.060	91.040	326.800
2	21:10:38	130.600	94.960	1260.000	156200.000	156700.000	33.660	89.320	315.400
3	21:10:47	125.700	94.360	1228.000	156700.000	155800.000	34.210	88.910	317.600
X		123.300	93.110	1238.000	154100.000	154900.000	33.970	89.760	319.900
σ		8.692	2.709	19.470	4053.000	2309.000	0.280	1.129	6.047
%RSD		7.049	2.909	1.573	2.630	1.490	0.825	1.258	1.890
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	337.200	1502.000	1477.000	33.980	3.292	-0.303	0.000	74.320
2	21:10:38	333.000	1512.000	1513.000	36.450	0.992	5.146	0.000	76.250
3	21:10:47	316.700	1509.000	1511.000	34.850	2.525	6.186	0.000	77.070
X		329.000	1508.000	1501.000	35.090	2.270	3.676	0.000	75.880
σ		10.880	4.992	20.550	1.248	1.171	3.485	0.000	1.415
%RSD		3.306	0.331	1.369	3.557	51.610	94.810	0.000	1.864
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	0.000	4.010	4.862	47.347%	-0.689	-0.841	4.638	6.920
2	21:10:38	0.000	4.593	4.637	47.461%	-0.717	-0.858	5.885	6.750
3	21:10:47	0.000	4.467	4.789	47.918%	-0.841	-0.781	6.614	6.940
X		0.000	4.357	4.763	47.575%	-0.749	-0.826	5.712	6.870
σ		0.000	0.307	0.115	0.302%	0.081	0.040	0.999	0.104
%RSD		0.000	7.043	2.413	0.635	10.860	4.875	17.490	1.519
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:10:28	44.038%	66.030	1.441	1.270	1620.000	1598.000	47.586%	47.646%
2	21:10:38	45.229%	67.730	1.176	1.069	1615.000	1584.000	46.586%	45.874%
3	21:10:47	44.054%	68.520	1.614	1.370	1698.000	1618.000	45.514%	45.730%
X		44.440%	67.430	1.410	1.236	1644.000	1600.000	46.562%	46.417%
σ		0.683%	1.273	0.220	0.153	46.510	17.050	1.036%	1.067%
%RSD		1.536	1.888	15.620	12.410	2.829	1.066	2.225	2.299
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:10:28	0.323	0.271	2283.000	2195.000	2229.000	39.451%		
2	21:10:38	0.212	0.330	2213.000	2174.000	2207.000	43.028%		
3	21:10:47	0.225	0.304	2164.000	2120.000	2176.000	42.958%		
X		0.253	0.301	2220.000	2163.000	2204.000	41.813%		
σ		0.061	0.030	59.950	38.370	26.750	2.045%		
%RSD		24.010	9.792	2.701	1.774	1.214	4.891		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	76.464%	3.279	26.440	26.550	0.000	1814.000	17590.000	17060.000
2	21:15:40	76.274%	3.162	23.590	24.520	0.000	1771.000	17670.000	16950.000
3	21:15:50	76.232%	3.458	24.060	23.760	0.000	1786.000	17530.000	17110.000
X		76.323%	3.300	24.700	24.940	0.000	1790.000	17600.000	17040.000
σ		0.123%	0.149	1.528	1.447	0.000	21.800	70.200	82.340
%RSD		0.162	4.516	6.186	5.800	0.000	1.218	0.399	0.483
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	34620.000	2406.000	0.000	4903.000	14880.000	14380.000	63.988%	1662.000
2	21:15:40	35090.000	2381.000	0.000	4947.000	14490.000	14460.000	63.581%	1660.000
3	21:15:50	34970.000	2471.000	0.000	4917.000	14920.000	14410.000	63.340%	1655.000
X		34900.000	2420.000	0.000	4923.000	14770.000	14410.000	63.636%	1659.000
σ		242.100	46.600	0.000	22.480	237.800	38.430	0.327%	3.326
%RSD		0.694	1.926	0.000	0.457	1.610	0.267	0.514	0.201
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	137.500	116.300	1484.000	117200.000	116100.000	38.910	120.400	246.600
2	21:15:40	122.700	116.500	1462.000	116100.000	113700.000	37.740	118.300	253.400
3	21:15:50	140.300	118.200	1490.000	119500.000	118000.000	39.110	120.200	259.700
X		133.500	117.000	1479.000	117600.000	115900.000	38.590	119.600	253.200
σ		9.431	1.034	14.700	1732.000	2155.000	0.745	1.168	6.563
%RSD		7.065	0.884	0.994	1.474	1.859	1.930	0.976	2.592
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	252.000	759.100	752.400	24.200	3.738	8.839	0.000	59.720
2	21:15:40	254.000	765.400	757.200	23.720	4.741	2.106	0.000	58.150
3	21:15:50	257.600	768.300	774.800	23.440	2.970	0.311	0.000	61.660
X		254.500	764.300	761.500	23.790	3.816	3.752	0.000	59.840
σ		2.842	4.740	11.810	0.382	0.888	4.496	0.000	1.759
%RSD		1.117	0.620	1.550	1.607	23.260	119.800	0.000	2.940
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	0.000	2.399	2.618	49.219%	-0.726	-0.743	2.700	4.170
2	21:15:40	0.000	2.507	2.485	49.497%	-0.685	-0.771	2.670	3.474
3	21:15:50	0.000	2.178	1.947	49.795%	-0.700	-0.785	2.103	3.970
X		0.000	2.361	2.350	49.504%	-0.704	-0.766	2.491	3.871
σ		0.000	0.168	0.356	0.288%	0.021	0.022	0.336	0.359
%RSD		0.000	7.113	15.130	0.582	2.940	2.837	13.500	9.259
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:15:31	45.103%	52.950	0.969	1.148	459.700	448.000	48.297%	47.445%
2	21:15:40	45.709%	53.090	1.200	1.020	448.800	444.900	48.056%	48.578%
3	21:15:50	46.128%	51.730	1.318	1.256	464.600	439.800	48.594%	47.574%
X		45.647%	52.590	1.162	1.141	457.700	444.200	48.315%	47.866%
σ		0.515%	0.748	0.178	0.118	8.128	4.105	0.270%	0.620%
%RSD		1.129	1.422	15.280	10.370	1.776	0.924	0.558	1.296
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:15:31	0.227	0.326	528.700	488.800	510.500	44.938%		
2	21:15:40	0.306	0.426	517.500	483.200	501.100	47.838%		
3	21:15:50	0.238	0.349	520.900	494.400	509.200	45.204%		
X		0.257	0.367	522.400	488.800	506.900	45.993%		
σ		0.043	0.052	5.738	5.592	5.131	1.603%		
%RSD		16.640	14.280	1.098	1.144	1.012	3.485		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	75.545%	1.710	42.830	41.800	0.000	4061.000	9493.000	9319.000
2	21:20:43	74.585%	1.450	45.620	42.010	0.000	4003.000	9511.000	9388.000
3	21:20:52	75.459%	1.635	43.670	41.050	0.000	4007.000	9739.000	9371.000
X		75.196%	1.598	44.040	41.620	0.000	4023.000	9581.000	9359.000
σ		0.531%	0.134	1.430	0.503	0.000	32.270	137.400	35.870
%RSD		0.706	8.366	3.248	1.208	0.000	0.802	1.434	0.383
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	53430.000	3892.000	0.000	2812.000	16280.000	15600.000	63.584%	1246.000
2	21:20:43	53570.000	3937.000	0.000	2825.000	16270.000	15670.000	63.249%	1249.000
3	21:20:52	54130.000	3912.000	0.000	2794.000	16290.000	15660.000	63.415%	1228.000
X		53710.000	3914.000	0.000	2810.000	16280.000	15650.000	63.416%	1241.000
σ		369.300	22.530	0.000	15.520	10.720	37.960	0.168%	11.400
%RSD		0.688	0.576	0.000	0.552	0.066	0.243	0.265	0.918
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	161.300	145.900	1132.000	67340.000	66290.000	22.420	106.400	502.100
2	21:20:43	198.100	147.000	1144.000	71290.000	70970.000	24.030	111.600	512.500
3	21:20:52	192.900	148.200	1133.000	71900.000	71180.000	24.190	117.800	512.400
X		184.100	147.000	1136.000	70180.000	69480.000	23.550	111.900	509.000
σ		19.930	1.172	6.535	2474.000	2765.000	0.981	5.699	5.982
%RSD		10.830	0.797	0.575	3.526	3.979	4.167	5.092	1.175
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	516.600	1003.000	1016.000	53.710	9.188	13.540	0.000	66.450
2	21:20:43	521.900	990.200	1012.000	53.400	9.256	8.733	0.000	65.050
3	21:20:52	523.100	1019.000	1022.000	50.970	8.525	15.100	0.000	65.550
X		520.500	1004.000	1017.000	52.690	8.990	12.460	0.000	65.680
σ		3.460	14.620	4.806	1.503	0.404	3.321	0.000	0.713
%RSD		0.665	1.456	0.473	2.853	4.494	26.650	0.000	1.085
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	0.000	7.306	7.772	48.105%	0.370	0.686	54.210	54.040
2	21:20:43	0.000	6.924	7.687	49.813%	0.625	0.603	52.400	57.410
3	21:20:52	0.000	6.640	6.674	49.525%	0.607	0.699	52.590	56.010
X		0.000	6.956	7.378	49.148%	0.534	0.662	53.070	55.820
σ		0.000	0.334	0.611	0.914%	0.142	0.052	0.997	1.693
%RSD		0.000	4.801	8.276	1.860	26.640	7.796	1.879	3.033
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:20:33	44.988%	104.000	12.550	12.550	942.400	931.100	49.305%	48.333%
2	21:20:43	45.738%	104.700	11.900	12.230	968.100	940.400	48.706%	48.763%
3	21:20:52	45.964%	106.800	11.620	11.370	986.200	953.900	49.361%	49.101%
X		45.563%	105.200	12.020	12.050	965.600	941.800	49.124%	48.733%
σ		0.511%	1.474	0.479	0.608	22.000	11.450	0.363%	0.385%
%RSD		1.122	1.402	3.980	5.050	2.279	1.216	0.739	0.789
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:20:33	0.518	0.427	1622.000	1486.000	1555.000	44.827%		
2	21:20:43	0.493	0.441	1525.000	1430.000	1493.000	44.892%		
3	21:20:52	0.571	0.397	1521.000	1430.000	1485.000	45.372%		
X		0.527	0.422	1556.000	1449.000	1511.000	45.030%		
σ		0.040	0.023	57.410	32.260	38.240	0.298%		
%RSD		7.631	5.384	3.690	2.227	2.531	0.661		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	74.589%	3.296	104.800	106.200	0.000	7880.000	21750.000	21260.000
2	21:25:45	72.471%	3.079	112.900	108.700	0.000	7876.000	21900.000	21530.000
3	21:25:55	73.414%	3.063	104.700	106.100	0.000	7930.000	22110.000	21400.000
X		73.491%	3.146	107.500	107.000	0.000	7895.000	21920.000	21400.000
		1.061%	0.130	4.748	1.494	0.000	30.070	178.600	136.800
		1.444	4.143	4.418	1.396	0.000	0.381	0.815	0.639
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	86490.000	3867.000	0.000	4208.000	30960.000	30070.000	62.892%	2380.000
2	21:25:45	86790.000	3984.000	0.000	4193.000	31000.000	29890.000	62.977%	2380.000
3	21:25:55	86790.000	3929.000	0.000	4164.000	30710.000	29690.000	62.881%	2358.000
X		86690.000	3926.000	0.000	4188.000	30890.000	29880.000	62.917%	2373.000
		172.200	58.370	0.000	22.440	160.700	192.600	0.053%	12.770
		0.199	1.487	0.000	0.536	0.520	0.644	0.084	0.538
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	496.100	394.700	2076.000	112800.000	111700.000	47.840	254.300	1381.000
2	21:25:45	488.600	391.200	2087.000	116000.000	116200.000	49.970	262.300	1446.000
3	21:25:55	486.200	391.000	2090.000	111700.000	110700.000	49.790	262.400	1408.000
X		490.300	392.300	2084.000	113500.000	112900.000	49.200	259.700	1412.000
		5.128	2.081	7.138	2217.000	2929.000	1.181	4.639	32.460
		1.046	0.530	0.343	1.953	2.595	2.400	1.786	2.299
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	1405.000	3834.000	3845.000	94.420	13.950	12.430	0.000	160.600
2	21:25:45	1459.000	3862.000	3810.000	97.300	12.980	24.080	0.000	157.800
3	21:25:55	1438.000	3891.000	3882.000	96.230	15.860	16.140	0.000	163.500
X		1434.000	3863.000	3846.000	95.980	14.260	17.550	0.000	160.600
		27.130	28.650	35.680	1.452	1.464	5.953	0.000	2.837
		1.892	0.742	0.928	1.512	10.260	33.920	0.000	1.766
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	0.000	18.020	16.810	46.257%	6.605	7.129	79.800	84.480
2	21:25:45	0.000	16.330	18.300	47.196%	7.387	6.630	78.460	81.670
3	21:25:55	0.000	18.200	17.670	47.189%	6.646	6.571	83.340	83.420
X		0.000	17.520	17.590	46.881%	6.879	6.777	80.530	83.190
		0.000	1.035	0.747	0.540%	0.440	0.307	2.521	1.418
		0.000	5.906	4.244	1.152	6.392	4.524	3.131	1.705
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:25:36	43.439%	130.200	37.590	40.010	1324.000	1287.000	47.301%	46.361%
2	21:25:45	43.640%	132.500	41.070	41.040	1373.000	1329.000	47.843%	47.156%
3	21:25:55	44.160%	130.800	39.220	39.440	1288.000	1286.000	48.052%	47.494%
X		43.746%	131.200	39.290	40.160	1328.000	1301.000	47.732%	47.003%
		0.372%	1.182	1.742	0.806	42.480	24.490	0.388%	0.582%
		0.850	0.901	4.432	2.007	3.198	1.883	0.812	1.238
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:25:36	0.958	0.902	8684.000	7954.000	8364.000	43.623%		
2	21:25:45	0.956	1.000	8709.000	8046.000	8505.000	40.381%		
3	21:25:55	1.011	0.999	8647.000	7844.000	8268.000	43.340%		
X		0.975	0.967	8680.000	7948.000	8379.000	42.448%		
		0.031	0.057	31.070	101.300	119.100	1.796%		
		3.161	5.848	0.358	1.275	1.421	4.231		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	65.800%	110.500	109.300	107.900	0.000	59850.000	54230.000	52290.000
2	21:30:50	67.053%	109.000	102.200	102.800	0.000	59790.000	53880.000	52770.000
3	21:31:00	68.634%	106.900	101.500	101.400	0.000	60140.000	55110.000	53520.000
X		67.162%	108.785%	104.319%	104.025%	0.000	119.855%	108.817%	105.720%
σ		1.420%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.115	1.647	4.131	3.264	0.000	0.313	1.163	1.177
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	540.000	5559.000	0.000	50820.000	48640.000	49280.000	63.487%	102.000
2	21:30:50	551.700	5531.000	0.000	51180.000	50440.000	49820.000	63.070%	99.230
3	21:31:00	551.500	5448.000	0.000	51660.000	50660.000	50360.000	62.292%	102.900
X		109.543%	110.257%	0.000	102.437%	99.826%	99.644%	62.950%	101.400%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.607%	n/a
%RSD		1.222	1.046	0.000	0.817	2.213	1.079	0.964	1.901
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	95.210	94.050	461.400	23530.000	24230.000	95.930	104.800	103.200
2	21:30:50	101.800	98.310	464.700	24290.000	24400.000	97.590	100.800	98.170
3	21:31:00	102.600	97.690	468.100	23920.000	24240.000	94.700	99.910	100.100
X		99.864%	96.683%	92.945%	95.655%	97.158%	96.073%	101.831%	100.498%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		4.061	2.378	0.724	1.582	0.406	1.510	2.547	2.551
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	104.400	98.350	94.230	99.850	109.000	100.100	0.000	102.800
2	21:30:50	99.800	93.860	102.600	97.790	104.300	100.500	0.000	98.220
3	21:31:00	100.300	99.050	94.790	99.290	98.730	106.600	0.000	100.500
X		101.508%	97.084%	97.209%	98.974%	104.011%	102.378%	0.000	100.535%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.488	2.902	4.819	1.076	4.947	3.587	0.000	2.302
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	50.948%	102.900	103.600	48.378%	100.800	101.700	105.000	105.300
2	21:30:50	52.711%	97.860	99.760	48.767%	100.200	101.400	98.770	101.500
3	21:31:00	53.089%	103.500	102.300	48.573%	100.000	100.700	101.500	101.500
X		52.249%	101.424%	101.875%	48.573%	100.360%	101.289%	101.759%	102.765%
σ		1.143%	n/a	n/a	0.194%	n/a	n/a	n/a	n/a
%RSD		2.188	3.054	1.900	0.400	0.427	0.510	3.074	2.130
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:30:41	45.669%	97.620	96.370	100.400	96.860	98.740	45.955%	46.312%
2	21:30:50	46.109%	95.080	97.080	102.100	104.300	91.280	44.719%	44.790%
3	21:31:00	46.210%	95.260	95.230	94.350	88.750	92.500	46.522%	44.605%
X		45.996%	95.987%	96.229%	98.946%	96.645%	94.174%	45.732%	45.236%
σ		0.288%	n/a	n/a	n/a	n/a	n/a	0.922%	0.937%
%RSD		0.626	1.478	0.971	4.109	8.058	4.247	2.016	2.071
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:30:41	110.100	109.700	107.900	106.300	106.200	42.859%		
2	21:30:50	100.300	103.100	102.700	103.800	103.300	45.372%		
3	21:31:00	103.200	106.300	106.400	104.900	105.000	44.141%		
X		104.526%	106.353%	105.646%	105.030%	104.842%	44.124%		
σ		n/a	n/a	n/a	n/a	n/a	1.256%		
%RSD		4.825	3.105	2.502	1.207	1.382	2.848		

CCB9 8/21/2015 9:40:32 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	21:39:35	71.897%	0.075	-7.698	-7.847	0.000	171.700	-0.573	0.860
2	21:39:44	69.846%	0.081	-8.312	-8.455	0.000	161.800	-1.169	-0.501
3	21:39:54	71.456%	0.076	-9.508	-9.067	0.000	165.900	-1.297	0.925
X		71.066%	0.078	-8.506	-8.456	0.000	166.500	-1.013	0.428
σ		1.080%	0.003	0.920	0.610	0.000	4.955	0.387	0.805
%RSD		1.520	4.269	10.820	7.211	0.000	2.976	38.150	188.100
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:35	1.495	50.950	0.000	346.400	20.970	10.720	63.103%	0.098
2	21:39:44	0.894	48.550	0.000	331.800	4.474	6.655	63.901%	0.030
3	21:39:54	0.818	48.240	0.000	333.400	7.954	8.214	63.387%	-0.031
X		1.069	49.250	0.000	337.200	11.130	8.530	63.464%	0.032
σ		0.371	1.487	0.000	8.013	8.698	2.051	0.404%	0.064
%RSD		34.690	3.019	0.000	2.376	78.120	24.040	0.637	198.900
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:35	0.225	0.500	0.230	11.170	23.680	0.000	-0.214	-1.407
2	21:39:44	0.181	0.770	0.089	11.210	15.090	0.038	-0.116	-1.628
3	21:39:54	0.399	0.700	0.190	11.630	16.900	0.026	-0.164	-1.497
X		0.268	0.657	0.170	11.340	18.560	0.021	-0.165	-1.510
σ		0.116	0.140	0.073	0.252	4.527	0.019	0.049	0.111
%RSD		43.100	21.360	42.850	2.220	24.400	91.160	29.590	7.356
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:35	-1.114	0.194	0.110	-0.060	-0.045	1.690	0.000	-0.010
2	21:39:44	-1.483	0.431	0.645	0.055	-0.045	-5.000	0.000	-0.010
3	21:39:54	-1.358	0.592	0.897	0.017	-0.045	-0.540	0.000	-0.010
X		-1.318	0.406	0.551	0.004	-0.045	-1.284	0.000	-0.010
σ		0.188	0.200	0.402	0.058	0.000	3.407	0.000	0.000
%RSD		14.230	49.310	73.010	1527.000	0.000	265.400	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:35	53.885%	0.079	0.064	49.413%	-0.964	-1.034	-0.011	0.006
2	21:39:44	53.391%	0.039	0.038	50.224%	-0.966	-0.943	-0.011	-0.022
3	21:39:54	53.377%	0.039	0.061	50.525%	-0.947	-0.958	0.055	-0.022
X		53.551%	0.052	0.054	50.054%	-0.959	-0.978	0.011	-0.012
σ		0.289%	0.023	0.014	0.575%	0.010	0.049	0.038	0.016
%RSD		0.540	44.060	25.820	1.149	1.075	4.996	346.300	127.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:39:35	46.704%	-0.961	-0.279	-0.271	0.000	0.000	45.891%	44.589%
2	21:39:44	47.135%	-0.814	-0.280	-0.272	0.000	0.088	46.297%	45.842%
3	21:39:54	48.425%	-0.963	-0.176	-0.302	0.000	0.000	45.176%	45.794%
X		47.422%	-0.913	-0.245	-0.282	0.000	0.029	45.788%	45.408%
σ		0.896%	0.085	0.060	0.017	0.000	0.051	0.567%	0.710%
%RSD		1.888	9.362	24.560	6.161	0.000	173.200	1.239	1.564
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:39:35	0.034	0.024	0.045	0.105	0.064	44.102%		
2	21:39:44	-0.004	0.024	0.031	0.037	0.047	43.066%		
3	21:39:54	0.008	0.018	0.088	0.068	0.088	45.421%		
X		0.013	0.022	0.055	0.070	0.066	44.196%		
σ		0.019	0.003	0.030	0.034	0.020	1.181%		
%RSD		148.500	15.970	54.180	48.160	30.430	2.671		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	81.396%	1.333	0.458	0.433	0.000	2140.000	16770.000	16200.000
2	21:44:51	80.315%	1.536	-2.161	-0.297	0.000	2002.000	16740.000	16390.000
3	21:45:01	81.423%	1.529	-0.625	0.277	0.000	1913.000	16900.000	16340.000
X		81.045%	1.466	-0.776	0.138	0.000	2019.000	16800.000	16310.000
σ		0.632%	0.115	1.316	0.384	0.000	114.400	82.480	95.810
%RSD		0.780	7.869	169.600	279.500	0.000	5.669	0.491	0.587
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	38840.000	3558.000	0.000	2059.000	29760.000	29960.000	62.528%	1438.000
2	21:44:51	39220.000	3596.000	0.000	2076.000	30920.000	30480.000	62.001%	1457.000
3	21:45:01	39150.000	3560.000	0.000	2072.000	30590.000	30130.000	62.406%	1454.000
X		39070.000	3571.000	0.000	2069.000	30420.000	30190.000	62.312%	1450.000
σ		201.900	21.540	0.000	9.080	597.600	265.100	0.276%	10.240
%RSD		0.517	0.603	0.000	0.439	1.964	0.878	0.443	0.706
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	120.500	94.690	1268.000	89000.000	88200.000	26.770	83.420	215.000
2	21:44:51	120.500	96.960	1288.000	90320.000	89200.000	25.170	83.460	212.600
3	21:45:01	130.600	96.970	1299.000	89820.000	89830.000	25.650	83.530	215.300
X		123.800	96.210	1285.000	89710.000	89080.000	25.860	83.470	214.300
σ		5.848	1.312	15.630	666.400	820.800	0.824	0.054	1.479
%RSD		4.722	1.364	1.216	0.743	0.921	3.184	0.064	0.690
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	209.700	573.300	595.500	14.440	2.560	5.267	0.000	67.790
2	21:44:51	222.000	589.200	581.300	14.180	3.610	1.930	0.000	66.240
3	21:45:01	214.900	587.000	588.600	15.390	2.565	-8.000	0.000	66.130
X		215.600	583.100	588.400	14.670	2.912	-0.268	0.000	66.720
σ		6.191	8.623	7.096	0.637	0.605	6.901	0.000	0.929
%RSD		2.872	1.479	1.206	4.339	20.780	2578.000	0.000	1.393
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	0.000	1.624	2.075	47.387%	-0.603	-0.824	6.465	6.519
2	21:44:51	0.000	1.913	1.824	47.453%	-0.768	-0.689	5.682	6.145
3	21:45:01	0.000	1.254	1.654	47.305%	-0.767	-0.813	5.841	6.807
X		0.000	1.597	1.851	47.382%	-0.713	-0.775	5.996	6.490
σ		0.000	0.330	0.212	0.074%	0.095	0.075	0.414	0.332
%RSD		0.000	20.690	11.450	0.157	13.340	9.627	6.900	5.118
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:44:42	42.932%	43.680	0.423	1.085	374.000	349.500	44.711%	45.192%
2	21:44:51	43.511%	43.200	0.742	0.681	366.400	347.100	45.365%	44.930%
3	21:45:01	43.409%	45.420	0.436	0.328	370.400	356.700	45.839%	44.649%
X		43.284%	44.100	0.534	0.698	370.300	351.100	45.305%	44.924%
σ		0.309%	1.168	0.180	0.379	3.794	4.989	0.566%	0.271%
%RSD		0.713	2.648	33.760	54.300	1.025	1.421	1.250	0.604
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:44:42	0.109	0.206	443.500	416.600	435.000	43.687%		
2	21:44:51	0.223	0.171	441.100	416.400	431.100	43.349%		
3	21:45:01	0.163	0.147	453.000	421.200	440.400	42.660%		
X		0.165	0.174	445.900	418.100	435.500	43.232%		
σ		0.057	0.030	6.298	2.717	4.659	0.523%		
%RSD		34.670	17.030	1.412	0.650	1.070	1.211		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	71.826%	0.379	-7.224	-7.960	0.000	487.900	3331.000	3256.000
2	21:49:55	72.985%	0.405	-8.528	-7.917	0.000	478.100	3321.000	3202.000
3	21:50:04	71.392%	0.337	-8.156	-8.631	0.000	482.800	3313.000	3247.000
X		72.068%	0.374	-7.970	-8.170	0.000	482.900	3322.000	3235.000
σ		0.824%	0.035	0.672	0.400	0.000	4.906	8.950	28.880
%RSD		1.143	9.255	8.431	4.898	0.000	1.016	0.269	0.893
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	7868.000	786.700	0.000	672.400	6366.000	6166.000	62.097%	297.200
2	21:49:55	7800.000	753.300	0.000	672.700	6329.000	6098.000	62.339%	304.200
3	21:50:04	7744.000	771.700	0.000	676.600	6518.000	6108.000	60.783%	286.800
X		7804.000	770.600	0.000	673.900	6404.000	6124.000	61.740%	296.000
σ		61.650	16.720	0.000	2.321	100.300	36.230	0.837%	8.730
%RSD		0.790	2.170	0.000	0.344	1.566	0.592	1.356	2.949
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	20.140	19.990	259.200	17060.000	17400.000	4.446	16.470	41.680
2	21:49:55	22.120	21.710	261.100	17390.000	17650.000	5.475	17.460	42.220
3	21:50:04	23.400	21.380	259.700	17920.000	18090.000	4.970	18.920	41.280
X		21.880	21.030	260.000	17460.000	17710.000	4.964	17.620	41.720
σ		1.642	0.911	0.948	435.500	349.000	0.515	1.237	0.468
%RSD		7.501	4.332	0.364	2.495	1.970	10.360	7.021	1.121
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	45.320	124.100	116.100	3.118	1.238	-0.121	0.000	13.840
2	21:49:55	45.590	121.600	123.700	3.186	0.971	-0.483	0.000	14.520
3	21:50:04	41.460	126.300	129.900	3.072	1.242	2.195	0.000	14.170
X		44.120	124.000	123.200	3.126	1.150	0.530	0.000	14.180
σ		2.308	2.355	6.901	0.057	0.155	1.453	0.000	0.338
%RSD		5.230	1.899	5.600	1.832	13.480	274.000	0.000	2.380
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	0.000	0.127	0.289	48.717%	-0.949	-0.959	1.374	1.102
2	21:49:55	0.000	0.163	0.283	49.378%	-1.007	-1.009	1.362	1.428
3	21:50:04	0.000	0.166	0.311	49.137%	-0.830	-1.009	0.943	1.302
X		0.000	0.152	0.294	49.077%	-0.928	-0.992	1.226	1.277
σ		0.000	0.022	0.014	0.334%	0.090	0.029	0.245	0.164
%RSD		0.000	14.300	4.849	0.681	9.721	2.912	19.990	12.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:49:45	45.562%	7.273	-0.163	-0.268	68.160	68.770	45.160%	44.774%
2	21:49:55	45.887%	8.939	-0.076	-0.045	71.260	72.280	46.590%	45.175%
3	21:50:04	46.444%	7.501	-0.145	0.010	77.000	69.030	45.156%	45.569%
X		45.964%	7.904	-0.128	-0.101	72.140	70.030	45.635%	45.173%
σ		0.446%	0.903	0.046	0.147	4.486	1.955	0.826%	0.398%
%RSD		0.970	11.430	35.930	145.900	6.218	2.792	1.811	0.880
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:49:45	0.097	0.055	94.020	90.390	90.440	43.599%		
2	21:49:55	0.034	0.039	96.910	91.750	92.660	44.086%		
3	21:50:04	0.069	0.028	93.780	87.180	89.920	45.644%		
X		0.066	0.041	94.900	89.770	91.010	44.443%		
σ		0.032	0.014	1.742	2.348	1.454	1.068%		
%RSD		47.710	33.930	1.836	2.615	1.598	2.403		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	75.336%	45.520	868.000	869.400	0.000	55830.000	65570.000	63480.000
2	21:54:57	75.801%	45.180	865.400	853.800	0.000	53730.000	64670.000	62560.000
3	21:55:07	74.016%	46.080	857.300	869.400	0.000	54460.000	64580.000	63400.000
X		75.051%	45.590	863.600	864.200	0.000	54670.000	64940.000	63150.000
σ		0.926%	0.451	5.623	9.026	0.000	1064.000	547.300	512.400
%RSD		1.233	0.989	0.651	1.044	0.000	1.947	0.843	0.812
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	100800.000	9548.000	0.000	47750.000	61190.000	61200.000	61.041%	2782.000
2	21:54:57	100000.000	9424.000	0.000	47410.000	62830.000	60830.000	61.647%	2744.000
3	21:55:07	100900.000	9645.000	0.000	47960.000	61600.000	61360.000	61.185%	2740.000
X		100600.000	9539.000	0.000	47710.000	61870.000	61130.000	61.291%	2755.000
σ		502.900	110.400	0.000	274.000	854.600	272.000	0.316%	23.370
%RSD		0.500	1.157	0.000	0.574	1.381	0.445	0.516	0.848
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	612.400	326.500	1818.000	143100.000	142300.000	476.100	538.700	504.100
2	21:54:57	598.800	331.000	1783.000	136600.000	135500.000	456.800	522.700	502.500
3	21:55:07	599.300	318.000	1800.000	139100.000	139500.000	471.400	548.000	520.700
X		603.500	325.200	1801.000	139600.000	139100.000	468.100	536.500	509.100
σ		7.710	6.605	17.530	3285.000	3415.000	10.060	12.770	10.100
%RSD		1.277	2.031	0.974	2.353	2.455	2.150	2.380	1.984
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	508.900	1484.000	1481.000	58.870	11.810	11.480	0.000	932.900
2	21:54:57	511.500	1502.000	1504.000	59.180	12.890	15.870	0.000	960.000
3	21:55:07	526.700	1498.000	1504.000	58.930	12.530	12.950	0.000	937.700
X		515.700	1495.000	1496.000	59.000	12.410	13.430	0.000	943.500
σ		9.580	9.350	13.320	0.165	0.551	2.234	0.000	14.450
%RSD		1.858	0.626	0.890	0.280	4.443	16.630	0.000	1.532
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	0.000	952.600	968.300	43.992%	45.290	45.330	60.150	88.420
2	21:54:57	0.000	956.900	960.100	43.865%	43.910	45.980	58.610	87.890
3	21:55:07	0.000	936.000	963.000	44.479%	47.270	45.530	56.010	88.720
X		0.000	948.500	963.800	44.112%	45.490	45.610	58.260	88.340
σ		0.000	11.080	4.164	0.324%	1.690	0.333	2.093	0.419
%RSD		0.000	1.168	0.432	0.735	3.716	0.729	3.593	0.474
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:54:48	40.733%	1818.000	329.000	324.100	2246.000	2167.000	44.671%	43.537%
2	21:54:57	41.738%	1758.000	315.100	311.800	2264.000	2144.000	44.277%	43.521%
3	21:55:07	41.315%	1762.000	316.100	327.300	2288.000	2213.000	44.956%	44.368%
X		41.262%	1779.000	320.000	321.100	2266.000	2175.000	44.634%	43.808%
σ		0.504%	33.900	7.739	8.181	20.770	35.290	0.341%	0.485%
%RSD		1.223	1.905	2.418	2.548	0.917	1.623	0.763	1.106
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:54:48	45.600	45.120	515.600	491.300	514.300	39.809%		
2	21:54:57	46.970	47.890	553.900	515.800	537.900	40.045%		
3	21:55:07	49.080	47.740	543.600	497.600	515.100	38.093%		
X		47.220	46.920	537.700	501.500	522.400	39.316%		
σ		1.756	1.554	19.800	12.710	13.400	1.066%		
%RSD		3.719	3.313	3.682	2.533	2.565	2.710		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	68.347%	49.950	977.200	973.100	0.000	61740.000	86670.000	82260.000
2	22:00:02	67.984%	50.220	962.400	975.700	0.000	60570.000	85890.000	82830.000
3	22:00:11	68.454%	49.360	964.800	965.100	0.000	59600.000	85460.000	82350.000
X		68.262%	49.840	968.100	971.300	0.000	60640.000	86010.000	82480.000
σ		0.246%	0.439	7.921	5.514	0.000	1071.000	613.200	303.600
%RSD		0.360	0.881	0.818	0.568	0.000	1.766	0.713	0.368
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	65730.000	10060.000	0.000	50780.000	90520.000	91190.000	56.130%	3385.000
2	22:00:02	65580.000	10070.000	0.000	50700.000	89910.000	91240.000	55.975%	3376.000
3	22:00:11	64660.000	9963.000	0.000	50010.000	89830.000	90600.000	56.764%	3366.000
X		65320.000	10030.000	0.000	50490.000	90090.000	91010.000	56.290%	3376.000
σ		579.300	57.510	0.000	421.600	380.000	356.700	0.418%	9.364
%RSD		0.887	0.573	0.000	0.835	0.422	0.392	0.742	0.277
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	616.000	274.400	1855.000	100200.000	100700.000	515.100	624.500	684.100
2	22:00:02	620.500	285.400	1874.000	103700.000	105100.000	531.400	643.900	688.100
3	22:00:11	633.200	283.900	1823.000	103300.000	102500.000	517.900	620.400	663.500
X		623.200	281.200	1851.000	102400.000	102800.000	521.500	629.600	678.600
σ		8.909	5.966	25.740	1917.000	2216.000	8.718	12.550	13.240
%RSD		1.429	2.121	1.391	1.872	2.156	1.672	1.993	1.952
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	704.700	1423.000	1445.000	56.080	15.090	15.490	0.000	1038.000
2	22:00:02	692.600	1417.000	1438.000	55.830	10.820	10.620	0.000	1051.000
3	22:00:11	659.000	1414.000	1415.000	57.420	12.610	12.000	0.000	1060.000
X		685.400	1418.000	1433.000	56.440	12.840	12.700	0.000	1050.000
σ		23.700	4.631	15.880	0.853	2.143	2.508	0.000	11.050
%RSD		3.457	0.327	1.109	1.510	16.690	19.740	0.000	1.053
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	0.000	1030.000	1049.000	39.852%	49.670	49.980	54.370	95.800
2	22:00:02	0.000	1021.000	1042.000	40.086%	48.580	48.560	53.780	92.410
3	22:00:11	0.000	1019.000	1038.000	39.885%	48.030	49.280	56.370	93.630
X		0.000	1023.000	1043.000	39.941%	48.760	49.270	54.840	93.950
σ		0.000	5.761	5.843	0.127%	0.836	0.714	1.357	1.718
%RSD		0.000	0.563	0.560	0.317	1.714	1.448	2.474	1.829
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	21:59:53	36.235%	2268.000	397.300	400.400	2263.000	2251.000	41.158%	41.063%
2	22:00:02	36.804%	2296.000	408.400	405.400	2310.000	2265.000	39.806%	38.727%
3	22:00:11	38.096%	2214.000	391.600	392.200	2223.000	2194.000	39.008%	37.948%
X		37.045%	2259.000	399.100	399.300	2265.000	2237.000	39.991%	39.246%
σ		0.953%	41.430	8.534	6.659	43.530	37.490	1.087%	1.621%
%RSD		2.574	1.834	2.138	1.668	1.922	1.676	2.719	4.131
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	21:59:53	55.250	52.130	610.000	556.600	576.500	32.705%		
2	22:00:02	54.750	50.040	576.400	534.600	557.100	33.344%		
3	22:00:11	47.800	49.540	552.600	515.500	543.200	35.431%		
X		52.600	50.570	579.700	535.600	558.900	33.827%		
σ		4.166	1.371	28.790	20.590	16.770	1.426%		
%RSD		7.920	2.712	4.967	3.844	3.000	4.216		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	67.020%	55.900	1088.000	1088.000	0.000	64620.000	75010.000	71840.000
2	22:05:07	64.738%	55.590	1111.000	1118.000	0.000	63690.000	72750.000	69460.000
3	22:05:16	65.761%	57.560	1108.000	1098.000	0.000	64600.000	74430.000	72220.000
X		65.840%	56.350	1102.000	1101.000	0.000	64300.000	74060.000	71170.000
σ		1.143%	1.059	12.150	15.650	0.000	528.900	1177.000	1494.000
%RSD		1.737	1.879	1.102	1.421	0.000	0.823	1.589	2.099
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	40880.000	14740.000	0.000	51890.000	78850.000	80140.000	54.971%	2485.000
2	22:05:07	40540.000	14600.000	0.000	50870.000	78370.000	78800.000	55.452%	2443.000
3	22:05:16	41630.000	14960.000	0.000	52450.000	79120.000	80470.000	54.104%	2494.000
X		41020.000	14760.000	0.000	51740.000	78780.000	79800.000	54.842%	2474.000
σ		557.300	184.000	0.000	799.700	378.400	882.500	0.683%	27.220
%RSD		1.359	1.246	0.000	1.546	0.480	1.106	1.246	1.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	637.100	288.800	1795.000	88540.000	87910.000	565.400	619.500	492.100
2	22:05:07	640.500	294.200	1749.000	88150.000	88460.000	560.000	625.600	486.600
3	22:05:16	659.300	303.200	1800.000	89820.000	89340.000	553.700	621.100	478.000
X		645.600	295.400	1782.000	88840.000	88570.000	559.700	622.000	485.600
σ		11.940	7.265	27.920	877.100	721.800	5.882	3.181	7.067
%RSD		1.849	2.459	1.567	0.987	0.815	1.051	0.511	1.456
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	499.800	1097.000	1105.000	56.630	14.090	19.860	0.000	1101.000
2	22:05:07	500.600	1096.000	1105.000	58.190	12.470	15.030	0.000	1114.000
3	22:05:16	495.200	1092.000	1077.000	57.900	14.450	6.979	0.000	1141.000
X		498.500	1095.000	1096.000	57.570	13.670	13.950	0.000	1119.000
σ		2.931	2.777	16.470	0.829	1.055	6.506	0.000	20.010
%RSD		0.588	0.254	1.503	1.440	7.720	46.620	0.000	1.788
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	0.000	1124.000	1140.000	39.382%	55.170	53.870	58.830	99.550
2	22:05:07	0.000	1125.000	1127.000	39.594%	52.740	53.460	60.460	95.270
3	22:05:16	0.000	1115.000	1135.000	39.487%	53.820	52.510	62.650	98.420
X		0.000	1121.000	1134.000	39.488%	53.910	53.280	60.650	97.750
σ		0.000	5.742	6.724	0.106%	1.215	0.696	1.918	2.222
%RSD		0.000	0.512	0.593	0.269	2.253	1.306	3.162	2.273
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:04:57	35.918%	2112.000	515.200	514.300	2376.000	2303.000	39.561%	38.642%
2	22:05:07	36.679%	2076.000	518.400	507.100	2327.000	2280.000	39.766%	37.928%
3	22:05:16	36.470%	2107.000	512.400	513.800	2335.000	2279.000	38.767%	38.707%
X		36.356%	2098.000	515.400	511.700	2346.000	2287.000	39.365%	38.426%
σ		0.393%	19.430	3.039	3.975	26.100	13.940	0.528%	0.432%
%RSD		1.081	0.926	0.590	0.777	1.113	0.609	1.341	1.125
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:04:57	56.630	55.960	480.500	445.800	457.500	33.548%		
2	22:05:07	57.170	55.670	469.900	442.200	456.000	33.896%		
3	22:05:16	54.420	53.730	465.500	446.600	458.100	35.749%		
X		56.070	55.120	472.000	444.900	457.200	34.398%		
σ		1.458	1.214	7.721	2.352	1.086	1.183%		
%RSD		2.601	2.202	1.636	0.529	0.238	3.439		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	67.806%	2.554	12.030	12.630	0.000	1835.000	16720.000	15920.000
2	22:10:12	69.266%	2.266	10.800	10.260	0.000	1823.000	16560.000	15850.000
3	22:10:22	68.107%	2.137	10.180	9.459	0.000	1764.000	16220.000	15690.000
X		68.393%	2.319	11.000	10.780	0.000	1807.000	16500.000	15820.000
σ		0.771%	0.213	0.939	1.651	0.000	38.380	253.300	119.400
%RSD		1.127	9.194	8.532	15.310	0.000	2.123	1.535	0.755
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	32190.000	2807.000	0.000	2324.000	19620.000	19600.000	54.767%	1534.000
2	22:10:12	32150.000	2619.000	0.000	2302.000	20080.000	19470.000	55.450%	1528.000
3	22:10:22	31850.000	2612.000	0.000	2269.000	19370.000	19370.000	55.818%	1526.000
X		32060.000	2679.000	0.000	2298.000	19690.000	19480.000	55.345%	1529.000
σ		184.700	110.800	0.000	27.350	358.900	112.500	0.533%	4.510
%RSD		0.576	4.134	0.000	1.190	1.823	0.577	0.963	0.295
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	107.900	403.400	858.000	99520.000	97730.000	31.600	299.600	1663.000
2	22:10:12	108.900	403.600	861.400	101400.000	100800.000	33.130	308.900	1676.000
3	22:10:22	121.000	394.200	846.600	101300.000	101800.000	32.890	314.300	1725.000
X		112.600	400.400	855.300	100700.000	100100.000	32.540	307.600	1688.000
σ		7.334	5.399	7.728	1030.000	2110.000	0.822	7.427	32.820
%RSD		6.513	1.348	0.904	1.023	2.108	2.527	2.415	1.944
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	1699.000	1618.000	1599.000	25.260	2.311	9.006	0.000	71.340
2	22:10:12	1682.000	1587.000	1592.000	25.950	2.876	6.189	0.000	73.920
3	22:10:22	1723.000	1635.000	1602.000	24.300	2.271	8.330	0.000	73.740
X		1701.000	1613.000	1598.000	25.170	2.486	7.841	0.000	73.000
σ		20.480	24.140	5.189	0.827	0.338	1.471	0.000	1.442
%RSD		1.204	1.496	0.325	3.287	13.600	18.760	0.000	1.975
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	0.000	4.506	4.692	42.152%	-0.463	-0.339	23.970	34.240
2	22:10:12	0.000	4.846	4.718	42.399%	-0.502	-0.561	24.860	32.470
3	22:10:22	0.000	4.614	4.559	42.826%	-0.636	-0.454	26.740	33.830
X		0.000	4.655	4.656	42.459%	-0.533	-0.452	25.190	33.510
σ		0.000	0.174	0.085	0.341%	0.091	0.111	1.415	0.926
%RSD		0.000	3.731	1.830	0.804	17.020	24.600	5.619	2.764
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:10:03	39.124%	430.300	14.900	12.900	392.700	391.400	39.329%	39.690%
2	22:10:12	38.811%	442.400	14.450	14.340	414.200	391.600	39.397%	38.602%
3	22:10:22	38.930%	442.300	13.700	14.760	391.100	387.800	41.050%	39.630%
X		38.955%	438.300	14.350	14.000	399.400	390.300	39.925%	39.307%
σ		0.158%	6.954	0.608	0.977	12.880	2.132	0.975%	0.611%
%RSD		0.405	1.587	4.237	6.981	3.224	0.546	2.441	1.555
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:10:03	0.316	0.378	2371.000	2160.000	2245.000	37.573%		
2	22:10:12	0.320	0.366	2208.000	2053.000	2154.000	39.046%		
3	22:10:22	0.183	0.273	2125.000	1980.000	2082.000	37.959%		
X		0.273	0.339	2235.000	2064.000	2160.000	38.193%		
σ		0.078	0.058	124.900	90.560	81.210	0.764%		
%RSD		28.470	16.970	5.591	4.387	3.759	2.000		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	66.118%	1.082	13.600	14.780	0.000	616.400	500.500	478.400
2	22:24:11	66.397%	1.067	14.470	13.230	0.000	615.700	498.200	464.400
3	22:24:21	67.316%	1.003	12.050	14.120	0.000	613.600	482.800	465.900
X		66.610%	105.072%	267.461%	280.868%	0.000	769.026%	493.798%	469.564%
σ		0.627%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.941	3.987	9.154	5.559	0.000	0.235	1.949	1.633
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	31.550	531.300	0.000	721.400	386.100	435.700	66.182%	4.131
2	22:24:11	30.490	538.700	0.000	719.800	458.000	459.300	65.980%	4.873
3	22:24:21	30.980	536.000	0.000	724.700	474.800	451.600	66.190%	5.824
X		103.357%	107.065%	0.000	721.987%	439.649%	448.842%	66.117%	98.846%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.119%	n/a
%RSD		1.719	0.703	0.000	0.347	10.720	2.686	0.180	17.170
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	0.533	2.578	4.337	51.260	73.330	0.741	0.890	0.222
2	22:24:11	-0.828	2.357	4.271	50.470	65.280	0.547	0.717	0.068
3	22:24:21	-0.308	2.827	4.273	55.120	90.750	0.652	0.821	0.452
X		-20.087%	129.362%	85.873%	104.563%	152.904%	129.387%	80.953%	12.356%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		342.000	9.084	0.880	4.756	17.030	14.960	10.750	78.270
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	0.150	5.083	6.570	1.150	4.788	5.317	0.000	4.795
2	22:24:11	0.464	5.890	4.176	0.825	5.600	4.352	0.000	4.592
3	22:24:21	0.523	5.209	6.482	0.915	3.853	9.121	0.000	4.700
X		18.939%	107.880%	114.853%	96.300%	94.942%	125.269%	0.000	93.914%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		52.860	8.043	23.640	17.450	18.410	40.250	0.000	2.162
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	47.764%	4.918	4.660	47.395%	-0.031	0.052	1.062	1.228
2	22:24:11	50.591%	4.716	5.113	47.371%	0.067	0.022	0.926	1.359
3	22:24:21	49.747%	5.255	5.448	46.691%	0.049	0.145	0.634	1.167
X		49.367%	99.254%	101.478%	47.152%	2.843%	7.271%	87.432%	125.124%
σ		1.451%	n/a	n/a	0.400%	n/a	n/a	n/a	n/a
%RSD		2.940	5.486	7.801	0.848	182.500	88.410	25.020	7.840
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:24:02	44.002%	10.850	1.909	1.651	9.816	9.686	43.514%	43.211%
2	22:24:11	43.503%	7.856	1.409	1.549	10.190	8.855	43.868%	43.673%
3	22:24:21	44.186%	6.428	1.850	1.668	9.038	10.440	44.113%	44.573%
X		43.897%	167.523%	86.151%	81.143%	96.823%	96.599%	43.832%	43.819%
σ		0.354%	n/a	n/a	n/a	n/a	n/a	0.301%	0.692%
%RSD		0.806	26.910	15.850	3.984	6.083	8.205	0.686	1.580
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:24:02	1.392	1.115	1.093	1.059	1.096	39.258%		
2	22:24:11	1.216	1.166	1.021	1.207	1.131	40.078%		
3	22:24:21	0.989	1.240	1.295	1.196	1.271	39.782%		
X		119.892%	117.367%	113.621%	115.404%	116.613%	39.706%		
σ		n/a	n/a	n/a	n/a	n/a	0.416%		
%RSD		16.820	5.376	12.540	7.123	7.914	1.047		

CCV 1671387 8/21/2015 10:30:04 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	22:29:08	64.632%	115.700	109.000	112.300	0.000	63590.000	56720.000	54130.000
2	22:29:17	64.291%	112.900	111.300	110.800	0.000	63120.000	56180.000	53530.000
3	22:29:27	65.139%	114.200	111.700	107.600	0.000	63140.000	56230.000	53590.000
X		64.687%	114.264%	110.660%	110.254%	0.000	126.566%	112.754%	107.502%
σ		0.427%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.660	1.252	1.326	2.157	0.000	0.417	0.535	0.614
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:08	556.300	5668.000	0.000	49980.000	48590.000	48940.000	59.885%	106.200
2	22:29:17	553.000	5649.000	0.000	49530.000	48660.000	48700.000	60.395%	107.400
3	22:29:27	553.500	5636.000	0.000	49860.000	48890.000	48530.000	60.234%	109.100
X		110.851%	113.024%	0.000	99.576%	97.429%	97.449%	60.172%	107.577%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.261%	n/a
%RSD		0.328	0.286	0.000	0.469	0.323	0.424	0.433	1.358
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:08	96.970	96.820	468.600	23900.000	23890.000	95.960	95.230	98.850
2	22:29:17	100.400	95.770	463.700	24580.000	24430.000	99.590	103.400	103.300
3	22:29:27	98.930	97.400	472.600	24680.000	24580.000	99.310	100.100	101.300
X		98.766%	96.664%	93.655%	97.553%	97.202%	98.285%	99.571%	101.154%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.737	0.856	0.953	1.737	1.513	2.057	4.111	2.217
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:08	102.600	93.960	98.940	96.180	99.530	102.600	0.000	98.870
2	22:29:17	103.300	102.200	103.000	103.900	109.000	107.100	0.000	106.400
3	22:29:27	101.600	96.410	98.210	99.430	91.930	96.520	0.000	98.370
X		102.495%	97.538%	100.053%	99.838%	100.155%	102.072%	0.000	101.210%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.843	4.362	2.587	3.889	8.538	5.215	0.000	4.441
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:08	49.877%	99.860	101.700	43.728%	99.390	100.800	102.200	103.500
2	22:29:17	48.422%	100.900	103.100	44.110%	100.100	102.700	98.030	102.000
3	22:29:27	50.110%	99.570	104.200	44.515%	99.680	100.500	92.960	96.620
X		49.470%	100.098%	103.002%	44.117%	99.737%	101.330%	97.744%	100.700%
σ		0.915%	n/a	n/a	0.394%	n/a	n/a	n/a	n/a
%RSD		1.849	0.680	1.206	0.892	0.380	1.178	4.752	3.577
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:29:08	42.000%	99.090	96.160	94.350	94.640	91.090	40.272%	40.039%
2	22:29:17	42.326%	96.880	94.870	97.600	88.420	94.690	41.825%	41.055%
3	22:29:27	43.127%	94.250	95.000	95.710	95.840	94.510	40.155%	39.855%
X		42.484%	96.740%	95.347%	95.888%	92.966%	93.430%	40.751%	40.316%
σ		0.580%	n/a	n/a	n/a	n/a	n/a	0.932%	0.646%
%RSD		1.365	2.504	0.745	1.704	4.281	2.174	2.287	1.603
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:29:08	103.700	104.000	104.500	105.500	103.700	38.065%		
2	22:29:17	106.300	105.700	103.700	103.900	102.700	37.178%		
3	22:29:27	103.000	101.300	102.000	101.800	102.300	38.988%		
X		104.308%	103.647%	103.398%	103.753%	102.902%	38.077%		
σ		n/a	n/a	n/a	n/a	n/a	0.906%		
%RSD		1.668	2.137	1.242	1.777	0.707	2.378		

CCB10 8/21/2015 10:38:58 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	22:38:02	68.179%	0.171	-8.214	-7.371	0.000	124.100	6.757	6.201
2	22:38:12	70.422%	0.070	-8.563	-9.056	0.000	126.700	7.715	5.968
3	22:38:21	70.213%	0.080	-10.200	-8.609	0.000	123.000	5.618	8.035
X		69.605%	0.107	-8.993	-8.345	0.000	124.600	6.696	6.735
σ		1.239%	0.056	1.061	0.873	0.000	1.909	1.050	1.132
%RSD		1.780	51.840	11.800	10.460	0.000	1.532	15.670	16.810
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:38:02	0.586	57.630	0.000	361.800	12.240	7.734	61.769%	0.107
2	22:38:12	0.685	57.560	0.000	370.400	-7.024	9.523	60.652%	0.248
3	22:38:21	0.727	52.670	0.000	351.300	-7.380	4.807	61.590%	-0.086
X		0.666	55.950	0.000	361.200	-0.721	7.354	61.337%	0.090
σ		0.072	2.842	0.000	9.525	11.230	2.381	0.600%	0.168
%RSD		10.870	5.080	0.000	2.637	1557.000	32.370	0.978	187.200
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:38:02	2.192	0.720	0.110	9.232	1.845	0.027	-0.110	-1.855
2	22:38:12	-0.111	0.673	0.071	8.462	17.980	0.014	-0.157	-1.674
3	22:38:21	1.571	0.417	0.161	8.488	5.237	0.039	-0.062	-1.599
X		1.217	0.603	0.114	8.727	8.355	0.027	-0.110	-1.709
σ		1.191	0.163	0.045	0.437	8.510	0.013	0.047	0.131
%RSD		97.860	27.060	39.440	5.004	101.800	47.090	43.340	7.689
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:38:02	-1.428	0.530	0.117	-0.020	-0.045	-1.450	0.000	-0.010
2	22:38:12	-1.546	0.295	0.800	-0.018	-0.045	1.720	0.000	0.020
3	22:38:21	-1.476	0.359	0.980	0.017	0.203	2.160	0.000	0.018
X		-1.483	0.395	0.632	-0.007	0.038	0.810	0.000	0.009
σ		0.060	0.122	0.455	0.021	0.144	1.970	0.000	0.017
%RSD		4.020	30.790	72.040	297.900	381.700	243.200	0.000	183.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:38:02	51.840%	0.123	0.091	49.549%	-1.006	-1.020	-0.011	-0.022
2	22:38:12	50.426%	0.047	-0.100	49.377%	-0.985	-0.963	-0.011	0.006
3	22:38:21	53.645%	0.118	-0.055	49.630%	-1.052	-0.986	-0.011	0.006
X		51.970%	0.096	-0.022	49.519%	-1.014	-0.990	-0.011	-0.003
σ		1.613%	0.043	0.100	0.129%	0.034	0.029	0.000	0.016
%RSD		3.104	44.350	460.200	0.260	3.343	2.911	0.347	502.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	22:38:02	45.395%	-0.844	-0.275	-0.210	0.000	0.092	44.193%	43.493%
2	22:38:12	46.513%	-0.923	-0.256	-0.298	0.000	0.000	44.915%	45.071%
3	22:38:21	46.361%	-0.885	-0.256	-0.298	0.000	0.000	45.257%	44.167%
X		46.090%	-0.884	-0.262	-0.269	0.000	0.031	44.788%	44.244%
σ		0.606%	0.040	0.011	0.051	0.000	0.053	0.543%	0.792%
%RSD		1.316	4.488	4.238	19.010	0.000	173.200	1.213	1.790
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	22:38:02	0.022	0.008	0.046	0.089	0.047	43.462%		
2	22:38:12	0.009	0.003	0.047	0.020	0.032	42.812%		
3	22:38:21	0.021	0.003	-0.001	0.087	0.031	44.310%		
X		0.017	0.005	0.031	0.066	0.037	43.528%		
σ		0.007	0.003	0.027	0.039	0.009	0.751%		
%RSD		41.060	64.750	88.160	60.040	24.090	1.726		

## Performance Report

### Sample details

Sample name : ITUNE

Acquired at : 8/21/2015 10:03:39 AM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

### Mass Calibration verification

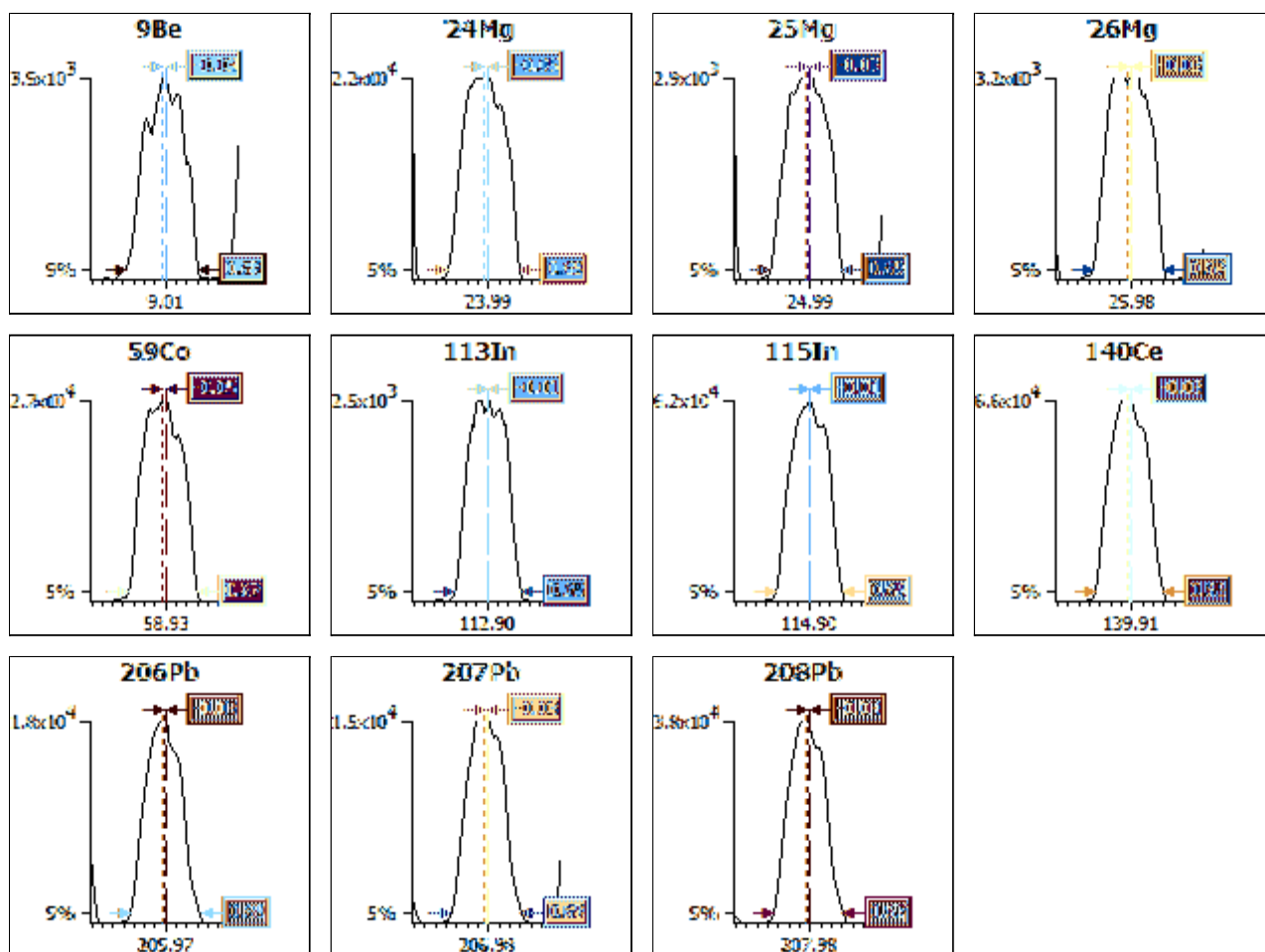
#### Acquisition parameters

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
<b>9Be</b>	0.90	0.40	0.10	0.69	-0.03
<b>24Mg</b>	0.90	0.40	0.10	0.69	-0.05
<b>25Mg</b>	0.90	0.40	0.10	0.69	-0.03
<b>26Mg</b>	0.90	0.40	0.10	0.67	-0.03
<b>59Co</b>	0.90	0.40	0.10	0.67	-0.05
<b>113In</b>	0.90	0.40	0.10	0.65	-0.01
<b>115In</b>	0.90	0.40	0.10	0.65	-0.01
<b>140Ce</b>	0.90	0.40	0.10	0.65	-0.03
<b>206Pb</b>	0.90	0.40	0.10	0.69	-0.03
<b>207Pb</b>	0.90	0.40	0.10	0.69	-0.03
<b>208Pb</b>	0.90	0.40	0.10	0.67	-0.03

**Sample details**

Sample name : ITUNE

Acquired at : 8/21/2015 10:03:39 AM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

**Tune conditions**

Major		Minor		Global		Add. Gases	
Extraction	-173	Lens 2	-55.7	Standard resolution	n/a	CCT1	0.00
Lens 1	0.3	Lens 3	-200.0	High resolution	n/a	CCT2	0.00
Focus	29.8	Forward power	1404	Analogue Detector	n/a		
D1	-26.7	Horizontal	26	PC Detector	n/a		
Pole Bias	-0.0	Vertical	393				
Hexapole Bias	-3.4	D2	-121				
Nebuliser	0.78	DA	-80.0				
Sampling Depth	200	Cool	14.0				
		Auxiliary	0.80				

**Sensitivity and stability results****Acquisition parameters**

Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
<b>Dwell (mSecs)</b>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Limits</b>	<b>%RSD</b>	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	<b>Countrate</b>	-	>100	>500	>150	>150	>500	>500	>10000
1	10:04:26 AM	0	3326	21435	3088	3579	26383	2613	61473
2	10:05:38 AM	0	3320	21365	3047	3561	26412	2658	60944
3	10:06:50 AM	1	3247	21575	3052	3606	26572	2540	60367
4	10:08:02 AM	0	3290	21945	3126	3628	26912	2676	59801
5	10:09:14 AM	0	3333	22125	3220	3710	26974	2628	60334
x		0	3303	21689	3107	3617	26650	2623	60584
σ		0.19	35.32	331.14	70.70	58.24	277.69	52.42	641.02
<b>%RSD</b>		60.028	1.069	1.527	2.276	1.610	1.042	1.998	1.058

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
<b>Dwell (mSecs)</b>		0.0	0.0	0.0	0.0	0.0	0.0
<b>Limits</b>	<b>%RSD</b>	5.0%	-	5.0%	5.0%	5.0%	-
	<b>Countrate</b>	>10000	-	>1000	>1000	>5000	-
1	10:04:26 AM	64777	709	17079	15526	37116	0
2	10:05:38 AM	65260	709	17492	15720	37574	0
3	10:06:50 AM	65033	712	17354	15659	37269	0
4	10:08:02 AM	65068	729	17262	15474	36622	0
5	10:09:14 AM	65226	711	16767	15305	36024	0
x		65073	714	17191	15537	36921	0
σ		192.03	8.58	280.18	162.89	608.01	0.06
<b>%RSD</b>		0.295	1.202	1.630	1.048	1.647	43.853

**Ratio results**

Run	Time	156Ce O/140Ce
<b>Ratio limits</b>		<0.0600
1	10:04:26 AM	0
2	10:05:38 AM	0
3	10:06:50 AM	0
4	10:08:02 AM	0
5	10:09:14 AM	0
x		0.0110
σ		0.00
<b>%RSD</b>		1.2282

Result : The performance report passed.

