ANALYTICAL REPORT

Job Number: 180-44248-1

Job Description: Harley Davidson

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

Attention: Allan Miller

Approved for release.
Carrie L Gamber
Senior Project Manager
6/3/2015 4:07 PM

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06/03/2015

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

HPLC/IC

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

Metals

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

General Chemistry

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

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-44248-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 05/20/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.9 C.

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

METALS
Calcium was detected in method blank MB 180-142252/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

ALKALINITY
Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-142826/2 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.

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-142828/2 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

IC
Nitrate as N was detected in method blank MB 180-142275/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

Client Sample ID: HD-MW-99D-0/1-0 — Lab Sample ID: 180-44248-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	9.8		5.0	1.5	ug/L	5		8260C	Total/NA
Methylene Chloride	5.1		5.0	0.63	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	2.0	J	5.0	0.58	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	62		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	10		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	170		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	18		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	2.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	77		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	30		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	88000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	27000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-100S-0/1-0 — Lab Sample ID: 180-44248-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.4		2.0	0.59	ug/L	2		8260C	Total/NA
1,1-Dichloroethane	0.92	J	2.0	0.23	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	34		2.0	0.47	ug/L	2		8260C	Total/NA
1,1,1-Trichloroethane	1.7	J	2.0	0.57	ug/L	2		8260C	Total/NA
Trichloroethene	63		2.0	0.29	ug/L	2		8260C	Total/NA
Tetrachloroethene	51		2.0	0.30	ug/L	2		8260C	Total/NA
Nitrate as N	3.7	B	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	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	91000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	48000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-100I-0/1-0 — Lab Sample ID: 180-44248-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.9		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.70	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	25		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.24	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.1		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	39		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	26		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.9	B	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	37		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	90000	B	500	2.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-100I-0/1-0 (Continued) — Lab Sample ID: 180-44248-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	4200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	50000		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-MW-100D-0/1-0 — Lab Sample ID: 180-44248-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.3		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.44	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	19		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	0.82	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	31		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	25		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.6	B	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	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	93000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4600		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	53000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-147A-0/1-0 — Lab Sample ID: 180-44248-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.9		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.25	J	1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	5.4		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	4.3		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.6	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	88000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	54000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-37S-0/1-0 — Lab Sample ID: 180-44248-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.4		1.0	0.30	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.32	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	4.5		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	60	E	1.0	0.24	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-37S-0/1-0 (Continued) — Lab Sample ID: 180-44248-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.22	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	23		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	46		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	280	E	1.0	0.15	ug/L	1		8260C	Total/NA
Methylene Chloride - DL	4.1	J	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane - DL	4.7	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	58		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane - DL	20		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene - DL	44		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	270		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	2.4	B	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	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	78000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	14000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	20000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	62000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-37D-0/1-0 — Lab Sample ID: 180-44248-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	8.9	J	13	3.7	ug/L	12.5		8260C	Total/NA
Methylene Chloride	6.6	J	13	1.6	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane	6.8	J	13	1.5	ug/L	12.5		8260C	Total/NA
cis-1,2-Dichloroethene	69		13	3.0	ug/L	12.5		8260C	Total/NA
1,1,1-Trichloroethane	66		13	3.6	ug/L	12.5		8260C	Total/NA
Trichloroethene	250		13	1.8	ug/L	12.5		8260C	Total/NA
Tetrachloroethene	700	E	13	1.9	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethene - DL	9.1	J	25	7.4	ug/L	25		8260C	Total/NA
Methylene Chloride - DL	14	J	25	3.1	ug/L	25		8260C	Total/NA
1,1-Dichloroethane - DL	6.2	J	25	2.9	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene - DL	60		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane - DL	60		25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene - DL	220		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene - DL	740		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	2.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	89000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	58000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-75S-0/1-0 — Lab Sample ID: 180-44248-8

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-75S-0/1-0 (Continued) — Lab Sample ID: 180-44248-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	50		50	15	ug/L	50		8260C	Total/NA
Methylene Chloride	27	J	50	6.3	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	140		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	250		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	2600	E	50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	14000	E	50	7.4	ug/L	50		8260C	Total/NA
Methylene Chloride - DL	240	J	500	63	ug/L	500		8260C	Total/NA
cis-1,2-Dichloroethene - DL	140	J	500	120	ug/L	500		8260C	Total/NA
1,1,1-Trichloroethane - DL	210	J	500	140	ug/L	500		8260C	Total/NA
Trichloroethene - DL	2100		500	72	ug/L	500		8260C	Total/NA
Tetrachloroethene - DL	13000		500	74	ug/L	500		8260C	Total/NA
Nitrate as N	2.3	B	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	82000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5400		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	53000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	220	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-75D-0/1-0 — Lab Sample ID: 180-44248-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	31	J	40	12	ug/L	40		8260C	Total/NA
Methylene Chloride	72		40	5.0	ug/L	40		8260C	Total/NA
1,1-Dichloroethane	34	J	40	4.7	ug/L	40		8260C	Total/NA
cis-1,2-Dichloroethene	380		40	9.5	ug/L	40		8260C	Total/NA
1,1,1-Trichloroethane	160		40	11	ug/L	40		8260C	Total/NA
Trichloroethene	1400		40	5.7	ug/L	40		8260C	Total/NA
Tetrachloroethene	6100	E	40	5.9	ug/L	40		8260C	Total/NA
Methylene Chloride - DL	270	J	400	50	ug/L	400		8260C	Total/NA
cis-1,2-Dichloroethene - DL	330	J	400	95	ug/L	400		8260C	Total/NA
1,1,1-Trichloroethane - DL	160	J	400	110	ug/L	400		8260C	Total/NA
Trichloroethene - DL	1300		400	57	ug/L	400		8260C	Total/NA
Tetrachloroethene - DL	6300		400	59	ug/L	400		8260C	Total/NA
Nitrate as N	3.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170		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	89000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6300		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	56000		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-MW-7-0/1-0 — Lab Sample ID: 180-44248-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	13		10	3.0	ug/L	10		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-7-0/1-0 (Continued)

Lab Sample ID: 180-44248-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	6.6	J	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	4.9	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	140		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	21		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	150		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	96		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	1.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	56		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	13		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	55000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	5200		500	1.2	ug/L	1		6020A	Total/NA
Sodium	16000		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-QC2-0/1-0

Lab Sample ID: 180-44248-11

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 05/19/15 09:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			05/26/15 22:06	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			05/26/15 22:06	5
Bromomethane	5.0	U	5.0	1.6	ug/L			05/26/15 22:06	5
Chloroethane	5.0	U	5.0	1.1	ug/L			05/26/15 22:06	5
1,1-Dichloroethene	**9.8**		5.0	1.5	ug/L			05/26/15 22:06	5
Acetone	25	U	25	13	ug/L			05/26/15 22:06	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			05/26/15 22:06	5
Methylene Chloride	**5.1**		5.0	0.63	ug/L			05/26/15 22:06	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			05/26/15 22:06	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			05/26/15 22:06	5
1,1-Dichloroethane	**2.0**	**J**	5.0	0.58	ug/L			05/26/15 22:06	5
cis-1,2-Dichloroethene	**62**		5.0	1.2	ug/L			05/26/15 22:06	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			05/26/15 22:06	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			05/26/15 22:06	5
Chloroform	5.0	U	5.0	0.85	ug/L			05/26/15 22:06	5
1,1,1-Trichloroethane	**10**		5.0	1.4	ug/L			05/26/15 22:06	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			05/26/15 22:06	5
Benzene	5.0	U	5.0	0.53	ug/L			05/26/15 22:06	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			05/26/15 22:06	5
Trichloroethene	**170**		5.0	0.72	ug/L			05/26/15 22:06	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			05/26/15 22:06	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			05/26/15 22:06	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			05/26/15 22:06	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			05/26/15 22:06	5
Toluene	5.0	U	5.0	0.75	ug/L			05/26/15 22:06	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			05/26/15 22:06	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			05/26/15 22:06	5
Tetrachloroethene	**18**		5.0	0.74	ug/L			05/26/15 22:06	5
2-Hexanone	25	U	25	0.80	ug/L			05/26/15 22:06	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			05/26/15 22:06	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			05/26/15 22:06	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			05/26/15 22:06	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			05/26/15 22:06	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			05/26/15 22:06	5
Xylenes, Total	15	U	15	2.4	ug/L			05/26/15 22:06	5
Styrene	5.0	U	5.0	0.48	ug/L			05/26/15 22:06	5
Bromoform	5.0	U	5.0	0.96	ug/L			05/26/15 22:06	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			05/26/15 22:06	5
Acrylonitrile	100	U	100	2.7	ug/L			05/26/15 22:06	5
1,4-Dioxane	1000	U	1000	170	ug/L			05/26/15 22:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 135*		*05/26/15 22:06*	*5*
Toluene-d8 (Surr)	*104*		*71 - 118*		*05/26/15 22:06*	*5*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*05/26/15 22:06*	*5*
Dibromofluoromethane (Surr)	*118*		*70 - 128*		*05/26/15 22:06*	*5*

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

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 05/19/15 10:20
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.0	0.57	ug/L			05/27/15 16:50	2
Vinyl chloride	2.0	U	2.0	0.45	ug/L			05/27/15 16:50	2
Bromomethane	2.0	U	2.0	0.63	ug/L			05/27/15 16:50	2
Chloroethane	2.0	U	2.0	0.43	ug/L			05/27/15 16:50	2
1,1-Dichloroethene	**2.4**		2.0	0.59	ug/L			05/27/15 16:50	2
Acetone	10	U	10	5.0	ug/L			05/27/15 16:50	2
Carbon disulfide	2.0	U	2.0	0.42	ug/L			05/27/15 16:50	2
Methylene Chloride	2.0	U	2.0	0.25	ug/L			05/27/15 16:50	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.34	ug/L			05/27/15 16:50	2
Methyl tert-butyl ether	2.0	U	2.0	0.37	ug/L			05/27/15 16:50	2
1,1-Dichloroethane	**0.92**	**J**	2.0	0.23	ug/L			05/27/15 16:50	2
cis-1,2-Dichloroethene	**34**		2.0	0.47	ug/L			05/27/15 16:50	2
Bromochloromethane	2.0	U	2.0	0.36	ug/L			05/27/15 16:50	2
2-Butanone (MEK)	10	U	10	1.1	ug/L			05/27/15 16:50	2
Chloroform	2.0	U	2.0	0.34	ug/L			05/27/15 16:50	2
1,1,1-Trichloroethane	**1.7**	**J**	2.0	0.57	ug/L			05/27/15 16:50	2
Carbon tetrachloride	2.0	U	2.0	0.27	ug/L			05/27/15 16:50	2
Benzene	2.0	U	2.0	0.21	ug/L			05/27/15 16:50	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			05/27/15 16:50	2
Trichloroethene	**63**		2.0	0.29	ug/L			05/27/15 16:50	2
1,2-Dichloropropane	2.0	U	2.0	0.19	ug/L			05/27/15 16:50	2
Bromodichloromethane	2.0	U	2.0	0.26	ug/L			05/27/15 16:50	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.37	ug/L			05/27/15 16:50	2
4-Methyl-2-pentanone (MIBK)	10	U	10	1.1	ug/L			05/27/15 16:50	2
Toluene	2.0	U	2.0	0.30	ug/L			05/27/15 16:50	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.30	ug/L			05/27/15 16:50	2
1,1,2-Trichloroethane	2.0	U	2.0	0.40	ug/L			05/27/15 16:50	2
Tetrachloroethene	**51**		2.0	0.30	ug/L			05/27/15 16:50	2
2-Hexanone	10	U	10	0.32	ug/L			05/27/15 16:50	2
Dibromochloromethane	2.0	U	2.0	0.27	ug/L			05/27/15 16:50	2
1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36	ug/L			05/27/15 16:50	2
Chlorobenzene	2.0	U	2.0	0.27	ug/L			05/27/15 16:50	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55	ug/L			05/27/15 16:50	2
Ethylbenzene	2.0	U	2.0	0.45	ug/L			05/27/15 16:50	2
Xylenes, Total	6.0	U	6.0	0.98	ug/L			05/27/15 16:50	2
Styrene	2.0	U	2.0	0.19	ug/L			05/27/15 16:50	2
Bromoform	2.0	U	2.0	0.38	ug/L			05/27/15 16:50	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40	ug/L			05/27/15 16:50	2
Acrylonitrile	40	U	40	1.1	ug/L			05/27/15 16:50	2
1,4-Dioxane	400	U	400	69	ug/L			05/27/15 16:50	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*05/27/15 16:50*	*2*
Toluene-d8 (Surr)	*106*		*71 - 118*		*05/27/15 16:50*	*2*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*		*05/27/15 16:50*	*2*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*05/27/15 16:50*	*2*

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

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 05/19/15 10:55
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 18:50	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 18:50	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 18:50	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 18:50	1
1,1-Dichloroethene	**1.9**		1.0	0.30	ug/L			05/27/15 18:50	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 18:50	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 18:50	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 18:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 18:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 18:50	1
1,1-Dichloroethane	**0.70**	**J**	1.0	0.12	ug/L			05/27/15 18:50	1
cis-1,2-Dichloroethene	**25**		1.0	0.24	ug/L			05/27/15 18:50	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 18:50	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 18:50	1
Chloroform	**0.24**	**J**	1.0	0.17	ug/L			05/27/15 18:50	1
1,1,1-Trichloroethane	**1.1**		1.0	0.29	ug/L			05/27/15 18:50	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 18:50	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 18:50	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 18:50	1
Trichloroethene	**39**		1.0	0.14	ug/L			05/27/15 18:50	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 18:50	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 18:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 18:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 18:50	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 18:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 18:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 18:50	1
Tetrachloroethene	**26**		1.0	0.15	ug/L			05/27/15 18:50	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 18:50	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 18:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 18:50	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 18:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 18:50	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 18:50	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 18:50	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 18:50	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 18:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 18:50	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 18:50	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*64 - 135*		*05/27/15 18:50*	*1*
Toluene-d8 (Surr)	*99*		*71 - 118*		*05/27/15 18:50*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*		*05/27/15 18:50*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 128*		*05/27/15 18:50*	*1*

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

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 05/19/15 11:45
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/28/15 16:49	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/28/15 16:49	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/28/15 16:49	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 16:49	1
1,1-Dichloroethene	**1.3**		1.0	0.30	ug/L			05/28/15 16:49	1
Acetone	5.0	U	5.0	2.5	ug/L			05/28/15 16:49	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/28/15 16:49	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/28/15 16:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/28/15 16:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/28/15 16:49	1
1,1-Dichloroethane	**0.44**	**J**	1.0	0.12	ug/L			05/28/15 16:49	1
cis-1,2-Dichloroethene	**19**		1.0	0.24	ug/L			05/28/15 16:49	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/28/15 16:49	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/28/15 16:49	1
Chloroform	**0.22**	**J**	1.0	0.17	ug/L			05/28/15 16:49	1
1,1,1-Trichloroethane	**0.82**	**J**	1.0	0.29	ug/L			05/28/15 16:49	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/28/15 16:49	1
Benzene	1.0	U	1.0	0.11	ug/L			05/28/15 16:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 16:49	1
Trichloroethene	**31**		1.0	0.14	ug/L			05/28/15 16:49	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/28/15 16:49	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/28/15 16:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/28/15 16:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/28/15 16:49	1
Toluene	1.0	U	1.0	0.15	ug/L			05/28/15 16:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/28/15 16:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 16:49	1
Tetrachloroethene	**25**		1.0	0.15	ug/L			05/28/15 16:49	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/28/15 16:49	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/28/15 16:49	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/28/15 16:49	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/28/15 16:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/28/15 16:49	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/28/15 16:49	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/28/15 16:49	1
Styrene	1.0	U	1.0	0.097	ug/L			05/28/15 16:49	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/28/15 16:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 16:49	1
Acrylonitrile	20	U	20	0.55	ug/L			05/28/15 16:49	1
1,4-Dioxane	200	U	200	34	ug/L			05/28/15 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*05/28/15 16:49*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/28/15 16:49*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/28/15 16:49*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*05/28/15 16:49*	*1*

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

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 05/19/15 12:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 20:02	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 20:02	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 20:02	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 20:02	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/27/15 20:02	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 20:02	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 20:02	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 20:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 20:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 20:02	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/27/15 20:02	1
cis-1,2-Dichloroethene	**5.9**		1.0	0.24	ug/L			05/27/15 20:02	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 20:02	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 20:02	1
Chloroform	**0.25**	**J**	1.0	0.17	ug/L			05/27/15 20:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/27/15 20:02	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 20:02	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 20:02	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 20:02	1
Trichloroethene	**5.4**		1.0	0.14	ug/L			05/27/15 20:02	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 20:02	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 20:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 20:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 20:02	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 20:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 20:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 20:02	1
Tetrachloroethene	**4.3**		1.0	0.15	ug/L			05/27/15 20:02	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 20:02	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 20:02	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 20:02	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 20:02	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 20:02	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 20:02	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 20:02	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 20:02	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 20:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 20:02	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 20:02	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*64 - 135*		*05/27/15 20:02*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*05/27/15 20:02*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/27/15 20:02*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/27/15 20:02*	*1*

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

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 05/19/15 09:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/28/15 23:13	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/28/15 23:13	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/28/15 23:13	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 23:13	1
1,1-Dichloroethene	**2.4**		1.0	0.30	ug/L			05/28/15 23:13	1
Acetone	5.0	U	5.0	2.5	ug/L			05/28/15 23:13	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/28/15 23:13	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/28/15 23:13	1
trans-1,2-Dichloroethene	**0.32**	**J**	1.0	0.17	ug/L			05/28/15 23:13	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/28/15 23:13	1
1,1-Dichloroethane	**4.5**		1.0	0.12	ug/L			05/28/15 23:13	1
cis-1,2-Dichloroethene	**60**	**E**	1.0	0.24	ug/L			05/28/15 23:13	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/28/15 23:13	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/28/15 23:13	1
Chloroform	**0.22**	**J**	1.0	0.17	ug/L			05/28/15 23:13	1
1,1,1-Trichloroethane	**23**		1.0	0.29	ug/L			05/28/15 23:13	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/28/15 23:13	1
Benzene	1.0	U	1.0	0.11	ug/L			05/28/15 23:13	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 23:13	1
Trichloroethene	**46**		1.0	0.14	ug/L			05/28/15 23:13	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/28/15 23:13	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/28/15 23:13	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/28/15 23:13	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/28/15 23:13	1
Toluene	1.0	U	1.0	0.15	ug/L			05/28/15 23:13	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/28/15 23:13	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 23:13	1
Tetrachloroethene	**280**	**E**	1.0	0.15	ug/L			05/28/15 23:13	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/28/15 23:13	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/28/15 23:13	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/28/15 23:13	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/28/15 23:13	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/28/15 23:13	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/28/15 23:13	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/28/15 23:13	1
Styrene	1.0	U	1.0	0.097	ug/L			05/28/15 23:13	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/28/15 23:13	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 23:13	1
Acrylonitrile	20	U	20	0.55	ug/L			05/28/15 23:13	1
1,4-Dioxane	200	U	200	34	ug/L			05/28/15 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*64 - 135*		*05/28/15 23:13*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/28/15 23:13*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*05/28/15 23:13*	*1*
Dibromofluoromethane (Surr)	*121*		*70 - 128*		*05/28/15 23:13*	*1*

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

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 05/19/15 10:17
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U	13	3.5	ug/L			05/27/15 21:14	12.5
Vinyl chloride	13	U	13	2.8	ug/L			05/27/15 21:14	12.5
Bromomethane	13	U	13	3.9	ug/L			05/27/15 21:14	12.5
Chloroethane	13	U	13	2.7	ug/L			05/27/15 21:14	12.5
1,1-Dichloroethene	**8.9**	**J**	13	3.7	ug/L			05/27/15 21:14	12.5
Acetone	63	U	63	31	ug/L			05/27/15 21:14	12.5
Carbon disulfide	13	U	13	2.7	ug/L			05/27/15 21:14	12.5
Methylene Chloride	**6.6**	**J**	13	1.6	ug/L			05/27/15 21:14	12.5
trans-1,2-Dichloroethene	13	U	13	2.1	ug/L			05/27/15 21:14	12.5
Methyl tert-butyl ether	13	U	13	2.3	ug/L			05/27/15 21:14	12.5
1,1-Dichloroethane	**6.8**	**J**	13	1.5	ug/L			05/27/15 21:14	12.5
cis-1,2-Dichloroethene	**69**		13	3.0	ug/L			05/27/15 21:14	12.5
Bromochloromethane	13	U	13	2.3	ug/L			05/27/15 21:14	12.5
2-Butanone (MEK)	63	U	63	6.8	ug/L			05/27/15 21:14	12.5
Chloroform	13	U	13	2.1	ug/L			05/27/15 21:14	12.5
1,1,1-Trichloroethane	**66**		13	3.6	ug/L			05/27/15 21:14	12.5
Carbon tetrachloride	13	U	13	1.7	ug/L			05/27/15 21:14	12.5
Benzene	13	U	13	1.3	ug/L			05/27/15 21:14	12.5
1,2-Dichloroethane	13	U	13	2.6	ug/L			05/27/15 21:14	12.5
Trichloroethene	**250**		13	1.8	ug/L			05/27/15 21:14	12.5
1,2-Dichloropropane	13	U	13	1.2	ug/L			05/27/15 21:14	12.5
Bromodichloromethane	13	U	13	1.6	ug/L			05/27/15 21:14	12.5
cis-1,3-Dichloropropene	13	U	13	2.3	ug/L			05/27/15 21:14	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	6.6	ug/L			05/27/15 21:14	12.5
Toluene	13	U	13	1.9	ug/L			05/27/15 21:14	12.5
trans-1,3-Dichloropropene	13	U	13	1.9	ug/L			05/27/15 21:14	12.5
1,1,2-Trichloroethane	13	U	13	2.5	ug/L			05/27/15 21:14	12.5
Tetrachloroethene	**700**	**E**	13	1.9	ug/L			05/27/15 21:14	12.5
2-Hexanone	63	U	63	2.0	ug/L			05/27/15 21:14	12.5
Dibromochloromethane	13	U	13	1.7	ug/L			05/27/15 21:14	12.5
1,2-Dibromoethane (EDB)	13	U	13	2.3	ug/L			05/27/15 21:14	12.5
Chlorobenzene	13	U	13	1.7	ug/L			05/27/15 21:14	12.5
1,1,1,2-Tetrachloroethane	13	U	13	3.5	ug/L			05/27/15 21:14	12.5
Ethylbenzene	13	U	13	2.8	ug/L			05/27/15 21:14	12.5
Xylenes, Total	38	U	38	6.1	ug/L			05/27/15 21:14	12.5
Styrene	13	U	13	1.2	ug/L			05/27/15 21:14	12.5
Bromoform	13	U	13	2.4	ug/L			05/27/15 21:14	12.5
1,1,2,2-Tetrachloroethane	13	U	13	2.5	ug/L			05/27/15 21:14	12.5
Acrylonitrile	250	U	250	6.8	ug/L			05/27/15 21:14	12.5
1,4-Dioxane	2500	U	2500	430	ug/L			05/27/15 21:14	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/27/15 21:14*	*12.5*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/27/15 21:14*	*12.5*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*05/27/15 21:14*	*12.5*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/27/15 21:14*	*12.5*

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

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 05/19/15 12:36
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			05/27/15 21:38	50
Vinyl chloride	50	U	50	11	ug/L			05/27/15 21:38	50
Bromomethane	50	U	50	16	ug/L			05/27/15 21:38	50
Chloroethane	50	U	50	11	ug/L			05/27/15 21:38	50
1,1-Dichloroethene	**50**		50	15	ug/L			05/27/15 21:38	50
Acetone	250	U	250	130	ug/L			05/27/15 21:38	50
Carbon disulfide	50	U	50	11	ug/L			05/27/15 21:38	50
Methylene Chloride	**27**	**J**	50	6.3	ug/L			05/27/15 21:38	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			05/27/15 21:38	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			05/27/15 21:38	50
1,1-Dichloroethane	50	U	50	5.8	ug/L			05/27/15 21:38	50
cis-1,2-Dichloroethene	**140**		50	12	ug/L			05/27/15 21:38	50
Bromochloromethane	50	U	50	9.0	ug/L			05/27/15 21:38	50
2-Butanone (MEK)	250	U	250	27	ug/L			05/27/15 21:38	50
Chloroform	50	U	50	8.5	ug/L			05/27/15 21:38	50
1,1,1-Trichloroethane	**250**		50	14	ug/L			05/27/15 21:38	50
Carbon tetrachloride	50	U	50	6.8	ug/L			05/27/15 21:38	50
Benzene	50	U	50	5.3	ug/L			05/27/15 21:38	50
1,2-Dichloroethane	50	U	50	11	ug/L			05/27/15 21:38	50
Trichloroethene	**2600**	**E**	50	7.2	ug/L			05/27/15 21:38	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			05/27/15 21:38	50
Bromodichloromethane	50	U	50	6.5	ug/L			05/27/15 21:38	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			05/27/15 21:38	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			05/27/15 21:38	50
Toluene	50	U	50	7.5	ug/L			05/27/15 21:38	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			05/27/15 21:38	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			05/27/15 21:38	50
Tetrachloroethene	**14000**	**E**	50	7.4	ug/L			05/27/15 21:38	50
2-Hexanone	250	U	250	8.0	ug/L			05/27/15 21:38	50
Dibromochloromethane	50	U	50	6.8	ug/L			05/27/15 21:38	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			05/27/15 21:38	50
Chlorobenzene	50	U	50	6.8	ug/L			05/27/15 21:38	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			05/27/15 21:38	50
Ethylbenzene	50	U	50	11	ug/L			05/27/15 21:38	50
Xylenes, Total	150	U	150	24	ug/L			05/27/15 21:38	50
Styrene	50	U	50	4.8	ug/L			05/27/15 21:38	50
Bromoform	50	U	50	9.6	ug/L			05/27/15 21:38	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			05/27/15 21:38	50
Acrylonitrile	1000	U	1000	27	ug/L			05/27/15 21:38	50
1,4-Dioxane	10000	U	10000	1700	ug/L			05/27/15 21:38	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/27/15 21:38*	*50*
Toluene-d8 (Surr)	*98*		*71 - 118*		*05/27/15 21:38*	*50*
4-Bromofluorobenzene (Surr)	*87*		*70 - 118*		*05/27/15 21:38*	*50*
Dibromofluoromethane (Surr)	*120*		*70 - 128*		*05/27/15 21:38*	*50*

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

Client Sample ID: HD-MW-75D-0/1-0
Date Collected: 05/19/15 11:48
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	40	U	40	11	ug/L			05/30/15 00:27	40
Vinyl chloride	40	U	40	9.1	ug/L			05/30/15 00:27	40
Bromomethane	40	U	40	13	ug/L			05/30/15 00:27	40
Chloroethane	40	U	40	8.6	ug/L			05/30/15 00:27	40
1,1-Dichloroethene	**31**	**J**	40	12	ug/L			05/30/15 00:27	40
Acetone	200	U	200	100	ug/L			05/30/15 00:27	40
Carbon disulfide	40	U	40	8.5	ug/L			05/30/15 00:27	40
Methylene Chloride	**72**		40	5.0	ug/L			05/30/15 00:27	40
trans-1,2-Dichloroethene	40	U	40	6.8	ug/L			05/30/15 00:27	40
Methyl tert-butyl ether	40	U	40	7.3	ug/L			05/30/15 00:27	40
1,1-Dichloroethane	**34**	**J**	40	4.7	ug/L			05/30/15 00:27	40
cis-1,2-Dichloroethene	**380**		40	9.5	ug/L			05/30/15 00:27	40
Bromochloromethane	40	U	40	7.2	ug/L			05/30/15 00:27	40
2-Butanone (MEK)	200	U	200	22	ug/L			05/30/15 00:27	40
Chloroform	40	U	40	6.8	ug/L			05/30/15 00:27	40
1,1,1-Trichloroethane	**160**		40	11	ug/L			05/30/15 00:27	40
Carbon tetrachloride	40	U	40	5.5	ug/L			05/30/15 00:27	40
Benzene	40	U	40	4.2	ug/L			05/30/15 00:27	40
1,2-Dichloroethane	40	U	40	8.5	ug/L			05/30/15 00:27	40
Trichloroethene	**1400**		40	5.7	ug/L			05/30/15 00:27	40
1,2-Dichloropropane	40	U	40	3.8	ug/L			05/30/15 00:27	40
Bromodichloromethane	40	U	40	5.2	ug/L			05/30/15 00:27	40
cis-1,3-Dichloropropene	40	U	40	7.5	ug/L			05/30/15 00:27	40
4-Methyl-2-pentanone (MIBK)	200	U	200	21	ug/L			05/30/15 00:27	40
Toluene	40	U	40	6.0	ug/L			05/30/15 00:27	40
trans-1,3-Dichloropropene	40	U	40	5.9	ug/L			05/30/15 00:27	40
1,1,2-Trichloroethane	40	U	40	8.1	ug/L			05/30/15 00:27	40
Tetrachloroethene	**6100**	**E**	40	5.9	ug/L			05/30/15 00:27	40
2-Hexanone	200	U	200	6.4	ug/L			05/30/15 00:27	40
Dibromochloromethane	40	U	40	5.5	ug/L			05/30/15 00:27	40
1,2-Dibromoethane (EDB)	40	U	40	7.2	ug/L			05/30/15 00:27	40
Chlorobenzene	40	U	40	5.4	ug/L			05/30/15 00:27	40
1,1,1,2-Tetrachloroethane	40	U	40	11	ug/L			05/30/15 00:27	40
Ethylbenzene	40	U	40	9.1	ug/L			05/30/15 00:27	40
Xylenes, Total	120	U	120	20	ug/L			05/30/15 00:27	40
Styrene	40	U	40	3.9	ug/L			05/30/15 00:27	40
Bromoform	40	U	40	7.7	ug/L			05/30/15 00:27	40
1,1,2,2-Tetrachloroethane	40	U	40	8.0	ug/L			05/30/15 00:27	40
Acrylonitrile	800	U	800	22	ug/L			05/30/15 00:27	40
1,4-Dioxane	8000	U	8000	1400	ug/L			05/30/15 00:27	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*127*		*64 - 135*		*05/30/15 00:27*	*40*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/30/15 00:27*	*40*
4-Bromofluorobenzene (Surr)	*84*		*70 - 118*		*05/30/15 00:27*	*40*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/30/15 00:27*	*40*