## Dilution Corrected Concentrations

STD1 1671385 8/24/2015 9:17:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	99.762%	-0.041	-0.623	-0.238	0.000	-1.229	-0.056	-0.751
2	09:17:09	99.133%	0.074	0.802	0.119	0.000	1.788	-1.529	-1.156
3	09:17:18	101.105%	-0.033	-0.179	0.118	0.000	-0.560	1.585	1.906
X		100.000%	-0.000	0.000	-0.000	0.000	-0.000	-0.000	0.000
σ		1.007%	0.064	0.729	0.206	0.000	1.585	1.558	1.663
%RSD		1.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	-0.003	-0.258	0.000	-3.327	-24.670	8.516	100.012%	0.118
2	09:17:09	0.144	-1.367	0.000	4.624	35.930	-9.916	99.458%	-0.184
3	09:17:18	-0.141	1.625	0.000	-1.297	-11.270	1.400	100.530%	0.066
X		0.000	0.000	0.000	-0.000	-0.000	-0.000	100.000%	-0.000
σ		0.143	1.513	0.000	4.131	31.830	9.295	0.536%	0.162
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.536	0.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	-1.435	-0.004	-0.049	-0.053	-1.390	0.018	-0.153	-0.038
2	09:17:09	1.037	0.046	0.005	0.019	-4.285	0.007	-0.032	0.033
3	09:17:18	0.398	-0.042	0.044	0.035	5.675	-0.025	0.185	0.004
X		0.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000
σ		1.283	0.044	0.047	0.047	5.124	0.023	0.172	0.036
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	0.049	0.006	-0.056	-0.026	0.069	-1.922	0.000	-0.023
2	09:17:09	-0.092	-0.005	-0.221	-0.011	-0.134	1.903	0.000	0.023
3	09:17:18	0.043	-0.001	0.277	0.038	0.066	0.019	0.000	0.000
X		0.000	-0.000	-0.000	-0.000	0.000	0.000	0.000	-0.000
σ		0.080	0.006	0.254	0.033	0.116	1.912	0.000	0.023
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	97.871%	-0.032	0.047	98.342%	-0.001	0.008	0.019	0.008
2	09:17:09	102.414%	-0.032	-0.053	100.928%	0.023	-0.004	-0.037	0.007
3	09:17:18	99.715%	0.064	0.006	100.730%	-0.022	-0.005	0.018	-0.015
X		100.000%	-0.000	-0.000	100.000%	-0.000	0.000	0.000	0.000
σ		2.285%	0.056	0.050	1.439%	0.022	0.007	0.032	0.013
%RSD		2.285	0.000	0.000	1.439	0.000	0.000	0.000	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:16:59	98.888%	-0.062	0.045	-0.015	-0.038	-0.094	99.070%	101.558%
2	09:17:09	99.994%	0.063	-0.050	0.008	-0.046	0.131	99.863%	99.414%
3	09:17:18	101.118%	-0.001	0.005	0.007	0.084	-0.037	101.068%	99.028%
X		100.000%	-0.000	0.000	0.000	-0.000	-0.000	100.000%	100.000%
σ		1.115%	0.063	0.048	0.013	0.073	0.117	1.006%	1.363%
%RSD		1.115	0.000	0.000	0.000	0.000	0.000	1.006	1.363
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:16:59	-0.004	-0.004	0.014	0.001	0.005	96.298%		
2	09:17:09	0.007	0.004	0.012	-0.000	0.007	101.364%		
3	09:17:18	-0.004	-0.000	-0.026	-0.000	-0.012	102.339%		
X		0.000	-0.000	0.000	0.000	0.000	100.000%		
σ		0.006	0.004	0.023	0.000	0.010	3.243%		
%RSD		0.000	0.000	0.000	0.000	0.000	3.243		

STD2 1671388

8/24/2015 9:22:38 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	90.279%	201.500	4.406	3.438	0.000	100400.000	99610.000	99830.000
2	09:21:52	91.829%	198.200	3.906	4.184	0.000	98880.000	99250.000	98900.000
3	09:22:01	90.544%	200.300	3.995	3.619	0.000	100700.000	101100.000	101300.000
X		90.884%	200.000	4.102	3.747	0.000	100000.000	100000.000	100000.000
σ		0.829%	1.644	0.267	0.389	0.000	983.700	999.500	1194.000
%RSD		0.913	0.822	6.502	10.390	0.000	0.984	1.000	1.194
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	998.200	6.725	0.000	99530.000	98980.000	99610.000	98.478%	-0.029
2	09:21:52	987.100	4.539	0.000	99280.000	100100.000	99020.000	99.605%	0.222
3	09:22:01	1015.000	7.903	0.000	101200.000	100900.000	101400.000	97.393%	0.546
X		1000.000	6.389	0.000	100000.000	100000.000	100000.000	98.492%	0.246
σ		13.900	1.707	0.000	1036.000	974.200	1218.000	1.106%	0.288
%RSD		1.390	26.720	0.000	1.036	0.974	1.218	1.123	116.900
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	201.100	200.800	996.700	49040.000	48440.000	196.200	199.300	195.700
2	09:21:52	193.300	195.500	990.900	50320.000	51020.000	203.000	204.700	206.000
3	09:22:01	205.600	203.700	1012.000	50640.000	50540.000	200.900	196.000	198.400
X		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		6.203	4.188	11.110	843.400	1374.000	3.480	4.407	5.339
%RSD		3.101	2.094	1.111	1.687	2.749	1.740	2.203	2.669
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	194.500	197.500	195.900	193.300	192.000	207.100	0.000	196.100
2	09:21:52	201.700	193.100	204.400	204.200	205.400	211.200	0.000	203.000
3	09:22:01	203.800	209.500	199.600	202.500	202.600	181.700	0.000	200.900
X		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		4.877	8.477	4.245	5.861	7.032	15.970	0.000	3.545
%RSD		2.439	4.239	2.122	2.930	3.516	7.985	0.000	1.773
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	97.871%	0.205	0.197	91.905%	203.400	201.800	202.400	203.200
2	09:21:52	95.809%	0.172	0.258	93.743%	197.800	199.800	197.100	203.300
3	09:22:01	98.387%	0.269	0.092	93.654%	198.800	198.300	200.500	193.500
X		97.356%	0.215	0.182	93.101%	200.000	200.000	200.000	200.000
σ		1.364%	0.050	0.084	1.037%	3.011	1.748	2.727	5.649
%RSD		1.401	23.040	46.180	1.113	1.506	0.874	1.363	2.825
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:21:42	91.801%	0.080	0.259	0.272	201.700	195.600	93.633%	93.267%
2	09:21:52	93.750%	0.108	0.151	0.263	201.800	204.500	98.277%	95.688%
3	09:22:01	96.700%	0.200	0.205	0.405	196.500	199.900	95.120%	94.848%
X		94.084%	0.129	0.205	0.313	200.000	200.000	95.677%	94.601%
σ		2.467%	0.063	0.054	0.079	2.990	4.448	2.371%	1.229%
%RSD		2.622	48.550	26.390	25.320	1.495	2.224	2.478	1.300
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:21:42	200.700	200.300	199.600	200.700	200.700	93.771%		
2	09:21:52	203.200	204.400	200.200	200.200	199.400	91.650%		
3	09:22:01	196.000	195.300	200.200	199.000	199.900	95.072%		
X		200.000	200.000	200.000	200.000	200.000	93.498%		
σ		3.656	4.535	0.355	0.884	0.679	1.727%		
%RSD		1.828	2.268	0.178	0.442	0.340	1.847		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	96.016%	0.453	201.500	200.500	0.000	72.480	3.222	4.161
2	09:26:56	96.875%	0.452	195.800	200.200	0.000	67.120	0.552	2.166
3	09:27:06	96.650%	0.434	202.700	199.300	0.000	65.880	4.865	2.007
X		96.514%	0.446	200.000	200.000	0.000	68.490	2.880	2.778
σ		0.445%	0.011	3.681	0.607	0.000	3.511	2.177	1.200
%RSD		0.461	2.434	1.841	0.303	0.000	5.127	75.600	43.210
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	4.838	10060.000	0.000	36.030	42.850	177.900	100.736%	197.000
2	09:26:56	4.428	10040.000	0.000	32.070	12.680	164.900	101.222%	202.900
3	09:27:06	4.146	9901.000	0.000	25.180	12.360	160.200	101.670%	200.100
X		4.471	10000.000	0.000	31.090	22.630	167.700	101.209%	200.000
σ		0.348	86.180	0.000	5.490	17.510	9.174	0.467%	2.932
%RSD		7.780	0.862	0.000	17.660	77.390	5.472	0.462	1.466
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	0.359	0.044	0.374	25.200	26.810	0.082	-0.511	0.184
2	09:26:56	-0.147	0.187	0.398	23.000	31.110	0.125	-0.041	0.248
3	09:27:06	1.523	0.083	0.337	21.260	38.800	0.080	-1.635	0.396
X		0.578	0.105	0.370	23.150	32.240	0.095	-0.729	0.276
σ		0.856	0.074	0.031	1.974	6.076	0.025	0.819	0.109
%RSD		148.100	70.760	8.326	8.525	18.850	26.660	112.300	39.550
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	0.072	1.269	1.705	0.195	0.063	2.658	0.000	0.070
2	09:26:56	0.108	1.281	0.983	0.214	0.065	2.648	0.000	0.121
3	09:27:06	-0.036	1.427	0.785	0.251	0.058	-4.411	0.000	0.066
X		0.048	1.325	1.158	0.220	0.062	0.298	0.000	0.086
σ		0.075	0.088	0.484	0.028	0.004	4.078	0.000	0.030
%RSD		156.200	6.653	41.830	12.890	6.510	1367.000	0.000	35.110
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	101.492%	203.100	195.900	104.208%	0.086	-0.045	0.125	3.078
2	09:26:56	99.649%	202.000	203.000	104.832%	-0.018	0.054	0.389	3.195
3	09:27:06	105.004%	194.800	201.100	106.491%	0.113	0.015	0.015	2.800
X		102.048%	200.000	200.000	105.177%	0.060	0.008	0.177	3.024
σ		2.721%	4.529	3.690	1.179%	0.069	0.050	0.192	0.203
%RSD		2.666	2.264	1.845	1.121	114.200	606.000	108.900	6.701
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:26:47	102.370%	199.200	196.900	197.500	-0.487	0.470	104.332%	103.773%
2	09:26:56	104.364%	199.900	199.600	197.400	-0.223	0.371	105.797%	104.590%
3	09:27:06	106.228%	200.900	203.500	205.200	1.125	-0.076	104.149%	103.958%
X		104.321%	200.000	200.000	200.000	0.139	0.255	104.759%	104.107%
σ		1.929%	0.873	3.320	4.465	0.865	0.291	0.903%	0.429%
%RSD		1.849	0.437	1.660	2.233	624.000	114.000	0.862	0.412
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:26:47	0.040	0.027	0.189	0.224	0.184	96.149%		
2	09:26:56	0.029	0.031	0.223	0.219	0.217	98.676%		
3	09:27:06	0.007	0.044	0.181	0.230	0.170	100.150%		
X		0.025	0.034	0.198	0.224	0.190	98.325%		
σ		0.017	0.009	0.022	0.006	0.024	2.024%		
%RSD		66.600	25.110	11.330	2.485	12.720	2.058		



ICV 1638890 8/24/2015 9:32:47 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	92.883%	82.150	91.240	89.810	0.000	40070.000	40850.000	40620.000
2	09:31:59	91.935%	83.260	91.920	90.250	0.000	40010.000	44470.000	40600.000
3	09:32:09	92.947%	80.710	89.040	88.700	0.000	39720.000	44110.000	40260.000
X		92.588%	102.551%	113.417%	111.983%	0.000	99.835%	107.863%	101.229%
σ		0.567%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.612	1.561	1.657	0.893	0.000	0.466	4.618	0.505
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	409.300	4553.000	0.000	40960.000	41140.000	38530.000	99.403%	78.180
2	09:31:59	407.900	4609.000	0.000	40910.000	41050.000	38450.000	99.810%	81.970
3	09:32:09	410.100	4535.000	0.000	40470.000	39770.000	38390.000	100.379%	78.070
X		102.271%	114.137%	0.000	101.951%	101.636%	96.147%	99.864%	99.258%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.490%	n/a
%RSD		0.274	0.844	0.000	0.658	1.877	0.182	0.491	2.793
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	82.070	81.640	400.800	19500.000	19120.000	81.410	79.150	83.750
2	09:31:59	80.620	81.370	398.500	20190.000	20160.000	81.140	77.950	79.090
3	09:32:09	84.140	83.830	399.300	19940.000	19950.000	80.800	80.040	80.640
X		102.846%	102.850%	99.876%	99.372%	98.734%	101.395%	98.806%	101.453%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.148	1.637	0.291	1.754	2.777	0.376	1.331	2.926
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	83.250	79.040	81.520	79.860	74.930	70.480	0.000	83.320
2	09:31:59	81.590	78.680	82.490	80.350	80.680	73.510	0.000	81.650
3	09:32:09	80.980	85.610	81.750	80.210	72.360	81.030	0.000	80.600
X		102.425%	101.390%	102.400%	100.173%	94.988%	93.759%	0.000	102.322%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.428	4.811	0.623	0.314	5.602	7.244	0.000	1.673
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	97.926%	79.920	83.490	96.276%	80.120	81.780	80.880	83.850
2	09:31:59	100.022%	83.930	84.210	96.941%	78.500	82.970	81.610	83.130
3	09:32:09	101.887%	81.330	82.810	97.432%	79.720	79.920	79.550	80.160
X		99.945%	102.160%	104.380%	96.883%	99.313%	101.948%	100.846%	102.972%
σ		1.982%	n/a	n/a	0.580%	n/a	n/a	n/a	n/a
%RSD		1.983	2.493	0.843	0.599	1.061	1.882	1.296	2.373
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:31:50	96.746%	85.900	83.650	83.090	80.380	83.000	97.819%	98.326%
2	09:31:59	96.860%	85.720	85.110	85.370	89.280	82.680	98.071%	98.889%
3	09:32:09	99.875%	82.750	82.180	84.600	78.560	83.320	98.955%	99.923%
X		97.827%	105.985%	104.557%	105.445%	103.425%	103.752%	98.282%	99.046%
σ		1.774%	n/a	n/a	n/a	n/a	n/a	0.597%	0.810%
%RSD		1.814	2.086	1.754	1.375	6.933	0.382	0.607	0.818
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:31:50	85.450	85.630	82.770	82.670	81.260	96.881%		
2	09:31:59	81.990	84.080	82.860	80.820	81.520	97.740%		
3	09:32:09	81.080	80.600	79.820	77.610	78.940	99.361%		
X		103.549%	104.293%	102.271%	100.461%	100.716%	97.994%		
σ		n/a	n/a	n/a	n/a	n/a	1.259%		
%RSD		2.781	3.083	2.113	3.190	1.759	1.285		

ICB 8/24/2015 9:37:52 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	95.922%	0.226	2.685	3.655	0.000	41.590	2.221	-0.911
2	09:37:06	96.822%	0.241	2.250	3.387	0.000	37.870	0.109	-3.613
3	09:37:16	94.801%	0.317	3.194	2.848	0.000	40.940	4.229	-0.351
X		95.849%	0.261	2.710	3.297	0.000	40.130	2.186	-1.625
σ		1.012%	0.049	0.472	0.411	0.000	1.989	2.060	1.744
%RSD		1.056	18.570	17.430	12.470	0.000	4.955	94.230	107.300
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	-0.857	7.471	0.000	42.330	-23.760	-27.150	97.529%	0.026
2	09:37:06	-1.029	0.038	0.000	18.410	-21.970	-22.520	100.115%	0.269
3	09:37:16	-0.952	2.647	0.000	20.290	-24.400	-26.590	99.279%	-0.184
X		-0.946	3.385	0.000	27.010	-23.380	-25.420	98.974%	0.037
σ		0.086	3.771	0.000	13.300	1.259	2.524	1.319%	0.227
%RSD		9.063	111.400	0.000	49.250	5.384	9.929	1.333	608.400
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	-0.065	-0.001	-0.049	8.196	2.996	0.062	-1.116	-0.069
2	09:37:06	-0.089	0.008	-0.031	6.331	16.820	-0.004	-1.484	0.073
3	09:37:16	0.592	0.031	-0.010	13.830	25.450	0.017	-0.227	0.150
X		0.146	0.013	-0.030	9.452	15.090	0.025	-0.942	0.051
σ		0.386	0.017	0.020	3.904	11.320	0.034	0.646	0.111
%RSD		264.400	132.700	65.980	41.300	75.070	133.800	68.600	216.500
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	0.013	-0.134	-0.402	0.053	1.057	2.273	0.000	-0.024
2	09:37:06	-0.064	-0.080	0.044	-0.027	0.059	-8.754	0.000	-0.048
3	09:37:16	-0.128	0.787	0.046	0.051	0.059	3.711	0.000	0.021
X		-0.060	0.191	-0.104	0.026	0.392	-0.923	0.000	-0.017
σ		0.071	0.517	0.258	0.046	0.576	6.820	0.000	0.035
%RSD		118.800	270.200	247.800	178.800	147.200	738.700	0.000	206.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	101.789%	0.253	0.158	101.748%	-0.058	-0.053	0.017	-0.015
2	09:37:06	104.708%	0.123	0.097	103.355%	-0.102	-0.028	-0.037	-0.015
3	09:37:16	105.015%	0.090	0.039	105.539%	-0.043	-0.055	0.069	-0.015
X		103.837%	0.155	0.098	103.547%	-0.068	-0.045	0.016	-0.015
σ		1.781%	0.086	0.059	1.903%	0.030	0.015	0.053	0.000
%RSD		1.715	55.420	60.680	1.838	45.000	33.780	325.400	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:36:56	103.007%	0.119	0.004	0.099	-0.759	-0.963	98.841%	102.222%
2	09:37:06	105.818%	0.113	0.020	0.027	-0.900	-1.041	101.945%	99.051%
3	09:37:16	104.157%	0.206	0.130	0.028	-0.764	-0.667	104.729%	103.888%
X		104.327%	0.146	0.052	0.051	-0.807	-0.890	101.838%	101.720%
σ		1.413%	0.052	0.068	0.041	0.080	0.197	2.945%	2.457%
%RSD		1.355	35.750	132.600	80.640	9.898	22.160	2.892	2.416
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:36:56	0.018	0.000	-0.000	0.015	0.001	99.313%		
2	09:37:06	-0.004	0.013	-0.026	0.056	0.013	102.207%		
3	09:37:16	0.007	0.035	0.013	0.130	0.045	99.362%		
X		0.007	0.016	-0.005	0.067	0.020	100.294%		
σ		0.011	0.018	0.020	0.059	0.023	1.657%		
%RSD		149.200	110.700	439.000	87.490	116.000	1.652		

CRI 1645747 8/24/2015 9:43:00 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	97.060%	0.967	22.860	23.620	0.000	529.100	544.300	542.300
2	09:42:14	96.126%	1.083	19.910	22.500	0.000	530.500	557.100	557.500
3	09:42:23	97.863%	0.943	22.270	21.510	0.000	530.000	530.400	536.500
X		97.016%	99.784%	433.596%	450.950%	0.000	662.299%	543.918%	545.429%
σ		0.870%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.896	7.516	7.214	4.682	0.000	0.137	2.447	1.984
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	33.990	525.300	0.000	536.800	474.000	435.400	101.737%	5.329
2	09:42:14	34.010	529.900	0.000	542.200	565.100	463.700	101.319%	4.305
3	09:42:23	34.050	520.200	0.000	521.200	472.500	447.300	102.531%	5.335
X		113.399%	105.027%	0.000	533.407%	503.860%	448.802%	101.862%	99.792%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.616%	n/a
%RSD		0.090	0.930	0.000	2.040	10.530	3.168	0.605	11.890
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	1.912	1.946	4.996	65.380	66.670	0.558	0.030	2.454
2	09:42:14	1.723	2.187	5.133	64.690	64.700	0.487	1.008	2.418
3	09:42:23	1.704	2.241	5.301	63.210	72.580	0.547	1.344	2.008
X		177.983%	106.230%	102.861%	128.852%	135.970%	106.123%	79.406%	114.675%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.474	7.382	2.969	1.723	6.036	7.196	85.930	10.800
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	2.263	4.878	6.862	1.132	5.203	7.925	0.000	5.655
2	09:42:14	2.698	8.258	6.922	1.188	3.818	8.197	0.000	5.184
3	09:42:23	2.439	6.337	6.367	1.099	3.800	10.600	0.000	5.650
X		123.330%	129.817%	134.339%	113.990%	85.468%	178.134%	0.000	109.924%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		8.876	26.120	4.539	3.957	18.840	16.520	0.000	4.914
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	91.248%	6.290	5.550	101.594%	0.854	1.023	0.836	0.843
2	09:42:14	94.510%	5.051	5.587	102.385%	0.982	1.085	1.205	1.072
3	09:42:23	94.740%	5.063	4.681	103.062%	0.926	1.045	0.880	1.007
X		93.499%	109.362%	105.456%	102.347%	92.070%	105.080%	97.373%	97.380%
σ		1.953%	n/a	n/a	0.734%	n/a	n/a	n/a	n/a
%RSD		2.089	13.020	9.718	0.718	6.998	3.019	20.720	12.130
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:42:04	102.329%	7.125	1.852	2.097	11.510	9.146	101.525%	100.501%
2	09:42:14	103.564%	5.645	1.995	1.867	8.910	9.820	102.036%	101.589%
3	09:42:23	103.452%	7.296	1.944	1.917	11.300	9.630	101.419%	100.309%
X		103.115%	133.774%	96.524%	98.012%	105.718%	95.321%	101.660%	100.800%
σ		0.683%	n/a	n/a	n/a	n/a	n/a	0.330%	0.690%
%RSD		0.663	13.570	3.763	6.167	13.650	3.643	0.325	0.685
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:42:04	0.992	0.998	0.993	1.174	1.175	96.728%		
2	09:42:14	1.271	1.096	1.086	0.880	0.987	98.030%		
3	09:42:23	0.851	1.109	1.176	0.998	1.096	99.488%		
X		103.796%	106.740%	108.488%	101.768%	108.577%	98.082%		
σ		n/a	n/a	n/a	n/a	n/a	1.381%		
%RSD		20.590	5.698	8.425	14.550	8.716	1.408		

ICSA 1645909 8/24/2015 9:48:08 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	92.242%	0.007	3.255	3.947	0.000	96610.000	99240.000	99330.000
2	09:47:21	89.757%	-0.093	3.503	3.061	0.000	97440.000	99940.000	100400.000
3	09:47:30	89.541%	-0.019	2.369	3.490	0.000	97160.000	99370.000	99340.000
X		90.513%	-0.035	3.042	3.500	0.000	97070.000	99510.000	99700.000
		1.501%	0.052	0.596	0.443	0.000	423.200	373.000	635.800
		1.659	147.100	19.600	12.670	0.000	0.436	0.375	0.638
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	94320.000	31.930	0.000	95990.000	97890.000	95580.000	96.985%	2105.000
2	09:47:21	95280.000	37.040	0.000	97330.000	98950.000	98110.000	96.023%	2139.000
3	09:47:30	94830.000	32.940	0.000	96680.000	97780.000	98350.000	96.345%	2147.000
X		94810.000	33.970	0.000	96670.000	98210.000	97340.000	96.451%	2130.000
		477.400	2.704	0.000	670.800	646.700	1537.000	0.490%	22.160
		0.504	7.959	0.000	0.694	0.659	1.578	0.508	1.040
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	-1.333	1.432	1.716	94930.000	95160.000	0.189	3.072	0.913
2	09:47:21	1.611	1.727	1.853	96810.000	96070.000	0.223	4.862	1.005
3	09:47:30	-2.732	1.591	1.548	94230.000	94270.000	0.188	4.690	1.110
X		-0.818	1.583	1.705	95320.000	95170.000	0.200	4.208	1.009
		2.217	0.148	0.153	1334.000	900.900	0.020	0.988	0.099
		270.900	9.324	8.955	1.400	0.947	9.890	23.470	9.779
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	0.629	1.031	0.689	0.247	0.504	0.624	0.000	0.775
2	09:47:21	1.667	1.377	0.517	0.294	0.285	6.181	0.000	0.782
3	09:47:30	1.138	1.509	0.576	0.275	-0.134	4.636	0.000	0.852
X		1.144	1.306	0.594	0.272	0.218	3.814	0.000	0.803
		0.519	0.247	0.087	0.024	0.324	2.868	0.000	0.042
		45.370	18.880	14.720	8.694	148.700	75.210	0.000	5.287
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	93.011%	2024.000	2096.000	87.169%	-0.034	0.015	0.834	0.731
2	09:47:21	95.118%	2015.000	2077.000	88.403%	-0.006	0.044	0.942	0.620
3	09:47:30	95.754%	1998.000	2075.000	88.602%	0.062	-0.031	1.238	0.880
X		94.628%	2012.000	2083.000	88.058%	0.007	0.009	1.005	0.744
		1.435%	12.970	11.690	0.777%	0.049	0.038	0.209	0.131
		1.517	0.644	0.561	0.882	710.800	412.600	20.840	17.540
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:47:11	90.783%	-0.022	-0.028	0.014	-0.748	-1.041	97.728%	95.203%
2	09:47:21	92.389%	0.112	0.012	0.090	-0.900	-0.707	94.670%	94.763%
3	09:47:30	93.364%	-0.025	-0.009	-0.038	-0.900	-0.715	98.574%	99.167%
X		92.179%	0.022	-0.008	0.022	-0.849	-0.821	96.991%	96.378%
		1.303%	0.078	0.020	0.065	0.087	0.190	2.054%	2.426%
		1.414	360.500	239.800	291.300	10.300	23.200	2.117	2.517
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:47:11	0.020	0.005	0.261	0.161	0.221	90.304%		
2	09:47:21	-0.004	0.010	0.179	0.167	0.190	95.117%		
3	09:47:30	-0.004	0.000	0.173	0.318	0.261	90.735%		
X		0.004	0.005	0.204	0.215	0.224	92.052%		
		0.014	0.005	0.049	0.089	0.036	2.663%		
		314.800	88.530	23.980	41.260	16.010	2.893		

IC SAB 1645911 8/24/2015 9:53:16 AM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	84.933%	20.080	55.550	54.450	0.000	98650.000	99930.000	100100.000
2	09:52:29	83.275%	20.010	56.410	53.980	0.000	98710.000	100100.000	101500.000
3	09:52:39	84.347%	19.770	53.770	53.860	0.000	97960.000	99240.000	100700.000
X		84.185%	99.774%	110.488%	108.190%	0.000	98.440%	99.761%	100.785%
σ		0.840%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.998	0.815	2.430	0.579	0.000	0.427	0.459	0.701
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	96330.000	569.300	0.000	98670.000	99570.000	100000.000	92.980%	2190.000
2	09:52:29	97540.000	583.200	0.000	100300.000	101500.000	101100.000	92.046%	2205.000
3	09:52:39	96570.000	586.700	0.000	99790.000	101800.000	100600.000	92.825%	2177.000
X		96.810%	115.952%	0.000	99.588%	100.944%	100.571%	92.617%	109.542%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.500%	n/a
%RSD		0.662	1.586	0.000	0.845	1.185	0.521	0.540	0.619
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	22.850	21.570	21.010	100400.000	100900.000	20.120	22.930	21.430
2	09:52:29	18.140	21.270	21.610	97390.000	96210.000	19.490	21.620	20.340
3	09:52:39	20.220	21.570	20.630	99710.000	101100.000	21.210	22.170	21.970
X		102.009%	107.360%	105.417%	99.162%	99.433%	101.355%	111.203%	106.228%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		11.580	0.799	2.330	1.589	2.813	4.300	2.954	3.899
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	21.050	22.220	19.240	20.490	45.200	48.780	0.000	19.860
2	09:52:29	20.530	22.020	20.420	19.600	49.010	49.160	0.000	19.860
3	09:52:39	21.310	21.220	20.520	19.910	48.240	46.090	0.000	19.390
X		104.815%	87.280%	80.236%	100.015%	94.969%	96.022%	0.000	98.517%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.889	2.412	3.559	2.254	4.240	3.487	0.000	1.388
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	91.914%	2066.000	2117.000	87.907%	19.270	20.190	19.950	22.640
2	09:52:29	94.646%	2036.000	2101.000	87.898%	20.430	20.430	20.160	21.700
3	09:52:39	93.077%	2050.000	2124.000	88.317%	19.700	19.800	20.870	22.910
X		93.213%	102.526%	105.694%	88.041%	99.002%	100.707%	101.618%	112.082%
σ		1.371%	n/a	n/a	0.240%	n/a	n/a	n/a	n/a
%RSD		1.471	0.732	0.569	0.272	2.951	1.573	2.386	2.830
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:52:20	90.785%	105.900	20.530	21.850	17.660	17.040	94.983%	94.223%
2	09:52:29	91.470%	105.000	19.310	20.250	17.130	17.320	94.884%	96.359%
3	09:52:39	91.014%	105.400	21.810	20.160	19.600	17.100	96.851%	96.236%
X		91.090%	105.418%	102.745%	103.775%	90.668%	85.751%	95.572%	95.606%
σ		0.349%	n/a	n/a	n/a	n/a	n/a	1.108%	1.199%
%RSD		0.383	0.430	6.091	4.588	7.171	0.848	1.160	1.254
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:52:20	21.080	19.520	19.330	19.490	19.900	91.281%		
2	09:52:29	21.040	20.780	21.090	20.670	20.710	91.125%		
3	09:52:39	21.560	20.660	20.980	20.820	20.540	87.090%		
X		106.124%	101.614%	102.327%	101.636%	101.919%	89.832%		
σ		n/a	n/a	n/a	n/a	n/a	2.376%		
%RSD		1.376	3.426	4.800	3.574	2.076	2.645		

CCV 1671387 8/24/2015 9:58:22 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	84.189%	103.500	109.500	105.900	0.000	49530.000	50140.000	49130.000
2	09:57:35	83.052%	106.000	114.500	111.500	0.000	51410.000	51570.000	50620.000
3	09:57:45	82.503%	106.800	113.300	111.900	0.000	51770.000	51990.000	51410.000
X		83.248%	105.433%	112.438%	109.744%	0.000	101.808%	102.463%	100.771%
σ		0.860%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.033	1.653	2.353	3.072	0.000	2.362	1.894	2.295
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	523.600	5650.000	0.000	50010.000	49420.000	47140.000	92.499%	107.800
2	09:57:35	515.100	5809.000	0.000	50970.000	49940.000	48330.000	91.665%	104.500
3	09:57:45	515.300	5850.000	0.000	51010.000	50220.000	49010.000	90.927%	111.000
X		103.603%	115.401%	0.000	101.323%	99.717%	96.322%	91.697%	107.781%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.787%	n/a
%RSD		0.934	1.829	0.000	1.119	0.809	1.965	0.858	3.003
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	103.200	104.000	495.600	25760.000	25890.000	99.070	103.800	103.800
2	09:57:35	102.900	103.300	515.900	26380.000	26700.000	103.700	103.600	104.500
3	09:57:45	103.000	105.800	514.200	26010.000	26090.000	104.000	101.000	105.600
X		103.017%	104.335%	101.716%	104.194%	104.893%	102.251%	102.777%	104.633%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.144	1.232	2.213	1.196	1.608	2.697	1.539	0.860
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	102.600	107.500	107.000	100.200	105.700	93.480	0.000	102.100
2	09:57:35	100.700	104.300	96.400	101.900	106.400	95.770	0.000	100.300
3	09:57:45	106.600	107.200	102.200	103.900	96.410	93.070	0.000	102.300
X		103.293%	106.310%	101.858%	101.997%	102.831%	94.105%	0.000	101.566%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.887	1.669	5.204	1.816	5.423	1.548	0.000	1.068
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	91.388%	108.300	108.100	89.428%	97.580	101.100	101.800	102.900
2	09:57:35	94.832%	107.900	110.000	90.447%	100.600	101.100	100.300	105.600
3	09:57:45	95.403%	107.000	106.500	90.152%	100.500	100.200	106.200	102.600
X		93.874%	107.714%	108.215%	90.009%	99.537%	100.824%	102.742%	103.716%
σ		2.172%	n/a	n/a	0.525%	n/a	n/a	n/a	n/a
%RSD		2.314	0.624	1.576	0.583	1.700	0.522	2.962	1.556
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	09:57:26	92.015%	102.300	102.400	97.290	104.100	95.510	89.510%	91.193%
2	09:57:35	90.933%	101.200	103.700	102.000	100.300	98.540	92.421%	88.634%
3	09:57:45	93.157%	100.700	100.200	98.720	95.630	101.600	91.987%	92.203%
X		92.035%	101.410%	102.119%	99.321%	99.989%	98.557%	91.306%	90.677%
σ		1.112%	n/a	n/a	n/a	n/a	n/a	1.571%	1.840%
%RSD		1.208	0.806	1.707	2.411	4.229	3.102	1.720	2.029
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	09:57:26	104.100	107.600	110.000	107.600	108.400	85.559%		
2	09:57:35	103.500	102.700	102.500	105.500	104.000	85.373%		
3	09:57:45	109.400	109.500	108.200	109.500	106.900	85.372%		
X		105.682%	106.598%	106.898%	107.549%	106.414%	85.435%		
σ		n/a	n/a	n/a	n/a	n/a	0.107%		
%RSD		3.082	3.290	3.662	1.862	2.084	0.126		

CCB1 8/24/2015 10:03:27 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	85.619%	0.143	3.597	4.251	0.000	102.000	-26.320	-29.820
2	10:02:42	88.517%	0.142	3.438	3.068	0.000	92.250	-24.930	-30.480
3	10:02:52	87.707%	0.161	3.227	2.851	0.000	93.430	-28.360	-27.380
X		87.281%	0.149	3.420	3.390	0.000	95.890	-26.540	-29.230
σ		1.495%	0.011	0.185	0.754	0.000	5.322	1.728	1.631
%RSD		1.713	7.348	5.420	22.230	0.000	5.550	6.514	5.579
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	0.444	4.329	0.000	85.320	-21.300	-20.740	91.361%	2.209
2	10:02:42	0.032	0.852	0.000	75.350	-27.680	-32.390	92.491%	1.249
3	10:02:52	-0.019	-1.504	0.000	77.570	-21.840	-40.020	92.635%	1.301
X		0.152	1.226	0.000	79.410	-23.610	-31.050	92.163%	1.586
σ		0.254	2.935	0.000	5.235	3.539	9.707	0.698%	0.540
%RSD		166.800	239.400	0.000	6.592	14.990	31.260	0.757	34.050
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	-0.654	-0.067	-0.014	21.830	16.040	-0.014	-1.278	0.020
2	10:02:42	0.033	-0.046	0.045	20.460	23.150	0.043	-1.693	-0.055
3	10:02:52	1.421	-0.016	0.037	17.460	18.420	0.020	-1.670	0.134
X		0.267	-0.043	0.023	19.920	19.200	0.017	-1.547	0.033
σ		1.057	0.026	0.032	2.233	3.619	0.029	0.234	0.095
%RSD		396.200	60.310	141.100	11.210	18.850	172.600	15.100	286.600
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	-0.169	-0.028	-0.085	0.145	0.290	3.748	0.000	-0.048
2	10:02:42	-0.037	0.169	0.286	0.056	-0.134	3.340	0.000	-0.048
3	10:02:52	-0.111	0.020	-0.013	0.104	0.268	3.725	0.000	-0.048
X		-0.106	0.054	0.063	0.102	0.141	3.604	0.000	-0.048
σ		0.066	0.103	0.197	0.044	0.239	0.230	0.000	0.000
%RSD		62.620	192.400	312.400	43.590	169.300	6.368	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	95.348%	1.370	1.249	98.393%	-0.081	-0.078	-0.037	-0.015
2	10:02:42	99.440%	1.430	1.184	99.115%	-0.055	-0.079	-0.037	0.007
3	10:02:52	101.854%	0.768	0.880	99.354%	-0.091	-0.003	-0.037	-0.015
X		98.881%	1.189	1.104	98.954%	-0.076	-0.054	-0.037	-0.008
σ		3.289%	0.366	0.197	0.500%	0.019	0.043	0.000	0.013
%RSD		3.326	30.770	17.840	0.506	24.380	81.000	0.261	172.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:02:33	98.334%	0.066	0.372	0.299	-0.610	-0.882	98.132%	98.905%
2	10:02:42	99.800%	0.190	0.197	0.224	-0.900	-0.882	96.950%	97.910%
3	10:02:52	100.986%	0.093	0.119	0.292	-0.757	-1.041	97.377%	94.493%
X		99.707%	0.116	0.229	0.271	-0.756	-0.935	97.486%	97.102%
σ		1.329%	0.065	0.130	0.042	0.145	0.092	0.598%	2.314%
%RSD		1.333	55.950	56.740	15.300	19.150	9.810	0.614	2.383
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:02:33	0.020	0.020	-0.012	-0.014	0.002	90.965%		
2	10:02:42	-0.004	0.009	-0.026	-0.014	0.002	95.275%		
3	10:02:52	0.040	0.014	-0.026	0.030	0.004	98.369%		
X		0.019	0.014	-0.022	0.000	0.003	94.870%		
σ		0.022	0.005	0.008	0.025	0.001	3.719%		
%RSD		116.400	35.930	38.070	9913.000	48.830	3.920		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	74.831%	0.023	817.900	845.700	0.000	1815000.000	231900.000	236600.000	
2	10:07:49	76.434%	-0.055	786.500	817.800	0.000	1821000.000	227500.000	235900.000	
3	10:07:58	72.467%	0.026	828.000	855.700	0.000	1757000.000	226500.000	233300.000	
X		74.578%	-0.002	810.800	839.800	0.000	1798000.000	228600.000	235300.000	
		$\sigma$	1.995%	0.046	21.670	19.650	0.000	35580.000	2897.000	1707.000
		%RSD	2.676	2301.000	2.673	2.340	0.000	1.979	1.267	0.725
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	3.160	433.600	0.000	74400.000	80110.000	77990.000	85.804%	2.669	
2	10:07:49	2.809	423.000	0.000	74510.000	80170.000	77410.000	86.240%	2.712	
3	10:07:58	3.073	436.000	0.000	73680.000	80220.000	76070.000	86.498%	2.879	
X		3.014	430.900	0.000	74200.000	80160.000	77160.000	86.181%	2.753	
		$\sigma$	0.183	6.920	0.000	454.000	55.430	987.300	0.351%	0.111
		%RSD	6.068	1.606	0.000	0.612	0.069	1.280	0.407	4.021
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	9.771	3.154	0.748	14.500	472.900	0.114	-1.033	1.252	
2	10:07:49	8.465	3.235	0.820	13.560	404.800	0.162	0.194	1.229	
3	10:07:58	8.443	3.413	0.749	11.280	422.600	0.137	-0.586	1.300	
X		8.893	3.267	0.772	13.110	433.400	0.138	-0.475	1.260	
		$\sigma$	0.761	0.133	0.041	1.656	35.340	0.024	0.621	0.036
		%RSD	8.552	4.056	5.329	12.630	8.154	17.540	130.600	2.892
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	1.383	2.342	1.685	1.721	0.102	166.200	0.000	1338.000	
2	10:07:49	1.163	1.904	2.183	1.686	0.328	169.100	0.000	1341.000	
3	10:07:58	0.817	2.063	2.510	1.672	0.562	170.600	0.000	1339.000	
X		1.121	2.103	2.126	1.693	0.331	168.600	0.000	1340.000	
		$\sigma$	0.285	0.222	0.416	0.026	0.230	2.241	0.000	1.614
		%RSD	25.460	10.550	19.550	1.508	69.510	1.329	0.000	0.121
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	84.194%	2.684	2.496	81.770%	0.157	0.177	-0.037	0.039	
2	10:07:49	86.485%	3.243	2.854	82.430%	0.240	0.037	0.030	-0.015	
3	10:07:58	86.091%	2.938	2.869	82.972%	0.080	0.026	0.030	0.067	
X		85.590%	2.955	2.740	82.391%	0.159	0.080	0.008	0.030	
		$\sigma$	1.225%	0.280	0.211	0.602%	0.080	0.084	0.039	0.042
		%RSD	1.432	9.477	7.701	0.731	50.430	104.700	512.700	137.600
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:07:39	83.216%	0.137	0.356	0.189	10.980	9.630	92.902%	92.550%	
2	10:07:49	83.813%	0.285	0.109	0.188	10.750	7.672	90.257%	91.648%	
3	10:07:58	82.645%	0.289	0.065	0.497	10.390	8.114	95.684%	93.028%	
X		83.225%	0.237	0.177	0.291	10.710	8.472	92.947%	92.409%	
		$\sigma$	0.584%	0.087	0.157	0.178	0.295	1.027	2.714%	0.701%
		%RSD	0.701	36.550	88.640	61.130	2.752	12.120	2.920	0.758
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	10:07:39	0.008	0.011	-0.012	0.018	0.053	88.135%			
2	10:07:49	-0.004	0.015	0.061	0.002	0.041	89.618%			
3	10:07:58	0.009	0.001	0.003	0.051	0.053	87.374%			
X		0.005	0.009	0.017	0.024	0.049	88.376%			
		$\sigma$	0.007	0.007	0.038	0.025	0.007	1.141%		
		%RSD	153.900	84.300	218.400	106.700	13.950	1.291		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	75.165%	0.082	818.000	836.200	0.000	1766000.000	221700.000	228000.000
2	10:12:54	73.873%	0.019	827.600	844.900	0.000	1758000.000	223700.000	227200.000
3	10:13:03	76.231%	-0.045	783.600	821.200	0.000	1723000.000	220100.000	225400.000
X		75.090%	0.019	809.700	834.100	0.000	1749000.000	221800.000	226900.000
σ		1.181%	0.064	23.100	12.020	0.000	22860.000	1797.000	1342.000
%RSD		1.573	342.500	2.853	1.441	0.000	1.307	0.810	0.592
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	4.936	473.100	0.000	71430.000	76690.000	74180.000	87.478%	1.397
2	10:12:54	5.461	470.900	0.000	72310.000	78050.000	75180.000	86.746%	1.529
3	10:13:03	5.353	458.500	0.000	69410.000	75940.000	73300.000	87.479%	1.340
X		5.250	467.500	0.000	71050.000	76890.000	74220.000	87.234%	1.422
σ		0.277	7.874	0.000	1487.000	1068.000	941.400	0.423%	0.097
%RSD		5.273	1.684	0.000	2.093	1.389	1.268	0.485	6.813
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	-5.264	2.892	0.763	5.570	365.800	0.126	-0.417	0.975
2	10:12:54	6.389	3.915	0.682	5.211	399.400	0.076	-0.085	1.007
3	10:13:03	-2.862	3.516	0.650	5.328	365.300	0.150	-0.960	0.883
X		-0.579	3.441	0.698	5.370	376.800	0.117	-0.487	0.955
σ		6.153	0.516	0.059	0.183	19.550	0.038	0.442	0.065
%RSD		1063.000	14.980	8.398	3.407	5.187	32.160	90.600	6.758
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	0.715	2.338	3.251	1.484	0.104	294.100	0.000	1327.000
2	10:12:54	1.003	1.401	1.636	1.481	0.107	315.100	0.000	1330.000
3	10:13:03	0.907	2.093	2.334	1.498	0.578	312.700	0.000	1343.000
X		0.875	1.944	2.407	1.487	0.263	307.300	0.000	1333.000
σ		0.146	0.486	0.810	0.009	0.273	11.480	0.000	8.573
%RSD		16.730	24.980	33.640	0.615	103.900	3.736	0.000	0.643
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	82.757%	2.627	2.804	79.367%	0.032	0.008	-0.037	0.068
2	10:12:54	81.803%	3.335	2.851	80.957%	0.064	0.032	0.171	-0.015
3	10:13:03	83.141%	2.629	2.940	81.501%	0.062	-0.017	-0.037	-0.015
X		82.567%	2.864	2.865	80.608%	0.053	0.007	0.032	0.013
σ		0.689%	0.408	0.069	1.109%	0.018	0.024	0.120	0.048
%RSD		0.834	14.250	2.412	1.376	33.850	329.900	373.200	381.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:12:45	81.628%	0.028	0.045	0.224	11.950	10.440	87.246%	90.461%
2	10:12:54	79.881%	0.303	0.233	0.256	11.150	11.110	91.804%	92.997%
3	10:13:03	80.996%	0.105	0.045	0.251	9.990	10.940	93.237%	92.280%
X		80.835%	0.146	0.108	0.244	11.030	10.830	90.762%	91.913%
σ		0.885%	0.142	0.108	0.017	0.984	0.351	3.128%	1.308%
%RSD		1.094	97.690	100.500	7.050	8.916	3.243	3.447	1.423
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:12:45	-0.004	0.006	0.005	0.021	0.020	81.425%		
2	10:12:54	0.009	0.017	0.085	0.039	0.040	80.730%		
3	10:13:03	0.035	0.012	0.005	0.038	0.024	81.510%		
X		0.014	0.012	0.032	0.033	0.028	81.221%		
σ		0.020	0.005	0.046	0.010	0.010	0.428%		
%RSD		143.700	46.070	144.100	31.410	37.690	0.527		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	86.092%	-0.028	41.440	40.140	0.000	59330.000	11530.000	11720.000
2	10:18:00	86.197%	-0.075	39.080	38.770	0.000	58180.000	11420.000	11580.000
3	10:18:09	88.208%	-0.029	36.100	33.920	0.000	57320.000	11480.000	11610.000
X		86.832%	-0.044	38.870	37.610	0.000	58280.000	11480.000	11640.000
		1.192%	0.027	2.676	3.267	0.000	1006.000	56.710	75.620
		1.373	60.650	6.883	8.687	0.000	1.726	0.494	0.650
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	59.840	2608.000	0.000	5028.000	50350.000	48300.000	87.832%	2.196
2	10:18:00	60.260	2603.000	0.000	4956.000	51280.000	48450.000	88.934%	1.994
3	10:18:09	60.900	2590.000	0.000	4967.000	50760.000	49310.000	89.196%	2.498
X		60.330	2600.000	0.000	4984.000	50790.000	48690.000	88.654%	2.230
		0.536	8.963	0.000	38.450	465.200	545.300	0.724%	0.253
		0.889	0.345	0.000	0.772	0.916	1.120	0.817	11.360
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	-11.470	9.210	30.690	137.500	410.400	0.196	-0.218	2.686
2	10:18:00	3.675	10.500	29.470	139.900	398.300	0.303	-1.152	3.076
3	10:18:09	-7.844	9.736	29.860	139.700	360.500	0.327	-0.496	3.191
X		-5.211	9.814	30.010	139.000	389.700	0.275	-0.622	2.984
		7.906	0.646	0.627	1.305	26.040	0.070	0.480	0.265
		151.700	6.584	2.090	0.939	6.681	25.370	77.120	8.875
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	2.231	4.020	3.147	0.505	0.320	3.527	0.000	158.500
2	10:18:00	2.285	4.674	4.201	0.883	0.092	7.372	0.000	160.600
3	10:18:09	3.479	4.436	4.995	0.592	0.317	8.588	0.000	158.900
X		2.665	4.377	4.114	0.660	0.243	6.495	0.000	159.300
		0.706	0.331	0.927	0.198	0.131	2.642	0.000	1.096
		26.480	7.561	22.540	30.010	53.940	40.670	0.000	0.688
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	88.032%	2.270	2.161	85.364%	0.001	-0.023	0.094	0.117
2	10:18:00	88.251%	2.002	2.284	85.928%	-0.020	-0.012	0.290	0.224
3	10:18:09	88.273%	2.204	2.289	84.400%	0.012	-0.045	0.553	0.196
X		88.185%	2.158	2.245	85.231%	-0.002	-0.027	0.312	0.179
		0.133%	0.140	0.073	0.773%	0.016	0.017	0.230	0.055
		0.151	6.482	3.231	0.906	678.000	62.810	73.750	30.920
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:50	84.996%	0.687	0.463	0.383	42.010	44.980	86.027%	88.934%
2	10:18:00	84.593%	0.503	0.329	0.381	47.480	45.790	89.982%	91.100%
3	10:18:09	85.207%	0.647	0.372	0.269	40.390	47.570	88.664%	90.584%
X		84.932%	0.613	0.388	0.344	43.290	46.110	88.224%	90.206%
		0.312%	0.097	0.068	0.065	3.715	1.324	2.014%	1.131%
		0.367	15.770	17.630	18.970	8.582	2.871	2.283	1.254
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:17:50	0.035	0.012	0.814	0.601	0.669	81.552%		
2	10:18:00	0.010	0.007	0.721	0.563	0.735	79.326%		
3	10:18:09	0.009	0.033	0.849	0.710	0.842	81.112%		
X		0.018	0.017	0.795	0.625	0.749	80.663%		
		0.015	0.014	0.066	0.076	0.087	1.179%		
		81.830	82.190	8.324	12.200	11.680	1.461		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	113.981%	-0.088	27.930	28.990	0.000	67650.000	10440.000	10560.000
2	10:23:03	116.725%	-0.117	27.250	26.620	0.000	67080.000	10460.000	10620.000
3	10:23:13	119.467%	-0.145	26.420	25.750	0.000	67550.000	10520.000	10680.000
X		116.724%	-0.116	27.200	27.120	0.000	67430.000	10470.000	10620.000
σ		2.743%	0.028	0.756	1.676	0.000	304.500	44.330	59.770
%RSD		2.350	24.500	2.779	6.181	0.000	0.452	0.423	0.563
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	126.400	2243.000	0.000	8237.000	40280.000	38760.000	89.664%	2.652
2	10:23:03	127.000	2234.000	0.000	8331.000	40640.000	38910.000	89.774%	3.212
3	10:23:13	129.400	2218.000	0.000	8313.000	41420.000	39600.000	89.391%	2.605
X		127.600	2232.000	0.000	8294.000	40780.000	39090.000	89.609%	2.823
σ		1.571	12.780	0.000	50.000	583.800	448.900	0.197%	0.338
%RSD		1.231	0.573	0.000	0.603	1.432	1.148	0.220	11.960
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	-9.820	9.687	58.160	213.200	441.300	0.366	-0.231	7.757
2	10:23:03	38.370	10.830	58.950	226.900	437.200	0.412	-0.305	7.519
3	10:23:13	9.016	9.755	58.810	219.800	451.500	0.293	0.628	7.601
X		12.520	10.090	58.640	220.000	443.400	0.357	0.031	7.626
σ		24.280	0.639	0.423	6.851	7.379	0.060	0.519	0.121
%RSD		194.000	6.331	0.722	3.114	1.664	16.840	1691.000	1.584
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	6.065	5.971	4.155	0.957	1.252	0.838	0.000	115.900
2	10:23:03	6.648	5.912	5.549	0.780	0.094	2.201	0.000	119.000
3	10:23:13	7.808	6.046	5.890	1.010	0.327	8.262	0.000	122.700
X		6.840	5.976	5.198	0.916	0.557	3.767	0.000	119.200
σ		0.887	0.067	0.919	0.121	0.613	3.952	0.000	3.415
%RSD		12.970	1.126	17.680	13.170	109.900	104.900	0.000	2.865
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	85.542%	3.047	2.861	81.611%	-0.079	-0.065	0.372	0.205
2	10:23:03	87.023%	3.088	2.784	84.240%	-0.038	-0.077	0.166	0.234
3	10:23:13	85.871%	3.125	3.161	83.448%	-0.081	-0.010	0.162	0.119
X		86.146%	3.087	2.935	83.100%	-0.066	-0.050	0.233	0.186
σ		0.777%	0.039	0.199	1.348%	0.024	0.036	0.120	0.060
%RSD		0.902	1.259	6.794	1.622	36.750	71.010	51.390	32.220
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:22:54	81.829%	0.449	0.183	0.196	44.890	41.500	84.869%	85.319%
2	10:23:03	81.136%	0.299	0.184	0.399	38.830	45.730	87.002%	85.997%
3	10:23:13	84.146%	0.360	0.223	0.417	41.560	43.020	83.124%	84.417%
X		82.370%	0.369	0.197	0.338	41.760	43.420	84.999%	85.245%
σ		1.576%	0.076	0.023	0.123	3.033	2.142	1.942%	0.793%
%RSD		1.914	20.490	11.470	36.380	7.263	4.934	2.285	0.930
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:22:54	0.010	0.007	0.879	0.990	0.855	75.592%		
2	10:23:03	0.037	0.012	1.008	0.860	0.940	78.740%		
3	10:23:13	0.035	0.001	1.020	0.758	0.855	81.867%		
X		0.027	0.007	0.969	0.870	0.883	78.733%		
σ		0.015	0.006	0.079	0.116	0.049	3.137%		
%RSD		53.960	82.600	8.108	13.350	5.565	3.985		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	117.776%	-0.113	24.350	27.530	0.000	64060.000	10560.000	10740.000	
2	10:28:06	121.605%	-0.154	26.570	25.550	0.000	64680.000	10690.000	10920.000	
3	10:28:15	119.663%	-0.073	25.650	25.420	0.000	64530.000	10690.000	11030.000	
X		119.682%	-0.114	25.520	26.170	0.000	64430.000	10650.000	10900.000	
		σ	1.915%	0.040	1.111	1.183	0.000	320.400	78.110	143.500
		%RSD	1.600	35.550	4.352	4.523	0.000	0.497	0.734	1.317
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	149.700	2293.000	0.000	8045.000	44200.000	42700.000	87.133%	3.261	
2	10:28:06	153.000	2283.000	0.000	8109.000	44940.000	42480.000	86.796%	3.392	
3	10:28:15	152.000	2281.000	0.000	8061.000	44580.000	42580.000	87.354%	4.294	
X		151.500	2285.000	0.000	8072.000	44570.000	42590.000	87.094%	3.649	
		σ	1.698	6.283	0.000	33.500	371.100	110.500	0.281%	0.562
		%RSD	1.121	0.275	0.000	0.415	0.832	0.260	0.323	15.410
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	-13.060	10.190	68.770	275.900	548.000	0.575	-0.045	7.900	
2	10:28:06	-12.490	9.987	69.990	276.400	481.200	0.412	-0.202	7.759	
3	10:28:15	30.060	10.970	70.320	281.000	564.800	0.446	0.012	7.330	
X		1.505	10.380	69.700	277.800	531.300	0.478	-0.078	7.663	
		σ	24.730	0.517	0.816	2.833	44.190	0.086	0.111	0.297
		%RSD	1643.000	4.981	1.171	1.020	8.316	18.080	141.200	3.873
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	7.790	7.846	9.598	1.200	0.335	8.803	0.000	130.700	
2	10:28:06	8.057	7.879	11.070	1.020	0.330	3.627	0.000	130.900	
3	10:28:15	6.275	9.769	7.786	0.957	0.096	8.248	0.000	125.700	
X		7.374	8.498	9.485	1.059	0.254	6.893	0.000	129.100	
		σ	0.961	1.101	1.646	0.126	2.842	0.000	2.948	
		%RSD	13.030	12.950	17.360	11.900	53.830	41.230	0.000	2.283
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	84.534%	3.280	3.103	82.762%	-0.081	-0.089	-0.037	0.146	
2	10:28:06	85.838%	3.644	3.419	84.173%	-0.061	-0.056	0.029	0.197	
3	10:28:15	86.540%	3.583	3.080	84.530%	-0.050	-0.101	0.160	0.118	
X		85.637%	3.502	3.201	83.822%	-0.064	-0.082	0.051	0.154	
		σ	1.018%	0.195	0.190	0.935%	0.015	0.023	0.101	0.040
		%RSD	1.189	5.570	5.921	1.115	24.170	28.510	198.900	26.210
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:27:56	84.048%	0.881	0.087	0.161	43.010	43.840	87.932%	91.309%	
2	10:28:06	84.784%	1.056	0.063	0.242	47.720	43.810	89.403%	89.412%	
3	10:28:15	84.564%	1.168	0.240	0.434	46.810	45.690	92.215%	90.360%	
X		84.465%	1.035	0.130	0.279	45.850	44.450	89.850%	90.360%	
		σ	0.378%	0.145	0.096	0.141	2.497	1.075	2.176%	0.948%
		%RSD	0.448	13.970	73.660	50.350	5.446	2.418	2.422	1.049
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	10:27:56	-0.004	0.001	1.414	1.090	1.351	84.434%			
2	10:28:06	-0.004	-0.004	1.523	1.265	1.436	85.372%			
3	10:28:15	0.021	0.016	1.369	1.379	1.321	84.464%			
X		0.005	0.004	1.435	1.245	1.369	84.757%			
		σ	0.014	0.011	0.079	0.146	0.060	0.533%		
		%RSD	299.400	251.100	5.517	11.690	4.356	0.629		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	110.309%	-0.090	86.650	88.250	0.000	83470.000	13980.000	14380.000	
2	10:33:09	110.877%	-0.145	87.190	85.220	0.000	83260.000	14080.000	14360.000	
3	10:33:19	108.889%	-0.135	88.210	86.250	0.000	85180.000	14240.000	14660.000	
X		110.025%	-0.124	87.350	86.570	0.000	83970.000	14100.000	14470.000	
		σ	1.024%	0.029	0.793	1.545	0.000	1055.000	132.500	164.300
		%RSD	0.930	23.690	0.908	1.784	0.000	1.257	0.940	1.135
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	102.700	3791.000	0.000	17110.000	75800.000	73430.000	86.965%	7.280	
2	10:33:09	102.000	3752.000	0.000	17140.000	76090.000	74300.000	86.502%	3.931	
3	10:33:19	101.600	3784.000	0.000	17200.000	76650.000	74020.000	85.855%	3.256	
X		102.100	3775.000	0.000	17150.000	76180.000	73920.000	86.440%	4.822	
		σ	0.567	20.880	0.000	46.010	429.900	445.600	0.557%	2.155
		%RSD	0.555	0.553	0.000	0.268	0.564	0.603	0.645	44.690
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	4.414	10.320	34.330	162.100	633.800	0.805	0.193	7.786	
2	10:33:09	33.870	9.900	35.080	167.800	581.800	0.687	0.620	7.279	
3	10:33:19	19.710	10.460	35.510	167.800	576.600	0.701	1.221	8.245	
X		19.330	10.230	34.970	165.900	597.400	0.731	0.678	7.770	
		σ	14.730	0.294	0.599	3.320	31.630	0.064	0.517	0.483
		%RSD	76.200	2.874	1.713	2.001	5.294	8.792	76.150	6.221
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	7.469	24.380	27.850	0.683	0.602	6.791	0.000	190.300	
2	10:33:09	6.500	24.990	25.040	0.847	1.074	3.910	0.000	190.100	
3	10:33:19	7.245	28.020	23.810	0.747	0.587	10.340	0.000	189.600	
X		7.072	25.800	25.570	0.759	0.754	7.012	0.000	190.000	
		σ	0.507	1.950	2.074	0.083	0.277	3.219	0.000	0.343
		%RSD	7.174	7.560	8.110	10.910	36.750	45.910	0.000	0.180
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	79.753%	24.780	25.100	80.840%	-0.089	-0.087	-0.037	0.042	
2	10:33:09	81.529%	22.930	24.470	81.470%	-0.090	-0.111	0.240	0.097	
3	10:33:19	82.362%	24.960	23.490	81.135%	-0.112	-0.087	-0.037	0.098	
X		81.215%	24.220	24.350	81.148%	-0.097	-0.095	0.055	0.079	
		σ	1.333%	1.128	0.812	0.315%	0.013	0.014	0.160	0.032
		%RSD	1.641	4.656	3.334	0.388	13.060	14.680	290.500	40.830
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:33:00	79.083%	0.387	0.494	0.435	30.050	32.470	90.882%	89.574%	
2	10:33:09	80.127%	0.381	0.396	0.635	28.040	32.540	89.151%	86.660%	
3	10:33:19	79.486%	0.660	0.329	0.465	29.200	28.700	87.902%	87.184%	
X		79.565%	0.476	0.406	0.512	29.090	31.240	89.312%	87.806%	
		σ	0.527%	0.160	0.083	0.108	1.010	2.198	1.496%	1.553%
		%RSD	0.662	33.540	20.360	21.050	3.472	7.035	1.675	1.769
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	10:33:00	0.010	0.001	1.549	1.388	1.466	78.619%			
2	10:33:09	0.022	0.001	1.441	1.063	1.411	84.063%			
3	10:33:19	-0.004	0.006	1.444	1.261	1.372	85.722%			
X		0.009	0.003	1.478	1.238	1.416	82.801%			
		σ	0.013	0.003	0.062	0.164	3.716%			
		%RSD	135.200	105.700	4.161	13.230	3.331	4.488		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	104.520%	-0.069	40.230	39.660	0.000	54240.000	19320.000	19830.000
2	10:38:12	103.085%	-0.071	42.210	39.720	0.000	54830.000	19400.000	19930.000
3	10:38:22	105.046%	-0.165	35.520	37.880	0.000	53860.000	19610.000	19920.000
X		104.217%	-0.101	39.320	39.090	0.000	54310.000	19440.000	19900.000
σ		1.015%	0.055	3.436	1.043	0.000	490.400	148.800	55.760
%RSD		0.974	53.880	8.738	2.669	0.000	0.903	0.765	0.280
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	5.673	4599.000	0.000	9345.000	105000.000	104000.000	84.946%	3.235
2	10:38:12	5.019	4719.000	0.000	9420.000	106200.000	105700.000	84.557%	2.833
3	10:38:22	5.358	4633.000	0.000	9486.000	107500.000	106100.000	84.246%	3.084
X		5.350	4650.000	0.000	9417.000	106300.000	105300.000	84.583%	3.051
σ		0.327	62.290	0.000	70.470	1249.000	1076.000	0.351%	0.203
%RSD		6.109	1.339	0.000	0.748	1.176	1.022	0.415	6.661
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	23.300	17.160	21.330	9.524	502.400	0.312	0.710	4.790
2	10:38:12	11.360	18.470	21.350	9.041	483.500	0.441	0.755	4.944
3	10:38:22	-7.421	17.510	21.470	8.770	486.300	0.481	1.571	5.285
X		9.079	17.720	21.390	9.112	490.700	0.411	1.012	5.006
σ		15.490	0.678	0.074	0.382	10.190	0.088	0.485	0.254
%RSD		170.600	3.829	0.347	4.191	2.077	21.490	47.900	5.063
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	3.573	5.315	6.272	0.667	0.112	7.757	0.000	224.900
2	10:38:12	4.364	4.310	5.079	0.584	0.110	6.664	0.000	235.100
3	10:38:22	4.811	6.450	4.372	0.917	0.844	4.763	0.000	230.800
X		4.249	5.358	5.241	0.723	0.355	6.395	0.000	230.300
σ		0.627	1.070	0.960	0.173	0.423	1.515	0.000	5.125
%RSD		14.750	19.970	18.320	23.960	119.000	23.690	0.000	2.225
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	79.885%	0.982	0.835	79.116%	-0.077	-0.098	0.034	0.043
2	10:38:12	80.849%	0.648	0.677	80.375%	-0.100	-0.087	0.102	0.069
3	10:38:22	81.003%	0.646	0.579	80.613%	-0.078	-0.075	0.033	0.155
X		80.579%	0.759	0.697	80.034%	-0.085	-0.086	0.056	0.089
σ		0.606%	0.193	0.129	0.804%	0.013	0.011	0.039	0.059
%RSD		0.752	25.460	18.550	1.005	15.480	13.300	70.130	66.130
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:38:03	77.732%	0.196	-0.045	-0.003	49.060	53.790	86.195%	86.845%
2	10:38:12	80.329%	0.264	0.070	0.112	54.570	53.800	85.867%	87.917%
3	10:38:22	79.188%	0.308	0.096	0.055	52.560	53.680	86.660%	89.165%
X		79.083%	0.256	0.040	0.055	52.060	53.760	86.240%	87.976%
σ		1.302%	0.057	0.075	0.058	2.790	0.064	0.398%	1.161%
%RSD		1.646	22.170	187.100	105.700	5.359	0.119	0.462	1.320
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:38:03	0.010	0.001	0.038	0.164	0.102	80.324%		
2	10:38:12	-0.004	0.016	0.050	0.036	0.073	85.400%		
3	10:38:22	0.009	0.006	0.112	0.071	0.093	84.284%		
X		0.005	0.008	0.067	0.090	0.090	83.336%		
σ		0.007	0.008	0.040	0.066	0.015	2.668%		
%RSD		147.000	98.900	59.690	73.330	16.470	3.201		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	105.060%	-0.158	11.770	11.250	0.000	32580.000	19510.000	20140.000
2	10:43:15	105.556%	-0.109	9.930	10.340	0.000	32380.000	19910.000	20530.000
3	10:43:24	105.275%	-0.121	8.332	10.200	0.000	32830.000	19920.000	20680.000
X		105.297%	-0.129	10.010	10.600	0.000	32600.000	19780.000	20450.000
σ		0.249%	0.026	1.720	0.572	0.000	228.000	236.200	276.200
%RSD		0.236	19.770	17.190	5.400	0.000	0.699	1.194	1.350
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	25.230	3543.000	0.000	2520.000	76880.000	74450.000	86.202%	2.420
2	10:43:15	25.310	3505.000	0.000	2563.000	77960.000	74970.000	84.246%	2.544
3	10:43:24	27.350	3528.000	0.000	2557.000	77330.000	74830.000	84.048%	2.010
X		25.960	3525.000	0.000	2547.000	77390.000	74750.000	84.832%	2.325
σ		1.200	19.140	0.000	23.090	542.400	271.600	1.191%	0.280
%RSD		4.623	0.543	0.000	0.907	0.701	0.363	1.404	12.040
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	14.220	10.570	5.935	29.270	445.300	0.142	-0.929	5.330
2	10:43:15	18.200	10.330	5.827	29.740	397.400	0.234	-0.699	5.439
3	10:43:24	-1.898	11.270	5.807	28.720	363.200	0.207	-1.172	5.210
X		10.170	10.720	5.857	29.250	402.000	0.195	-0.933	5.326
σ		10.640	0.491	0.069	0.510	41.210	0.048	0.236	0.114
%RSD		104.600	4.575	1.176	1.745	10.250	24.450	25.310	2.147
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	4.554	5.205	5.313	0.411	-0.134	3.922	0.000	113.100
2	10:43:15	5.782	5.635	6.522	0.840	0.845	6.667	0.000	107.200
3	10:43:24	5.648	7.369	5.923	0.828	0.589	6.241	0.000	110.300
X		5.328	6.070	5.919	0.693	0.433	5.610	0.000	110.200
σ		0.674	1.146	0.604	0.245	0.508	1.477	0.000	2.941
%RSD		12.650	18.880	10.210	35.290	117.300	26.330	0.000	2.669
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	79.479%	0.129	0.170	81.177%	-0.078	-0.087	0.103	0.070
2	10:43:15	80.828%	0.327	0.362	80.782%	-0.090	-0.123	0.032	0.041
3	10:43:24	82.593%	0.126	0.216	80.202%	-0.089	-0.086	-0.037	-0.015
X		80.966%	0.194	0.249	80.720%	-0.086	-0.099	0.032	0.032
σ		1.562%	0.115	0.100	0.491%	0.006	0.021	0.070	0.043
%RSD		1.929	59.470	40.180	0.608	7.347	21.100	215.500	135.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:43:05	78.908%	0.191	0.144	0.144	28.030	27.490	86.172%	86.722%
2	10:43:15	80.408%	0.224	0.093	0.169	33.660	29.700	87.490%	86.992%
3	10:43:24	79.224%	0.189	0.142	0.113	28.900	32.080	89.182%	90.491%
X		79.513%	0.202	0.126	0.142	30.200	29.760	87.615%	88.068%
σ		0.791%	0.020	0.029	0.028	3.032	2.300	1.509%	2.103%
%RSD		0.995	9.731	22.660	19.930	10.040	7.728	1.722	2.388
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:43:05	0.009	0.001	0.158	0.206	0.185	84.766%		
2	10:43:15	-0.004	0.006	0.259	0.235	0.285	86.774%		
3	10:43:24	0.010	0.001	0.251	0.185	0.266	79.111%		
X		0.005	0.003	0.222	0.208	0.246	83.551%		
σ		0.007	0.003	0.056	0.025	0.053	3.973%		
%RSD		146.700	106.700	25.280	11.990	21.680	4.756		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	99.014%	-0.172	121.000	123.800	0.000	95710.000	12170.000	12530.000	
2	10:48:20	99.801%	-0.207	120.400	121.800	0.000	96930.000	12400.000	12840.000	
3	10:48:30	100.943%	-0.137	119.100	117.400	0.000	96460.000	12160.000	12670.000	
X		99.919%	-0.172	120.200	121.000	0.000	96360.000	12240.000	12680.000	
		σ	0.970%	0.035	0.980	3.274	0.000	616.200	139.400	151.600
		%RSD	0.971	20.400	0.816	2.706	0.000	0.639	1.139	1.196
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	17.290	4066.000	0.000	21920.000	77950.000	76030.000	86.274%	2.535	
2	10:48:20	17.800	4049.000	0.000	22340.000	79940.000	77600.000	84.824%	2.107	
3	10:48:30	17.580	4013.000	0.000	22280.000	79600.000	76320.000	85.610%	3.148	
X		17.560	4043.000	0.000	22180.000	79160.000	76650.000	85.569%	2.597	
		σ	0.259	27.010	0.000	228.800	1062.000	834.000	0.726%	0.523
		%RSD	1.474	0.668	0.000	1.032	1.342	1.088	0.848	20.140
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	4.919	9.583	19.980	46.850	413.500	0.747	0.330	6.007	
2	10:48:20	-18.160	9.809	19.880	47.820	397.000	0.666	0.641	5.448	
3	10:48:30	-14.550	9.258	19.920	47.800	392.000	0.893	1.027	5.933	
X		-9.265	9.550	19.930	47.490	400.800	0.769	0.666	5.796	
		σ	12.420	0.277	0.052	0.556	11.270	0.115	0.349	0.303
		%RSD	134.000	2.900	0.263	1.171	2.812	14.940	52.440	5.232
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	5.127	38.640	39.720	0.689	0.361	8.650	0.000	213.600	
2	10:48:20	4.989	38.760	40.840	0.496	0.115	6.465	0.000	215.600	
3	10:48:30	4.876	36.000	33.010	0.803	-0.134	3.072	0.000	206.700	
X		4.998	37.800	37.860	0.663	0.114	6.063	0.000	211.900	
		σ	0.126	1.556	4.236	0.155	0.248	2.811	0.000	4.683
		%RSD	2.515	4.117	11.190	23.410	217.400	46.360	0.000	2.210
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	79.030%	33.410	30.560	78.327%	-0.110	-0.110	-0.037	0.130	
2	10:48:20	78.580%	33.120	32.580	77.791%	-0.065	-0.012	-0.037	0.014	
3	10:48:30	82.626%	31.060	32.570	78.795%	-0.043	-0.110	0.246	0.014	
X		80.078%	32.530	31.900	78.304%	-0.073	-0.077	0.057	0.052	
		σ	2.217%	1.282	1.163	0.502%	0.034	0.056	0.164	0.067
		%RSD	2.769	3.940	3.647	0.642	46.900	73.130	286.000	128.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	10:48:11	77.364%	0.278	0.509	0.721	24.280	24.380	85.143%	84.471%	
2	10:48:20	78.451%	0.312	0.334	0.530	21.670	26.640	87.955%	87.254%	
3	10:48:30	78.609%	0.392	0.312	0.415	24.060	22.840	83.696%	85.612%	
X		78.141%	0.327	0.385	0.555	23.340	24.620	85.598%	85.779%	
		σ	0.678%	0.058	0.108	0.155	1.450	1.909	2.166%	1.399%
		%RSD	0.868	17.870	28.100	27.890	6.215	7.753	2.530	1.631
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	10:48:11	-0.004	-0.004	0.742	0.742	0.803	73.820%			
2	10:48:20	0.010	0.013	0.750	0.866	0.813	76.416%			
3	10:48:30	-0.004	-0.004	0.632	0.630	0.706	84.948%			
X		0.001	0.001	0.708	0.746	0.774	78.395%			
		σ	0.008	0.010	0.066	0.118	5.822%			
		%RSD	749.600	727.000	9.346	15.880	7.664			



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	83.097%	98.640	100.300	102.500	0.000	47120.000	49250.000	49590.000
2	10:57:10	82.787%	100.200	103.500	101.200	0.000	48000.000	49460.000	49560.000
3	10:57:20	84.890%	93.120	93.920	94.460	0.000	46020.000	47870.000	47840.000
X		83.591%	97.320%	99.243%	99.373%	0.000	94.092%	97.725%	97.987%
σ		1.135%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.358	3.827	4.931	4.324	0.000	2.114	1.767	2.044
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	495.700	5528.000	0.000	50480.000	49960.000	47900.000	90.517%	100.900
2	10:57:10	501.500	5595.000	0.000	50220.000	50320.000	48080.000	91.360%	101.400
3	10:57:20	484.100	5274.000	0.000	49050.000	50370.000	47120.000	91.879%	92.870
X		98.760%	109.308%	0.000	99.836%	100.435%	95.403%	91.252%	98.373%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.687%	n/a
%RSD		1.794	3.097	0.000	1.531	0.441	1.078	0.753	4.850
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	95.390	98.740	479.400	24610.000	24970.000	99.680	104.000	102.800
2	10:57:10	99.560	100.100	476.800	24840.000	24840.000	97.790	95.660	101.300
3	10:57:20	96.330	96.660	463.300	24570.000	24610.000	101.100	101.500	104.800
X		97.094%	98.506%	94.633%	98.708%	99.236%	99.536%	100.382%	102.970%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.256	1.773	1.821	0.583	0.737	1.684	4.252	1.675
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	103.100	98.700	104.300	98.110	97.200	101.500	0.000	96.760
2	10:57:10	99.960	101.900	100.700	99.500	90.830	94.030	0.000	96.840
3	10:57:20	102.600	94.280	99.780	100.900	94.970	108.800	0.000	97.230
X		101.886%	98.282%	101.584%	99.487%	94.334%	101.446%	0.000	96.943%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.664	3.875	2.347	1.382	3.429	7.301	0.000	0.260
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	85.488%	100.600	105.500	85.867%	101.200	103.000	97.270	101.700
2	10:57:10	87.418%	103.400	102.800	86.413%	99.320	102.800	103.100	101.100
3	10:57:20	87.451%	102.900	103.800	86.724%	100.500	99.830	100.300	101.600
X		86.785%	102.298%	104.036%	86.334%	100.342%	101.853%	100.228%	101.443%
σ		1.124%	n/a	n/a	0.434%	n/a	n/a	n/a	n/a
%RSD		1.295	1.459	1.309	0.502	0.930	1.725	2.926	0.313
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:01	84.599%	102.000	98.410	97.560	91.380	95.700	92.345%	93.722%
2	10:57:10	87.045%	100.100	99.140	99.110	95.380	94.440	90.828%	90.669%
3	10:57:20	86.505%	102.000	98.730	100.400	93.810	93.190	95.059%	95.565%
X		86.050%	101.359%	98.757%	99.028%	93.524%	94.444%	92.744%	93.319%
σ		1.285%	n/a	n/a	n/a	n/a	n/a	2.143%	2.473%
%RSD		1.493	1.067	0.370	1.441	2.157	1.334	2.311	2.650
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:57:01	107.400	102.700	101.100	97.410	99.570	88.243%		
2	10:57:10	99.240	100.200	103.300	101.800	101.800	93.583%		
3	10:57:20	105.800	103.800	102.200	100.100	99.880	90.494%		
X		104.149%	102.219%	102.198%	99.785%	100.402%	90.773%		
σ		n/a	n/a	n/a	n/a	n/a	2.681%		
%RSD		4.164	1.819	1.077	2.227	1.183	2.954		

CCB2 8/24/2015 11:03:05 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	86.478%	-0.014	1.358	2.761	0.000	133.400	-11.040	-12.340
2	11:02:18	90.464%	-0.008	1.809	1.623	0.000	125.400	-12.830	-11.560
3	11:02:27	91.149%	0.026	1.279	1.188	0.000	119.800	-10.460	-17.730
X		89.364%	0.001	1.482	1.857	0.000	126.200	-11.440	-13.880
σ		2.522%	0.021	0.286	0.812	0.000	6.842	1.235	3.361
%RSD		2.822	2097.000	19.290	43.740	0.000	5.423	10.790	24.220
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	0.266	-1.311	0.000	60.560	-41.650	0.069	88.496%	-0.051
2	11:02:18	0.453	-1.268	0.000	47.450	-23.460	7.051	89.276%	0.173
3	11:02:27	0.922	-0.110	0.000	24.890	-27.020	4.705	90.627%	-0.058
X		0.547	-0.896	0.000	44.300	-30.710	3.942	89.466%	0.021
σ		0.338	0.681	0.000	18.040	9.640	3.553	1.078%	0.131
%RSD		61.770	75.980	0.000	40.720	31.390	90.140	1.205	611.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	1.654	0.306	0.073	10.980	18.580	0.035	-3.094	0.281
2	11:02:18	1.277	0.399	0.092	10.360	18.400	-0.001	-2.866	0.312
3	11:02:27	1.117	0.496	0.012	9.057	10.220	0.022	-2.972	0.219
X		1.349	0.400	0.059	10.130	15.730	0.019	-2.978	0.271
σ		0.276	0.095	0.042	0.980	4.779	0.019	0.114	0.047
%RSD		20.420	23.680	71.360	9.675	30.370	97.910	3.834	17.400
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	0.105	-0.078	0.048	0.011	0.537	3.340	0.000	-0.048
2	11:02:18	-0.046	-0.081	-0.370	0.029	-0.134	3.770	0.000	-0.048
3	11:02:27	-0.124	-0.161	-0.270	0.046	0.309	3.340	0.000	-0.048
X		-0.022	-0.106	-0.197	0.029	0.237	3.483	0.000	-0.048
σ		0.117	0.047	0.218	0.017	0.341	0.249	0.000	0.000
%RSD		538.000	44.350	110.700	60.840	144.000	7.139	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	89.699%	0.327	0.470	89.863%	-0.045	-0.061	-0.037	0.010
2	11:02:18	89.885%	0.290	0.317	90.215%	-0.065	-0.039	-0.037	-0.015
3	11:02:27	90.181%	0.288	0.164	91.211%	-0.076	-0.072	-0.037	0.010
X		89.922%	0.302	0.317	90.430%	-0.062	-0.057	-0.037	0.002
σ		0.243%	0.022	0.153	0.699%	0.015	0.017	0.000	0.015
%RSD		0.271	7.260	48.310	0.773	24.870	29.240	0.142	805.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:02:08	88.324%	0.194	0.144	0.097	-0.900	-0.953	89.921%	90.383%
2	11:02:18	87.806%	0.160	0.080	0.231	-0.742	-1.041	92.902%	95.334%
3	11:02:27	88.869%	0.051	0.184	0.149	-0.743	-1.041	93.565%	93.036%
X		88.333%	0.135	0.136	0.159	-0.795	-1.012	92.129%	92.918%
σ		0.531%	0.075	0.052	0.067	0.091	0.051	1.941%	2.477%
%RSD		0.601	55.550	38.530	42.410	11.410	5.000	2.106	2.666
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:02:08	0.020	0.024	-0.012	0.017	0.013	91.408%		
2	11:02:18	0.033	0.006	0.019	0.002	0.003	86.308%		
3	11:02:27	0.020	0.010	-0.012	0.002	0.003	88.559%		
X		0.024	0.014	-0.002	0.007	0.006	88.758%		
σ		0.007	0.010	0.018	0.009	0.006	2.555%		
%RSD		30.590	71.830	1030.000	123.800	87.010	2.879		

MB 180-150950/1-A 8/24/2015 11:08:13 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	88.454%	-0.067	2.615	2.165	0.000	91.030	-14.280	-14.080
2	11:07:26	89.018%	-0.158	0.817	1.555	0.000	90.190	-11.690	-11.940
3	11:07:36	89.193%	-0.158	0.030	0.861	0.000	89.470	-13.850	-14.470
X		88.888%	-0.128	1.154	1.527	0.000	90.230	-13.270	-13.500
σ		0.387%	0.053	1.325	0.653	0.000	0.778	1.390	1.361
%RSD		0.435	41.160	114.800	42.730	0.000	0.863	10.470	10.090
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	-1.011	3.120	0.000	17.930	-12.150	-1.699	91.003%	-0.281
2	11:07:26	-1.073	2.316	0.000	29.670	-36.020	-8.938	90.509%	-0.001
3	11:07:36	-0.995	-2.794	0.000	29.090	-33.070	-16.050	90.728%	0.499
X		-1.026	0.881	0.000	25.570	-27.080	-8.895	90.747%	0.072
σ		0.041	3.208	0.000	6.617	13.020	7.176	0.248%	0.395
%RSD		4.015	364.200	0.000	25.880	48.060	80.670	0.273	547.100
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	1.428	0.392	-0.008	2.926	-0.796	-0.013	-2.778	0.242
2	11:07:26	-1.569	0.249	-0.069	2.624	-2.388	0.011	-2.782	0.034
3	11:07:36	1.334	0.340	0.061	2.998	0.676	0.022	-2.894	0.160
X		0.398	0.327	-0.006	2.849	-0.836	0.006	-2.818	0.145
σ		1.704	0.073	0.065	0.198	1.532	0.018	0.066	0.105
%RSD		428.500	22.230	1157.000	6.957	183.300	278.500	2.330	72.180
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	-0.083	-0.459	-0.057	-0.007	-0.134	4.216	0.000	0.034
2	11:07:26	0.062	0.067	0.247	0.082	0.534	4.202	0.000	-0.048
3	11:07:36	-0.165	-0.389	-0.277	0.079	0.513	5.422	0.000	-0.022
X		-0.062	-0.260	-0.029	0.052	0.304	4.613	0.000	-0.012
σ		0.115	0.286	0.264	0.050	0.380	0.701	0.000	0.042
%RSD		185.000	109.900	906.100	97.720	124.900	15.190	0.000	356.300
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	87.791%	0.004	0.141	93.865%	0.018	-0.001	0.024	-0.015
2	11:07:26	89.534%	0.039	-0.051	92.898%	-0.000	0.030	-0.037	-0.015
3	11:07:36	93.242%	0.037	0.032	93.674%	0.018	-0.022	0.023	-0.015
X		90.189%	0.026	0.041	93.479%	0.012	0.002	0.003	-0.015
σ		2.784%	0.020	0.096	0.512%	0.011	0.027	0.035	0.000
%RSD		3.087	75.140	235.700	0.548	90.090	1131.000	1078.000	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:17	90.107%	0.048	0.014	0.093	-0.745	-1.041	94.754%	94.239%
2	11:07:26	90.624%	0.082	0.075	0.040	-0.900	-0.790	96.645%	95.110%
3	11:07:36	90.959%	-0.057	-0.007	0.041	-0.900	-1.041	94.007%	93.051%
X		90.563%	0.024	0.027	0.058	-0.848	-0.957	95.135%	94.133%
σ		0.429%	0.072	0.043	0.031	0.089	0.145	1.360%	1.033%
%RSD		0.474	294.500	157.400	52.620	10.500	15.100	1.429	1.098
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:07:17	0.019	-0.004	-0.026	-0.014	0.006	92.597%		
2	11:07:26	-0.004	-0.004	-0.012	0.001	0.002	91.996%		
3	11:07:36	-0.004	-0.004	0.001	0.045	0.014	96.998%		
X		0.004	-0.004	-0.013	0.011	0.007	93.864%		
σ		0.013	0.000	0.013	0.031	0.006	2.731%		
%RSD		320.200	0.000	106.400	290.100	84.440	2.909		

LCS 180-150950/2-A 8/24/2015 11:13:19 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	100.106%	42.190	853.300	856.600	0.000	49840.000	51450.000	50960.000
2	11:12:32	105.492%	41.110	823.700	829.200	0.000	50470.000	52290.000	52270.000
3	11:12:42	110.664%	38.550	797.600	781.200	0.000	50820.000	52640.000	52970.000
X		105.420%	40.620	824.900	822.300	0.000	50380.000	52130.000	52070.000
σ		5.280%	1.871	27.850	38.180	0.000	494.700	614.700	1022.000
%RSD		5.008	4.607	3.377	4.642	0.000	0.982	1.179	1.962
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	2083.000	9426.000	0.000	50180.000	49960.000	48230.000	86.216%	971.600
2	11:12:32	2125.000	9430.000	0.000	51170.000	52620.000	49430.000	85.627%	975.800
3	11:12:42	2135.000	9323.000	0.000	51540.000	52610.000	49360.000	85.459%	978.300
X		2114.000	9393.000	0.000	50960.000	51730.000	49010.000	85.768%	975.200
σ		27.910	61.040	0.000	705.100	1530.000	674.800	0.398%	3.358
%RSD		1.320	0.650	0.000	1.384	2.957	1.377	0.463	0.344
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	541.700	215.900	485.500	1027.000	1362.000	527.400	519.100	272.300
2	11:12:32	535.000	216.100	499.100	1029.000	1270.000	525.700	524.900	274.700
3	11:12:42	540.600	218.700	498.900	1021.000	1188.000	509.700	507.900	265.800
X		539.100	216.900	494.500	1026.000	1273.000	520.900	517.300	270.900
σ		3.597	1.591	7.760	4.438	86.900	9.768	8.651	4.577
%RSD		0.667	0.734	1.569	0.433	6.824	1.875	1.672	1.690
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	259.400	496.300	512.500	42.290	9.570	9.201	0.000	975.100
2	11:12:32	261.400	502.600	492.200	44.340	11.180	15.120	0.000	969.600
3	11:12:42	258.100	516.900	501.500	39.710	10.220	16.050	0.000	980.800
X		259.600	505.300	502.100	42.110	10.320	13.460	0.000	975.200
σ		1.651	10.560	10.210	2.320	0.812	3.717	0.000	5.617
%RSD		0.636	2.091	2.033	5.508	7.861	27.620	0.000	0.576
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	81.222%	1082.000	1086.000	79.310%	52.900	52.190	52.370	85.280
2	11:12:32	82.209%	1071.000	1094.000	79.391%	52.590	52.170	51.990	85.520
3	11:12:42	82.275%	1076.000	1076.000	79.743%	50.070	52.850	51.900	86.720
X		81.902%	1076.000	1085.000	79.482%	51.850	52.410	52.090	85.840
σ		0.590%	5.728	9.301	0.230%	1.553	0.389	0.252	0.770
%RSD		0.720	0.532	0.857	0.290	2.995	0.743	0.484	0.897
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:23	76.817%	2040.000	524.400	519.900	1992.000	1934.000	83.932%	84.063%
2	11:12:32	79.068%	2005.000	506.400	502.300	1955.000	1922.000	85.014%	85.389%
3	11:12:42	78.921%	2014.000	502.000	499.800	1911.000	1924.000	85.303%	84.286%
X		78.269%	2020.000	510.900	507.300	1953.000	1927.000	84.750%	84.579%
σ		1.259%	18.240	11.860	10.930	40.930	6.436	0.723%	0.710%
%RSD		1.609	0.903	2.321	2.155	2.096	0.334	0.853	0.839
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:12:23	52.020	52.460	21.770	20.680	21.180	78.135%		
2	11:12:32	52.640	52.940	21.160	21.620	21.820	77.426%		
3	11:12:42	51.230	52.160	22.410	21.480	22.220	80.532%		
X		51.970	52.520	21.780	21.260	21.740	78.698%		
σ		0.708	0.393	0.625	0.509	0.528	1.627%		
%RSD		1.363	0.749	2.868	2.396	2.427	2.068		

180-46875-B-8-A 8/24/2015 11:18:24 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	104.552%	-0.075	30.020	30.490	0.000	65010.000	11530.000	11750.000
2	11:17:38	104.533%	-0.069	30.110	31.150	0.000	64380.000	11640.000	11770.000
3	11:17:48	104.940%	-0.057	29.970	28.980	0.000	64220.000	11500.000	11850.000
X		104.675%	-0.067	30.030	30.210	0.000	64530.000	11560.000	11790.000
σ		0.229%	0.009	0.070	1.111	0.000	417.600	74.910	52.810
%RSD		0.219	13.440	0.234	3.677	0.000	0.647	0.648	0.448
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	88.150	2481.000	0.000	8220.000	48820.000	46710.000	82.120%	2.680
2	11:17:38	84.610	2426.000	0.000	8241.000	49970.000	46950.000	80.834%	2.541
3	11:17:48	88.280	2454.000	0.000	8290.000	50040.000	47420.000	81.075%	2.969
X		87.020	2453.000	0.000	8250.000	49610.000	47030.000	81.343%	2.730
σ		2.082	27.350	0.000	36.110	687.900	357.000	0.684%	0.218
%RSD		2.393	1.115	0.000	0.438	1.387	0.759	0.841	7.996
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	16.720	10.820	56.380	171.800	468.500	0.345	-1.666	5.974
2	11:17:38	-9.036	10.870	55.790	174.600	386.700	0.284	-1.997	5.700
3	11:17:48	28.760	11.890	56.960	181.600	367.600	0.254	-2.379	5.329
X		12.150	11.200	56.380	176.000	407.600	0.294	-2.014	5.668
σ		19.310	0.600	0.587	5.056	53.570	0.047	0.357	0.323
%RSD		159.000	5.363	1.040	2.873	13.140	15.820	17.720	5.705
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	6.088	5.232	6.129	1.069	0.113	4.777	0.000	136.200
2	11:17:38	6.013	4.720	4.756	1.143	0.617	5.383	0.000	140.500
3	11:17:48	5.526	4.488	6.172	0.986	0.112	1.639	0.000	137.500
X		5.876	4.814	5.686	1.066	0.281	3.933	0.000	138.100
σ		0.305	0.381	0.805	0.079	0.291	2.010	0.000	2.190
%RSD		5.189	7.915	14.170	7.403	103.900	51.090	0.000	1.586
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	80.422%	4.477	4.698	79.741%	-0.122	-0.134	0.033	0.042
2	11:17:38	79.512%	4.931	4.525	79.004%	-0.077	-0.122	0.103	0.013
3	11:17:48	81.332%	4.116	4.611	80.280%	-0.111	-0.086	0.033	0.100
X		80.422%	4.508	4.611	79.675%	-0.104	-0.114	0.057	0.052
σ		0.910%	0.409	0.087	0.641%	0.023	0.025	0.041	0.044
%RSD		1.131	9.062	1.878	0.804	22.530	21.980	71.670	85.470
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:17:29	79.047%	0.508	0.263	0.264	41.610	42.770	83.246%	85.057%
2	11:17:38	79.388%	1.017	0.237	0.232	45.300	47.180	85.699%	86.360%
3	11:17:48	78.082%	0.594	0.193	0.265	41.510	45.140	86.698%	86.159%
X		78.839%	0.706	0.231	0.254	42.810	45.030	85.214%	85.859%
σ		0.677%	0.272	0.035	0.019	2.160	2.207	1.776%	0.701%
%RSD		0.859	38.520	15.260	7.475	5.046	4.901	2.084	0.817
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:17:29	0.060	0.094	0.931	0.686	0.738	84.226%		
2	11:17:38	0.074	0.096	0.745	0.596	0.655	82.361%		
3	11:17:48	0.033	0.021	0.699	0.657	0.659	88.069%		
X		0.055	0.070	0.791	0.646	0.684	84.885%		
σ		0.021	0.043	0.123	0.046	0.047	2.911%		
%RSD		37.360	61.290	15.510	7.097	6.811	3.429		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	97.940%	-0.076	39.260	40.400	0.000	64740.000	21130.000	21810.000
2	11:22:43	99.422%	-0.173	39.760	37.860	0.000	63630.000	20770.000	21460.000
3	11:22:53	98.176%	-0.110	37.700	38.500	0.000	63300.000	20830.000	21720.000
X		98.513%	-0.120	38.910	38.920	0.000	63890.000	20910.000	21660.000
σ		0.796%	0.049	1.074	1.323	0.000	757.400	190.900	179.600
%RSD		0.808	41.250	2.761	3.399	0.000	1.185	0.913	0.829
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	60.700	4259.000	0.000	6101.000	94110.000	92680.000	81.398%	2.272
2	11:22:43	59.520	4244.000	0.000	6095.000	95570.000	91850.000	81.961%	1.144
3	11:22:53	59.880	4253.000	0.000	6078.000	94010.000	91600.000	81.953%	1.329
X		60.030	4252.000	0.000	6091.000	94570.000	92040.000	81.770%	1.582
σ		0.608	7.564	0.000	11.850	873.800	565.300	0.323%	0.605
%RSD		1.013	0.178	0.000	0.195	0.924	0.614	0.395	38.260
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	-9.875	14.110	15.030	17.730	380.200	0.308	-1.598	4.131
2	11:22:43	9.975	14.230	15.170	19.630	427.300	0.294	-2.582	3.531
3	11:22:53	-6.597	14.370	15.160	19.150	377.600	0.396	-1.578	3.976
X		-2.166	14.240	15.120	18.840	395.100	0.333	-1.920	3.879
σ		10.640	0.128	0.078	0.990	27.980	0.055	0.574	0.312
%RSD		491.300	0.896	0.517	5.253	7.082	16.570	29.910	8.038
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	4.398	10.050	11.290	0.615	0.610	4.025	0.000	191.600
2	11:22:43	3.381	8.738	12.310	0.600	0.367	4.033	0.000	192.900
3	11:22:53	3.721	9.729	11.120	0.681	0.596	-0.598	0.000	192.400
X		3.833	9.506	11.570	0.632	0.524	2.487	0.000	192.300
σ		0.518	0.684	0.646	0.043	0.137	2.671	0.000	0.662
%RSD		13.510	7.195	5.580	6.868	26.090	107.400	0.000	0.344
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	80.257%	12.600	11.860	78.308%	-0.065	-0.097	0.108	-0.015
2	11:22:43	79.117%	12.800	12.990	78.673%	-0.099	-0.085	0.177	0.071
3	11:22:53	82.143%	12.150	12.690	77.850%	-0.088	-0.098	0.033	0.041
X		80.506%	12.520	12.510	78.277%	-0.084	-0.093	0.106	0.032
σ		1.528%	0.335	0.588	0.412%	0.018	0.007	0.072	0.044
%RSD		1.898	2.675	4.701	0.527	21.130	7.487	67.970	135.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:34	75.925%	0.244	0.102	0.059	42.530	42.150	85.120%	86.190%
2	11:22:43	77.960%	0.195	0.074	0.116	43.090	41.260	87.620%	87.223%
3	11:22:53	80.592%	0.496	0.047	0.024	41.570	42.950	86.065%	86.290%
X		78.159%	0.312	0.074	0.066	42.400	42.120	86.268%	86.568%
σ		2.340%	0.161	0.028	0.046	0.766	0.847	1.262%	0.570%
%RSD		2.993	51.820	37.320	69.610	1.807	2.010	1.463	0.658
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:22:34	0.075	0.033	0.086	0.074	0.086	81.066%		
2	11:22:43	0.050	0.034	0.089	0.095	0.113	78.685%		
3	11:22:53	0.022	0.053	0.177	0.037	0.121	83.117%		
X		0.049	0.040	0.117	0.069	0.107	80.956%		
σ		0.026	0.011	0.052	0.029	0.018	2.218%		
%RSD		53.950	28.150	44.220	42.240	17.310	2.740		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	97.174%	-0.203	27.760	29.960	0.000	64020.000	10460.000	10820.000
2	11:27:50	94.059%	-0.085	29.830	30.340	0.000	63550.000	10550.000	10780.000
3	11:28:00	96.318%	-0.153	25.280	28.520	0.000	62360.000	10460.000	10860.000
X		95.850%	-0.147	27.620	29.610	0.000	63310.000	10490.000	10820.000
σ		1.609%	0.059	2.279	0.960	0.000	860.200	52.360	43.870
%RSD		1.679	40.250	8.253	3.243	0.000	1.359	0.499	0.405
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	109.000	2316.000	0.000	7921.000	43570.000	41030.000	81.586%	2.142
2	11:27:50	110.200	2367.000	0.000	7882.000	43780.000	41260.000	81.645%	3.132
3	11:28:00	110.100	2321.000	0.000	8064.000	44970.000	42120.000	80.146%	3.386
X		109.800	2334.000	0.000	7956.000	44100.000	41470.000	81.126%	2.887
σ		0.657	28.400	0.000	95.760	754.200	571.900	0.849%	0.657
%RSD		0.598	1.217	0.000	1.204	1.710	1.379	1.046	22.760
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	-6.197	10.730	57.720	195.600	398.600	0.287	-2.343	4.647
2	11:27:50	28.520	11.180	56.870	201.100	387.700	0.293	-2.124	4.739
3	11:28:00	-0.422	11.050	59.030	190.300	400.700	0.511	-2.419	5.136
X		7.300	10.990	57.870	195.600	395.700	0.363	-2.295	4.841
σ		18.600	0.228	1.087	5.395	6.997	0.128	0.153	0.260
%RSD		254.800	2.071	1.879	2.758	1.769	35.060	6.685	5.364
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	5.033	6.810	6.494	1.181	0.903	4.565	0.000	130.800
2	11:27:50	4.708	5.160	5.607	0.771	0.607	5.835	0.000	129.500
3	11:28:00	4.529	6.110	6.889	1.127	0.112	6.670	0.000	126.600
X		4.757	6.027	6.330	1.026	0.541	5.690	0.000	129.000
σ		0.256	0.828	0.657	0.223	0.400	1.060	0.000	2.154
%RSD		5.371	13.740	10.380	21.700	73.930	18.630	0.000	1.670
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	75.675%	3.213	3.923	77.751%	-0.110	-0.072	-0.037	0.014
2	11:27:50	80.619%	2.673	3.796	78.922%	-0.111	-0.073	-0.037	0.072
3	11:28:00	81.485%	3.750	4.261	78.480%	-0.099	-0.097	0.034	0.072
X		79.260%	3.212	3.993	78.384%	-0.107	-0.081	-0.013	0.053
σ		3.135%	0.538	0.240	0.591%	0.006	0.014	0.041	0.033
%RSD		3.955	16.760	6.016	0.754	6.059	17.750	307.600	63.280
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:41	76.626%	0.445	0.271	0.181	39.490	45.580	84.176%	86.059%
2	11:27:50	76.995%	0.402	0.173	0.149	47.410	46.870	84.709%	83.955%
3	11:28:00	77.424%	0.561	0.414	0.149	36.430	45.880	83.193%	84.587%
X		77.015%	0.469	0.286	0.159	41.110	46.110	84.026%	84.867%
σ		0.399%	0.082	0.121	0.018	5.664	0.676	0.769%	1.080%
%RSD		0.519	17.560	42.360	11.490	13.780	1.466	0.915	1.272
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:27:41	0.024	0.035	0.596	0.545	0.613	76.773%		
2	11:27:50	0.009	0.032	0.655	0.585	0.583	84.053%		
3	11:28:00	0.060	0.017	0.642	0.829	0.683	83.592%		
X		0.031	0.028	0.631	0.653	0.627	81.473%		
σ		0.026	0.010	0.031	0.154	0.052	4.076%		
%RSD		84.500	35.630	4.904	23.510	8.243	5.003		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	93.489%	-0.090	38.770	38.830	0.000	60270.000	21100.000	21980.000
2	11:32:56	92.611%	-0.159	40.960	41.250	0.000	60970.000	21670.000	22380.000
3	11:33:06	91.603%	-0.142	40.200	40.630	0.000	60660.000	21610.000	22560.000
X		92.568%	-0.130	39.980	40.240	0.000	60630.000	21460.000	22300.000
σ		0.943%	0.036	1.113	1.255	0.000	347.300	313.500	297.900
%RSD		1.019	27.460	2.785	3.119	0.000	0.573	1.461	1.336
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	44.860	4296.000	0.000	6019.000	96540.000	93940.000	80.665%	1.983
2	11:32:56	45.180	4449.000	0.000	6147.000	98430.000	95730.000	80.694%	2.546
3	11:33:06	45.160	4393.000	0.000	6130.000	98510.000	95380.000	79.999%	1.370
X		45.070	4379.000	0.000	6099.000	97820.000	95020.000	80.453%	1.966
σ		0.178	77.410	0.000	69.620	1112.000	950.700	0.394%	0.588
%RSD		0.396	1.768	0.000	1.142	1.137	1.001	0.489	29.910
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	-16.390	12.840	37.110	127.900	537.100	0.287	-1.922	4.088
2	11:32:56	0.972	13.660	37.980	132.400	527.800	0.272	-2.195	4.314
3	11:33:06	18.600	13.640	38.040	133.900	595.100	0.569	-2.614	4.193
X		1.059	13.380	37.710	131.400	553.300	0.376	-2.244	4.198
σ		17.490	0.468	0.519	3.118	36.450	0.168	0.349	0.113
%RSD		1652.000	3.494	1.375	2.373	6.587	44.610	15.550	2.691
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	4.503	7.026	6.835	0.572	0.121	3.340	0.000	199.100
2	11:32:56	4.097	7.319	9.158	1.074	1.131	3.444	0.000	208.100
3	11:33:06	3.461	8.827	6.951	0.803	1.872	6.736	0.000	200.200
X		4.020	7.724	7.648	0.816	1.042	4.507	0.000	202.500
σ		0.525	0.966	1.309	0.251	0.879	1.932	0.000	4.900
%RSD		13.060	12.510	17.110	30.780	84.380	42.860	0.000	2.420
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	77.429%	8.112	7.065	77.917%	-0.122	-0.110	0.034	0.014
2	11:32:56	78.427%	7.753	8.883	78.164%	-0.133	-0.097	-0.037	0.043
3	11:33:06	79.633%	6.943	8.647	78.374%	-0.133	-0.097	-0.037	0.043
X		78.496%	7.603	8.198	78.151%	-0.129	-0.101	-0.013	0.033
σ		1.103%	0.599	0.989	0.229%	0.007	0.007	0.041	0.017
%RSD		1.406	7.878	12.060	0.293	5.064	7.044	308.200	50.840
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:32:47	78.004%	0.194	0.074	-0.004	44.420	41.960	87.795%	88.163%
2	11:32:56	77.486%	0.278	0.051	0.178	48.010	46.500	85.120%	85.635%
3	11:33:06	76.995%	0.199	0.076	0.239	41.460	44.590	86.065%	85.273%
X		77.495%	0.224	0.067	0.138	44.630	44.350	86.327%	86.357%
σ		0.504%	0.047	0.014	0.126	3.284	2.280	1.356%	1.575%
%RSD		0.651	20.960	20.530	91.600	7.358	5.141	1.571	1.823
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:32:47	0.023	0.007	1.954	1.678	1.751	79.623%		
2	11:32:56	0.022	0.038	1.609	1.676	1.708	83.381%		
3	11:33:06	-0.004	0.028	1.922	1.755	1.823	81.209%		
X		0.014	0.024	1.828	1.703	1.761	81.404%		
σ		0.015	0.016	0.191	0.045	0.058	1.887%		
%RSD		108.700	66.020	10.420	2.641	3.291	2.318		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	86.553%	-0.244	7.883	9.225	0.000	12570.000	4227.000	4338.000
2	11:38:01	86.046%	-0.197	5.958	9.030	0.000	12680.000	4321.000	4398.000
3	11:38:11	84.993%	-0.210	9.606	9.062	0.000	12470.000	4197.000	4291.000
X		85.864%	-0.217	7.816	9.105	0.000	12570.000	4248.000	4342.000
		0.796%	0.024	1.825	0.104	0.000	106.100	65.160	53.660
		0.927	11.100	23.350	1.146	0.000	0.844	1.534	1.236
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	8.483	880.300	0.000	1303.000	19840.000	18290.000	83.511%	0.995
2	11:38:01	8.307	890.200	0.000	1339.000	20130.000	18650.000	84.065%	0.205
3	11:38:11	7.915	892.200	0.000	1311.000	19610.000	18350.000	84.508%	0.501
X		8.235	887.600	0.000	1318.000	19860.000	18430.000	84.028%	0.567
		0.291	6.358	0.000	18.720	262.600	195.200	0.499%	0.400
		3.535	0.716	0.000	1.420	1.322	1.059	0.594	70.450
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	-3.465	3.393	7.442	25.360	99.360	0.079	-3.125	1.203
2	11:38:01	3.067	3.758	7.990	27.760	115.200	0.065	-3.336	0.872
3	11:38:11	10.250	3.833	7.995	26.510	97.350	0.089	-3.046	1.258
X		3.283	3.661	7.809	26.540	104.000	0.078	-3.169	1.111
		6.858	0.235	0.318	1.200	9.787	0.012	0.150	0.209
		208.900	6.422	4.067	4.521	9.413	15.950	4.737	18.820
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	0.629	1.192	1.225	0.133	-0.134	3.809	0.000	42.330
2	11:38:01	0.852	1.006	0.091	0.091	0.342	5.184	0.000	40.530
3	11:38:11	0.721	0.989	0.849	0.108	0.101	-3.087	0.000	38.330
X		0.734	1.062	0.722	0.111	0.103	1.969	0.000	40.400
		0.112	0.113	0.578	0.021	0.238	4.432	0.000	2.003
		15.280	10.620	80.060	18.700	231.900	225.100	0.000	4.959
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	82.066%	1.647	1.478	83.318%	-0.091	-0.066	0.030	0.040
2	11:38:01	83.854%	1.616	1.983	84.563%	-0.071	-0.021	-0.037	-0.015
3	11:38:11	85.246%	1.672	1.871	85.146%	-0.071	-0.011	-0.037	0.012
X		83.722%	1.645	1.777	84.343%	-0.078	-0.033	-0.015	0.012
		1.594%	0.028	0.265	0.934%	0.012	0.029	0.039	0.027
		1.904	1.690	14.900	1.107	14.770	88.370	263.700	227.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:52	82.155%	-0.049	-0.001	-0.063	7.853	9.471	87.338%	88.564%
2	11:38:01	83.541%	0.024	-0.025	-0.007	8.248	7.537	91.568%	92.057%
3	11:38:11	84.200%	-0.014	-0.047	0.104	8.070	7.618	90.973%	89.813%
X		83.299%	-0.013	-0.024	0.011	8.057	8.209	89.959%	90.145%
		1.044%	0.037	0.023	0.085	0.198	1.094	2.290%	1.770%
		1.253	280.200	95.100	769.100	2.451	13.320	2.545	1.963
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:37:52	-0.004	0.011	0.300	0.183	0.300	87.708%		
2	11:38:01	0.046	0.036	0.337	0.288	0.344	85.562%		
3	11:38:11	-0.004	0.026	0.405	0.331	0.337	87.357%		
X		0.013	0.024	0.347	0.267	0.327	86.876%		
		0.028	0.013	0.053	0.076	0.024	1.151%		
		220.300	53.310	15.340	28.630	7.239	1.325		

180-46875-B-12-B MS 8/24/2015 11:43:54 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	11:42:57	91.816%	43.040	911.600	899.300	0.000	114000.000	72930.000	73910.000
2	11:43:06	88.680%	42.610	944.500	929.300	0.000	114000.000	72880.000	75050.000
3	11:43:16	90.517%	42.700	891.000	908.000	0.000	110200.000	72480.000	74090.000
X		90.338%	42.780	915.700	912.200	0.000	112700.000	72760.000	74350.000
σ		1.576%	0.228	26.990	15.450	0.000	2171.000	243.100	615.100
%RSD		1.744	0.532	2.947	1.693	0.000	1.925	0.334	0.827
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:57	2226.000	14110.000	0.000	58350.000	154800.000	154500.000	78.574%	984.500
2	11:43:06	2265.000	14310.000	0.000	59640.000	155800.000	155900.000	77.908%	996.800
3	11:43:16	2225.000	13940.000	0.000	59380.000	154500.000	156600.000	78.519%	999.900
X		2239.000	14120.000	0.000	59120.000	155000.000	155700.000	78.333%	993.700
σ		22.700	185.000	0.000	681.500	683.200	1039.000	0.370%	8.119
%RSD		1.014	1.311	0.000	1.153	0.441	0.668	0.472	0.817
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:57	542.700	222.200	530.400	1223.000	1907.000	519.100	516.100	268.100
2	11:43:06	546.400	223.000	538.100	1263.000	1937.000	536.500	550.100	283.100
3	11:43:16	547.200	225.500	542.200	1255.000	1814.000	534.400	538.500	271.100
X		545.400	223.500	536.900	1247.000	1886.000	530.000	534.900	274.100
σ		2.432	1.727	6.018	21.300	64.570	9.505	17.250	7.924
%RSD		0.446	0.773	1.121	1.708	3.423	1.793	3.226	2.891
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:57	269.700	525.300	522.600	43.290	10.640	11.100	0.000	1188.000
2	11:43:06	281.200	520.100	551.800	42.640	9.554	12.480	0.000	1202.000
3	11:43:16	274.500	521.800	528.200	40.950	10.590	24.090	0.000	1171.000
X		275.100	522.400	534.200	42.290	10.260	15.890	0.000	1187.000
σ		5.794	2.631	15.510	1.206	0.613	7.136	0.000	15.680
%RSD		2.106	0.504	2.903	2.853	5.978	44.910	0.000	1.321
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:57	75.302%	1124.000	1119.000	75.632%	51.520	52.070	50.230	90.100
2	11:43:06	75.861%	1126.000	1146.000	76.702%	51.870	52.290	51.610	87.620
3	11:43:16	78.218%	1102.000	1136.000	76.756%	51.910	54.130	51.890	89.430
X		76.461%	1117.000	1133.000	76.364%	51.770	52.830	51.240	89.050
σ		1.548%	13.510	13.850	0.634%	0.215	1.131	0.887	1.284
%RSD		2.024	1.209	1.222	0.830	0.414	2.141	1.731	1.442
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:42:57	74.122%	2052.000	506.000	511.100	1954.000	1950.000	82.492%	82.907%
2	11:43:06	73.860%	2089.000	532.400	529.000	1999.000	2002.000	84.061%	84.024%
3	11:43:16	74.827%	2101.000	528.400	519.600	2001.000	1992.000	85.044%	83.131%
X		74.270%	2081.000	522.300	519.900	1984.000	1981.000	83.866%	83.354%
σ		0.500%	25.530	14.190	8.959	26.730	27.760	1.287%	0.591%
%RSD		0.673	1.227	2.717	1.723	1.347	1.401	1.535	0.709
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:42:57	53.730	54.900	24.810	26.090	25.580	79.688%		
2	11:43:06	54.000	54.080	24.210	23.540	23.980	79.211%		
3	11:43:16	52.910	53.610	26.240	23.760	24.540	80.222%		
X		53.550	54.200	25.080	24.470	24.700	79.707%		
σ		0.566	0.651	1.042	1.415	0.808	0.506%		
%RSD		1.057	1.202	4.156	5.785	3.270	0.635		

180-46875-B-12-C MSD

8/24/2015 11:48:57 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	88.432%	42.270	888.400	888.900	0.000	110200.000	71230.000	71800.000
2	11:48:11	88.732%	42.350	899.100	886.400	0.000	109200.000	71050.000	72350.000
3	11:48:21	87.723%	41.920	898.200	898.300	0.000	107200.000	70440.000	72080.000
X		88.296%	42.180	895.300	891.200	0.000	108900.000	70910.000	72080.000
σ		0.518%	0.227	5.954	6.302	0.000	1521.000	414.900	273.000
%RSD		0.587	0.539	0.665	0.707	0.000	1.397	0.585	0.379
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	2121.000	13520.000	0.000	58100.000	150100.000	150500.000	76.803%	972.100
2	11:48:11	2116.000	13510.000	0.000	57710.000	148700.000	150000.000	77.160%	970.800
3	11:48:21	2109.000	13690.000	0.000	57470.000	150900.000	148700.000	77.894%	975.500
X		2116.000	13580.000	0.000	57760.000	149900.000	149700.000	77.286%	972.800
σ		5.758	102.700	0.000	316.900	1088.000	980.500	0.556%	2.463
%RSD		0.272	0.756	0.000	0.549	0.726	0.655	0.720	0.253
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	518.200	216.700	525.600	1117.000	1812.000	522.200	527.300	273.600
2	11:48:11	522.700	220.900	526.600	1115.000	1889.000	502.400	507.000	271.100
3	11:48:21	541.700	221.000	519.400	1144.000	1837.000	518.600	501.000	267.200
X		527.500	219.600	523.900	1125.000	1846.000	514.400	511.800	270.600
σ		12.430	2.449	3.900	16.080	39.540	10.560	13.800	3.248
%RSD		2.356	1.115	0.745	1.429	2.142	2.053	2.697	1.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	275.900	512.900	529.600	42.980	6.773	9.849	0.000	1138.000
2	11:48:11	269.300	522.900	497.500	40.680	10.800	14.920	0.000	1153.000
3	11:48:21	257.800	512.900	505.100	40.750	11.600	15.580	0.000	1155.000
X		267.700	516.200	510.700	41.470	9.724	13.450	0.000	1149.000
σ		9.135	5.765	16.800	1.310	2.587	3.135	0.000	9.002
%RSD		3.413	1.117	3.290	3.158	26.610	23.310	0.000	0.784
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	74.765%	1081.000	1098.000	72.960%	50.640	52.110	48.510	83.530
2	11:48:11	76.716%	1066.000	1098.000	72.667%	51.510	51.750	53.620	84.270
3	11:48:21	76.267%	1063.000	1085.000	73.656%	51.530	50.360	48.710	83.480
X		75.916%	1070.000	1094.000	73.094%	51.220	51.400	50.280	83.760
σ		1.022%	9.960	7.475	0.508%	0.509	0.924	2.894	0.445
%RSD		1.346	0.931	0.684	0.695	0.994	1.797	5.755	0.531
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:02	72.181%	1944.000	489.200	489.500	1902.000	1926.000	81.822%	82.576%
2	11:48:11	72.736%	1983.000	486.100	476.300	1879.000	1866.000	81.532%	83.107%
3	11:48:21	72.431%	2039.000	513.400	497.500	1949.000	1926.000	79.430%	81.420%
X		72.449%	1989.000	496.200	487.700	1910.000	1906.000	80.928%	82.368%
σ		0.278%	47.760	14.930	10.700	35.470	34.370	1.305%	0.863%
%RSD		0.383	2.401	3.009	2.195	1.857	1.803	1.613	1.047
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:48:02	57.630	55.340	22.960	22.890	23.040	71.504%		
2	11:48:11	55.200	55.110	23.910	23.160	23.380	73.396%		
3	11:48:21	52.760	52.620	23.160	21.430	22.270	76.985%		
X		55.200	54.360	23.340	22.490	22.890	73.962%		
σ		2.436	1.510	0.499	0.929	0.571	2.784%		
%RSD		4.413	2.778	2.139	4.132	2.495	3.764		

180-46875-B-12-A PDS

8/24/2015 11:54:00 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	85.881%	47.090	990.500	997.100	0.000	112000.000	74120.000	75570.000	
2	11:53:13	87.807%	46.340	992.900	982.900	0.000	109800.000	73020.000	74840.000	
3	11:53:23	86.161%	46.150	996.000	979.600	0.000	111000.000	75050.000	76990.000	
X		86.616%	46.530	993.100	986.500	0.000	110900.000	74070.000	75800.000	
		$\sigma$	1.041%	0.498	2.736	9.257	0.000	1119.000	1016.000	1095.000
		%RSD	1.202	1.071	0.276	0.938	0.000	1.009	1.372	1.444
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	2306.000	14540.000	0.000	60670.000	151500.000	150900.000	77.723%	1031.000	
2	11:53:13	2276.000	14330.000	0.000	60140.000	149400.000	150300.000	78.944%	1033.000	
3	11:53:23	2334.000	14500.000	0.000	61840.000	152700.000	151100.000	76.217%	1044.000	
X		2305.000	14450.000	0.000	60880.000	151200.000	150800.000	77.628%	1036.000	
		$\sigma$	28.690	112.300	0.000	871.000	1630.000	406.000	1.366%	7.111
		%RSD	1.245	0.777	0.000	1.431	1.078	0.269	1.759	0.686
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	563.200	233.200	563.500	1202.000	1906.000	540.300	545.600	283.000	
2	11:53:13	556.100	228.800	564.700	1199.000	2018.000	542.500	548.000	286.900	
3	11:53:23	576.000	239.500	567.800	1210.000	1823.000	544.600	545.400	283.800	
X		565.100	233.800	565.300	1204.000	1916.000	542.400	546.300	284.600	
		$\sigma$	10.100	5.364	2.251	5.708	97.980	2.143	1.417	2.063
		%RSD	1.787	2.294	0.398	0.474	5.115	0.395	0.259	0.725
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	272.300	538.100	535.600	44.870	11.260	17.230	0.000	1209.000	
2	11:53:13	275.900	540.600	533.800	43.990	9.832	11.200	0.000	1214.000	
3	11:53:23	275.300	553.200	537.200	43.760	12.660	8.206	0.000	1206.000	
X		274.500	544.000	535.500	44.210	11.250	12.210	0.000	1209.000	
		$\sigma$	1.907	8.082	1.676	0.585	1.416	4.597	0.000	4.024
		%RSD	0.695	1.486	0.313	1.323	12.580	37.650	0.000	0.333
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	74.700%	1138.000	1150.000	73.228%	54.350	55.490	53.140	92.060	
2	11:53:13	75.379%	1145.000	1174.000	73.275%	53.510	56.110	52.840	90.790	
3	11:53:23	76.673%	1121.000	1156.000	73.574%	55.380	55.670	55.240	91.850	
X		75.584%	1135.000	1160.000	73.359%	54.410	55.760	53.740	91.570	
		$\sigma$	1.002%	12.580	12.630	0.187%	0.939	0.317	1.307	0.680
		%RSD	1.326	1.108	1.089	0.255	1.726	0.569	2.433	0.743
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	11:53:04	70.945%	2127.000	540.700	533.100	2044.000	2032.000	79.917%	79.201%	
2	11:53:13	70.591%	2185.000	546.300	556.100	2122.000	2116.000	80.070%	80.780%	
3	11:53:23	71.671%	2111.000	528.300	523.600	2065.000	2038.000	81.578%	81.505%	
X		71.069%	2141.000	538.400	537.600	2077.000	2062.000	80.522%	80.495%	
		$\sigma$	0.551%	39.150	9.185	16.710	40.330	47.100	0.918%	1.178%
		%RSD	0.775	1.828	1.706	3.108	1.942	2.284	1.140	1.463
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	11:53:04	56.030	53.460	24.020	23.720	24.070	79.638%			
2	11:53:13	58.950	57.370	24.200	23.390	24.060	76.866%			
3	11:53:23	60.750	59.510	26.200	25.300	25.480	76.424%			
X		58.580	56.780	24.810	24.140	24.540	77.643%			
		$\sigma$	2.382	3.068	1.211	1.019	0.814	1.742%		
		%RSD	4.066	5.403	4.882	4.223	3.319	2.243		