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

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 05/19/15 15:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/28/15 19:13	10
Vinyl chloride	10	U	10	2.3	ug/L			05/28/15 19:13	10
Bromomethane	10	U	10	3.1	ug/L			05/28/15 19:13	10
Chloroethane	10	U	10	2.1	ug/L			05/28/15 19:13	10
1,1-Dichloroethene	**13**		10	3.0	ug/L			05/28/15 19:13	10
Acetone	50	U	50	25	ug/L			05/28/15 19:13	10
Carbon disulfide	10	U	10	2.1	ug/L			05/28/15 19:13	10
Methylene Chloride	**6.6**	**J**	10	1.3	ug/L			05/28/15 19:13	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/28/15 19:13	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/28/15 19:13	10
1,1-Dichloroethane	**4.9**	**J**	10	1.2	ug/L			05/28/15 19:13	10
cis-1,2-Dichloroethene	**140**		10	2.4	ug/L			05/28/15 19:13	10
Bromochloromethane	10	U	10	1.8	ug/L			05/28/15 19:13	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			05/28/15 19:13	10
Chloroform	10	U	10	1.7	ug/L			05/28/15 19:13	10
1,1,1-Trichloroethane	**21**		10	2.9	ug/L			05/28/15 19:13	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/28/15 19:13	10
Benzene	10	U	10	1.1	ug/L			05/28/15 19:13	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/28/15 19:13	10
Trichloroethene	**150**		10	1.4	ug/L			05/28/15 19:13	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/28/15 19:13	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/28/15 19:13	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/28/15 19:13	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/28/15 19:13	10
Toluene	10	U	10	1.5	ug/L			05/28/15 19:13	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/28/15 19:13	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/28/15 19:13	10
Tetrachloroethene	**96**		10	1.5	ug/L			05/28/15 19:13	10
2-Hexanone	50	U	50	1.6	ug/L			05/28/15 19:13	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/28/15 19:13	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/28/15 19:13	10
Chlorobenzene	10	U	10	1.4	ug/L			05/28/15 19:13	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/28/15 19:13	10
Ethylbenzene	10	U	10	2.3	ug/L			05/28/15 19:13	10
Xylenes, Total	30	U	30	4.9	ug/L			05/28/15 19:13	10
Styrene	10	U	10	0.97	ug/L			05/28/15 19:13	10
Bromoform	10	U	10	1.9	ug/L			05/28/15 19:13	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/28/15 19:13	10
Acrylonitrile	200	U	200	5.5	ug/L			05/28/15 19:13	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/28/15 19:13	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*64 - 135*		*05/28/15 19:13*	*10*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/28/15 19:13*	*10*
4-Bromofluorobenzene (Surr)	*87*		*70 - 118*		*05/28/15 19:13*	*10*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*05/28/15 19:13*	*10*

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

Client Sample ID: HD-QC2-0/1-0
Date Collected: 05/19/15 12:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 20:50	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 20:50	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 20:50	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 20:50	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/27/15 20:50	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 20:50	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 20:50	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 20:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 20:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 20:50	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/27/15 20:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/27/15 20:50	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 20:50	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 20:50	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/27/15 20:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/27/15 20:50	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 20:50	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 20:50	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 20:50	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/27/15 20:50	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 20:50	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 20:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 20:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 20:50	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 20:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 20:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 20:50	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/15 20:50	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 20:50	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 20:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 20:50	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 20:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 20:50	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 20:50	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 20:50	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 20:50	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 20:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 20:50	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 20:50	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/27/15 20:50*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/27/15 20:50*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*05/27/15 20:50*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/27/15 20:50*	*1*

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

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 05/19/15 09:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/27/15 20:26	10
Vinyl chloride	10	U	10	2.3	ug/L			05/27/15 20:26	10
Bromomethane	10	U	10	3.1	ug/L			05/27/15 20:26	10
Chloroethane	10	U	10	2.1	ug/L			05/27/15 20:26	10
1,1-Dichloroethene	10	U	10	3.0	ug/L			05/27/15 20:26	10
Acetone	50	U	50	25	ug/L			05/27/15 20:26	10
Carbon disulfide	10	U	10	2.1	ug/L			05/27/15 20:26	10
Methylene Chloride	**4.1**	**J**	10	1.3	ug/L			05/27/15 20:26	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/27/15 20:26	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/27/15 20:26	10
1,1-Dichloroethane	**4.7**	**J**	10	1.2	ug/L			05/27/15 20:26	10
cis-1,2-Dichloroethene	**58**		10	2.4	ug/L			05/27/15 20:26	10
Bromochloromethane	10	U	10	1.8	ug/L			05/27/15 20:26	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			05/27/15 20:26	10
Chloroform	10	U	10	1.7	ug/L			05/27/15 20:26	10
1,1,1-Trichloroethane	**20**		10	2.9	ug/L			05/27/15 20:26	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/27/15 20:26	10
Benzene	10	U	10	1.1	ug/L			05/27/15 20:26	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/27/15 20:26	10
Trichloroethene	**44**		10	1.4	ug/L			05/27/15 20:26	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/27/15 20:26	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/27/15 20:26	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/27/15 20:26	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/27/15 20:26	10
Toluene	10	U	10	1.5	ug/L			05/27/15 20:26	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/27/15 20:26	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/27/15 20:26	10
Tetrachloroethene	**270**		10	1.5	ug/L			05/27/15 20:26	10
2-Hexanone	50	U	50	1.6	ug/L			05/27/15 20:26	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/27/15 20:26	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/27/15 20:26	10
Chlorobenzene	10	U	10	1.4	ug/L			05/27/15 20:26	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/27/15 20:26	10
Ethylbenzene	10	U	10	2.3	ug/L			05/27/15 20:26	10
Xylenes, Total	30	U	30	4.9	ug/L			05/27/15 20:26	10
Styrene	10	U	10	0.97	ug/L			05/27/15 20:26	10
Bromoform	10	U	10	1.9	ug/L			05/27/15 20:26	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/27/15 20:26	10
Acrylonitrile	200	U	200	5.5	ug/L			05/27/15 20:26	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/27/15 20:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/27/15 20:26*	*10*
Toluene-d8 (Surr)	*102*		*71 - 118*		*05/27/15 20:26*	*10*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/27/15 20:26*	*10*
Dibromofluoromethane (Surr)	*119*		*70 - 128*		*05/27/15 20:26*	*10*

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

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 05/19/15 10:17
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			05/28/15 17:36	25
Vinyl chloride	25	U	25	5.7	ug/L			05/28/15 17:36	25
Bromomethane	25	U	25	7.8	ug/L			05/28/15 17:36	25
Chloroethane	25	U	25	5.4	ug/L			05/28/15 17:36	25
1,1-Dichloroethene	**9.1**	**J**	25	7.4	ug/L			05/28/15 17:36	25
Acetone	130	U	130	63	ug/L			05/28/15 17:36	25
Carbon disulfide	25	U	25	5.3	ug/L			05/28/15 17:36	25
Methylene Chloride	**14**	**J**	25	3.1	ug/L			05/28/15 17:36	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			05/28/15 17:36	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			05/28/15 17:36	25
1,1-Dichloroethane	**6.2**	**J**	25	2.9	ug/L			05/28/15 17:36	25
cis-1,2-Dichloroethene	**60**		25	5.9	ug/L			05/28/15 17:36	25
Bromochloromethane	25	U	25	4.5	ug/L			05/28/15 17:36	25
2-Butanone (MEK)	130	U	130	14	ug/L			05/28/15 17:36	25
Chloroform	25	U	25	4.3	ug/L			05/28/15 17:36	25
1,1,1-Trichloroethane	**60**		25	7.2	ug/L			05/28/15 17:36	25
Carbon tetrachloride	25	U	25	3.4	ug/L			05/28/15 17:36	25
Benzene	25	U	25	2.6	ug/L			05/28/15 17:36	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			05/28/15 17:36	25
Trichloroethene	**220**		25	3.6	ug/L			05/28/15 17:36	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			05/28/15 17:36	25
Bromodichloromethane	25	U	25	3.3	ug/L			05/28/15 17:36	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			05/28/15 17:36	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			05/28/15 17:36	25
Toluene	25	U	25	3.8	ug/L			05/28/15 17:36	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			05/28/15 17:36	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			05/28/15 17:36	25
Tetrachloroethene	**740**		25	3.7	ug/L			05/28/15 17:36	25
2-Hexanone	130	U	130	4.0	ug/L			05/28/15 17:36	25
Dibromochloromethane	25	U	25	3.4	ug/L			05/28/15 17:36	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			05/28/15 17:36	25
Chlorobenzene	25	U	25	3.4	ug/L			05/28/15 17:36	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			05/28/15 17:36	25
Ethylbenzene	25	U	25	5.7	ug/L			05/28/15 17:36	25
Xylenes, Total	75	U	75	12	ug/L			05/28/15 17:36	25
Styrene	25	U	25	2.4	ug/L			05/28/15 17:36	25
Bromoform	25	U	25	4.8	ug/L			05/28/15 17:36	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			05/28/15 17:36	25
Acrylonitrile	500	U	500	14	ug/L			05/28/15 17:36	25
1,4-Dioxane	5000	U	5000	860	ug/L			05/28/15 17:36	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 135*		*05/28/15 17:36*	*25*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/28/15 17:36*	*25*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*05/28/15 17:36*	*25*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*05/28/15 17:36*	*25*

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

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 05/19/15 12:36
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	500	U	500	140	ug/L			05/28/15 18:01	500
Vinyl chloride	500	U	500	110	ug/L			05/28/15 18:01	500
Bromomethane	500	U	500	160	ug/L			05/28/15 18:01	500
Chloroethane	500	U	500	110	ug/L			05/28/15 18:01	500
1,1-Dichloroethene	500	U	500	150	ug/L			05/28/15 18:01	500
Acetone	2500	U	2500	1300	ug/L			05/28/15 18:01	500
Carbon disulfide	500	U	500	110	ug/L			05/28/15 18:01	500
Methylene Chloride	**240**	**J**	500	63	ug/L			05/28/15 18:01	500
trans-1,2-Dichloroethene	500	U	500	85	ug/L			05/28/15 18:01	500
Methyl tert-butyl ether	500	U	500	92	ug/L			05/28/15 18:01	500
1,1-Dichloroethane	500	U	500	58	ug/L			05/28/15 18:01	500
cis-1,2-Dichloroethene	**140**	**J**	500	120	ug/L			05/28/15 18:01	500
Bromochloromethane	500	U	500	90	ug/L			05/28/15 18:01	500
2-Butanone (MEK)	2500	U	2500	270	ug/L			05/28/15 18:01	500
Chloroform	500	U	500	85	ug/L			05/28/15 18:01	500
1,1,1-Trichloroethane	**210**	**J**	500	140	ug/L			05/28/15 18:01	500
Carbon tetrachloride	500	U	500	68	ug/L			05/28/15 18:01	500
Benzene	500	U	500	53	ug/L			05/28/15 18:01	500
1,2-Dichloroethane	500	U	500	110	ug/L			05/28/15 18:01	500
Trichloroethene	**2100**		500	72	ug/L			05/28/15 18:01	500
1,2-Dichloropropane	500	U	500	47	ug/L			05/28/15 18:01	500
Bromodichloromethane	500	U	500	65	ug/L			05/28/15 18:01	500
cis-1,3-Dichloropropene	500	U	500	93	ug/L			05/28/15 18:01	500
4-Methyl-2-pentanone (MIBK)	2500	U	2500	260	ug/L			05/28/15 18:01	500
Toluene	500	U	500	75	ug/L			05/28/15 18:01	500
trans-1,3-Dichloropropene	500	U	500	74	ug/L			05/28/15 18:01	500
1,1,2-Trichloroethane	500	U	500	100	ug/L			05/28/15 18:01	500
Tetrachloroethene	**13000**		500	74	ug/L			05/28/15 18:01	500
2-Hexanone	2500	U	2500	80	ug/L			05/28/15 18:01	500
Dibromochloromethane	500	U	500	68	ug/L			05/28/15 18:01	500
1,2-Dibromoethane (EDB)	500	U	500	90	ug/L			05/28/15 18:01	500
Chlorobenzene	500	U	500	68	ug/L			05/28/15 18:01	500
1,1,1,2-Tetrachloroethane	500	U	500	140	ug/L			05/28/15 18:01	500
Ethylbenzene	500	U	500	110	ug/L			05/28/15 18:01	500
Xylenes, Total	1500	U	1500	240	ug/L			05/28/15 18:01	500
Styrene	500	U	500	48	ug/L			05/28/15 18:01	500
Bromoform	500	U	500	96	ug/L			05/28/15 18:01	500
1,1,2,2-Tetrachloroethane	500	U	500	100	ug/L			05/28/15 18:01	500
Acrylonitrile	10000	U	10000	270	ug/L			05/28/15 18:01	500
1,4-Dioxane	100000	U	100000	17000	ug/L			05/28/15 18:01	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 135*		*05/28/15 18:01*	*500*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/28/15 18:01*	*500*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*05/28/15 18:01*	*500*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/28/15 18:01*	*500*

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

Client Sample ID: HD-MW-75D-0/1-0
Date Collected: 05/19/15 11:48
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	400	U	400	110	ug/L			05/28/15 18:49	400
Vinyl chloride	400	U	400	91	ug/L			05/28/15 18:49	400
Bromomethane	400	U	400	130	ug/L			05/28/15 18:49	400
Chloroethane	400	U	400	86	ug/L			05/28/15 18:49	400
1,1-Dichloroethene	400	U	400	120	ug/L			05/28/15 18:49	400
Acetone	2000	U	2000	1000	ug/L			05/28/15 18:49	400
Carbon disulfide	400	U	400	85	ug/L			05/28/15 18:49	400
Methylene Chloride	**270**	**J**	400	50	ug/L			05/28/15 18:49	400
trans-1,2-Dichloroethene	400	U	400	68	ug/L			05/28/15 18:49	400
Methyl tert-butyl ether	400	U	400	73	ug/L			05/28/15 18:49	400
1,1-Dichloroethane	400	U	400	47	ug/L			05/28/15 18:49	400
cis-1,2-Dichloroethene	**330**	**J**	400	95	ug/L			05/28/15 18:49	400
Bromochloromethane	400	U	400	72	ug/L			05/28/15 18:49	400
2-Butanone (MEK)	2000	U	2000	220	ug/L			05/28/15 18:49	400
Chloroform	400	U	400	68	ug/L			05/28/15 18:49	400
1,1,1-Trichloroethane	**160**	**J**	400	110	ug/L			05/28/15 18:49	400
Carbon tetrachloride	400	U	400	55	ug/L			05/28/15 18:49	400
Benzene	400	U	400	42	ug/L			05/28/15 18:49	400
1,2-Dichloroethane	400	U	400	85	ug/L			05/28/15 18:49	400
Trichloroethene	**1300**		400	57	ug/L			05/28/15 18:49	400
1,2-Dichloropropane	400	U	400	38	ug/L			05/28/15 18:49	400
Bromodichloromethane	400	U	400	52	ug/L			05/28/15 18:49	400
cis-1,3-Dichloropropene	400	U	400	75	ug/L			05/28/15 18:49	400
4-Methyl-2-pentanone (MIBK)	2000	U	2000	210	ug/L			05/28/15 18:49	400
Toluene	400	U	400	60	ug/L			05/28/15 18:49	400
trans-1,3-Dichloropropene	400	U	400	59	ug/L			05/28/15 18:49	400
1,1,2-Trichloroethane	400	U	400	81	ug/L			05/28/15 18:49	400
Tetrachloroethene	**6300**		400	59	ug/L			05/28/15 18:49	400
2-Hexanone	2000	U	2000	64	ug/L			05/28/15 18:49	400
Dibromochloromethane	400	U	400	55	ug/L			05/28/15 18:49	400
1,2-Dibromoethane (EDB)	400	U	400	72	ug/L			05/28/15 18:49	400
Chlorobenzene	400	U	400	54	ug/L			05/28/15 18:49	400
1,1,1,2-Tetrachloroethane	400	U	400	110	ug/L			05/28/15 18:49	400
Ethylbenzene	400	U	400	91	ug/L			05/28/15 18:49	400
Xylenes, Total	1200	U	1200	200	ug/L			05/28/15 18:49	400
Styrene	400	U	400	39	ug/L			05/28/15 18:49	400
Bromoform	400	U	400	77	ug/L			05/28/15 18:49	400
1,1,2,2-Tetrachloroethane	400	U	400	80	ug/L			05/28/15 18:49	400
Acrylonitrile	8000	U	8000	220	ug/L			05/28/15 18:49	400
1,4-Dioxane	80000	U	80000	14000	ug/L			05/28/15 18:49	400

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/28/15 18:49*	*400*
Toluene-d8 (Surr)	*106*		*71 - 118*		*05/28/15 18:49*	*400*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*05/28/15 18:49*	*400*
Dibromofluoromethane (Surr)	*111*		*70 - 128*		*05/28/15 18:49*	*400*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 05/19/15 09:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.5	B	0.10	0.0062	mg/L			05/20/15 17:42	1
Chloride	77		1.0	0.20	mg/L			05/20/15 17:42	1
Sulfate	30		1.0	0.21	mg/L			05/20/15 17:42	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 05/19/15 10:20
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7	B	0.10	0.0062	mg/L			05/20/15 13:05	1
Chloride	130		1.0	0.20	mg/L			05/20/15 13:05	1
Sulfate	36		1.0	0.21	mg/L			05/20/15 13:05	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 05/19/15 10:55
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.9	B	0.10	0.0062	mg/L			05/20/15 17:58	1
Chloride	130		1.0	0.20	mg/L			05/20/15 17:58	1
Sulfate	37		1.0	0.21	mg/L			05/20/15 17:58	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 05/19/15 11:45
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.6	B	0.10	0.0062	mg/L			05/20/15 18:13	1
Chloride	130		1.0	0.20	mg/L			05/20/15 18:13	1
Sulfate	35		1.0	0.21	mg/L			05/20/15 18:13	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 05/19/15 12:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.6	B	0.10	0.0062	mg/L			05/20/15 13:20	1
Chloride	140		1.0	0.20	mg/L			05/20/15 13:20	1
Sulfate	36		1.0	0.21	mg/L			05/20/15 13:20	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 05/19/15 09:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.4	B	0.10	0.0062	mg/L			05/20/15 17:27	1
Chloride	130		1.0	0.20	mg/L			05/20/15 17:27	1
Sulfate	36		1.0	0.21	mg/L			05/20/15 17:27	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 05/19/15 10:17
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9	B	0.10	0.0062	mg/L			05/20/15 14:11	1
Chloride	140		1.0	0.20	mg/L			05/20/15 14:11	1
Sulfate	42		1.0	0.21	mg/L			05/20/15 14:11	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 05/19/15 12:36
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3	B	0.10	0.0062	mg/L			05/20/15 14:28	1
Chloride	130		1.0	0.20	mg/L			05/20/15 14:28	1
Sulfate	32		1.0	0.21	mg/L			05/20/15 14:28	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-75D-0/1-0
Date Collected: 05/19/15 11:48
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.3	B	0.10	0.0062	mg/L			05/20/15 18:28	1
Chloride	170		1.0	0.20	mg/L			05/20/15 18:28	1
Sulfate	32		1.0	0.21	mg/L			05/20/15 18:28	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 05/19/15 15:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.4	B	0.10	0.0062	mg/L			05/20/15 14:45	1
Chloride	56		1.0	0.20	mg/L			05/20/15 14:45	1
Sulfate	13		1.0	0.21	mg/L			05/20/15 14:45	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 05/19/15 09:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	88000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:43	1
Potassium	3000		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:43	1
Magnesium	13000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:43	1
Sodium	27000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:43	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 05/19/15 10:20
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	91000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:14	1
Potassium	4100		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:14	1
Magnesium	17000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:14	1
Sodium	48000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:14	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 05/19/15 10:55
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	90000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:47	1
Potassium	4200		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:47	1
Magnesium	17000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:47	1
Sodium	50000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:47	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 05/19/15 11:45
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	93000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:51	1
Potassium	4600		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:51	1
Magnesium	17000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:51	1
Sodium	53000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:51	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 05/19/15 12:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	88000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:55	1
Potassium	5000		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:55	1
Magnesium	17000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:55	1
Sodium	54000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:55	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 05/19/15 09:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	78000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:58	1
Potassium	14000		500	5.8	ug/L		05/20/15 12:14	06/02/15 12:58	1
Magnesium	20000		500	1.2	ug/L		05/20/15 12:14	06/02/15 12:58	1
Sodium	62000		500	3.8	ug/L		05/20/15 12:14	06/02/15 12:58	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 05/19/15 10:17
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 13:02	1
Potassium	6100		500	5.8	ug/L		05/20/15 12:14	06/02/15 13:02	1
Magnesium	18000		500	1.2	ug/L		05/20/15 12:14	06/02/15 13:02	1
Sodium	58000		500	3.8	ug/L		05/20/15 12:14	06/02/15 13:02	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 05/19/15 12:36
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	82000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 13:06	1
Potassium	5400		500	5.8	ug/L		05/20/15 12:14	06/02/15 13:06	1
Magnesium	17000		500	1.2	ug/L		05/20/15 12:14	06/02/15 13:06	1
Sodium	53000		500	3.8	ug/L		05/20/15 12:14	06/02/15 13:06	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-75D-0/1-0
Date Collected: 05/19/15 11:48
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 13:20	1
Potassium	6300		500	5.8	ug/L		05/20/15 12:14	06/02/15 13:20	1
Magnesium	18000		500	1.2	ug/L		05/20/15 12:14	06/02/15 13:20	1
Sodium	56000		500	3.8	ug/L		05/20/15 12:14	06/02/15 13:20	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 05/19/15 15:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	55000	B	500	2.8	ug/L		05/20/15 12:14	06/02/15 13:24	1
Potassium	7000		500	5.8	ug/L		05/20/15 12:14	06/02/15 13:24	1
Magnesium	5200		500	1.2	ug/L		05/20/15 12:14	06/02/15 13:24	1
Sodium	16000		500	3.8	ug/L		05/20/15 12:14	06/02/15 13:24	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

General Chemistry

Client Sample ID: HD-MW-99D-0/1-0
Date Collected: 05/19/15 09:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

General Chemistry

Client Sample ID: HD-MW-100S-0/1-0
Date Collected: 05/19/15 10:20
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-2
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			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-100I-0/1-0
Date Collected: 05/19/15 10:55
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-3
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			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

General Chemistry

Client Sample ID: HD-MW-100D-0/1-0
Date Collected: 05/19/15 11:45
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-147A-0/1-0
Date Collected: 05/19/15 12:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-37S-0/1-0
Date Collected: 05/19/15 09:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-37D-0/1-0
Date Collected: 05/19/15 10:17
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

General Chemistry

Client Sample ID: HD-MW-75S-0/1-0
Date Collected: 05/19/15 12:36
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**220**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-75D-0/1-0
Date Collected: 05/19/15 11:48
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-9
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			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

General Chemistry

Client Sample ID: HD-MW-7-0/1-0
Date Collected: 05/19/15 15:00
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-10
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			05/27/15 05:22	1
Bicarbonate Alkalinity as CaCO3	**140**	**B**	5.0	0.41	mg/L			05/27/15 05:22	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:22	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

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: 180-44248-1

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

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

General Chemistry

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

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-44248-1	HD-MW-99D-0/1-0	120	104	88	118
180-44248-2	HD-MW-100S-0/1-0	115	106	95	108
180-44248-3	HD-MW-100I-0/1-0	117	99	88	117
180-44248-4	HD-MW-100D-0/1-0	115	111	93	108
180-44248-5	HD-MW-147A-0/1-0	119	102	93	115
180-44248-6 - DL	HD-MW-37S-0/1-0	122	102	93	119
180-44248-6	HD-MW-37S-0/1-0	125	107	89	121
180-44248-7	HD-MW-37D-0/1-0	122	101	89	115
180-44248-7 - DL	HD-MW-37D-0/1-0	116	107	90	112
180-44248-8	HD-MW-75S-0/1-0	122	98	87	120
180-44248-8 - DL	HD-MW-75S-0/1-0	116	105	91	115
180-44248-9 - DL	HD-MW-75D-0/1-0	122	106	90	111
180-44248-9	HD-MW-75D-0/1-0	127	105	84	115
180-44248-10	HD-MW-7-0/1-0	119	107	87	112
180-44248-11	HD-QC2-0/1-0	122	101	91	115
LCS 180-142745/8	Lab Control Sample	91	102	99	96
LCS 180-142864/12	Lab Control Sample	93	101	93	90
LCS 180-143033/13	Lab Control Sample	94	98	88	93
LCS 180-143223/10	Lab Control Sample	94	99	93	92
MB 180-142745/5	Method Blank	115	107	96	112
MB 180-142864/9	Method Blank	111	105	93	105
MB 180-143033/6	Method Blank	116	105	87	111
MB 180-143223/7	Method Blank	118	111	91	111

Surrogate Legend

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

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

Lab Sample ID: MB 180-142745/5
Matrix: Water
Analysis Batch: 142745

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 12:00	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 12:00	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 12:00	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/26/15 12:00	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 12:00	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 12:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 12:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/26/15 12:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/26/15 12:00	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 12:00	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/26/15 12:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/26/15 12:00	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 12:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 12:00	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 12:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 12:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 12:00	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 12:00	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 12:00	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 12:00	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 12:00	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 12:00	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 12:00	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 12:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 12:00	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 12:00	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*05/26/15 12:00*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/26/15 12:00*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*		*05/26/15 12:00*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*05/26/15 12:00*	*1*

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

Lab Sample ID: LCS 180-142745/8
Matrix: Water
Analysis Batch: 142745

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.57		ug/L		66	50 - 139
Vinyl chloride	10.0	7.37		ug/L		74	53 - 138
Bromomethane	10.0	9.67		ug/L		97	33 - 150
Chloroethane	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	10.0	9.82		ug/L		98	65 - 136
Acetone	20.0	17.6		ug/L		88	22 - 150
Carbon disulfide	10.0	8.10		ug/L		81	54 - 132
Methylene Chloride	10.0	10.5		ug/L		105	63 - 129
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	73 - 126
Methyl tert-butyl ether	10.0	7.89		ug/L		79	64 - 123
1,1-Dichloroethane	10.0	9.52		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.41		ug/L		94	70 - 120
Bromochloromethane	10.0	9.06		ug/L		91	70 - 127
2-Butanone (MEK)	20.0	16.9		ug/L		85	39 - 138
Chloroform	10.0	9.59		ug/L		96	72 - 127
1,1,1-Trichloroethane	10.0	9.28		ug/L		93	63 - 133
Carbon tetrachloride	10.0	9.49		ug/L		95	55 - 150
Benzene	10.0	9.87		ug/L		99	80 - 120
1,2-Dichloroethane	10.0	10.1		ug/L		101	68 - 132
Trichloroethene	10.0	9.15		ug/L		92	73 - 120
1,2-Dichloropropane	10.0	9.55		ug/L		95	76 - 124
Bromodichloromethane	10.0	8.40		ug/L		84	66 - 130
cis-1,3-Dichloropropene	10.0	8.06		ug/L		81	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.0		ug/L		85	45 - 145
Toluene	10.0	10.7		ug/L		107	80 - 123
trans-1,3-Dichloropropene	10.0	7.80		ug/L		78	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	10.6		ug/L		106	70 - 135
2-Hexanone	20.0	15.6		ug/L		78	25 - 132
Dibromochloromethane	10.0	8.30		ug/L		83	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.35		ug/L		94	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.31		ug/L		93	63 - 140
Ethylbenzene	10.0	9.58		ug/L		96	72 - 126
Xylenes, Total	20.0	19.0		ug/L		95	76 - 128
Styrene	10.0	9.85		ug/L		99	71 - 127
Bromoform	10.0	7.85		ug/L		78	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.2		ug/L		102	62 - 125
Acrylonitrile	100	93.9		ug/L		94	30 - 140
1,4-Dioxane	200	144	J	ug/L		72	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*
Toluene-d8 (Surr)	*102*		*71 - 118*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*
Dibromofluoromethane (Surr)	*96*		*70 - 128*

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

Lab Sample ID: MB 180-142864/9
Matrix: Water
Analysis Batch: 142864

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 13:22	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 13:22	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 13:22	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/27/15 13:22	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 13:22	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 13:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 13:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/27/15 13:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/27/15 13:22	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 13:22	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/27/15 13:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/27/15 13:22	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 13:22	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 13:22	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 13:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 13:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 13:22	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 13:22	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 13:22	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 13:22	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 13:22	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 13:22	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 13:22	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 13:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 13:22	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 13:22	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*05/27/15 13:22*	*1*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/27/15 13:22*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/27/15 13:22*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*05/27/15 13:22*	*1*

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

Lab Sample ID: LCS 180-142864/12
Matrix: Water
Analysis Batch: 142864

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	7.14		ug/L		71	50 - 139
Vinyl chloride	10.0	7.78		ug/L		78	53 - 138
Bromomethane	10.0	9.36		ug/L		94	33 - 150
Chloroethane	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	10.0	11.3		ug/L		113	65 - 136
Acetone	20.0	18.7		ug/L		94	22 - 150
Carbon disulfide	10.0	8.26		ug/L		83	54 - 132
Methylene Chloride	10.0	11.8		ug/L		118	63 - 129
trans-1,2-Dichloroethene	10.0	10.8		ug/L		108	73 - 126
Methyl tert-butyl ether	10.0	8.31		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	10.3		ug/L		103	73 - 126
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 120
Bromochloromethane	10.0	9.62		ug/L		96	70 - 127
2-Butanone (MEK)	20.0	17.8		ug/L		89	39 - 138
Chloroform	10.0	10.1		ug/L		101	72 - 127
1,1,1-Trichloroethane	10.0	9.92		ug/L		99	63 - 133
Carbon tetrachloride	10.0	9.16		ug/L		92	55 - 150
Benzene	10.0	10.7		ug/L		107	80 - 120
1,2-Dichloroethane	10.0	10.2		ug/L		102	68 - 132
Trichloroethene	10.0	9.05		ug/L		91	73 - 120
1,2-Dichloropropane	10.0	9.65		ug/L		97	76 - 124
Bromodichloromethane	10.0	8.44		ug/L		84	66 - 130
cis-1,3-Dichloropropene	10.0	7.99		ug/L		80	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.7		ug/L		84	45 - 145
Toluene	10.0	11.5		ug/L		115	80 - 123
trans-1,3-Dichloropropene	10.0	8.12		ug/L		81	65 - 125
1,1,2-Trichloroethane	10.0	10.8		ug/L		108	77 - 127
Tetrachloroethene	10.0	11.6		ug/L		116	70 - 135
2-Hexanone	20.0	16.5		ug/L		82	25 - 132
Dibromochloromethane	10.0	7.98		ug/L		80	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.96		ug/L		100	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.46		ug/L		95	63 - 140
Ethylbenzene	10.0	9.93		ug/L		99	72 - 126
Xylenes, Total	20.0	19.4		ug/L		97	76 - 128
Styrene	10.0	10.2		ug/L		102	71 - 127
Bromoform	10.0	6.67		ug/L		67	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	62 - 125
Acrylonitrile	100	99.9		ug/L		100	30 - 140
1,4-Dioxane	200	167	J	ug/L		84	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*
Toluene-d8 (Surr)	*101*		*71 - 118*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*
Dibromofluoromethane (Surr)	*90*		*70 - 128*