CCV 1671387 8/24/2015 11:59:05 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	87.003%	86.870	95.270	94.700	0.000	48450.000	50790.000	50820.000
2	11:58:19	87.934%	87.950	97.040	94.060	0.000	48360.000	50520.000	50840.000
3	11:58:28	86.424%	88.030	95.290	95.420	0.000	47740.000	50040.000	50690.000
X		87.120%	87.615%	95.869%	94.729%	0.000	96.368%	100.899%	101.568%
σ		0.762%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.874	0.737	1.062	0.721	0.000	0.802	0.752	0.159
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	511.900	5255.000	0.000	51660.000	51740.000	48690.000	83.427%	97.400
2	11:58:19	513.500	5312.000	0.000	51710.000	51780.000	48840.000	83.871%	96.100
3	11:58:28	512.000	5282.000	0.000	51440.000	51170.000	48650.000	83.516%	99.170
X		102.495%	105.657%	0.000	103.204%	103.121%	97.452%	83.605%	97.558%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.235%	n/a
%RSD		0.168	0.545	0.000	0.281	0.663	0.209	0.281	1.583
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	96.530	100.700	483.800	25040.000	24720.000	101.600	98.030	108.400
2	11:58:19	100.700	102.400	482.900	24490.000	24680.000	98.930	95.580	104.200
3	11:58:28	103.000	101.100	480.300	25610.000	25610.000	103.600	97.080	104.100
X		100.080%	101.408%	96.466%	100.195%	100.018%	101.381%	96.898%	105.560%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.270	0.905	0.380	2.237	2.096	2.297	1.275	2.336
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	101.900	102.200	106.400	102.700	99.530	102.100	0.000	100.600
2	11:58:19	103.500	100.700	101.700	97.570	94.170	97.690	0.000	98.500
3	11:58:28	99.650	97.880	108.700	100.400	91.160	113.500	0.000	94.780
X		101.703%	100.261%	105.588%	100.193%	94.950%	104.445%	0.000	97.947%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.913	2.177	3.358	2.541	4.464	7.813	0.000	2.988
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	76.410%	104.100	108.300	79.336%	102.500	103.100	102.900	103.100
2	11:58:19	82.593%	106.300	103.000	80.217%	99.020	103.700	100.600	100.800
3	11:58:28	82.560%	105.700	103.700	80.628%	98.290	104.200	103.100	105.900
X		80.521%	105.389%	104.998%	80.060%	99.934%	103.677%	102.211%	103.281%
σ		3.560%	n/a	n/a	0.660%	n/a	n/a	n/a	n/a
%RSD		4.422	1.084	2.748	0.825	2.244	0.520	1.356	2.442
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:58:09	77.367%	103.300	96.650	99.770	91.530	97.980	86.713%	89.034%
2	11:58:19	81.106%	103.900	100.200	96.540	103.200	93.990	85.486%	89.474%
3	11:58:28	78.655%	102.300	102.300	101.200	95.250	94.200	86.881%	87.508%
X		79.043%	103.166%	99.706%	99.180%	96.650%	95.391%	86.360%	88.672%
σ		1.900%	n/a	n/a	n/a	n/a	n/a	0.761%	1.032%
%RSD		2.403	0.825	2.848	2.416	6.153	2.357	0.882	1.164
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:58:09	109.400	109.000	108.200	106.400	105.800	81.054%		
2	11:58:19	107.000	107.200	107.500	105.300	105.400	85.018%		
3	11:58:28	102.900	99.740	100.800	103.400	101.800	86.180%		
X		106.441%	105.315%	105.507%	105.062%	104.352%	84.084%		
σ		n/a	n/a	n/a	n/a	n/a	2.688%		
%RSD		3.118	4.654	3.876	1.466	2.119	3.196		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	80.719%	0.166	4.804	3.684	0.000	98.200	-34.910	-32.620
2	12:03:27	82.214%	0.213	2.881	3.041	0.000	100.400	-32.320	-36.410
3	12:03:37	82.803%	0.137	2.819	3.585	0.000	92.200	-31.820	-33.320
X		81.912%	0.172	3.501	3.437	0.000	96.940	-33.010	-34.120
		1.074%	0.038	1.129	0.346	0.000	4.244	1.657	2.013
		1.311	22.280	32.230	10.070	0.000	4.378	5.020	5.901
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	0.103	-3.200	0.000	80.160	-23.640	-32.830	82.244%	0.217
2	12:03:27	0.483	-7.186	0.000	85.410	-20.130	-32.400	81.853%	-0.090
3	12:03:37	0.618	-7.244	0.000	71.440	-14.080	-31.720	82.956%	0.090
X		0.402	-5.877	0.000	79.010	-19.280	-32.320	82.351%	0.072
		0.267	2.318	0.000	7.053	4.837	0.558	0.559%	0.154
		66.480	39.450	0.000	8.928	25.090	1.727	0.679	212.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	-1.484	0.357	0.169	12.230	6.844	0.054	-3.417	0.043
2	12:03:27	-2.087	0.640	0.031	11.730	13.750	-0.012	-3.421	0.227
3	12:03:37	1.572	0.515	0.147	9.542	15.190	0.040	-3.531	0.348
X		-0.666	0.504	0.115	11.170	11.930	0.027	-3.456	0.206
		1.962	0.142	0.074	1.428	4.464	0.035	0.065	0.153
		294.500	28.150	64.150	12.790	37.410	127.800	1.868	74.450
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	0.199	-0.194	0.005	-0.003	-0.134	3.819	0.000	0.012
2	12:03:27	-0.009	-0.032	-0.681	0.094	-0.134	3.340	0.000	0.040
3	12:03:37	-0.175	0.286	-0.235	-0.004	-0.134	4.729	0.000	0.010
X		0.005	0.020	-0.304	0.029	-0.134	3.963	0.000	0.020
		0.188	0.244	0.348	0.056	0.000	0.706	0.000	0.017
		3901.000	1224.000	114.600	195.100	0.000	17.810	0.000	81.130
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	80.312%	1.037	1.234	82.961%	-0.080	-0.135	-0.037	0.013
2	12:03:27	82.439%	1.057	1.121	83.633%	-0.038	-0.054	0.030	0.067
3	12:03:37	83.569%	0.891	0.646	84.308%	-0.091	-0.043	-0.037	0.040
X		82.107%	0.995	1.000	83.634%	-0.070	-0.077	-0.015	0.040
		1.653%	0.091	0.312	0.673%	0.028	0.050	0.039	0.027
		2.014	9.124	31.180	0.805	40.200	65.010	261.900	68.280
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:03:18	81.399%	0.490	0.299	0.283	-0.730	-1.041	86.340%	88.811%
2	12:03:27	82.137%	0.179	0.272	0.137	-0.900	-1.041	87.825%	87.863%
3	12:03:37	81.224%	0.183	0.161	0.226	-0.900	-0.948	86.370%	84.009%
X		81.587%	0.284	0.244	0.215	-0.843	-1.010	86.845%	86.894%
		0.484%	0.178	0.073	0.074	0.098	0.054	0.849%	2.543%
		0.594	62.790	29.920	34.280	11.650	5.332	0.978	2.927
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:03:18	0.049	0.082	0.022	0.021	0.013	80.011%		
2	12:03:27	0.073	0.054	0.005	0.003	0.020	82.226%		
3	12:03:37	0.034	0.047	0.019	0.019	0.011	85.551%		
X		0.052	0.061	0.016	0.015	0.014	82.596%		
		0.020	0.019	0.009	0.010	0.005	2.789%		
		38.320	30.790	58.400	68.870	31.740	3.376		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	94.390%	-0.044	19.330	17.370	0.000	48580.000	12970.000	13170.000
2	12:08:34	91.980%	-0.114	16.090	16.350	0.000	47270.000	12840.000	13270.000
3	12:08:44	93.765%	-0.063	16.230	15.920	0.000	48730.000	13200.000	13460.000
X		93.378%	-0.074	17.210	16.550	0.000	48190.000	13000.000	13300.000
σ		1.251%	0.036	1.831	0.745	0.000	805.100	182.800	146.900
%RSD		1.339	49.510	10.640	4.503	0.000	1.671	1.406	1.105
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	32.440	2414.000	0.000	3239.000	59760.000	57290.000	76.302%	2.447
2	12:08:34	34.020	2450.000	0.000	3282.000	61230.000	57600.000	75.927%	1.994
3	12:08:44	32.010	2443.000	0.000	3337.000	61860.000	58570.000	74.962%	2.159
X		32.820	2436.000	0.000	3286.000	60950.000	57820.000	75.730%	2.200
σ		1.056	18.940	0.000	49.350	1078.000	669.200	0.691%	0.229
%RSD		3.217	0.778	0.000	1.502	1.768	1.157	0.913	10.410
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	8.834	8.653	12.000	103.100	403.900	0.103	-2.586	4.992
2	12:08:34	-9.599	9.780	11.810	100.800	354.300	0.117	-2.037	4.418
3	12:08:44	17.270	10.050	12.570	107.000	395.400	0.219	-2.859	5.328
X		5.503	9.494	12.130	103.600	384.500	0.146	-2.494	4.913
σ		13.740	0.740	0.397	3.169	26.530	0.063	0.418	0.460
%RSD		249.700	7.799	3.273	3.058	6.900	43.070	16.770	9.363
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	4.490	4.257	2.850	0.687	-0.134	6.453	0.000	184.900
2	12:08:34	3.802	4.136	4.458	0.827	0.394	1.002	0.000	193.700
3	12:08:44	4.313	4.252	3.374	0.957	0.130	6.004	0.000	185.500
X		4.202	4.215	3.561	0.824	0.130	4.486	0.000	188.000
σ		0.357	0.069	0.820	0.135	0.264	3.026	0.000	4.929
%RSD		8.499	1.626	23.030	16.390	203.500	67.450	0.000	2.621
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	74.195%	1.445	1.055	74.361%	-0.085	-0.082	-0.037	0.196
2	12:08:34	75.609%	1.080	0.962	75.176%	-0.133	-0.134	0.037	0.015
3	12:08:44	75.807%	0.942	1.153	76.590%	-0.063	-0.109	-0.037	0.104
X		75.204%	1.156	1.056	75.376%	-0.094	-0.108	-0.012	0.105
σ		0.879%	0.260	0.095	1.128%	0.036	0.026	0.043	0.091
%RSD		1.169	22.470	9.034	1.496	37.980	23.720	343.800	86.130
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:08:25	74.644%	0.378	0.383	0.220	48.710	45.280	78.843%	78.600%
2	12:08:34	75.021%	0.458	0.379	0.061	41.050	44.680	81.700%	81.867%
3	12:08:44	75.161%	0.499	0.579	0.406	45.230	44.660	79.392%	81.189%
X		74.942%	0.445	0.447	0.229	45.000	44.870	79.978%	80.552%
σ		0.267%	0.062	0.115	0.172	3.832	0.355	1.516%	1.724%
%RSD		0.357	13.880	25.650	75.220	8.516	0.792	1.895	2.140
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:08:25	0.023	0.034	0.494	0.382	0.495	80.078%		
2	12:08:34	0.037	0.001	0.536	0.352	0.433	78.459%		
3	12:08:44	0.022	0.033	0.417	0.388	0.363	82.320%		
X		0.027	0.023	0.482	0.374	0.430	80.286%		
σ		0.008	0.019	0.061	0.019	0.066	1.939%		
%RSD		29.820	81.900	12.550	5.156	15.370	2.415		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	84.645%	0.110	21.140	20.460	0.000	90450.000	20930.000	21820.000
2	12:13:41	87.088%	0.142	18.300	19.920	0.000	91690.000	21170.000	21830.000
3	12:13:50	86.650%	0.107	17.930	19.560	0.000	92090.000	21380.000	21810.000
X		86.127%	0.120	19.120	19.980	0.000	91410.000	21160.000	21820.000
σ		1.303%	0.020	1.756	0.451	0.000	855.000	222.800	10.680
%RSD		1.513	16.370	9.180	2.260	0.000	0.935	1.053	0.049
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	1753.000	5303.000	0.000	3702.000	126300.000	123100.000	74.973%	13.150
2	12:13:41	1757.000	5320.000	0.000	3680.000	125700.000	122900.000	75.572%	12.380
3	12:13:50	1771.000	5381.000	0.000	3674.000	125000.000	123500.000	74.969%	13.090
X		1760.000	5335.000	0.000	3685.000	125700.000	123200.000	75.171%	12.870
σ		9.492	41.050	0.000	14.780	626.300	325.800	0.347%	0.430
%RSD		0.539	0.770	0.000	0.401	0.498	0.265	0.462	3.341
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	22.730	12.810	213.600	4201.000	4722.000	6.636	1.235	19.030
2	12:13:41	-10.800	13.250	214.300	4083.000	4667.000	6.153	2.171	16.760
3	12:13:50	11.310	13.390	214.500	4213.000	4617.000	6.179	0.921	17.250
X		7.744	13.150	214.100	4166.000	4669.000	6.323	1.442	17.680
σ		17.050	0.302	0.464	71.630	52.520	0.272	0.650	1.194
%RSD		220.100	2.301	0.217	1.720	1.125	4.295	45.060	6.753
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	18.940	94.730	92.420	2.288	0.909	3.051	0.000	149.000
2	12:13:41	16.450	82.960	86.510	2.240	2.392	5.768	0.000	146.900
3	12:13:50	16.710	95.510	96.940	2.253	1.148	9.758	0.000	145.900
X		17.370	91.070	91.960	2.261	1.483	6.192	0.000	147.300
σ		1.366	7.033	5.231	0.025	0.796	3.374	0.000	1.620
%RSD		7.868	7.723	5.689	1.099	53.680	54.480	0.000	1.100
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	77.243%	0.490	0.169	70.390%	-0.044	-0.133	0.121	0.433
2	12:13:41	80.433%	0.391	0.243	71.264%	-0.095	-0.093	0.984	0.366
3	12:13:50	78.997%	0.182	0.113	70.921%	-0.095	-0.106	0.505	0.265
X		78.891%	0.354	0.175	70.859%	-0.078	-0.111	0.536	0.354
σ		1.598%	0.157	0.065	0.440%	0.029	0.020	0.432	0.085
%RSD		2.025	44.380	37.080	0.621	37.770	18.450	80.580	23.910
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:13:31	70.294%	0.230	0.063	0.202	88.810	89.360	77.792%	78.939%
2	12:13:41	70.785%	0.491	0.246	0.101	81.730	85.830	79.468%	80.403%
3	12:13:50	72.539%	0.435	0.111	0.034	85.170	81.570	77.328%	79.517%
X		71.206%	0.386	0.140	0.112	85.240	85.590	78.196%	79.620%
σ		1.180%	0.138	0.095	0.085	3.542	3.898	1.126%	0.737%
%RSD		1.657	35.730	67.610	75.400	4.155	4.555	1.440	0.926
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:13:31	0.073	0.128	41.630	39.090	39.050	68.475%		
2	12:13:41	0.086	0.082	42.980	37.310	39.330	70.299%		
3	12:13:50	0.011	0.037	39.320	36.710	37.820	73.195%		
X		0.056	0.083	41.310	37.710	38.730	70.656%		
σ		0.040	0.046	1.850	1.235	0.802	2.380%		
%RSD		70.870	55.210	4.479	3.276	2.070	3.369		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	88.101%	-0.103	29.880	30.780	0.000	62140.000	11590.000	11990.000
2	12:18:45	86.556%	-0.129	31.070	31.050	0.000	63310.000	11890.000	12220.000
3	12:18:55	89.054%	-0.136	32.170	30.460	0.000	64130.000	12070.000	12360.000
X		87.903%	-0.123	31.040	30.760	0.000	63190.000	11850.000	12190.000
σ		1.261%	0.017	1.142	0.296	0.000	999.300	242.900	189.300
%RSD		1.434	13.970	3.681	0.961	0.000	1.581	2.050	1.553
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	125.100	2441.000	0.000	7801.000	45310.000	43430.000	75.023%	3.168
2	12:18:45	129.100	2504.000	0.000	7964.000	45960.000	44500.000	74.331%	4.017
3	12:18:55	132.500	2476.000	0.000	8025.000	47390.000	44990.000	73.383%	3.453
X		128.900	2474.000	0.000	7930.000	46220.000	44310.000	74.245%	3.546
σ		3.682	31.470	0.000	115.900	1062.000	797.700	0.823%	0.432
%RSD		2.857	1.272	0.000	1.461	2.298	1.800	1.109	12.180
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	30.600	12.640	59.550	219.700	457.600	0.498	-2.671	4.306
2	12:18:45	-13.210	14.860	61.000	219.300	408.000	0.386	-1.970	3.936
3	12:18:55	-21.180	14.560	62.730	218.700	371.600	0.477	-2.592	3.888
X		-1.263	14.020	61.090	219.200	412.400	0.454	-2.411	4.043
σ		27.880	1.206	1.590	0.513	43.140	0.060	0.384	0.229
%RSD		2208.000	8.600	2.603	0.234	10.460	13.130	15.910	5.662
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	4.091	10.780	12.070	1.074	0.412	7.162	0.000	121.100
2	12:18:45	3.957	9.514	10.680	1.264	0.142	12.450	0.000	122.900
3	12:18:55	4.059	11.670	10.990	1.261	0.416	7.069	0.000	124.200
X		4.036	10.660	11.250	1.200	0.323	8.895	0.000	122.700
σ		0.070	1.086	0.731	0.109	0.157	3.082	0.000	1.569
%RSD		1.729	10.190	6.499	9.054	48.590	34.650	0.000	1.279
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	72.606%	3.122	3.898	70.291%	-0.094	-0.065	0.122	0.082
2	12:18:45	71.729%	3.400	3.560	71.049%	-0.008	-0.133	0.198	0.111
3	12:18:55	72.431%	3.558	3.054	71.157%	-0.120	-0.093	-0.037	0.111
X		72.255%	3.360	3.504	70.832%	-0.074	-0.097	0.094	0.101
σ		0.464%	0.221	0.425	0.472%	0.059	0.034	0.120	0.017
%RSD		0.642	6.574	12.120	0.666	79.580	35.510	127.500	16.790
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:36	69.681%	0.188	0.091	0.339	38.640	41.470	76.460%	75.488%
2	12:18:45	71.170%	0.664	0.193	0.134	38.320	38.620	78.409%	79.640%
3	12:18:55	71.416%	0.530	0.244	0.198	34.410	41.090	79.475%	81.127%
X		70.756%	0.461	0.176	0.223	37.120	40.390	78.115%	78.752%
σ		0.939%	0.245	0.078	0.105	2.356	1.550	1.529%	2.923%
%RSD		1.327	53.250	44.090	47.040	6.346	3.838	1.958	3.711
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:36	0.025	0.067	0.998	1.179	1.159	73.503%		
2	12:18:45	0.026	0.020	1.583	1.235	1.307	72.292%		
3	12:18:55	0.011	0.044	1.331	1.234	1.189	72.304%		
X		0.021	0.043	1.304	1.216	1.218	72.699%		
σ		0.008	0.024	0.293	0.032	0.078	0.696%		
%RSD		40.470	54.420	22.490	2.633	6.412	0.957		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	82.347%	-0.133	113.700	105.900	0.000	82070.000	14560.000	15000.000
2	12:23:51	82.482%	-0.085	103.200	104.500	0.000	81930.000	14380.000	14860.000
3	12:24:00	80.453%	-0.152	106.700	108.400	0.000	82340.000	14590.000	15190.000
X		81.760%	-0.124	107.900	106.300	0.000	82110.000	14510.000	15020.000
σ		1.134%	0.034	5.321	1.975	0.000	209.400	113.700	166.800
%RSD		1.387	27.820	4.933	1.859	0.000	0.255	0.784	1.110
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	208.900	4092.000	0.000	18110.000	81780.000	78640.000	74.308%	3.202
2	12:23:51	210.200	4082.000	0.000	17980.000	81020.000	78350.000	74.513%	4.006
3	12:24:00	212.900	4204.000	0.000	18240.000	82770.000	79000.000	73.201%	4.153
X		210.700	4126.000	0.000	18110.000	81860.000	78660.000	74.008%	3.787
σ		2.084	67.840	0.000	133.200	878.300	327.200	0.706%	0.512
%RSD		0.989	1.644	0.000	0.735	1.073	0.416	0.954	13.530
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	7.226	11.640	71.490	407.700	823.700	1.177	-1.290	8.259
2	12:23:51	12.710	11.490	71.700	410.100	792.700	1.382	-0.927	8.788
3	12:24:00	-2.467	12.480	72.240	404.800	700.500	0.915	-1.173	9.707
X		5.824	11.870	71.810	407.500	772.300	1.158	-1.130	8.918
σ		7.686	0.532	0.386	2.702	64.110	0.234	0.186	0.733
%RSD		132.000	4.479	0.538	0.663	8.301	20.210	16.420	8.214
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	8.071	46.250	44.590	0.927	0.141	11.870	0.000	191.800
2	12:23:51	7.818	42.830	45.620	1.017	-0.134	9.587	0.000	191.200
3	12:24:00	8.447	47.050	43.920	1.416	0.136	4.085	0.000	192.700
X		8.112	45.370	44.710	1.120	0.047	8.514	0.000	191.900
σ		0.317	2.242	0.860	0.260	0.158	4.002	0.000	0.779
%RSD		3.902	4.940	1.924	23.210	332.200	47.000	0.000	0.406
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	72.212%	24.490	24.060	72.579%	-0.107	-0.133	0.042	0.148
2	12:23:51	74.228%	21.810	24.560	72.988%	-0.120	-0.080	0.041	0.207
3	12:24:00	74.108%	24.230	22.290	72.483%	-0.095	-0.027	-0.037	0.267
X		73.516%	23.510	23.640	72.683%	-0.108	-0.080	0.015	0.207
σ		1.131%	1.475	1.195	0.268%	0.012	0.053	0.046	0.060
%RSD		1.539	6.273	5.055	0.369	11.400	66.030	299.000	28.700
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:23:41	68.574%	0.737	0.255	0.375	30.860	35.400	80.161%	80.172%
2	12:23:51	70.776%	0.405	0.300	0.499	38.070	37.480	76.612%	77.706%
3	12:24:00	71.636%	0.223	0.555	0.458	37.720	35.280	78.744%	79.817%
X		70.329%	0.455	0.370	0.444	35.550	36.050	78.506%	79.232%
σ		1.579%	0.260	0.162	0.063	4.066	1.236	1.787%	1.333%
%RSD		2.245	57.240	43.820	14.240	11.440	3.427	2.276	1.682
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:23:41	0.011	0.025	11.590	10.390	10.490	73.364%		
2	12:23:51	0.023	0.012	11.220	10.410	10.430	79.244%		
3	12:24:00	0.010	0.007	10.810	9.993	10.290	78.661%		
X		0.015	0.015	11.210	10.260	10.400	77.090%		
σ		0.008	0.010	0.390	0.234	0.102	3.240%		
%RSD		51.010	64.190	3.479	2.280	0.976	4.202		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	81.600%	-0.139	38.380	37.200	0.000	64560.000	10780.000	11110.000
2	12:28:57	79.977%	-0.217	38.460	38.610	0.000	65790.000	10910.000	11370.000
3	12:29:07	81.543%	-0.090	37.030	38.370	0.000	66160.000	10860.000	11160.000
X		81.040%	-0.149	37.960	38.060	0.000	65510.000	10850.000	11210.000
σ		0.921%	0.064	0.803	0.755	0.000	836.500	68.540	139.400
%RSD		1.136	42.940	2.114	1.983	0.000	1.277	0.632	1.243
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	240.100	2659.000	0.000	8875.000	46420.000	43270.000	75.218%	5.243
2	12:28:57	247.500	2707.000	0.000	9039.000	45810.000	43380.000	73.973%	5.815
3	12:29:07	246.000	2674.000	0.000	8907.000	46320.000	43770.000	74.713%	5.078
X		244.500	2680.000	0.000	8940.000	46180.000	43480.000	74.634%	5.379
σ		3.933	24.520	0.000	87.200	324.100	264.700	0.626%	0.387
%RSD		1.608	0.915	0.000	0.975	0.702	0.609	0.839	7.198
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	9.677	10.870	89.550	445.900	641.800	0.602	-1.813	4.018
2	12:28:57	38.900	11.870	91.220	459.300	651.100	0.807	-2.440	4.455
3	12:29:07	31.410	12.270	90.960	443.300	666.400	0.537	-2.123	4.703
X		26.660	11.670	90.580	449.500	653.100	0.649	-2.125	4.392
σ		15.180	0.724	0.897	8.618	12.400	0.141	0.313	0.347
%RSD		56.930	6.205	0.991	1.917	1.899	21.680	14.750	7.891
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	3.847	11.230	9.160	1.086	0.418	9.248	0.000	130.300
2	12:28:57	4.852	11.960	12.490	1.000	0.136	6.589	0.000	131.100
3	12:29:07	5.006	11.980	10.870	1.050	1.464	2.529	0.000	130.500
X		4.569	11.720	10.840	1.045	0.673	6.122	0.000	130.600
σ		0.629	0.427	1.666	0.043	0.700	3.384	0.000	0.413
%RSD		13.780	3.645	15.370	4.125	104.000	55.270	0.000	0.316
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	71.423%	5.009	4.945	71.987%	-0.046	-0.026	0.041	0.048
2	12:28:57	73.932%	5.020	4.157	72.783%	-0.083	-0.066	-0.037	0.080
3	12:29:07	75.149%	5.039	4.317	73.488%	-0.096	-0.081	-0.037	0.047
X		73.501%	5.023	4.473	72.753%	-0.075	-0.058	-0.011	0.059
σ		1.900%	0.015	0.417	0.751%	0.026	0.028	0.045	0.019
%RSD		2.585	0.298	9.311	1.032	34.790	48.770	399.600	32.370
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:48	71.163%	0.225	0.140	0.264	44.420	49.750	79.308%	77.984%
2	12:28:57	70.513%	0.273	0.300	0.168	44.610	47.540	79.498%	79.894%
3	12:29:07	72.276%	0.479	0.111	0.227	49.610	48.340	80.252%	78.569%
X		71.317%	0.326	0.184	0.220	46.210	48.540	79.686%	78.816%
σ		0.891%	0.135	0.102	0.049	2.945	1.121	0.499%	0.979%
%RSD		1.250	41.450	55.370	22.180	6.372	2.310	0.627	1.242
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:28:48	-0.004	0.024	2.340	2.512	2.272	78.673%		
2	12:28:57	-0.004	0.024	2.369	1.736	2.129	76.352%		
3	12:29:07	0.038	0.013	2.332	1.620	2.141	76.539%		
X		0.010	0.020	2.347	1.956	2.181	77.188%		
σ		0.024	0.006	0.019	0.485	0.079	1.290%		
%RSD		231.900	31.730	0.826	24.800	3.631	1.671		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	83.052%	-0.159	40.260	43.010	0.000	65070.000	21540.000	22050.000
2	12:34:00	82.865%	-0.127	45.150	43.180	0.000	64030.000	21190.000	21930.000
3	12:34:10	80.501%	-0.202	43.480	44.350	0.000	65230.000	21630.000	22280.000
X		82.139%	-0.162	42.960	43.510	0.000	64780.000	21450.000	22090.000
		1.422%	0.038	2.488	0.731	0.000	647.500	230.100	177.700
		1.731	23.160	5.792	1.680	0.000	1.000	1.073	0.805
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	111.500	4444.000	0.000	6273.000	96300.000	92200.000	72.951%	2.159
2	12:34:00	111.900	4446.000	0.000	6183.000	94930.000	92250.000	74.203%	2.594
3	12:34:10	112.000	4526.000	0.000	6230.000	96560.000	91900.000	73.048%	2.848
X		111.800	4472.000	0.000	6229.000	95930.000	92120.000	73.401%	2.533
		0.228	46.600	0.000	45.210	873.100	186.000	0.697%	0.348
		0.204	1.042	0.000	0.726	0.910	0.202	0.949	13.750
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	2.129	16.210	63.220	224.500	757.300	0.648	-2.049	5.531
2	12:34:00	33.220	16.900	62.700	224.400	631.700	0.535	-2.478	5.520
3	12:34:10	14.720	17.370	62.760	220.500	586.200	0.548	-2.658	5.296
X		16.690	16.830	62.890	223.200	658.400	0.577	-2.395	5.449
		15.640	0.584	0.283	2.285	88.610	0.062	0.313	0.133
		93.710	3.472	0.450	1.024	13.460	10.670	13.060	2.434
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	4.869	10.170	13.260	0.813	1.271	5.091	0.000	199.300
2	12:34:00	4.805	11.250	12.460	0.872	1.258	3.996	0.000	200.800
3	12:34:10	5.102	9.617	12.870	0.783	0.406	2.518	0.000	195.500
X		4.925	10.350	12.860	0.823	0.978	3.868	0.000	198.500
		0.156	0.834	0.398	0.045	0.496	1.291	0.000	2.701
		3.166	8.057	3.096	5.505	50.680	33.370	0.000	1.360
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	70.568%	10.840	10.560	71.344%	-0.095	-0.092	0.120	0.113
2	12:34:00	71.006%	10.750	10.180	72.256%	-0.071	-0.080	0.274	0.237
3	12:34:10	74.338%	10.630	10.180	72.485%	-0.108	-0.107	0.271	0.172
X		71.971%	10.740	10.300	72.029%	-0.091	-0.093	0.222	0.174
		2.062%	0.107	0.220	0.604%	0.019	0.013	0.088	0.062
		2.865	0.998	2.134	0.838	20.690	14.490	39.650	35.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:33:51	70.399%	0.361	-0.017	0.135	49.270	40.220	80.100%	78.430%
2	12:34:00	71.189%	0.182	-0.017	0.134	43.850	44.880	78.455%	76.489%
3	12:34:10	72.207%	0.048	0.008	0.067	40.550	46.800	76.421%	77.460%
X		71.265%	0.197	-0.008	0.112	44.560	43.970	78.325%	77.460%
		0.906%	0.157	0.015	0.039	4.405	3.385	1.843%	0.971%
		1.271	79.870	174.400	34.690	9.886	7.699	2.353	1.253
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:33:51	0.040	0.031	4.818	4.611	4.876	73.246%		
2	12:34:00	0.011	0.013	4.779	4.582	4.780	75.453%		
3	12:34:10	0.051	0.018	4.997	4.691	4.753	77.431%		
X		0.034	0.021	4.865	4.628	4.803	75.377%		
		0.021	0.009	0.116	0.056	0.065	2.093%		
		62.090	44.990	2.385	1.213	1.350	2.777		

CRI 1645747 8/24/2015 12:43:34 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	12:42:39	82.952%	0.701	16.490	18.750	0.000	598.300	515.700	518.300
2	12:42:49	81.737%	0.620	17.980	19.080	0.000	592.900	503.500	508.300
3	12:42:58	81.482%	0.550	20.700	17.750	0.000	599.200	503.700	517.900
X		82.057%	62.338%	367.747%	370.572%	0.000	745.987%	507.654%	514.843%
σ		0.785%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.957	12.110	11.620	3.733	0.000	0.568	1.371	1.105
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:39	31.040	500.100	0.000	570.300	506.500	421.900	81.434%	5.190
2	12:42:49	30.610	491.600	0.000	586.500	482.400	415.500	80.532%	4.435
3	12:42:58	31.000	503.200	0.000	584.000	564.500	433.500	80.441%	4.566
X		102.947%	99.662%	0.000	580.276%	517.783%	423.656%	80.802%	94.608%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.549%	n/a
%RSD		0.772	1.205	0.000	1.512	8.147	2.151	0.679	8.521
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:39	-3.808	2.838	5.002	52.910	55.300	0.624	-2.716	2.613
2	12:42:49	4.268	2.647	4.900	54.040	35.760	0.665	-2.717	2.644
3	12:42:58	-0.062	2.652	4.859	49.490	44.240	0.417	-2.159	2.469
X		13.271%	135.625%	98.405%	104.297%	90.201%	113.703%	-253.063%	128.772%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3045.000	4.002	1.495	4.544	21.720	23.410	12.710	3.628
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:39	1.941	6.175	6.739	0.740	3.469	9.346	0.000	5.167
2	12:42:49	2.099	3.407	4.040	0.874	5.198	9.741	0.000	4.357
3	12:42:58	2.266	5.530	5.491	1.230	3.577	4.500	0.000	5.657
X		105.107%	100.745%	108.462%	94.779%	81.626%	157.245%	0.000	101.205%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		7.735	28.750	24.910	26.740	23.740	37.120	0.000	12.980
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:39	76.519%	5.049	4.900	78.724%	1.094	1.223	0.905	0.782
2	12:42:49	78.163%	5.095	5.134	79.315%	1.044	1.035	1.122	1.050
3	12:42:58	80.948%	4.706	4.306	79.551%	0.978	1.064	0.873	1.257
X		78.544%	98.998%	95.595%	79.197%	103.879%	110.731%	96.708%	102.992%
σ		2.239%	n/a	n/a	0.426%	n/a	n/a	n/a	n/a
%RSD		2.850	4.297	8.933	0.538	5.629	9.121	14.010	23.120
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:42:39	75.926%	5.860	1.787	1.645	7.938	7.743	78.767%	83.770%
2	12:42:49	75.724%	6.021	1.804	2.128	7.399	7.842	82.789%	83.385%
3	12:42:58	79.538%	6.301	1.444	1.836	8.264	9.302	82.027%	82.953%
X		77.063%	121.215%	83.911%	93.469%	78.668%	82.960%	81.194%	83.369%
σ		2.146%	n/a	n/a	n/a	n/a	n/a	2.136%	0.409%
%RSD		2.785	3.674	12.100	13.010	5.551	10.520	2.631	0.490
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:42:39	1.148	1.265	1.163	1.090	0.981	72.587%		
2	12:42:49	1.253	1.135	1.052	1.143	1.040	74.244%		
3	12:42:58	1.098	1.231	0.956	1.075	0.982	76.405%		
X		116.614%	121.030%	105.701%	110.265%	100.075%	74.412%		
σ		n/a	n/a	n/a	n/a	n/a	1.914%		
%RSD		6.759	5.597	9.829	3.278	3.354	2.573		

MB 180-151030/1-A 8/24/2015 12:48:40 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	80.903%	-0.227	0.086	1.179	0.000	72.010	-29.220	-28.810	
2	12:47:55	80.639%	-0.243	0.855	0.481	0.000	83.340	-25.880	-28.050	
3	12:48:04	81.314%	-0.244	0.163	0.838	0.000	71.880	-27.960	-30.190	
X		80.952%	-0.238	0.368	0.833	0.000	75.740	-27.690	-29.020	
		σ	0.341%	0.009	0.423	0.349	0.000	6.580	1.688	1.086
		%RSD	0.421	3.994	114.900	41.950	0.000	8.688	6.096	3.742
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	2.472	2.526	0.000	42.280	-13.060	-46.750	81.162%	0.099	
2	12:47:55	2.510	3.399	0.000	47.390	-22.490	-37.810	79.746%	0.044	
3	12:48:04	2.278	0.770	0.000	52.150	-9.218	-46.050	80.405%	-0.274	
X		2.420	2.232	0.000	47.270	-14.920	-43.540	80.437%	-0.044	
		σ	0.125	1.339	0.000	4.936	6.831	4.975	0.709%	0.201
		%RSD	5.152	59.990	0.000	10.440	45.780	11.430	0.881	462.900
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	2.670	0.464	0.095	0.675	-0.021	-0.012	-3.719	0.187	
2	12:47:55	2.489	0.463	0.039	0.092	-1.765	-0.012	-3.454	0.457	
3	12:48:04	-0.159	0.260	0.070	0.509	-5.355	0.029	-3.877	0.434	
X		1.667	0.396	0.068	0.425	-2.380	0.002	-3.683	0.359	
		σ	1.584	0.118	0.028	0.300	2.720	0.023	0.213	0.150
		%RSD	95.040	29.780	41.800	70.550	114.300	1377.000	5.791	41.650
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	0.254	-0.185	0.720	-0.022	0.119	3.340	0.000	0.044	
2	12:47:55	-0.038	-0.186	-0.216	0.018	-0.134	4.308	0.000	0.072	
3	12:48:04	0.209	-0.103	0.593	-0.003	0.115	4.306	0.000	-0.018	
X		0.142	-0.158	0.366	-0.002	0.033	3.985	0.000	0.033	
		σ	0.157	0.047	0.508	0.020	0.145	0.559	0.000	0.046
		%RSD	111.100	30.080	138.700	803.600	434.900	14.020	0.000	139.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	78.021%	0.049	0.025	81.467%	-0.002	-0.016	-0.037	-0.015	
2	12:47:55	79.852%	0.088	0.000	81.848%	-0.101	-0.087	-0.037	-0.015	
3	12:48:04	79.918%	0.088	0.000	81.581%	-0.112	-0.075	-0.037	-0.015	
X		79.263%	0.075	0.008	81.632%	-0.071	-0.059	-0.037	-0.015	
		σ	1.077%	0.022	0.014	0.196%	0.060	0.038	0.000	0.000
		%RSD	1.358	29.920	170.400	0.240	84.460	64.430	0.152	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	12:47:45	79.295%	-0.046	-0.069	-0.004	-0.900	-1.041	82.964%	82.190%	
2	12:47:55	79.654%	0.111	-0.022	-0.004	-0.724	-1.041	82.408%	82.406%	
3	12:48:04	79.672%	0.032	-0.022	-0.004	-0.900	-1.041	83.475%	85.288%	
X		79.540%	0.032	-0.038	-0.004	-0.841	-1.041	82.949%	83.295%	
		σ	0.213%	0.079	0.027	0.000	0.101	0.000	0.533%	1.730%
		%RSD	0.267	245.500	71.750	3.714	12.060	0.000	0.643	2.077
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	12:47:45	-0.004	0.006	0.004	0.052	0.021	87.507%			
2	12:47:55	-0.004	0.001	-0.026	0.002	0.007	88.151%			
3	12:48:04	-0.004	0.001	0.020	-0.014	0.011	84.528%			
X		-0.004	0.002	-0.001	0.013	0.013	86.729%			
		σ	0.000	0.003	0.023	0.034	0.007	1.933%		
		%RSD	0.000	118.300	2395.000	263.200	57.080	2.229		

LCS 180-151030/2-A 8/24/2015 12:53:43 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	12:52:47	91.547%	40.400	831.800	819.300	0.000	48670.000	55830.000	51900.000
2	12:52:57	91.890%	40.470	835.000	831.000	0.000	50890.000	57850.000	53400.000
3	12:53:06	90.274%	41.830	845.400	835.700	0.000	50740.000	53630.000	54130.000
X		91.237%	40.900	837.400	828.700	0.000	50100.000	55770.000	53140.000
σ		0.851%	0.807	7.123	8.427	0.000	1241.000	2112.000	1138.000
%RSD		0.933	1.972	0.851	1.017	0.000	2.477	3.787	2.141
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:52:47	2080.000	10300.000	0.000	50580.000	50870.000	47810.000	75.555%	945.600
2	12:52:57	2111.000	10460.000	0.000	51730.000	52190.000	49190.000	74.179%	982.200
3	12:53:06	2177.000	10610.000	0.000	52780.000	53110.000	49870.000	73.106%	982.200
X		2123.000	10450.000	0.000	51690.000	52050.000	48960.000	74.280%	970.000
σ		49.300	157.200	0.000	1103.000	1128.000	1049.000	1.228%	21.150
%RSD		2.323	1.504	0.000	2.134	2.167	2.143	1.653	2.180
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:52:47	496.400	210.600	473.600	964.100	1273.000	507.800	522.200	274.500
2	12:52:57	552.500	217.500	488.700	1042.000	1350.000	534.800	543.000	277.600
3	12:53:06	519.300	224.700	496.700	1027.000	1308.000	518.000	536.500	278.200
X		522.700	217.600	486.300	1011.000	1310.000	520.200	533.900	276.800
σ		28.210	7.048	11.700	41.410	38.450	13.650	10.610	1.960
%RSD		5.397	3.238	2.405	4.095	2.935	2.623	1.986	0.708
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:52:47	273.100	513.300	508.800	40.760	7.251	20.860	0.000	936.300
2	12:52:57	276.600	515.600	534.600	40.690	9.943	19.650	0.000	986.000
3	12:53:06	274.900	535.600	543.900	42.220	8.959	11.740	0.000	1015.000
X		274.900	521.500	529.100	41.220	8.718	17.420	0.000	979.100
σ		1.775	12.290	18.200	0.862	1.362	4.957	0.000	39.800
%RSD		0.646	2.357	3.440	2.090	15.630	28.460	0.000	4.064
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:52:47	72.321%	1063.000	1084.000	69.567%	53.740	52.540	54.540	85.490
2	12:52:57	70.557%	1084.000	1109.000	70.695%	50.990	52.100	53.710	86.380
3	12:53:06	69.494%	1097.000	1117.000	69.572%	51.930	54.380	46.200	83.260
X		70.791%	1082.000	1104.000	69.945%	52.220	53.000	51.490	85.040
σ		1.428%	17.080	17.190	0.650%	1.401	1.209	4.595	1.608
%RSD		2.017	1.579	1.558	0.929	2.684	2.282	8.926	1.891
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:52:47	67.558%	2002.000	495.900	510.300	1873.000	1902.000	78.638%	79.401%
2	12:52:57	67.663%	2072.000	532.000	524.800	1930.000	1951.000	76.201%	77.375%
3	12:53:06	68.999%	1991.000	496.300	488.200	1883.000	1895.000	76.421%	79.355%
X		68.074%	2021.000	508.100	507.800	1895.000	1916.000	77.087%	78.710%
σ		0.803%	44.030	20.740	18.430	30.680	30.320	1.348%	1.157%
%RSD		1.180	2.178	4.083	3.629	1.619	1.582	1.748	1.470
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:52:47	59.210	59.530	24.080	21.390	22.350	68.830%		
2	12:52:57	53.390	53.110	21.480	21.240	21.500	73.415%		
3	12:53:06	56.720	57.930	22.260	22.490	21.870	73.296%		
X		56.440	56.860	22.610	21.700	21.910	71.847%		
σ		2.919	3.345	1.333	0.680	0.428	2.613%		
%RSD		5.172	5.884	5.897	3.134	1.952	3.637		