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

Lab Sample ID: MB 180-143033/6
Matrix: Water
Analysis Batch: 143033

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/28/15 13:18	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/28/15 13:18	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/28/15 13:18	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 13:18	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/28/15 13:18	1
Acetone	5.0	U	5.0	2.5	ug/L			05/28/15 13:18	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/28/15 13:18	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/28/15 13:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/28/15 13:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/28/15 13:18	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/28/15 13:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/28/15 13:18	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/28/15 13:18	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/28/15 13:18	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/28/15 13:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/28/15 13:18	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/28/15 13:18	1
Benzene	1.0	U	1.0	0.11	ug/L			05/28/15 13:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/28/15 13:18	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/28/15 13:18	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/28/15 13:18	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/28/15 13:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/28/15 13:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/28/15 13:18	1
Toluene	1.0	U	1.0	0.15	ug/L			05/28/15 13:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/28/15 13:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 13:18	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/28/15 13:18	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/28/15 13:18	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/28/15 13:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/28/15 13:18	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/28/15 13:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/28/15 13:18	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/28/15 13:18	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/28/15 13:18	1
Styrene	1.0	U	1.0	0.097	ug/L			05/28/15 13:18	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/28/15 13:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/28/15 13:18	1
Acrylonitrile	20	U	20	0.55	ug/L			05/28/15 13:18	1
1,4-Dioxane	200	U	200	34	ug/L			05/28/15 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 135*		*05/28/15 13:18*	*1*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/28/15 13:18*	*1*
4-Bromofluorobenzene (Surr)	*87*		*70 - 118*		*05/28/15 13:18*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 128*		*05/28/15 13:18*	*1*

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

Lab Sample ID: LCS 180-143033/13
Matrix: Water
Analysis Batch: 143033

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.30		ug/L		63	50 - 139
Vinyl chloride	10.0	6.84		ug/L		68	53 - 138
Bromomethane	10.0	8.69		ug/L		87	33 - 150
Chloroethane	10.0	8.54		ug/L		85	36 - 142
1,1-Dichloroethene	10.0	9.89		ug/L		99	65 - 136
Acetone	20.0	26.4		ug/L		132	22 - 150
Carbon disulfide	10.0	9.04		ug/L		90	54 - 132
Methylene Chloride	10.0	11.0		ug/L		110	63 - 129
trans-1,2-Dichloroethene	10.0	9.46		ug/L		95	73 - 126
Methyl tert-butyl ether	10.0	8.08		ug/L		81	64 - 123
1,1-Dichloroethane	10.0	9.48		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.21		ug/L		92	70 - 120
Bromochloromethane	10.0	8.65		ug/L		86	70 - 127
2-Butanone (MEK)	20.0	23.1		ug/L		115	39 - 138
Chloroform	10.0	9.25		ug/L		93	72 - 127
1,1,1-Trichloroethane	10.0	8.71		ug/L		87	63 - 133
Carbon tetrachloride	10.0	8.12		ug/L		81	55 - 150
Benzene	10.0	9.78		ug/L		98	80 - 120
1,2-Dichloroethane	10.0	9.46		ug/L		95	68 - 132
Trichloroethene	10.0	8.40		ug/L		84	73 - 120
1,2-Dichloropropane	10.0	8.71		ug/L		87	76 - 124
Bromodichloromethane	10.0	8.14		ug/L		81	66 - 130
cis-1,3-Dichloropropene	10.0	7.17		ug/L		72	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.2		ug/L		86	45 - 145
Toluene	10.0	10.1		ug/L		101	80 - 123
trans-1,3-Dichloropropene	10.0	7.40		ug/L		74	65 - 125
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	77 - 127
Tetrachloroethene	10.0	9.57		ug/L		96	70 - 135
2-Hexanone	20.0	20.9		ug/L		104	25 - 132
Dibromochloromethane	10.0	7.75		ug/L		78	60 - 140
1,2-Dibromoethane (EDB)	10.0	8.90		ug/L		89	74 - 123
Chlorobenzene	10.0	9.41		ug/L		94	80 - 120
1,1,1,2-Tetrachloroethane	10.0	8.80		ug/L		88	63 - 140
Ethylbenzene	10.0	8.69		ug/L		87	72 - 126
Xylenes, Total	20.0	17.1		ug/L		85	76 - 128
Styrene	10.0	9.03		ug/L		90	71 - 127
Bromoform	10.0	6.42		ug/L		64	46 - 150
1,1,2,2-Tetrachloroethane	10.0	8.80		ug/L		88	62 - 125
Acrylonitrile	100	90.0		ug/L		90	30 - 140
1,4-Dioxane	200	140	J	ug/L		70	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*
Toluene-d8 (Surr)	*98*		*71 - 118*
4-Bromofluorobenzene (Surr)	*88*		*70 - 118*
Dibromofluoromethane (Surr)	*93*		*70 - 128*

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

Lab Sample ID: MB 180-143223/7
Matrix: Water
Analysis Batch: 143223

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 14:38	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 14:38	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 14:38	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 14:38	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 14:38	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 14:38	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 14:38	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 14:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 14:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/29/15 14:38	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 14:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 14:38	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 14:38	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 14:38	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 14:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 14:38	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 14:38	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 14:38	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 14:38	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 14:38	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 14:38	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 14:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 14:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 14:38	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 14:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 14:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 14:38	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 14:38	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 14:38	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 14:38	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 14:38	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 14:38	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 14:38	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 14:38	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 14:38	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 14:38	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 14:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 14:38	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 14:38	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 14:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*64 - 135*		*05/29/15 14:38*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/29/15 14:38*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*05/29/15 14:38*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 128*		*05/29/15 14:38*	*1*

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

Lab Sample ID: LCS 180-143223/10
Matrix: Water
Analysis Batch: 143223

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	6.96		ug/L		70	50 - 139
Vinyl chloride	10.0	7.77		ug/L		78	53 - 138
Bromomethane	10.0	9.50		ug/L		95	33 - 150
Chloroethane	10.0	9.95		ug/L		99	36 - 142
1,1-Dichloroethene	10.0	11.0		ug/L		110	65 - 136
Acetone	20.0	18.2		ug/L		91	22 - 150
Carbon disulfide	10.0	9.33		ug/L		93	54 - 132
Methylene Chloride	10.0	12.9		ug/L		129	63 - 129
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	73 - 126
Methyl tert-butyl ether	10.0	8.25		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	10.3		ug/L		103	73 - 126
cis-1,2-Dichloroethene	10.0	9.61		ug/L		96	70 - 120
Bromochloromethane	10.0	8.74		ug/L		87	70 - 127
2-Butanone (MEK)	20.0	17.0		ug/L		85	39 - 138
Chloroform	10.0	10.0		ug/L		100	72 - 127
1,1,1-Trichloroethane	10.0	9.97		ug/L		100	63 - 133
Carbon tetrachloride	10.0	9.15		ug/L		91	55 - 150
Benzene	10.0	10.8		ug/L		108	80 - 120
1,2-Dichloroethane	10.0	10.5		ug/L		105	68 - 132
Trichloroethene	10.0	8.99		ug/L		90	73 - 120
1,2-Dichloropropane	10.0	9.59		ug/L		96	76 - 124
Bromodichloromethane	10.0	8.59		ug/L		86	66 - 130
cis-1,3-Dichloropropene	10.0	7.76		ug/L		78	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.9		ug/L		85	45 - 145
Toluene	10.0	11.3		ug/L		113	80 - 123
trans-1,3-Dichloropropene	10.0	7.68		ug/L		77	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	11.3		ug/L		113	70 - 135
2-Hexanone	20.0	16.3		ug/L		82	25 - 132
Dibromochloromethane	10.0	8.39		ug/L		84	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.40		ug/L		94	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.69		ug/L		97	63 - 140
Ethylbenzene	10.0	9.97		ug/L		100	72 - 126
Xylenes, Total	20.0	19.3		ug/L		97	76 - 128
Styrene	10.0	9.80		ug/L		98	71 - 127
Bromoform	10.0	7.05		ug/L		71	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.88		ug/L		99	62 - 125
Acrylonitrile	100	97.2		ug/L		97	30 - 140
1,4-Dioxane	200	151	J	ug/L		76	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*
Toluene-d8 (Surr)	*99*		*71 - 118*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*
Dibromofluoromethane (Surr)	*92*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-142275/6
Matrix: Water
Analysis Batch: 142275

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0145	J	0.10	0.0062	mg/L			05/20/15 12:49	1
Chloride	1.0	U	1.0	0.20	mg/L			05/20/15 12:49	1
Sulfate	1.0	U	1.0	0.21	mg/L			05/20/15 12:49	1

Lab Sample ID: LCS 180-142275/5
Matrix: Water
Analysis Batch: 142275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.50	2.58		mg/L		103	90 - 110
Chloride	50.0	51.6		mg/L		103	90 - 110
Sulfate	50.0	51.0		mg/L		102	90 - 110

Lab Sample ID: 180-44248-10 MS
Matrix: Water
Analysis Batch: 142275

Client Sample ID: HD-MW-7-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.4	B	1.25	2.73		mg/L		108	80 - 120
Chloride	56		25.0	85.1		mg/L		115	80 - 120
Sulfate	13		25.0	38.9		mg/L		105	80 - 120

Lab Sample ID: 180-44248-10 MSD
Matrix: Water
Analysis Batch: 142275

Client Sample ID: HD-MW-7-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	1.4	B	1.25	2.67		mg/L		103	80 - 120	3	20
Chloride	56		25.0	83.4		mg/L		108	80 - 120	2	20
Sulfate	13		25.0	38.7		mg/L		104	80 - 120	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-44248-2 MS
Matrix: Water
Analysis Batch: 143685

Client Sample ID: HD-MW-100S-0/1-0
Prep Type: Total/NA
Prep Batch: 142252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	91000	B	50000	143000		ug/L		104	75 - 125
Potassium	4100		50000	50400		ug/L		93	75 - 125
Magnesium	17000		50000	61800		ug/L		90	75 - 125
Sodium	48000		50000	92100		ug/L		89	75 - 125

Lab Sample ID: 180-44248-2 MSD
Matrix: Water
Analysis Batch: 143685

Client Sample ID: HD-MW-100S-0/1-0
Prep Type: Total/NA
Prep Batch: 142252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	91000	B	50000	144000		ug/L		107	75 - 125	1	20

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

Lab Sample ID: 180-44248-2 MSD — **Client Sample ID: HD-MW-100S-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143685 — **Prep Batch: 142252**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	4100		50000	50700		ug/L		93	75 - 125	1	20
Magnesium	17000		50000	60300		ug/L		87	75 - 125	2	20
Sodium	48000		50000	90000		ug/L		85	75 - 125	2	20

Lab Sample ID: MB 180-142252/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143685 — **Prep Batch: 142252**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	14.9	J	500	2.8	ug/L		05/20/15 12:14	06/02/15 12:06	1
Potassium	500	U	500	5.8	ug/L		05/20/15 12:14	06/02/15 12:06	1
Magnesium	500	U	500	1.2	ug/L		05/20/15 12:14	06/02/15 12:06	1
Sodium	500	U	500	3.8	ug/L		05/20/15 12:14	06/02/15 12:06	1

Lab Sample ID: LCS 180-142252/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 143685 — **Prep Batch: 142252**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	49300		ug/L		99	80 - 120
Potassium	50000	46400		ug/L		93	80 - 120
Magnesium	50000	42100		ug/L		84	80 - 120
Sodium	50000	42200		ug/L		84	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-142826/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142826

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			05/27/15 05:19	1
Bicarbonate Alkalinity as CaCO3	2.01	J	5.0	0.41	mg/L			05/27/15 05:19	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:19	1

Lab Sample ID: LCS 180-142826/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142826

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

Lab Sample ID: 180-44248-3 DU — **Client Sample ID: HD-MW-100I-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142826

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	210	B	221		mg/L		4	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 180-44248-3 DU
Matrix: Water
Analysis Batch: 142826

Client Sample ID: HD-MW-100I-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	210	B	221		mg/L		4	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

Lab Sample ID: MB 180-142828/2
Matrix: Water
Analysis Batch: 142828

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			05/27/15 05:22	1
Bicarbonate Alkalinity as CaCO3	2.01	J	5.0	0.41	mg/L			05/27/15 05:22	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/27/15 05:22	1

Lab Sample ID: LCS 180-142828/1
Matrix: Water
Analysis Batch: 142828

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	259		mg/L		104	80 - 120

GC/MS VOA

Analysis Batch: 142745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-1	HD-MW-99D-0/1-0	Total/NA	Water	8260C	
LCS 180-142745/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-142745/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 142864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-2	HD-MW-100S-0/1-0	Total/NA	Water	8260C	
180-44248-3	HD-MW-100I-0/1-0	Total/NA	Water	8260C	
180-44248-5	HD-MW-147A-0/1-0	Total/NA	Water	8260C	
180-44248-6 - DL	HD-MW-37S-0/1-0	Total/NA	Water	8260C	
180-44248-7	HD-MW-37D-0/1-0	Total/NA	Water	8260C	
180-44248-8	HD-MW-75S-0/1-0	Total/NA	Water	8260C	
180-44248-11	HD-QC2-0/1-0	Total/NA	Water	8260C	
LCS 180-142864/12	Lab Control Sample	Total/NA	Water	8260C	
MB 180-142864/9	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-4	HD-MW-100D-0/1-0	Total/NA	Water	8260C	
180-44248-6	HD-MW-37S-0/1-0	Total/NA	Water	8260C	
180-44248-7 - DL	HD-MW-37D-0/1-0	Total/NA	Water	8260C	
180-44248-8 - DL	HD-MW-75S-0/1-0	Total/NA	Water	8260C	
180-44248-9 - DL	HD-MW-75D-0/1-0	Total/NA	Water	8260C	
180-44248-10	HD-MW-7-0/1-0	Total/NA	Water	8260C	
LCS 180-143033/13	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143033/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-9	HD-MW-75D-0/1-0	Total/NA	Water	8260C	
LCS 180-143223/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143223/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 142275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-1	HD-MW-99D-0/1-0	Total/NA	Water	300.0	
180-44248-2	HD-MW-100S-0/1-0	Total/NA	Water	300.0	
180-44248-3	HD-MW-100I-0/1-0	Total/NA	Water	300.0	
180-44248-4	HD-MW-100D-0/1-0	Total/NA	Water	300.0	
180-44248-5	HD-MW-147A-0/1-0	Total/NA	Water	300.0	
180-44248-6	HD-MW-37S-0/1-0	Total/NA	Water	300.0	
180-44248-7	HD-MW-37D-0/1-0	Total/NA	Water	300.0	
180-44248-8	HD-MW-75S-0/1-0	Total/NA	Water	300.0	
180-44248-9	HD-MW-75D-0/1-0	Total/NA	Water	300.0	
180-44248-10	HD-MW-7-0/1-0	Total/NA	Water	300.0	
180-44248-10 MS	HD-MW-7-0/1-0	Total/NA	Water	300.0	
180-44248-10 MSD	HD-MW-7-0/1-0	Total/NA	Water	300.0	
LCS 180-142275/5	Lab Control Sample	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 142275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 180-142275/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 142252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-1	HD-MW-99D-0/1-0	Total/NA	Water	3005A	
180-44248-2	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-44248-2 MS	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-44248-2 MSD	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-44248-2 PDS	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-44248-2 SD	HD-MW-100S-0/1-0	Total/NA	Water	3005A	
180-44248-3	HD-MW-100I-0/1-0	Total/NA	Water	3005A	
180-44248-4	HD-MW-100D-0/1-0	Total/NA	Water	3005A	
180-44248-5	HD-MW-147A-0/1-0	Total/NA	Water	3005A	
180-44248-6	HD-MW-37S-0/1-0	Total/NA	Water	3005A	
180-44248-7	HD-MW-37D-0/1-0	Total/NA	Water	3005A	
180-44248-8	HD-MW-75S-0/1-0	Total/NA	Water	3005A	
180-44248-9	HD-MW-75D-0/1-0	Total/NA	Water	3005A	
180-44248-10	HD-MW-7-0/1-0	Total/NA	Water	3005A	
LCS 180-142252/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-142252/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 143685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-1	HD-MW-99D-0/1-0	Total/NA	Water	6020A	142252
180-44248-2	HD-MW-100S-0/1-0	Total/NA	Water	6020A	142252
180-44248-2 MS	HD-MW-100S-0/1-0	Total/NA	Water	6020A	142252
180-44248-2 MSD	HD-MW-100S-0/1-0	Total/NA	Water	6020A	142252
180-44248-2 PDS	HD-MW-100S-0/1-0	Total/NA	Water	6020A	142252
180-44248-2 SD	HD-MW-100S-0/1-0	Total/NA	Water	6020A	142252
180-44248-3	HD-MW-100I-0/1-0	Total/NA	Water	6020A	142252
180-44248-4	HD-MW-100D-0/1-0	Total/NA	Water	6020A	142252
180-44248-5	HD-MW-147A-0/1-0	Total/NA	Water	6020A	142252
180-44248-6	HD-MW-37S-0/1-0	Total/NA	Water	6020A	142252
180-44248-7	HD-MW-37D-0/1-0	Total/NA	Water	6020A	142252
180-44248-8	HD-MW-75S-0/1-0	Total/NA	Water	6020A	142252
180-44248-9	HD-MW-75D-0/1-0	Total/NA	Water	6020A	142252
180-44248-10	HD-MW-7-0/1-0	Total/NA	Water	6020A	142252
CRI 180-143685/7	DL		Water	6020A	
CRI 180-143685/99	DL		Water	6020A	
ICSA 180-143685/8	ICS		Water	6020A	
ICSAB 180-143685/9	ICS		Water	6020A	
LCS 180-142252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	142252
MB 180-142252/1-A	Method Blank	Total Recoverable	Water	6020A	142252

General Chemistry

Analysis Batch: 142826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-1	HD-MW-99D-0/1-0	Total/NA	Water	SM 2320B	
180-44248-2	HD-MW-100S-0/1-0	Total/NA	Water	SM 2320B	
180-44248-3	HD-MW-100I-0/1-0	Total/NA	Water	SM 2320B	
180-44248-3 DU	HD-MW-100I-0/1-0	Total/NA	Water	SM 2320B	
180-44248-4	HD-MW-100D-0/1-0	Total/NA	Water	SM 2320B	
180-44248-5	HD-MW-147A-0/1-0	Total/NA	Water	SM 2320B	
180-44248-6	HD-MW-37S-0/1-0	Total/NA	Water	SM 2320B	
180-44248-7	HD-MW-37D-0/1-0	Total/NA	Water	SM 2320B	
180-44248-8	HD-MW-75S-0/1-0	Total/NA	Water	SM 2320B	
180-44248-9	HD-MW-75D-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-142826/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-142826/2	Method Blank	Total/NA	Water	SM 2320B	

Analysis Batch: 142828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44248-10	HD-MW-7-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-142828/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-142828/2	Method Blank	Total/NA	Water	SM 2320B	

Client Sample ID: HD-MW-99D-0/1-0

Date Collected: 05/19/15 09:30
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	142745	05/26/15 22:06	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 17:42	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:43	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-100S-0/1-0

Date Collected: 05/19/15 10:20
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	5 mL	5 mL	142864	05/27/15 16:50	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 13:05	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:14	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-100I-0/1-0

Date Collected: 05/19/15 10:55
Date Received: 05/20/15 09:00

Lab Sample ID: 180-44248-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	142864	05/27/15 18:50	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 17:58	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:47	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-100D-0/1-0

Lab Sample ID: 180-44248-4

Date Collected: 05/19/15 11:45

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143033	05/28/15 16:49	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 18:13	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:51	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-147A-0/1-0

Lab Sample ID: 180-44248-5

Date Collected: 05/19/15 12:30

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	142864	05/27/15 20:02	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 13:20	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:55	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-37S-0/1-0

Lab Sample ID: 180-44248-6

Date Collected: 05/19/15 09:00

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	142864	05/27/15 20:26	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C		1	5 mL	5 mL	143033	05/28/15 23:13	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 17:27	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 12:58	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-37D-0/1-0

Lab Sample ID: 180-44248-7

Date Collected: 05/19/15 10:17

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		12.5	5 mL	5 mL	142864	05/27/15 21:14	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	25	5 mL	5 mL	143033	05/28/15 17:36	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 14:11	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:02	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-75S-0/1-0

Lab Sample ID: 180-44248-8

Date Collected: 05/19/15 12:36

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	5 mL	5 mL	142864	05/27/15 21:38	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C	DL	500	5 mL	5 mL	143033	05/28/15 18:01	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 14:28	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:06	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-75D-0/1-0

Lab Sample ID: 180-44248-9

Date Collected: 05/19/15 11:48

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	400	5 mL	5 mL	143033	05/28/15 18:49	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	8260C		40	5 mL	5 mL	143223	05/30/15 00:27	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 18:28	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:20	CNF	TAL PIT
	Instrument ID: M									

Client Sample ID: HD-MW-75D-0/1-0

Lab Sample ID: 180-44248-9

Date Collected: 05/19/15 11:48

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142826	05/27/15 05:19	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44248-10

Date Collected: 05/19/15 15:00

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	143033	05/28/15 19:13	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142275	05/20/15 14:45	MJH	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142252	05/20/15 12:14	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:24	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142828	05/27/15 05:22	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44248-11

Date Collected: 05/19/15 12:00

Matrix: Water

Date Received: 05/20/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	142864	05/27/15 20:50	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

CNF = Caitlin Ferguson

DLF = Donald Ferguson

MJH = Matthew Hartman

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

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: 180-44248-1

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

Protocol References:

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

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

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

Laboratory References:

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

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44248-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-44248-1	HD-MW-99D-0/1-0	Water	05/19/15 09:30	05/20/15 09:00
180-44248-2	HD-MW-100S-0/1-0	Water	05/19/15 10:20	05/20/15 09:00
180-44248-3	HD-MW-100I-0/1-0	Water	05/19/15 10:55	05/20/15 09:00
180-44248-4	HD-MW-100D-0/1-0	Water	05/19/15 11:45	05/20/15 09:00
180-44248-5	HD-MW-147A-0/1-0	Water	05/19/15 12:30	05/20/15 09:00
180-44248-6	HD-MW-37S-0/1-0	Water	05/19/15 09:00	05/20/15 09:00
180-44248-7	HD-MW-37D-0/1-0	Water	05/19/15 10:17	05/20/15 09:00
180-44248-8	HD-MW-75S-0/1-0	Water	05/19/15 12:36	05/20/15 09:00
180-44248-9	HD-MW-75D-0/1-0	Water	05/19/15 11:48	05/20/15 09:00
180-44248-10	HD-MW-7-0/1-0	Water	05/19/15 15:00	05/20/15 09:00
180-44248-11	HD-QC2-0/1-0	Water	05/19/15 12:00	05/20/15 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 141828

Lab Sample ID: ICIS 180-141828/7 Client Sample ID:

Date Analyzed: 05/16/15 14:49 Lab File ID: 50516007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/17/15 09:57

Lab Sample ID: IC 180-141828/16 Client Sample ID:

Date Analyzed: 05/16/15 18:25 Lab File ID: 50516016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.69	Split Peak	fergusond	05/17/15 10:13
Isobutyl alcohol	6.94	Peak Tail	fergusond	05/17/15 10:13
1,4-Dioxane	8.05	Peak Tail	fergusond	05/17/15 10:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142745

Lab Sample ID: CCVIS 180-142745/2 Client Sample ID:

Date Analyzed: 05/26/15 10:48 Lab File ID: 50526002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.70	Poor chromatography	fergusond	05/26/15 11:08
1,4-Dioxane	8.03	Peak Tail	fergusond	05/26/15 11:08

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142864

Lab Sample ID: CCVIS 180-142864/7 Client Sample ID:

Date Analyzed: 05/27/15 12:33 Lab File ID: 50527007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/27/15 13:17

Lab Sample ID: LCS 180-142864/12 Client Sample ID:

Date Analyzed: 05/27/15 14:50 Lab File ID: 50527012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/27/15 15:09

Lab Sample ID: 180-44248-2 Client Sample ID: HD-MW-100S-0/1-0

Date Analyzed: 05/27/15 16:50 Lab File ID: 50527017.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.38	Poor chromatography	fergusond	05/28/15 07:37

Lab Sample ID: 180-44248-3 Client Sample ID: HD-MW-100I-0/1-0

Date Analyzed: 05/27/15 18:50 Lab File ID: 50527022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.39	Poor chromatography	fergusond	05/28/15 07:44

Lab Sample ID: 180-44248-6 DL Client Sample ID: HD-MW-37S-0/1-0 DL

Date Analyzed: 05/27/15 20:26 Lab File ID: 50527026.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.35	Split Peak	fergusond	05/28/15 07:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142864

Lab Sample ID: 180-44248-11 Client Sample ID: HD-QC2-0/1-0

Date Analyzed: 05/27/15 20:50 Lab File ID: 50527027.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.37	Poor chromatography	fergusond	05/28/15 07:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 143033

Lab Sample ID: CCVIS 180-143033/2 Client Sample ID:

Date Analyzed: 05/28/15 12:06 Lab File ID: 50528002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/28/15 12:59

Lab Sample ID: LCS 180-143033/13 Client Sample ID:

Date Analyzed: 05/28/15 16:26 Lab File ID: 50528013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/28/15 16:43

Lab Sample ID: 180-44248-7 DL Client Sample ID: HD-MW-37D-0/1-0 DL

Date Analyzed: 05/28/15 17:36 Lab File ID: 50528016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.35	Poor chromatography	fergusond	05/29/15 06:20
1,1-Dichloroethane	5.22	Peak Not Integrated	fergusond	05/29/15 06:20

Lab Sample ID: 180-44248-10 Client Sample ID: HD-MW-7-0/1-0

Date Analyzed: 05/28/15 19:13 Lab File ID: 50528020.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.40	Poor chromatography	fergusond	05/29/15 06:25

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 143223

Lab Sample ID: LCS 180-143223/10 Client Sample ID:

Date Analyzed: 05/29/15 16:02 Lab File ID: 50529010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/29/15 16:22

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01243	05/21/15	05/20/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00007	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00007	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
icicv_01275	05/21/15	05/20/15	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_00179	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	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_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00225	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	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_00228	05/20/15	05/19/15	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.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_00150	05/20/15	05/19/15	DI Water, Lot na	5 mL	ICSTDL7_00149	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_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL5_00156	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00149	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_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL8_00118	05/20/15	05/19/15	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.: 180-44248-1

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_00119	05/20/15	05/19/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_00076	07/01/15	05/31/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00006	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00066	05/29/15	04/29/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16	Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)		Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_00071	06/19/15	05/19/15	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Ag	0.02 ppm
							As	0.02 ppm
							Cd	0.02 ppm
							Co	0.02 ppm
							Cr	0.02 ppm
							Cu	0.02 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mn	0.0225 ppm
							Ni	0.02 ppm
							Zn	0.025 ppm
					MMSICSAB-1_00008	0.2 mL	Ba	0.02 ppm
							Be	0.02 ppm
							Pb	0.02 ppm
							Sr	0.025 ppm
							Tl	0.02 ppm
							V	0.02 ppm
					MMSICSAB-2_00007	0.2 mL	B	0.05 ppm
							Sb	0.02 ppm
							Se	0.05 ppm
							Si	0.5 ppm
							Sn	0.1 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
.M6020ICS-0B_00006	09/01/15	Inorganic Ventures, Lot G2-MEB463151			(Purchased Reagent)		Ag	2 ppm
							As	2 ppm
							Cd	2 ppm
							Co	2 ppm
							Cr	2 ppm
							Cu	2 ppm
							Mn	2.25 ppm
							Ni	2 ppm
							Zn	2.5 ppm
.MMSICSAB-1_00008	06/01/16	Inorganic Ventures, Lot J2-MEB575125			(Purchased Reagent)		Ba	10 ppm
							Be	10 ppm
							Pb	10 ppm
							Sr	12.5 ppm
							Tl	10 ppm
							V	10 ppm
.MMSICSAB-2_00007	06/01/16	Inorganic Ventures, Lot J2-MEB575126			(Purchased Reagent)		B	25 ppm
							Sb	10 ppm
							Se	25 ppm
							Si	250 ppm
							Sn	50 ppm
MICSAX_00067	06/19/15	05/19/15	DI Water, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MTAPITTMSA_00023	12/01/15	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSA_00024	04/01/16	INORGANIC VENTURES, Lot H2-MEB532044			(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00030	04/01/16	Inorganic Ventures, Lot H2-MEB532046			(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
VOA8260INT_00036	06/13/15	05/13/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00064	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_00064	02/01/18	Restek, Lot A093504			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00036	06/13/15	05/13/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00090	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00090	04/30/19	Restek, Lot A0102817			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00124	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00102	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00121	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL

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

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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		
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00031	01/31/17		Restek, Lot A0108163		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00115	05/16/15	05/09/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00098	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

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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		
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00111	1.25 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00098	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_00111	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00042	0.16 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00031	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

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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		
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00042	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00031	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00121	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00100	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00117	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00100	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00117	06/15/15	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00028	0.8 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
VOAACROPRI_00005	05/31/15	05/01/15	Methanol, Lot 85233	100 mL	VOAACRORES_00067	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00067	05/31/15		Restek, Lot A0108734		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1st_00001	06/15/15	05/15/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00024	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00024	09/30/16		Restek, Lot A0109701		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWketPri Re_00005	06/01/15	05/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00041	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00041	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1st Res_00001	06/16/15	05/16/15	Methanol, Lot 85233	25 mL	VOA8260VARES_00051	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00051	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WALK125PPMCCV_00085	11/14/15	05/14/15	DI Water, Lot SUPERQ	1000 mL	WNa2CO3P_00007	0.125 g	Total Alkalinity as CaCO3 to pH 4.5	125 mg/L
.WNa2CO3P_00007	07/09/18		Fisher Scientific, Lot 138124		(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g
WALK250PPMPi_00094	11/14/15	05/14/15	DI Water, Lot Super Q	1000 mL	WNa2CO3P_00007	0.25 g	Total Alkalinity as CaCO3 to pH 4.5	250 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.WNa2CO3P_00007	07/09/18	Fisher Scientific, Lot 138124			(Purchased Reagent)		Total Alkalinity as CaCO3 to pH 4.5	1 g/g

Reagent

ICPRIMARYSTA_00006

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Values:

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

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

ICPRIMARYSTDB_00008

HIGH-PURITY STANDARDS
www.highpuritystandards.com

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

Certificate of Analysis

Product Description:

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

Certified Value:

NO_2 as N 125.00 µg/mL ± 1.25 µg/mL

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

Preparation Information:

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

Traceability Information:

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

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

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

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

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

Packaging and Storage Conditions:

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

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

Expiration Information:

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

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

Quality Information:

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

Angel Sellers,
Quality Manager

Reagent

M6020ICS-0A_00005

INORGANIC VENTURES™

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Christiansburg, VA 24073 USA
inorganicventures.com

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

CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

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

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

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

20 µg/mL ea:
Mo, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

4.1 ASSAY INFORMATION

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

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

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

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0B_00006

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CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 DESCRIPTION OF CRM **Stock Solution**

Catalog No.: 6020ICS-0B

Lot Number: **G2-MEB463151**

Matrix: 3% HNO3(v/v)

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

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

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

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

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

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

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

4.1 ASSAY INFORMATION

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: March 25, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

Certificate Approved By: Allyson Guilliams
Quality Control Supervisor

Certifying Officer: Paul Gaines
PhD., Senior Technical Director

Reagent

MCALSPECAREV_00006

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-CAL-SPECA-REV
Lot Number:	J2-MEB575123
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea:

Ca, K, Mg,
Na,

1 250 µg/mL ea:
Fe,

25 µg/mL ea:
Al, Mn,

5 µg/mL ea:

Ag,	As,	Ba,
Be,	Cd,	Co,
Cr3,	Cu,	Ni,
Pb,	Se,	Sr,
Tl,	V,	Zn

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MICPMSICV_00018

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: ZCAL-60-250 **Lot No.** 7-230WL

Description: Custom Claritas Standard

Matrix: 5% HNO_3 / Tr. Tart. Acid / Tr. HF

This **CLARITAS PPT®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for inorganic spectroscopic instrumentation such as ICP-OES, DCP, AA, ICP-MS, and XRF. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared from high purity single element concentrates of individual elements using Class A laboratory ware to give precise concentrations.

Instrumental Analysis by ICP Spectrometer:

Analyte	Labeled	Uncertainty	SRM	Analyte	Labeled	Uncertainty	SRM
Ca	1000 µg/mL	±5 µg/mL	3109a*	Co	2 µg/mL	±0.01 µg/mL	3113*
K	1000 µg/mL	±5 µg/mL	3141a*	Cr	2 µg/mL	±0.01 µg/mL	3112a*
Mg	1000 µg/mL	±5 µg/mL	3131a*	Cu	2 µg/mL	±0.01 µg/mL	3114*
Na	1000 µg/mL	±5 µg/mL	3152a*	Mo	2 µg/mL	±0.01 µg/mL	3134*
Fe	500 µg/mL	±3 µg/mL	3126a*	Ni	2 µg/mL	±0.01 µg/mL	3136*
Si	100 µg/mL	±0.5 µg/mL	3150*	Pb	2 µg/mL	±0.01 µg/mL	3128*
Al	10 µg/mL	±0.05 µg/mL	3101a*	Sb	2 µg/mL	±0.01 µg/mL	3102a*
Mn	10 µg/mL	±0.05 µg/mL	3132*	Se	2 µg/mL	±0.01 µg/mL	3149*
Ag	2 µg/mL	±0.01 µg/mL	3151*	Sn	2 µg/mL	±0.01 µg/mL	3161a*
As	2 µg/mL	±0.01 µg/mL	3103a*	Sr	2 µg/mL	±0.01 µg/mL	3153a*
B	2 µg/mL	±0.01 µg/mL	3107*	Ti	2 µg/mL	±0.01 µg/mL	3162a*
Ba	2 µg/mL	±0.01 µg/mL	3104a*	Tl	2 µg/mL	±0.01 µg/mL	3158*
Be	2 µg/mL	±0.01 µg/mL	3105a*	V	2 µg/mL	±0.01 µg/mL	3165*
Cd	2 µg/mL	±0.01 µg/mL	3108*	Zn	2 µg/mL	±0.01 µg/mL	3168a*

* - indicates NIST SRM † - Indicates SPEX CertiPrep CRM (when NIST SRM is not available)

SPEX CertiPrep Reference Multi: Lot# ALL 8

Trace Metallic Impurities in the Actual Solution via ICP-MS Analysis:

Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L	Element	µg/L
Au	<0.4	Ga	<2	Ir	<0.1	Pd	<1	Sc	30	Tm	5
Bi	<1	Gd	4	La	5	Pr	5	Sm	<4	U	0.08
Ce	6	Ge	<8	Li	<4	Pt	<0.1	Ta	7	W	10
Cs	<0.08	Hf	0.7	Lu	4	Rb	30	Tb	5	Y	5
Dy	4	Hg	<0.6	Nb	5	Re	4	Te	<4	Yb	4
Er	<0.4	Ho	5	Nd	<3	Rh	<0.2	Th	4	Zr	7
Eu	<0.5	In	<0.2	P	<300	Ru	<2				

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867 and others. This CRM is guaranteed stable and accurate to ±0.5% of the labeled value. This includes uncertainty components due to preparation, measurement, homogeneity, short-term and long-term stability, as well as transpiration loss. This guarantee is valid for a period of one year from the date of certification only when the material is unopened and stored under ambient laboratory conditions.

Date of Certification: NOV 2014 Certifying Officer:

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements – certified by UL-DQS
- ISO 17025: General requirements for the competence of testing and calibration laboratories – accredited by A2LA
- ISO Guide 34: General requirements for the competence of reference material producers – accredited by A2LA
- ISO Guide 31: Reference Materials – Contents of certificates and labels
- ISO Guide 35: Reference Materials – General & Statistical Principals for Certification
- Guide To The Expression Of Uncertainty In Measurement 1997
- EURACHEM/CITAC Guide: Quantifying Uncertainty in Analytical Measurement – Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference materials producers
- ISO/REMCO N280

Material Source:
All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 guidelines. Vendor identifications are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where $k = 2$ is the coverage factor at the 95% confidence level
- u_c is obtained by combining the individual element standard uncertainty components u_i, and $u_c = \sqrt{\sum u_i^2}$

Certification Traveler Report:
All certified values reported were derived from the Traveler Report (SPEX CertiPrep's traceability documentation) identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact the Sales Support Department at crmsales@spexcsp.com.

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

SPEX CertiPrep®
Your Science is Our Passion.®

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Reagent

MMSCRI-1B_00005

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CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 20, 2015

11.2 Expiration Date

EXPIRES
01 APR 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Zach Saunders
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-1_00008

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

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

Ba, Be, Pb,
Sr, Tl, V

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JAN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-2_00007

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSICSAB-2
Lot Number:	J2-MEB575126
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	250 µg/mL ea: Si, 50 µg/mL ea: Sn, 25 µg/mL ea: B, Se, 10 µg/mL ea: Sb

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTICPMS_00020

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Rec'd 6/17/14 RJR

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-ICPMS
Lot Number:	H2-MEB532047
Matrix:	0.7% (v/v) HNO3
Value / Analyte(s):	200 µg/mL ea: Al, Ba, 100 µg/mL ea: B, Fe, Sr, 50 µg/mL ea: Co, Mn, Ni, V, Zn, 25 µg/mL ea: Cu, 20 µg/mL ea: Cr3, 5 µg/mL ea: Ag, Be, Cd, Tl, 4 µg/mL ea: As, 2 µg/mL ea: Pb, 1 µg/mL ea: Se

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE	ELEMENT	CERTIFIED VALUE
Aluminum, Al	200.0 ± 1.0 µg/mL	Arsenic, As	4.002 ± 0.028 µg/mL	Barium, Ba	200.0 ± 1.0 µg/mL
Beryllium, Be	5.000 ± 0.029 µg/mL	Boron, B	100.0 ± 0.7 µg/mL	Cadmium, Cd	5.000 ± 0.024 µg/mL
Chromium+3, Cr3	20.00 ± 0.10 µg/mL	Cobalt, Co	50.02 ± 0.25 µg/mL	Copper, Cu	25.00 ± 0.17 µg/mL
Iron, Fe	100.0 ± 0.5 µg/mL	Lead, Pb	2.000 ± 0.010 µg/mL	Manganese, Mn	49.99 ± 0.22 µg/mL
Nickel, Ni	50.02 ± 0.24 µg/mL	Selenium, Se	1.001 ± 0.006 µg/mL	Silver, Ag	5.002 ± 0.032 µg/mL
Strontium, Sr	100.0 ± 0.6 µg/mL	Thallium, Tl	5.002 ± 0.033 µg/mL	Vanadium, V	50.00 ± 0.24 µg/mL
Zinc, Zn	50.02 ± 0.28 µg/mL				

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

Assay Information:

ELEMENT	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	060502
Al	EDTA	928	928
As	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
B	ICP Assay	3107	070514
Ba	Gravimetric		See Sec. 4.2
Ba	ICP Assay	3104a	070222
Be	Calculated		See Sec. 4.2
Be	ICP Assay	3105a	090514
Cd	ICP Assay	3108	080531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr3	Calculated		See Sec. 4.2
Cr3	ICP Assay	3112a	030730
Cu	ICP Assay	3114	011017
Cu	EDTA	928	928
Fe	ICP Assay	3126a	051031
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Sr	ICP Assay	3153a	990906
Sr	EDTA	928	928
Tl	Calculated		See Sec. 4.2
Tl	ICP Assay	3168	993012
V	ICP Assay	3165	992706
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2014

11.2 Expiration Date

11.3 Period of Validity

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

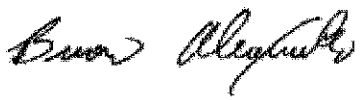
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSA_00023

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1407256
1407257

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

rec. 11/13/14 SLB

2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

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

11.3 Expiration Date

EXPIRES
01 02 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSA_00024

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1507790, 1507791

CERTIFICATE OF ANALYSIS

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fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 — ACCREDITED Reference Material Producer Certificate 883.02

Recd 3/19/15
a B

2.0 PRODUCT DESCRIPTION

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Expiration Date

EXPIRES
1 APR 2016

11.3 Period of Validity

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

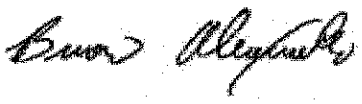
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

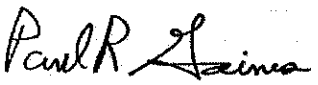
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MTAPITTMSC_00030

ISO 7793, ISO 7794

INORGANIC VENTURES™

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-C
Lot Number:	H2-MEB532046
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Si, 200 µg/mL ea: Sn, 100 µg/mL ea: Mo, Ti, 50 µg/mL ea: Sb

Recd 3/19/15
QB

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	49.98 ± 0.38 µg/mL	Molybdenum, Mo	100.0 ± 0.6 µg/mL	Silicon, Si	1 000 ± 7 µg/mL
Tin, Sn	200.0 ± 1.4 µg/mL	Titanium, Ti	100.0 ± 0.7 µg/mL		

Certified Density: 1.017 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	891307
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330
Ti	ICP Assay	3162a	060808

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

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

Uncertainty (±) = 2 [$\Sigma(s_i)^2$]^{½} 2 = the coverage factor.
[$\Sigma(s_i)^2$]^{½} = The square root of the sum of the squares of the most common errors (where's' stands for the standard deviation) from instrumental measurement, density, NIST SRM uncertainty, weighing, dilution to volume, homogeneity, long term stability and short term stability.

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Expiration Date

EXPIRES
1 APR 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

VOA8260GAS1ST_00098

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

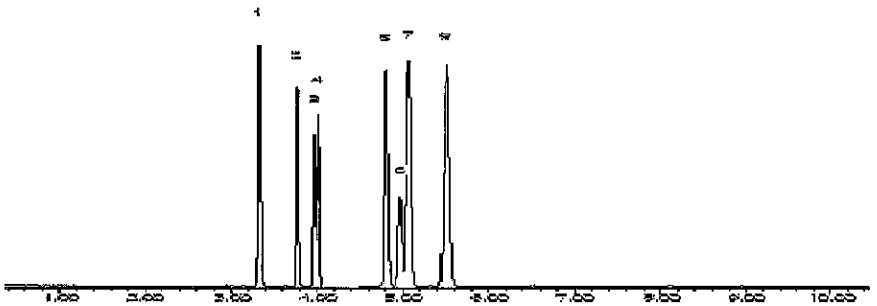
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

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

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

VOA8260GAS1ST_00100

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

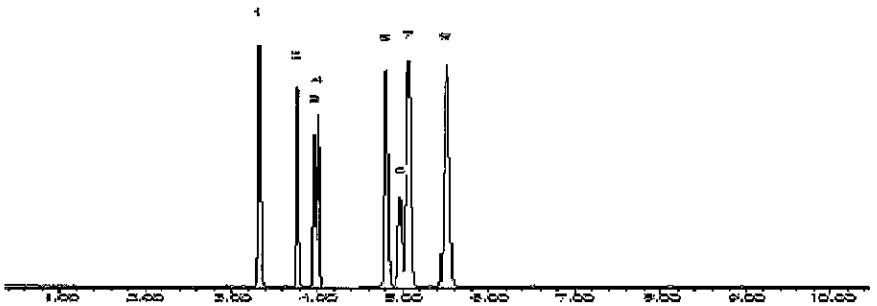
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

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

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

VOA8260GAS2ND_00102

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

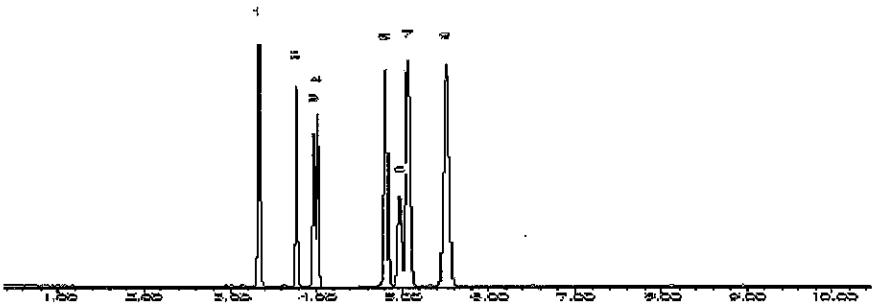
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

Tyler Brown - QA Analyst

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

Date Passed: 08-Apr-2015

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

Reagent

VOA8260INTRES_00064

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 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

VOA8260KET1ST_00041

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00028

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

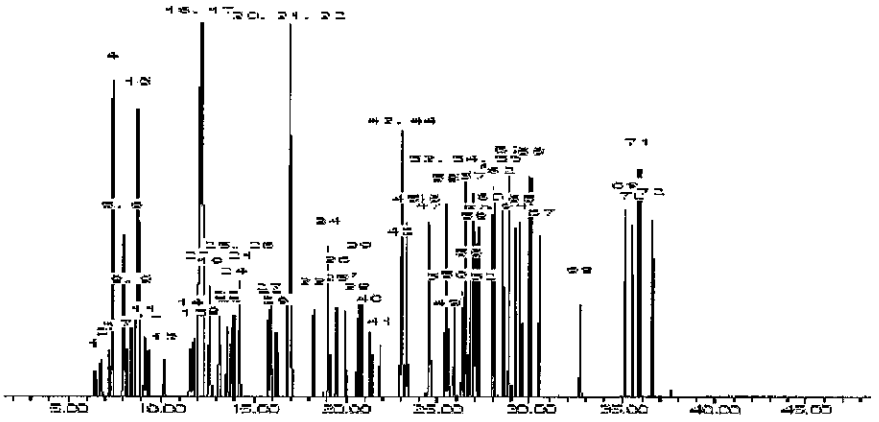
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

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

Tyler Brown - QA Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260MEGA2_00031

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

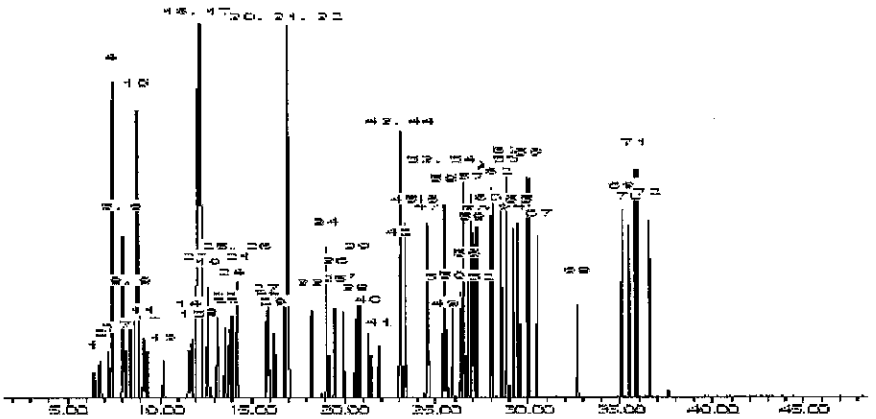
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Tyler Brown - QA Analyst

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

Date Passed: 14-Jan-2015

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

Reagent

VOA8260SURRES_00090

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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 **CAS #** 1868-53-7 (Lot 022012) **Purity** 99%	2,503.8 µg/mL	+/- 14.5573 +/- 28.2339 +/- 32.4891	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 13J-483) **Purity** 99%	2,502.4 µg/mL	+/- 14.5492 +/- 28.2182 +/- 32.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot 13I-050) **Purity** 99%	2,500.0 µg/mL	+/- 14.5352 +/- 28.1911 +/- 32.4398	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 01127COV) **Purity** 99%	2,503.6 µg/mL	+/- 14.5561 +/- 28.2317 +/- 32.4865	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260VARES_00051

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00067

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0108734

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 : May 31, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein		19,890.0	µg/mL	+/- 116.4603	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 150115JLM)			+/- 637.7359	µg/mL	Unstressed
	Purity 99%				+/- 741.2982	µg/mL	Stressed

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

Reagent

VOARESEE1ST_00024

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Bellefonte, PA 16823-8812
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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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)		
1	3-Chlorobenzotrifluoride **CAS #** 98-15-7 **Purity** 99%	(Lot 21324DO)	5,000.0 µg/mL	+/- 29.3428 +/- 56.5231 +/- 65.0021	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	4-Chlorobenzotrifluoride **CAS #** 98-56-6 **Purity** 99%	(Lot 08507BO)	5,003.0 µg/mL	+/- 29.3604 +/- 56.5570 +/- 65.0411	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorobenzotrifluoride **CAS #** 88-16-4 **Purity** 99%	(Lot I0316DQ)	5,009.0 µg/mL	+/- 29.3956 +/- 56.6248 +/- 65.1191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	3-Chlorotoluene **CAS #** 108-41-8 **Purity** 99%	(Lot 13528LX)	5,012.0 µg/mL	+/- 29.4132 +/- 56.6587 +/- 65.1581	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	2,4-Dichlorobenzotrifluoride **CAS #** 320-60-5 **Purity** 99%	(Lot MKBL3552V)	5,013.0 µg/mL	+/- 29.4191 +/- 56.6701 +/- 65.1711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	3,4-Dichlorobenzotrifluoride **CAS #** 328-84-7 **Purity** 99%	(Lot 11105EJV)	5,018.0 µg/mL	+/- 29.4484 +/- 56.7266 +/- 65.2361	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	2,5-Dichlorobenzotrifluoride **CAS #** 320-50-3 **Purity** 99%	(Lot 04415DSV)	5,015.0 µg/mL	+/- 29.4308 +/- 56.6927 +/- 65.1971	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

8	2,4-Dichlorotoluene		5,021.0	µg/mL	+/-	29.4660	µg/mL	Gravimetric
	CAS # 95-73-8	(Lot 07715JS)			+/-	56.7605	µg/mL	Unstressed
	Purity 99%				+/-	65.2751	µg/mL	Stressed
9	2,5-Dichlorotoluene		5,005.0	µg/mL	+/-	29.3721	µg/mL	Gravimetric
	CAS # 19398-61-9	(Lot 1381346V)			+/-	56.5796	µg/mL	Unstressed
	Purity 99%				+/-	65.0671	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,014.0	µg/mL	+/-	29.4250	µg/mL	Gravimetric
	CAS # 118-69-4	(Lot 16921JS)			+/-	56.6814	µg/mL	Unstressed
	Purity 99%				+/-	65.1841	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,011.0	µg/mL	+/-	29.4074	µg/mL	Gravimetric
	CAS # 95-75-0	(Lot 09419AS)			+/-	56.6474	µg/mL	Unstressed
	Purity 99%				+/-	65.1451	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,016.0	µg/mL	+/-	29.4367	µg/mL	Gravimetric
	CAS # 32768-54-0	(Lot 00317)			+/-	56.7040	µg/mL	Unstressed
	Purity 99%				+/-	65.2101	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,000.0	µg/mL	+/-	29.3428	µg/mL	Gravimetric
	CAS # 6639-30-1	(Lot 2490300)			+/-	56.5231	µg/mL	Unstressed
	Purity 99%				+/-	65.0021	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,005.0	µg/mL	+/-	29.3721	µg/mL	Gravimetric
	CAS # 2077-46-5	(Lot NT050444)			+/-	56.5796	µg/mL	Unstressed
	Purity 99%				+/-	65.0671	µg/mL	Stressed

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

Reagent

WNa2CO3P_00007

Fisher Scientific

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

Certificate of Analysis

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

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

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

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

Lab Manager Fair Lawn

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

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

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

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

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

Method 8260C Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-99D-0/1-0	180-44248-1	118	120	104	88
HD-MW-100S-0/1-0	180-44248-2	108	115	106	95
HD-MW-100I-0/1-0	180-44248-3	117	117	99	88
HD-MW-100D-0/1-0	180-44248-4	108	115	111	93
HD-MW-147A-0/1-0	180-44248-5	115	119	102	93
HD-MW-37S-0/1-0	180-44248-6	121	125	107	89
HD-MW-37S-0/1-0 DL	180-44248-6 DL	119	122	102	93
HD-MW-37D-0/1-0	180-44248-7	115	122	101	89
HD-MW-37D-0/1-0 DL	180-44248-7 DL	112	116	107	90
HD-MW-75S-0/1-0	180-44248-8	120	122	98	87
HD-MW-75S-0/1-0 DL	180-44248-8 DL	115	116	105	91
HD-MW-75D-0/1-0	180-44248-9	115	127	105	84
HD-MW-75D-0/1-0 DL	180-44248-9 DL	111	122	106	90
HD-MW-7-0/1-0	180-44248-10	112	119	107	87
HD-QC2-0/1-0	180-44248-11	115	122	101	91
	MB 180-142745/5	112	115	107	96
	MB 180-142864/9	105	111	105	93
	MB 180-143033/6	111	116	105	87
	MB 180-143223/7	111	118	111	91
	LCS 180-142745/8	96	91	102	99
	LCS 180-142864/12	90	93	101	93
	LCS 180-143033/13	93	94	98	88
	LCS 180-143223/10	92	94	99	93

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

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50526008.D

Lab ID: LCS 180-142745/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.57	66	50-139	
Vinyl chloride	10.0	7.37	74	53-138	
Bromomethane	10.0	9.67	97	33-150	
Chloroethane	10.0	10.1	101	36-142	
1,1-Dichloroethene	10.0	9.82	98	65-136	
Acetone	20.0	17.6	88	22-150	
Carbon disulfide	10.0	8.10	81	54-132	
Methylene Chloride	10.0	10.5	105	63-129	
trans-1,2-Dichloroethene	10.0	10.3	103	73-126	
Methyl tert-butyl ether	10.0	7.89	79	64-123	
1,1-Dichloroethane	10.0	9.52	95	73-126	
cis-1,2-Dichloroethene	10.0	9.41	94	70-120	
Bromochloromethane	10.0	9.06	91	70-127	
2-Butanone (MEK)	20.0	16.9	85	39-138	
Chloroform	10.0	9.59	96	72-127	
1,1,1-Trichloroethane	10.0	9.28	93	63-133	
Carbon tetrachloride	10.0	9.49	95	55-150	
Benzene	10.0	9.87	99	80-120	
1,2-Dichloroethane	10.0	10.1	101	68-132	
Trichloroethene	10.0	9.15	92	73-120	
1,2-Dichloropropane	10.0	9.55	95	76-124	
Bromodichloromethane	10.0	8.40	84	66-130	
cis-1,3-Dichloropropene	10.0	8.06	81	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.0	85	45-145	
Toluene	10.0	10.7	107	80-123	
trans-1,3-Dichloropropene	10.0	7.80	78	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	10.6	106	70-135	
2-Hexanone	20.0	15.6	78	25-132	
Dibromochloromethane	10.0	8.30	83	60-140	
1,2-Dibromoethane (EDB)	10.0	9.35	94	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.31	93	63-140	
Ethylbenzene	10.0	9.58	96	72-126	
Xylenes, Total	20.0	19.0	95	76-128	
Styrene	10.0	9.85	99	71-127	
Bromoform	10.0	7.85	78	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	62-125	
Acrylonitrile	100	93.9	94	30-140	
1,4-Dioxane	200	144 J	72	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50527012.D

Lab ID: LCS 180-142864/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.14	71	50-139	
Vinyl chloride	10.0	7.78	78	53-138	
Bromomethane	10.0	9.36	94	33-150	
Chloroethane	10.0	10.1	101	36-142	
1,1-Dichloroethene	10.0	11.3	113	65-136	
Acetone	20.0	18.7	94	22-150	
Carbon disulfide	10.0	8.26	83	54-132	
Methylene Chloride	10.0	11.8	118	63-129	
trans-1,2-Dichloroethene	10.0	10.8	108	73-126	
Methyl tert-butyl ether	10.0	8.31	83	64-123	
1,1-Dichloroethane	10.0	10.3	103	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	70-120	
Bromochloromethane	10.0	9.62	96	70-127	
2-Butanone (MEK)	20.0	17.8	89	39-138	
Chloroform	10.0	10.1	101	72-127	
1,1,1-Trichloroethane	10.0	9.92	99	63-133	
Carbon tetrachloride	10.0	9.16	92	55-150	
Benzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.2	102	68-132	
Trichloroethene	10.0	9.05	91	73-120	
1,2-Dichloropropane	10.0	9.65	97	76-124	
Bromodichloromethane	10.0	8.44	84	66-130	
cis-1,3-Dichloropropene	10.0	7.99	80	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.7	84	45-145	
Toluene	10.0	11.5	115	80-123	
trans-1,3-Dichloropropene	10.0	8.12	81	65-125	
1,1,2-Trichloroethane	10.0	10.8	108	77-127	
Tetrachloroethene	10.0	11.6	116	70-135	
2-Hexanone	20.0	16.5	82	25-132	
Dibromochloromethane	10.0	7.98	80	60-140	
1,2-Dibromoethane (EDB)	10.0	9.96	100	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.46	95	63-140	
Ethylbenzene	10.0	9.93	99	72-126	
Xylenes, Total	20.0	19.4	97	76-128	
Styrene	10.0	10.2	102	71-127	
Bromoform	10.0	6.67	67	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	62-125	
Acrylonitrile	100	99.9	100	30-140	
1,4-Dioxane	200	167 J	84	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50528013.D

Lab ID: LCS 180-143033/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.30	63	50-139	
Vinyl chloride	10.0	6.84	68	53-138	
Bromomethane	10.0	8.69	87	33-150	
Chloroethane	10.0	8.54	85	36-142	
1,1-Dichloroethene	10.0	9.89	99	65-136	
Acetone	20.0	26.4	132	22-150	
Carbon disulfide	10.0	9.04	90	54-132	
Methylene Chloride	10.0	11.0	110	63-129	
trans-1,2-Dichloroethene	10.0	9.46	95	73-126	
Methyl tert-butyl ether	10.0	8.08	81	64-123	
1,1-Dichloroethane	10.0	9.48	95	73-126	
cis-1,2-Dichloroethene	10.0	9.21	92	70-120	
Bromochloromethane	10.0	8.65	86	70-127	
2-Butanone (MEK)	20.0	23.1	115	39-138	
Chloroform	10.0	9.25	93	72-127	
1,1,1-Trichloroethane	10.0	8.71	87	63-133	
Carbon tetrachloride	10.0	8.12	81	55-150	
Benzene	10.0	9.78	98	80-120	
1,2-Dichloroethane	10.0	9.46	95	68-132	
Trichloroethene	10.0	8.40	84	73-120	
1,2-Dichloropropane	10.0	8.71	87	76-124	
Bromodichloromethane	10.0	8.14	81	66-130	
cis-1,3-Dichloropropene	10.0	7.17	72	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.2	86	45-145	
Toluene	10.0	10.1	101	80-123	
trans-1,3-Dichloropropene	10.0	7.40	74	65-125	
1,1,2-Trichloroethane	10.0	9.99	100	77-127	
Tetrachloroethene	10.0	9.57	96	70-135	
2-Hexanone	20.0	20.9	104	25-132	
Dibromochloromethane	10.0	7.75	78	60-140	
1,2-Dibromoethane (EDB)	10.0	8.90	89	74-123	
Chlorobenzene	10.0	9.41	94	80-120	
1,1,1,2-Tetrachloroethane	10.0	8.80	88	63-140	
Ethylbenzene	10.0	8.69	87	72-126	
Xylenes, Total	20.0	17.1	85	76-128	
Styrene	10.0	9.03	90	71-127	
Bromoform	10.0	6.42	64	46-150	
1,1,2,2-Tetrachloroethane	10.0	8.80	88	62-125	
Acrylonitrile	100	90.0	90	30-140	
1,4-Dioxane	200	140 J	70	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50529010.D