CCV 1671387 8/24/2015 12:58:45 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	12:57:50	76.337%	96.530	106.400	102.000	0.000	49030.000	55320.000	51360.000
2	12:58:00	74.054%	98.970	107.300	106.200	0.000	49360.000	55180.000	51140.000
3	12:58:09	74.398%	99.380	107.400	104.300	0.000	49330.000	55790.000	51550.000
X		74.929%	98.293%	107.053%	104.184%	0.000	98.477%	110.860%	102.702%
σ		1.231%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.643	1.567	0.498	2.010	0.000	0.368	0.573	0.402
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:50	508.900	5414.000	0.000	50510.000	50020.000	48070.000	78.106%	90.200
2	12:58:00	503.500	5482.000	0.000	50580.000	50210.000	47780.000	78.229%	95.230
3	12:58:09	506.900	5449.000	0.000	51030.000	50630.000	47940.000	78.155%	93.890
X		101.282%	108.971%	0.000	101.409%	100.573%	95.862%	78.163%	93.105%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.062%	n/a
%RSD		0.534	0.627	0.000	0.560	0.616	0.308	0.079	2.800
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:50	97.620	101.400	472.500	25830.000	25360.000	103.300	102.400	106.300
2	12:58:00	104.700	103.900	476.900	25310.000	24720.000	99.870	99.210	101.400
3	12:58:09	99.790	101.400	480.800	24450.000	23920.000	96.770	92.170	100.700
X		100.711%	102.251%	95.349%	100.778%	98.655%	99.991%	97.920%	102.800%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.620	1.385	0.867	2.777	2.922	3.282	5.340	2.949
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:50	103.900	102.200	98.510	100.400	105.000	97.880	0.000	97.150
2	12:58:00	103.500	94.960	105.000	99.730	86.370	104.600	0.000	98.530
3	12:58:09	99.670	100.100	94.520	93.840	92.840	85.490	0.000	91.590
X		102.372%	99.094%	99.357%	98.003%	94.748%	96.000%	0.000	95.757%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.299	3.766	5.349	3.700	9.999	10.110	0.000	3.833
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:50	73.417%	102.300	106.500	75.522%	97.990	99.310	101.000	100.100
2	12:58:00	76.563%	104.900	100.400	75.843%	98.410	100.300	101.000	101.900
3	12:58:09	80.060%	99.190	103.600	75.994%	96.980	100.200	98.060	102.800
X		76.680%	102.118%	103.540%	75.786%	97.794%	99.939%	100.024%	101.594%
σ		3.323%	n/a	n/a	0.241%	n/a	n/a	n/a	n/a
%RSD		4.334	2.799	2.939	0.318	0.750	0.550	1.700	1.324
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:57:50	73.389%	98.410	98.790	98.950	90.710	92.800	79.818%	81.520%
2	12:58:00	75.873%	97.500	95.720	98.640	89.770	94.910	80.869%	79.833%
3	12:58:09	76.564%	97.740	95.250	95.800	98.270	93.820	79.734%	81.821%
X		75.275%	97.884%	96.586%	97.797%	92.917%	93.843%	80.141%	81.058%
σ		1.670%	n/a	n/a	n/a	n/a	n/a	0.632%	1.072%
%RSD		2.218	0.484	1.990	1.773	5.011	1.121	0.789	1.322
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:57:50	108.700	106.200	108.100	105.700	106.700	74.608%		
2	12:58:00	108.800	107.900	109.600	107.800	109.100	76.969%		
3	12:58:09	113.400	112.000	112.500	112.500	110.200	75.542%		
X		110.301%	108.707%	110.053%	108.669%	108.675%	75.707%		
σ		n/a	n/a	n/a	n/a	n/a	1.189%		
%RSD		2.409	2.753	2.023	3.193	1.634	1.571		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	79.133%	0.027	2.561	1.190	0.000	68.480	-29.760	-32.970
2	13:03:03	78.631%	0.096	-0.130	1.073	0.000	70.320	-27.690	-31.820
3	13:03:13	78.972%	0.027	0.174	0.446	0.000	59.000	-27.460	-31.040
X		78.912%	0.050	0.869	0.903	0.000	65.930	-28.300	-31.940
σ		0.256%	0.040	1.474	0.400	0.000	6.075	1.263	0.970
%RSD		0.325	80.000	169.700	44.340	0.000	9.215	4.461	3.037
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	0.624	-4.300	0.000	85.870	-11.410	-56.760	78.411%	-0.143
2	13:03:03	0.347	-1.671	0.000	81.850	-0.903	-50.610	78.338%	-0.078
3	13:03:13	0.333	-4.039	0.000	63.870	-8.789	-54.670	79.733%	0.297
X		0.435	-3.337	0.000	77.200	-7.032	-54.020	78.827%	0.025
σ		0.164	1.448	0.000	11.710	5.467	3.126	0.785%	0.238
%RSD		37.670	43.400	0.000	15.180	77.740	5.788	0.996	940.800
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	-1.454	0.605	0.041	13.720	9.287	0.113	-3.656	0.357
2	13:03:03	2.014	0.451	0.082	10.580	18.000	0.056	-3.139	0.224
3	13:03:13	0.755	0.707	0.087	10.170	5.368	0.042	-3.456	0.051
X		0.439	0.587	0.070	11.490	10.890	0.070	-3.417	0.211
σ		1.756	0.129	0.025	1.942	6.468	0.037	0.261	0.154
%RSD		400.400	21.970	36.330	16.900	59.410	53.140	7.635	72.840
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	0.141	0.519	-0.087	0.081	-0.134	-1.414	0.000	0.014
2	13:03:03	0.166	-0.273	0.701	0.056	-0.134	4.282	0.000	-0.019
3	13:03:13	-0.040	-0.187	-0.217	0.037	0.364	4.302	0.000	-0.018
X		0.089	0.019	0.132	0.058	0.032	2.390	0.000	-0.007
σ		0.112	0.434	0.497	0.022	0.288	3.294	0.000	0.019
%RSD		125.800	2242.000	375.400	37.600	910.100	137.800	0.000	249.100
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	77.791%	0.838	0.952	77.981%	-0.087	-0.072	0.035	-0.015
2	13:03:03	82.790%	0.683	0.702	79.254%	-0.100	-0.122	-0.037	0.014
3	13:03:13	80.466%	0.650	0.849	80.313%	-0.122	-0.098	-0.037	0.013
X		80.349%	0.723	0.834	79.183%	-0.103	-0.097	-0.013	0.004
σ		2.502%	0.100	0.126	1.167%	0.018	0.025	0.042	0.016
%RSD		3.114	13.870	15.080	1.474	17.210	25.680	319.200	415.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:54	76.171%	0.121	0.102	0.336	-0.900	-0.844	82.698%	82.761%
2	13:03:03	78.452%	0.115	0.172	0.240	-0.537	-1.041	78.158%	79.648%
3	13:03:13	78.837%	0.311	0.097	0.026	-0.724	-0.944	83.079%	81.936%
X		77.820%	0.182	0.124	0.201	-0.720	-0.943	81.311%	81.448%
σ		1.441%	0.112	0.042	0.159	0.182	0.098	2.738%	1.613%
%RSD		1.852	61.320	33.570	79.010	25.210	10.440	3.367	1.980
Run	Time	203TI	205TI	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:02:54	0.037	0.069	0.007	0.004	0.022	77.317%		
2	13:03:03	0.036	0.040	-0.010	0.040	0.017	79.902%		
3	13:03:13	0.010	0.064	0.024	-0.014	0.018	77.081%		
X		0.028	0.057	0.007	0.010	0.019	78.100%		
σ		0.015	0.016	0.017	0.027	0.003	1.565%		
%RSD		55.150	27.250	240.700	280.200	14.190	2.004		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	93.887%	0.014	5.809	6.791	0.000	3956.000	13050.000	13240.000
2	13:08:09	94.105%	0.133	5.232	6.905	0.000	3837.000	12790.000	13100.000
3	13:08:19	94.142%	0.083	6.190	6.084	0.000	3794.000	13050.000	13340.000
X		94.045%	0.077	5.744	6.593	0.000	3862.000	12960.000	13230.000
σ		0.138%	0.059	0.483	0.445	0.000	83.740	149.800	121.200
%RSD		0.146	77.630	8.400	6.744	0.000	2.168	1.156	0.916
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	435.100	5349.000	0.000	4812.000	73380.000	70580.000	72.124%	3.589
2	13:08:09	434.900	5252.000	0.000	4743.000	72630.000	69950.000	73.054%	3.747
3	13:08:19	437.600	5259.000	0.000	4778.000	74090.000	70410.000	71.930%	3.811
X		435.900	5287.000	0.000	4778.000	73370.000	70310.000	72.369%	3.716
σ		1.510	53.930	0.000	34.380	730.900	325.800	0.601%	0.114
%RSD		0.346	1.020	0.000	0.720	0.996	0.463	0.830	3.068
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	-23.890	10.040	1800.000	77.360	331.200	21.850	1.153	34.310
2	13:08:09	29.080	10.810	1786.000	82.090	357.000	23.450	1.369	33.890
3	13:08:19	24.330	10.740	1793.000	79.450	426.000	23.700	1.197	33.500
X		9.839	10.530	1793.000	79.630	371.400	23.000	1.240	33.900
σ		29.310	0.424	7.275	2.371	49.000	0.999	0.115	0.403
%RSD		297.900	4.028	0.406	2.977	13.190	4.345	9.232	1.188
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	32.040	170.000	174.900	0.794	1.363	1.943	0.000	82.090
2	13:08:09	29.090	175.000	161.200	0.713	1.673	9.661	0.000	82.690
3	13:08:19	31.830	165.900	174.000	0.760	1.186	11.010	0.000	85.200
X		30.990	170.300	170.100	0.756	1.407	7.539	0.000	83.330
σ		1.651	4.526	7.673	0.040	0.247	4.893	0.000	1.650
%RSD		5.327	2.658	4.512	5.335	17.520	64.900	0.000	1.980
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	154.565%	0.383	0.448	69.055%	-0.119	-0.132	0.205	0.344
2	13:08:09	156.401%	0.410	0.443	69.803%	-0.094	-0.119	0.203	0.568
3	13:08:19	156.907%	0.285	0.288	69.346%	-0.093	-0.119	0.205	0.245
X		155.958%	0.359	0.393	69.401%	-0.102	-0.123	0.204	0.386
σ		1.233%	0.066	0.091	0.377%	0.015	0.008	0.001	0.165
%RSD		0.790	18.380	23.200	0.543	14.320	6.388	0.475	42.870
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:08:00	68.953%	0.281	0.065	0.071	25.760	27.940	80.024%	82.468%
2	13:08:09	69.452%	0.548	0.145	0.339	23.330	28.980	77.130%	79.979%
3	13:08:19	69.127%	0.505	0.118	0.071	22.420	27.980	80.207%	79.948%
X		69.177%	0.445	0.110	0.160	23.830	28.300	79.120%	80.798%
σ		0.253%	0.144	0.041	0.155	1.727	0.586	1.726%	1.446%
%RSD		0.366	32.300	37.290	96.700	7.245	2.071	2.182	1.789
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:08:00	0.102	0.158	0.104	0.151	0.139	69.245%		
2	13:08:09	0.168	0.149	0.149	0.219	0.147	73.826%		
3	13:08:19	0.181	0.183	0.183	0.140	0.120	74.256%		
X		0.150	0.163	0.145	0.170	0.135	72.442%		
σ		0.042	0.018	0.040	0.043	0.013	2.777%		
%RSD		28.270	10.920	27.340	25.110	9.972	3.833		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	83.287%	-0.072	5.619	6.783	0.000	3608.000	9530.000	9667.000
2	13:13:12	86.352%	-0.044	4.817	5.266	0.000	3679.000	9691.000	9897.000
3	13:13:21	84.355%	-0.123	4.606	6.047	0.000	3625.000	9758.000	10020.000
X		84.664%	-0.080	5.014	6.032	0.000	3638.000	9660.000	9861.000
σ		1.556%	0.040	0.535	0.759	0.000	37.270	116.900	179.400
%RSD		1.838	49.780	10.660	12.580	0.000	1.025	1.210	1.819
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	13.120	6289.000	0.000	6358.000	69460.000	66330.000	72.392%	3.994
2	13:13:12	13.270	6265.000	0.000	6470.000	70920.000	67530.000	70.300%	3.332
3	13:13:21	13.320	6272.000	0.000	6465.000	70710.000	67590.000	70.273%	3.333
X		13.230	6275.000	0.000	6431.000	70360.000	67150.000	70.988%	3.553
σ		0.105	12.310	0.000	63.180	789.800	713.500	1.216%	0.382
%RSD		0.793	0.196	0.000	0.982	1.122	1.063	1.712	10.750
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	17.070	10.670	44.220	12.820	363.300	0.506	-2.372	4.263
2	13:13:12	32.920	12.710	43.480	11.450	358.400	0.454	-1.561	4.552
3	13:13:21	25.100	12.560	43.590	12.400	395.200	0.405	-2.712	5.039
X		25.030	11.980	43.760	12.220	372.300	0.455	-2.215	4.618
σ		7.923	1.136	0.397	0.699	19.960	0.051	0.591	0.393
%RSD		31.650	9.485	0.907	5.716	5.361	11.120	26.700	8.499
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	4.965	8.825	7.543	0.695	-0.134	4.018	0.000	207.000
2	13:13:12	4.749	7.479	11.860	0.560	-0.134	6.137	0.000	206.300
3	13:13:21	4.374	9.435	9.400	0.552	0.150	1.805	0.000	203.800
X		4.696	8.580	9.600	0.602	-0.040	3.987	0.000	205.700
σ		0.299	1.001	2.165	0.080	0.164	2.166	0.000	1.665
%RSD		6.374	11.670	22.550	13.360	415.200	54.320	0.000	0.809
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	68.508%	0.485	0.636	68.831%	-0.106	-0.118	0.045	-0.015
2	13:13:12	68.913%	0.478	0.346	70.293%	-0.094	-0.064	0.043	-0.015
3	13:13:21	70.250%	0.426	0.509	70.518%	-0.119	-0.078	-0.037	-0.015
X		69.223%	0.463	0.497	69.880%	-0.106	-0.087	0.017	-0.015
σ		0.912%	0.032	0.145	0.916%	0.013	0.028	0.047	0.000
%RSD		1.317	6.928	29.220	1.311	11.980	32.450	280.100	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:13:02	67.724%	0.799	0.152	0.249	29.930	30.170	71.998%	72.631%
2	13:13:12	68.890%	0.600	0.147	0.106	29.280	31.550	75.119%	73.585%
3	13:13:21	69.337%	0.686	0.120	0.072	28.690	29.730	74.434%	73.886%
X		68.650%	0.695	0.140	0.142	29.300	30.480	73.850%	73.367%
σ		0.833%	0.100	0.018	0.094	0.622	0.948	1.641%	0.655%
%RSD		1.214	14.320	12.580	65.810	2.122	3.109	2.222	0.893
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:13:02	0.011	0.031	0.095	0.158	0.182	75.231%		
2	13:13:12	0.053	0.054	0.111	0.157	0.118	75.800%		
3	13:13:21	0.067	0.048	0.320	0.235	0.215	75.176%		
X		0.044	0.044	0.176	0.183	0.171	75.402%		
σ		0.029	0.012	0.126	0.045	0.049	0.345%		
%RSD		67.470	27.080	71.550	24.370	28.780	0.458		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	83.626%	-0.129	4.541	4.117	0.000	3675.000	9439.000	9696.000	
2	13:18:14	83.446%	-0.105	3.064	3.452	0.000	3572.000	9419.000	9686.000	
3	13:18:24	83.192%	-0.175	4.128	3.544	0.000	3640.000	9538.000	9794.000	
X		83.421%	-0.136	3.911	3.704	0.000	3629.000	9466.000	9725.000	
		$\sigma$	0.218%	0.036	0.762	0.360	0.000	52.540	63.760	60.070
		%RSD	0.262	26.360	19.490	9.725	0.000	1.448	0.673	0.618
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	5.774	6291.000	0.000	6088.000	63280.000	60820.000	70.210%	2.544	
2	13:18:14	5.881	6252.000	0.000	6080.000	64040.000	60840.000	69.474%	2.065	
3	13:18:24	5.756	6244.000	0.000	6156.000	64760.000	61570.000	69.651%	3.003	
X		5.804	6262.000	0.000	6108.000	64030.000	61080.000	69.778%	2.537	
		$\sigma$	0.068	24.980	0.000	41.740	743.900	427.800	0.384%	0.469
		%RSD	1.164	0.399	0.000	0.683	1.162	0.701	0.550	18.480
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	8.760	12.430	4845.000	88.570	369.900	1.185	-2.180	2.663	
2	13:18:14	-2.851	12.400	4863.000	86.770	335.500	1.392	-2.051	2.347	
3	13:18:24	11.740	12.590	4889.000	88.050	395.000	1.224	-1.927	2.662	
X		5.883	12.470	4866.000	87.800	366.800	1.267	-2.053	2.557	
		$\sigma$	7.709	0.102	22.300	0.926	29.900	0.110	0.127	0.182
		%RSD	131.000	0.819	0.458	1.055	8.151	8.667	6.170	7.123
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	2.278	5.829	4.747	0.638	0.430	2.365	0.000	149.800	
2	13:18:14	2.145	4.305	6.380	0.593	-0.134	-3.924	0.000	151.100	
3	13:18:24	2.059	5.388	5.792	0.597	-0.134	-0.265	0.000	152.400	
X		2.161	5.174	5.640	0.609	0.054	-0.608	0.000	151.100	
		$\sigma$	0.110	0.784	0.828	0.025	3.159	0.000	1.287	
		%RSD	5.103	15.150	14.670	4.149	606.500	519.400	0.000	0.852
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	71.050%	0.107	0.097	68.107%	-0.092	-0.132	0.212	-0.015	
2	13:18:14	71.455%	0.107	0.098	67.521%	-0.105	-0.090	-0.037	0.018	
3	13:18:24	70.688%	0.153	0.097	68.090%	-0.132	-0.105	-0.037	0.017	
X		71.065%	0.122	0.097	67.906%	-0.110	-0.109	0.046	0.007	
		$\sigma$	0.384%	0.027	0.000	0.334%	0.020	0.021	0.144	0.019
		%RSD	0.540	22.100	0.320	0.491	18.310	19.610	313.700	279.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:18:05	66.488%	0.392	-0.041	0.078	29.460	30.500	71.845%	71.683%	
2	13:18:14	68.172%	0.242	-0.042	0.006	31.530	30.050	72.599%	71.768%	
3	13:18:24	69.207%	0.327	0.093	0.141	30.560	28.810	72.081%	73.755%	
X		67.956%	0.320	0.003	0.075	30.520	29.790	72.175%	72.402%	
		$\sigma$	1.372%	0.075	0.078	0.068	1.038	0.874	0.386%	1.172%
		%RSD	2.019	23.500	2278.000	90.600	3.401	2.935	0.534	1.619
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	13:18:05	-0.004	0.002	0.154	0.225	0.185	72.261%			
2	13:18:14	0.026	0.020	0.241	0.163	0.192	73.089%			
3	13:18:24	-0.004	0.020	0.116	0.202	0.200	73.052%			
X		0.006	0.014	0.170	0.197	0.192	72.801%			
		$\sigma$	0.017	0.010	0.064	0.031	0.007	0.468%		
		%RSD	270.900	75.540	37.630	15.890	3.901	0.642		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	81.257%	-0.016	5.000	4.943	0.000	3731.000	9751.000	9897.000
2	13:23:17	81.465%	0.007	4.814	3.941	0.000	3712.000	9772.000	9955.000
3	13:23:27	80.545%	0.069	3.380	4.136	0.000	3632.000	9637.000	9945.000
X		81.089%	0.020	4.398	4.340	0.000	3692.000	9720.000	9933.000
σ		0.482%	0.044	0.886	0.531	0.000	52.580	72.600	31.000
%RSD		0.595	220.600	20.150	12.240	0.000	1.424	0.747	0.312
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	16.890	6154.000	0.000	6021.000	66640.000	63620.000	69.092%	1.493
2	13:23:17	17.670	6207.000	0.000	6037.000	66400.000	64110.000	68.632%	3.052
3	13:23:27	17.750	6199.000	0.000	6030.000	67520.000	63630.000	68.809%	3.705
X		17.440	6186.000	0.000	6030.000	66850.000	63790.000	68.844%	2.750
σ		0.475	28.560	0.000	8.166	591.900	279.800	0.232%	1.137
%RSD		2.726	0.462	0.000	0.135	0.885	0.439	0.337	41.330
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	-26.300	12.520	3247.000	75.290	397.600	0.528	-3.016	2.372
2	13:23:17	-7.164	13.390	3433.000	76.960	394.400	0.488	-2.725	2.330
3	13:23:27	11.740	12.370	3430.000	77.600	309.300	0.425	-2.908	2.033
X		-7.241	12.760	3370.000	76.620	367.100	0.480	-2.883	2.245
σ		19.020	0.550	106.600	1.190	50.090	0.052	0.147	0.185
%RSD		262.700	4.311	3.163	1.554	13.650	10.860	5.098	8.232
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	2.196	4.769	3.843	0.553	-0.134	3.896	0.000	123.400
2	13:23:17	1.601	3.296	3.235	0.737	0.844	8.885	0.000	122.000
3	13:23:27	2.350	3.590	2.933	0.604	0.105	6.042	0.000	123.900
X		2.049	3.885	3.337	0.631	0.271	6.274	0.000	123.100
σ		0.395	0.780	0.463	0.095	0.510	2.502	0.000	1.004
%RSD		19.290	20.070	13.880	15.050	187.900	39.880	0.000	0.816
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	87.900%	0.174	0.059	68.426%	-0.119	-0.146	0.127	0.051
2	13:23:17	87.308%	0.091	0.059	68.786%	-0.119	-0.104	-0.037	0.018
3	13:23:27	90.072%	0.089	-0.020	69.486%	-0.056	-0.078	0.122	0.049
X		88.427%	0.118	0.032	68.899%	-0.098	-0.110	0.070	0.039
σ		1.455%	0.048	0.046	0.539%	0.036	0.034	0.093	0.018
%RSD		1.646	40.880	141.100	0.782	37.140	31.360	132.500	47.020
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:23:08	67.935%	0.334	-0.042	-0.029	51.010	47.610	74.198%	75.365%
2	13:23:17	67.900%	0.380	0.150	0.005	46.170	48.140	75.020%	76.320%
3	13:23:27	70.444%	0.052	-0.016	-0.063	47.200	49.080	74.868%	74.279%
X		68.760%	0.256	0.031	-0.029	48.130	48.280	74.695%	75.321%
σ		1.459%	0.178	0.104	0.034	2.547	0.744	0.437%	1.021%
%RSD		2.121	69.490	339.600	119.100	5.293	1.542	0.586	1.356
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:23:08	0.011	0.002	0.065	0.128	0.114	70.822%		
2	13:23:17	-0.004	0.002	0.083	0.208	0.095	71.147%		
3	13:23:27	0.011	0.007	0.199	0.120	0.140	75.020%		
X		0.006	0.004	0.116	0.152	0.116	72.330%		
σ		0.008	0.003	0.073	0.049	0.022	2.336%		
%RSD		135.800	87.390	62.930	31.980	19.330	3.229		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	82.203%	-0.084	3.302	3.890	0.000	1394.000	5497.000	5512.000	
2	13:28:21	83.472%	-0.120	2.182	3.524	0.000	1383.000	5492.000	5578.000	
3	13:28:30	82.360%	-0.029	3.599	3.438	0.000	1405.000	5403.000	5553.000	
X		82.678%	-0.078	3.028	3.617	0.000	1394.000	5464.000	5548.000	
		σ	0.692%	0.046	0.747	0.240	0.000	11.400	52.940	33.070
		%RSD	0.837	59.120	24.670	6.627	0.000	0.818	0.969	0.596
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	241.400	4718.000	0.000	3809.000	18580.000	17470.000	69.708%	3.508	
2	13:28:21	247.600	4720.000	0.000	3887.000	19410.000	17700.000	68.637%	3.052	
3	13:28:30	245.100	4748.000	0.000	3843.000	19020.000	17540.000	69.060%	3.910	
X		244.700	4729.000	0.000	3846.000	19010.000	17570.000	69.135%	3.490	
		σ	3.147	16.870	0.000	39.110	414.800	115.500	0.539%	0.429
		%RSD	1.286	0.357	0.000	1.017	2.183	0.658	0.780	12.300
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	25.380	13.890	789.600	727.100	884.600	9.549	0.589	166.300	
2	13:28:21	2.299	15.750	800.000	736.100	801.800	9.016	0.320	168.400	
3	13:28:30	46.610	15.420	793.600	743.700	938.200	9.470	0.032	171.900	
X		24.760	15.020	794.400	735.600	874.800	9.345	0.314	168.900	
		σ	22.160	0.994	5.253	8.312	68.740	0.288	0.279	2.834
		%RSD	89.490	6.617	0.661	1.130	7.857	3.083	88.880	1.678
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	154.800	253.500	260.400	0.231	0.149	5.649	0.000	52.710	
2	13:28:21	172.600	266.600	255.500	0.413	-0.134	2.482	0.000	51.550	
3	13:28:30	163.000	260.200	269.100	0.607	0.421	4.523	0.000	50.520	
X		163.500	260.100	261.700	0.417	0.146	4.218	0.000	51.600	
		σ	8.955	6.565	6.884	0.188	0.278	1.606	0.000	1.096
		%RSD	5.478	2.524	2.631	45.080	191.100	38.070	0.000	2.124
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	70.688%	0.014	0.240	67.473%	-0.118	-0.118	0.634	0.428	
2	13:28:21	71.401%	0.060	0.097	68.017%	-0.092	-0.118	0.213	0.358	
3	13:28:30	72.968%	0.059	0.067	68.237%	-0.118	-0.118	0.297	0.496	
X		71.686%	0.044	0.135	67.909%	-0.109	-0.118	0.382	0.427	
		σ	1.166%	0.026	0.092	0.394%	0.015	0.000	0.223	0.069
		%RSD	1.627	58.630	68.570	0.580	13.800	0.078	58.390	16.180
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:28:12	65.884%	0.207	0.072	-0.063	18.480	25.420	71.221%	70.482%	
2	13:28:21	66.165%	0.016	-0.041	0.007	25.330	27.530	73.619%	74.748%	
3	13:28:30	65.770%	0.064	-0.041	-0.028	22.940	23.330	73.741%	72.584%	
X		65.940%	0.096	-0.003	-0.028	22.250	25.420	72.861%	72.605%	
		σ	0.203%	0.099	0.066	0.035	3.477	2.100	1.421%	2.133%
		%RSD	0.308	103.700	1996.000	126.000	15.630	8.258	1.950	2.938
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	13:28:12	0.184	0.120	0.167	0.180	0.226	74.461%			
2	13:28:21	0.169	0.113	0.321	0.157	0.224	66.852%			
3	13:28:30	0.071	0.125	0.194	0.229	0.167	70.807%			
X		0.141	0.119	0.227	0.189	0.206	70.707%			
		σ	0.061	0.006	0.083	0.037	0.034	3.805%		
		%RSD	43.190	5.395	36.370	19.610	16.320	5.382		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	81.776%	0.208	3.982	3.195	0.000	4357.000	9567.000	9836.000
2	13:33:25	84.879%	0.358	1.949	2.609	0.000	4423.000	9726.000	9882.000
3	13:33:35	81.976%	0.383	1.432	2.651	0.000	4391.000	9628.000	9956.000
X		82.877%	0.316	2.454	2.818	0.000	4391.000	9640.000	9891.000
σ		1.736%	0.095	1.348	0.327	0.000	32.900	80.280	60.450
%RSD		2.095	30.030	54.930	11.600	0.000	0.749	0.833	0.611
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	1541.000	6787.000	0.000	5544.000	35010.000	33040.000	68.629%	1.726
2	13:33:25	1555.000	6734.000	0.000	5578.000	35540.000	33120.000	68.098%	2.411
3	13:33:35	1572.000	6830.000	0.000	5570.000	35650.000	32750.000	67.833%	2.645
X		1556.000	6784.000	0.000	5564.000	35400.000	32970.000	68.187%	2.261
σ		15.470	47.880	0.000	17.900	340.800	197.400	0.405%	0.477
%RSD		0.994	0.706	0.000	0.322	0.963	0.599	0.594	21.120
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	25.270	13.060	2440.000	2382.000	2565.000	23.020	5.638	351.900
2	13:33:25	32.640	15.240	2471.000	2396.000	2549.000	23.410	5.210	373.300
3	13:33:35	26.920	14.530	2468.000	2470.000	2510.000	23.510	5.239	363.700
X		28.280	14.280	2460.000	2416.000	2542.000	23.310	5.363	363.000
σ		3.865	1.109	16.970	47.310	28.260	0.262	0.239	10.720
%RSD		13.670	7.771	0.690	1.958	1.112	1.123	4.460	2.953
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	343.600	837.400	840.100	0.389	1.523	2.821	0.000	48.290
2	13:33:25	358.100	864.400	843.000	0.805	1.318	-0.446	0.000	46.450
3	13:33:35	341.100	845.000	841.100	0.453	2.116	7.540	0.000	46.160
X		347.600	848.900	841.400	0.549	1.652	3.305	0.000	46.970
σ		9.180	13.910	1.481	0.224	0.415	4.015	0.000	1.156
%RSD		2.641	1.638	0.176	40.810	25.100	121.500	0.000	2.462
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	111.645%	0.005	0.004	65.524%	-0.090	-0.072	1.007	1.331
2	13:33:25	111.864%	-0.032	0.028	66.772%	-0.078	-0.103	1.410	1.369
3	13:33:35	114.543%	0.078	0.052	66.901%	-0.131	-0.074	2.424	1.192
X		112.684%	0.017	0.028	66.399%	-0.099	-0.083	1.614	1.297
σ		1.614%	0.056	0.024	0.760%	0.028	0.017	0.730	0.093
%RSD		1.432	328.100	85.600	1.145	28.180	20.670	45.230	7.192
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:33:16	63.298%	0.171	0.048	-0.026	23.610	27.770	69.828%	72.646%
2	13:33:25	64.850%	0.019	0.016	-0.028	22.750	26.450	75.036%	74.933%
3	13:33:35	65.077%	0.401	0.045	0.044	29.330	24.780	74.640%	74.125%
X		64.408%	0.197	0.036	-0.003	25.230	26.330	73.168%	73.901%
σ		0.968%	0.193	0.018	0.041	3.580	1.494	2.899%	1.160%
%RSD		1.503	97.910	48.050	1197.000	14.190	5.672	3.962	1.570
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:33:16	0.189	0.216	0.664	0.629	0.700	71.570%		
2	13:33:25	0.166	0.213	0.601	0.533	0.648	68.053%		
3	13:33:35	0.287	0.199	0.668	0.675	0.664	73.028%		
X		0.214	0.209	0.644	0.613	0.671	70.884%		
σ		0.064	0.009	0.038	0.072	0.027	2.557%		
%RSD		29.970	4.164	5.849	11.810	3.957	3.608		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	79.944%	-0.126	2.207	3.157	0.000	5412.000	26940.000	27960.000
2	13:38:28	79.862%	0.015	3.728	3.412	0.000	5390.000	27100.000	28190.000
3	13:38:37	79.026%	-0.090	3.719	2.397	0.000	5447.000	27300.000	27910.000
X		79.611%	-0.067	3.218	2.989	0.000	5416.000	27120.000	28020.000
σ		0.508%	0.073	0.876	0.528	0.000	28.580	180.900	148.200
%RSD		0.638	108.900	27.200	17.660	0.000	0.528	0.667	0.529
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	86.440	3349.000	0.000	9017.000	133400.000	132200.000	67.541%	1.310
2	13:38:28	85.940	3330.000	0.000	8880.000	132900.000	130500.000	68.057%	1.669
3	13:38:37	86.850	3321.000	0.000	8812.000	131400.000	129900.000	67.622%	2.430
X		86.410	3334.000	0.000	8903.000	132600.000	130900.000	67.740%	1.803
σ		0.455	14.370	0.000	104.300	1034.000	1158.000	0.278%	0.572
%RSD		0.526	0.431	0.000	1.171	0.780	0.884	0.410	31.700
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	7.831	10.970	2242.000	235.700	748.700	19.690	-1.850	1.236
2	13:38:28	-7.324	10.810	2232.000	235.000	665.000	19.700	-1.245	1.614
3	13:38:37	18.560	11.380	2224.000	247.300	713.000	20.520	-0.293	1.579
X		6.356	11.060	2233.000	239.300	708.900	19.970	-1.129	1.476
σ		13.010	0.294	8.852	6.928	42.040	0.473	0.785	0.209
%RSD		204.600	2.659	0.397	2.895	5.930	2.367	69.530	14.140
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	0.870	13.670	16.340	1.470	4.396	8.295	0.000	56.160
2	13:38:28	1.320	15.140	13.000	1.563	3.690	11.620	0.000	56.360
3	13:38:37	1.574	16.490	13.890	1.558	3.811	7.602	0.000	58.380
X		1.255	15.100	14.410	1.531	3.966	9.173	0.000	56.970
σ		0.356	1.412	1.728	0.052	0.378	2.150	0.000	1.229
%RSD		28.400	9.354	11.990	3.410	9.521	23.440	0.000	2.157
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	382.181%	-0.032	-0.031	67.055%	-0.091	-0.088	0.306	0.055
2	13:38:28	384.358%	-0.032	-0.010	66.710%	-0.091	-0.132	-0.037	0.288
3	13:38:37	386.490%	0.095	0.031	66.786%	-0.104	-0.103	0.048	0.225
X		384.343%	0.010	-0.003	66.850%	-0.096	-0.108	0.106	0.189
σ		2.155%	0.074	0.031	0.181%	0.008	0.022	0.178	0.121
%RSD		0.561	718.100	906.300	0.271	8.025	20.720	168.600	63.710
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:38:19	64.157%	0.357	-0.012	0.114	13.410	10.940	82.949%	92.550%
2	13:38:28	66.892%	0.152	-0.042	-0.029	16.050	11.160	86.637%	95.249%
3	13:38:37	65.516%	-0.031	0.098	0.041	13.130	13.990	84.427%	92.951%
X		65.522%	0.159	0.015	0.042	14.200	12.030	84.671%	93.583%
σ		1.368%	0.194	0.074	0.072	1.613	1.699	1.856%	1.456%
%RSD		2.088	121.800	505.000	170.700	11.360	14.120	2.192	1.556
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:38:19	0.321	0.330	0.044	0.064	0.066	73.176%		
2	13:38:28	0.390	0.354	0.064	0.087	0.087	70.350%		
3	13:38:37	0.395	0.357	0.027	0.005	0.059	72.465%		
X		0.369	0.347	0.045	0.052	0.071	71.997%		
σ		0.041	0.015	0.019	0.042	0.015	1.470%		
%RSD		11.190	4.221	42.020	80.960	21.020	2.042		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	79.501%	-0.216	7.245	9.283	0.000	2649.000	5737.000	5852.000	
2	13:43:31	79.952%	-0.101	9.169	8.284	0.000	2657.000	5755.000	5910.000	
3	13:43:40	78.239%	-0.129	8.171	9.165	0.000	2614.000	5754.000	5859.000	
X		79.231%	-0.149	8.195	8.911	0.000	2640.000	5749.000	5874.000	
		$\sigma$	0.888%	0.060	0.962	0.546	0.000	22.960	10.280	32.090
		%RSD	1.120	40.180	11.740	6.126	0.000	0.870	0.179	0.546
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	67.510	6397.000	0.000	2554.000	52940.000	50120.000	67.921%	4.353	
2	13:43:31	68.350	6366.000	0.000	2565.000	53420.000	50450.000	67.537%	4.904	
3	13:43:40	67.010	6334.000	0.000	2500.000	52690.000	49860.000	68.599%	5.560	
X		67.620	6366.000	0.000	2539.000	53020.000	50140.000	68.019%	4.939	
		$\sigma$	0.675	31.560	0.000	34.900	370.800	295.000	0.538%	0.604
		%RSD	0.999	0.496	0.000	1.374	0.699	0.588	0.791	12.230
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	-8.051	13.290	702.800	116.000	342.000	0.843	-1.998	4.486	
2	13:43:31	27.660	14.890	710.900	118.100	388.500	0.738	-1.861	4.226	
3	13:43:40	26.200	14.400	697.000	121.100	328.200	1.077	-2.187	4.618	
X		15.270	14.190	703.600	118.400	352.900	0.886	-2.015	4.443	
		$\sigma$	20.210	0.821	6.998	2.556	31.570	0.174	0.164	0.199
		%RSD	132.300	5.785	0.995	2.159	8.946	19.600	8.119	4.488
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	3.914	90.780	92.710	0.611	0.156	3.459	0.000	131.600	
2	13:43:31	4.726	90.630	85.840	0.569	-0.134	7.533	0.000	124.700	
3	13:43:40	3.915	88.090	90.950	0.615	0.450	5.601	0.000	131.100	
X		4.185	89.830	89.830	0.598	0.157	5.531	0.000	129.100	
		$\sigma$	0.469	1.512	3.567	0.025	2.038	0.000	3.850	
		%RSD	11.200	1.684	3.971	4.245	186.000	36.840	0.000	2.981
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	69.264%	0.253	0.044	66.283%	-0.118	-0.146	0.215	0.053	
2	13:43:31	68.672%	0.015	0.101	67.116%	-0.131	-0.059	0.048	0.227	
3	13:43:40	68.376%	0.159	0.131	66.268%	-0.078	-0.118	0.130	0.086	
X		68.771%	0.142	0.092	66.556%	-0.109	-0.108	0.131	0.122	
		$\sigma$	0.452%	0.120	0.044	0.485%	0.028	0.044	0.084	0.093
		%RSD	0.657	84.030	48.380	0.729	25.420	41.030	63.890	75.940
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	13:43:21	66.314%	0.205	-0.013	-0.028	39.280	40.590	69.950%	72.384%	
2	13:43:31	64.762%	0.212	0.017	-0.063	47.100	39.680	72.599%	73.932%	
3	13:43:40	66.760%	0.390	-0.069	0.007	34.330	42.780	70.917%	69.928%	
X		65.945%	0.269	-0.022	-0.028	40.230	41.010	71.155%	72.081%	
		$\sigma$	1.049%	0.105	0.044	0.035	6.440	1.595	1.341%	2.019%
		%RSD	1.591	39.050	200.900	125.900	16.010	3.889	1.884	2.801
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	13:43:21	0.057	0.039	0.159	0.047	0.057	69.957%			
2	13:43:31	-0.004	0.015	0.108	0.050	0.102	67.289%			
3	13:43:40	0.011	0.020	0.027	0.123	0.092	73.659%			
X		0.022	0.025	0.098	0.073	0.083	70.301%			
		$\sigma$	0.032	0.013	0.067	0.043	0.023	3.199%		
		%RSD	146.800	52.430	68.050	58.700	28.120	4.550		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	79.448%	0.125	2.583	2.479	0.000	2734.000	5384.000	5545.000
2	13:48:33	79.068%	0.160	2.841	3.037	0.000	2713.000	5388.000	5503.000
3	13:48:42	81.041%	0.107	1.301	1.906	0.000	2785.000	5562.000	5647.000
X		79.852%	0.131	2.242	2.474	0.000	2744.000	5445.000	5565.000
σ		1.047%	0.027	0.825	0.565	0.000	37.300	101.900	73.900
%RSD		1.311	20.870	36.790	22.850	0.000	1.359	1.871	1.328
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	303.500	5060.000	0.000	2516.000	19110.000	18740.000	67.916%	2.120
2	13:48:33	299.400	4991.000	0.000	2476.000	19800.000	18260.000	68.515%	1.877
3	13:48:42	308.100	5038.000	0.000	2555.000	20920.000	19290.000	66.982%	1.324
X		303.600	5030.000	0.000	2516.000	19940.000	18760.000	67.804%	1.774
σ		4.333	35.470	0.000	39.370	914.600	519.600	0.772%	0.408
%RSD		1.427	0.705	0.000	1.565	4.586	2.769	1.139	23.000
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	54.400	14.890	1102.000	55.290	202.400	17.080	1.540	23.510
2	13:48:33	38.330	15.270	1082.000	53.910	133.300	17.300	0.984	22.610
3	13:48:42	-11.840	16.630	1115.000	54.700	146.900	18.090	1.272	23.810
X		26.960	15.600	1100.000	54.630	160.800	17.490	1.265	23.310
σ		34.550	0.918	16.940	0.693	36.580	0.533	0.278	0.624
%RSD		128.100	5.883	1.540	1.268	22.740	3.047	21.970	2.675
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	21.760	205.500	200.000	0.590	1.598	-3.658	0.000	23.670
2	13:48:33	21.710	209.100	209.100	0.700	1.017	3.835	0.000	22.810
3	13:48:42	23.840	211.500	206.800	0.282	1.595	-1.417	0.000	23.810
X		22.440	208.700	205.300	0.524	1.403	-0.413	0.000	23.430
σ		1.218	3.012	4.728	0.217	0.335	3.846	0.000	0.544
%RSD		5.426	1.443	2.303	41.410	23.850	931.300	0.000	2.323
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	126.118%	0.107	-0.024	68.699%	-0.118	-0.075	0.300	0.227
2	13:48:33	126.129%	-0.032	0.071	68.662%	-0.066	-0.103	0.554	0.573
3	13:48:42	127.634%	0.037	-0.048	69.192%	-0.106	-0.118	0.210	0.321
X		126.627%	0.037	-0.001	68.851%	-0.096	-0.099	0.355	0.374
σ		0.872%	0.069	0.063	0.296%	0.027	0.022	0.178	0.179
%RSD		0.689	187.500	8106.000	0.430	28.460	22.370	50.220	47.880
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:23	64.719%	-0.029	-0.012	-0.027	22.980	26.700	75.066%	75.241%
2	13:48:33	64.726%	0.452	-0.041	0.044	28.700	23.940	74.046%	75.596%
3	13:48:42	66.787%	0.154	0.097	0.041	26.600	24.930	76.330%	78.639%
X		65.411%	0.192	0.015	0.019	26.090	25.190	75.147%	76.492%
σ		1.192%	0.243	0.073	0.040	2.896	1.400	1.144%	1.867%
%RSD		1.823	126.300	490.800	210.200	11.100	5.557	1.523	2.441
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:48:23	0.085	0.057	0.174	0.147	0.161	71.282%		
2	13:48:33	0.071	0.094	0.229	0.309	0.250	71.111%		
3	13:48:42	0.131	0.082	0.213	0.333	0.235	70.073%		
X		0.096	0.078	0.205	0.263	0.215	70.822%		
σ		0.032	0.019	0.028	0.101	0.048	0.654%		
%RSD		32.910	24.320	13.830	38.520	22.070	0.924		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	80.167%	-0.242	2.562	2.621	0.000	138.200	-23.920	-26.030
2	13:53:36	78.788%	-0.248	2.050	3.191	0.000	143.100	-22.360	-24.960
3	13:53:45	79.853%	-0.217	0.703	2.395	0.000	142.600	-24.530	-23.470
X		79.602%	-0.236	1.772	2.736	0.000	141.300	-23.610	-24.820
		0.723%	0.017	0.960	0.411	0.000	2.721	1.117	1.286
		0.908	7.079	54.190	15.000	0.000	1.926	4.732	5.179
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	6.535	19.150	0.000	97.620	-19.980	92.580	67.969%	0.705
2	13:53:36	6.416	15.640	0.000	97.980	-15.600	98.110	67.405%	0.939
3	13:53:45	6.986	15.340	0.000	112.000	12.660	98.670	67.496%	1.386
X		6.646	16.710	0.000	102.500	-7.640	96.460	67.623%	1.010
		0.300	2.119	0.000	8.200	17.720	3.366	0.303%	0.346
		4.522	12.680	0.000	7.997	231.900	3.490	0.448	34.290
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	-6.764	14.040	2.224	2.805	3.344	-0.009	-3.408	1.844
2	13:53:36	36.620	15.360	2.338	2.295	7.596	0.070	-3.468	1.284
3	13:53:45	31.600	15.660	1.962	1.851	3.391	0.007	-3.097	1.513
X		20.490	15.020	2.175	2.317	4.777	0.022	-3.324	1.547
		23.730	0.864	0.192	0.477	2.442	0.042	0.199	0.282
		115.800	5.751	8.845	20.610	51.110	187.600	5.999	18.200
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	1.300	1.875	2.310	0.239	-0.134	5.599	0.000	-0.048
2	13:53:36	1.156	2.873	2.447	0.168	0.157	6.151	0.000	0.057
3	13:53:45	1.549	3.676	1.908	0.145	0.450	3.904	0.000	-0.013
X		1.335	2.808	2.222	0.184	0.158	5.218	0.000	-0.001
		0.199	0.902	0.280	0.049	0.292	1.171	0.000	0.053
		14.910	32.130	12.620	26.550	185.500	22.440	0.000	4321.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	68.551%	0.157	0.014	67.460%	-0.104	-0.117	-0.037	-0.015
2	13:53:36	69.034%	0.062	-0.015	68.140%	-0.131	-0.103	-0.037	-0.015
3	13:53:45	68.705%	0.156	-0.043	68.094%	-0.079	-0.132	-0.037	-0.015
X		68.763%	0.125	-0.015	67.898%	-0.105	-0.118	-0.037	-0.015
		0.246%	0.055	0.029	0.380%	0.026	0.015	0.000	0.000
		0.358	43.860	195.000	0.560	24.870	12.350	0.240	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:53:26	64.437%	0.360	-0.040	-0.063	-0.472	-1.041	69.006%	68.295%
2	13:53:36	64.463%	0.311	0.047	0.118	-0.900	-0.924	69.729%	70.528%
3	13:53:45	66.621%	0.157	-0.069	-0.028	-0.900	-1.041	70.300%	68.149%
X		65.174%	0.276	-0.021	0.009	-0.757	-1.002	69.678%	68.991%
		1.253%	0.106	0.060	0.096	0.247	0.067	0.649%	1.333%
		1.923	38.500	286.800	1061.000	32.630	6.715	0.931	1.933
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:53:26	-0.004	0.008	0.011	-0.014	0.003	70.245%		
2	13:53:36	0.011	-0.004	-0.008	0.026	0.025	71.509%		
3	13:53:45	-0.004	0.008	0.046	0.026	0.020	72.270%		
X		0.001	0.004	0.016	0.012	0.016	71.341%		
		0.009	0.007	0.027	0.023	0.011	1.023%		
		589.200	182.200	169.200	187.700	71.220	1.434		

CCV 1671387 8/24/2015 1:59:27 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	13:58:30	71.825%	97.210	105.400	94.630	0.000	49130.000	54940.000	51860.000
2	13:58:39	71.769%	98.930	101.000	96.300	0.000	49720.000	56320.000	52530.000
3	13:58:49	72.043%	96.940	95.870	94.130	0.000	49740.000	55470.000	51950.000
X		71.879%	97.693%	100.769%	95.022%	0.000	99.062%	111.156%	104.227%
σ		0.145%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.202	1.105	4.749	1.198	0.000	0.697	1.257	0.693
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:30	497.600	5349.000	0.000	50620.000	49820.000	47120.000	73.658%	96.210
2	13:58:39	507.700	5479.000	0.000	50480.000	50520.000	47610.000	73.325%	98.790
3	13:58:49	504.800	5419.000	0.000	50340.000	49360.000	47580.000	73.456%	95.510
X		100.671%	108.313%	0.000	100.963%	99.796%	94.870%	73.480%	96.838%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.167%	n/a
%RSD		1.034	1.206	0.000	0.275	1.170	0.584	0.228	1.782
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:30	103.000	102.800	469.700	25860.000	25570.000	101.900	103.700	102.000
2	13:58:39	99.200	100.300	479.900	25760.000	25560.000	102.100	96.510	104.400
3	13:58:49	96.430	98.430	477.300	25580.000	25590.000	101.900	101.500	106.600
X		99.531%	100.525%	95.132%	102.937%	102.305%	101.980%	100.582%	104.361%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.300	2.184	1.112	0.555	0.058	0.111	3.672	2.177
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:30	103.800	97.450	96.310	99.280	105.300	107.600	0.000	97.260
2	13:58:39	101.800	102.900	100.500	99.180	95.780	87.580	0.000	95.380
3	13:58:49	106.000	103.200	100.600	101.000	97.070	97.750	0.000	99.210
X		103.859%	101.203%	99.128%	99.834%	99.381%	97.645%	0.000	97.283%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.040	3.218	2.462	1.046	5.194	10.250	0.000	1.971
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:30	68.354%	98.600	101.100	67.823%	100.700	102.500	96.530	100.600
2	13:58:39	72.299%	100.400	98.670	68.550%	97.570	100.300	96.280	98.540
3	13:58:49	69.910%	104.300	103.700	68.847%	98.460	97.540	99.720	100.200
X		70.188%	101.095%	101.156%	68.407%	98.921%	100.121%	97.510%	99.758%
σ		1.987%	n/a	n/a	0.527%	n/a	n/a	n/a	n/a
%RSD		2.831	2.851	2.470	0.771	1.653	2.502	1.967	1.075
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:30	66.451%	102.300	97.240	97.590	94.270	87.710	73.048%	73.108%
2	13:58:39	67.729%	101.300	98.410	98.980	95.470	91.360	72.363%	72.392%
3	13:58:49	68.005%	102.500	99.830	103.700	98.070	93.100	75.180%	76.381%
X		67.395%	102.020%	98.492%	100.093%	95.939%	90.724%	73.531%	73.960%
σ		0.829%	n/a	n/a	n/a	n/a	n/a	1.469%	2.127%
%RSD		1.230	0.646	1.320	3.207	2.024	3.035	1.998	2.876
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:58:30	109.200	105.100	105.300	105.600	106.100	67.011%		
2	13:58:39	103.200	105.400	108.400	107.900	107.200	69.409%		
3	13:58:49	116.400	112.100	111.000	110.600	109.500	64.223%		
X		109.602%	107.532%	108.264%	108.010%	107.629%	66.881%		
σ		n/a	n/a	n/a	n/a	n/a	2.595%		
%RSD		6.015	3.697	2.649	2.299	1.617	3.881		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	74.523%	-0.038	-1.037	-0.813	0.000	103.600	-33.380	-34.270
2	14:03:45	73.672%	0.002	-0.749	-0.373	0.000	97.420	-33.960	-35.640
3	14:03:55	75.076%	-0.014	-0.669	-1.489	0.000	96.740	-31.940	-32.530
X		74.424%	-0.017	-0.818	-0.892	0.000	99.260	-33.100	-34.150
σ		0.707%	0.020	0.194	0.562	0.000	3.796	1.040	1.556
%RSD		0.950	120.000	23.650	63.060	0.000	3.824	3.142	4.558
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	0.604	1.219	0.000	122.000	-33.170	-69.930	70.826%	-0.123
2	14:03:45	0.375	6.144	0.000	107.600	-29.610	-60.310	71.500%	0.158
3	14:03:55	0.519	1.162	0.000	117.300	-10.300	-61.170	71.198%	-0.266
X		0.499	2.842	0.000	115.600	-24.360	-63.800	71.175%	-0.077
σ		0.116	2.860	0.000	7.370	12.300	5.321	0.338%	0.216
%RSD		23.180	100.700	0.000	6.374	50.510	8.339	0.475	281.700
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	3.340	0.676	0.238	12.350	14.900	0.035	-3.498	0.171
2	14:03:45	2.447	0.518	0.203	10.530	14.780	-0.010	-3.735	0.233
3	14:03:55	1.255	0.578	0.166	10.160	18.630	-0.010	-4.028	0.206
X		2.348	0.591	0.202	11.010	16.100	0.005	-3.753	0.203
σ		1.046	0.080	0.036	1.172	2.189	0.026	0.266	0.031
%RSD		44.560	13.510	17.780	10.640	13.590	532.600	7.074	15.350
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	0.103	0.432	-0.033	-0.043	0.143	-1.788	0.000	-0.048
2	14:03:45	0.148	-0.422	-0.422	0.047	0.144	-1.265	0.000	-0.048
3	14:03:55	0.324	-0.051	-0.298	-0.043	0.137	0.833	0.000	-0.048
X		0.191	-0.014	-0.251	-0.013	0.141	-0.740	0.000	-0.048
σ		0.117	0.428	0.199	0.052	0.003	1.387	0.000	0.000
%RSD		61.090	3150.000	79.040	397.300	2.393	187.400	0.000	0.000
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	72.475%	0.408	0.456	74.404%	-0.108	-0.107	-0.037	-0.015
2	14:03:45	72.102%	0.366	0.460	73.884%	-0.061	-0.108	-0.037	-0.015
3	14:03:55	74.371%	0.487	0.293	74.824%	-0.121	-0.095	-0.037	0.015
X		72.982%	0.420	0.403	74.371%	-0.096	-0.103	-0.037	-0.005
σ		1.217%	0.061	0.095	0.471%	0.032	0.007	0.000	0.017
%RSD		1.667	14.580	23.620	0.633	32.910	6.758	0.114	349.600
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:36	70.970%	0.095	0.194	0.299	-0.706	-1.041	76.825%	76.428%
2	14:03:45	73.610%	0.215	0.084	0.065	-0.900	-0.936	75.919%	75.380%
3	14:03:55	74.320%	0.043	0.108	0.222	-0.712	-1.041	77.244%	75.727%
X		72.967%	0.118	0.129	0.196	-0.773	-1.006	76.663%	75.845%
σ		1.765%	0.088	0.058	0.120	0.110	0.060	0.677%	0.534%
%RSD		2.419	75.010	45.080	61.090	14.250	5.994	0.883	0.704
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:03:36	0.011	0.020	-0.009	0.005	-0.002	73.028%		
2	14:03:45	0.011	0.001	0.042	0.024	0.022	75.965%		
3	14:03:55	0.038	0.001	-0.009	0.023	0.018	76.038%		
X		0.020	0.007	0.008	0.017	0.013	75.010%		
σ		0.016	0.010	0.030	0.011	0.013	1.717%		
%RSD		80.150	139.700	361.700	60.410	100.500	2.289		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	81.386%	-0.130	5.619	6.145	0.000	3569.000	12310.000	12590.000
2	14:08:52	80.654%	-0.030	5.615	5.529	0.000	3602.000	12470.000	12840.000
3	14:09:02	82.268%	-0.061	3.976	5.272	0.000	3566.000	12570.000	12800.000
X		81.436%	-0.074	5.070	5.649	0.000	3579.000	12450.000	12740.000
σ		0.808%	0.051	0.947	0.448	0.000	19.670	127.500	132.400
%RSD		0.992	69.810	18.680	7.938	0.000	0.549	1.024	1.039
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	119.800	5033.000	0.000	4467.000	67920.000	65580.000	66.416%	3.622
2	14:08:52	123.400	5116.000	0.000	4569.000	69320.000	66890.000	66.022%	3.033
3	14:09:02	123.700	5036.000	0.000	4633.000	70750.000	66980.000	65.675%	4.052
X		122.300	5061.000	0.000	4556.000	69330.000	66490.000	66.038%	3.569
σ		2.134	47.310	0.000	83.600	1416.000	784.200	0.370%	0.511
%RSD		1.745	0.935	0.000	1.835	2.042	1.180	0.561	14.330
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	10.300	11.850	1628.000	18.430	355.000	24.110	1.379	19.960
2	14:08:52	27.290	12.610	1654.000	17.150	328.200	24.280	1.366	20.020
3	14:09:02	-3.608	13.130	1656.000	18.150	328.600	25.720	2.244	20.320
X		11.330	12.530	1646.000	17.910	337.300	24.700	1.663	20.100
σ		15.470	0.644	15.810	0.677	15.380	0.881	0.503	0.193
%RSD		136.600	5.139	0.961	3.779	4.559	3.565	30.250	0.959
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	19.260	149.300	150.400	0.659	0.910	4.932	0.000	136.400
2	14:08:52	20.850	158.500	149.600	0.651	0.638	3.060	0.000	133.600
3	14:09:02	21.170	157.600	161.600	0.828	0.386	-1.561	0.000	138.700
X		20.430	155.100	153.900	0.713	0.645	2.144	0.000	136.200
σ		1.023	5.110	6.733	0.100	0.262	3.342	0.000	2.555
%RSD		5.008	3.294	4.376	14.020	40.630	155.900	0.000	1.876
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	80.663%	0.189	0.068	64.942%	-0.131	-0.102	0.050	0.232
2	14:08:52	82.461%	0.142	0.232	65.137%	-0.076	-0.087	0.137	0.232
3	14:09:02	81.376%	-0.032	0.095	65.061%	-0.103	-0.072	0.313	0.518
X		81.500%	0.099	0.132	65.047%	-0.103	-0.087	0.166	0.327
σ		0.905%	0.116	0.088	0.099%	0.027	0.015	0.134	0.166
%RSD		1.111	117.000	67.120	0.151	26.490	17.250	80.630	50.560
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:43	63.762%	0.415	0.225	0.158	24.400	20.720	66.928%	66.471%
2	14:08:52	63.560%	0.514	0.195	0.194	21.050	23.450	69.295%	70.829%
3	14:09:02	63.070%	0.369	0.137	0.269	27.770	24.910	70.978%	70.975%
X		63.464%	0.432	0.186	0.207	24.410	23.030	69.067%	69.425%
σ		0.356%	0.074	0.045	0.056	3.359	2.129	2.034%	2.559%
%RSD		0.561	17.090	24.060	27.200	13.760	9.244	2.945	3.686
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:08:43	0.057	0.126	0.268	0.230	0.193	70.974%		
2	14:08:52	0.154	0.145	0.051	0.093	0.093	67.188%		
3	14:09:02	0.159	0.143	0.094	0.052	0.082	64.737%		
X		0.123	0.138	0.138	0.125	0.123	67.633%		
σ		0.057	0.010	0.115	0.093	0.062	3.142%		
%RSD		46.580	7.568	83.750	74.660	50.140	4.646		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	80.423%	-0.152	5.004	4.661	0.000	3649.000	9484.000	9719.000
2	14:13:54	79.200%	-0.141	4.843	4.861	0.000	3622.000	9696.000	9990.000
3	14:14:04	78.237%	-0.146	5.083	5.672	0.000	3663.000	9625.000	9920.000
X		79.286%	-0.146	4.977	5.065	0.000	3645.000	9601.000	9876.000
σ		1.096%	0.006	0.123	0.535	0.000	20.740	108.100	140.700
%RSD		1.382	3.975	2.462	10.570	0.000	0.569	1.126	1.425
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	5.921	6249.000	0.000	6310.000	68050.000	64830.000	67.790%	2.423
2	14:13:54	6.910	6312.000	0.000	6541.000	70590.000	66630.000	65.941%	2.961
3	14:14:04	6.701	6253.000	0.000	6478.000	70100.000	66620.000	66.105%	2.646
X		6.511	6271.000	0.000	6443.000	69580.000	66030.000	66.612%	2.677
σ		0.521	35.220	0.000	119.500	1346.000	1035.000	1.023%	0.270
%RSD		8.004	0.562	0.000	1.855	1.935	1.568	1.536	10.090
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	34.790	13.310	38.680	7.511	268.200	0.282	-2.512	3.432
2	14:13:54	19.010	12.840	38.380	6.699	341.800	0.430	-2.568	3.778
3	14:14:04	-16.840	14.160	38.670	7.278	280.300	0.347	-2.638	4.011
X		12.320	13.440	38.580	7.163	296.800	0.353	-2.572	3.740
σ		26.460	0.669	0.168	0.418	39.460	0.074	0.063	0.291
%RSD		214.800	4.980	0.435	5.838	13.300	21.040	2.455	7.791
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	3.559	12.300	10.230	0.521	0.172	8.094	0.000	203.400
2	14:13:54	2.345	8.058	10.840	0.727	-0.134	7.956	0.000	198.900
3	14:14:04	3.674	11.260	10.580	0.650	-0.134	6.776	0.000	202.200
X		3.193	10.540	10.550	0.633	-0.032	7.609	0.000	201.500
σ		0.736	2.212	0.306	0.104	0.177	0.724	0.000	2.346
%RSD		23.060	20.980	2.905	16.460	544.100	9.517	0.000	1.164
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	64.585%	0.017	0.226	65.641%	-0.131	-0.102	-0.037	0.021
2	14:13:54	67.215%	0.113	0.192	65.964%	-0.118	-0.103	-0.037	-0.015
3	14:14:04	67.784%	0.208	0.103	66.467%	-0.091	-0.060	-0.037	-0.015
X		66.528%	0.113	0.174	66.024%	-0.113	-0.088	-0.037	-0.003
σ		1.707%	0.095	0.064	0.417%	0.020	0.024	0.000	0.021
%RSD		2.565	84.460	36.800	0.631	17.780	27.480	0.312	646.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:13:45	62.833%	0.123	0.108	0.122	28.940	26.640	70.772%	70.297%
2	14:13:54	65.490%	0.114	0.045	0.225	34.630	27.730	67.514%	68.881%
3	14:14:04	66.541%	0.344	0.043	0.113	23.770	29.900	72.493%	72.115%
X		64.955%	0.194	0.066	0.153	29.120	28.090	70.260%	70.431%
σ		1.911%	0.130	0.037	0.063	5.432	1.661	2.528%	1.621%
%RSD		2.942	67.390	56.450	40.830	18.660	5.912	3.599	2.302
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:13:45	0.059	0.035	0.360	0.435	0.443	67.149%		
2	14:13:54	0.041	0.045	0.499	0.386	0.421	72.075%		
3	14:14:04	0.053	0.042	0.492	0.444	0.434	75.547%		
X		0.051	0.040	0.450	0.422	0.433	71.590%		
σ		0.009	0.005	0.078	0.031	0.011	4.220%		
%RSD		18.280	12.750	17.380	7.404	2.524	5.895		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	78.765%	-0.139	4.463	3.806	0.000	3727.000	9715.000	10010.000
2	14:18:57	77.700%	-0.153	2.770	3.909	0.000	3722.000	9745.000	9916.000
3	14:19:06	77.255%	-0.186	4.327	3.858	0.000	3837.000	9859.000	10040.000
X		77.907%	-0.160	3.853	3.858	0.000	3762.000	9773.000	9988.000
σ		0.776%	0.024	0.941	0.051	0.000	65.200	76.140	64.500
%RSD		0.996	15.080	24.410	1.332	0.000	1.733	0.779	0.646
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	7.093	6396.000	0.000	6158.000	63550.000	60800.000	66.702%	3.529
2	14:18:57	7.277	6393.000	0.000	6231.000	64430.000	61870.000	66.413%	2.176
3	14:19:06	7.416	6460.000	0.000	6306.000	65810.000	61850.000	65.674%	3.051
X		7.262	6416.000	0.000	6231.000	64600.000	61500.000	66.263%	2.919
σ		0.162	37.630	0.000	73.990	1141.000	610.300	0.530%	0.686
%RSD		2.228	0.586	0.000	1.187	1.767	0.992	0.800	23.520
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	16.960	15.460	4899.000	14.270	371.600	1.417	-2.044	2.192
2	14:18:57	-18.660	14.750	4942.000	12.680	305.100	1.424	-1.679	1.772
3	14:19:06	25.400	15.130	4967.000	14.410	316.700	1.273	-2.680	2.422
X		7.903	15.110	4936.000	13.780	331.100	1.371	-2.134	2.129
σ		23.390	0.354	34.770	0.961	35.560	0.085	0.507	0.330
%RSD		295.900	2.343	0.704	6.973	10.740	6.230	23.740	15.500
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	1.526	5.095	5.615	0.775	0.484	-6.219	0.000	156.100
2	14:18:57	1.554	6.665	6.510	0.492	0.168	0.078	0.000	155.800
3	14:19:06	1.216	7.240	5.527	0.544	-0.134	5.693	0.000	156.800
X		1.432	6.334	5.884	0.603	0.172	-0.149	0.000	156.200
σ		0.188	1.110	0.544	0.150	0.309	5.960	0.000	0.541
%RSD		13.110	17.530	9.242	24.940	179.300	3989.000	0.000	0.347
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	64.059%	0.423	0.081	63.519%	-0.088	-0.100	0.053	0.022
2	14:18:57	66.020%	0.068	0.172	62.686%	-0.130	-0.116	-0.037	0.057
3	14:19:06	65.724%	0.117	0.079	63.654%	-0.103	-0.131	-0.037	0.020
X		65.268%	0.203	0.111	63.286%	-0.107	-0.116	-0.007	0.033
σ		1.057%	0.192	0.053	0.525%	0.022	0.016	0.052	0.021
%RSD		1.620	94.940	47.960	0.829	20.130	13.490	731.500	62.880
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:47	60.528%	0.235	0.084	0.014	27.980	31.230	68.694%	69.612%
2	14:18:57	62.605%	0.174	0.080	-0.026	32.650	28.100	66.669%	68.788%
3	14:19:06	64.157%	0.265	0.135	0.010	32.300	27.750	67.172%	66.994%
X		62.430%	0.225	0.100	-0.001	30.980	29.030	67.512%	68.465%
σ		1.821%	0.046	0.031	0.022	2.604	1.918	1.054%	1.338%
%RSD		2.917	20.550	30.850	3220.000	8.407	6.609	1.562	1.955
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:18:47	-0.004	0.016	0.036	0.008	0.055	62.687%		
2	14:18:57	-0.004	0.002	0.013	0.007	0.043	65.649%		
3	14:19:06	0.012	0.015	0.108	0.113	0.087	67.974%		
X		0.002	0.011	0.052	0.043	0.062	65.437%		
σ		0.009	0.008	0.049	0.061	0.023	2.650%		
%RSD		526.500	69.010	94.780	141.000	37.100	4.050		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	77.777%	-0.077	4.037	4.325	0.000	3867.000	9866.000	10040.000
2	14:24:00	79.030%	-0.040	3.500	4.431	0.000	3830.000	9814.000	9980.000
3	14:24:09	78.945%	-0.131	3.510	3.435	0.000	3867.000	9848.000	10050.000
X		78.584%	-0.083	3.683	4.063	0.000	3855.000	9843.000	10020.000
σ		0.700%	0.046	0.307	0.547	0.000	21.740	25.980	38.200
%RSD		0.891	55.690	8.343	13.470	0.000	0.564	0.264	0.381
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	13.330	6294.000	0.000	6040.000	66940.000	62640.000	66.032%	2.114
2	14:24:00	12.580	6115.000	0.000	6005.000	65880.000	62660.000	65.598%	2.670
3	14:24:09	13.770	6243.000	0.000	6061.000	66160.000	62720.000	65.352%	2.294
X		13.230	6217.000	0.000	6035.000	66330.000	62670.000	65.661%	2.359
σ		0.605	92.230	0.000	28.140	548.700	39.510	0.344%	0.284
%RSD		4.571	1.483	0.000	0.466	0.827	0.063	0.524	12.020
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	11.500	13.800	3406.000	66.350	332.800	0.803	-3.077	1.262
2	14:24:00	31.950	14.110	3393.000	68.710	407.200	0.527	-3.017	1.410
3	14:24:09	5.434	14.080	3424.000	65.470	335.300	0.608	-3.309	1.660
X		16.290	13.990	3408.000	66.840	358.400	0.646	-3.134	1.444
σ		13.900	0.172	15.280	1.676	42.230	0.142	0.154	0.201
%RSD		85.280	1.226	0.448	2.507	11.780	21.940	4.921	13.940
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	1.290	2.187	2.258	0.380	0.124	4.038	0.000	127.600
2	14:24:00	0.828	2.459	1.576	0.733	-0.134	4.031	0.000	124.500
3	14:24:09	1.023	2.764	1.723	0.444	0.643	6.771	0.000	124.000
X		1.047	2.470	1.852	0.519	0.211	4.947	0.000	125.400
σ		0.232	0.289	0.359	0.188	0.396	1.580	0.000	1.991
%RSD		22.150	11.690	19.390	36.270	187.700	31.940	0.000	1.588
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	81.935%	-0.032	0.099	62.416%	-0.130	-0.131	-0.037	0.022
2	14:24:00	83.174%	0.056	0.013	62.820%	-0.130	-0.100	-0.037	0.022
3	14:24:09	82.088%	0.145	0.041	63.411%	-0.103	-0.116	-0.037	-0.015
X		82.399%	0.056	0.051	62.882%	-0.121	-0.116	-0.037	0.010
σ		0.675%	0.089	0.044	0.500%	0.016	0.015	0.000	0.021
%RSD		0.820	157.400	86.340	0.796	13.120	13.210	0.160	223.800
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:50	60.326%	0.340	0.116	0.014	44.970	43.950	66.289%	66.833%
2	14:24:00	61.307%	0.435	0.113	0.013	46.930	49.360	66.563%	66.940%
3	14:24:09	63.710%	0.022	0.019	0.084	45.720	48.680	69.364%	68.665%
X		61.781%	0.266	0.083	0.037	45.870	47.330	67.405%	67.479%
σ		1.741%	0.217	0.056	0.040	0.989	2.947	1.702%	1.028%
%RSD		2.818	81.520	67.200	109.300	2.156	6.226	2.525	1.524
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:23:50	-0.004	0.009	0.113	0.096	0.101	65.333%		
2	14:24:00	0.012	0.002	0.032	0.050	0.051	67.112%		
3	14:24:09	0.063	0.003	0.015	0.031	0.030	63.027%		
X		0.024	0.005	0.053	0.059	0.060	65.157%		
σ		0.035	0.004	0.052	0.033	0.036	2.048%		
%RSD		145.100	83.450	98.620	56.350	60.000	3.143		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	78.503%	-0.096	3.287	3.894	0.000	1360.000	5120.000	5239.000
2	14:29:03	79.416%	-0.199	3.564	2.899	0.000	1347.000	5103.000	5165.000
3	14:29:13	78.303%	-0.172	2.484	2.503	0.000	1354.000	5133.000	5242.000
X		78.741%	-0.156	3.112	3.098	0.000	1354.000	5119.000	5215.000
σ		0.593%	0.053	0.561	0.717	0.000	6.618	15.310	43.510
%RSD		0.753	34.150	18.030	23.130	0.000	0.489	0.299	0.834
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	37.860	4403.000	0.000	3558.000	17610.000	16230.000	66.765%	1.784
2	14:29:03	38.570	4360.000	0.000	3510.000	17600.000	16170.000	67.269%	1.918
3	14:29:13	37.170	4394.000	0.000	3580.000	18000.000	16640.000	65.788%	1.815
X		37.870	4385.000	0.000	3549.000	17740.000	16350.000	66.607%	1.839
σ		0.699	22.380	0.000	35.600	225.500	257.400	0.753%	0.070
%RSD		1.844	0.510	0.000	1.003	1.271	1.575	1.131	3.823
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	-35.670	12.820	723.400	44.720	117.400	7.776	-0.988	44.800
2	14:29:03	-30.330	14.370	723.200	44.860	125.000	7.199	-1.012	43.730
3	14:29:13	-24.790	15.560	725.000	46.360	132.800	8.201	-0.990	44.090
X		-30.260	14.250	723.800	45.310	125.100	7.725	-0.997	44.200
σ		5.444	1.374	0.969	0.908	7.677	0.503	0.013	0.546
%RSD		17.990	9.647	0.134	2.005	6.138	6.508	1.344	1.235
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	44.830	220.000	208.200	0.420	0.169	6.863	0.000	50.760
2	14:29:03	44.760	216.500	212.300	0.343	0.768	-0.364	0.000	51.990
3	14:29:13	42.360	214.000	220.500	0.460	-0.134	5.060	0.000	51.020
X		43.980	216.800	213.600	0.408	0.267	3.853	0.000	51.250
σ		1.408	2.986	6.245	0.059	0.459	3.762	0.000	0.646
%RSD		3.201	1.377	2.923	14.520	171.700	97.640	0.000	1.261
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	65.681%	0.017	0.076	65.992%	-0.104	-0.132	0.566	0.195
2	14:29:03	66.250%	0.114	-0.013	66.675%	-0.131	-0.088	0.134	0.439
3	14:29:13	67.762%	0.111	0.072	67.405%	-0.118	-0.103	0.385	0.259
X		66.564%	0.080	0.045	66.691%	-0.118	-0.108	0.362	0.298
σ		1.076%	0.055	0.051	0.707%	0.014	0.022	0.217	0.127
%RSD		1.616	68.520	112.500	1.060	11.550	20.610	59.930	42.510
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:28:54	64.087%	0.216	0.193	0.119	21.370	23.810	69.303%	71.183%
2	14:29:03	64.140%	0.118	0.163	0.119	20.710	25.260	71.000%	69.928%
3	14:29:13	65.384%	0.209	0.016	0.044	23.710	27.060	70.369%	72.746%
X		64.537%	0.181	0.124	0.094	21.930	25.380	70.224%	71.285%
σ		0.734%	0.055	0.095	0.043	1.578	1.628	0.858%	1.412%
%RSD		1.138	30.280	76.110	45.840	7.194	6.414	1.222	1.981
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:28:54	0.122	0.106	0.031	0.092	0.078	67.500%		
2	14:29:03	0.073	0.160	0.086	0.069	0.049	69.145%		
3	14:29:13	0.221	0.113	0.102	0.047	0.074	70.745%		
X		0.139	0.126	0.073	0.069	0.067	69.130%		
σ		0.075	0.030	0.037	0.023	0.016	1.622%		
%RSD		54.360	23.500	50.770	32.850	23.710	2.347		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	78.076%	0.362	2.231	2.308	0.000	4211.000	9281.000	9467.000
2	14:34:06	77.218%	0.404	1.929	2.625	0.000	4223.000	9263.000	9525.000
3	14:34:15	78.579%	0.382	2.345	2.509	0.000	4265.000	9369.000	9553.000
X		77.957%	0.382	2.168	2.481	0.000	4233.000	9304.000	9515.000
σ		0.688%	0.021	0.215	0.160	0.000	28.540	56.450	43.630
%RSD		0.883	5.527	9.929	6.457	0.000	0.674	0.607	0.459
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	1490.000	6600.000	0.000	5336.000	34580.000	32180.000	65.992%	3.035
2	14:34:06	1506.000	6629.000	0.000	5373.000	34330.000	32180.000	65.478%	2.907
3	14:34:15	1484.000	6611.000	0.000	5375.000	34280.000	32180.000	65.990%	2.958
X		1493.000	6613.000	0.000	5361.000	34390.000	32180.000	65.820%	2.967
σ		11.290	14.830	0.000	21.960	161.800	2.763	0.297%	0.064
%RSD		0.756	0.224	0.000	0.410	0.470	0.009	0.451	2.170
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	10.470	13.110	2335.000	2349.000	2251.000	22.680	3.924	355.900
2	14:34:06	28.470	14.530	2358.000	2408.000	2601.000	23.300	6.067	361.000
3	14:34:15	2.351	13.550	2349.000	2325.000	2447.000	22.550	4.977	348.900
X		13.760	13.730	2347.000	2360.000	2433.000	22.840	4.989	355.200
σ		13.370	0.728	11.640	42.480	175.700	0.404	1.072	6.069
%RSD		97.120	5.301	0.496	1.800	7.221	1.767	21.480	1.708
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	334.800	831.900	829.100	0.728	1.802	2.406	0.000	46.430
2	14:34:06	337.200	823.800	804.800	0.674	0.725	7.845	0.000	46.740
3	14:34:15	337.300	828.100	812.100	0.568	0.908	0.698	0.000	41.920
X		336.400	827.900	815.300	0.657	1.145	3.650	0.000	45.030
σ		1.449	4.088	12.450	0.082	0.577	3.733	0.000	2.699
%RSD		0.431	0.494	1.527	12.450	50.350	102.300	0.000	5.995
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	107.539%	-0.032	-0.046	64.485%	-0.117	-0.131	1.108	1.488
2	14:34:06	108.253%	0.044	-0.021	65.194%	-0.117	-0.117	1.360	1.584
3	14:34:15	113.017%	0.080	-0.047	65.059%	-0.103	-0.087	2.241	1.482
X		109.603%	0.031	-0.038	64.912%	-0.112	-0.112	1.569	1.518
σ		2.978%	0.058	0.015	0.377%	0.008	0.023	0.595	0.057
%RSD		2.717	186.500	39.170	0.580	7.036	20.400	37.910	3.748
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:56	62.702%	0.124	-0.010	0.011	24.470	24.930	69.326%	70.921%
2	14:34:06	63.140%	0.121	-0.040	0.084	25.840	27.350	72.203%	72.230%
3	14:34:15	62.904%	0.073	0.049	0.084	24.730	23.690	71.526%	73.647%
X		62.915%	0.106	-0.000	0.060	25.010	25.320	71.018%	72.266%
σ		0.219%	0.029	0.045	0.042	0.731	1.865	1.504%	1.363%
%RSD		0.349	27.110	11390.000	70.410	2.922	7.366	2.118	1.887
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:33:56	0.131	0.156	0.760	0.633	0.660	71.180%		
2	14:34:06	0.204	0.210	0.736	0.810	0.708	71.607%		
3	14:34:15	0.210	0.179	0.874	0.796	0.761	69.053%		
X		0.182	0.181	0.790	0.746	0.710	70.613%		
σ		0.044	0.027	0.074	0.098	0.051	1.368%		
%RSD		24.250	14.910	9.335	13.190	7.147	1.937		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	76.456%	-0.072	4.037	3.300	0.000	5589.000	26430.000	27090.000	
2	14:39:10	75.900%	-0.061	4.904	3.423	0.000	5744.000	27080.000	27590.000	
3	14:39:20	74.349%	-0.028	4.197	2.801	0.000	5471.000	25910.000	27190.000	
X		75.569%	-0.054	4.379	3.175	0.000	5601.000	26470.000	27290.000	
		$\sigma$	1.092%	0.023	0.462	0.329	0.000	137.100	584.400	261.000
		%RSD	1.445	42.440	10.540	10.370	0.000	2.448	2.208	0.957
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	40.980	3245.000	0.000	8708.000	126800.000	125000.000	65.457%	1.826	
2	14:39:10	40.760	3292.000	0.000	8869.000	130000.000	127000.000	64.814%	2.316	
3	14:39:20	41.280	3287.000	0.000	8718.000	129400.000	125600.000	65.212%	1.602	
X		41.010	3274.000	0.000	8765.000	128700.000	125900.000	65.161%	1.915	
		$\sigma$	0.262	25.780	0.000	90.450	1702.000	1019.000	0.324%	0.365
		%RSD	0.638	0.787	0.000	1.032	1.323	0.810	0.498	19.070
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	-6.054	11.280	2148.000	163.700	649.200	19.350	0.003	3.505	
2	14:39:10	-27.030	11.390	2209.000	164.000	613.900	18.380	0.179	2.760	
3	14:39:20	-5.405	12.160	2182.000	164.900	596.400	19.760	0.850	3.795	
X		-12.830	11.610	2180.000	164.200	619.900	19.160	0.344	3.354	
		$\sigma$	12.300	0.479	30.820	0.602	26.910	0.710	0.447	0.534
		%RSD	95.890	4.127	1.414	0.367	4.342	3.704	130.100	15.920
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	3.080	24.160	19.270	1.191	4.073	3.714	0.000	58.570	
2	14:39:10	3.335	21.910	23.350	1.297	3.126	8.291	0.000	59.620	
3	14:39:20	3.182	24.450	20.130	1.266	4.423	11.940	0.000	59.240	
X		3.199	23.510	20.920	1.251	3.874	7.981	0.000	59.140	
		$\sigma$	0.128	1.387	2.149	0.055	0.671	4.120	0.000	0.530
		%RSD	4.009	5.900	10.280	4.387	17.310	51.630	0.000	0.897
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	342.182%	0.022	-0.072	63.441%	-0.088	-0.056	0.228	0.449	
2	14:39:10	343.734%	0.022	-0.029	64.308%	-0.117	-0.146	0.226	0.339	
3	14:39:20	346.661%	0.075	-0.008	64.397%	-0.131	-0.117	-0.037	0.407	
X		344.192%	0.040	-0.036	64.049%	-0.112	-0.106	0.139	0.398	
		$\sigma$	2.275%	0.031	0.033	0.528%	0.021	0.046	0.152	0.056
		%RSD	0.661	77.560	90.600	0.825	19.180	43.480	109.400	14.050
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:39:01	62.913%	-0.076	0.106	0.118	17.470	13.160	79.818%	86.444%	
2	14:39:10	63.552%	0.118	0.017	0.044	13.350	11.950	85.044%	93.737%	
3	14:39:20	63.877%	-0.077	0.131	0.044	11.090	13.290	82.324%	90.445%	
X		63.447%	-0.012	0.084	0.069	13.970	12.800	82.396%	90.209%	
		$\sigma$	0.491%	0.112	0.060	0.043	3.237	0.740	2.614%	3.652%
		%RSD	0.773	939.700	71.140	62.740	23.170	5.784	3.172	4.049
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	14:39:01	0.393	0.319	0.295	0.175	0.262	67.772%			
2	14:39:10	0.463	0.346	0.284	0.353	0.265	65.668%			
3	14:39:20	0.310	0.330	0.404	0.269	0.320	65.213%			
X		0.389	0.332	0.328	0.266	0.282	66.218%			
		$\sigma$	0.076	0.014	0.066	0.089	0.033	1.365%		
		%RSD	19.620	4.139	20.240	33.570	11.570	2.061		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	77.279%	-0.169	7.953	8.213	0.000	2620.000	5750.000	5867.000
2	14:44:14	76.678%	-0.168	8.567	8.122	0.000	2637.000	5587.000	5693.000
3	14:44:24	76.202%	-0.218	7.467	8.968	0.000	2605.000	5676.000	5828.000
X		76.719%	-0.185	7.996	8.434	0.000	2621.000	5671.000	5796.000
σ		0.540%	0.029	0.551	0.464	0.000	15.720	81.820	91.390
%RSD		0.704	15.600	6.893	5.506	0.000	0.600	1.443	1.577
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	33.980	6280.000	0.000	2518.000	53290.000	49980.000	66.672%	4.517
2	14:44:14	33.660	6267.000	0.000	2472.000	52140.000	49590.000	66.910%	4.198
3	14:44:24	34.890	6227.000	0.000	2511.000	53970.000	50380.000	65.814%	5.195
X		34.170	6258.000	0.000	2500.000	53130.000	49980.000	66.466%	4.637
σ		0.641	27.190	0.000	24.940	924.400	394.400	0.577%	0.509
%RSD		1.874	0.435	0.000	0.997	1.740	0.789	0.867	10.990
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	-20.730	12.650	692.800	64.120	338.500	0.874	-2.940	1.810
2	14:44:14	36.150	12.680	700.400	63.380	313.800	0.914	-2.701	2.221
3	14:44:24	25.380	13.820	693.400	64.640	355.000	0.886	-1.745	2.575
X		13.600	13.050	695.500	64.050	335.800	0.891	-2.462	2.202
σ		30.220	0.668	4.220	0.634	20.700	0.020	0.632	0.383
%RSD		222.200	5.120	0.607	0.990	6.165	2.253	25.690	17.390
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	2.431	10.760	14.180	0.598	-0.134	8.106	0.000	132.600
2	14:44:14	2.542	11.830	11.400	0.465	0.468	4.630	0.000	134.900
3	14:44:24	2.645	9.790	13.240	0.558	-0.134	7.948	0.000	127.500
X		2.539	10.790	12.940	0.540	0.066	6.895	0.000	131.600
σ		0.107	1.019	1.411	0.068	0.348	1.963	0.000	3.778
%RSD		4.225	9.439	10.900	12.590	524.100	28.470	0.000	2.870
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	64.574%	0.169	0.233	63.332%	-0.130	-0.131	-0.037	-0.015
2	14:44:14	66.206%	0.017	-0.012	64.032%	-0.131	-0.086	-0.037	0.020
3	14:44:24	67.390%	0.066	-0.072	64.297%	-0.117	-0.146	0.051	0.092
X		66.057%	0.084	0.050	63.887%	-0.126	-0.121	-0.008	0.033
σ		1.414%	0.078	0.162	0.498%	0.008	0.031	0.051	0.055
%RSD		2.140	92.500	324.300	0.780	6.333	25.610	642.600	168.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:05	62.527%	0.124	-0.040	0.011	41.820	44.950	69.577%	70.451%
2	14:44:14	63.631%	0.071	-0.040	-0.063	41.070	46.550	69.166%	68.411%
3	14:44:24	62.685%	0.074	0.020	0.011	42.780	41.270	69.006%	69.473%
X		62.947%	0.090	-0.020	-0.014	41.890	44.260	69.250%	69.445%
σ		0.597%	0.030	0.034	0.043	0.855	2.707	0.295%	1.020%
%RSD		0.949	33.330	173.000	317.400	2.040	6.117	0.425	1.469
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:44:05	0.013	0.002	0.154	0.141	0.164	64.762%		
2	14:44:14	0.028	0.002	0.129	0.264	0.196	67.083%		
3	14:44:24	0.013	-0.004	0.111	0.073	0.157	65.880%		
X		0.018	0.000	0.131	0.159	0.172	65.908%		
σ		0.009	0.004	0.021	0.097	0.021	1.161%		
%RSD		50.270	4083.000	16.120	60.980	12.050	1.761		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	78.173%	0.175	0.234	2.150	0.000	2886.000	5546.000	5549.000
2	14:49:17	80.769%	0.141	1.485	0.969	0.000	2871.000	5542.000	5606.000
3	14:49:27	78.936%	0.103	1.161	0.776	0.000	2850.000	5559.000	5708.000
X		79.293%	0.140	0.960	1.298	0.000	2869.000	5549.000	5621.000
σ		1.334%	0.036	0.649	0.744	0.000	18.160	8.870	80.640
%RSD		1.682	25.850	67.610	57.300	0.000	0.633	0.160	1.435
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	332.500	5055.000	0.000	2612.000	20120.000	18870.000	66.754%	2.163
2	14:49:17	337.000	4999.000	0.000	2635.000	20350.000	19010.000	66.421%	1.643
3	14:49:27	335.700	5087.000	0.000	2608.000	20370.000	19040.000	66.343%	2.712
X		335.100	5047.000	0.000	2618.000	20280.000	18970.000	66.506%	2.173
σ		2.317	44.320	0.000	14.730	139.300	91.560	0.218%	0.535
%RSD		0.691	0.878	0.000	0.563	0.687	0.483	0.328	24.610
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	43.560	14.460	1102.000	46.000	147.200	18.060	35.700	20.640
2	14:49:17	23.450	14.930	1116.000	49.220	139.900	17.040	31.910	21.260
3	14:49:27	36.800	15.490	1110.000	45.460	140.000	18.040	33.210	19.950
X		34.600	14.960	1109.000	46.890	142.400	17.710	33.610	20.620
σ		10.240	0.515	6.901	2.031	4.218	0.583	1.928	0.658
%RSD		29.580	3.444	0.622	4.330	2.963	3.292	5.737	3.192
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	17.810	201.900	204.000	0.463	1.673	3.651	0.000	24.660
2	14:49:17	20.200	206.500	215.000	0.510	0.861	3.570	0.000	25.410
3	14:49:27	19.730	203.900	207.100	0.476	2.054	3.931	0.000	25.790
X		19.250	204.100	208.700	0.483	1.529	3.717	0.000	25.290
σ		1.267	2.291	5.716	0.024	0.609	0.189	0.000	0.574
%RSD		6.582	1.122	2.739	4.995	39.840	5.089	0.000	2.270
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	119.078%	0.042	0.004	63.812%	-0.144	-0.071	0.407	0.671
2	14:49:17	121.121%	0.078	-0.047	64.629%	-0.144	-0.131	0.655	0.579
3	14:49:27	121.362%	0.005	-0.047	63.966%	-0.144	-0.146	0.850	0.237
X		120.521%	0.041	-0.030	64.135%	-0.144	-0.116	0.637	0.496
σ		1.255%	0.037	0.030	0.434%	0.000	0.040	0.222	0.229
%RSD		1.041	88.150	99.550	0.677	0.000	34.570	34.800	46.110
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:49:08	62.150%	0.176	-0.009	-0.063	24.560	24.530	69.546%	68.280%
2	14:49:17	64.297%	0.409	0.047	0.010	23.010	22.680	69.539%	69.928%
3	14:49:27	62.273%	0.075	-0.009	0.049	21.200	27.090	68.466%	70.598%
X		62.906%	0.220	0.009	-0.001	22.920	24.770	69.184%	69.602%
σ		1.206%	0.172	0.033	0.057	1.681	2.214	0.622%	1.193%
%RSD		1.917	77.920	349.800	3929.000	7.333	8.941	0.899	1.714
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:49:08	0.139	0.113	0.148	0.200	0.172	67.255%		
2	14:49:17	0.072	0.101	0.342	0.026	0.172	70.624%		
3	14:49:27	0.116	0.113	0.120	0.148	0.180	71.067%		
X		0.109	0.109	0.203	0.125	0.175	69.649%		
σ		0.034	0.007	0.121	0.089	0.004	2.085%		
%RSD		31.150	6.144	59.560	71.350	2.549	2.993		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	74.057%	-0.152	-1.648	-1.231	0.000	631.300	1074.000	1083.000	
2	14:54:23	73.457%	-0.159	-1.498	-1.513	0.000	632.600	1057.000	1099.000	
3	14:54:32	72.874%	-0.184	-2.174	-1.409	0.000	621.700	1068.000	1090.000	
X		73.463%	-0.165	-1.774	-1.384	0.000	628.600	1067.000	1091.000	
		$\sigma$	0.592%	0.017	0.355	0.143	0.000	5.972	8.615	8.070
		%RSD	0.805	10.430	20.030	10.310	0.000	0.950	0.808	0.740
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	56.110	1017.000	0.000	575.600	4132.000	3774.000	68.207%	0.108	
2	14:54:23	56.750	1026.000	0.000	576.100	3993.000	3813.000	66.973%	0.418	
3	14:54:32	56.120	1012.000	0.000	587.200	4097.000	3869.000	67.083%	0.945	
X		56.330	1018.000	0.000	579.600	4074.000	3819.000	67.421%	0.490	
		$\sigma$	0.363	7.472	0.000	6.553	72.170	47.970	0.683%	0.423
		%RSD	0.645	0.734	0.000	1.130	1.772	1.256	1.013	86.240
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	7.430	4.171	219.800	9.239	12.820	3.985	-2.231	4.643	
2	14:54:23	10.010	3.991	220.200	9.364	25.550	3.778	-2.422	5.165	
3	14:54:32	6.978	4.205	219.400	9.595	27.400	4.043	-2.374	5.463	
X		8.141	4.122	219.800	9.400	21.920	3.935	-2.343	5.091	
		$\sigma$	1.638	0.115	0.440	0.181	7.937	0.140	0.099	0.415
		%RSD	20.130	2.799	0.200	1.922	36.200	3.544	4.243	8.152
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	4.897	47.920	49.800	0.061	0.632	4.310	0.000	7.490	
2	14:54:23	4.953	55.580	45.490	0.172	0.130	5.353	0.000	7.854	
3	14:54:32	4.264	51.540	53.670	0.106	0.648	-1.299	0.000	8.428	
X		4.705	51.680	49.650	0.113	0.470	2.788	0.000	7.924	
		$\sigma$	0.382	3.832	4.092	0.056	0.295	3.578	0.000	0.473
		%RSD	8.126	7.416	8.242	49.350	62.680	128.300	0.000	5.968
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	82.275%	-0.032	-0.045	69.214%	-0.029	-0.077	-0.037	0.116	
2	14:54:23	79.041%	0.011	0.034	70.449%	-0.081	-0.036	-0.037	0.018	
3	14:54:32	80.531%	0.010	-0.072	70.896%	-0.044	-0.105	0.123	0.050	
X		80.616%	-0.004	-0.028	70.186%	-0.051	-0.073	0.016	0.061	
		$\sigma$	1.619%	0.025	0.055	0.871%	0.027	0.035	0.093	0.050
		%RSD	2.008	654.200	199.900	1.241	52.180	47.670	575.600	81.660
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	14:54:13	68.611%	-0.034	-0.015	-0.029	4.804	3.875	71.198%	71.860%	
2	14:54:23	68.235%	-0.080	-0.069	-0.063	3.305	3.889	74.586%	74.980%	
3	14:54:32	68.910%	-0.080	0.039	0.005	4.252	3.512	75.416%	76.096%	
X		68.585%	-0.065	-0.015	-0.029	4.121	3.759	73.734%	74.312%	
		$\sigma$	0.338%	0.026	0.054	0.034	0.758	0.213	2.235%	2.195%
		%RSD	0.493	40.920	360.700	116.300	18.400	5.678	3.031	2.954
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	14:54:13	0.010	0.013	-0.009	-0.014	0.010	76.948%			
2	14:54:23	0.040	0.014	-0.009	0.005	0.019	73.485%			
3	14:54:32	0.052	0.019	0.025	0.005	0.035	75.959%			
X		0.034	0.015	0.002	-0.002	0.021	75.464%			
		$\sigma$	0.022	0.003	0.020	0.013	1.784%			
		%RSD	62.970	21.380	830.300	711.000	59.310	2.364		