Lab ID: LCS 180-143223/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.96	70	50-139	
Vinyl chloride	10.0	7.77	78	53-138	
Bromomethane	10.0	9.50	95	33-150	
Chloroethane	10.0	9.95	99	36-142	
1,1-Dichloroethene	10.0	11.0	110	65-136	
Acetone	20.0	18.2	91	22-150	
Carbon disulfide	10.0	9.33	93	54-132	
Methylene Chloride	10.0	12.9	129	63-129	
trans-1,2-Dichloroethene	10.0	10.6	106	73-126	
Methyl tert-butyl ether	10.0	8.25	83	64-123	
1,1-Dichloroethane	10.0	10.3	103	73-126	
cis-1,2-Dichloroethene	10.0	9.61	96	70-120	
Bromochloromethane	10.0	8.74	87	70-127	
2-Butanone (MEK)	20.0	17.0	85	39-138	
Chloroform	10.0	10.0	100	72-127	
1,1,1-Trichloroethane	10.0	9.97	100	63-133	
Carbon tetrachloride	10.0	9.15	91	55-150	
Benzene	10.0	10.8	108	80-120	
1,2-Dichloroethane	10.0	10.5	105	68-132	
Trichloroethene	10.0	8.99	90	73-120	
1,2-Dichloropropane	10.0	9.59	96	76-124	
Bromodichloromethane	10.0	8.59	86	66-130	
cis-1,3-Dichloropropene	10.0	7.76	78	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.9	85	45-145	
Toluene	10.0	11.3	113	80-123	
trans-1,3-Dichloropropene	10.0	7.68	77	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	11.3	113	70-135	
2-Hexanone	20.0	16.3	82	25-132	
Dibromochloromethane	10.0	8.39	84	60-140	
1,2-Dibromoethane (EDB)	10.0	9.40	94	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.69	97	63-140	
Ethylbenzene	10.0	9.97	100	72-126	
Xylenes, Total	20.0	19.3	97	76-128	
Styrene	10.0	9.80	98	71-127	
Bromoform	10.0	7.05	71	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.88	99	62-125	
Acrylonitrile	100	97.2	97	30-140	
1,4-Dioxane	200	151 J	76	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50526005.D Lab Sample ID: MB 180-142745/5

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

Instrument ID: CHHP5 Date Analyzed: 05/26/2015 12:00

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 180-142745/8	50526008.D	05/26/2015 13:29
HD-MW-99D-0/1-0	180-44248-1	50526029.D	05/26/2015 22:06

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50527009.D Lab Sample ID: MB 180-142864/9

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

Instrument ID: CHHP5 Date Analyzed: 05/27/2015 13:22

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 180-142864/12	50527012.D	05/27/2015 14:50
HD-MW-100S-0/1-0	180-44248-2	50527017.D	05/27/2015 16:50
HD-MW-100I-0/1-0	180-44248-3	50527022.D	05/27/2015 18:50
HD-MW-147A-0/1-0	180-44248-5	50527025.D	05/27/2015 20:02
HD-MW-37S-0/1-0 DL	180-44248-6 DL	50527026.D	05/27/2015 20:26
HD-QC2-0/1-0	180-44248-11	50527027.D	05/27/2015 20:50
HD-MW-37D-0/1-0	180-44248-7	50527028.D	05/27/2015 21:14
HD-MW-75S-0/1-0	180-44248-8	50527029.D	05/27/2015 21:38

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50528006.D Lab Sample ID: MB 180-143033/6

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

Instrument ID: CHHP5 Date Analyzed: 05/28/2015 13:18

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-143033/13	50528013.D	05/28/2015 16:26
HD-MW-100D-0/1-0	180-44248-4	50528014.D	05/28/2015 16:49
HD-MW-37D-0/1-0 DL	180-44248-7 DL	50528016.D	05/28/2015 17:36
HD-MW-75S-0/1-0 DL	180-44248-8 DL	50528017.D	05/28/2015 18:01
HD-MW-75D-0/1-0 DL	180-44248-9 DL	50528019.D	05/28/2015 18:49
HD-MW-7-0/1-0	180-44248-10	50528020.D	05/28/2015 19:13
HD-MW-37S-0/1-0	180-44248-6	50528030.D	05/28/2015 23:13

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50529007.D Lab Sample ID: MB 180-143223/7

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

Instrument ID: CHHP5 Date Analyzed: 05/29/2015 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 180-143223/10	50529010.D	05/29/2015 16:02
HD-MW-75D-0/1-0	180-44248-9	50529031.D	05/30/2015 00:27

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50516003.D BFB Injection Date: 05/16/2015

Instrument ID: CHHP5 BFB Injection Time: 10:39

Analysis Batch No.: 141828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	49.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	7.2	(8.7)1
176	95.0 - 101.0 % of mass 174	80.5	(98.4)1
177	5.0 - 9.0 % of mass 176	5.2	(6.5)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 180-141828/6	50516006.D	05/16/2015	14:25
	ICIS 180-141828/7	50516007.D	05/16/2015	14:49
	IC 180-141828/8	50516008.D	05/16/2015	15:13
	IC 180-141828/9	50516009.D	05/16/2015	15:37
	IC 180-141828/10	50516010.D	05/16/2015	16:01
	IC 180-141828/11	50516011.D	05/16/2015	16:25
	IC 180-141828/12	50516012.D	05/16/2015	16:49
	IC 180-141828/16	50516016.D	05/16/2015	18:25

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50526001.D BFB Injection Date: 05/26/2015

Instrument ID: CHHP5 BFB Injection Time: 10:08

Analysis Batch No.: 142745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	47.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	78.7	
175	5.0 - 9.0 % of mass 174	5.5	(7.0)1
176	95.0 - 101.0 % of mass 174	78.7	(100.0)1
177	5.0 - 9.0 % of mass 176	5.2	(6.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-142745/2	50526002.D	05/26/2015	10:48
	CCV 180-142745/3	50526003.D	05/26/2015	11:12
	MB 180-142745/5	50526005.D	05/26/2015	12:00
	LCS 180-142745/8	50526008.D	05/26/2015	13:29
HD-MW-99D-0/1-0	180-44248-1	50526029.D	05/26/2015	22:06

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50527006.D BFB Injection Date: 05/27/2015

Instrument ID: CHHP5 BFB Injection Time: 11:07

Analysis Batch No.: 142864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	48.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.6	(8.0)1
176	95.0 - 101.0 % of mass 174	83.4	(100.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-142864/7	50527007.D	05/27/2015	12:33
	MB 180-142864/9	50527009.D	05/27/2015	13:22
	LCS 180-142864/12	50527012.D	05/27/2015	14:50
HD-MW-100S-0/1-0	180-44248-2	50527017.D	05/27/2015	16:50
HD-MW-100I-0/1-0	180-44248-3	50527022.D	05/27/2015	18:50
HD-MW-147A-0/1-0	180-44248-5	50527025.D	05/27/2015	20:02
HD-MW-37S-0/1-0 DL	180-44248-6 DL	50527026.D	05/27/2015	20:26
HD-QC2-0/1-0	180-44248-11	50527027.D	05/27/2015	20:50
HD-MW-37D-0/1-0	180-44248-7	50527028.D	05/27/2015	21:14
HD-MW-75S-0/1-0	180-44248-8	50527029.D	05/27/2015	21:38

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50528004.D BFB Injection Date: 05/28/2015

Instrument ID: CHHP5 BFB Injection Time: 11:26

Analysis Batch No.: 143033

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	50.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	81.0	
175	5.0 - 9.0 % of mass 174	6.3	(7.8)1
176	95.0 - 101.0 % of mass 174	78.9	(97.5)1
177	5.0 - 9.0 % of mass 176	4.3	(5.4)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 180-143033/2	50528002.D	05/28/2015	12:06
	MB 180-143033/6	50528006.D	05/28/2015	13:18
	LCS 180-143033/13	50528013.D	05/28/2015	16:26
HD-MW-100D-0/1-0	180-44248-4	50528014.D	05/28/2015	16:49
HD-MW-37D-0/1-0 DL	180-44248-7 DL	50528016.D	05/28/2015	17:36
HD-MW-75S-0/1-0 DL	180-44248-8 DL	50528017.D	05/28/2015	18:01
HD-MW-75D-0/1-0 DL	180-44248-9 DL	50528019.D	05/28/2015	18:49
HD-MW-7-0/1-0	180-44248-10	50528020.D	05/28/2015	19:13
HD-MW-37S-0/1-0	180-44248-6	50528030.D	05/28/2015	23:13

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: 50529005.D BFB Injection Date: 05/29/2015

Instrument ID: CHHP5 BFB Injection Time: 12:45

Analysis Batch No.: 143223

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.8	
75	30.0 - 60.0 % of mass 95	48.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	77.9	
175	5.0 - 9.0 % of mass 174	5.9	(7.6)1
176	95.0 - 101.0 % of mass 174	76.4	(98.0)1
177	5.0 - 9.0 % of mass 176	6.1	(8.0)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 180-143223/2	50529002.D	05/29/2015	13:25
	CCV 180-143223/3	50529003.D	05/29/2015	13:49
	MB 180-143223/7	50529007.D	05/29/2015	14:38
	LCS 180-143223/10	50529010.D	05/29/2015	16:02
HD-MW-75D-0/1-0	180-44248-9	50529031.D	05/30/2015	00:27

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-142745/2 Date Analyzed: 05/26/2015 10:48

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

Lab File ID (Standard): 50526002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130784	4.27	434095	7.29	92571	10.39
UPPER LIMIT		261568	4.77	868190	7.79	185142	10.89
LOWER LIMIT		65392	3.77	217048	6.79	46286	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142745/3		132511	4.26	443804	7.30	91146	10.39
MB 180-142745/5		152497	4.27	392612	7.30	88527	10.39
LCS 180-142745/8		107920	4.28	440272	7.29	94474	10.39
180-44248-1	HD-MW-99D-0/1-0	117819	4.26	320126	7.29	73719	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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-142745/2 Date Analyzed: 05/26/2015 10:48

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

Lab File ID (Standard): 50526002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		134489	12.74				
UPPER LIMIT		268978	13.24				
LOWER LIMIT		67245	12.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142745/3		101890	12.73				
MB 180-142745/5		125788	12.73				
LCS 180-142745/8		137994	12.73				
180-44248-1	HD-MW-99D-0/1-0	94685	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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-142864/7 Date Analyzed: 05/27/2015 12:33

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

Lab File ID (Standard): 50527007.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		142779	4.27	435254	7.29	94901	10.39
UPPER LIMIT		285558	4.77	870508	7.79	189802	10.89
LOWER LIMIT		71390	3.77	217627	6.79	47451	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-142864/9		149220	4.27	412288	7.29	90639	10.39
LCS 180-142864/12		124287	4.28	449752	7.29	97252	10.39
180-44248-2	HD-MW-100S-0/1-0	129059	4.27	362665	7.30	80277	10.39
180-44248-3	HD-MW-100I-0/1-0	140190	4.27	349224	7.29	82677	10.39
180-44248-5	HD-MW-147A-0/1-0	139891	4.27	330633	7.29	74810	10.39
180-44248-6 DL	HD-MW-37S-0/1-0 DL	139681	4.27	330633	7.29	77292	10.39
180-44248-11	HD-QC2-0/1-0	125287	4.27	324920	7.29	73507	10.39
180-44248-7	HD-MW-37D-0/1-0	130754	4.27	334996	7.29	79843	10.39
180-44248-8	HD-MW-75S-0/1-0	126685	4.27	324276	7.29	80157	10.39

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

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-142864/7 Date Analyzed: 05/27/2015 12:33

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

Lab File ID (Standard): 50527007.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135191	12.73				
UPPER LIMIT		270382	13.23				
LOWER LIMIT		67596	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-142864/9		111995	12.73				
LCS 180-142864/12		138873	12.73				
180-44248-2	HD-MW-100S-0/1-0	111459	12.73				
180-44248-3	HD-MW-100I-0/1-0	103407	12.73				
180-44248-5	HD-MW-147A-0/1-0	94496	12.73				
180-44248-6 DL	HD-MW-37S-0/1-0 DL	102343	12.73				
180-44248-11	HD-QC2-0/1-0	91929	12.73				
180-44248-7	HD-MW-37D-0/1-0	97070	12.73				
180-44248-8	HD-MW-75S-0/1-0	101562	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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-143033/2 Date Analyzed: 05/28/2015 12:06

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

Lab File ID (Standard): 50528002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		137619	4.28	459728	7.29	102384	10.39
UPPER LIMIT		275238	4.78	919456	7.79	204768	10.89
LOWER LIMIT		68810	3.78	229864	6.79	51192	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143033/6		164605	4.27	451280	7.29	99515	10.39
LCS 180-143033/13		108155	4.28	468193	7.29	102897	10.39
180-44248-4	HD-MW-100D-0/1-0	178160	4.27	474531	7.29	100553	10.39
180-44248-7 DL	HD-MW-37D-0/1-0 DL	141871	4.27	420350	7.29	89698	10.39
180-44248-8 DL	HD-MW-75S-0/1-0 DL	139868	4.26	407072	7.29	88664	10.39
180-44248-9 DL	HD-MW-75D-0/1-0 DL	134601	4.27	394825	7.29	85636	10.39
180-44248-10	HD-MW-7-0/1-0	135401	4.27	404565	7.29	85574	10.39
180-44248-6	HD-MW-37S-0/1-0	131907	4.27	399986	7.29	88324	10.39

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

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-143033/2 Date Analyzed: 05/28/2015 12:06

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

Lab File ID (Standard): 50528002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		143335	12.73				
UPPER LIMIT		286670	13.23				
LOWER LIMIT		71668	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143033/6		120304	12.73				
LCS 180-143033/13		138235	12.73				
180-44248-4	HD-MW-100D-0/1-0	129760	12.73				
180-44248-7 DL	HD-MW-37D-0/1-0 DL	114667	12.73				
180-44248-8 DL	HD-MW-75S-0/1-0 DL	110432	12.73				
180-44248-9 DL	HD-MW-75D-0/1-0 DL	106668	12.73				
180-44248-10	HD-MW-7-0/1-0	105378	12.73				
180-44248-6	HD-MW-37S-0/1-0	110086	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 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-143223/2 Date Analyzed: 05/29/2015 13:25

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

Lab File ID (Standard): 50529002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		145943	4.28	457192	7.29	97917	10.39
UPPER LIMIT		291886	4.78	914384	7.79	195834	10.89
LOWER LIMIT		72972	3.78	228596	6.79	48959	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-143223/3		136065	4.27	447507	7.29	91059	10.39
MB 180-143223/7		144627	4.27	408595	7.29	86147	10.39
LCS 180-143223/10		120748	4.28	452170	7.29	97813	10.38
180-44248-9	HD-MW-75D-0/1-0	102774	4.27	351393	7.29	78966	10.39

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

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Sample No.: CCVIS 180-143223/2 Date Analyzed: 05/29/2015 13:25

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

Lab File ID (Standard): 50529002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		147116	12.73				
UPPER LIMIT		294232	13.23				
LOWER LIMIT		73558	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-143223/3		100787	12.73				
MB 180-143223/7		103760	12.73				
LCS 180-143223/10		140638	12.73				
180-44248-9	HD-MW-75D-0/1-0	88903	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 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 | Lab Sample ID: 180-44248-1

Matrix: Water | Lab File ID: 50526029.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 22:06

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	9.8		5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.1		5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	2.0	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	62		5.0	1.2
74-97-5	Bromochloromethane	5.0	U	5.0	0.90
78-93-3	2-Butanone (MEK)	25	U	25	2.7
67-66-3	Chloroform	5.0	U	5.0	0.85
71-55-6	1,1,1-Trichloroethane	10		5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.68
71-43-2	Benzene	5.0	U	5.0	0.53
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
79-01-6	Trichloroethene	170		5.0	0.72
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.47
75-27-4	Bromodichloromethane	5.0	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	2.6
108-88-3	Toluene	5.0	U	5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.74
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.0
127-18-4	Tetrachloroethene	18		5.0	0.74
591-78-6	2-Hexanone	25	U	25	0.80
124-48-1	Dibromochloromethane	5.0	U	5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90
108-90-7	Chlorobenzene	5.0	U	5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4
100-41-4	Ethylbenzene	5.0	U	5.0	1.1
1330-20-7	Xylenes, Total	15	U	15	2.4
100-42-5	Styrene	5.0	U	5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 | Lab Sample ID: 180-44248-1

Matrix: Water | Lab File ID: 50526029.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 22:06

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0
107-13-1	Acrylonitrile	100	U	100	2.7
123-91-1	1,4-Dioxane	1000	U	1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	118		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D
Lims ID: 180-44248-D-1 Lab Sample ID: 180-44248-1
Client ID: HD-MW-99D-0/1-0
Sample Type: Client
Inject. Date: 26-May-2015 22:06:30 ALS Bottle#: 29 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-44248-D-1, 5x
Misc. Info.: 180-0007112-029
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 08:07:21 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 08:07:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.264	4.259	0.005	0	117819	1000.0	
* 2 Fluorobenzene (IS)	96	7.293	7.295	-0.002	98	320126	50.0	
* 3 Chlorobenzene-d5	119	10.384	10.391	-0.007	88	73719	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.732	12.733	-0.001	96	94685	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.560	0.003	92	81721	59.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.937	-0.003	0	103424	60.1	
$ 7 Toluene-d8 (Surr)	98	8.936	8.939	-0.003	94	284147	51.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.570	11.573	-0.003	89	86756	44.1	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.351	3.348	0.003	97	15010	9.79	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.148	4.139	0.009	88	15111	5.12	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63	5.200	5.197	0.003	91	6444	2.01	
45 cis-1,2-Dichloroethene	96	5.955	5.946	0.009	80	116446	62.1	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.387	6.384	0.003	1	1161	0.4041	
53 1,1,1-Trichloroethane	97	6.545	6.542	0.003	96	22232	10.0	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130	7.676	7.680	-0.004	97	316049	172.9	
67 1,2-Dichloropropane	63		7.947				ND	
70 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.520	9.517	0.003	95	23280	17.6	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				ND	
94 Bromoform	173		11.232				ND	
99 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

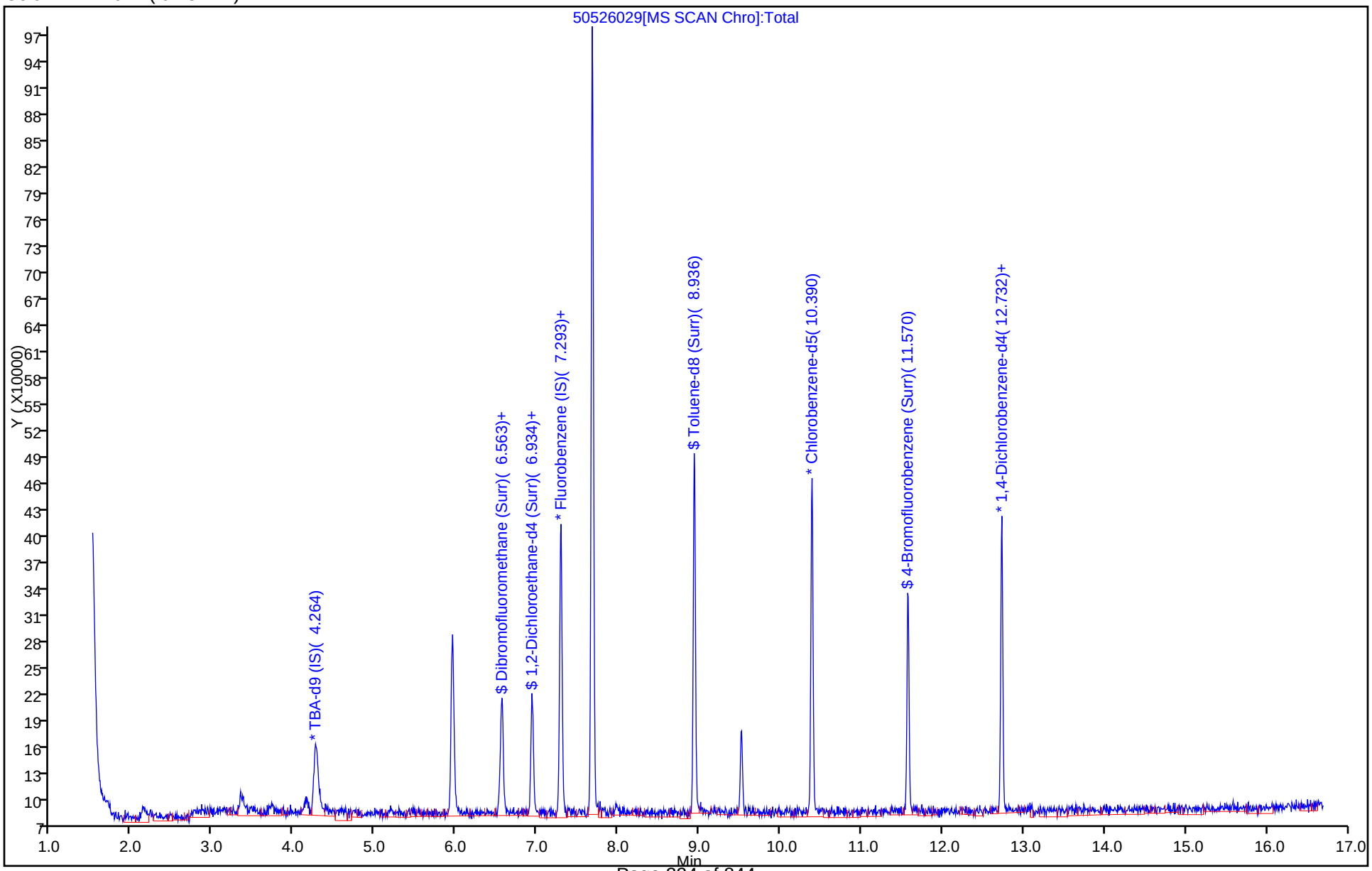
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D				
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1	Worklist Smp#:	29
Client ID:	HD-MW-99D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	29
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

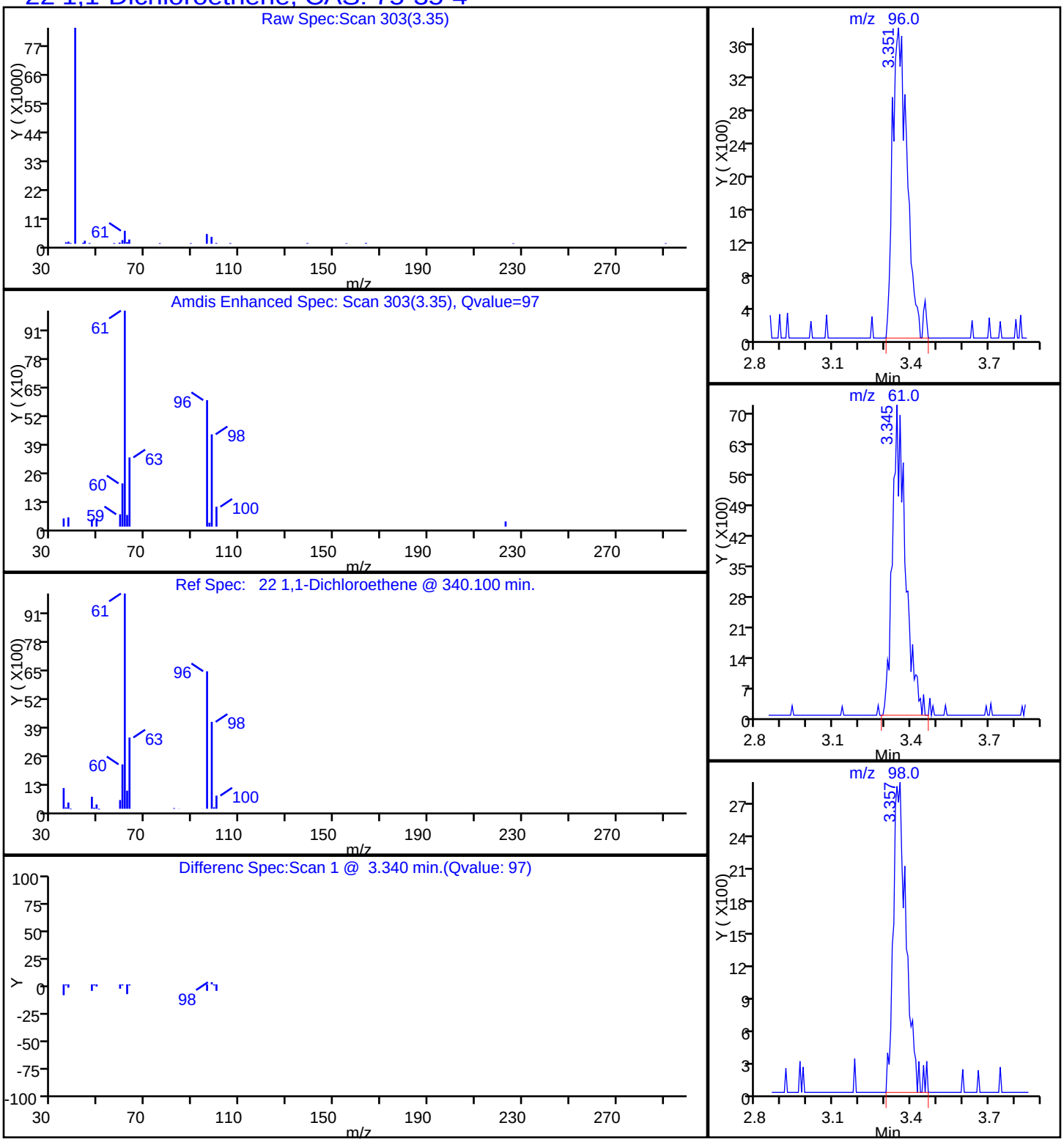


Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

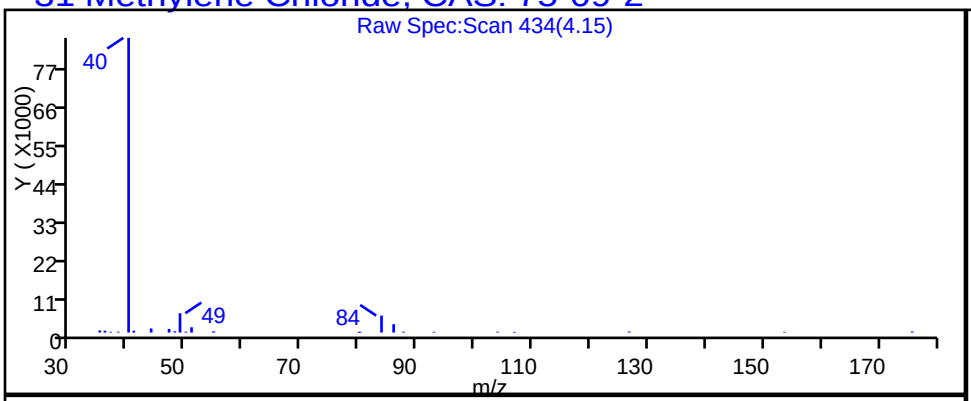


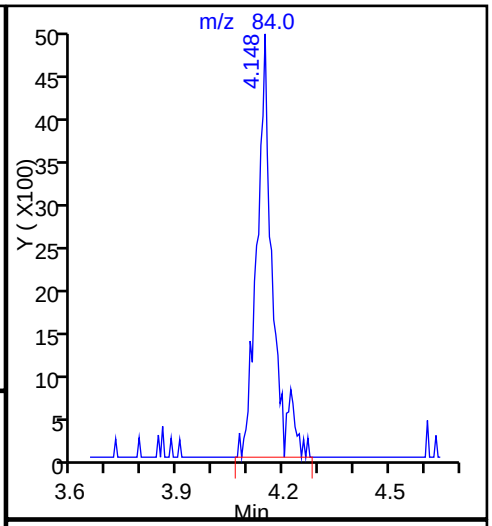
Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

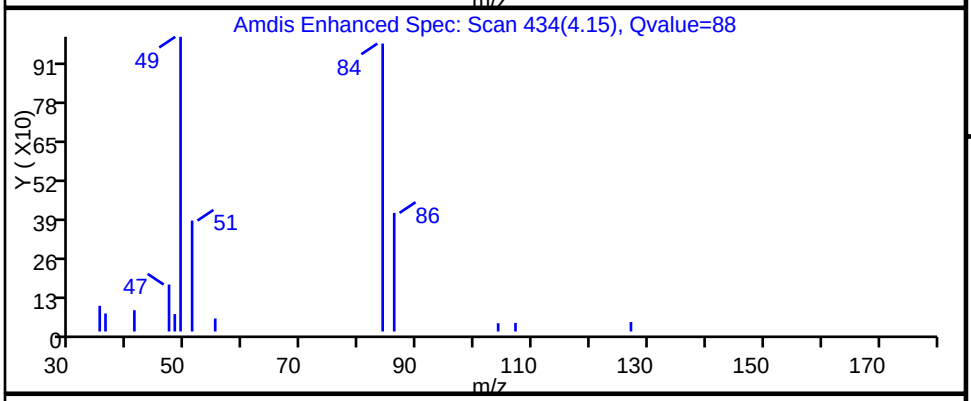
TestAmerica Pittsburgh

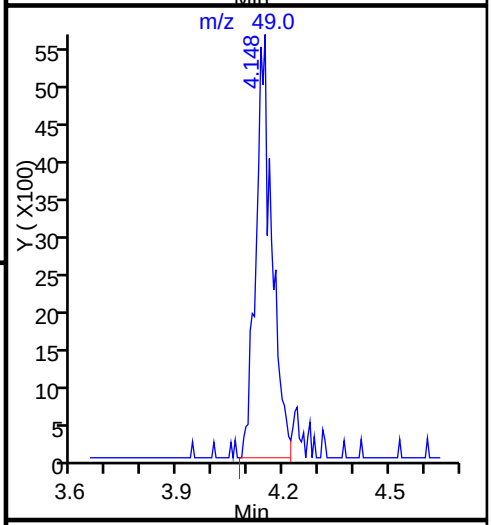
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