CCV 1671387 8/24/2015 3:00:11 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	14:59:16	69.679%	97.270	95.350	94.490	0.000	48370.000	53740.000	50920.000
2	14:59:26	70.087%	93.070	91.130	93.960	0.000	48960.000	53750.000	50770.000
3	14:59:35	68.876%	94.790	94.460	94.160	0.000	49020.000	54830.000	51930.000
X		69.547%	95.041%	93.647%	94.203%	0.000	97.566%	108.217%	102.411%
σ		0.617%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.887	2.221	2.377	0.284	0.000	0.737	1.158	1.235
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:16	495.400	5342.000	0.000	49670.000	48660.000	46630.000	72.382%	94.000
2	14:59:26	500.900	5289.000	0.000	50330.000	50410.000	47060.000	71.073%	91.820
3	14:59:35	508.300	5474.000	0.000	51210.000	51300.000	47960.000	70.181%	97.680
X		100.308%	107.364%	0.000	100.807%	100.247%	94.437%	71.212%	94.500%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.107%	n/a
%RSD		1.286	1.780	0.000	1.536	2.680	1.439	1.555	3.133
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:16	102.200	102.000	467.400	24990.000	24340.000	97.230	94.800	101.800
2	14:59:26	97.010	101.000	475.100	25070.000	25050.000	100.600	104.500	107.300
3	14:59:35	98.830	101.600	473.000	24810.000	24290.000	98.570	98.460	103.600
X		99.353%	101.533%	94.364%	99.825%	98.233%	98.810%	99.262%	104.244%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.657	0.488	0.840	0.527	1.725	1.734	4.946	2.705
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:16	98.910	97.490	97.400	98.150	100.200	105.100	0.000	96.280
2	14:59:26	104.200	104.100	104.000	99.610	99.580	106.500	0.000	95.970
3	14:59:35	101.700	101.300	107.800	96.180	90.220	85.210	0.000	96.130
X		101.595%	100.969%	103.067%	97.980%	96.650%	98.943%	0.000	96.128%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.590	3.304	5.098	1.758	5.773	12.040	0.000	0.164
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:16	68.705%	95.200	98.560	67.199%	97.820	99.090	107.500	99.850
2	14:59:26	68.836%	93.950	103.300	67.916%	98.250	102.200	94.640	101.900
3	14:59:35	69.855%	97.750	100.500	68.458%	98.330	101.200	103.000	100.300
X		69.132%	95.631%	100.773%	67.858%	98.134%	100.806%	101.703%	100.679%
σ		0.630%	n/a	n/a	0.632%	n/a	n/a	n/a	n/a
%RSD		0.911	2.023	2.369	0.931	0.284	1.553	6.418	1.080
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:16	67.080%	99.130	97.670	95.420	95.460	90.850	70.498%	72.915%
2	14:59:26	66.550%	97.690	93.870	97.890	97.720	94.110	75.112%	74.309%
3	14:59:35	66.463%	97.620	98.630	97.070	100.500	85.580	74.023%	75.719%
X		66.698%	98.145%	96.722%	96.793%	97.878%	90.181%	73.211%	74.315%
σ		0.334%	n/a	n/a	n/a	n/a	n/a	2.412%	1.402%
%RSD		0.501	0.869	2.605	1.302	2.556	4.773	3.294	1.886
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:59:16	109.000	109.200	108.800	111.300	109.700	70.359%		
2	14:59:26	112.900	110.100	112.300	110.000	108.700	67.703%		
3	14:59:35	112.700	112.100	110.600	109.000	108.700	68.683%		
X		111.508%	110.470%	110.572%	110.086%	109.016%	68.915%		
σ		n/a	n/a	n/a	n/a	n/a	1.343%		
%RSD		1.976	1.309	1.578	1.037	0.546	1.949		



CCB6 8/24/2015 3:05:17 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	15:04:20	69.669%	-0.072	-1.887	-0.868	0.000	76.710	-34.770	-34.260
2	15:04:29	71.968%	0.139	-1.830	-1.334	0.000	70.040	-33.900	-33.120
3	15:04:39	70.447%	-0.028	-2.297	-1.260	0.000	60.000	-34.020	-36.030
X		70.695%	0.013	-2.005	-1.154	0.000	68.910	-34.230	-34.470
σ		1.170%	0.111	0.255	0.251	0.000	8.412	0.469	1.465
%RSD		1.655	859.200	12.710	21.720	0.000	12.210	1.369	4.249
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:20	0.623	7.616	0.000	146.800	-19.770	-76.650	67.613%	-0.187
2	15:04:29	0.364	-0.620	0.000	135.600	-32.380	-75.480	68.819%	0.178
3	15:04:39	0.405	0.852	0.000	107.900	-20.870	-75.880	69.498%	-0.191
X		0.464	2.616	0.000	130.100	-24.340	-76.000	68.643%	-0.067
σ		0.139	4.392	0.000	20.020	6.986	0.598	0.955%	0.212
%RSD		29.990	167.900	0.000	15.390	28.700	0.786	1.391	316.800
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:20	1.267	0.621	0.229	10.910	22.190	0.038	-3.594	0.264
2	15:04:29	-0.013	0.648	0.173	10.230	25.730	0.006	-3.845	0.383
3	15:04:39	-0.768	0.547	0.267	9.532	11.240	-0.010	-3.606	0.160
X		0.162	0.605	0.223	10.220	19.720	0.011	-3.682	0.269
σ		1.029	0.052	0.047	0.688	7.555	0.024	0.141	0.111
%RSD		634.700	8.554	21.320	6.726	38.310	215.500	3.839	41.400
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:20	-0.115	1.072	-0.140	0.004	-0.134	3.897	0.000	-0.048
2	15:04:29	0.163	0.456	0.378	0.003	0.431	4.430	0.000	-0.014
3	15:04:39	-0.029	0.065	0.243	0.048	0.714	3.340	0.000	-0.048
X		0.006	0.531	0.160	0.018	0.337	3.889	0.000	-0.036
σ		0.143	0.507	0.269	0.026	0.432	0.545	0.000	0.019
%RSD		2212.000	95.570	167.700	142.100	128.200	14.020	0.000	53.330
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:20	69.658%	0.613	0.483	70.435%	-0.094	-0.119	-0.037	-0.015
2	15:04:29	71.357%	0.240	0.230	70.737%	-0.119	-0.106	-0.037	-0.015
3	15:04:39	71.072%	0.375	0.228	71.463%	-0.058	-0.093	-0.037	-0.015
X		70.696%	0.410	0.314	70.878%	-0.090	-0.106	-0.037	-0.015
σ		0.910%	0.189	0.147	0.529%	0.031	0.013	0.000	0.000
%RSD		1.287	46.120	46.730	0.746	34.020	12.180	0.113	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:20	69.322%	0.010	0.093	0.107	-0.699	-1.041	72.789%	74.972%
2	15:04:29	70.426%	0.097	0.091	0.206	-0.499	-1.041	71.609%	74.140%
3	15:04:39	72.207%	0.091	0.087	0.002	-0.900	-1.041	75.751%	75.496%
X		70.651%	0.066	0.090	0.105	-0.699	-1.041	73.383%	74.869%
σ		1.456%	0.049	0.003	0.102	0.200	0.000	2.134%	0.684%
%RSD		2.060	73.580	3.691	97.260	28.640	0.000	2.908	0.913
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:04:20	0.012	0.008	-0.007	-0.014	0.017	68.542%		
2	15:04:29	0.054	0.008	-0.009	0.025	0.015	73.857%		
3	15:04:39	0.056	-0.004	-0.008	0.026	0.007	71.489%		
X		0.040	0.004	-0.008	0.012	0.013	71.296%		
σ		0.025	0.007	0.001	0.023	0.005	2.663%		
%RSD		61.330	183.700	7.803	190.800	40.260	3.735		

180-46891-C-9-B MS 8/24/2015 3:10:22 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	15:09:27	76.410%	44.700	916.500	909.300	0.000	54810.000	59960.000	60560.000	
2	15:09:37	78.379%	45.120	902.000	894.500	0.000	54150.000	59770.000	60290.000	
3	15:09:46	75.117%	46.930	918.400	930.000	0.000	53540.000	64620.000	61050.000	
X		76.635%	45.580	912.300	911.300	0.000	54170.000	61450.000	60640.000	
		σ	1.642%	1.183	9.013	17.860	0.000	637.400	2747.000	384.000
		%RSD	2.143	2.596	0.988	1.960	0.000	1.177	4.470	0.633
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:09:27	2499.000	14530.000	0.000	55540.000	73450.000	69830.000	63.334%	1024.000	
2	15:09:37	2491.000	14470.000	0.000	55140.000	73640.000	69620.000	63.975%	1002.000	
3	15:09:46	2495.000	14430.000	0.000	55520.000	73850.000	68800.000	63.006%	981.400	
X		2495.000	14480.000	0.000	55400.000	73650.000	69420.000	63.438%	1002.000	
		σ	3.743	54.470	0.000	225.000	200.500	544.400	0.493%	21.270
		%RSD	0.150	0.376	0.000	0.406	0.272	0.784	0.777	2.122
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:09:27	533.500	212.600	1607.000	990.100	1324.000	479.900	457.300	249.300	
2	15:09:37	523.900	211.300	1612.000	958.000	1302.000	459.200	452.200	241.300	
3	15:09:46	550.300	216.900	1603.000	1001.000	1353.000	484.700	470.600	251.700	
X		535.900	213.600	1607.000	983.200	1326.000	474.600	460.000	247.400	
		σ	13.350	2.970	4.670	22.510	25.710	13.530	9.506	5.442
		%RSD	2.491	1.391	0.291	2.290	1.939	2.852	2.066	2.199
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:09:27	245.800	619.900	617.900	29.950	9.067	6.020	0.000	562.900	
2	15:09:37	238.800	612.800	588.300	29.180	7.711	10.610	0.000	563.800	
3	15:09:46	233.700	628.100	603.800	29.090	10.780	15.030	0.000	563.600	
X		239.500	620.200	603.300	29.410	9.186	10.560	0.000	563.400	
		σ	6.094	7.645	14.810	0.474	1.538	4.507	0.000	0.518
		%RSD	2.545	1.233	2.454	1.612	16.740	42.700	0.000	0.092
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:09:27	115.191%	802.500	925.300	61.718%	53.530	52.550	52.460	87.120	
2	15:09:37	116.871%	793.500	918.700	60.709%	52.610	53.590	55.220	86.390	
3	15:09:46	118.474%	802.300	924.000	60.821%	51.650	54.550	53.130	87.950	
X		116.845%	799.500	922.700	61.083%	52.600	53.560	53.600	87.150	
		σ	1.642%	5.126	3.500	0.553%	0.940	0.999	1.439	0.778
		%RSD	1.405	0.641	0.379	0.905	1.788	1.865	2.685	0.893
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:09:27	59.306%	1998.000	511.100	505.800	1944.000	1932.000	69.463%	71.768%	
2	15:09:37	59.822%	2023.000	493.500	483.200	1862.000	1863.000	69.409%	71.121%	
3	15:09:46	59.384%	2041.000	521.300	512.000	1957.000	1946.000	69.425%	69.674%	
X		59.504%	2020.000	508.600	500.300	1921.000	1914.000	69.432%	70.854%	
		σ	0.278%	21.670	14.060	15.170	51.570	44.760	0.027%	1.072%
		%RSD	0.467	1.073	2.764	3.033	2.685	2.339	0.040	1.514
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	15:09:27	57.110	54.820	20.840	21.640	21.730	62.286%			
2	15:09:37	58.140	58.870	22.100	23.240	23.120	62.827%			
3	15:09:46	54.100	53.100	21.260	21.080	20.900	63.999%			
X		56.450	55.600	21.400	21.990	21.920	63.037%			
		σ	2.102	2.964	0.641	1.122	1.124	0.875%		
		%RSD	3.724	5.331	2.997	5.105	5.127	1.389		

180-46891-C-9-C MSD 8/24/2015 3:15:25 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	75.918%	45.240	909.500	916.000	0.000	54660.000	64220.000	60680.000
2	15:14:41	77.885%	45.170	895.400	896.500	0.000	53770.000	63950.000	60400.000
3	15:14:50	75.276%	45.320	936.300	916.900	0.000	53770.000	63740.000	59980.000
X		76.360%	45.240	913.800	909.800	0.000	54070.000	63970.000	60350.000
σ		1.359%	0.074	20.760	11.520	0.000	509.900	241.100	351.300
%RSD		1.780	0.163	2.272	1.266	0.000	0.943	0.377	0.582
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	2436.000	14590.000	0.000	54060.000	69950.000	67620.000	64.038%	977.800
2	15:14:41	2412.000	14240.000	0.000	54600.000	72730.000	68180.000	63.960%	998.900
3	15:14:50	2422.000	14400.000	0.000	53780.000	71120.000	67730.000	64.466%	972.200
X		2424.000	14410.000	0.000	54150.000	71270.000	67840.000	64.155%	982.900
σ		12.220	175.500	0.000	416.000	1396.000	294.700	0.273%	14.080
%RSD		0.504	1.218	0.000	0.768	1.959	0.434	0.425	1.432
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	505.000	208.600	1569.000	978.100	1296.000	473.700	470.400	246.600
2	15:14:41	480.600	210.500	1586.000	954.700	1225.000	460.000	451.600	240.700
3	15:14:50	495.700	211.400	1571.000	953.300	1244.000	465.900	457.200	244.000
X		493.800	210.200	1575.000	962.000	1255.000	466.500	459.700	243.800
σ		12.290	1.413	8.928	13.890	36.640	6.827	9.690	2.947
%RSD		2.490	0.672	0.567	1.444	2.920	1.463	2.108	1.209
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	239.600	600.800	593.400	29.840	9.062	15.960	0.000	554.600
2	15:14:41	228.200	618.400	599.800	29.480	8.034	11.040	0.000	566.700
3	15:14:50	230.400	608.600	582.800	28.760	8.002	13.450	0.000	571.900
X		232.800	609.300	592.000	29.360	8.366	13.480	0.000	564.400
σ		6.064	8.824	8.596	0.553	0.603	2.461	0.000	8.879
%RSD		2.605	1.448	1.452	1.885	7.203	18.250	0.000	1.573
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	114.532%	797.200	921.300	59.580%	50.190	50.440	55.650	85.690
2	15:14:41	114.225%	775.300	898.700	60.254%	51.130	53.950	47.980	87.400
3	15:14:50	114.400%	775.000	910.400	60.705%	49.520	49.990	51.910	83.670
X		114.386%	782.500	910.100	60.180%	50.280	51.460	51.850	85.590
σ		0.154%	12.700	11.290	0.567%	0.810	2.166	3.839	1.869
%RSD		0.135	1.623	1.241	0.941	1.610	4.210	7.404	2.184
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:14:31	57.602%	1975.000	496.400	496.900	1865.000	1886.000	68.839%	70.536%
2	15:14:41	59.896%	1926.000	471.300	464.000	1819.000	1790.000	69.600%	71.183%
3	15:14:50	60.248%	1913.000	474.000	476.600	1859.000	1833.000	70.825%	72.076%
X		59.249%	1938.000	480.600	479.200	1848.000	1836.000	69.755%	71.265%
σ		1.437%	32.600	13.800	16.600	25.260	48.110	1.002%	0.773%
%RSD		2.425	1.682	2.871	3.464	1.367	2.620	1.437	1.085
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:14:31	57.460	56.120	23.040	21.780	21.630	57.541%		
2	15:14:41	56.370	57.480	22.960	22.310	22.310	59.560%		
3	15:14:50	57.790	55.250	22.370	20.500	21.170	58.909%		
X		57.210	56.280	22.790	21.530	21.700	58.670%		
σ		0.743	1.126	0.363	0.931	0.575	1.031%		
%RSD		1.299	2.000	1.591	4.323	2.651	1.757		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	77.470%	-0.042	5.636	7.084	0.000	172.600	-24.790	-28.160
2	15:19:44	76.565%	0.014	7.235	6.905	0.000	166.600	-25.830	-27.140
3	15:19:54	76.827%	-0.022	6.349	6.398	0.000	168.400	-25.280	-23.940
X		76.954%	-0.017	6.407	6.796	0.000	169.200	-25.300	-26.410
σ		0.466%	0.028	0.801	0.356	0.000	3.065	0.517	2.206
%RSD		0.605	169.400	12.510	5.239	0.000	1.811	2.044	8.350
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	3.754	7.336	0.000	158.200	69.070	149.300	63.389%	1.578
2	15:19:44	3.597	8.330	0.000	146.800	85.450	164.600	63.759%	0.694
3	15:19:54	3.487	6.515	0.000	150.600	90.330	153.300	63.506%	1.017
X		3.613	7.394	0.000	151.900	81.620	155.700	63.552%	1.096
σ		0.134	0.908	0.000	5.798	11.140	7.898	0.189%	0.447
%RSD		3.708	12.290	0.000	3.817	13.650	5.071	0.297	40.780
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	-22.070	15.040	2.973	11.950	1.829	0.246	-2.638	1.925
2	15:19:44	-13.030	18.560	2.585	11.110	10.670	0.210	-3.106	2.362
3	15:19:54	18.820	16.320	2.845	10.050	17.320	0.277	-3.108	2.399
X		-5.424	16.640	2.801	11.040	9.939	0.244	-2.951	2.229
σ		21.480	1.781	0.198	0.954	7.770	0.033	0.271	0.264
%RSD		396.000	10.700	7.067	8.645	78.180	13.650	9.171	11.840
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	1.626	2.785	2.654	0.208	-0.134	2.267	0.000	0.064
2	15:19:44	1.456	2.549	2.917	0.230	0.174	1.807	0.000	0.136
3	15:19:54	1.652	2.847	1.894	0.301	-0.134	1.701	0.000	0.061
X		1.578	2.727	2.488	0.246	-0.032	1.925	0.000	0.087
σ		0.107	0.157	0.531	0.049	0.178	0.301	0.000	0.043
%RSD		6.756	5.761	21.360	19.910	563.100	15.620	0.000	49.030
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	64.596%	1.013	0.947	65.172%	-0.131	-0.087	-0.037	0.056
2	15:19:44	65.188%	1.148	1.112	66.133%	-0.117	-0.117	0.049	0.020
3	15:19:54	66.217%	1.087	0.721	66.370%	-0.104	-0.118	-0.037	-0.015
X		65.334%	1.083	0.926	65.892%	-0.117	-0.107	-0.008	0.020
σ		0.821%	0.068	0.196	0.634%	0.013	0.018	0.050	0.036
%RSD		1.256	6.275	21.190	0.962	11.170	16.410	597.800	174.200
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:35	63.034%	0.520	-0.010	0.123	-0.900	-0.439	66.837%	68.203%
2	15:19:44	63.419%	0.908	0.077	-0.026	-0.258	-0.924	70.605%	69.373%
3	15:19:54	66.339%	0.583	0.044	0.043	-0.900	-0.579	68.953%	67.333%
X		64.264%	0.670	0.037	0.047	-0.686	-0.647	68.798%	68.303%
σ		1.807%	0.208	0.044	0.075	0.370	0.250	1.889%	1.024%
%RSD		2.812	31.040	118.700	160.400	53.970	38.550	2.745	1.499
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:19:35	0.107	0.074	0.128	0.028	0.125	67.425%		
2	15:19:44	0.124	0.068	0.170	0.072	0.094	66.241%		
3	15:19:54	0.071	0.106	0.083	0.086	0.108	71.830%		
X		0.101	0.083	0.127	0.062	0.109	68.499%		
σ		0.027	0.021	0.043	0.030	0.015	2.945%		
%RSD		26.800	24.870	34.180	48.540	14.150	4.299		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	72.668%	-0.111	0.686	-0.759	0.000	33.270	-33.810	-37.600	
2	15:28:32	73.053%	-0.176	-1.652	-0.538	0.000	33.920	-36.550	-37.000	
3	15:28:42	73.880%	-0.151	-0.880	-0.738	0.000	29.810	-36.020	-38.090	
X		73.201%	-0.146	-0.615	-0.678	0.000	32.330	-35.460	-37.560	
		$\sigma$	0.620%	0.033	1.191	0.122	0.000	2.210	1.452	0.542
		%RSD	0.846	22.320	193.700	17.920	0.000	6.836	4.095	1.444
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	-1.039	-1.010	0.000	82.010	-36.980	-81.430	70.684%	0.093	
2	15:28:32	-1.067	3.706	0.000	99.820	-40.770	-80.890	70.403%	0.022	
3	15:28:42	-1.004	-0.209	0.000	96.220	-48.540	-91.610	70.481%	0.309	
X		-1.037	0.829	0.000	92.680	-42.090	-84.640	70.523%	0.141	
		$\sigma$	0.031	2.524	0.000	9.413	5.891	6.041	0.145%	0.149
		%RSD	3.019	304.300	0.000	10.160	14.000	7.137	0.206	105.700
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	-0.374	0.509	0.212	0.142	-5.104	0.036	-3.548	0.270	
2	15:28:32	0.695	0.498	0.202	-0.101	-1.078	0.021	-3.493	0.067	
3	15:28:42	0.668	0.656	0.173	-0.431	-5.135	0.065	-3.090	0.445	
X		0.330	0.554	0.196	-0.130	-3.772	0.041	-3.377	0.261	
		$\sigma$	0.609	0.089	0.020	0.288	2.333	0.023	0.250	0.189
		%RSD	184.700	15.990	10.240	221.300	61.850	55.810	7.401	72.550
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	0.067	-0.417	0.158	-0.043	0.152	3.340	0.000	-0.048	
2	15:28:32	-0.080	-0.228	-0.681	0.070	0.146	-0.762	0.000	-0.048	
3	15:28:42	-0.086	-0.423	-0.168	0.001	0.139	3.340	0.000	0.017	
X		-0.033	-0.356	-0.230	0.010	0.146	1.972	0.000	-0.026	
		$\sigma$	0.087	0.111	0.423	0.057	2.368	0.000	0.037	
		%RSD	262.900	31.070	184.000	597.700	4.647	120.000	0.000	143.700
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	69.395%	0.293	0.040	69.633%	0.020	-0.064	-0.037	-0.015	
2	15:28:32	71.609%	0.059	0.065	70.435%	-0.094	-0.051	-0.037	-0.015	
3	15:28:42	74.108%	0.101	0.117	71.119%	-0.008	-0.026	-0.037	0.048	
X		71.704%	0.151	0.074	70.396%	-0.027	-0.047	-0.037	0.006	
		$\sigma$	2.358%	0.125	0.039	0.744%	0.060	0.020	0.000	0.036
		%RSD	3.288	82.850	52.830	1.057	218.600	41.610	0.242	613.400
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:28:23	70.207%	0.009	0.038	-0.063	-0.900	-0.820	71.229%	72.615%	
2	15:28:32	69.997%	0.054	0.011	0.004	-0.900	-1.041	73.498%	74.125%	
3	15:28:42	71.391%	0.051	-0.043	-0.063	-0.701	-0.823	71.868%	74.671%	
X		70.532%	0.038	0.002	-0.041	-0.834	-0.895	72.198%	73.804%	
		$\sigma$	0.752%	0.025	0.041	0.039	0.115	0.127	1.170%	1.065%
		%RSD	1.066	66.740	2036.000	95.130	13.750	14.160	1.620	1.443
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	15:28:23	0.070	0.026	-0.008	-0.014	-0.002	72.065%			
2	15:28:32	0.026	0.038	-0.026	-0.014	-0.006	72.357%			
3	15:28:42	-0.004	0.043	-0.009	0.064	0.015	73.229%			
X		0.031	0.036	-0.014	0.012	0.002	72.551%			
		$\sigma$	0.037	0.009	0.010	0.045	0.011	0.606%		
		%RSD	120.400	24.830	71.820	385.000	454.100	0.835		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	76.744%	46.200	906.900	903.000	0.000	53540.000	58750.000	61700.000
2	15:33:35	78.399%	42.900	868.200	859.500	0.000	53720.000	60080.000	56620.000
3	15:33:45	78.474%	43.770	906.000	897.600	0.000	52420.000	58610.000	55260.000
X		77.872%	44.290	893.700	886.700	0.000	53230.000	59150.000	57860.000
σ		0.978%	1.711	22.070	23.760	0.000	700.100	812.600	3394.000
%RSD		1.256	3.863	2.470	2.679	0.000	1.315	1.374	5.866
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	2229.000	5502.000	0.000	53650.000	53940.000	49860.000	62.038%	1010.000
2	15:33:35	2238.000	5426.000	0.000	53770.000	53950.000	50330.000	61.804%	1001.000
3	15:33:45	2193.000	5427.000	0.000	52720.000	52720.000	49080.000	63.814%	992.800
X		2220.000	5452.000	0.000	53380.000	53540.000	49760.000	62.552%	1001.000
σ		24.020	43.310	0.000	574.200	706.500	633.800	1.099%	8.487
%RSD		1.082	0.794	0.000	1.076	1.320	1.274	1.758	0.848
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	553.400	238.100	508.700	1072.000	1334.000	542.800	552.800	283.800
2	15:33:35	593.200	241.400	511.000	1110.000	1272.000	556.800	548.400	284.700
3	15:33:45	585.400	233.300	498.800	1079.000	1367.000	553.100	553.200	288.300
X		577.300	237.600	506.200	1087.000	1324.000	550.900	551.400	285.600
σ		21.100	4.083	6.489	19.810	48.170	7.288	2.646	2.373
%RSD		3.655	1.718	1.282	1.823	3.638	1.323	0.480	0.831
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	286.000	535.400	527.900	43.590	8.271	7.225	0.000	983.800
2	15:33:35	272.000	538.300	516.400	43.340	9.407	17.460	0.000	985.200
3	15:33:45	280.500	520.900	504.700	40.850	7.350	9.495	0.000	964.300
X		279.500	531.600	516.300	42.590	8.343	11.390	0.000	977.800
σ		7.043	9.342	11.610	1.517	1.030	5.373	0.000	11.700
%RSD		2.520	1.758	2.249	3.562	12.350	47.160	0.000	1.197
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	61.791%	1079.000	1122.000	61.264%	52.020	53.270	48.620	86.200
2	15:33:35	63.237%	1071.000	1088.000	62.656%	51.050	51.270	52.690	86.520
3	15:33:45	64.223%	1091.000	1106.000	62.677%	51.000	54.350	47.700	86.160
X		63.084%	1080.000	1106.000	62.199%	51.360	52.960	49.670	86.300
σ		1.223%	10.090	16.920	0.810%	0.574	1.558	2.657	0.194
%RSD		1.939	0.934	1.530	1.302	1.118	2.941	5.349	0.225
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:33:26	60.770%	1986.000	475.500	474.500	1910.000	1897.000	65.124%	67.341%
2	15:33:35	61.115%	2050.000	496.000	494.400	1899.000	1885.000	65.992%	66.047%
3	15:33:45	60.450%	2078.000	514.100	510.500	1948.000	1892.000	67.484%	65.840%
X		60.778%	2038.000	495.200	493.200	1919.000	1891.000	66.200%	66.409%
σ		0.332%	47.140	19.280	18.050	25.570	5.963	1.193%	0.813%
%RSD		0.547	2.313	3.893	3.661	1.333	0.315	1.803	1.225
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:33:26	59.520	59.070	23.070	21.980	22.730	62.252%		
2	15:33:35	52.770	53.090	21.190	20.990	21.570	66.323%		
3	15:33:45	53.420	53.610	22.120	21.950	21.770	63.855%		
X		55.240	55.250	22.130	21.640	22.020	64.143%		
σ		3.725	3.313	0.944	0.563	0.621	2.051%		
%RSD		6.743	5.995	4.268	2.604	2.818	3.198		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	74.932%	2.488	13.680	14.670	0.000	1566.000	37290.000	38600.000	
2	15:38:39	74.567%	2.396	14.640	14.470	0.000	1533.000	37400.000	38620.000	
3	15:38:48	75.533%	2.466	13.930	12.690	0.000	1543.000	37940.000	39210.000	
X		75.011%	2.450	14.080	13.940	0.000	1548.000	37540.000	38810.000	
		σ	0.488%	0.048	0.501	1.090	0.000	17.120	347.400	346.400
		%RSD	0.650	1.962	3.554	7.818	0.000	1.106	0.925	0.893
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	27660.000	2396.000	0.000	3305.000	45920.000	43290.000	64.271%	1693.000	
2	15:38:39	27600.000	2423.000	0.000	3337.000	45730.000	43200.000	64.152%	1687.000	
3	15:38:48	28060.000	2428.000	0.000	3383.000	47730.000	44120.000	63.184%	1709.000	
X		27770.000	2416.000	0.000	3342.000	46460.000	43540.000	63.869%	1697.000	
		σ	247.900	16.840	0.000	39.500	1100.000	507.700	0.596%	10.960
		%RSD	0.892	0.697	0.000	1.182	2.367	1.166	0.934	0.646
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	115.300	103.300	1304.000	167200.000	166100.000	37.130	93.760	361.000	
2	15:38:39	150.700	106.000	1297.000	173700.000	172300.000	36.820	100.300	361.300	
3	15:38:48	135.400	108.900	1316.000	172800.000	169300.000	36.590	93.780	356.400	
X		133.800	106.100	1306.000	171200.000	169200.000	36.850	95.950	359.600	
		σ	17.760	2.837	9.865	3538.000	3073.000	0.270	3.776	2.734
		%RSD	13.280	2.675	0.756	2.066	1.816	0.732	3.936	0.760
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	362.600	1635.000	1595.000	37.050	3.476	5.025	0.000	75.460	
2	15:38:39	364.400	1629.000	1648.000	35.030	2.801	5.512	0.000	76.570	
3	15:38:48	349.000	1623.000	1633.000	38.160	4.120	1.068	0.000	75.560	
X		358.700	1629.000	1625.000	36.750	3.466	3.869	0.000	75.870	
		σ	8.415	5.662	27.640	1.585	0.660	2.437	0.000	0.613
		%RSD	2.346	0.348	1.701	4.313	19.040	63.000	0.000	0.808
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	0.000	5.297	4.148	58.598%	0.079	0.254	6.286	6.794	
2	15:38:39	0.000	5.618	5.144	59.328%	0.154	0.096	7.238	8.277	
3	15:38:48	0.000	5.606	4.738	59.600%	0.212	0.078	5.409	7.387	
X		0.000	5.507	4.677	59.176%	0.149	0.143	6.311	7.486	
		σ	0.000	0.182	0.501	0.518%	0.067	0.097	0.915	0.747
		%RSD	0.000	3.305	10.710	0.876	44.830	67.690	14.490	9.973
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	15:38:29	60.621%	68.120	1.437	1.706	1580.000	1575.000	67.126%	66.733%	
2	15:38:39	58.815%	70.330	1.766	1.678	1654.000	1676.000	65.825%	65.693%	
3	15:38:48	59.222%	72.240	1.451	1.248	1635.000	1636.000	62.195%	64.754%	
X		59.553%	70.230	1.551	1.544	1623.000	1629.000	65.048%	65.727%	
		σ	0.947%	2.063	0.186	0.257	38.530	50.770	2.556%	0.990%
		%RSD	1.591	2.938	11.990	16.640	2.374	3.117	3.929	1.506
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	15:38:29	0.416	0.283	2370.000	2195.000	2252.000	57.158%			
2	15:38:39	0.360	0.357	2218.000	2091.000	2145.000	57.617%			
3	15:38:48	0.305	0.236	2246.000	2142.000	2185.000	61.578%			
X		0.360	0.292	2278.000	2143.000	2194.000	58.785%			
		σ	0.055	0.061	80.960	51.800	54.060	2.430%		
		%RSD	15.380	20.730	3.554	2.418	2.464	4.134		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	73.971%	2.918	29.860	29.940	0.000	1519.000	18370.000	18620.000
2	15:43:43	73.481%	3.003	32.500	32.710	0.000	1531.000	18860.000	19000.000
3	15:43:52	73.302%	3.218	30.120	31.780	0.000	1600.000	18950.000	19210.000
X		73.585%	3.046	30.830	31.480	0.000	1550.000	18720.000	18940.000
σ		0.346%	0.155	1.457	1.407	0.000	43.990	312.400	301.300
%RSD		0.471	5.078	4.725	4.469	0.000	2.838	1.669	1.591
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	31790.000	2394.000	0.000	5061.000	14740.000	13830.000	63.384%	1635.000
2	15:43:43	32620.000	2451.000	0.000	5162.000	15920.000	14270.000	63.631%	1684.000
3	15:43:52	32750.000	2445.000	0.000	5185.000	15690.000	14240.000	63.436%	1667.000
X		32390.000	2430.000	0.000	5136.000	15450.000	14110.000	63.483%	1662.000
σ		519.300	31.410	0.000	66.170	626.400	244.200	0.130%	24.850
%RSD		1.603	1.292	0.000	1.288	4.055	1.730	0.205	1.495
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	140.500	131.200	1578.000	129700.000	129200.000	42.230	133.300	286.900
2	15:43:43	134.600	134.800	1623.000	130500.000	125300.000	41.330	129.800	284.100
3	15:43:52	137.600	135.000	1607.000	130300.000	129300.000	42.160	134.400	288.900
X		137.600	133.600	1602.000	130200.000	127900.000	41.910	132.500	286.600
σ		2.908	2.147	22.890	404.400	2300.000	0.501	2.421	2.370
%RSD		2.114	1.607	1.429	0.311	1.798	1.196	1.827	0.827
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	282.400	814.000	824.900	24.910	3.157	10.010	0.000	59.840
2	15:43:43	272.100	818.500	858.700	25.800	2.832	15.660	0.000	61.240
3	15:43:52	287.300	834.900	852.900	24.550	4.799	8.087	0.000	60.900
X		280.600	822.400	845.500	25.090	3.596	11.250	0.000	60.660
σ		7.747	11.030	18.070	0.645	1.055	3.934	0.000	0.735
%RSD		2.761	1.341	2.137	2.572	29.320	34.970	0.000	1.211
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	0.000	2.734	2.294	58.882%	0.296	0.199	2.670	3.878
2	15:43:43	0.000	3.017	2.238	58.592%	0.188	0.229	2.255	3.497
3	15:43:52	0.000	2.299	2.686	58.929%	0.175	0.168	3.074	2.483
X		0.000	2.683	2.406	58.801%	0.220	0.199	2.666	3.286
σ		0.000	0.362	0.244	0.182%	0.066	0.031	0.410	0.721
%RSD		0.000	13.490	10.150	0.310	30.120	15.460	15.380	21.940
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:33	57.040%	50.940	0.909	1.119	446.100	482.400	64.211%	63.130%
2	15:43:43	58.241%	57.530	1.214	1.584	439.700	455.400	63.017%	64.069%
3	15:43:52	56.525%	58.560	1.633	1.817	455.600	464.700	66.190%	63.515%
X		57.269%	55.680	1.252	1.507	447.100	467.500	64.473%	63.571%
σ		0.881%	4.131	0.364	0.355	8.051	13.740	1.603%	0.472%
%RSD		1.538	7.420	29.050	23.590	1.801	2.940	2.486	0.743
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:43:33	0.348	0.279	575.500	502.100	536.600	53.362%		
2	15:43:43	0.428	0.308	566.400	516.400	534.900	58.459%		
3	15:43:52	0.246	0.322	585.600	527.700	543.700	54.294%		
X		0.341	0.303	575.900	515.400	538.400	55.372%		
σ		0.091	0.022	9.603	12.820	4.639	2.714%		
%RSD		26.750	7.258	1.668	2.486	0.862	4.901		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	72.186%	1.299	50.350	48.670	0.000	3732.000	10270.000	10450.000
2	15:48:45	70.765%	1.593	54.340	50.460	0.000	3654.000	10160.000	10490.000
3	15:48:55	71.362%	1.568	49.600	49.560	0.000	3644.000	10270.000	10370.000
X		71.437%	1.486	51.430	49.560	0.000	3677.000	10230.000	10440.000
σ		0.714%	0.163	2.547	0.896	0.000	48.420	63.280	59.810
%RSD		0.999	10.980	4.953	1.808	0.000	1.317	0.618	0.573
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	50310.000	3881.000	0.000	2788.000	16700.000	15410.000	62.334%	1259.000
2	15:48:45	50290.000	3975.000	0.000	2813.000	17080.000	15430.000	62.890%	1257.000
3	15:48:55	50030.000	3964.000	0.000	2790.000	16920.000	15520.000	63.000%	1242.000
X		50210.000	3940.000	0.000	2797.000	16900.000	15450.000	62.741%	1253.000
σ		157.200	51.170	0.000	13.860	190.400	54.550	0.357%	9.024
%RSD		0.313	1.299	0.000	0.496	1.127	0.353	0.569	0.720
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	201.900	173.700	1219.000	77340.000	75950.000	25.960	113.900	542.200
2	15:48:45	194.700	169.700	1232.000	77780.000	76790.000	26.320	120.100	555.300
3	15:48:55	201.400	172.100	1228.000	79280.000	77190.000	25.620	116.500	535.800
X		199.300	171.900	1226.000	78130.000	76640.000	25.960	116.800	544.400
σ		3.999	2.021	6.491	1013.000	629.300	0.350	3.111	9.972
%RSD		2.006	1.176	0.529	1.297	0.821	1.349	2.663	1.832
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	529.200	1098.000	1101.000	53.830	9.765	25.110	0.000	66.020
2	15:48:45	544.800	1092.000	1082.000	54.270	10.000	15.530	0.000	65.700
3	15:48:55	529.300	1082.000	1084.000	54.400	8.725	12.390	0.000	67.490
X		534.400	1090.000	1089.000	54.170	9.498	17.680	0.000	66.410
σ		8.953	8.058	10.510	0.297	0.680	6.624	0.000	0.955
%RSD		1.675	0.739	0.965	0.548	7.156	37.470	0.000	1.438
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	0.000	7.096	7.899	59.345%	1.342	1.610	53.230	57.790
2	15:48:45	0.000	7.138	7.503	59.890%	1.558	1.588	56.180	56.520
3	15:48:55	0.000	8.419	6.769	59.467%	1.508	1.384	57.850	54.980
X		0.000	7.551	7.390	59.567%	1.469	1.527	55.760	56.430
σ		0.000	0.752	0.573	0.286%	0.113	0.124	2.338	1.410
%RSD		0.000	9.959	7.755	0.480	7.686	8.144	4.194	2.499
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:36	57.910%	107.400	12.310	12.900	1003.000	960.300	61.982%	61.906%
2	15:48:45	57.815%	106.500	10.980	12.580	982.900	982.500	65.893%	65.185%
3	15:48:55	57.660%	109.900	12.620	13.260	989.500	959.400	63.207%	62.861%
X		57.795%	107.900	11.970	12.910	991.800	967.400	63.694%	63.317%
σ		0.126%	1.742	0.870	0.342	10.200	13.060	2.001%	1.686%
%RSD		0.219	1.614	7.269	2.648	1.029	1.350	3.141	2.664
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:48:36	0.544	0.447	1628.000	1512.000	1564.000	60.008%		
2	15:48:45	0.290	0.543	1663.000	1491.000	1563.000	56.968%		
3	15:48:55	0.249	0.418	1524.000	1446.000	1496.000	63.253%		
X		0.361	0.469	1605.000	1483.000	1541.000	60.076%		
σ		0.160	0.065	72.400	33.360	39.310	3.143%		
%RSD		44.230	13.900	4.512	2.249	2.551	5.231		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	70.610%	3.355	108.700	109.800	0.000	7335.000	23710.000	24070.000
2	15:53:50	69.342%	3.261	118.000	114.700	0.000	7260.000	23840.000	23950.000
3	15:53:59	69.991%	3.067	111.600	111.600	0.000	7233.000	23590.000	23730.000
X		69.981%	3.228	112.700	112.000	0.000	7276.000	23710.000	23920.000
σ		0.634%	0.147	4.770	2.461	0.000	52.850	129.000	175.400
%RSD		0.906	4.547	4.231	2.196	0.000	0.726	0.544	0.734
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	81100.000	3970.000	0.000	4382.000	31820.000	29470.000	62.451%	2423.000
2	15:53:50	81090.000	3972.000	0.000	4358.000	31310.000	29450.000	62.523%	2425.000
3	15:53:59	80220.000	3977.000	0.000	4319.000	31400.000	29280.000	63.332%	2399.000
X		80800.000	3973.000	0.000	4353.000	31510.000	29400.000	62.769%	2416.000
σ		510.100	3.513	0.000	31.990	267.700	100.200	0.489%	14.270
%RSD		0.631	0.088	0.000	0.735	0.849	0.341	0.780	0.591
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	574.300	454.600	2310.000	131700.000	130100.000	56.060	287.300	1539.000
2	15:53:50	538.800	445.000	2323.000	128500.000	127600.000	55.280	280.900	1589.000
3	15:53:59	574.700	443.800	2284.000	129800.000	130000.000	53.760	298.700	1535.000
X		562.600	447.800	2306.000	130000.000	129200.000	55.040	289.000	1554.000
σ		20.620	5.935	19.960	1604.000	1444.000	1.171	8.990	30.110
%RSD		3.664	1.325	0.866	1.234	1.118	2.127	3.111	1.937
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	1507.000	4131.000	4134.000	96.410	14.050	10.100	0.000	164.100
2	15:53:50	1545.000	4187.000	4203.000	100.000	14.950	15.630	0.000	164.700
3	15:53:59	1481.000	4118.000	4142.000	101.300	12.230	21.690	0.000	163.300
X		1511.000	4145.000	4160.000	99.250	13.740	15.810	0.000	164.000
σ		32.140	36.560	37.710	2.540	1.390	5.797	0.000	0.703
%RSD		2.127	0.882	0.907	2.559	10.110	36.680	0.000	0.429
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	0.000	18.990	17.980	56.947%	7.420	7.672	79.690	84.080
2	15:53:50	0.000	18.300	18.050	57.623%	7.717	7.949	79.240	81.450
3	15:53:59	0.000	16.320	17.970	57.470%	7.577	8.274	86.150	84.090
X		0.000	17.870	18.000	57.347%	7.571	7.965	81.690	83.210
σ		0.000	1.390	0.042	0.355%	0.149	0.301	3.867	1.523
%RSD		0.000	7.779	0.236	0.618	1.961	3.786	4.733	1.831
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:53:40	56.469%	139.500	40.090	40.480	1377.000	1351.000	61.495%	60.321%
2	15:53:50	55.482%	131.700	39.180	39.220	1375.000	1371.000	65.338%	63.307%
3	15:53:59	56.445%	134.800	40.280	40.550	1408.000	1382.000	61.381%	61.706%
X		56.132%	135.300	39.850	40.080	1387.000	1368.000	62.738%	61.778%
σ		0.563%	3.924	0.588	0.749	18.390	15.710	2.252%	1.494%
%RSD		1.003	2.899	1.475	1.869	1.326	1.148	3.590	2.419
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:53:40	1.099	0.807	8159.000	7641.000	8213.000	57.525%		
2	15:53:50	1.098	0.829	8731.000	7901.000	8420.000	53.913%		
3	15:53:59	0.723	0.887	8145.000	7496.000	8088.000	59.756%		
X		0.974	0.841	8345.000	7679.000	8240.000	57.065%		
σ		0.217	0.042	334.400	205.300	167.900	2.948%		
%RSD		22.270	4.936	4.007	2.673	2.038	5.167		

CCV 1671387 8/24/2015 3:59:41 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	15:58:45	60.484%	105.900	106.900	104.400	0.000	52880.000	55820.000	57730.000
2	15:58:54	60.819%	103.500	103.500	104.600	0.000	54180.000	58550.000	59320.000
3	15:59:04	60.039%	105.800	107.100	105.800	0.000	53600.000	57680.000	59050.000
X		60.447%	105.035%	105.797%	104.950%	0.000	107.102%	114.700%	117.398%
σ		0.391%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.647	1.301	1.902	0.685	0.000	1.221	2.431	1.452
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:45	519.200	5514.000	0.000	50180.000	48870.000	46020.000	61.358%	98.250
2	15:58:54	553.900	5709.000	0.000	51990.000	50610.000	47700.000	60.131%	95.470
3	15:59:04	547.400	5734.000	0.000	51180.000	49080.000	47200.000	61.063%	101.400
X		108.035%	113.047%	0.000	102.234%	99.036%	93.944%	60.851%	98.365%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.641%	n/a
%RSD		3.410	2.136	0.000	1.774	1.920	1.838	1.053	3.006
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:45	104.500	105.600	485.800	26700.000	26210.000	102.200	102.900	107.300
2	15:58:54	105.900	106.600	499.600	27230.000	26990.000	107.400	108.100	112.500
3	15:59:04	105.100	104.700	492.500	27130.000	26730.000	106.800	100.200	106.600
X		105.162%	105.630%	98.524%	108.077%	106.565%	105.498%	103.711%	108.774%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.682	0.928	1.398	1.028	1.495	2.697	3.896	2.984
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:45	103.700	102.900	110.600	98.850	92.020	102.000	0.000	92.170
2	15:58:54	109.600	97.740	95.600	100.400	100.100	89.510	0.000	94.160
3	15:59:04	104.200	103.800	112.600	99.580	98.060	89.780	0.000	92.250
X		105.845%	101.480%	106.293%	99.614%	96.742%	93.767%	0.000	92.863%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.071	3.215	8.759	0.788	4.361	7.614	0.000	1.212
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:45	60.269%	100.000	99.050	58.309%	100.200	101.500	99.840	103.700
2	15:58:54	61.857%	100.400	103.500	59.201%	98.260	99.680	104.900	97.690
3	15:59:04	62.744%	97.110	103.000	59.681%	95.620	97.220	93.230	100.800
X		61.623%	99.183%	101.846%	59.064%	98.044%	99.478%	99.335%	100.746%
σ		1.254%	n/a	n/a	0.696%	n/a	n/a	n/a	n/a
%RSD		2.035	1.821	2.391	1.178	2.366	2.178	5.903	3.009
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:58:45	56.666%	97.910	96.480	97.800	101.900	92.830	57.965%	59.074%
2	15:58:54	59.295%	97.240	92.320	97.210	93.120	95.230	61.936%	61.468%
3	15:59:04	59.980%	95.720	97.870	95.630	93.300	89.610	61.487%	59.282%
X		58.647%	96.957%	95.557%	96.882%	96.101%	92.557%	60.463%	59.941%
σ		1.749%	n/a	n/a	n/a	n/a	n/a	2.175%	1.326%
%RSD		2.983	1.154	3.022	1.158	5.211	3.047	3.597	2.212
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:58:45	103.900	102.700	110.000	110.300	108.800	60.050%		
2	15:58:54	105.800	105.100	106.700	103.300	105.200	56.761%		
3	15:59:04	98.680	97.410	102.000	102.500	102.300	60.380%		
X		102.780%	101.764%	106.226%	105.368%	105.443%	59.064%		
σ		n/a	n/a	n/a	n/a	n/a	2.001%		
%RSD		3.585	3.884	3.799	4.048	3.067	3.388		

CCB7 8/24/2015 4:04:49 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	16:03:53	62.594%	0.014	-0.143	0.383	0.000	88.370	-41.430	-41.990
2	16:04:02	62.780%	0.076	-0.435	0.238	0.000	80.400	-41.900	-41.950
3	16:04:11	62.972%	0.190	-0.588	-0.886	0.000	78.720	-38.850	-40.200
X		62.782%	0.093	-0.389	-0.088	0.000	82.500	-40.730	-41.380
σ		0.189%	0.089	0.226	0.694	0.000	5.154	1.641	1.023
%RSD		0.301	95.550	58.130	784.900	0.000	6.248	4.030	2.473
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:53	1.129	22.740	0.000	277.900	-28.790	-79.890	60.940%	0.244
2	16:04:02	1.986	21.080	0.000	267.500	-6.848	-78.100	61.464%	-0.008
3	16:04:11	2.660	23.040	0.000	253.500	-29.060	-74.370	61.468%	0.486
X		1.925	22.290	0.000	266.300	-21.570	-77.450	61.290%	0.241
σ		0.767	1.057	0.000	12.270	12.750	2.815	0.304%	0.247
%RSD		39.850	4.744	0.000	4.609	59.110	3.634	0.495	102.500
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:53	2.797	0.534	0.448	40.130	44.100	0.098	-3.470	0.365
2	16:04:02	-0.020	0.539	0.335	44.930	43.620	0.079	-3.544	0.432
3	16:04:11	1.856	0.585	0.465	37.960	48.110	0.044	-3.816	0.454
X		1.544	0.553	0.416	41.010	45.280	0.074	-3.610	0.417
σ		1.434	0.028	0.071	3.569	2.464	0.027	0.182	0.046
%RSD		92.880	5.082	17.050	8.704	5.441	36.890	5.038	11.050
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:53	0.302	0.822	0.273	0.087	0.189	3.340	0.000	-0.009
2	16:04:02	0.348	0.262	1.556	-0.017	-0.134	1.622	0.000	-0.048
3	16:04:11	0.131	0.585	-0.187	0.034	-0.134	0.410	0.000	-0.048
X		0.260	0.556	0.547	0.035	-0.027	1.791	0.000	-0.035
σ		0.114	0.281	0.903	0.052	0.186	1.472	0.000	0.022
%RSD		43.780	50.520	165.000	150.400	695.300	82.200	0.000	63.970
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:53	62.262%	0.758	0.473	59.949%	-0.100	-0.066	-0.037	-0.015
2	16:04:02	62.996%	0.645	0.340	60.652%	-0.100	-0.067	-0.037	0.023
3	16:04:11	63.533%	0.588	0.494	61.013%	-0.115	-0.068	-0.037	-0.015
X		62.931%	0.663	0.436	60.538%	-0.105	-0.067	-0.037	-0.002
σ		0.638%	0.087	0.084	0.541%	0.009	0.001	0.000	0.022
%RSD		1.014	13.040	19.210	0.893	8.332	1.163	0.112	893.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:53	59.030%	-0.126	0.347	0.138	-0.900	-0.510	58.581%	59.128%
2	16:04:02	59.257%	0.139	0.184	0.175	-0.900	-0.912	61.678%	60.244%
3	16:04:11	60.300%	0.083	0.025	0.332	-0.662	-0.649	59.350%	58.813%
X		59.529%	0.032	0.185	0.215	-0.821	-0.690	59.869%	59.395%
σ		0.677%	0.139	0.161	0.103	0.137	0.204	1.612%	0.752%
%RSD		1.138	432.500	86.930	47.730	16.700	29.560	2.693	1.266
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:03:53	0.015	0.003	0.579	0.656	0.673	57.969%		
2	16:04:02	0.016	0.043	1.275	0.878	1.103	54.636%		
3	16:04:11	-0.004	0.026	0.736	0.656	0.662	57.957%		
X		0.009	0.024	0.863	0.730	0.813	56.854%		
σ		0.011	0.020	0.365	0.128	0.252	1.921%		
%RSD		120.500	83.330	42.290	17.570	30.980	3.379		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	68.770%	1.256	10.090	10.750	0.000	1847.000	18720.000	18800.000
2	16:09:09	69.721%	1.386	10.360	9.596	0.000	1774.000	18890.000	18870.000
3	16:09:18	70.532%	1.515	9.629	9.550	0.000	1704.000	18810.000	18800.000
X		69.674%	1.386	10.030	9.965	0.000	1775.000	18810.000	18820.000
σ		0.882%	0.130	0.371	0.680	0.000	71.850	84.230	39.350
%RSD		1.266	9.342	3.704	6.827	0.000	4.048	0.448	0.209
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	37720.000	3884.000	0.000	2294.000	31740.000	29380.000	57.215%	1490.000
2	16:09:09	37730.000	3885.000	0.000	2197.000	32100.000	29910.000	57.286%	1536.000
3	16:09:18	37670.000	4004.000	0.000	2230.000	31520.000	29790.000	57.861%	1505.000
X		37710.000	3925.000	0.000	2241.000	31790.000	29690.000	57.454%	1510.000
σ		30.860	68.920	0.000	49.500	290.000	275.600	0.354%	23.440
%RSD		0.082	1.756	0.000	2.209	0.912	0.928	0.617	1.552
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	151.900	117.900	1466.000	106100.000	105200.000	29.200	95.270	247.000
2	16:09:09	139.300	118.200	1471.000	102600.000	99730.000	30.480	97.960	243.200
3	16:09:18	160.200	114.600	1449.000	103000.000	103500.000	30.640	101.900	245.900
X		150.500	116.900	1462.000	103900.000	102800.000	30.110	98.380	245.300
σ		10.560	2.021	11.210	1950.000	2816.000	0.788	3.337	1.969
%RSD		7.019	1.729	0.767	1.876	2.738	2.618	3.392	0.802
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	245.100	664.200	663.900	16.610	3.522	14.870	0.000	73.250
2	16:09:09	248.600	671.500	681.300	16.720	2.420	5.061	0.000	75.850
3	16:09:18	244.100	649.300	667.000	16.020	4.214	10.690	0.000	69.390
X		245.900	661.700	670.700	16.450	3.385	10.200	0.000	72.830
σ		2.381	11.360	9.291	0.377	0.905	4.920	0.000	3.250
%RSD		0.968	1.717	1.385	2.291	26.720	48.210	0.000	4.462
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	0.000	2.079	2.596	52.919%	0.092	0.092	4.157	6.284
2	16:09:09	0.000	2.315	2.152	53.043%	0.108	0.199	4.764	6.741
3	16:09:18	0.000	2.242	2.648	53.314%	0.056	0.235	7.209	6.741
X		0.000	2.212	2.465	53.092%	0.085	0.175	5.377	6.589
σ		0.000	0.121	0.272	0.202%	0.026	0.074	1.615	0.264
%RSD		0.000	5.464	11.050	0.380	30.650	42.510	30.040	4.007
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:09:00	51.283%	44.250	0.957	0.902	364.100	382.300	53.219%	52.251%
2	16:09:09	51.832%	45.110	1.091	1.210	379.100	370.700	53.820%	55.881%
3	16:09:18	51.807%	44.440	0.942	0.888	376.000	373.500	55.387%	54.735%
X		51.641%	44.600	0.997	1.000	373.100	375.500	54.142%	54.289%
σ		0.310%	0.451	0.082	0.182	7.878	6.032	1.119%	1.856%
%RSD		0.601	1.011	8.213	18.220	2.112	1.607	2.067	3.419
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:09:00	0.142	0.218	461.300	448.400	456.900	51.146%		
2	16:09:09	0.101	0.194	509.700	467.900	480.500	50.322%		
3	16:09:18	0.122	0.099	448.800	423.100	439.000	50.472%		
X		0.121	0.170	473.300	446.500	458.800	50.647%		
σ		0.020	0.063	32.120	22.480	20.820	0.439%		
%RSD		16.860	36.900	6.787	5.034	4.538	0.867		

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8/24/2015 4:14:57 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	16:14:01	62.241%	0.154	-0.042	2.353	0.000	400.600	3590.000	3658.000
2	16:14:11	64.019%	0.233	1.552	1.524	0.000	388.800	3604.000	3605.000
3	16:14:20	62.846%	0.202	-0.028	1.525	0.000	380.000	3585.000	3603.000
X		63.035%	0.196	0.494	1.801	0.000	389.800	3593.000	3622.000
σ		0.904%	0.039	0.917	0.478	0.000	10.330	10.010	31.210
%RSD		1.435	20.130	185.600	26.550	0.000	2.650	0.279	0.862
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	7582.000	806.700	0.000	646.100	6544.000	6062.000	59.065%	303.000
2	16:14:11	7556.000	807.900	0.000	642.900	6610.000	6141.000	59.381%	306.200
3	16:14:20	7487.000	811.400	0.000	640.500	6615.000	6119.000	60.030%	305.900
X		7542.000	808.700	0.000	643.200	6589.000	6107.000	59.492%	305.100
σ		49.070	2.442	0.000	2.819	39.770	40.410	0.492%	1.751
%RSD		0.651	0.302	0.000	0.438	0.604	0.662	0.827	0.574
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	20.350	23.730	290.500	20930.000	19880.000	5.881	18.530	51.290
2	16:14:11	30.780	23.630	292.700	21510.000	19410.000	6.261	16.180	50.600
3	16:14:20	30.490	23.700	287.000	22140.000	20450.000	5.663	15.520	49.600
X		27.210	23.690	290.100	21530.000	19910.000	5.935	16.740	50.500
σ		5.940	0.054	2.889	603.100	520.600	0.302	1.585	0.849
%RSD		21.830	0.227	0.996	2.802	2.615	5.096	9.464	1.680
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	49.080	134.900	124.600	3.548	-0.134	4.001	0.000	14.490
2	16:14:11	48.390	139.000	142.500	2.812	0.543	5.961	0.000	15.010
3	16:14:20	46.770	125.700	130.500	3.496	1.212	-1.595	0.000	14.490
X		48.080	133.200	132.500	3.286	0.540	2.789	0.000	14.660
σ		1.186	6.806	9.153	0.411	0.673	3.921	0.000	0.298
%RSD		2.466	5.108	6.905	12.500	124.600	140.600	0.000	2.032
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	0.000	0.244	0.663	58.188%	-0.006	-0.063	1.331	1.773
2	16:14:11	0.000	0.461	0.292	58.810%	0.006	-0.016	1.106	1.604
3	16:14:20	0.000	0.514	0.587	58.972%	0.111	-0.033	1.292	1.252
X		0.000	0.406	0.514	58.657%	0.037	-0.037	1.243	1.543
σ		0.000	0.143	0.196	0.414%	0.064	0.024	0.120	0.266
%RSD		0.000	35.100	38.150	0.705	173.900	64.060	9.662	17.250
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:01	56.447%	10.760	0.363	0.271	69.840	72.880	58.726%	59.536%
2	16:14:11	58.307%	9.523	0.287	0.263	74.780	79.040	58.110%	58.944%
3	16:14:20	58.562%	9.203	0.188	0.179	78.270	72.510	59.273%	58.567%
X		57.772%	9.827	0.280	0.238	74.300	74.810	58.703%	59.015%
σ		1.154%	0.820	0.088	0.051	4.235	3.667	0.582%	0.489%
%RSD		1.998	8.345	31.410	21.280	5.700	4.901	0.992	0.828
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:14:01	0.073	0.051	99.030	93.100	93.770	54.692%		
2	16:14:11	0.033	0.071	98.410	94.890	94.290	58.207%		
3	16:14:20	0.068	0.032	91.230	88.070	90.090	59.828%		
X		0.058	0.052	96.220	92.020	92.720	57.576%		
σ		0.022	0.019	4.335	3.537	2.291	2.625%		
%RSD		37.730	37.360	4.505	3.844	2.471	4.560		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	65.338%	47.650	869.800	879.200	0.000	52060.000	74160.000	67580.000	
2	16:19:16	64.926%	47.120	889.800	898.500	0.000	51700.000	73920.000	67910.000	
3	16:19:25	66.127%	45.270	873.300	872.300	0.000	51100.000	74130.000	68130.000	
X		65.463%	46.680	877.600	883.300	0.000	51620.000	74070.000	67870.000	
		$\sigma$	0.610%	1.244	10.670	13.550	0.000	482.300	132.100	278.400
		%RSD	0.932	2.666	1.216	1.534	0.000	0.934	0.178	0.410
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	95070.000	10510.000	0.000	49970.000	63860.000	59610.000	56.410%	2825.000	
2	16:19:16	95490.000	10600.000	0.000	50270.000	62280.000	59780.000	56.620%	2876.000	
3	16:19:25	95210.000	9913.000	0.000	50050.000	63080.000	59280.000	56.752%	2835.000	
X		95250.000	10340.000	0.000	50100.000	63070.000	59560.000	56.594%	2845.000	
		$\sigma$	213.800	375.100	0.000	152.800	793.100	250.100	0.173%	27.030
		%RSD	0.225	3.626	0.000	0.305	1.257	0.420	0.305	0.950
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	684.900	369.300	2025.000	161700.000	159300.000	534.300	625.000	590.200	
2	16:19:16	692.500	370.600	2046.000	162500.000	162000.000	529.400	621.200	574.300	
3	16:19:25	686.900	385.200	2013.000	158100.000	152600.000	511.300	593.400	562.600	
X		688.100	375.000	2028.000	160800.000	158000.000	525.000	613.200	575.700	
		$\sigma$	3.947	8.810	16.900	2324.000	4837.000	12.120	17.280	13.870
		%RSD	0.574	2.349	0.833	1.445	3.062	2.309	2.818	2.410
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	580.400	1632.000	1639.000	63.110	18.820	15.640	0.000	957.400	
2	16:19:16	568.100	1611.000	1634.000	62.700	18.190	19.150	0.000	982.100	
3	16:19:25	554.100	1629.000	1634.000	63.590	14.860	11.330	0.000	1021.000	
X		567.600	1624.000	1635.000	63.130	17.290	15.370	0.000	986.900	
		$\sigma$	13.160	11.450	2.950	0.448	2.132	3.916	0.000	32.090
		%RSD	2.318	0.705	0.180	0.710	12.330	25.480	0.000	3.252
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	0.000	960.400	963.400	50.255%	46.740	47.900	56.620	88.090	
2	16:19:16	0.000	955.900	965.900	49.552%	46.960	47.230	57.160	89.590	
3	16:19:25	0.000	949.100	962.100	48.929%	46.640	48.680	63.860	89.810	
X		0.000	955.100	963.800	49.579%	46.780	47.940	59.210	89.160	
		$\sigma$	0.000	5.653	1.907	0.663%	0.165	0.724	4.034	0.933
		%RSD	0.000	0.592	0.198	1.338	0.352	1.509	6.812	1.047
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	16:19:07	47.236%	1831.000	332.300	331.200	2279.000	2358.000	55.402%	54.874%	
2	16:19:16	47.605%	1851.000	326.600	332.800	2416.000	2354.000	54.489%	54.604%	
3	16:19:25	48.676%	1804.000	309.100	309.200	2255.000	2276.000	53.691%	53.281%	
X		47.839%	1828.000	322.700	324.400	2317.000	2330.000	54.527%	54.253%	
		$\sigma$	0.748%	23.510	12.110	13.210	86.740	46.220	0.856%	0.852%
		%RSD	1.564	1.286	3.752	4.073	3.744	1.984	1.570	1.571
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	16:19:07	50.980	50.650	574.000	520.300	534.000	43.721%			
2	16:19:16	52.330	49.840	565.500	520.700	541.400	42.965%			
3	16:19:25	51.630	51.020	598.600	544.800	555.300	45.796%			
X		51.640	50.500	579.400	528.600	543.600	44.161%			
		$\sigma$	0.677	0.604	17.210	14.020	10.820	1.466%		
		%RSD	1.312	1.196	2.971	2.652	1.990	3.319		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	58.956%	53.370	1032.000	1013.000	0.000	59430.000	92070.000	89290.000
2	16:24:22	59.412%	52.860	1005.000	996.000	0.000	58920.000	91330.000	88350.000
3	16:24:31	59.095%	52.360	1011.000	1007.000	0.000	57880.000	90580.000	88700.000
X		59.154%	52.860	1016.000	1005.000	0.000	58740.000	91320.000	88780.000
σ		0.234%	0.505	13.870	8.410	0.000	789.000	743.600	474.700
%RSD		0.395	0.955	1.365	0.837	0.000	1.343	0.814	0.535
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	63690.000	10690.000	0.000	54270.000	92450.000	89030.000	51.291%	3493.000
2	16:24:22	63040.000	10130.000	0.000	53800.000	93490.000	88660.000	51.824%	3529.000
3	16:24:31	63280.000	10140.000	0.000	53880.000	92320.000	88420.000	51.581%	3497.000
X		63340.000	10320.000	0.000	53980.000	92750.000	88700.000	51.565%	3507.000
σ		329.800	320.100	0.000	255.700	644.200	306.900	0.267%	19.620
%RSD		0.521	3.104	0.000	0.474	0.695	0.346	0.518	0.560
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	715.300	338.300	2135.000	115100.000	113500.000	555.100	695.200	736.500
2	16:24:22	695.300	327.800	2085.000	113900.000	113100.000	572.200	726.500	756.100
3	16:24:31	727.600	343.700	2102.000	119900.000	117200.000	576.700	715.300	748.500
X		712.700	336.600	2107.000	116300.000	114600.000	568.000	712.300	747.000
σ		16.280	8.063	25.770	3205.000	2289.000	11.410	15.840	9.878
%RSD		2.285	2.396	1.223	2.756	1.998	2.008	2.224	1.322
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	731.500	1543.000	1542.000	58.850	13.770	20.210	0.000	1043.000
2	16:24:22	752.300	1521.000	1537.000	58.910	14.010	7.152	0.000	1063.000
3	16:24:31	712.700	1540.000	1545.000	59.420	13.650	19.270	0.000	1069.000
X		732.200	1535.000	1542.000	59.060	13.810	15.540	0.000	1058.000
σ		19.800	12.080	4.043	0.313	0.184	7.282	0.000	13.630
%RSD		2.705	0.787	0.262	0.531	1.335	46.850	0.000	1.288
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	0.000	1006.000	1019.000	47.236%	50.080	53.140	58.050	91.820
2	16:24:22	0.000	1035.000	1060.000	47.850%	51.180	53.020	60.580	97.470
3	16:24:31	0.000	1028.000	1022.000	47.762%	49.820	49.420	59.910	91.170
X		0.000	1023.000	1034.000	47.616%	50.360	51.860	59.520	93.490
σ		0.000	14.940	23.080	0.332%	0.722	2.113	1.309	3.464
%RSD		0.000	1.461	2.233	0.697	1.434	4.074	2.200	3.705
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:24:12	46.327%	2271.000	391.400	386.800	2274.000	2261.000	48.125%	48.282%
2	16:24:22	46.289%	2262.000	389.500	388.800	2314.000	2291.000	52.809%	52.497%
3	16:24:31	47.797%	2297.000	402.200	393.000	2324.000	2271.000	49.585%	49.866%
X		46.804%	2277.000	394.300	389.500	2304.000	2275.000	50.173%	50.215%
σ		0.860%	17.940	6.844	3.148	26.700	15.340	2.396%	2.129%
%RSD		1.838	0.788	1.736	0.808	1.159	0.675	4.776	4.239
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:24:12	51.910	52.010	619.200	574.500	591.600	45.364%		
2	16:24:22	60.210	58.450	652.100	592.500	610.200	41.197%		
3	16:24:31	46.080	47.830	571.200	537.900	561.500	46.183%		
X		52.730	52.760	614.200	568.300	587.800	44.248%		
σ		7.101	5.346	40.700	27.800	24.570	2.674%		
%RSD		13.470	10.130	6.627	4.893	4.181	6.043		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	57.416%	58.660	1144.000	1138.000	0.000	61800.000	79050.000	77230.000
2	16:29:28	56.797%	59.180	1155.000	1158.000	0.000	61230.000	84720.000	77650.000
3	16:29:37	55.636%	59.520	1200.000	1181.000	0.000	61360.000	85130.000	77200.000
X		56.616%	59.120	1167.000	1159.000	0.000	61460.000	82970.000	77360.000
σ		0.903%	0.430	29.530	21.860	0.000	301.400	3397.000	253.800
%RSD		1.596	0.728	2.531	1.886	0.000	0.490	4.094	0.328
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	39390.000	15750.000	0.000	55600.000	81430.000	77600.000	50.907%	2552.000
2	16:29:28	39410.000	15960.000	0.000	55790.000	81170.000	77050.000	51.015%	2544.000
3	16:29:37	39380.000	16010.000	0.000	55640.000	81210.000	78040.000	51.160%	2558.000
X		39390.000	15910.000	0.000	55670.000	81270.000	77560.000	51.028%	2551.000
σ		13.110	137.100	0.000	98.630	139.400	499.700	0.127%	7.065
%RSD		0.033	0.862	0.000	0.177	0.172	0.644	0.249	0.277
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	740.300	345.400	1989.000	99430.000	98900.000	622.000	708.100	562.500
2	16:29:28	768.800	356.000	1979.000	100300.000	98890.000	619.600	709.000	564.500
3	16:29:37	778.600	356.300	1980.000	106200.000	104400.000	637.600	716.800	551.300
X		762.600	352.600	1983.000	102000.000	100700.000	626.400	711.300	559.400
σ		19.930	6.204	5.244	3678.000	3159.000	9.742	4.782	7.142
%RSD		2.613	1.760	0.265	3.606	3.137	1.555	0.672	1.277
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	567.500	1220.000	1207.000	62.530	18.240	12.810	0.000	1200.000
2	16:29:28	566.100	1247.000	1206.000	64.290	16.160	11.360	0.000	1220.000
3	16:29:37	542.600	1227.000	1233.000	60.560	12.810	4.206	0.000	1208.000
X		558.700	1231.000	1215.000	62.460	15.730	9.457	0.000	1210.000
σ		13.990	13.890	15.160	1.870	2.740	4.605	0.000	10.130
%RSD		2.503	1.128	1.248	2.994	17.410	48.690	0.000	0.838
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	0.000	1132.000	1157.000	45.834%	55.090	55.100	60.930	94.910
2	16:29:28	0.000	1128.000	1152.000	45.711%	56.490	56.350	62.860	96.310
3	16:29:37	0.000	1121.000	1140.000	45.692%	52.550	55.020	64.170	98.820
X		0.000	1127.000	1150.000	45.746%	54.710	55.490	62.660	96.680
σ		0.000	5.422	9.157	0.077%	2.000	0.748	1.634	1.982
%RSD		0.000	0.481	0.796	0.169	3.656	1.348	2.608	2.050
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:18	44.293%	2091.000	495.600	483.100	2339.000	2360.000	50.299%	48.951%
2	16:29:28	45.459%	2073.000	491.900	477.800	2329.000	2337.000	49.334%	49.905%
3	16:29:37	45.118%	2141.000	517.200	511.200	2407.000	2394.000	47.829%	45.176%
X		44.957%	2102.000	501.600	490.700	2358.000	2364.000	49.154%	48.011%
σ		0.599%	35.150	13.640	17.990	42.150	29.030	1.245%	2.501%
%RSD		1.333	1.673	2.720	3.667	1.787	1.228	2.533	5.209
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:29:18	65.290	64.700	523.800	478.400	497.000	38.327%		
2	16:29:28	66.540	63.110	531.600	484.000	493.700	39.889%		
3	16:29:37	53.850	53.840	466.900	442.400	459.900	42.720%		
X		61.890	60.550	507.400	468.300	483.500	40.312%		
σ		6.992	5.867	35.340	22.550	20.560	2.227%		
%RSD		11.300	9.689	6.964	4.816	4.251	5.524		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	58.730%	2.523	22.410	21.160	0.000	1769.000	18840.000	18750.000
2	16:34:31	59.453%	2.343	18.950	21.750	0.000	1762.000	18600.000	18580.000
3	16:34:41	60.485%	2.112	23.450	19.750	0.000	1706.000	18510.000	18350.000
X		59.556%	2.326	21.610	20.890	0.000	1745.000	18650.000	18560.000
$\sigma$		0.882%	0.206	2.357	1.026	0.000	34.710	170.600	197.500
%RSD		1.481	8.863	10.910	4.914	0.000	1.989	0.915	1.064
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	31450.000	2959.000	0.000	2634.000	19960.000	18960.000	50.469%	1581.000
2	16:34:31	31280.000	2937.000	0.000	2622.000	20080.000	18900.000	51.240%	1566.000
3	16:34:41	30680.000	2859.000	0.000	2533.000	20050.000	18600.000	52.182%	1570.000
X		31140.000	2918.000	0.000	2596.000	20030.000	18820.000	51.297%	1572.000
$\sigma$		403.700	52.750	0.000	55.360	63.150	192.800	0.858%	7.628
%RSD		1.296	1.808	0.000	2.132	0.315	1.024	1.672	0.485
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	127.700	482.600	985.700	117100.000	115000.000	36.110	338.100	1909.000
2	16:34:31	125.400	472.900	978.500	115000.000	112700.000	36.680	344.200	1902.000
3	16:34:41	131.000	462.300	966.300	115900.000	115000.000	37.600	351.700	1931.000
X		128.100	472.600	976.800	116000.000	114200.000	36.800	344.700	1914.000
$\sigma$		2.816	10.140	9.818	1060.000	1304.000	0.755	6.852	15.400
%RSD		2.199	2.145	1.005	0.914	1.141	2.051	1.988	0.804
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	1910.000	1811.000	1776.000	28.620	5.146	11.220	0.000	72.340
2	16:34:31	1886.000	1794.000	1784.000	27.580	2.660	2.286	0.000	77.630
3	16:34:41	1885.000	1767.000	1776.000	29.800	3.017	14.040	0.000	76.970
X		1894.000	1791.000	1779.000	28.670	3.608	9.182	0.000	75.650
$\sigma$		14.180	21.840	4.555	1.110	1.344	6.137	0.000	2.880
%RSD		0.749	1.219	0.256	3.872	37.260	66.830	0.000	3.807
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	0.000	4.879	4.504	48.321%	0.354	0.354	26.280	33.500
2	16:34:31	0.000	5.114	4.576	49.261%	0.414	0.437	24.910	32.290
3	16:34:41	0.000	4.931	4.607	49.722%	0.357	0.475	26.740	32.930
X		0.000	4.974	4.562	49.101%	0.375	0.422	25.970	32.910
$\sigma$		0.000	0.123	0.053	0.714%	0.033	0.062	0.953	0.605
%RSD		0.000	2.477	1.160	1.455	8.929	14.670	3.668	1.839
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:34:22	47.006%	436.700	14.070	13.760	389.800	391.700	48.148%	48.751%
2	16:34:31	48.767%	425.300	13.280	13.640	407.000	415.000	50.079%	50.905%
3	16:34:41	48.520%	423.300	15.040	13.350	399.300	406.500	50.292%	49.613%
X		48.098%	428.400	14.130	13.590	398.700	404.400	49.506%	49.756%
$\sigma$		0.954%	7.259	0.880	0.212	8.593	11.790	1.181%	1.084%
%RSD		1.983	1.694	6.225	1.558	2.155	2.916	2.386	2.178
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:34:22	0.209	0.348	2405.000	2149.000	2260.000	44.433%		
2	16:34:31	0.337	0.278	2444.000	2187.000	2283.000	42.787%		
3	16:34:41	0.476	0.294	2273.000	2043.000	2146.000	43.608%		
X		0.341	0.306	2374.000	2126.000	2229.000	43.610%		
$\sigma$		0.134	0.037	89.500	75.020	73.450	0.823%		
%RSD		39.170	11.910	3.770	3.528	3.294	1.887		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	56.327%	1.123	25.760	23.000	0.000	559.500	509.600	503.600
2	16:43:23	56.441%	1.026	23.940	23.120	0.000	542.000	497.500	487.100
3	16:43:32	57.331%	1.200	24.680	22.660	0.000	555.800	506.500	498.700
X		56.700%	111.631%	495.851%	458.554%	0.000	690.498%	504.528%	496.465%
σ		0.550%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.969	7.815	3.696	1.037	0.000	1.669	1.252	1.706
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	31.850	582.000	0.000	836.400	367.500	328.700	60.018%	4.718
2	16:43:23	32.030	572.500	0.000	790.500	409.600	305.800	61.030%	4.717
3	16:43:32	30.580	572.100	0.000	830.700	440.300	377.300	60.566%	5.507
X		104.959%	115.108%	0.000	819.193%	405.811%	337.263%	60.538%	99.620%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.507%	n/a
%RSD		2.513	0.972	0.000	3.055	9.004	10.830	0.837	9.152
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	2.596	2.720	5.121	76.540	79.640	0.760	-1.455	2.752
2	16:43:23	3.234	2.709	5.295	77.460	72.270	0.834	-0.737	3.137
3	16:43:32	1.420	2.778	5.149	76.590	74.090	0.681	-1.125	2.336
X		241.681%	136.772%	103.765%	153.724%	150.665%	151.646%	-110.586%	137.093%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		38.080	1.362	1.802	0.674	5.097	10.090	32.470	14.620
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	2.888	6.101	4.604	1.285	4.701	2.812	0.000	4.589
2	16:43:23	1.829	4.644	6.913	1.368	5.874	10.930	0.000	5.485
3	16:43:32	2.746	5.699	3.563	1.219	7.400	6.000	0.000	4.592
X		124.378%	109.624%	100.532%	129.059%	119.837%	131.581%	0.000	97.770%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		23.100	13.730	34.100	5.779	22.580	62.130	0.000	10.570
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	57.213%	4.507	3.917	54.786%	0.828	0.993	1.195	0.983
2	16:43:23	55.230%	5.110	4.725	55.174%	0.919	1.091	1.597	0.854
3	16:43:32	57.695%	4.469	5.203	55.237%	0.833	0.736	0.570	0.926
X		56.712%	93.905%	92.302%	55.066%	86.011%	94.002%	112.073%	92.102%
σ		1.306%	n/a	n/a	0.245%	n/a	n/a	n/a	n/a
%RSD		2.303	7.659	14.080	0.444	5.929	19.500	46.180	6.996
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:43:13	54.014%	5.572	1.991	1.516	9.063	7.310	54.436%	54.481%
2	16:43:23	54.241%	6.140	2.130	1.737	7.829	11.030	53.136%	51.951%
3	16:43:32	54.970%	5.433	1.967	1.805	9.348	7.923	53.060%	55.220%
X		54.408%	114.298%	101.482%	84.321%	87.468%	87.541%	53.544%	53.884%
σ		0.499%	n/a	n/a	n/a	n/a	n/a	0.774%	1.715%
%RSD		0.917	6.552	4.332	8.964	9.236	22.780	1.445	3.182
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:43:13	1.332	1.150	1.037	0.887	1.025	46.014%		
2	16:43:23	1.149	0.930	1.256	0.904	1.195	48.456%		
3	16:43:32	0.973	1.182	1.419	1.085	1.200	48.193%		
X		115.112%	108.719%	123.712%	95.846%	113.983%	47.554%		
σ		n/a	n/a	n/a	n/a	n/a	1.340%		
%RSD		15.590	12.600	15.500	11.440	8.713	2.818		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	53.494%	-0.069	0.968	2.129	0.000	34.000	-43.550	-45.250
2	16:48:28	54.944%	-0.089	1.812	2.598	0.000	35.680	-40.740	-43.990
3	16:48:38	54.841%	-0.077	2.299	1.798	0.000	36.010	-42.560	-44.060
X		54.426%	-0.078	1.693	2.175	0.000	35.230	-42.280	-44.440
σ		0.809%	0.010	0.673	0.402	0.000	1.079	1.426	0.707
%RSD		1.487	12.790	39.770	18.470	0.000	3.063	3.372	1.592
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	3.626	69.170	0.000	443.800	-34.780	-76.980	53.797%	0.133
2	16:48:28	3.540	66.470	0.000	447.300	-14.670	-77.060	54.025%	0.319
3	16:48:38	3.517	68.480	0.000	445.900	-29.790	-74.100	53.947%	0.788
X		3.561	68.040	0.000	445.700	-26.410	-76.050	53.923%	0.413
σ		0.058	1.403	0.000	1.754	10.470	1.686	0.116%	0.338
%RSD		1.619	2.063	0.000	0.394	39.640	2.217	0.216	81.670
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	3.517	0.417	0.523	20.800	19.260	0.134	-3.156	0.441
2	16:48:28	2.249	0.501	0.417	19.690	29.060	0.170	-2.725	0.306
3	16:48:38	-0.890	0.571	0.723	19.780	26.660	0.132	-2.792	0.201
X		1.625	0.496	0.554	20.090	24.990	0.145	-2.891	0.316
σ		2.269	0.077	0.155	0.620	5.109	0.021	0.232	0.120
%RSD		139.600	15.480	27.950	3.085	20.440	14.600	8.018	38.090
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	0.096	0.014	0.514	0.046	0.232	3.340	0.000	-0.048
2	16:48:28	-0.158	0.235	-0.022	-0.015	0.562	4.676	0.000	-0.007
3	16:48:38	0.024	-0.001	0.483	0.014	-0.134	0.094	0.000	0.036
X		-0.013	0.083	0.325	0.015	0.220	2.703	0.000	-0.006
σ		0.131	0.132	0.301	0.030	0.348	2.356	0.000	0.042
%RSD		1035.000	160.200	92.620	200.300	158.500	87.170	0.000	671.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	54.891%	0.262	0.212	54.901%	-0.112	-0.076	0.065	-0.015
2	16:48:28	58.680%	-0.032	0.134	55.663%	-0.081	0.008	-0.037	-0.015
3	16:48:38	57.662%	0.138	0.032	55.832%	-0.065	-0.112	0.063	-0.015
X		57.078%	0.123	0.126	55.465%	-0.086	-0.060	0.030	-0.015
σ		1.961%	0.148	0.090	0.496%	0.024	0.062	0.059	0.000
%RSD		3.436	120.500	71.890	0.894	27.750	102.500	193.600	0.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:19	53.974%	-0.126	0.071	-0.019	-0.900	-0.600	52.345%	51.889%
2	16:48:28	55.630%	-0.012	-0.035	-0.063	-0.641	-1.041	54.185%	53.743%
3	16:48:38	55.586%	-0.126	-0.035	-0.063	-0.641	-1.041	53.980%	53.497%
X		55.063%	-0.088	0.000	-0.048	-0.727	-0.894	53.503%	53.043%
σ		0.944%	0.065	0.061	0.026	0.149	0.254	1.008%	1.007%
%RSD		1.714	74.470	31860.000	52.680	20.550	28.460	1.885	1.898
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:48:19	-0.004	0.004	0.051	0.043	0.023	50.489%		
2	16:48:28	0.017	0.004	0.024	0.013	0.027	52.100%		
3	16:48:38	0.038	-0.004	0.050	0.070	0.059	51.231%		
X		0.017	0.001	0.041	0.042	0.036	51.273%		
σ		0.021	0.005	0.015	0.028	0.020	0.806%		
%RSD		121.200	361.200	37.350	67.620	54.240	1.573		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	65.864%	47.820	954.700	948.600	0.000	62860.000	66020.000	66440.000
2	16:53:32	65.878%	48.930	939.700	951.700	0.000	62240.000	65830.000	65880.000
3	16:53:42	65.254%	50.110	965.500	959.200	0.000	60910.000	64010.000	64980.000
X		65.665%	48.950	953.300	953.200	0.000	62000.000	65290.000	65760.000
σ		0.356%	1.141	12.930	5.462	0.000	999.900	1110.000	738.000
%RSD		0.542	2.332	1.356	0.573	0.000	1.613	1.700	1.122
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	2371.000	11740.000	0.000	56150.000	52240.000	49900.000	49.686%	1078.000
2	16:53:32	2374.000	11680.000	0.000	55910.000	53300.000	49630.000	49.880%	1082.000
3	16:53:42	2334.000	11510.000	0.000	55040.000	52070.000	49420.000	50.846%	1055.000
X		2360.000	11640.000	0.000	55700.000	52540.000	49650.000	50.138%	1072.000
σ		22.470	122.300	0.000	586.400	667.600	240.600	0.621%	14.550
%RSD		0.952	1.050	0.000	1.053	1.271	0.485	1.239	1.358
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	611.000	240.400	546.100	1191.000	1638.000	586.800	591.600	310.300
2	16:53:32	616.400	238.600	541.800	1170.000	1477.000	561.700	556.200	291.700
3	16:53:42	595.200	243.900	527.100	1127.000	1456.000	547.800	538.400	285.200
X		607.500	241.000	538.300	1163.000	1524.000	565.400	562.100	295.700
σ		11.040	2.705	9.912	32.800	99.580	19.760	27.070	12.990
%RSD		1.816	1.123	1.841	2.821	6.534	3.495	4.817	4.391
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	299.300	554.200	545.300	43.520	10.050	17.710	0.000	992.000
2	16:53:32	284.700	521.400	509.700	43.400	12.260	16.770	0.000	967.500
3	16:53:42	277.300	529.700	526.200	39.760	7.263	15.370	0.000	1001.000
X		287.100	535.100	527.100	42.220	9.859	16.620	0.000	986.900
σ		11.210	17.010	17.790	2.136	2.505	1.177	0.000	17.330
%RSD		3.905	3.180	3.376	5.059	25.410	7.081	0.000	1.756
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	48.879%	1078.000	1091.000	46.698%	49.240	52.540	49.970	81.340
2	16:53:32	52.219%	1028.000	1045.000	46.221%	53.320	54.370	52.450	87.470
3	16:53:42	51.529%	1030.000	1041.000	46.366%	51.160	52.070	51.490	83.280
X		50.876%	1045.000	1059.000	46.428%	51.240	52.990	51.300	84.030
σ		1.763%	28.280	27.820	0.244%	2.041	1.213	1.250	3.132
%RSD		3.465	2.706	2.627	0.526	3.983	2.288	2.436	3.728
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:53:23	45.869%	1959.000	500.500	500.400	1966.000	1981.000	47.213%	47.321%
2	16:53:32	44.761%	2055.000	509.400	506.800	2027.000	1959.000	46.248%	45.445%
3	16:53:42	46.908%	1908.000	477.700	471.200	1892.000	1930.000	46.422%	45.829%
X		45.846%	1974.000	495.900	492.800	1962.000	1957.000	46.628%	46.198%
σ		1.074%	74.350	16.360	19.020	67.660	25.600	0.514%	0.991%
%RSD		2.342	3.766	3.299	3.860	3.449	1.308	1.103	2.145
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:53:23	58.210	55.890	22.680	20.860	21.290	41.223%		
2	16:53:32	50.000	53.200	21.340	20.720	21.540	44.702%		
3	16:53:42	56.110	56.650	22.910	24.010	23.360	43.102%		
X		54.770	55.250	22.310	21.860	22.060	43.009%		
σ		4.264	1.812	0.849	1.862	1.135	1.741%		
%RSD		7.784	3.280	3.803	8.518	5.142	4.048		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	53.739%	116.900	127.300	126.700	0.000	59340.000	62220.000	61910.000
2	16:58:34	54.182%	114.600	127.400	123.400	0.000	58850.000	61410.000	61730.000
3	16:58:43	54.244%	115.800	122.100	123.800	0.000	58220.000	60740.000	61260.000
X		54.055%	115.765%	125.584%	124.665%	0.000	117.609%	122.911%	123.265%
σ		0.276%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.510	1.021	2.386	1.451	0.000	0.952	1.200	0.542
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	556.600	6174.000	0.000	53810.000	48520.000	46910.000	54.484%	101.800
2	16:58:34	557.000	6094.000	0.000	53290.000	49200.000	46550.000	54.683%	103.300
3	16:58:43	549.500	6083.000	0.000	52950.000	48960.000	46150.000	55.158%	106.000
X		110.875%	122.337%	0.000	106.705%	97.789%	93.072%	54.775%	103.686%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.347%	n/a
%RSD		0.768	0.812	0.000	0.812	0.706	0.822	0.633	2.083
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	112.600	111.500	511.400	28500.000	41750.000	107.800	107.200	109.900
2	16:58:34	112.000	106.900	511.900	28750.000	43160.000	112.800	111.300	114.400
3	16:58:43	114.300	110.400	505.600	27680.000	27120.000	103.400	101.200	107.400
X		112.972%	109.582%	101.925%	113.250%	149.375%	107.992%	106.572%	110.568%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.055	2.172	0.692	1.979	23.790	4.328	4.739	3.206
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	104.400	102.200	108.000	101.100	104.200	111.400	0.000	103.400
2	16:58:34	108.200	99.300	96.320	105.400	82.440	113.400	0.000	96.830
3	16:58:43	108.500	106.000	98.960	100.800	115.100	99.490	0.000	101.400
X		106.989%	102.509%	101.105%	102.423%	100.567%	108.084%	0.000	100.544%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.139	3.300	6.081	2.563	16.510	6.950	0.000	3.344
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	53.642%	98.490	105.700	50.278%	100.800	101.900	98.350	100.800
2	16:58:34	54.420%	98.300	100.500	50.798%	96.160	97.380	91.300	93.910
3	16:58:43	56.150%	98.400	101.400	50.134%	99.470	99.490	97.780	97.230
X		54.737%	98.395%	102.531%	50.403%	98.823%	99.587%	95.808%	97.330%
σ		1.284%	n/a	n/a	0.349%	n/a	n/a	n/a	n/a
%RSD		2.345	0.097	2.695	0.693	2.433	2.270	4.084	3.562
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:25	50.409%	97.710	92.500	93.560	81.130	97.760	48.566%	49.705%
2	16:58:34	51.125%	97.640	100.000	97.510	93.510	96.740	50.604%	50.666%
3	16:58:43	52.322%	96.750	89.050	90.950	94.920	88.040	51.121%	50.497%
X		51.285%	97.364%	93.856%	94.004%	89.849%	94.180%	50.097%	50.289%
σ		0.967%	n/a	n/a	n/a	n/a	n/a	1.351%	0.513%
%RSD		1.885	0.549	5.971	3.516	8.443	5.675	2.696	1.020
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:58:25	101.600	103.900	104.500	105.300	106.300	45.646%		
2	16:58:34	104.400	104.200	103.600	104.700	106.400	43.463%		
3	16:58:43	112.800	113.600	113.600	112.400	111.600	45.075%		
X		106.276%	107.222%	107.224%	107.439%	108.115%	44.728%		
σ		n/a	n/a	n/a	n/a	n/a	1.132%		
%RSD		5.511	5.131	5.151	3.973	2.805	2.531		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	54.664%	0.335	3.193	2.900	0.000	54.610	-36.400	-39.000
2	17:03:41	55.082%	0.246	1.088	2.562	0.000	48.820	-36.050	-38.550
3	17:03:50	55.567%	0.169	1.650	2.364	0.000	46.830	-36.460	-36.240
X		55.104%	0.250	1.977	2.608	0.000	50.080	-36.300	-37.930
σ		0.452%	0.083	1.090	0.271	0.000	4.041	0.221	1.480
%RSD		0.820	33.220	55.110	10.390	0.000	8.069	0.609	3.903
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	1.830	59.940	0.000	452.200	-9.730	-76.400	54.147%	0.784
2	17:03:41	1.867	61.830	0.000	452.500	9.805	-77.450	54.640%	0.219
3	17:03:50	2.019	56.060	0.000	458.500	-5.212	-76.930	54.665%	-0.059
X		1.906	59.280	0.000	454.400	-1.712	-76.930	54.484%	0.315
σ		0.100	2.942	0.000	3.582	10.230	0.525	0.292%	0.430
%RSD		5.246	4.962	0.000	0.788	597.200	0.682	0.536	136.600
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	0.514	0.515	0.463	27.070	13.600	0.112	-2.796	0.310
2	17:03:41	1.581	0.353	0.495	25.010	13.560	0.190	-2.720	0.228
3	17:03:50	-1.805	0.363	0.588	26.730	31.320	0.207	-2.135	0.219
X		0.097	0.411	0.515	26.270	19.490	0.169	-2.550	0.252
σ		1.731	0.091	0.065	1.106	10.250	0.051	0.362	0.050
%RSD		1788.000	22.060	12.650	4.210	52.560	29.970	14.190	19.770
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	-0.037	0.605	-0.183	0.014	0.218	-9.616	0.000	-0.048
2	17:03:41	0.563	1.342	1.319	0.129	0.221	4.025	0.000	0.037
3	17:03:50	0.076	0.230	-0.025	0.013	-0.134	0.144	0.000	-0.048
X		0.200	0.726	0.370	0.052	0.102	-1.816	0.000	-0.019
σ		0.319	0.565	0.825	0.067	0.204	7.029	0.000	0.049
%RSD		159.000	77.900	223.100	127.800	201.300	387.100	0.000	251.700
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	57.760%	1.043	0.959	56.032%	-0.066	-0.079	-0.037	-0.015
2	17:03:41	56.720%	0.771	0.797	55.639%	-0.113	-0.129	0.061	-0.015
3	17:03:50	58.582%	0.752	0.610	56.287%	-0.066	-0.061	-0.037	0.065
X		57.687%	0.855	0.789	55.986%	-0.082	-0.090	-0.005	0.012
σ		0.933%	0.163	0.175	0.326%	0.027	0.035	0.057	0.046
%RSD		1.618	19.040	22.150	0.583	33.150	39.170	1238.000	397.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:03:31	57.759%	0.039	0.195	0.271	-0.644	-0.900	53.311%	51.120%
2	17:03:41	57.259%	0.040	0.097	0.063	-0.642	-0.899	52.664%	51.781%
3	17:03:50	56.058%	0.267	0.200	0.064	-0.900	-0.901	55.607%	56.358%
X		57.026%	0.115	0.164	0.133	-0.729	-0.900	53.861%	53.087%
σ		0.874%	0.132	0.058	0.120	0.148	0.001	1.547%	2.853%
%RSD		1.533	114.000	35.270	90.150	20.350	0.138	2.872	5.374
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:03:31	0.017	0.047	0.049	-0.014	0.064	51.589%		
2	17:03:41	0.037	0.062	0.048	0.095	0.074	52.867%		
3	17:03:50	0.059	0.022	0.129	0.043	0.086	49.908%		
X		0.038	0.044	0.075	0.041	0.075	51.455%		
σ		0.021	0.020	0.046	0.055	0.011	1.484%		
%RSD		55.980	46.810	61.640	132.800	14.220	2.884		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	50.063%	0.109	428.100	427.900	0.000	1986000.000	241500.000	244500.000
2	17:08:44	50.263%	0.055	417.100	430.900	0.000	1999000.000	243500.000	246000.000
3	17:08:53	48.806%	0.040	420.900	446.800	0.000	1985000.000	243200.000	244800.000
X		49.711%	0.068	422.000	435.200	0.000	1990000.000	242700.000	245100.000
σ		0.790%	0.036	5.581	10.150	0.000	8181.000	1114.000	783.200
%RSD		1.588	53.430	1.322	2.332	0.000	0.411	0.459	0.320
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	18.920	543.400	0.000	78070.000	84240.000	80910.000	49.649%	0.886
2	17:08:44	17.780	544.800	0.000	77700.000	84750.000	80070.000	50.223%	0.972
3	17:08:53	19.930	557.000	0.000	77640.000	85120.000	80340.000	50.527%	1.465
X		18.880	548.400	0.000	77800.000	84710.000	80440.000	50.133%	1.107
σ		1.078	7.461	0.000	234.500	442.700	430.300	0.446%	0.312
%RSD		5.711	1.361	0.000	0.301	0.523	0.535	0.889	28.210
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	6.382	4.505	39.890	18.540	531.800	0.451	-1.138	0.947
2	17:08:44	3.301	4.836	39.190	20.410	528.200	0.479	-0.496	1.018
3	17:08:53	5.936	5.340	39.850	21.070	511.800	0.356	-1.534	0.674
X		5.206	4.894	39.640	20.010	523.900	0.429	-1.056	0.879
σ		1.665	0.421	0.393	1.313	10.690	0.065	0.524	0.182
%RSD		31.980	8.592	0.991	6.565	2.041	15.060	49.610	20.650
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	0.811	3.332	3.530	1.691	1.064	346.600	0.000	1570.000
2	17:08:44	0.250	1.871	3.888	2.059	0.997	355.500	0.000	1503.000
3	17:08:53	1.106	2.306	0.947	2.236	0.253	386.800	0.000	1564.000
X		0.722	2.503	2.789	1.995	0.771	363.000	0.000	1545.000
σ		0.435	0.750	1.605	0.278	0.450	21.140	0.000	37.010
%RSD		60.150	29.970	57.540	13.930	58.320	5.825	0.000	2.395
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	50.215%	7.401	7.599	47.552%	-0.107	-0.047	-0.037	0.125
2	17:08:44	54.004%	7.969	7.728	47.898%	-0.035	-0.029	0.189	-0.015
3	17:08:53	51.923%	7.628	8.750	48.796%	-0.036	0.030	-0.037	-0.015
X		52.047%	7.666	8.026	48.082%	-0.059	-0.015	0.038	0.032
σ		1.897%	0.286	0.631	0.642%	0.042	0.040	0.131	0.081
%RSD		3.646	3.725	7.858	1.336	69.960	260.200	342.900	255.900
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:08:34	48.278%	0.393	0.318	0.811	9.667	8.030	51.676%	49.989%
2	17:08:44	50.004%	0.251	0.684	0.552	12.070	8.092	50.870%	53.327%
3	17:08:53	48.673%	0.131	0.925	0.511	5.489	10.040	54.520%	55.828%
X		48.985%	0.258	0.642	0.625	9.076	8.721	52.355%	53.048%
σ		0.904%	0.131	0.305	0.163	3.332	1.143	1.917%	2.929%
%RSD		1.846	50.780	47.530	26.090	36.710	13.110	3.662	5.522
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:08:34	0.017	0.004	0.149	0.124	0.112	52.134%		
2	17:08:44	0.017	0.038	0.100	0.181	0.120	51.399%		
3	17:08:53	0.040	-0.004	0.108	0.015	0.083	47.974%		
X		0.025	0.013	0.119	0.107	0.105	50.503%		
σ		0.013	0.022	0.026	0.084	0.019	2.220%		
%RSD		53.620	177.700	22.070	78.830	18.320	4.396		



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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	49.234%	0.104	513.800	526.700	0.000	2048000.000	244600.000	244500.000
2	17:13:44	50.011%	0.017	505.600	525.200	0.000	2028000.000	245500.000	246600.000
3	17:13:53	49.982%	-0.101	505.300	534.400	0.000	2054000.000	248400.000	248700.000
X		49.742%	0.006	508.300	528.800	0.000	2044000.000	246200.000	246600.000
σ		0.440%	0.103	4.799	4.918	0.000	13760.000	1942.000	2105.000
%RSD		0.885	1584.000	0.944	0.930	0.000	0.673	0.789	0.853
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	1.105	560.300	0.000	78480.000	78480.000	76660.000	54.869%	0.769
2	17:13:44	1.389	560.800	0.000	78510.000	79400.000	75790.000	55.066%	0.582
3	17:13:53	1.040	573.100	0.000	79900.000	81780.000	77990.000	54.763%	0.679
X		1.178	564.700	0.000	78960.000	79890.000	76820.000	54.899%	0.677
σ		0.186	7.286	0.000	813.100	1702.000	1107.000	0.154%	0.094
%RSD		15.750	1.290	0.000	1.030	2.131	1.441	0.280	13.870
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	5.506	5.491	1.960	14.440	478.700	0.331	-1.549	2.944
2	17:13:44	6.261	5.148	2.032	12.970	502.000	0.368	-1.564	2.670
3	17:13:53	-3.999	5.257	2.187	12.070	423.000	0.173	-1.769	3.415
X		2.589	5.299	2.060	13.160	467.900	0.291	-1.627	3.010
σ		5.718	0.175	0.116	1.197	40.590	0.103	0.123	0.377
%RSD		220.800	3.309	5.650	9.097	8.674	35.530	7.545	12.510
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	1.925	4.371	3.633	4.333	0.971	383.000	0.000	1477.000
2	17:13:44	3.423	4.088	3.829	4.941	1.326	325.200	0.000	1472.000
3	17:13:53	3.472	4.023	3.832	4.514	1.351	396.500	0.000	1535.000
X		2.940	4.161	3.765	4.596	1.216	368.200	0.000	1495.000
σ		0.880	0.185	0.114	0.312	0.213	37.850	0.000	35.060
%RSD		29.920	4.438	3.036	6.788	17.480	10.280	0.000	2.346
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	54.091%	24.410	25.960	50.001%	-0.021	-0.032	-0.037	0.030
2	17:13:44	54.683%	24.610	24.700	50.662%	-0.040	0.080	-0.037	-0.015
3	17:13:53	53.566%	23.970	25.650	50.946%	-0.023	-0.090	0.072	-0.015
X		54.113%	24.330	25.430	50.536%	-0.028	-0.014	-0.001	-0.000
σ		0.559%	0.327	0.654	0.484%	0.010	0.086	0.063	0.026
%RSD		1.033	1.344	2.573	0.959	36.380	605.000	6122.000	12240.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:13:35	50.469%	-0.064	1.669	1.835	11.550	10.660	55.159%	55.858%
2	17:13:44	50.565%	-0.002	1.888	1.463	11.820	12.580	55.052%	53.974%
3	17:13:53	51.301%	0.180	1.979	1.725	12.110	11.440	53.873%	55.004%
X		50.779%	0.038	1.845	1.674	11.830	11.560	54.695%	54.945%
σ		0.455%	0.127	0.159	0.191	0.278	0.968	0.713%	0.944%
%RSD		0.896	331.900	8.631	11.430	2.351	8.375	1.304	1.718
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:13:35	0.041	0.032	0.219	0.198	0.211	47.166%		
2	17:13:44	-0.004	0.005	0.192	0.198	0.316	47.286%		
3	17:13:53	0.017	0.004	0.179	0.213	0.184	50.487%		
X		0.018	0.014	0.197	0.203	0.237	48.313%		
σ		0.022	0.016	0.021	0.009	0.070	1.884%		
%RSD		121.700	115.900	10.530	4.340	29.540	3.899		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	50.860%	-0.145	438.700	469.500	0.000	2053000.000	245200.000	244700.000	
2	17:18:44	50.393%	-0.117	457.400	470.300	0.000	2068000.000	243500.000	244400.000	
3	17:18:54	52.006%	-0.213	442.300	463.400	0.000	2074000.000	245100.000	246200.000	
X		51.086%	-0.158	446.100	467.700	0.000	2065000.000	244600.000	245100.000	
		$\sigma$	0.830%	0.050	9.902	3.744	0.000	10560.000	952.900	951.400
		%RSD	1.624	31.370	2.219	0.800	0.000	0.511	0.390	0.388
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	1.242	559.000	0.000	77130.000	78260.000	75410.000	57.007%	0.550	
2	17:18:44	1.595	568.600	0.000	77400.000	79660.000	76000.000	56.713%	0.733	
3	17:18:54	1.547	543.600	0.000	78080.000	79920.000	77210.000	57.155%	0.902	
X		1.461	557.100	0.000	77540.000	79280.000	76210.000	56.958%	0.729	
		$\sigma$	0.192	12.630	0.000	486.800	888.900	918.800	0.225%	0.176
		%RSD	13.100	2.268	0.000	0.628	1.121	1.206	0.395	24.140
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	19.560	5.097	12.470	5.794	498.500	0.362	-1.973	1.201	
2	17:18:44	15.130	5.475	12.910	6.048	530.700	0.207	-2.207	0.861	
3	17:18:54	13.200	6.144	12.310	5.202	497.400	0.146	-2.756	1.162	
X		15.970	5.572	12.560	5.682	508.900	0.238	-2.312	1.074	
		$\sigma$	3.262	0.530	0.313	0.434	18.880	0.112	0.402	0.186
		%RSD	20.430	9.516	2.492	7.642	3.710	46.890	17.380	17.330
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	1.172	6.410	5.175	2.915	1.715	431.900	0.000	1555.000	
2	17:18:44	0.563	6.359	7.024	3.054	0.230	403.700	0.000	1568.000	
3	17:18:54	0.894	6.934	5.382	2.603	1.284	400.500	0.000	1531.000	
X		0.877	6.568	5.861	2.857	1.076	412.000	0.000	1551.000	
		$\sigma$	0.305	0.318	1.013	0.231	0.764	17.300	0.000	18.860
		%RSD	34.820	4.844	17.290	8.072	70.960	4.198	0.000	1.216
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	53.150%	11.860	12.310	49.545%	-0.056	-0.013	-0.037	0.073	
2	17:18:44	54.234%	11.560	11.910	49.396%	-0.073	-0.032	-0.037	-0.015	
3	17:18:54	56.150%	11.030	12.420	50.026%	-0.004	-0.033	-0.037	-0.015	
X		54.511%	11.480	12.210	49.656%	-0.044	-0.026	-0.037	0.014	
		$\sigma$	1.519%	0.418	0.269	0.329%	0.036	0.011	0.000	0.051
		%RSD	2.787	3.642	2.204	0.663	81.100	42.220	0.092	354.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:18:35	50.950%	0.673	1.218	1.044	9.164	10.430	53.904%	52.666%	
2	17:18:44	50.583%	0.122	1.190	0.865	7.580	10.350	53.714%	52.489%	
3	17:18:54	51.126%	-0.064	0.921	0.581	10.790	12.370	53.714%	54.235%	
X		50.886%	0.244	1.110	0.830	9.178	11.050	53.777%	53.130%	
		$\sigma$	0.277%	0.384	0.164	0.233	1.606	1.144	0.110%	0.961%
		%RSD	0.545	157.400	14.760	28.110	17.500	10.350	0.204	1.809
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:18:35	-0.004	-0.004	0.145	0.112	0.124	45.122%			
2	17:18:44	0.042	0.042	0.113	0.078	0.113	46.501%			
3	17:18:54	-0.004	0.024	0.029	0.016	0.052	46.610%			
X		0.012	0.021	0.095	0.069	0.096	46.078%			
		$\sigma$	0.026	0.023	0.060	0.049	0.039	0.830%		
		%RSD	226.000	114.400	62.680	70.690	39.990	1.801		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	49.244%	-0.124	576.000	603.200	0.000	2111000.000	250400.000	249300.000	
2	17:23:47	49.669%	-0.100	557.400	598.000	0.000	2071000.000	246400.000	244200.000	
3	17:23:56	51.503%	-0.186	547.400	566.500	0.000	2076000.000	247000.000	245900.000	
X		50.138%	-0.137	560.300	589.200	0.000	2086000.000	247900.000	246500.000	
		σ	1.201%	0.045	14.520	19.850	0.000	21520.000	2153.000	2573.000
		%RSD	2.394	32.550	2.591	3.369	0.000	1.031	0.868	1.044
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	1.853	634.300	0.000	81480.000	76620.000	73860.000	55.836%	1.112	
2	17:23:47	1.772	624.300	0.000	79540.000	77710.000	72590.000	56.582%	0.646	
3	17:23:56	1.839	619.700	0.000	80810.000	78340.000	72630.000	56.316%	0.471	
X		1.821	626.100	0.000	80610.000	77560.000	73030.000	56.245%	0.743	
		σ	0.044	7.492	0.000	981.400	870.000	721.800	0.378%	0.331
		%RSD	2.395	1.197	0.000	1.217	1.122	0.988	0.672	44.560
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	-6.776	6.471	1.323	5.120	450.600	0.211	-2.320	1.567	
2	17:23:47	2.108	5.933	1.321	4.109	448.400	0.266	-2.349	0.950	
3	17:23:56	5.816	6.131	1.159	4.671	541.900	0.289	-2.402	1.676	
X		0.383	6.179	1.268	4.633	480.300	0.255	-2.357	1.398	
		σ	6.471	0.272	0.094	0.506	53.350	0.040	0.042	0.392
		%RSD	1691.000	4.407	7.439	10.930	11.110	15.610	1.769	28.010
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	1.261	2.519	2.405	1.728	0.241	390.800	0.000	1418.000	
2	17:23:47	0.809	3.814	4.260	2.339	0.600	365.500	0.000	1398.000	
3	17:23:56	1.992	4.391	3.778	2.723	2.122	370.800	0.000	1484.000	
X		1.354	3.575	3.481	2.263	0.988	375.700	0.000	1433.000	
		σ	0.597	0.959	0.962	0.502	0.999	13.330	0.000	44.970
		%RSD	44.110	26.820	27.650	22.180	101.100	3.547	0.000	3.138
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	52.525%	16.170	17.520	48.583%	-0.072	-0.088	0.076	0.030	
2	17:23:47	53.785%	18.410	17.900	47.886%	0.020	-0.107	0.076	-0.015	
3	17:23:56	52.197%	15.450	17.670	48.275%	-0.018	-0.108	-0.037	-0.015	
X		52.836%	16.680	17.690	48.248%	-0.024	-0.101	0.038	0.000	
		σ	0.838%	1.543	0.192	0.349%	0.046	0.011	0.065	0.026
		%RSD	1.586	9.254	1.084	0.724	195.400	11.130	171.400	40760.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:23:38	49.602%	0.127	2.469	2.931	12.060	13.630	51.508%	51.920%	
2	17:23:47	49.829%	0.316	2.246	2.371	8.846	14.240	49.288%	50.389%	
3	17:23:56	50.635%	0.061	1.948	1.957	16.320	14.010	50.003%	50.320%	
X		50.022%	0.168	2.221	2.419	12.410	13.960	50.267%	50.876%	
		σ	0.543%	0.133	0.261	0.489	3.749	0.305	1.133%	0.904%
		%RSD	1.086	78.820	11.760	20.200	30.220	2.187	2.255	1.777
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:23:38	-0.004	0.006	0.069	0.091	0.117	40.424%			
2	17:23:47	0.020	0.034	0.175	0.081	0.097	44.922%			
3	17:23:56	-0.004	0.015	0.030	0.049	0.047	45.499%			
X		0.004	0.018	0.091	0.074	0.087	43.615%			
		σ	0.013	0.014	0.075	0.022	0.036	2.779%		
		%RSD	315.500	77.800	81.860	30.310	41.160	6.371		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	48.324%	-0.120	622.700	655.300	0.000	2092000.000	248200.000	246600.000	
2	17:28:49	50.424%	-0.130	598.100	618.100	0.000	2029000.000	242100.000	239600.000	
3	17:28:58	49.257%	-0.071	623.700	654.300	0.000	2016000.000	241100.000	239700.000	
X		49.335%	-0.107	614.800	642.500	0.000	2045000.000	243800.000	242000.000	
		σ	1.052%	0.032	14.510	21.170	0.000	40640.000	3841.000	3993.000
		%RSD	2.133	29.620	2.361	3.295	0.000	1.987	1.575	1.650
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	4.703	720.400	0.000	79750.000	75520.000	72330.000	53.763%	0.792	
2	17:28:49	3.873	698.800	0.000	78070.000	76420.000	71190.000	55.047%	0.858	
3	17:28:58	4.267	698.700	0.000	77450.000	75230.000	71120.000	55.957%	0.567	
X		4.281	706.000	0.000	78430.000	75720.000	71550.000	54.922%	0.739	
		σ	0.415	12.500	0.000	1188.000	621.500	679.900	1.102%	0.152
		%RSD	9.693	1.771	0.000	1.514	0.821	0.950	2.007	20.620
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	1.166	6.684	0.805	3.989	436.000	0.316	-3.228	1.218	
2	17:28:49	17.230	5.857	0.884	4.381	509.900	0.248	-3.174	1.147	
3	17:28:58	13.710	6.174	0.929	2.865	466.900	0.130	-2.954	1.554	
X		10.700	6.238	0.872	3.745	470.900	0.231	-3.119	1.306	
		σ	8.446	0.417	0.063	0.787	37.130	0.094	0.145	0.217
		%RSD	78.900	6.689	7.200	21.020	7.885	40.690	4.644	16.630
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	1.708	2.541	2.417	2.194	2.092	335.600	0.000	1316.000	
2	17:28:49	1.528	3.312	2.111	2.187	-0.134	324.000	0.000	1303.000	
3	17:28:58	1.102	2.322	3.611	2.134	0.950	357.000	0.000	1324.000	
X		1.446	2.725	2.713	2.172	0.969	338.900	0.000	1314.000	
		σ	0.311	0.520	0.792	0.033	1.114	16.730	0.000	10.350
		%RSD	21.530	19.090	29.210	1.515	114.900	4.937	0.000	0.788
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	53.916%	14.670	13.850	50.622%	-0.074	-0.070	-0.037	0.030	
2	17:28:49	55.701%	12.950	13.370	50.117%	-0.074	-0.033	-0.037	0.029	
3	17:28:58	55.088%	14.230	14.010	50.806%	-0.092	0.004	-0.037	-0.015	
X		54.902%	13.950	13.740	50.515%	-0.080	-0.033	-0.037	0.015	
		σ	0.907%	0.890	0.330	0.357%	0.010	0.037	0.000	0.026
		%RSD	1.652	6.378	2.404	0.706	12.900	111.400	0.096	176.100
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:28:39	49.733%	0.000	2.070	1.816	8.711	11.280	54.421%	54.666%	
2	17:28:49	51.363%	-0.126	2.169	1.550	13.670	11.630	52.117%	50.312%	
3	17:28:58	50.793%	-0.002	1.775	1.925	11.090	11.940	53.919%	54.512%	
X		50.630%	-0.043	2.004	1.763	11.160	11.620	53.485%	53.163%	
		σ	0.827%	0.072	0.205	0.193	2.480	0.334	1.212%	2.470%
		%RSD	1.633	169.000	10.220	10.940	22.230	2.871	2.265	4.647
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:28:39	-0.004	0.015	0.003	0.146	0.083	44.552%			
2	17:28:49	-0.004	0.014	0.159	0.132	0.088	49.020%			
3	17:28:58	-0.004	0.024	0.253	0.172	0.162	46.115%			
X		-0.004	0.017	0.138	0.150	0.111	46.563%			
		σ	0.000	0.006	0.126	0.020	0.044	2.267%		
		%RSD	0.000	31.800	91.540	13.330	39.640	4.869		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	51.917%	-0.137	141.700	145.200	0.000	438000.000	53070.000	52650.000
2	17:33:50	53.171%	-0.204	136.000	138.700	0.000	440700.000	53370.000	53520.000
3	17:34:00	53.275%	-0.155	133.500	139.500	0.000	432500.000	52690.000	52760.000
X		52.788%	-0.165	137.100	141.100	0.000	437100.000	53040.000	52970.000
σ		0.756%	0.035	4.216	3.514	0.000	4190.000	342.300	472.700
%RSD		1.432	21.120	3.076	2.490	0.000	0.959	0.645	0.892
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	1.457	219.100	0.000	16330.000	14860.000	13530.000	57.974%	0.361
2	17:33:50	1.429	215.900	0.000	16380.000	14820.000	13610.000	57.644%	0.365
3	17:34:00	1.294	221.100	0.000	16120.000	14150.000	13370.000	58.785%	0.266
X		1.393	218.700	0.000	16280.000	14610.000	13500.000	58.135%	0.331
σ		0.087	2.640	0.000	138.300	395.700	126.200	0.587%	0.056
%RSD		6.249	1.207	0.000	0.850	2.708	0.935	1.010	17.060
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	7.291	1.695	0.439	5.169	114.100	0.121	-2.452	0.549
2	17:33:50	8.407	1.995	0.383	5.195	109.100	0.048	-3.095	0.389
3	17:34:00	3.608	1.832	0.589	5.417	109.200	0.100	-3.253	0.399
X		6.435	1.841	0.470	5.260	110.800	0.090	-2.933	0.446
σ		2.511	0.150	0.106	0.136	2.880	0.038	0.424	0.090
%RSD		39.030	8.167	22.610	2.586	2.599	42.180	14.460	20.110
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	0.496	2.581	1.288	0.597	0.196	62.270	0.000	260.400
2	17:33:50	0.434	2.443	2.760	0.562	-0.134	62.300	0.000	257.700
3	17:34:00	0.363	2.941	1.587	0.241	-0.134	58.160	0.000	256.100
X		0.431	2.655	1.878	0.467	-0.024	60.910	0.000	258.100
σ		0.067	0.257	0.778	0.196	0.191	2.378	0.000	2.181
%RSD		15.500	9.684	41.420	42.020	788.100	3.905	0.000	0.845
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	61.353%	2.947	2.654	55.027%	-0.048	-0.095	-0.037	-0.015
2	17:33:50	62.821%	3.898	2.912	54.781%	-0.097	-0.062	-0.037	-0.015
3	17:34:00	63.960%	2.823	3.014	55.196%	-0.065	-0.061	0.160	0.024
X		62.712%	3.222	2.860	55.001%	-0.070	-0.073	0.028	-0.002
σ		1.307%	0.588	0.186	0.209%	0.025	0.019	0.114	0.023
%RSD		2.084	18.250	6.489	0.380	35.120	26.140	401.800	1175.000
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:33:41	55.770%	-0.069	0.406	0.364	1.163	1.937	54.360%	54.627%
2	17:33:50	58.522%	-0.072	0.484	0.429	1.844	1.157	55.250%	54.058%
3	17:34:00	57.233%	-0.070	0.197	0.398	0.632	1.631	53.888%	53.497%
X		57.175%	-0.070	0.362	0.397	1.213	1.575	54.499%	54.061%
σ		1.377%	0.001	0.148	0.032	0.607	0.393	0.691%	0.565%
%RSD		2.408	1.801	40.960	8.105	50.060	24.960	1.268	1.046
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:33:41	-0.004	-0.004	0.026	0.188	0.118	49.605%		
2	17:33:50	0.017	0.013	0.050	0.098	0.078	50.925%		
3	17:34:00	0.017	0.004	-0.001	0.043	0.066	50.330%		
X		0.010	0.004	0.025	0.110	0.087	50.287%		
σ		0.012	0.009	0.025	0.073	0.027	0.661%		
%RSD		115.800	200.300	100.900	66.830	31.110	1.314		