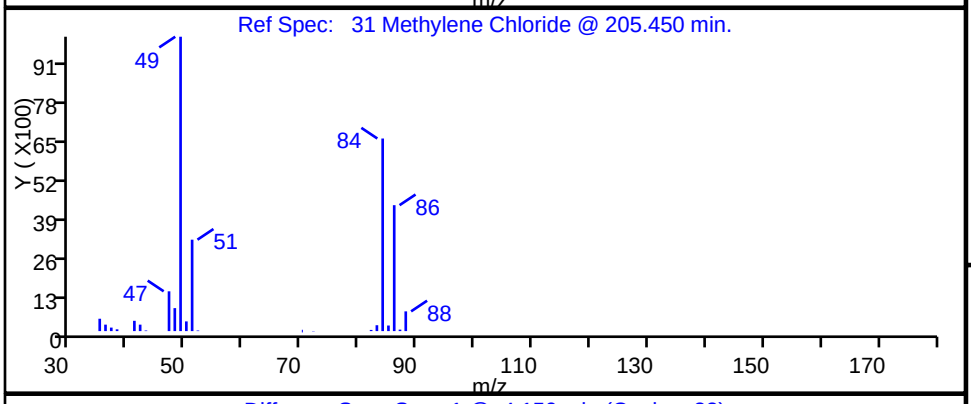
31 Methylene Chloride, CAS: 75-09-2

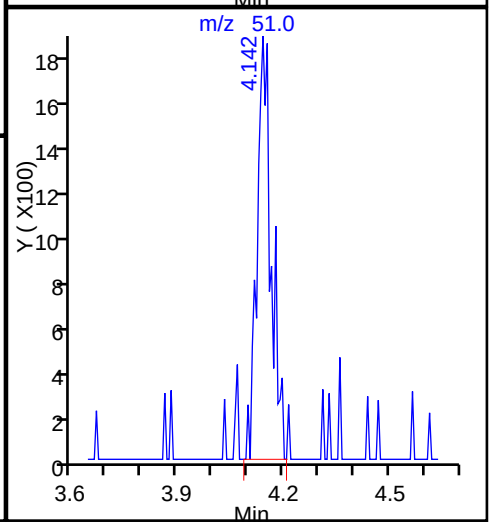


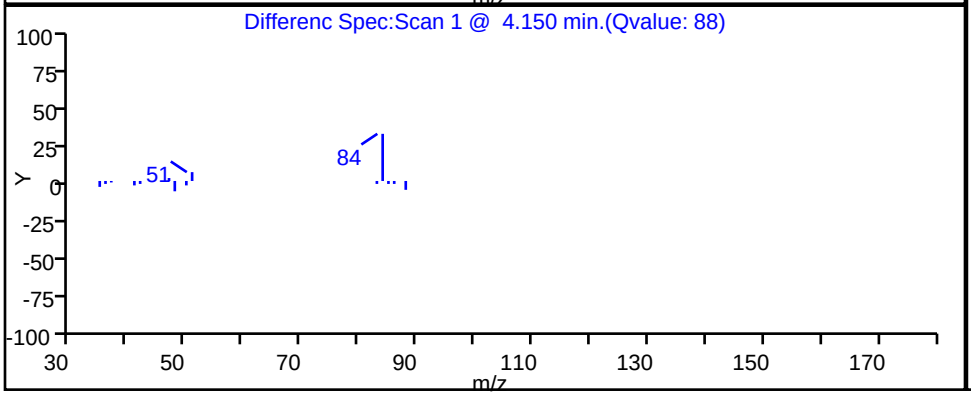










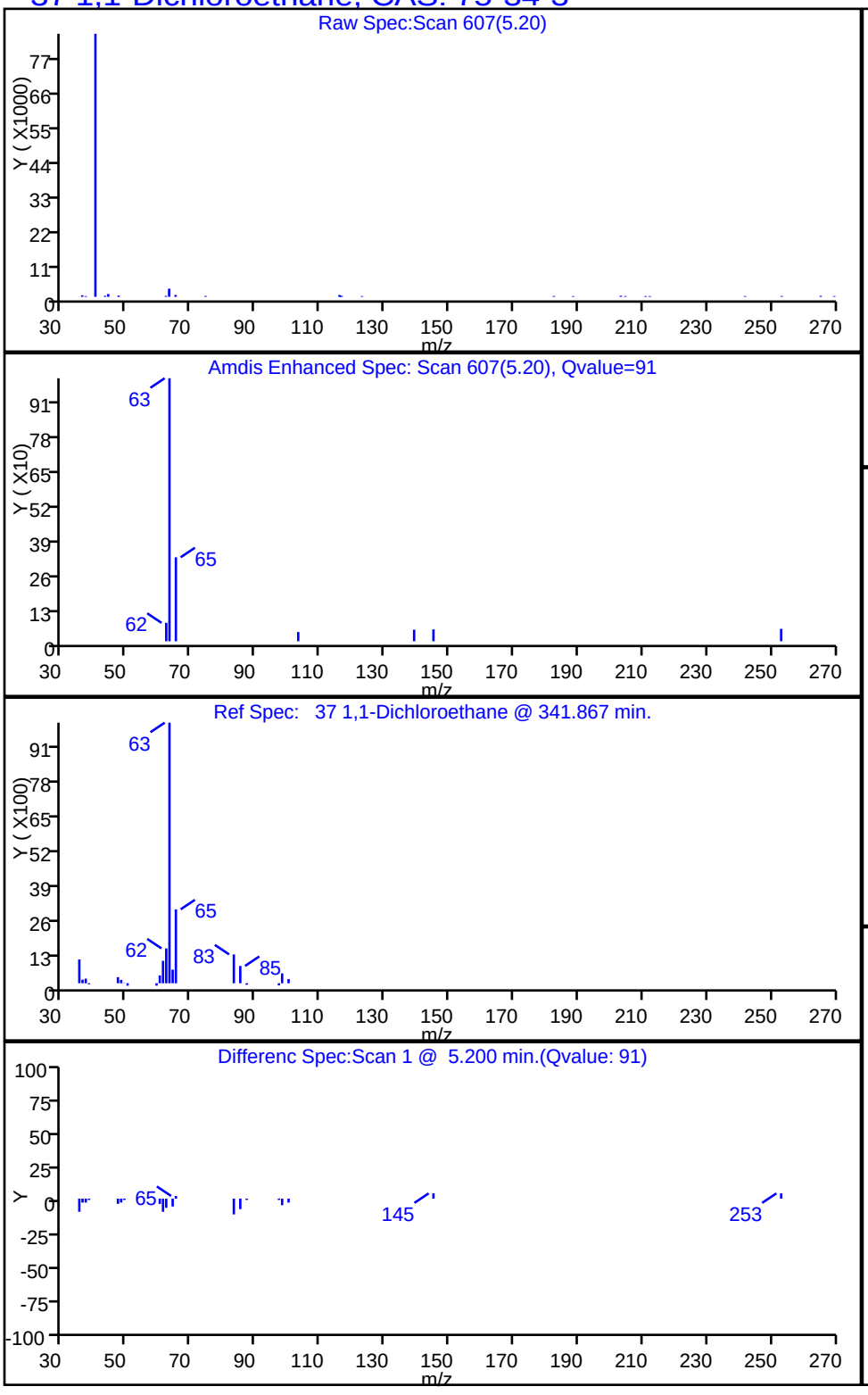


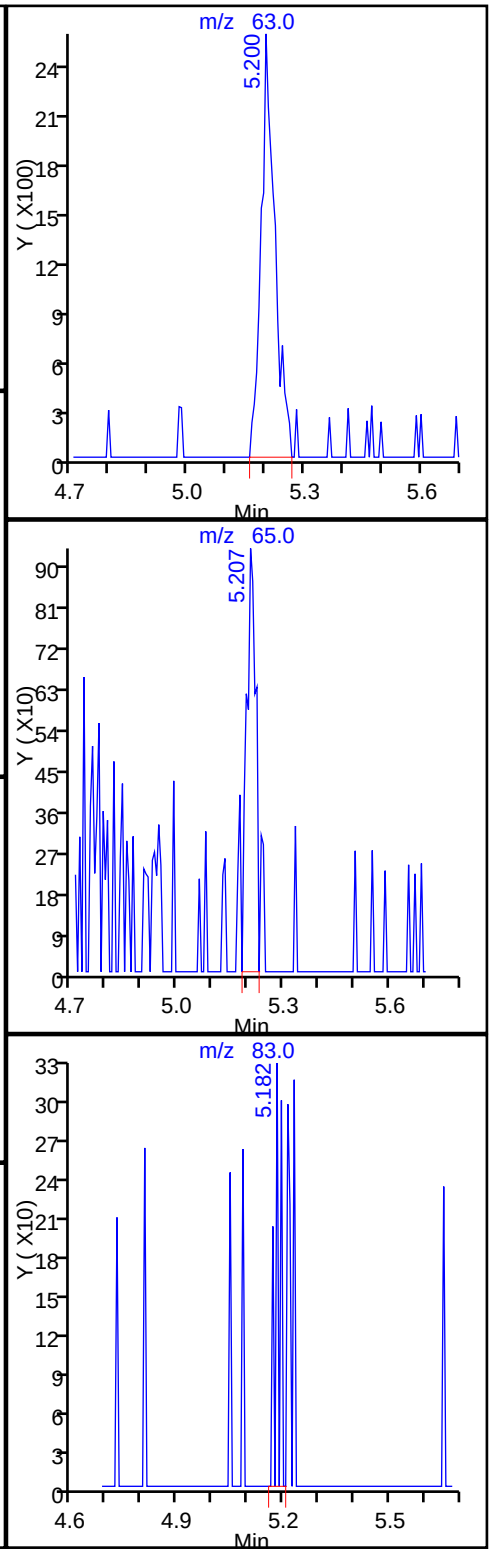
Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



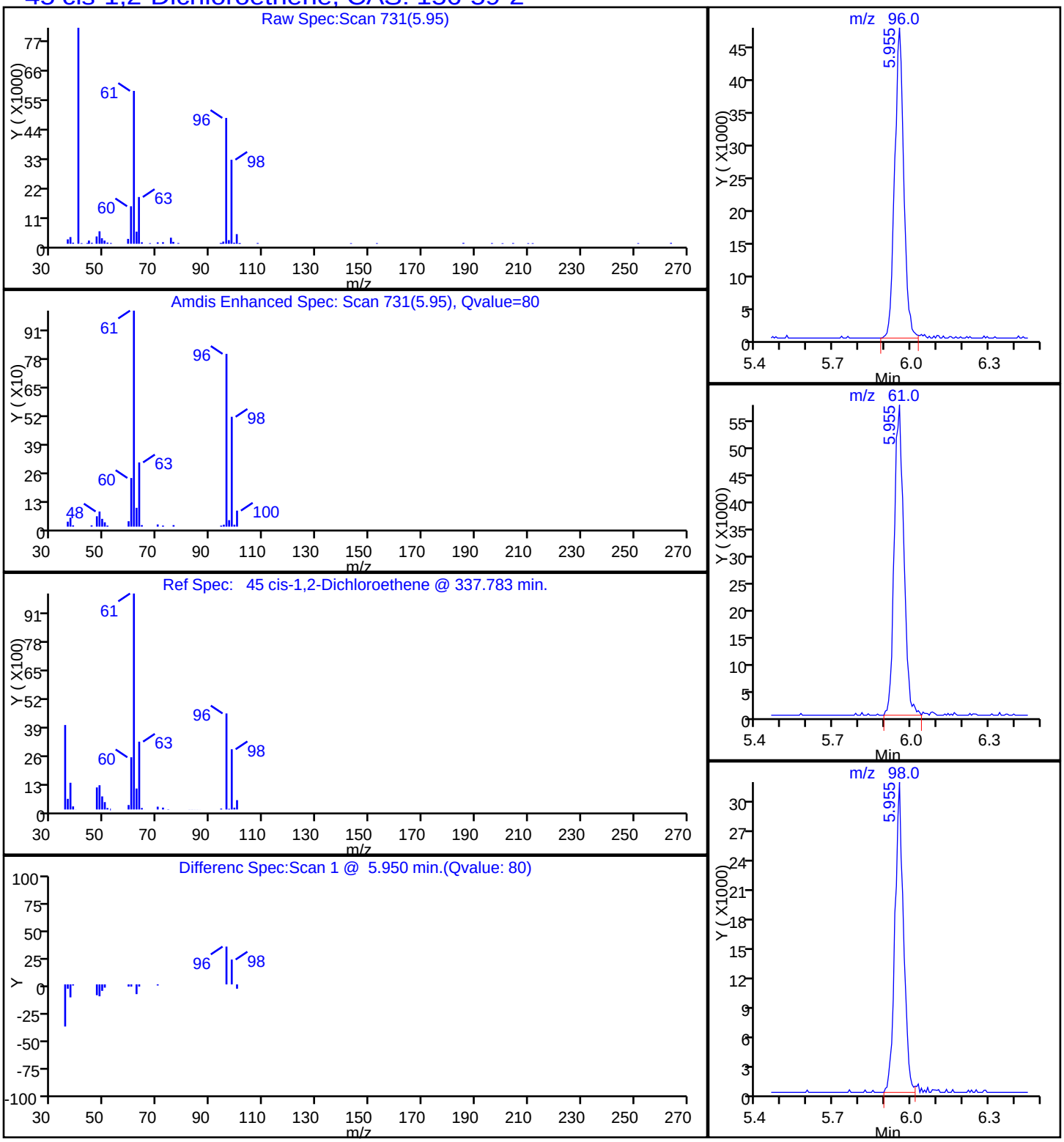


Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

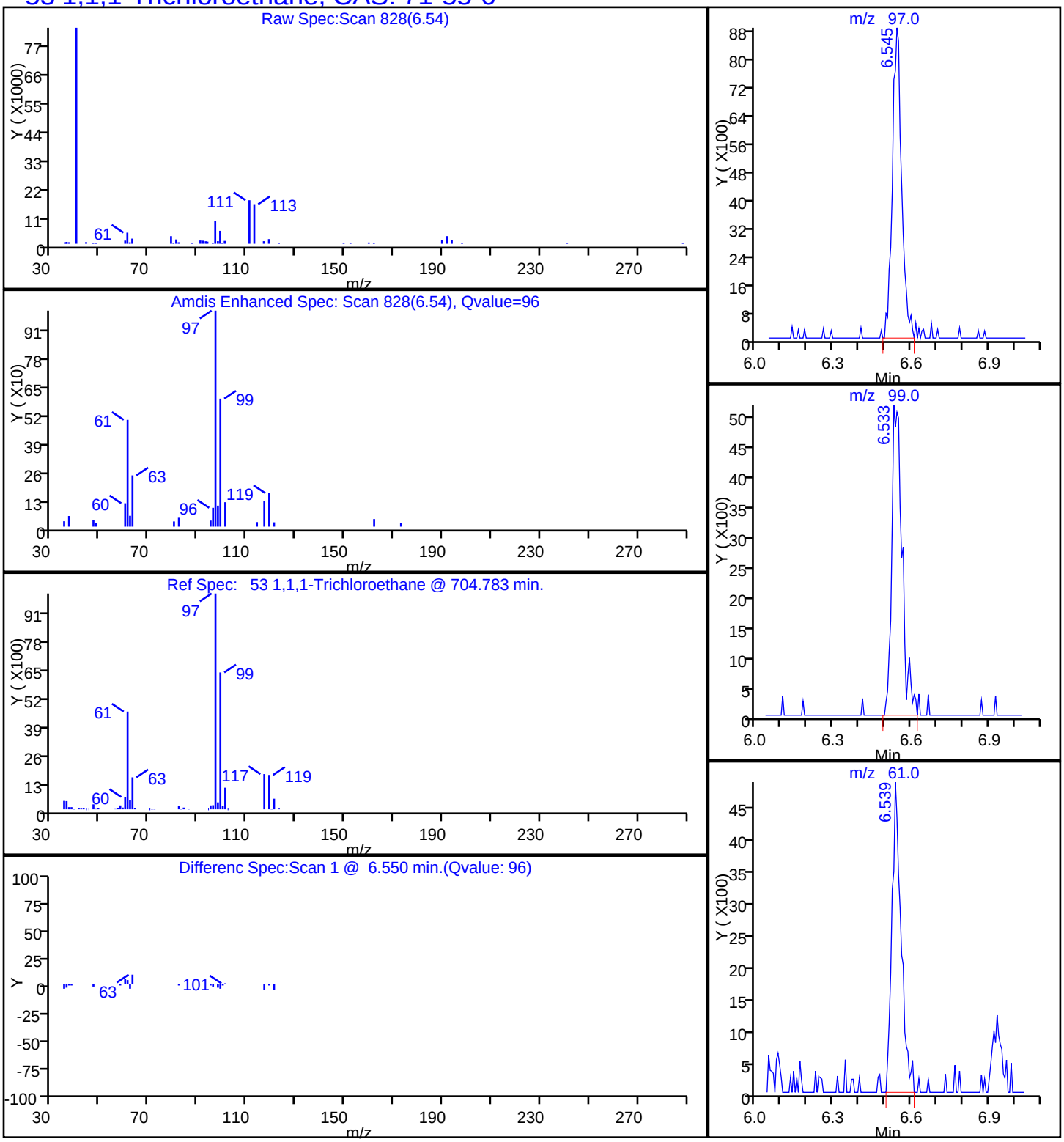


Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

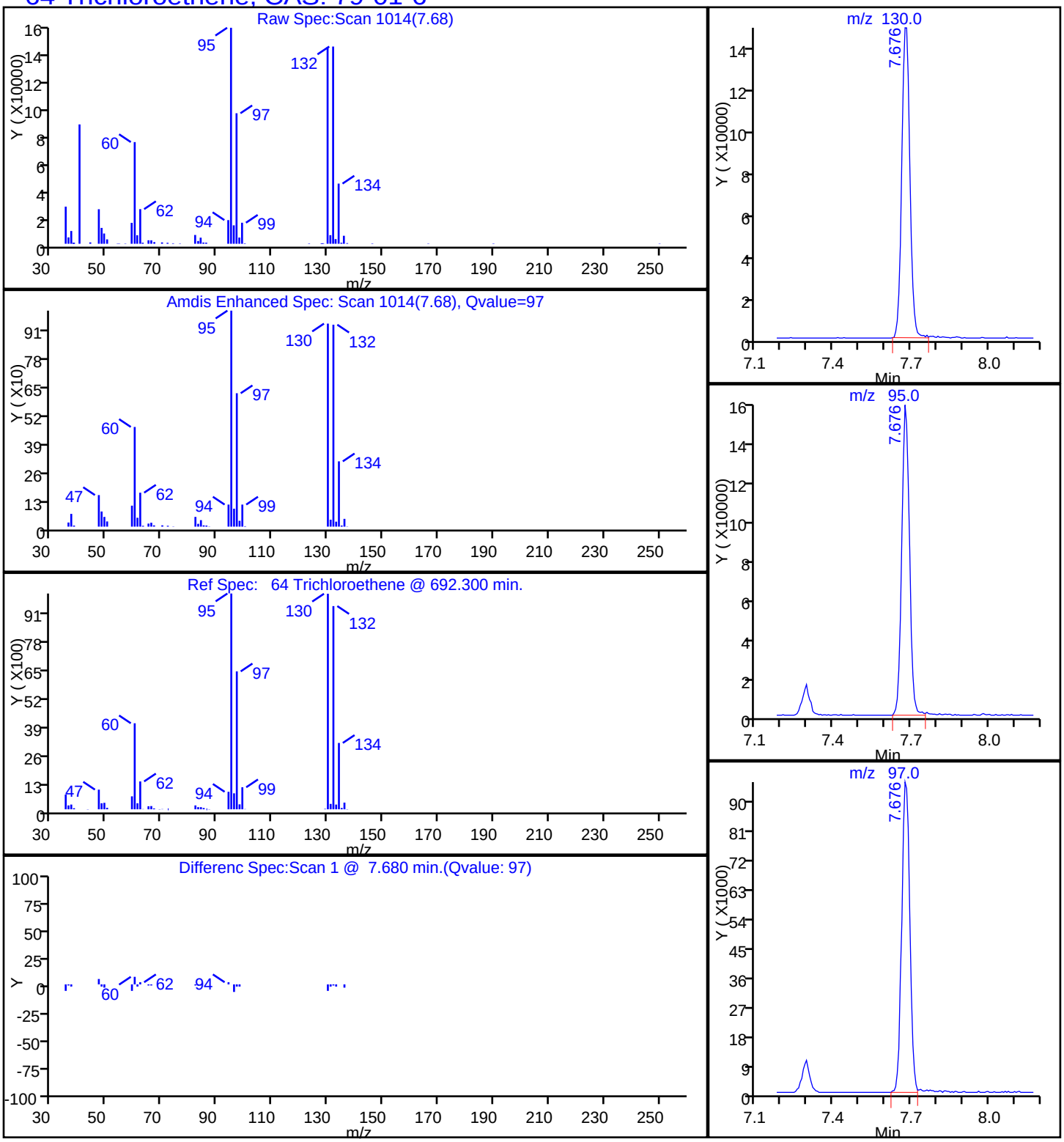


Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D		
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1
Client ID:	HD-MW-99D-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

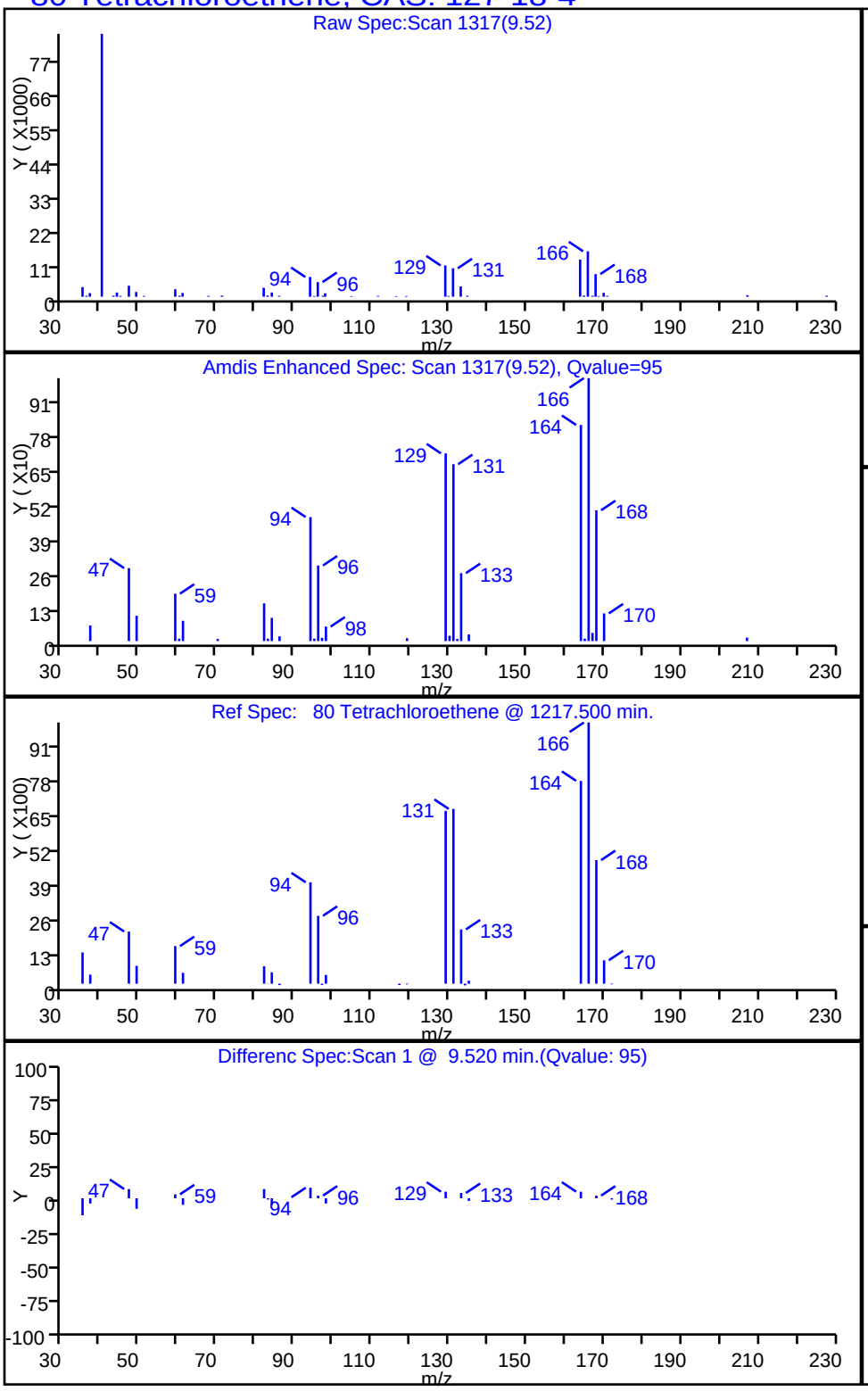


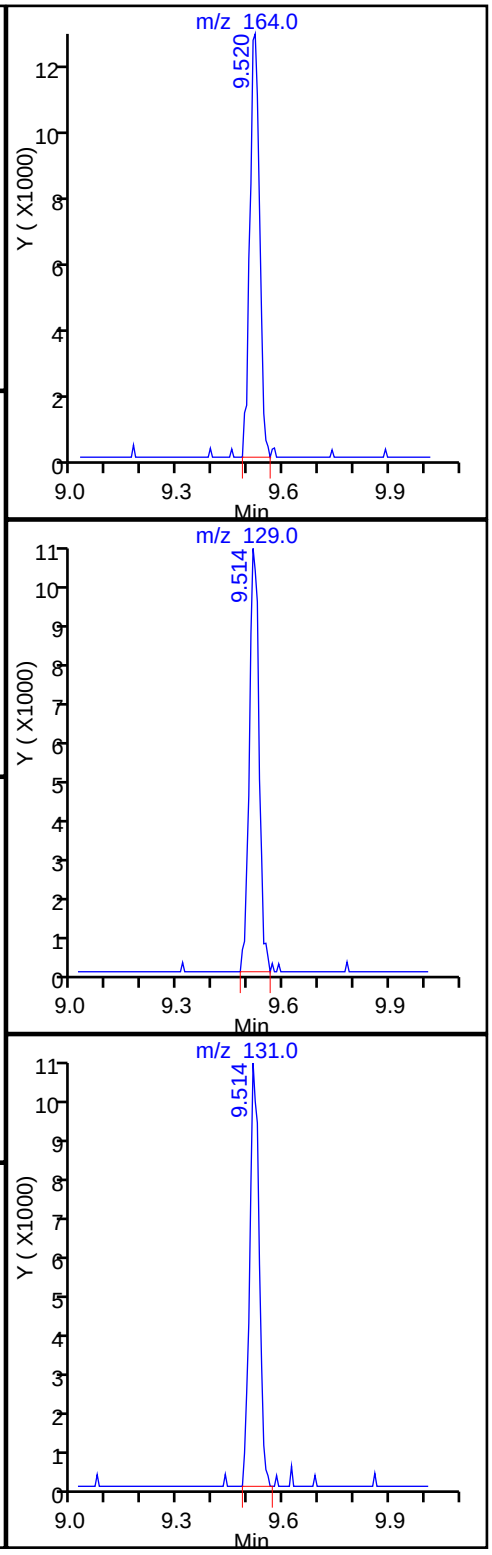
Report Date: 27-May-2015 08:07:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526029.D				
Injection Date:	26-May-2015 22:06:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-1	Lab Sample ID:	180-44248-1		
Client ID:	HD-MW-99D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 | Lab Sample ID: 180-44248-2

Matrix: Water | Lab File ID: 50527017.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 16:50

Soil Aliquot Vol: | Dilution Factor: 2

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U	2.0	0.57
75-01-4	Vinyl chloride	2.0	U	2.0	0.45
74-83-9	Bromomethane	2.0	U	2.0	0.63
75-00-3	Chloroethane	2.0	U	2.0	0.43
75-35-4	1,1-Dichloroethene	2.4		2.0	0.59
67-64-1	Acetone	10	U	10	5.0
75-15-0	Carbon disulfide	2.0	U	2.0	0.42
75-09-2	Methylene Chloride	2.0	U	2.0	0.25
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	0.34
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	0.37
75-34-3	1,1-Dichloroethane	0.92	J	2.0	0.23
156-59-2	cis-1,2-Dichloroethene	34		2.0	0.47
74-97-5	Bromochloromethane	2.0	U	2.0	0.36
78-93-3	2-Butanone (MEK)	10	U	10	1.1
67-66-3	Chloroform	2.0	U	2.0	0.34
71-55-6	1,1,1-Trichloroethane	1.7	J	2.0	0.57
56-23-5	Carbon tetrachloride	2.0	U	2.0	0.27
71-43-2	Benzene	2.0	U	2.0	0.21
107-06-2	1,2-Dichloroethane	2.0	U	2.0	0.42
79-01-6	Trichloroethene	63		2.0	0.29
78-87-5	1,2-Dichloropropane	2.0	U	2.0	0.19
75-27-4	Bromodichloromethane	2.0	U	2.0	0.26
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	0.37
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	1.1
108-88-3	Toluene	2.0	U	2.0	0.30
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	0.30
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.40
127-18-4	Tetrachloroethene	51		2.0	0.30
591-78-6	2-Hexanone	10	U	10	0.32
124-48-1	Dibromochloromethane	2.0	U	2.0	0.27
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	0.36
108-90-7	Chlorobenzene	2.0	U	2.0	0.27
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.55
100-41-4	Ethylbenzene	2.0	U	2.0	0.45
1330-20-7	Xylenes, Total	6.0	U	6.0	0.98
100-42-5	Styrene	2.0	U	2.0	0.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 | Lab Sample ID: 180-44248-2

Matrix: Water | Lab File ID: 50527017.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 16:50

Soil Aliquot Vol: | Dilution Factor: 2

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	2.0	U	2.0	0.38
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.40
107-13-1	Acrylonitrile	40	U	40	1.1
123-91-1	1,4-Dioxane	400	U	400	69

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D
Lims ID: 180-44248-C-2 Lab Sample ID: 180-44248-2
Client ID: HD-MW-100S-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 16:50:30 ALS Bottle#: 14 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 2.0000
Sample Info: 180-44248-C-2, 2x
Misc. Info.: 180-0007136-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:37:38 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:37:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.274	-0.002	0	129059	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.292	0.003	99	362665	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	88	80277	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.730	0.004	96	111459	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.561	0.004	94	84748	54.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	112541	57.7	
$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	317279	53.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	88	101405	47.4	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62	1.881	1.908	-0.027	1	1891	0.6576	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.341	3.343	-0.002	73	10601	6.10	
24 Acetone	43		3.441				ND	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96	4.570	4.566	0.004	2	653	0.3396	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63	5.215	5.205	0.010	33	8327	2.29	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	80	181132	85.2	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.383	6.379	0.004	1	2559	0.7863	M
53 1,1,1-Trichloroethane	97	6.547	6.543	0.004	94	10736	4.26	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	97	323814	156.3	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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	95	182613	126.9	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

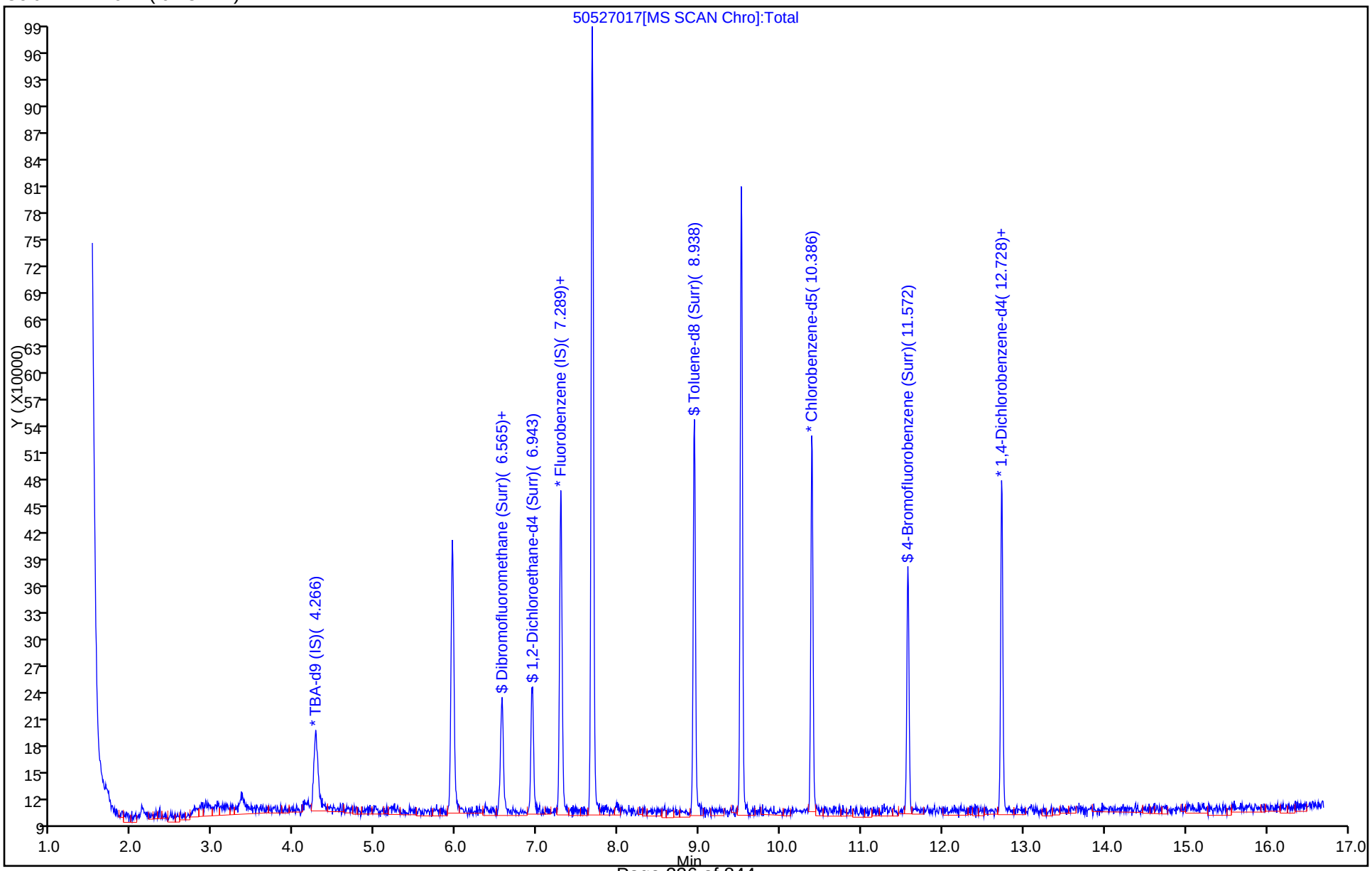
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D				
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2	Worklist Smp#:	17
Client ID:	HD-MW-100S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	2.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

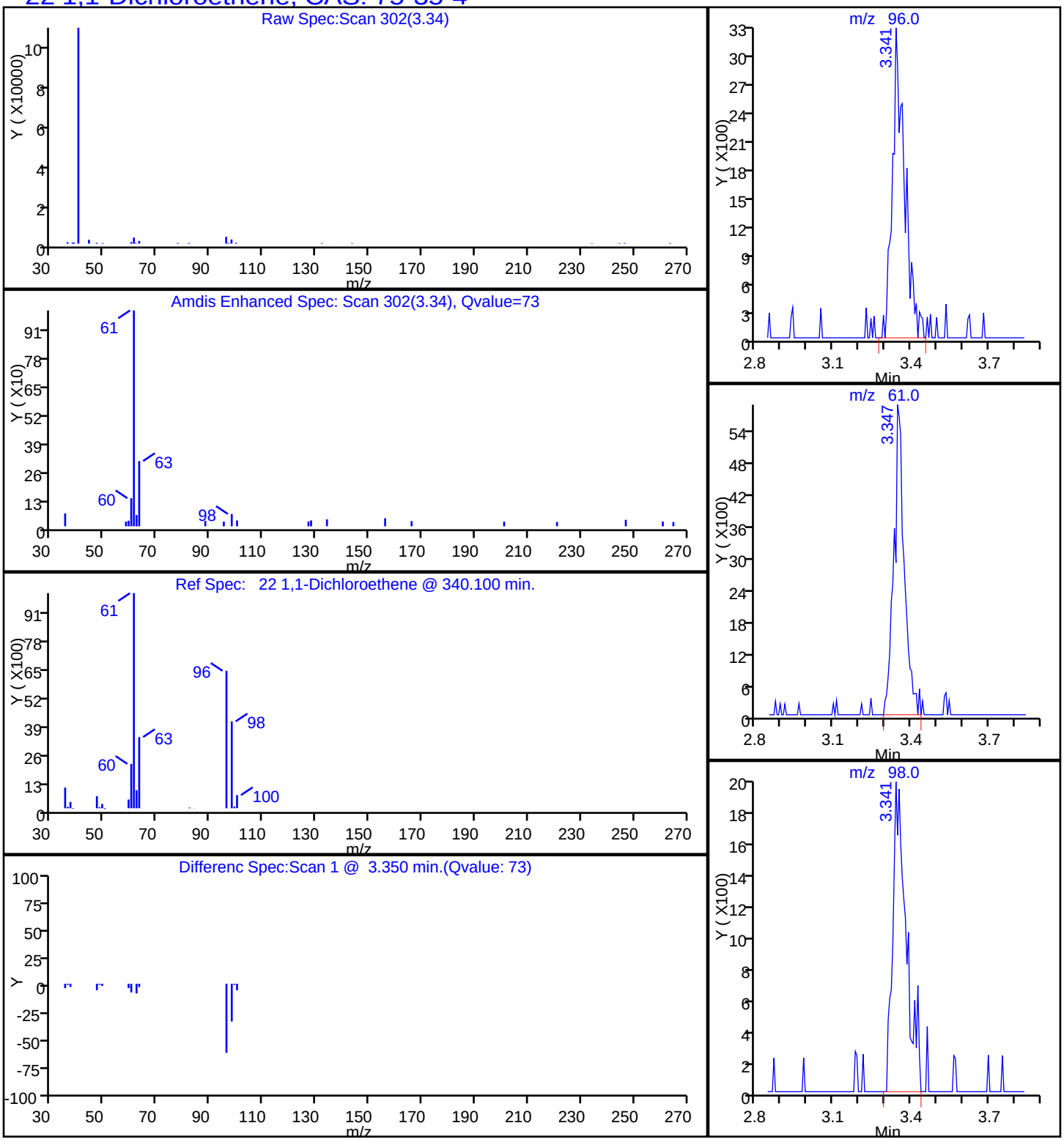


Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D		
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

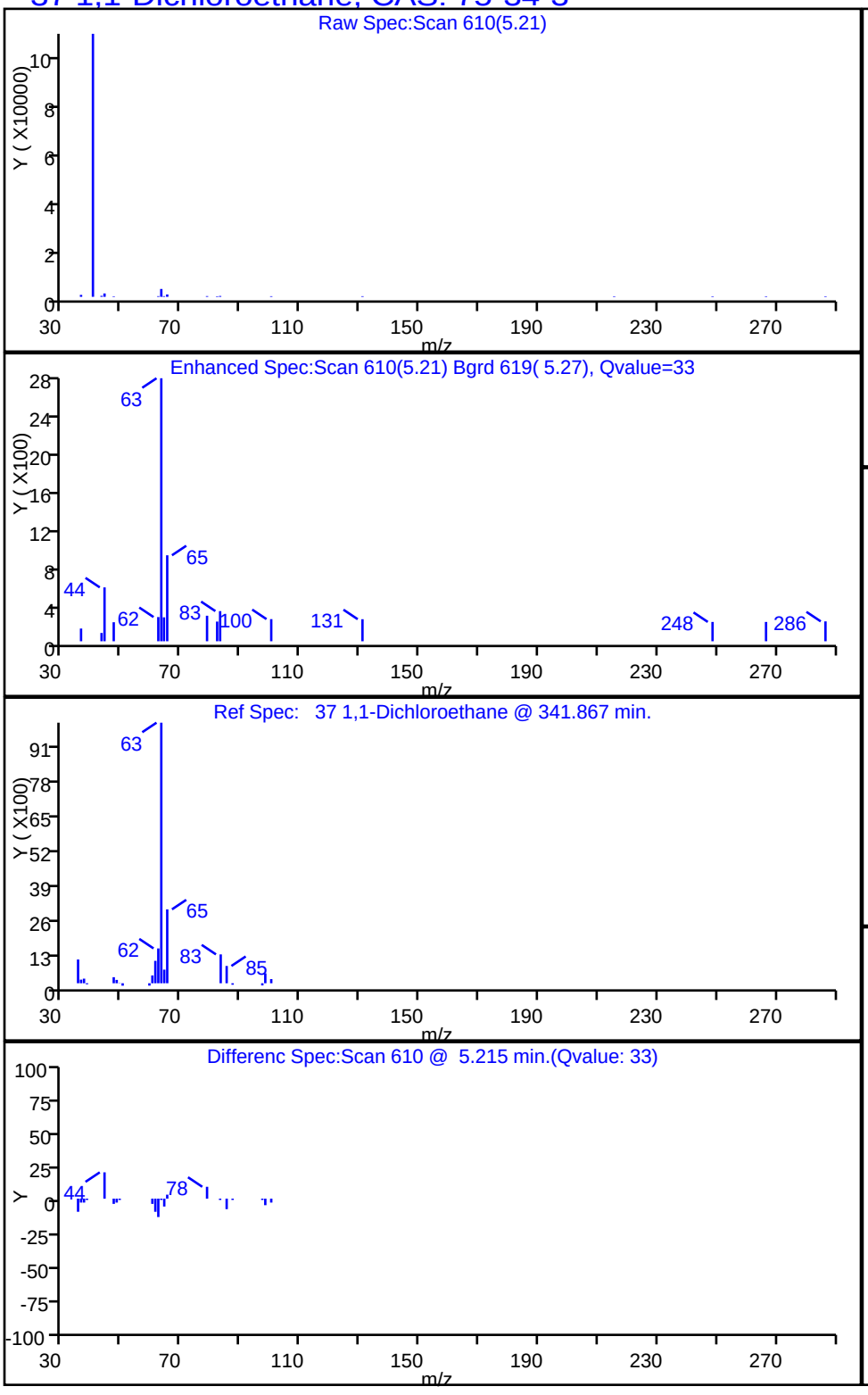


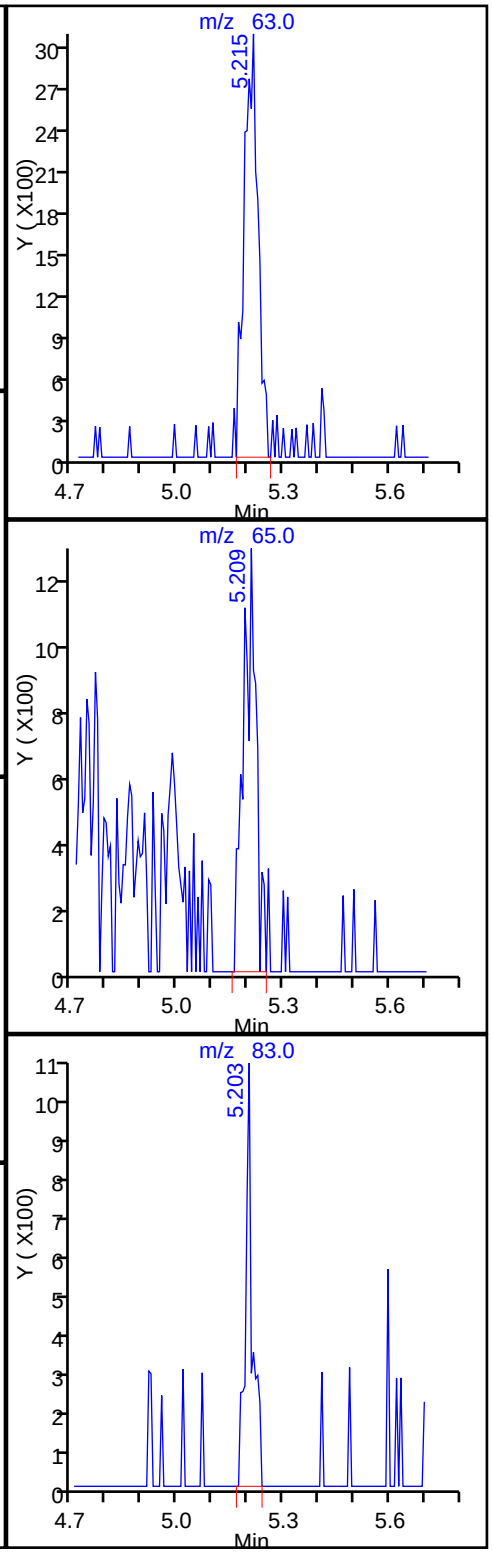
Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D		
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



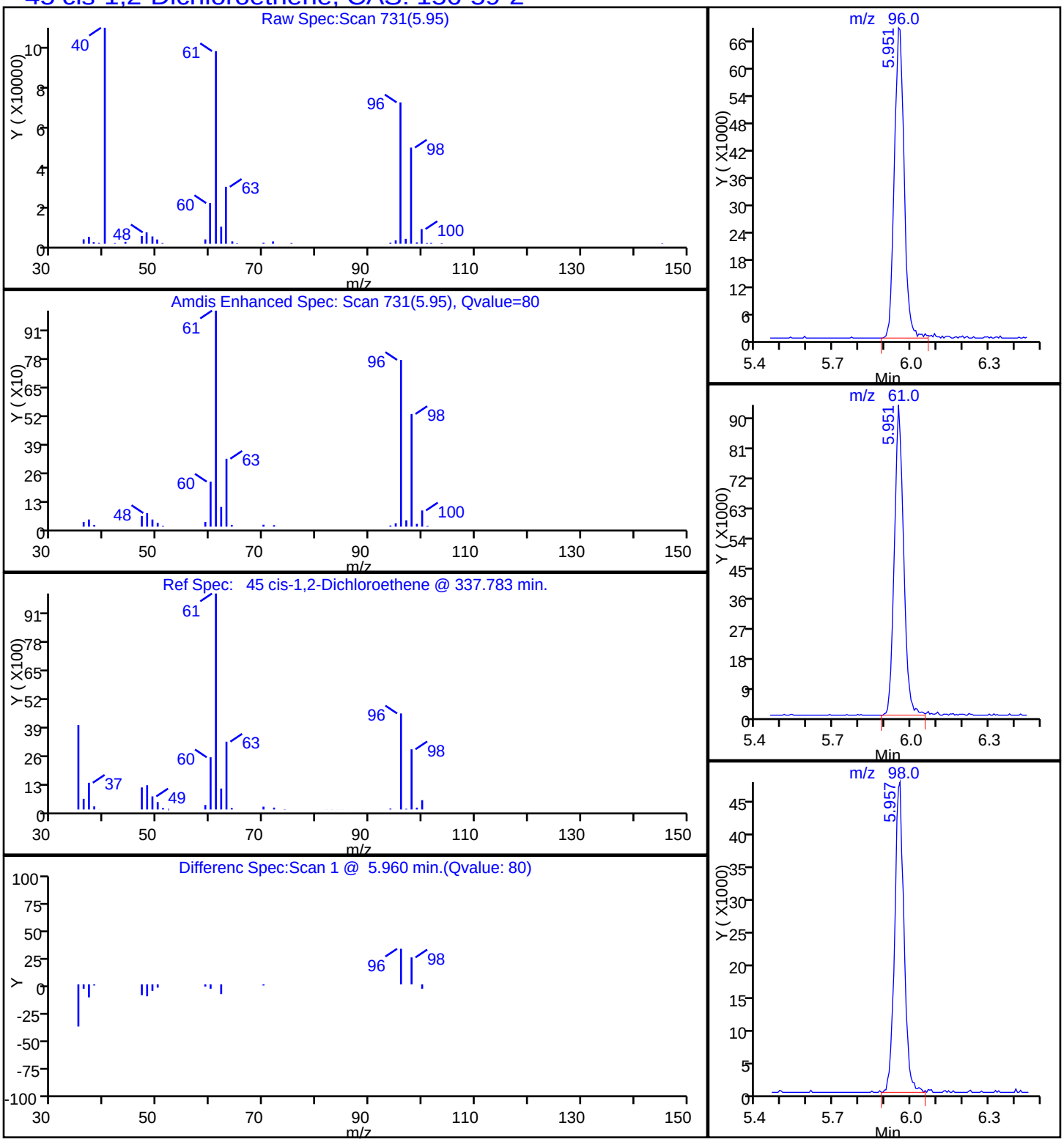


Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D		
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

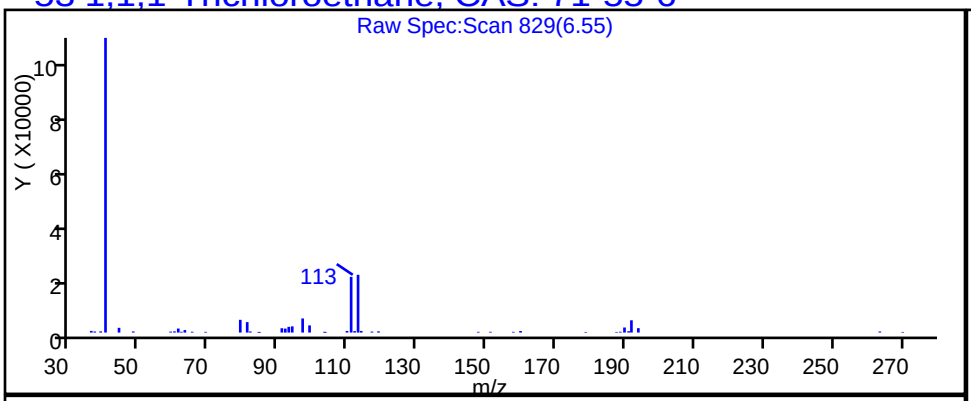


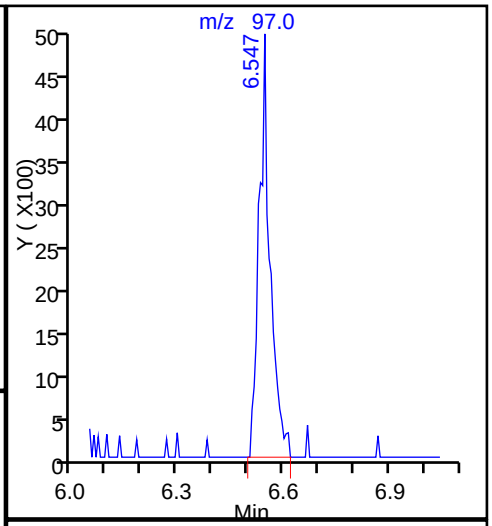
Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

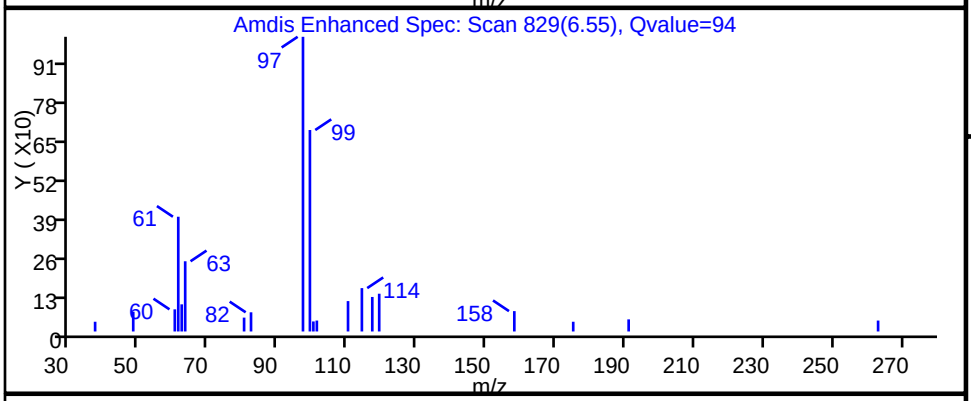
TestAmerica Pittsburgh

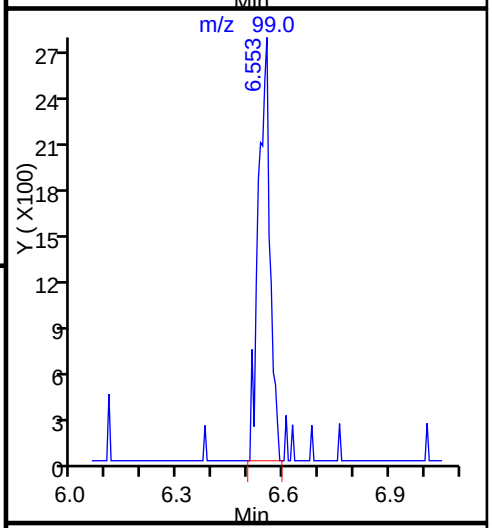
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D				
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

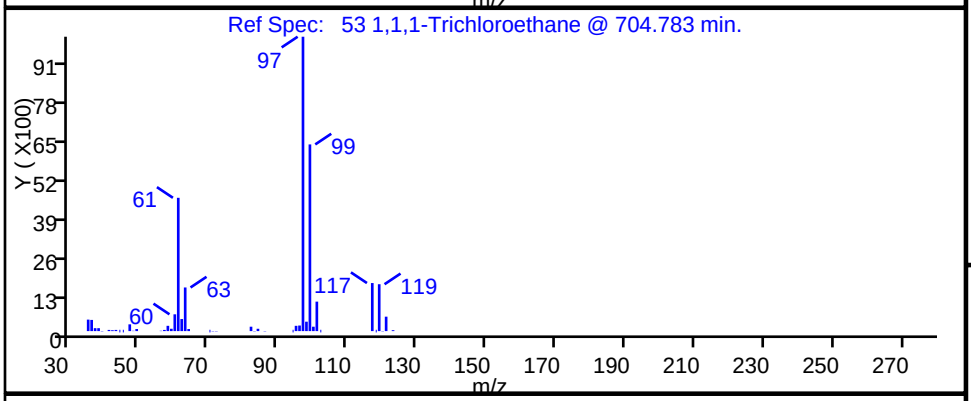
53 1,1,1-Trichloroethane, CAS: 71-55-6

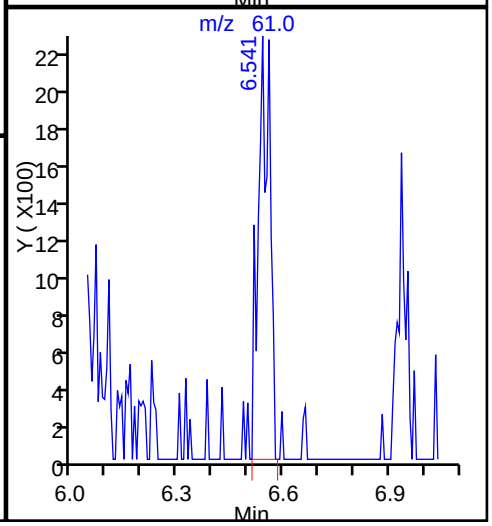


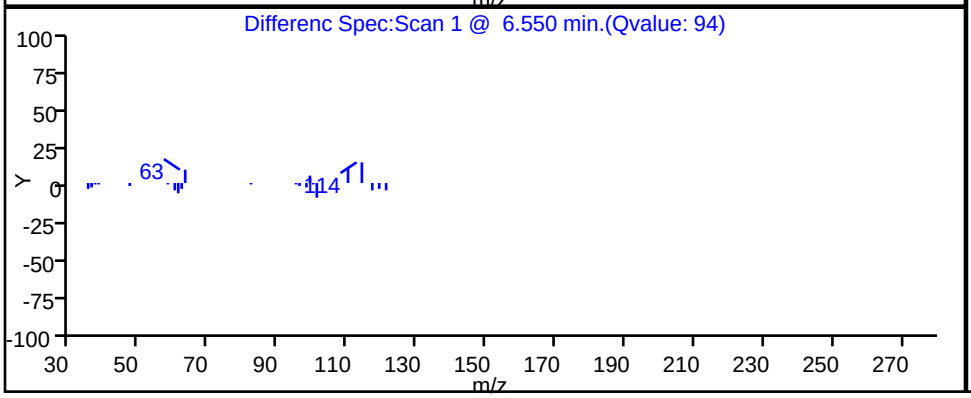










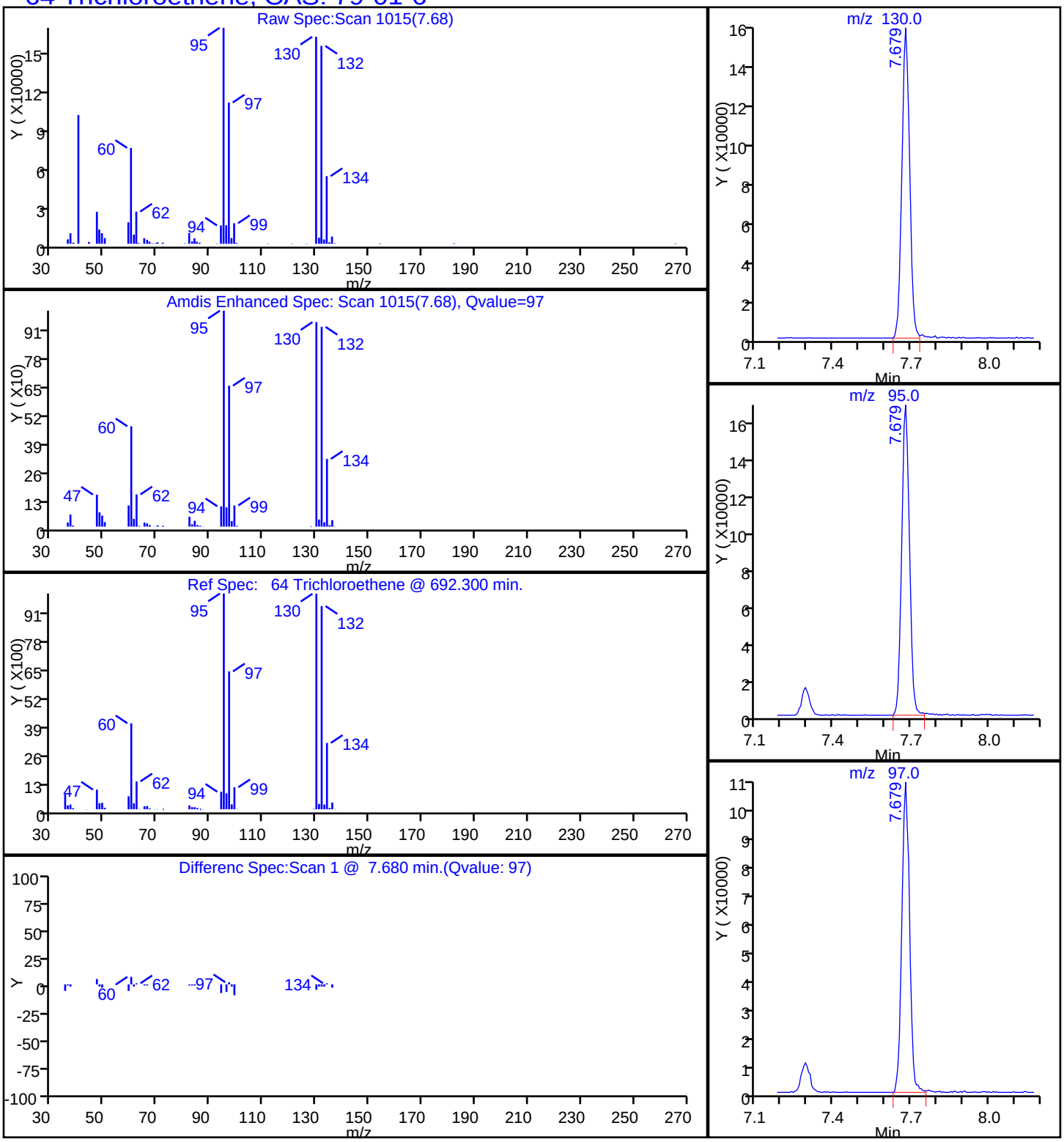


Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D		
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