180-46614-D-10-C MS@5

8/24/2015 5:39:41 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	17:38:45	48.669%	11.000	864.500	900.000	0.000	2136000.000	264700.000	261700.000
2	17:38:55	51.538%	11.200	838.000	850.700	0.000	2084000.000	258600.000	255300.000
3	17:39:04	49.024%	11.550	871.700	889.300	0.000	2072000.000	257300.000	255900.000
X		49.744%	11.250	858.100	880.000	0.000	2097000.000	260200.000	257600.000
σ		1.564%	0.279	17.780	25.920	0.000	34300.000	3930.000	3535.000
%RSD		3.144	2.478	2.072	2.946	0.000	1.635	1.510	1.372
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:45	441.200	3253.000	0.000	91690.000	86720.000	83370.000	54.365%	211.600
2	17:38:55	429.500	3123.000	0.000	89630.000	85250.000	83070.000	55.852%	206.000
3	17:39:04	431.100	3202.000	0.000	89590.000	85230.000	82780.000	56.154%	198.800
X		433.900	3193.000	0.000	90300.000	85740.000	83080.000	55.457%	205.400
σ		6.325	65.570	0.000	1204.000	855.600	297.900	0.958%	6.414
%RSD		1.458	2.054	0.000	1.333	0.998	0.359	1.727	3.122
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:45	109.800	48.910	102.100	214.100	850.400	111.300	105.200	56.840
2	17:38:55	111.900	49.190	98.770	211.300	713.500	104.200	111.100	54.750
3	17:39:04	121.100	48.880	100.100	209.300	799.000	103.900	102.100	55.850
X		114.300	48.990	100.300	211.500	787.700	106.500	106.100	55.810
σ		5.987	0.170	1.660	2.408	69.180	4.166	4.623	1.045
%RSD		5.239	0.346	1.655	1.138	8.783	3.913	4.356	1.872
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:45	55.300	102.800	101.200	11.260	2.846	340.600	0.000	1553.000
2	17:38:55	52.810	103.200	104.000	10.730	2.812	414.300	0.000	1554.000
3	17:39:04	50.990	104.400	95.120	9.605	5.567	375.500	0.000	1518.000
X		53.030	103.400	100.100	10.530	3.742	376.800	0.000	1542.000
σ		2.165	0.827	4.529	0.846	1.581	36.870	0.000	20.770
%RSD		4.083	0.799	4.525	8.030	42.240	9.787	0.000	1.347
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:45	53.434%	224.900	236.100	49.794%	10.280	8.945	9.505	16.240
2	17:38:55	53.796%	228.300	230.600	50.392%	9.897	9.272	8.980	15.060
3	17:39:04	56.106%	211.400	226.800	49.966%	9.655	9.315	9.456	17.110
X		54.445%	221.500	231.200	50.051%	9.943	9.177	9.314	16.140
σ		1.450%	8.917	4.671	0.308%	0.314	0.203	0.290	1.025
%RSD		2.663	4.025	2.020	0.616	3.155	2.206	3.115	6.355
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:45	51.328%	371.200	95.940	97.020	404.100	412.700	53.592%	55.404%
2	17:38:55	52.710%	372.200	89.990	91.700	383.500	396.500	53.113%	55.266%
3	17:39:04	51.642%	400.800	104.700	100.500	403.000	384.400	52.657%	52.389%
X		51.894%	381.400	96.880	96.400	396.900	397.900	53.120%	54.353%
σ		0.724%	16.810	7.403	4.412	11.620	14.180	0.468%	1.702%
%RSD		1.396	4.406	7.642	4.577	2.927	3.564	0.880	3.132
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:38:45	12.400	11.280	4.851	4.728	4.759	43.911%		
2	17:38:55	11.690	11.150	5.263	4.613	4.640	46.975%		
3	17:39:04	10.330	10.120	4.843	3.766	4.091	49.789%		
X		11.470	10.850	4.986	4.369	4.497	46.892%		
σ		1.052	0.636	0.241	0.526	0.356	2.940%		
%RSD		9.168	5.863	4.825	12.030	7.924	6.269		

180-46614-D-10-D MSD@5

8/24/2015 5:44:43 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	17:43:49	49.219%	11.990	862.600	892.700	0.000	2115000.000	259400.000	257200.000
2	17:43:58	49.289%	12.000	846.700	893.300	0.000	2109000.000	259100.000	256700.000
3	17:44:08	49.338%	11.540	867.300	891.800	0.000	2075000.000	254000.000	252400.000
X		49.282%	11.840	858.900	892.600	0.000	2100000.000	257500.000	255400.000
σ		0.060%	0.259	10.760	0.737	0.000	21630.000	3052.000	2655.000
%RSD		0.121	2.191	1.253	0.083	0.000	1.030	1.185	1.039
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:49	413.900	3131.000	0.000	90800.000	86890.000	82910.000	55.838%	216.800
2	17:43:58	415.400	3145.000	0.000	90470.000	86750.000	84260.000	56.319%	202.000
3	17:44:08	408.400	3123.000	0.000	88970.000	82320.000	80730.000	57.240%	206.700
X		412.600	3133.000	0.000	90080.000	85320.000	82630.000	56.466%	208.500
σ		3.712	11.240	0.000	974.900	2599.000	1778.000	0.713%	7.610
%RSD		0.900	0.359	0.000	1.082	3.046	2.151	1.262	3.650
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:49	115.300	47.040	99.440	213.100	785.800	108.300	110.500	55.450
2	17:43:58	105.300	47.200	99.490	198.800	685.200	103.000	104.600	55.470
3	17:44:08	105.300	45.970	99.080	195.900	753.600	98.950	102.600	52.440
X		108.600	46.740	99.340	202.600	741.500	103.400	105.900	54.450
σ		5.818	0.667	0.225	9.205	51.380	4.666	4.071	1.740
%RSD		5.355	1.426	0.226	4.542	6.929	4.512	3.845	3.196
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:49	53.230	103.000	93.450	11.730	3.547	412.900	0.000	1550.000
2	17:43:58	52.640	101.900	99.160	10.790	3.895	457.000	0.000	1565.000
3	17:44:08	51.470	96.140	97.300	9.880	2.018	423.000	0.000	1541.000
X		52.450	100.300	96.640	10.800	3.153	431.000	0.000	1552.000
σ		0.894	3.676	2.914	0.925	0.998	23.100	0.000	12.060
%RSD		1.705	3.663	3.015	8.567	31.650	5.360	0.000	0.777
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:49	53.828%	223.100	233.400	50.128%	8.843	10.250	10.960	15.750
2	17:43:58	54.037%	229.900	230.900	50.696%	10.130	9.105	8.716	17.120
3	17:44:08	55.241%	215.400	228.900	50.258%	9.707	9.669	7.783	18.520
X		54.369%	222.800	231.100	50.361%	9.560	9.674	9.152	17.130
σ		0.763%	7.265	2.256	0.297%	0.656	0.572	1.631	1.383
%RSD		1.403	3.260	0.976	0.590	6.866	5.909	17.820	8.074
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:43:49	50.215%	403.200	105.700	106.200	391.700	394.300	50.946%	52.558%
2	17:43:58	50.094%	392.900	98.650	98.850	413.900	409.500	53.174%	54.366%
3	17:44:08	50.767%	384.200	95.680	96.390	401.600	401.200	53.554%	55.120%
X		50.359%	393.500	100.000	100.500	402.400	401.700	52.558%	54.015%
σ		0.359%	9.523	5.141	5.101	11.090	7.580	1.409%	1.316%
%RSD		0.713	2.420	5.141	5.077	2.755	1.887	2.681	2.437
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:43:49	9.847	10.270	3.898	4.611	4.067	47.416%		
2	17:43:58	11.790	12.150	4.324	4.473	4.632	45.220%		
3	17:44:08	12.380	10.560	4.436	4.788	4.538	44.897%		
X		11.340	10.990	4.219	4.624	4.412	45.844%		
σ		1.323	1.013	0.284	0.158	0.303	1.370%		
%RSD		11.670	9.211	6.734	3.413	6.859	2.989		

180-46614-C-10-B PDS@5

8/24/2015 5:49:46 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	17:48:51	49.886%	11.580	821.400	839.900	0.000	1941000.000	242000.000	239800.000	
2	17:49:00	50.754%	10.810	779.400	825.500	0.000	1936000.000	242400.000	240500.000	
3	17:49:10	50.850%	11.890	820.700	835.300	0.000	1930000.000	242000.000	239600.000	
X		50.497%	11.430	807.100	833.600	0.000	1935000.000	242100.000	239900.000	
		σ	0.531%	0.558	24.030	7.386	0.000	5523.000	199.200	464.700
		%RSD	1.052	4.883	2.978	0.886	0.000	0.285	0.082	0.194
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:48:51	428.100	3195.000	0.000	84680.000	80500.000	76920.000	56.272%	208.200	
2	17:49:00	432.500	3201.000	0.000	84320.000	79690.000	77530.000	56.740%	205.800	
3	17:49:10	436.000	3181.000	0.000	84140.000	81200.000	77790.000	57.231%	210.900	
X		432.200	3192.000	0.000	84380.000	80470.000	77410.000	56.748%	208.300	
		σ	3.956	10.330	0.000	277.900	755.100	444.300	0.479%	2.524
		%RSD	0.915	0.324	0.000	0.329	0.938	0.574	0.844	1.212
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:48:51	109.500	48.780	102.300	208.400	751.700	108.100	107.600	56.510	
2	17:49:00	106.200	48.660	103.200	210.000	741.900	105.900	108.000	56.960	
3	17:49:10	110.000	47.810	102.000	207.400	657.300	104.900	102.700	55.800	
X		108.600	48.410	102.500	208.600	717.000	106.300	106.100	56.420	
		σ	2.066	0.529	0.614	1.313	51.870	1.640	2.975	0.586
		%RSD	1.903	1.093	0.599	0.629	7.235	1.542	2.805	1.038
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:48:51	56.080	110.700	89.830	10.010	4.983	311.100	0.000	1455.000	
2	17:49:00	56.020	104.600	100.900	10.150	3.477	321.000	0.000	1438.000	
3	17:49:10	55.530	92.030	104.400	10.730	4.929	336.400	0.000	1459.000	
X		55.880	102.400	98.410	10.300	4.463	322.800	0.000	1451.000	
		σ	0.305	9.512	7.633	0.386	0.854	12.750	0.000	11.480
		%RSD	0.546	9.286	7.756	3.746	19.140	3.951	0.000	0.791
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:48:51	54.201%	227.800	236.900	48.776%	9.881	9.509	9.867	16.950	
2	17:49:00	54.924%	227.300	236.600	49.358%	10.760	10.690	10.660	16.960	
3	17:49:10	54.672%	227.400	228.400	49.532%	10.470	10.370	10.620	15.730	
X		54.599%	227.500	234.000	49.222%	10.370	10.190	10.380	16.550	
		σ	0.367%	0.264	4.787	0.396%	0.451	0.610	0.448	0.711
		%RSD	0.672	0.116	2.046	0.804	4.345	5.988	4.313	4.297
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho	
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
1	17:48:51	48.200%	409.400	103.000	100.500	414.600	409.500	51.166%	54.181%	
2	17:49:00	49.564%	399.900	98.970	102.700	392.900	414.500	51.942%	53.427%	
3	17:49:10	51.304%	394.000	104.700	96.270	412.900	405.500	50.695%	51.458%	
X		49.689%	401.100	102.200	99.820	406.800	409.800	51.268%	53.022%	
		σ	1.556%	7.755	2.938	3.264	12.090	4.492	0.630%	1.406%
		%RSD	3.131	1.933	2.875	3.270	2.972	1.096	1.228	2.652
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi			
		ppb	ppb	ppb	ppb	ppb	ppb			
1	17:48:51	11.830	11.880	4.812	4.452	4.496	43.782%			
2	17:49:00	13.080	12.000	4.989	5.564	4.754	42.451%			
3	17:49:10	10.780	11.380	3.979	4.927	4.386	46.112%			
X		11.890	11.750	4.593	4.981	4.545	44.115%			
		σ	1.152	0.326	0.539	0.558	0.189	1.853%		
		%RSD	9.681	2.776	11.740	11.200	4.160	4.201		



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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	51.944%	1.452	34.150	34.750	0.000	5391.000	687.100	684.200
2	17:57:50	53.290%	1.232	34.840	34.760	0.000	5213.000	690.400	666.100
3	17:57:59	55.486%	1.157	35.180	32.210	0.000	5103.000	669.500	651.500
X		53.574%	128.027%	694.465%	678.141%	0.000	6544.335%	682.336%	667.276%
σ		1.788%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.337	11.950	1.515	4.341	0.000	2.775	1.651	2.458
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	34.410	689.900	0.000	1175.000	412.700	385.100	57.741%	5.969
2	17:57:50	34.260	677.000	0.000	1131.000	529.600	354.900	58.805%	6.112
3	17:57:59	33.190	658.900	0.000	1103.000	432.100	347.200	59.905%	4.728
X		113.176%	135.048%	0.000	1136.628%	458.153%	362.446%	58.817%	112.058%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.082%	n/a
%RSD		1.964	2.307	0.000	3.190	13.670	5.526	1.840	13.590
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	4.880	3.298	5.662	64.000	73.780	0.618	-1.730	3.109
2	17:57:50	-3.437	3.054	5.730	63.170	92.290	0.741	-1.734	2.510
3	17:57:59	2.013	2.978	5.668	65.880	78.640	0.550	-1.987	3.111
X		115.220%	155.499%	113.737%	128.697%	163.138%	127.327%	-181.712%	145.493%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		366.600	5.377	0.660	2.156	11.760	15.170	8.114	11.900
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	2.245	6.089	5.734	1.294	5.146	7.486	0.000	3.898
2	17:57:50	3.015	5.681	4.679	0.905	3.350	10.020	0.000	4.769
3	17:57:59	2.513	5.755	7.102	1.132	5.116	12.210	0.000	5.215
X		129.557%	116.833%	116.763%	111.035%	90.743%	198.092%	0.000	92.545%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		15.070	3.723	20.810	17.590	22.670	23.870	0.000	14.470
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	66.935%	4.876	4.657	58.604%	0.860	0.965	0.432	0.739
2	17:57:50	64.721%	5.445	5.545	59.615%	0.750	1.095	0.908	1.057
3	17:57:59	66.543%	5.109	5.368	59.596%	0.699	0.954	0.428	0.848
X		66.066%	102.868%	103.804%	59.271%	76.957%	100.483%	58.937%	88.126%
σ		1.182%	n/a	n/a	0.579%	n/a	n/a	n/a	n/a
%RSD		1.788	5.560	9.052	0.976	10.650	7.822	46.820	18.370
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:40	59.762%	5.541	2.303	1.798	7.822	7.484	54.071%	51.412%
2	17:57:50	58.639%	6.054	1.518	2.139	8.735	9.292	56.254%	55.504%
3	17:57:59	59.996%	6.673	2.066	1.747	6.997	8.078	54.946%	52.597%
X		59.466%	121.786%	98.104%	94.737%	78.511%	82.848%	55.090%	53.171%
σ		0.725%	n/a	n/a	n/a	n/a	n/a	1.099%	2.106%
%RSD		1.220	9.310	20.520	11.250	11.070	11.120	1.994	3.960
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:57:40	1.114	0.934	0.929	1.015	0.983	50.296%		
2	17:57:50	1.293	1.153	1.060	1.282	1.179	47.434%		
3	17:57:59	1.129	1.147	0.697	0.876	0.912	48.320%		
X		117.868%	107.824%	89.513%	105.794%	102.487%	48.683%		
σ		n/a	n/a	n/a	n/a	n/a	1.465%		
%RSD		8.450	11.560	20.560	19.510	13.470	3.010		

CCV 1671387 8/24/2015 6:03:43 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	18:02:47	49.303%	126.800	135.600	135.400	0.000	61780.000	60480.000	60120.000
2	18:02:57	49.601%	126.000	134.800	135.500	0.000	62230.000	61100.000	60250.000
3	18:03:06	48.657%	129.300	142.800	138.100	0.000	61870.000	60470.000	59980.000
X		49.187%	127.397%	137.754%	136.345%	0.000	123.917%	121.371%	120.227%
σ		0.482%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.981	1.332	3.210	1.123	0.000	0.389	0.595	0.227
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:47	536.600	6449.000	0.000	53350.000	44010.000	42410.000	57.065%	92.720
2	18:02:57	541.100	6497.000	0.000	53470.000	45410.000	43130.000	56.461%	98.020
3	18:03:06	535.900	6507.000	0.000	53090.000	44530.000	42690.000	57.313%	96.120
X		107.570%	129.679%	0.000	106.614%	89.300%	85.488%	56.947%	95.619%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.438%	n/a
%RSD		0.522	0.477	0.000	0.364	1.579	0.841	0.769	2.806
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:47	112.900	109.300	519.000	28510.000	28700.000	111.000	107.700	111.800
2	18:02:57	117.100	113.500	524.600	28210.000	33330.000	107.100	99.300	107.400
3	18:03:06	112.900	108.100	516.900	28700.000	28630.000	109.900	113.000	112.100
X		114.318%	110.289%	104.035%	113.887%	120.871%	109.338%	106.668%	110.426%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.145	2.572	0.761	0.878	8.909	1.817	6.492	2.388
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:47	106.800	104.600	108.400	98.970	102.100	101.600	0.000	90.940
2	18:02:57	110.900	101.000	107.700	95.730	88.270	94.420	0.000	91.800
3	18:03:06	109.200	97.680	96.140	97.120	96.180	91.640	0.000	91.300
X		108.987%	101.102%	104.068%	97.275%	95.517%	95.900%	0.000	91.346%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.873	3.418	6.606	1.674	7.262	5.387	0.000	0.474
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:47	64.676%	92.100	95.930	53.914%	97.080	96.830	92.860	99.200
2	18:02:57	67.325%	94.390	97.410	53.784%	95.160	98.520	100.700	100.100
3	18:03:06	65.916%	91.700	100.500	54.415%	97.040	93.160	91.410	99.390
X		65.972%	92.730%	97.933%	54.038%	96.429%	96.170%	95.004%	99.577%
σ		1.325%	n/a	n/a	0.333%	n/a	n/a	n/a	n/a
%RSD		2.008	1.567	2.360	0.617	1.141	2.851	5.287	0.496
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:02:47	52.971%	99.790	97.210	100.100	101.000	103.900	52.117%	52.089%
2	18:02:57	54.748%	97.490	95.300	95.140	92.030	92.080	50.254%	51.151%
3	18:03:06	54.346%	101.800	98.010	99.030	100.900	101.900	51.562%	51.958%
X		54.022%	99.681%	96.841%	98.078%	97.987%	99.301%	51.311%	51.733%
σ		0.932%	n/a	n/a	n/a	n/a	n/a	0.956%	0.508%
%RSD		1.726	2.140	1.434	2.648	5.263	6.375	1.864	0.982
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:02:47	106.200	102.500	102.900	100.200	100.300	43.792%		
2	18:02:57	102.900	105.500	106.500	105.200	103.300	46.423%		
3	18:03:06	106.900	100.900	99.060	95.330	96.610	45.002%		
X		105.335%	102.961%	102.850%	100.238%	100.078%	45.072%		
σ		n/a	n/a	n/a	n/a	n/a	1.317%		
%RSD		2.033	2.284	3.636	4.927	3.348	2.922		

CCB9 8/24/2015 6:08:48 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	18:07:52	51.334%	0.200	9.403	10.740	0.000	3265.000	18.620	10.750
2	18:08:01	51.912%	0.308	9.651	10.190	0.000	3058.000	16.860	8.674
3	18:08:11	52.861%	0.034	9.211	9.484	0.000	3099.000	19.990	14.740
X		52.036%	0.181	9.422	10.140	0.000	3141.000	18.490	11.390
σ		0.771%	0.138	0.220	0.631	0.000	109.500	1.571	3.083
%RSD		1.482	76.400	2.338	6.225	0.000	3.487	8.497	27.070
Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:52	1.514	95.730	0.000	726.300	29.280	-80.380	51.903%	0.150
2	18:08:01	1.418	91.390	0.000	668.000	-14.620	-82.930	53.971%	-0.056
3	18:08:11	1.591	91.540	0.000	685.800	16.980	-75.870	53.101%	0.140
X		1.507	92.890	0.000	693.400	10.540	-79.720	52.992%	0.078
σ		0.087	2.464	0.000	29.850	22.650	3.570	1.039%	0.116
%RSD		5.756	2.653	0.000	4.306	214.800	4.478	1.960	148.400
Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:52	-0.127	0.858	0.544	22.920	24.290	0.093	-3.173	0.250
2	18:08:01	-0.617	0.707	0.805	20.400	31.190	-0.006	-3.267	0.401
3	18:08:11	-2.949	0.555	0.495	19.480	15.890	0.071	-2.527	0.154
X		-1.231	0.707	0.615	20.930	23.790	0.052	-2.989	0.268
σ		1.507	0.151	0.167	1.780	7.665	0.052	0.403	0.125
%RSD		122.500	21.420	27.100	8.502	32.220	98.830	13.480	46.450
Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:52	0.076	0.228	0.781	0.066	0.200	6.515	0.000	-0.048
2	18:08:01	0.068	1.163	-0.038	-0.016	0.201	5.263	0.000	-0.009
3	18:08:11	-0.052	0.792	0.587	0.117	0.518	8.911	0.000	0.139
X		0.031	0.728	0.444	0.056	0.306	6.897	0.000	0.027
σ		0.072	0.471	0.428	0.067	0.183	1.853	0.000	0.098
%RSD		234.100	64.710	96.500	119.600	59.750	26.870	0.000	357.200
Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:52	62.942%	0.597	0.312	59.634%	-0.130	-0.146	-0.037	-0.015
2	18:08:01	61.671%	0.443	0.824	60.415%	-0.101	-0.146	-0.037	0.022
3	18:08:11	64.629%	0.275	0.865	61.095%	-0.087	-0.131	0.054	-0.015
X		63.080%	0.438	0.667	60.381%	-0.106	-0.141	-0.007	-0.003
σ		1.484%	0.161	0.308	0.731%	0.022	0.009	0.053	0.022
%RSD		2.352	36.830	46.150	1.211	20.750	6.380	746.800	808.300
Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:07:52	58.643%	0.358	0.093	0.100	-0.652	-1.041	56.155%	54.651%
2	18:08:01	60.379%	0.137	0.217	-0.023	-0.900	-0.767	53.965%	54.881%
3	18:08:11	61.247%	0.133	0.181	0.214	-0.900	-0.906	54.657%	55.212%
X		60.090%	0.209	0.164	0.097	-0.817	-0.904	54.925%	54.915%
σ		1.326%	0.129	0.064	0.119	0.143	0.137	1.120%	0.282%
%RSD		2.206	61.550	39.090	122.300	17.470	15.150	2.038	0.514
Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:07:52	0.018	0.041	0.136	0.046	0.077	47.735%		
2	18:08:01	-0.004	-0.004	-0.001	0.043	0.041	50.117%		
3	18:08:11	0.038	0.013	0.050	0.126	0.077	51.155%		
X		0.018	0.016	0.062	0.071	0.065	49.669%		
σ		0.021	0.023	0.069	0.047	0.021	1.754%		
%RSD		117.600	139.100	111.900	66.040	31.500	3.530		

## Performance Report

### Sample details

Sample name : ITUNE

Acquired at : 8/24/2015 7:56:33 AM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

### Mass Calibration verification

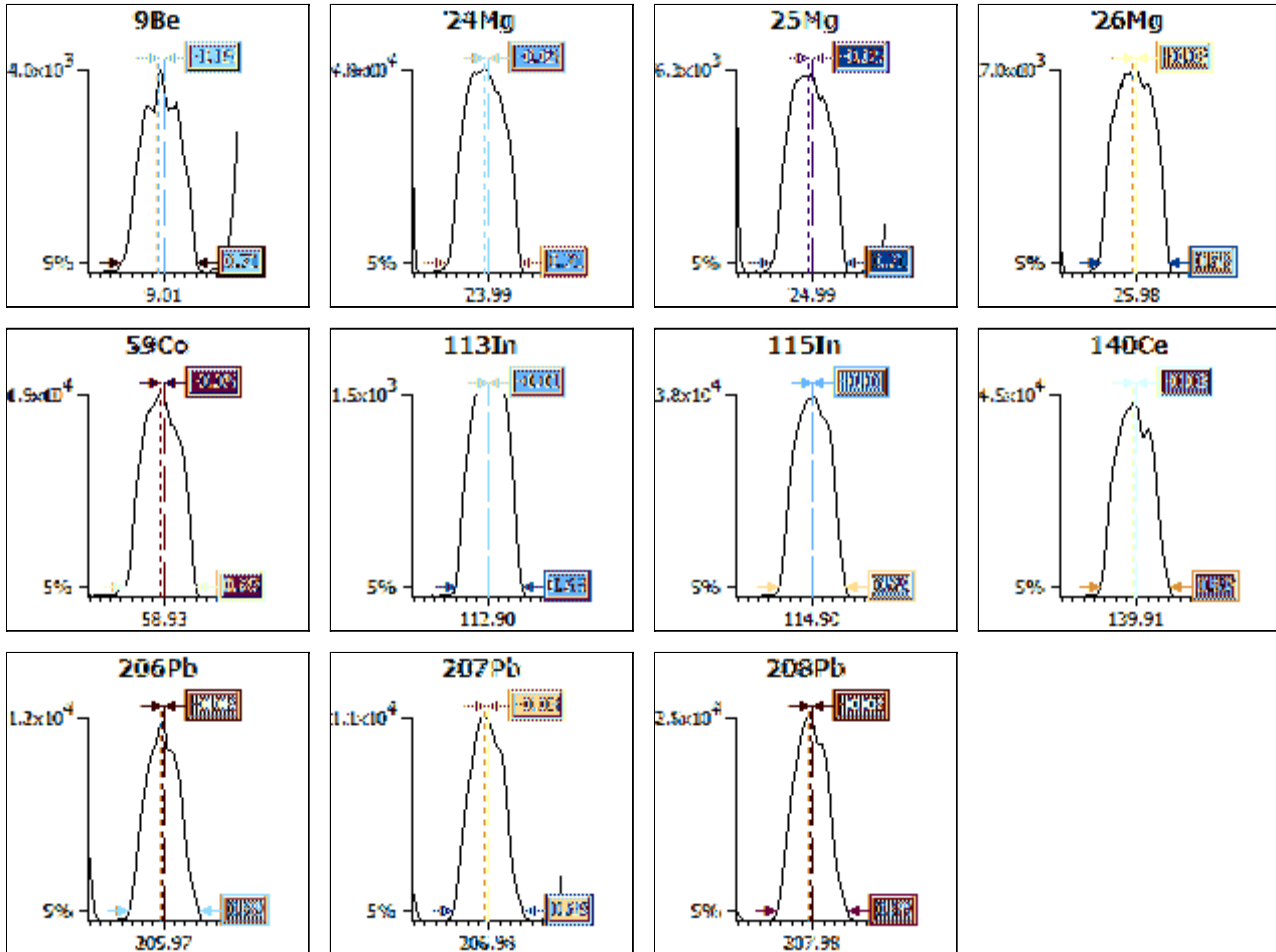
#### Acquisition parameters

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	0.71	-0.05
24Mg	0.90	0.40	0.10	0.71	-0.05
25Mg	0.90	0.40	0.10	0.71	-0.05
26Mg	0.90	0.40	0.10	0.65	-0.03
59Co	0.90	0.40	0.10	0.69	-0.05
113In	0.90	0.40	0.10	0.63	-0.01
115In	0.90	0.40	0.10	0.65	-0.01
140Ce	0.90	0.40	0.10	0.67	-0.03
206Pb	0.90	0.40	0.10	0.69	-0.03
207Pb	0.90	0.40	0.10	0.69	-0.03
208Pb	0.90	0.40	0.10	0.69	-0.03

**Sample details**

Sample name : ITUNE

Acquired at : 8/24/2015 7:56:33 AM

Report name : EPA ILM05.2 / 6020A 2.1 [8/10/2014 1:06:06 PM]

**Tune conditions**

Major		Minor		Global		Add. Gases	
Extraction	-173	Lens 2	-55.7	Standard resolution	n/a	CCT1	0.00
Lens 1	0.3	Lens 3	-200.0	High resolution	n/a	CCT2	0.00
Focus	29.8	Forward power	1404	Analogue Detector	n/a		
D1	-26.7	Horizontal	26	PC Detector	n/a		
Pole Bias	-0.0	Vertical	393				
Hexapole Bias	-3.4	D2	-121				
Nebuliser	0.78	DA	-80.0				
Sampling Depth	200	Cool	14.0				
		Auxiliary	0.80				

**Sensitivity and stability results****Acquisition parameters**

Sweeps : 180

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	59Co	113In	115In
<b>Dwell (mSecs)</b>		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Limits</b>	<b>%RSD</b>	-	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
	<b>Countrate</b>	-	>100	>500	>150	>150	>500	>500	>10000
1	7:57:20 AM	1	3448	48968	6328	7268	19210	1754	39403
2	7:58:32 AM	1	3525	50210	6624	7495	19265	1711	39789
3	7:59:44 AM	0	3526	51473	6761	7609	19215	1678	39775
4	8:00:56 AM	1	3502	51886	6749	7710	19618	1601	39417
5	8:02:08 AM	1	3484	52261	6712	7734	19431	1743	39147
x		1	3497	50960	6635	7563	19348	1697	39506
σ		0.36	32.66	1355.11	179.84	190.40	175.67	61.32	273.77
<b>%RSD</b>		39.658	0.934	2.659	2.711	2.517	0.908	3.612	0.693

Run	Time	140Ce	156Ce O	206Pb	207Pb	208Pb	220Bkg
<b>Dwell (mSecs)</b>		0.0	0.0	0.0	0.0	0.0	0.0
<b>Limits</b>	<b>%RSD</b>	5.0%	-	5.0%	5.0%	5.0%	-
	<b>Countrate</b>	>10000	-	>1000	>1000	>5000	-
1	7:57:20 AM	44400	517	11948	10931	25911	0
2	7:58:32 AM	44927	497	12138	11104	26185	0
3	7:59:44 AM	45109	501	12157	11079	26263	0
4	8:00:56 AM	45346	521	12059	11268	26494	0
5	8:02:08 AM	45408	523	12128	11118	26432	0
x		45038	512	12086	11100	26257	0
σ		404.87	11.72	85.60	120.01	230.22	0.08
<b>%RSD</b>		0.899	2.289	0.708	1.081	0.877	82.402

**Ratio results**

Run	Time	156Ce O/140Ce	
<b>Ratio limits</b>			<0.0600
1	7:57:20 AM	0	
2	7:58:32 AM	0	
3	7:59:44 AM	0	
4	8:00:56 AM	0	
5	8:02:08 AM	0	
x		0.0114	
σ		0.00	
<b>%RSD</b>		2.2686	

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 150950 Batch Start Date: 08/17/15 11:20 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 08/17/15 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTCPMS 00022	MTAPITMMSA 00026	MTAPITMSC 00032	
MB 180-150950/1		3005A, 6020A		50 mL	50 mL				
LCS 180-150950/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-46875-B-1	HD-COD-SW-6-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-2	HD-COD-SW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-3	HD-COD-SW-8-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-4	HD-COD-SW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-5	HD-COD-SW-10-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-6	HD-COD-SW-11-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-7	HD-COD-SW-12-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-8	HD-COD-SW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-9	HD-COD-SW-15-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-10	HD-COD-SW-16-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-12	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-12 MS	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-46875-B-12 MSD	HD-COD-SW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-46875-B-13	HD-COD-SW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-14	HD-COD-SW-26-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-15	HD-COD-SW-27-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-16	HD-COD-SW-28-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-17	HD-COD-SW-29-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-46875-B-18	HD-QC1-0/1-1	3005A, 6020A	T	50 mL	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.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 150950 Batch Start Date: 08/17/15 11:20 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 08/17/15 15:20

Batch Notes	
Batch Comment	Metals D1
First End time	15:20
Lot # of hydrochloric acid	2.5 ml 1659532
Lot # of Nitric Acid	1.0 ml 1659529
Hot Block ID number	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	11:20
ID number of the thermometer	IP1-14 CF=0.0 B2
Digestion Tube/Cup Lot #	1501178
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GENERAL CHEMISTRY



COVER PAGE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh

Job Number: 180-46875-1

SDG No.: \_\_\_\_\_

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-46875-1
HD-COD-SW-7-0/1-0	180-46875-2
HD-COD-SW-8-0/1-0	180-46875-3
HD-COD-SW-9-0/1-0	180-46875-4
HD-COD-SW-10-0/1-0	180-46875-5
HD-COD-SW-11-0/1-0	180-46875-6
HD-COD-SW-12-0/1-0	180-46875-7
HD-COD-SW-13-0/1-0	180-46875-8
HD-COD-SW-15-0/1-0	180-46875-9
HD-COD-SW-16-0/1-0	180-46875-10
HD-COD-SW-17-0/1-0	180-46875-12
HD-COD-SW-20-0/1-0	180-46875-13
HD-COD-SW-26-0/1-0	180-46875-14
HD-COD-SW-27-0/1-0	180-46875-15
HD-COD-SW-28-0/1-0	180-46875-16
HD-COD-SW-29-0/1-0	180-46875-17
HD-QC1-0/1-1	180-46875-18

Comments:

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-6-0/1-0

Lab Sample ID: 180-46875-1

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:30

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	150	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	150	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-7-0/1-0

Lab Sample ID: 180-46875-2

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 11:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-8-0/1-0

Lab Sample ID: 180-46875-3

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:55

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	130	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	130	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-9-0/1-0

Lab Sample ID: 180-46875-4

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	190	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	190	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-10-0/1-0

Lab Sample ID: 180-46875-5

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:25

Reporting Basis: WET

Date Received: 08/15/2015 09:20

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	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-11-0/1-0

Lab Sample ID: 180-46875-6

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:35

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-12-0/1-0

Lab Sample ID: 180-46875-7

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:50

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	200	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	200	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B



1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-13-0/1-0

Lab Sample ID: 180-46875-8

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:20

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-15-0/1-0

Lab Sample ID: 180-46875-9

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 13:05

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-16-0/1-0

Lab Sample ID: 180-46875-10

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 09:50

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-17-0/1-0

Lab Sample ID: 180-46875-12

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:00

Reporting Basis: WET

Date Received: 08/15/2015 09:20

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	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-20-0/1-0

Lab Sample ID: 180-46875-13

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:35

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	170	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	170	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-26-0/1-0

Lab Sample ID: 180-46875-14

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 10:55

Reporting Basis: WET

Date Received: 08/15/2015 09:20

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	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-27-0/1-0

Lab Sample ID: 180-46875-15

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 13:15

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	150	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	150	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-28-0/1-0

Lab Sample ID: 180-46875-16

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 12:25

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B



1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-29-0/1-0

Lab Sample ID: 180-46875-17

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:45

Reporting Basis: WET

Date Received: 08/15/2015 09:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	ND	5.0	0.41	mg/L			1	SM 2320B

1B-IN  
 INORGANIC ANALYSIS DATA SHEET  
 GENERAL CHEMISTRY

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

Lab Sample ID: 180-46875-18

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG ID.: \_\_\_\_\_

Matrix: Water

Date Sampled: 08/14/2015 08:00

Reporting Basis: WET

Date Received: 08/15/2015 09:20

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	ND	5.0	0.41	mg/L			1	SM 2320B

2-IN  
 CALIBRATION QUALITY CONTROL  
 GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Analyst: CLL Batch Start Date: 08/24/2015  
 Reporting Units: mg/L Analytical Batch No.: 151534

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:06	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_0009 1
14	CCB	05:06	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				J	
			Carbonate Alkalinity as CaCO3	ND					
25	CCV	05:06	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_0009 1
26	CCB	05:06	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				J	
			Carbonate Alkalinity as CaCO3	ND					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

3-IN  
METHOD BLANK  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 151534 Date: 08/24/2015 05:06							
SM 2320B	MB 180-151534/2	Total Alkalinity as CaCO3 to pH 4.5	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-151534/2	Bicarbonate Alkalinity as CaCO3	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-151534/2	Carbonate Alkalinity as CaCO3	ND		mg/L	5.0	1

6-IN  
DUPLICATE  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 151534 Date: 08/24/2015 05:06								
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1	Total Alkalinity as CaCO3 to pH 4.5	150	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1 DU	Total Alkalinity as CaCO3 to pH 4.5	153	mg/L	1	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1	Bicarbonate Alkalinity as CaCO3	150	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1 DU	Bicarbonate Alkalinity as CaCO3	153	mg/L	1	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1	Carbonate Alkalinity as CaCO3	ND	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-46875-1 DU	Carbonate Alkalinity as CaCO3	ND	mg/L	NC	20	
Batch ID: 151534 Date: 08/24/2015 05:06								
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12	Total Alkalinity as CaCO3 to pH 4.5	290	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12 DU	Total Alkalinity as CaCO3 to pH 4.5	289	mg/L	1	20	
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12	Bicarbonate Alkalinity as CaCO3	290	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12 DU	Bicarbonate Alkalinity as CaCO3	289	mg/L	1	20	
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12	Carbonate Alkalinity as CaCO3	ND	mg/L			
SM 2320B	HD-COD-SW-17-0/1-0	180-46875-12 DU	Carbonate Alkalinity as CaCO3	ND	mg/L	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

7A-IN  
 LAB CONTROL SAMPLE  
 GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 151534 Date: 08/24/2015 05:06			LCS Source: WALK250PPMPi_00098								
SM 2320B	LCS 180-151534/1	Total Alkalinity as CaCO3 to pH 4.5	255		mg/L	250	102	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh

Job Number: 180-46875-1

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 CaCO <sub>3</sub>		5	0.4111
Carbonate Alkalinity as CaCO <sub>3</sub>		5	0.4111
Total Alkalinity as CaCO <sub>3</sub> to pH 4.5		5	0.4111

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh

Job Number: 180-46875-1

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 CaCO <sub>3</sub>		5	0.4111
Carbonate Alkalinity as CaCO <sub>3</sub>		5	0.4111
Total Alkalinity as CaCO <sub>3</sub> to pH 4.5		5	0.4111



13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: NOEQUIP Analysis Method: SM 2320B  
 Start Date: 08/24/2015 05:06 End Date: 08/24/2015 05:06

Lab Sample Id	D/F	T y p e	Time	Analytes																											
				A l k	B A L K C C	C A r A l k																									
LCS 180-151534/1	1	T	05:06	X																											
MB 180-151534/2	1	T	05:06	X	X	X																									
180-46875-1	1	T	05:06	X	X	X																									
180-46875-1 DU	1	T	05:06	X	X	X																									
180-46875-2	1	T	05:06	X	X	X																									
180-46875-3	1	T	05:06	X	X	X																									
180-46875-4	1	T	05:06	X	X	X																									
180-46875-5	1	T	05:06	X	X	X																									
180-46875-6	1	T	05:06	X	X	X																									
180-46875-7	1	T	05:06	X	X	X																									
180-46875-8	1	T	05:06	X	X	X																									
180-46875-9	1	T	05:06	X	X	X																									
CCV 180-151534/13	1		05:06	X																											
CCB 180-151534/14	1		05:06	X	X	X																									
180-46875-10	1	T	05:06	X	X	X																									
180-46875-12	1	T	05:06	X	X	X																									
180-46875-12 DU	1	T	05:06	X	X	X																									
180-46875-13	1	T	05:06	X	X	X																									
180-46875-14	1	T	05:06	X	X	X																									
180-46875-15	1	T	05:06	X	X	X																									
180-46875-16	1	T	05:06	X	X	X																									
180-46875-17	1	T	05:06	X	X	X																									
180-46875-18	1	T	05:06	X	X	X																									
ZZZZZZ			05:06																												
CCV 180-151534/25	1		05:06	X																											
CCB 180-151534/26	1		05:06	X	X	X																									

Prep Types: \_\_\_\_\_  
 T = Total/NA

*File # 082415ALK*

Analyst: *Chakraborty*

Date: *8-24-15*

Reviewed By: *Seidman*

Date: \_\_\_\_\_

pH Meter ID *Accumet XL SN# 94102132*

AD Batch: *151534*

pH 4 Start: *4.01*

pH 4 End: *4.04*

Job Number(s): *46875-47044*

**Calculations:**

$$\text{Alkalinity as CaCO}_3 \text{ mg/L} = \frac{(\text{mL of H}_2\text{SO}_4) (N)(50,000)}{\text{mL of Sample}}$$

**Alkalinity Relationships:**

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH<sup>-</sup> = Hydroxide Alkalinity as CaCO<sub>3</sub>

CO<sub>3</sub><sup>2-</sup> = Carbonate Alkalinity as CaCO<sub>3</sub>

HCO<sub>3</sub><sup>-</sup> = Bicarbonate Concentration as CaCO<sub>3</sub>

Results	OH <sup>-</sup>	CO <sub>3</sub> <sup>2-</sup>	HCO <sub>3</sub> <sup>-</sup>	Results	OH <sup>-</sup>	CO <sub>3</sub> <sup>2-</sup>	HCO <sub>3</sub> <sup>-</sup>
P = 0	0	0	T	P = 1/2T	0	2P	0
P < 1/2T	0	2P	T-2P	P > 1/2T	2P-T	2(T-P)	0
				P = T	T	0	0

*Chakraborty*

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH <sup>-</sup>	CO <sub>3</sub> <sup>2-</sup>	HCO <sub>3</sub>
LCD	10.82	50	6.6	12.7	0.0201	255.27				
MB	5.59		0	0.1		2.01				
180-46875-1	8.12		0	7.5		150.75				
1X	8.13		0	7.6		152.76				
2	8.07		0	7.1		142.71				
3	7.68		0	6.3		126.63				
4	8.29		0	9.6		192.96				
5	8.27		0	12.8		257.28				
6	8.28		0	10.4		209.04				
7	8.07		0	10.1		203.01				
8	7.95		0	7.0		140.7				
9	7.50		0	11.2		225.12				
CEU	10.65	3.0	6.6			132.66				
CB	5.63		0	0.1		2.01				
180-46875-10	7.96		0	6.8		136.68				
12	7.44		0	14.2		285.42				
12X	7.39		0	14.4		289.44				
13	8.19		0	8.3		166.83				
14	7.50		0	12.2		245.22				
15	8.22		0	7.4		148.74				
16	8.16		0	10.6		213.06				
17	7.87		0	6.9		138.69				
18	7.48		0	14.0		281.4				
180-47044-1	7.80		0	18.2		365.82				
CEU	10.65	2.9	6.6			132.66				
CB	5.58		0	0.1		2.01				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 151534 Batch Start Date: 08/24/15 05:06 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	TitrantVolumel	BuretStart2
LCS 180-151534/1		SM 2320B		50 mL	10.82 SU	0 mL	6.6 mL	6.6 mL	0 mL
MB 180-151534/2		SM 2320B		50 mL	5.59 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	8.12 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	8.13 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	50 mL	8.07 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	50 mL	7.68 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	50 mL	8.29 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	50 mL	8.27 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	50 mL	8.28 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	50 mL	8.07 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	50 mL	7.95 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	50 mL	7.50 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-151534/13		SM 2320B		50 mL	10.65 SU	0 mL	3.0 mL	3 mL	0 mL
CCB 180-151534/14		SM 2320B		50 mL	5.63 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	50 mL	7.96 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-12	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	7.44 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-12 DU	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	7.39 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-13	HD-COD-SW-20-0/1-0	SM 2320B	T	50 mL	8.19 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-14	HD-COD-SW-26-0/1-0	SM 2320B	T	50 mL	7.50 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-15	HD-COD-SW-27-0/1-0	SM 2320B	T	50 mL	8.22 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-16	HD-COD-SW-28-0/1-0	SM 2320B	T	50 mL	8.16 SU	0 mL	0 mL	0 mL	0 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.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 151534 Batch Start Date: 08/24/15 05:06 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
180-46875-A-17	HD-COD-SW-29-0/1-0	SM 2320B	T	50 mL	7.87 SU	0 mL	0 mL	0 mL	0 mL
180-46875-A-18	HD-QC1-0/1-1	SM 2320B	T	50 mL	7.48 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-151534/25		SM 2320B		50 mL	10.65 SU	0 mL	2.9 mL	2.9 mL	0 mL
CCB 180-151534/26		SM 2320B		50 mL	5.58 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-151534/1		SM 2320B		6.1 mL	6.1 mL	Case 4	245.22 mg/L	10.05 mg/L	0 mg/L
MB 180-151534/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-46875-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	7.5 mL	7.5 mL	Case 1	0 mg/L	0 mg/L	150.75 mg/L
180-46875-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	7.6 mL	7.6 mL	Case 1	0 mg/L	0 mg/L	152.76 mg/L
180-46875-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	7.1 mL	7.1 mL	Case 1	0 mg/L	0 mg/L	142.71 mg/L
180-46875-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	6.3 mL	6.3 mL	Case 1	0 mg/L	0 mg/L	126.63 mg/L
180-46875-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	9.6 mL	9.6 mL	Case 1	0 mg/L	0 mg/L	192.96 mg/L
180-46875-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	12.8 mL	12.8 mL	Case 1	0 mg/L	0 mg/L	257.28 mg/L
180-46875-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	10.4 mL	10.4 mL	Case 1	0 mg/L	0 mg/L	209.04 mg/L
180-46875-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	10.1 mL	10.1 mL	Case 1	0 mg/L	0 mg/L	203.01 mg/L
180-46875-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	7.0 mL	7 mL	Case 1	0 mg/L	0 mg/L	140.7 mg/L
180-46875-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	11.2 mL	11.2 mL	Case 1	0 mg/L	0 mg/L	225.12 mg/L
CCV 180-151534/13		SM 2320B		3.6 mL	3.6 mL	Case 2	120.6 mg/L	0 mg/L	12.06 mg/L
CCB 180-151534/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-46875-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	6.8 mL	6.8 mL	Case 1	0 mg/L	0 mg/L	136.68 mg/L
180-46875-A-12	HD-COD-SW-17-0/1-0	SM 2320B	T	14.2 mL	14.2 mL	Case 1	0 mg/L	0 mg/L	285.42 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.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 151534 Batch Start Date: 08/24/15 05:06 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-46875-A-12 DU	HD-COD-SW-17-0/1-0	SM 2320B	T	14.4 mL	14.4 mL	Case 1	0 mg/L	0 mg/L	289.44 mg/L
180-46875-A-13	HD-COD-SW-20-0/1-0	SM 2320B	T	8.3 mL	8.3 mL	Case 1	0 mg/L	0 mg/L	166.83 mg/L
180-46875-A-14	HD-COD-SW-26-0/1-0	SM 2320B	T	12.2 mL	12.2 mL	Case 1	0 mg/L	0 mg/L	245.22 mg/L
180-46875-A-15	HD-COD-SW-27-0/1-0	SM 2320B	T	7.4 mL	7.4 mL	Case 1	0 mg/L	0 mg/L	148.74 mg/L
180-46875-A-16	HD-COD-SW-28-0/1-0	SM 2320B	T	10.6 mL	10.6 mL	Case 1	0 mg/L	0 mg/L	213.06 mg/L
180-46875-A-17	HD-COD-SW-29-0/1-0	SM 2320B	T	6.9 mL	6.9 mL	Case 1	0 mg/L	0 mg/L	138.69 mg/L
180-46875-A-18	HD-QC1-0/1-1	SM 2320B	T	14.0 mL	14 mL	Case 1	0 mg/L	0 mg/L	281.4 mg/L
CCV 180-151534/25		SM 2320B		3.7 mL	3.7 mL	Case 2	116.58 mg/L	0 mg/L	16.08 mg/L
CCB 180-151534/26		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00091	WALK250PPMPi 00098
LCS 180-151534/1		SM 2320B		132.66 mg/L	255.27 mg/L	50 mL		50 mL
MB 180-151534/2		SM 2320B		0 mg/L	2.01 mg/L	50 mL		
180-46875-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	0 mg/L	150.75 mg/L	50 mL		
180-46875-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	0 mg/L	152.76 mg/L	50 mL		
180-46875-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	0 mg/L	142.71 mg/L	50 mL		
180-46875-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	0 mg/L	126.63 mg/L	50 mL		
180-46875-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	0 mg/L	192.96 mg/L	50 mL		
180-46875-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	0 mg/L	257.28 mg/L	50 mL		
180-46875-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	0 mg/L	209.04 mg/L	50 mL		
180-46875-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	0 mg/L	203.01 mg/L	50 mL		
180-46875-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	0 mg/L	140.7 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.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 151534 Batch Start Date: 08/24/15 05:06 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00091	WALK250PPMPi 00098	
180-46875-A-9	HD-COD-SW-15-0/1 -0	SM 2320B	T	0 mg/L	225.12 mg/L	50 mL			
CCV 180-151534/13		SM 2320B		60.3 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-151534/14		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-46875-A-10	HD-COD-SW-16-0/1 -0	SM 2320B	T	0 mg/L	136.68 mg/L	50 mL			
180-46875-A-12	HD-COD-SW-17-0/1 -0	SM 2320B	T	0 mg/L	285.42 mg/L	50 mL			
180-46875-A-12 DU	HD-COD-SW-17-0/1 -0	SM 2320B	T	0 mg/L	289.44 mg/L	50 mL			
180-46875-A-13	HD-COD-SW-20-0/1 -0	SM 2320B	T	0 mg/L	166.83 mg/L	50 mL			
180-46875-A-14	HD-COD-SW-26-0/1 -0	SM 2320B	T	0 mg/L	245.22 mg/L	50 mL			
180-46875-A-15	HD-COD-SW-27-0/1 -0	SM 2320B	T	0 mg/L	148.74 mg/L	50 mL			
180-46875-A-16	HD-COD-SW-28-0/1 -0	SM 2320B	T	0 mg/L	213.06 mg/L	50 mL			
180-46875-A-17	HD-COD-SW-29-0/1 -0	SM 2320B	T	0 mg/L	138.69 mg/L	50 mL			
180-46875-A-18	HD-QC1-0/1-1	SM 2320B	T	0 mg/L	281.4 mg/L	50 mL			
CCV 180-151534/25		SM 2320B		58.29 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-151534/26		SM 2320B		0 mg/L	2.01 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.: 180-46875-1

SDG No.: \_\_\_\_\_

Batch Number: 151534 Batch Start Date: 08/24/15 05:06 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date: \_\_\_\_\_

Batch Notes	
Batch Comment	PH 4 START: 4.01 PH 4 END: 4.04
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1568035
pH Buffer 3 ID	1525375
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1627652
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0201 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

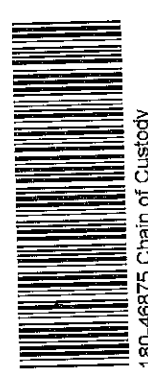
**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

Project Manager: Jennifer S. Reese  
 Tel/Fax: 717-901-8181 / (717) 657-1611  
 Site Contact: Jennifer S. Reese  
 Lab Contact: Carrie Gamber  
 Date Submitted: 8/14/2015  
 Carrier: FEDEX  
 COC No: TAP2015081401  
 Job No. 10012.16.0005  
 Container No. 1  
 SDG No.

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Analysis Turnaround Time		VOCs (826C)	Alkalinity (Calc/Bicarb), SO4, Cl, NO3 23201B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)
						Calendar (C) or Work Days (W)	TAT, if different from Below: Standard			
HD-COD-SW-6-0/1-0	8/14/15	1030	Surface Water	Water	5		2 weeks	X	X	X
HD-COD-SW-7-0/1-0	8/14/15	1115	Surface Water	Water	5		1 week	X	X	X
HD-COD-SW-8-0/1-0	8/14/15	0855	Surface Water	Water	5		5 days	X	X	X
HD-COD-SW-9-0/1-0	8/14/15	1215	Surface Water	Water	5		1 day	X	X	X
HD-COD-SW-10-0/1-0	8/14/15	0925	Surface Water	Water	5			X	X	X
HD-COD-SW-11-0/1-0	8/14/15	1235	Surface Water	Water	5			X	X	X
HD-COD-SW-12-0/1-0	8/14/15	1250	Surface Water	Water	5			X	X	X
HD-COD-SW-13-0/1-0	8/14/15	0920	Surface Water	Water	5			X	X	X
HD-COD-SW-15-0/1-0	8/14/15	1305	Surface Water	Water	5			X	X	X
HD-COD-SW-16-0/1-0	8/14/15	0950	Surface Water	Water	5			X	X	X
HD-QC1-0/1-2	8/14/15	1200	Trip Blank	Water	2			X		



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

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

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

Relinquished by	Relinquished by (Print and Sign)	Relinquished by	Relinquished by
[Signature]	NBF	8/14/15 1350	Company: GSC
[Signature]	TA	8/14/15 1620	Company: TA
[Signature]	Public Waters	8/15/15 9:20	Company: TA

# Chain of Custody Record

TestAmerica Laboratories, Inc.  
COC No: TAP2015081402  
2 of 2 COCs  
Job No. 10012.16.0005

**Client Contact**  
Groundwater Sciences Corporation  
2601 Market Place St. Suite 310  
Harrisburg, PA 17110  
(717) 901-8180 Phone  
(717) 657-1611 FAX  
Project Name: 2015 Restart Sampling event 7  
Site: Harley-Davidson, York PA  
Quote # 18000557

**Project Manager:** Jennifer S. Reese  
**Tel/Fax:** 717-901-8181 / (717) 657-1611  
**Analysis Turnaround Time**  
Calendar (C) or Work Days (W) \_\_\_\_\_  
TAT if different from Below: Standard  
 2 weeks  
 1 week  
 5 days  
 1 day

**Site Contact:** Jennifer S. Reese  
**Lab Contact:** Carrie Gamber  
**Date Submitted:** 8/14/2015  
**Carrier:** FEDEX  
**Return To Client**  **Disposal By Lab**  **For**  **Months** \_\_\_\_\_

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Analysis										Sample Specific Notes								
						VOCs (8260C)	Alkalinity (carb/bicarb), SO <sub>4</sub> , Cl <sub>2</sub> , NO <sub>3</sub> 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)																
HD-COD-SW-17-0/1-0	8/14/15	1000	Surface Water	Water	5	X	X	X																
HD-COD-SW-17-0/1-0 MS	8/14/15	1000	Surface Water	Water	5	X	X	X																
HD-COD-SW-17-0/1-0 MSD	8/14/15	1000	Surface Water	Water	5	X	X	X																
HD-COD-SW-20-0/1-0	8/14/15	1035	Surface Water	Water	5	X	X	X																
HD-COD-SW-26-0/1-0	8/14/15	1055	Surface Water	Water	5	X	X	X																
HD-COD-SW-27-0/1-0	8/14/15	1215	Surface Water	Water	5	X	X	X																
HD-COD-SW-28-0/1-0	8/14/15	1225	Surface Water	Water	5	X	X	X																
HD-COD-SW-29-0/1-0	8/14/15	0845	Surface Water	Water	5	X	X	X																
HD-QC1-0/1-1	8/14/15	0800	Surface Water	Water	5	X	X	X																
HD-QC2-0/1-2	8/14/15	1201	Trip Blank	Water	2	X																		
						Number of Containers																		
						Field Filter																		
						Preservation Used: 1= Ice, 2= HCL, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved 7= Zinc Acetate & NaOH																		
						Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Ummbrwn																		

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

**Relinquished by (Print and Sign):** *[Signature]* **Company:** GSC  
**Relinquished by:** *[Signature]* **Company:** TA  
**Relinquished by:** *[Signature]* **Company:** TA

**Received by:** *[Signature]* **Date/Time:** 8/14/15 1350  
**Received by:** *[Signature]* **Date/Time:** 8/15/15 1615  
**Received by:** *[Signature]* **Date/Time:** 8/15/15 9120

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

**Client Contact**  
Groundwater/Sciences Corporation  
2601 Market Place St. Suite 310  
Harrisburg, PA 17110  
(717) 904-8180 Phone  
(717) 657-1611 FAX

**Project Name:** 2015 Restart Sampling event 7  
**Site:** Harley-Davidson, York PA  
**Quote #:** 18000557

**Project Manager:** Jennifer S. Reese  
**Tel/Fax:** 717-901-8181 / (717) 657-1611  
Analysis Turnaround Time  
Calendar (C) or Work Days (W)  
 2 weeks  
 1 week  
 5 days  
 1 day

**Site Contact:** Jennifer S. Reese  
**Date Submitted:** 8/14/2015  
**Carrier:** FEDEX

**Lab Contact:** Carrie Gamber

**COC No.:** TAP2015081401  
**Job No.:** 10012.16.0005

**Container No.:** 1  
**SDG No.:**

**Sample Identification**

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
HD-COD-SW-6-0/1-0	8/14/15	1030	Surface Water	Water	5
HD-COD-SW-7-0/1-0	8/14/15	1115	Surface Water	Water	5
HD-COD-SW-8-0/1-0	8/14/15	0835	Surface Water	Water	5
HD-COD-SW-9-0/1-0	8/14/15	1215	Surface Water	Water	5
HD-COD-SW-10-0/1-0	8/14/15	0925	Surface Water	Water	5
HD-COD-SW-11-0/1-0	8/14/15	1235	Surface Water	Water	5
HD-COD-SW-12-0/1-0	8/14/15	1250	Surface Water	Water	5
HD-COD-SW-13-0/1-0	8/14/15	0920	Surface Water	Water	5
HD-COD-SW-15-0/1-0	8/14/15	1305	Surface Water	Water	5
HD-COD-SW-16-0/1-0	8/14/15	0950	Surface Water	Water	5
HD-QC1-0/1-2	8/14/15	1200	Trip Blank	Water	2



180-46875 Chain of Custody

**Sample Specific Notes:**

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
Return To Client  For  Months

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

**Special Instructions/QC Requirements & Comments:** CLP Like Deliverables

**Relinquished by (Print and Sign):** [Signature] **Date/Time:** 8/14/15 1350  
**Company:** OSC

**Relinquished by:** [Signature] **Date/Time:** 8/14/15 1620  
**Company:** TA

**Relinquished by:** [Signature] **Date/Time:** 8/14/15 1350  
**Company:** TA

**Relinquished by:** [Signature] **Date/Time:** 8-15-15 9:40  
**Company:** TA

ORIGIN ID: KPDA (610) 337-9992  
SAMPLE RECEIPT  
TEST AMERICA  
1008 WEST 5TH AVE  
KING OF PRUSSIA, PA 19406  
UNITED STATES US

SHIP DATE: 14AUC15  
ACTWT: 53.00 LB  
CAD: 8490299/INET3670

BILL RECIPIENT

TO **SAMPLE RECEIPT**  
**TEST AMERICA - PITTSBURGH**  
**301 ALPHA DR**

**PITTSBURGH PA 15238**

(412) 963-7058  
INV. PO:

DEPT:



FedEx  
Express



J152015062601UV

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

MPS# 7742 8965 5059  
Mstr# 7742 8965 4442

0201

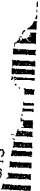
**X0 AGCA**

**15238**  
PA-US PIT

Uncorrected temp 16 °C  
Thermometer ID 117

CF U-G Initials KAC

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



(610) 337-9992

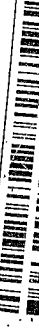
PA 19406

**RECEIPT**  
**TEST AMERICA - PITTSBURGH**  
**301 ALPHA DR**

**PITTSBURGH PA 15238**

(412) 963-7058  
INV. PO:

DEPT:



FedEx  
Express



J152015062601UV

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

1 of 2  
TRK# 7742 8965 4442  
HH MASTER HH

**X0 AGCA**

**15238**  
PA-US PIT

Uncorrected temp 17 °C  
Thermometer ID 117

CF U-G Initials KAC

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



# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-46875-1

**Login Number: 46875**  
**List Number: 1**  
**Creator: Watson, Debbie**

**List Source: TestAmerica Pittsburgh**

<b>Question</b>	<b>Answer</b>	<b>Comment</b>
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	