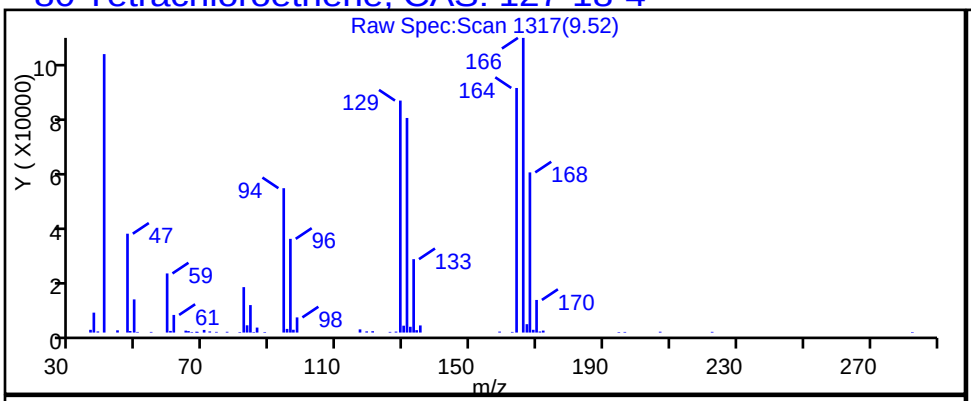


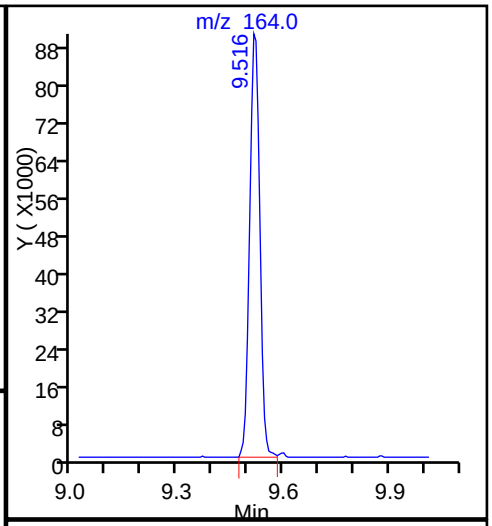
Report Date: 28-May-2015 07:37:38 Chrom Revision: 2.2 05-May-2015 11:39:10

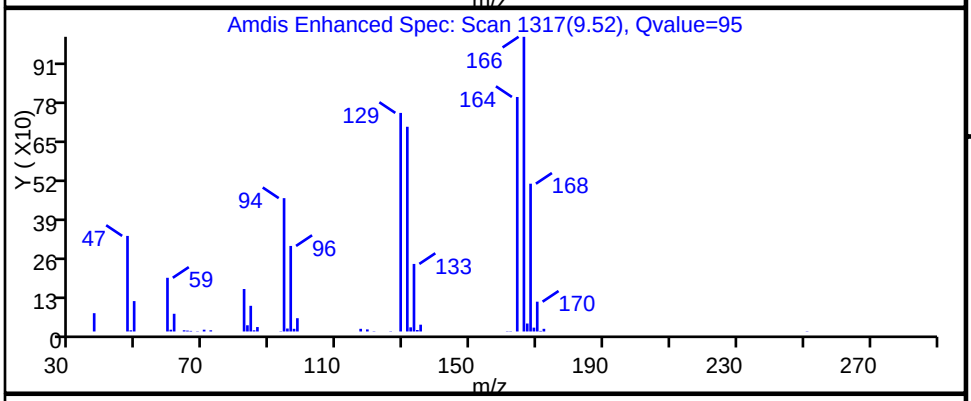
TestAmerica Pittsburgh

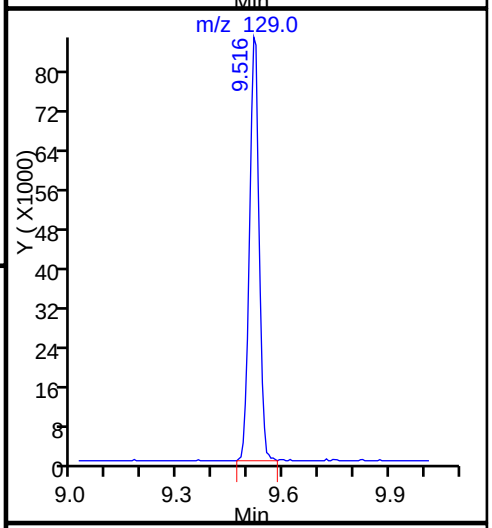
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D		
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2
Client ID:	HD-MW-100S-0/1-0		
Operator ID:	001562	ALS Bottle#:	14 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

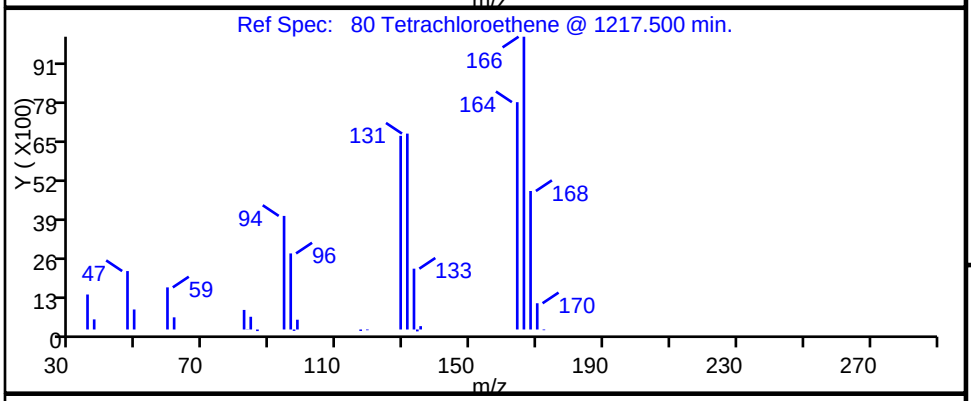
80 Tetrachloroethene, CAS: 127-18-4

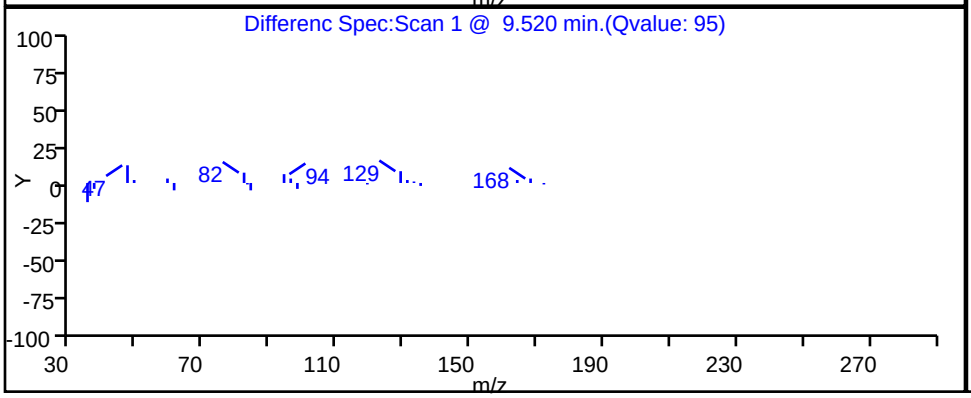


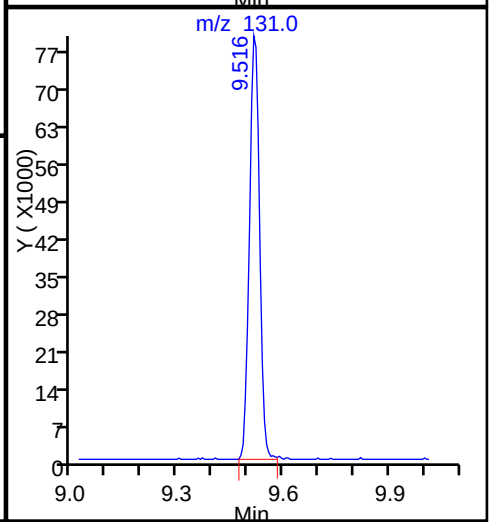












Manual Integration/User Assign Peak Report

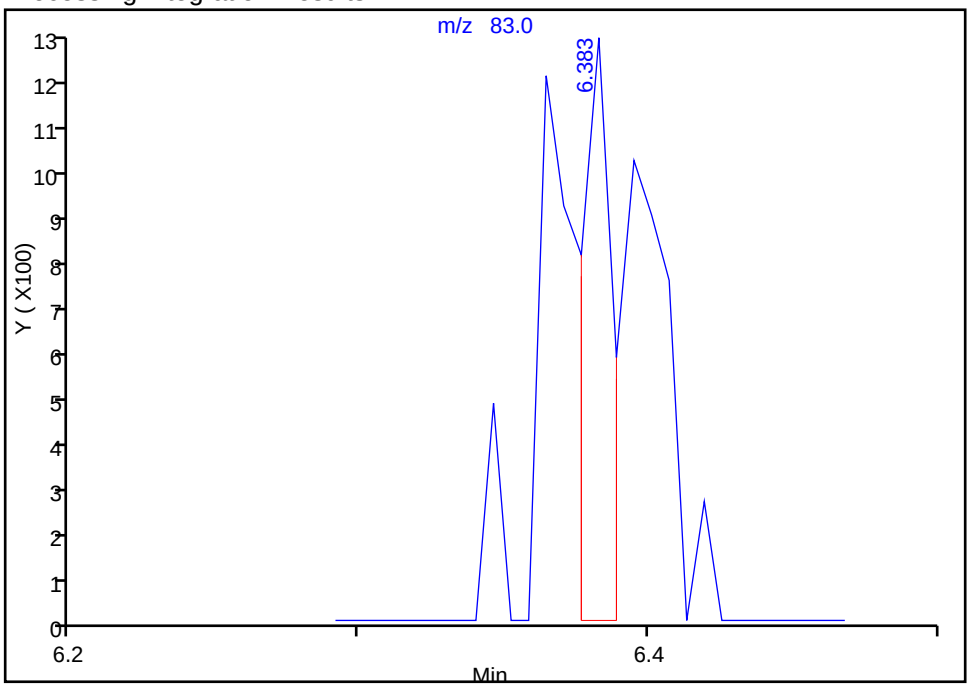
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527017.D				
Injection Date:	27-May-2015 16:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-2	Lab Sample ID:	180-44248-2		
Client ID:	HD-MW-100S-0/1-0				
Operator ID:	001562	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	2.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

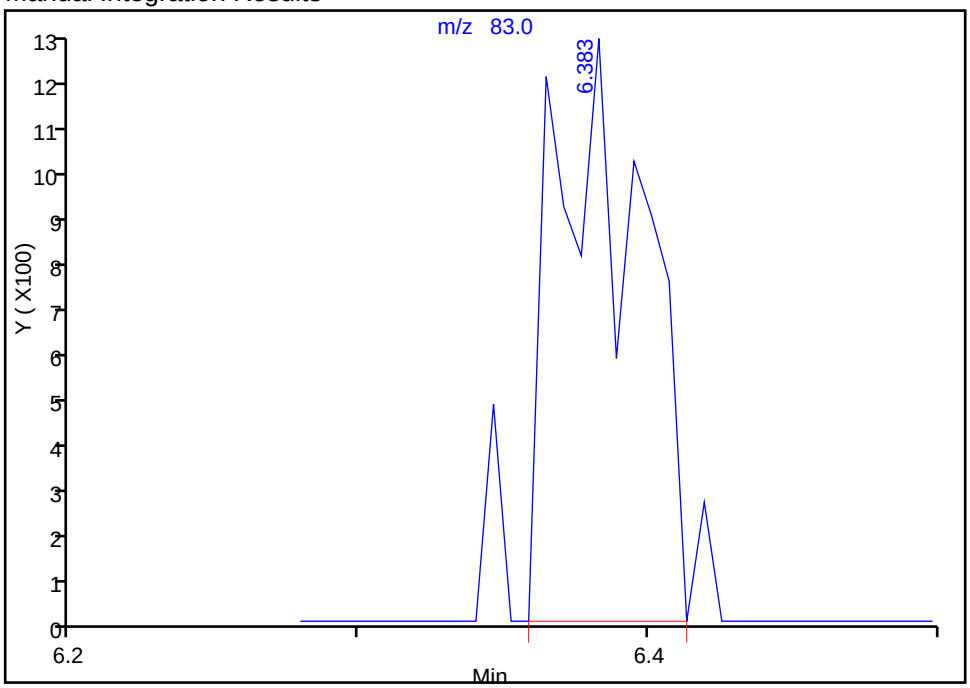
Processing Integration Results

RT: 6.38
Area: 918
Amount: 0.282059
Amount Units: ng



Manual Integration Results

RT: 6.38
Area: 2559
Amount: 0.786263
Amount Units: ng



Reviewer: fergusond, 28-May-2015 07:37:38
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 | Lab Sample ID: 180-44248-3

Matrix: Water | Lab File ID: 50527022.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 18:50

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.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.9		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.70	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	25		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.24	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.1		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	39		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	26		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 | Lab Sample ID: 180-44248-3

Matrix: Water | Lab File ID: 50527022.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 18:50

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.: 142864 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		64-135
2037-26-5	Toluene-d8 (Surr)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	117		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D
Lims ID: 180-44248-C-3 Lab Sample ID: 180-44248-3
Client ID: HD-MW-100I-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 18:50:30 ALS Bottle#: 19 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44248-C-3
Misc. Info.: 180-0007136-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:44:20 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:44:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.274	-0.003	0	140190	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	349224	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.388	-0.003	87	82677	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.730	-0.003	97	103407	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.561	0.004	93	87787	58.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	109851	58.5	
$ 7 Toluene-d8 (Surr)	98	8.937	8.934	0.003	94	304305	49.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.574	-0.003	88	96573	43.8	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.347	3.343	0.004	99	15666	9.36	
24 Acetone	43	3.444	3.441	0.003	37	2438	3.54	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73	4.582	4.584	-0.002	1	1792	0.3511	
37 1,1-Dichloroethane	63	5.208	5.205	0.003	93	12295	3.52	
45 cis-1,2-Dichloroethene	96	5.950	5.953	-0.003	80	257486	125.8	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.388	6.379	0.009	68	3781	1.21	M
53 1,1,1-Trichloroethane	97	6.546	6.543	0.003	85	13891	5.72	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.678	7.681	-0.003	97	384855	193.0	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				ND	
76 Toluene	91		9.007				ND	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97	9.448	9.445	0.003	1	554	0.3722	
80 Tetrachloroethene	164	9.521	9.518	0.003	95	195933	132.2	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

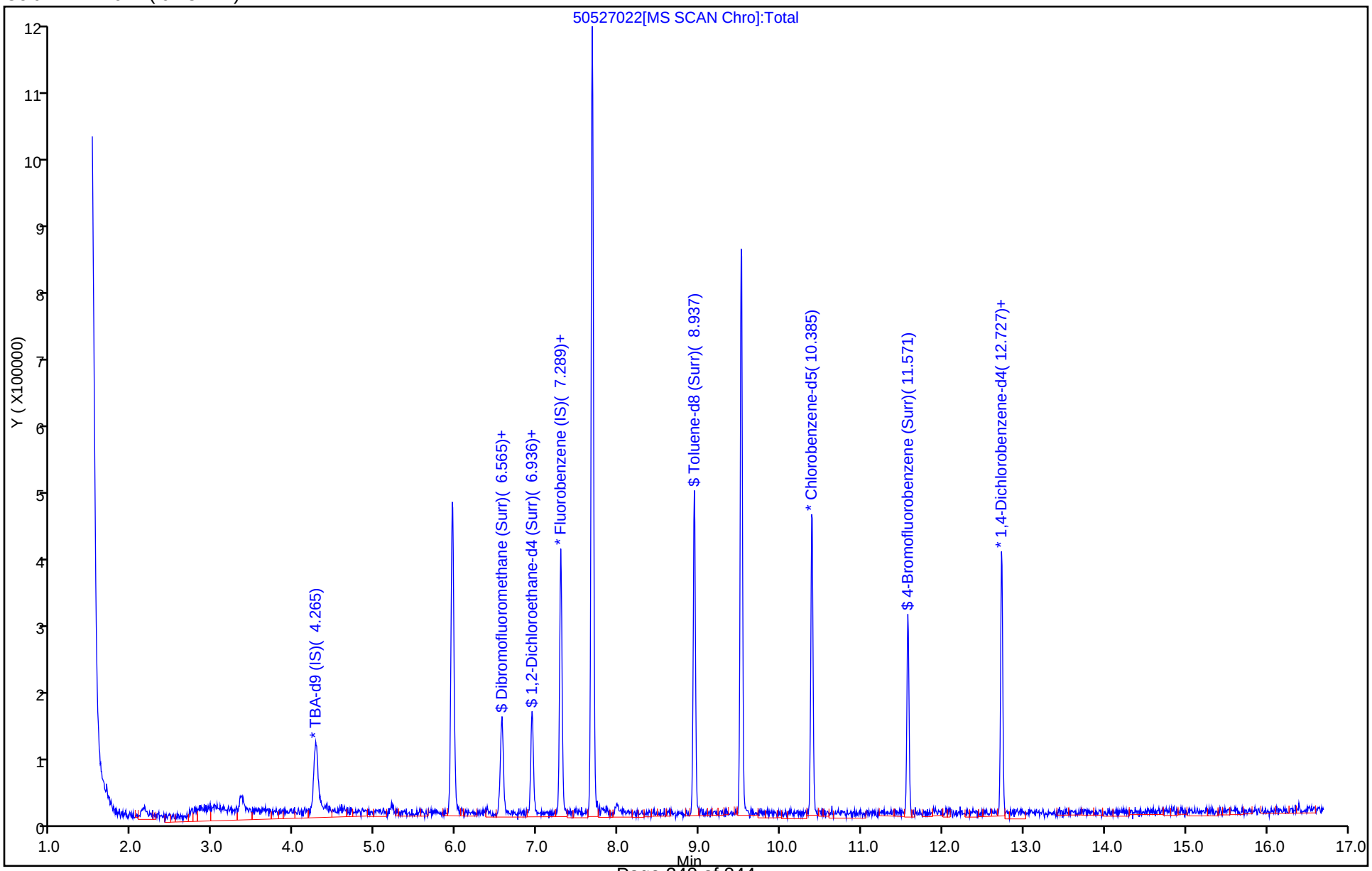
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:44:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D				
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3	Worklist Smp#:	22
Client ID:	HD-MW-100I-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)

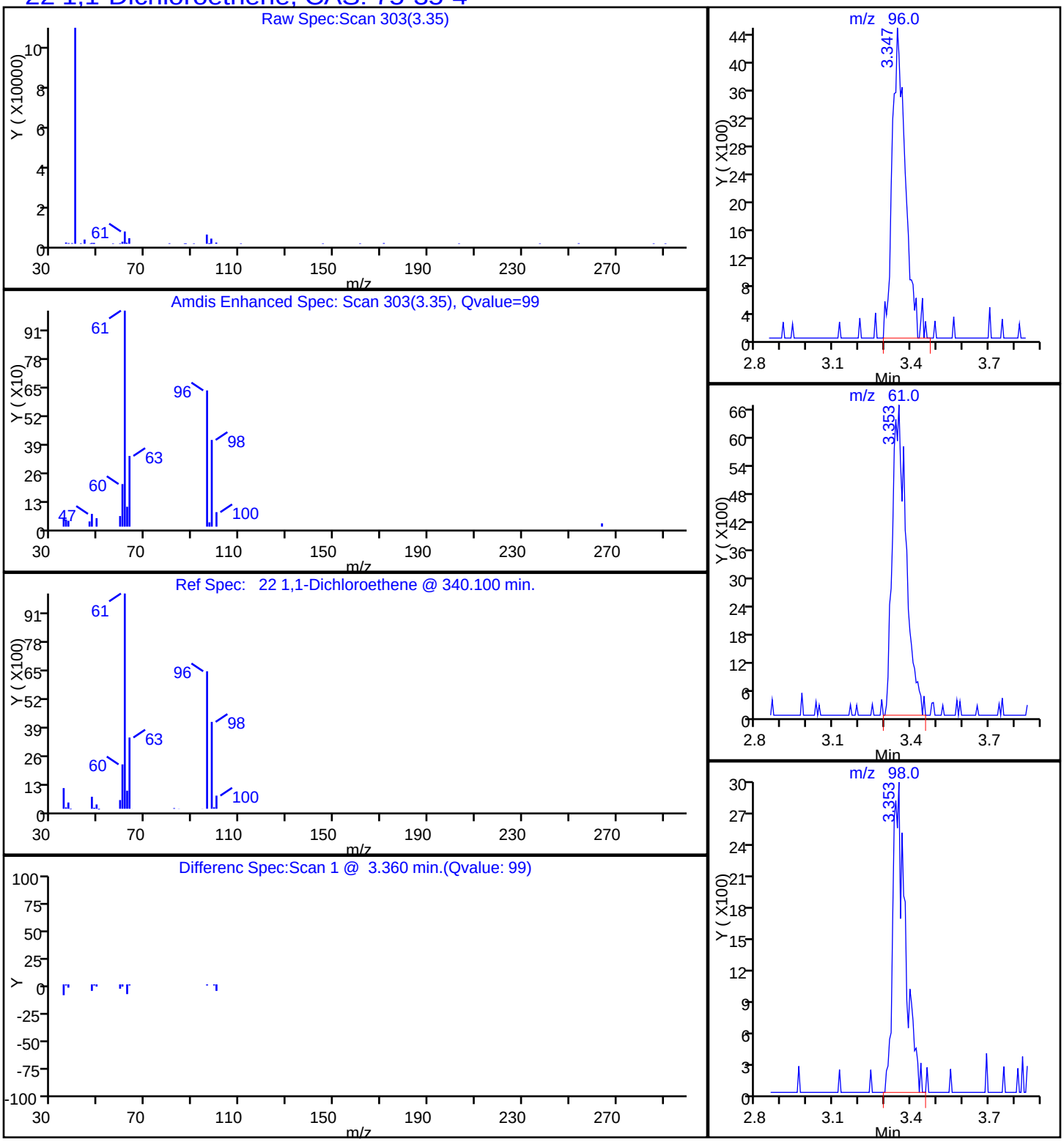


Report Date: 28-May-2015 07:44:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D		
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

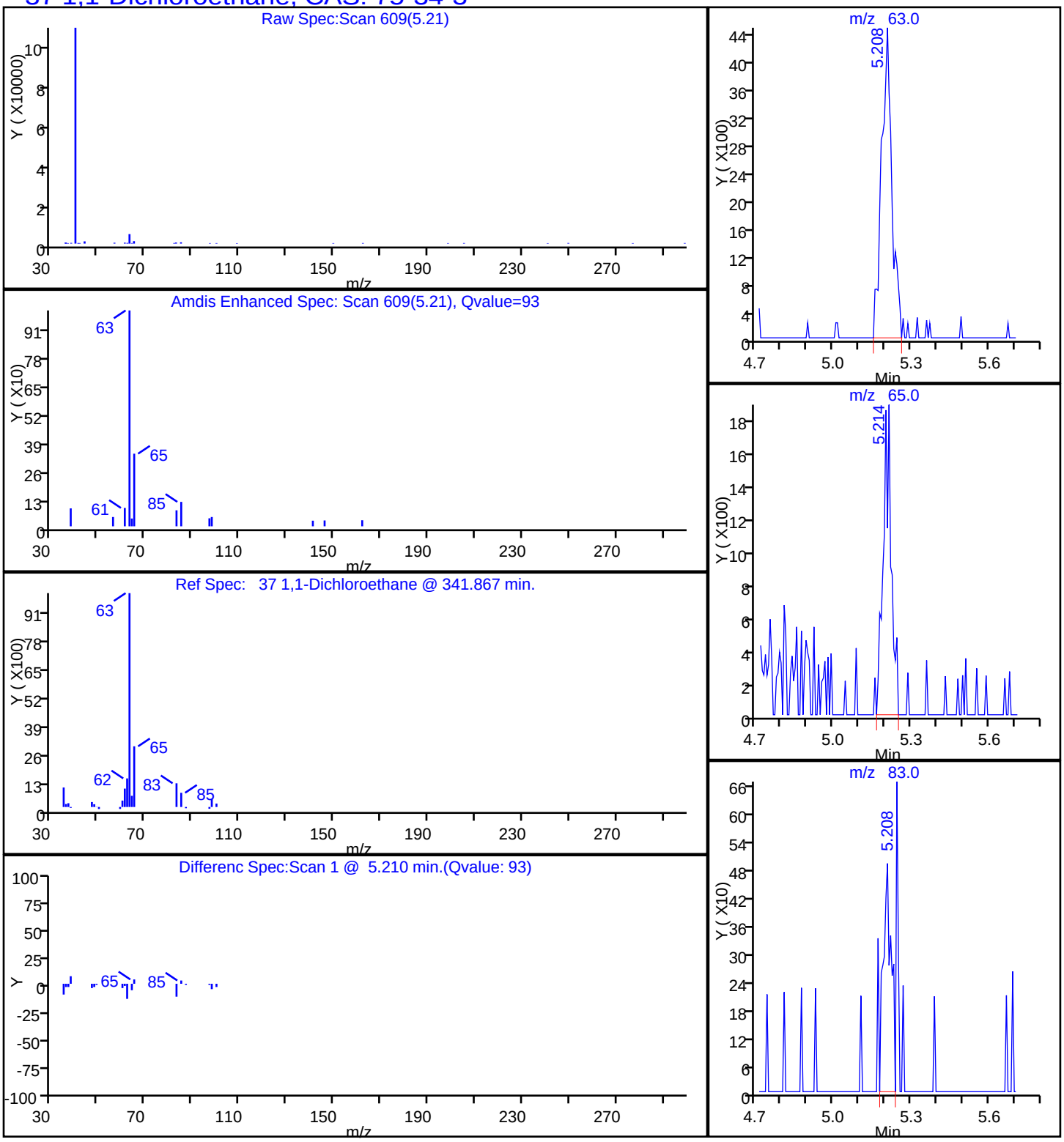


Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D		
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

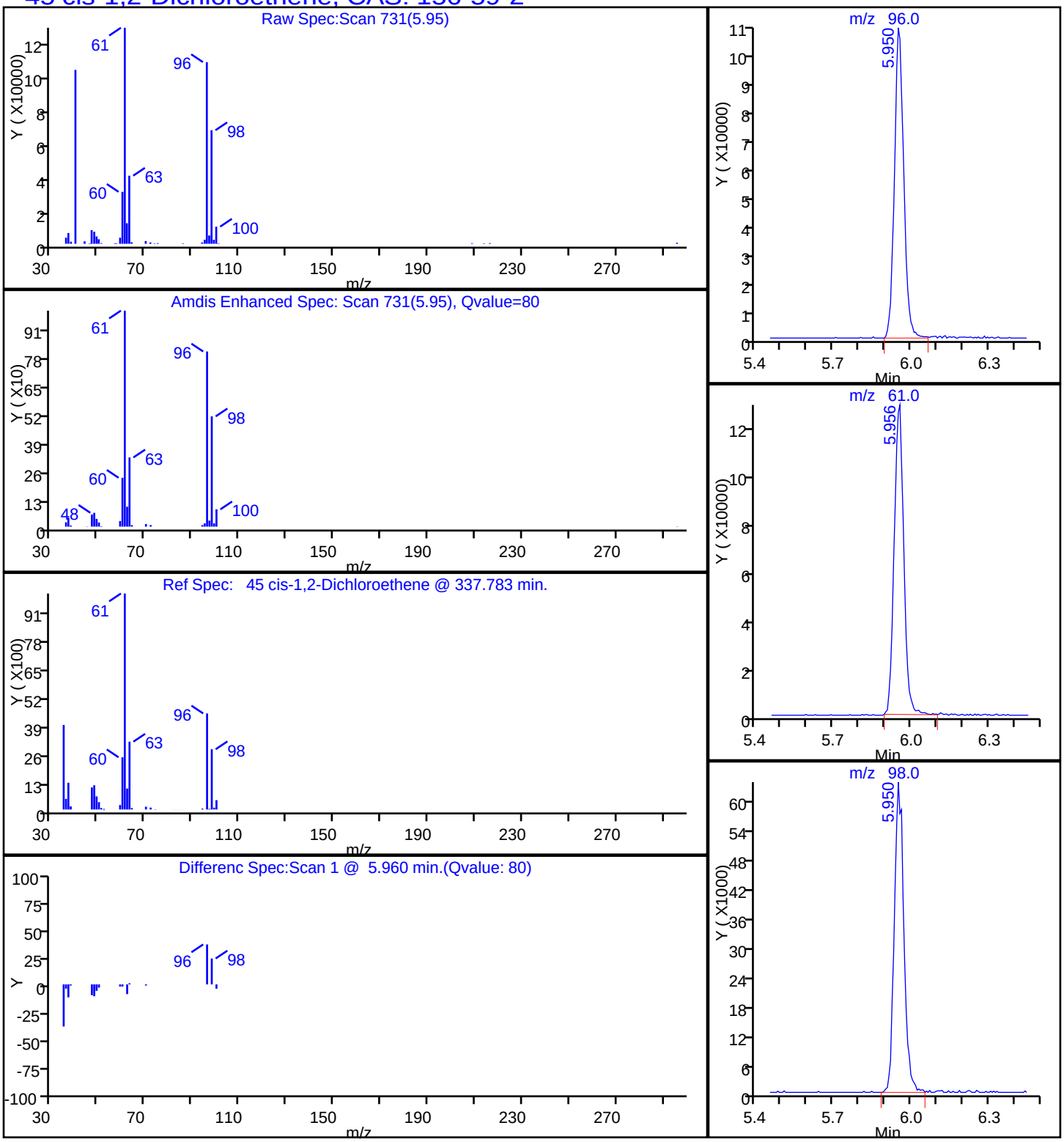


Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D		
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

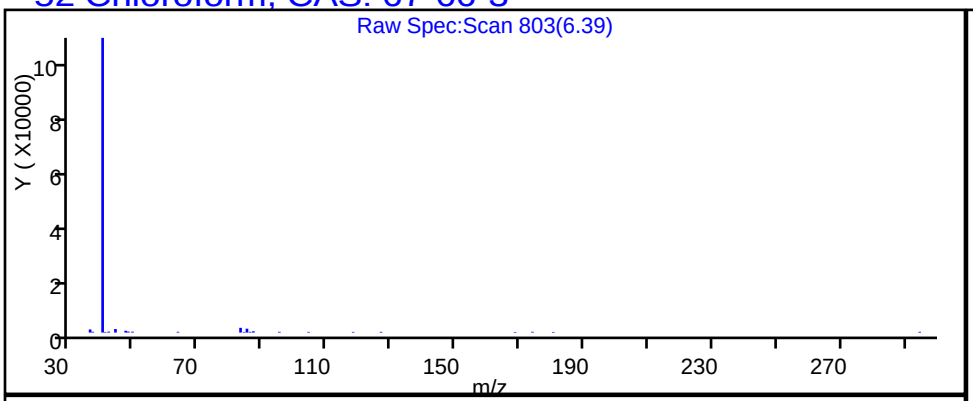


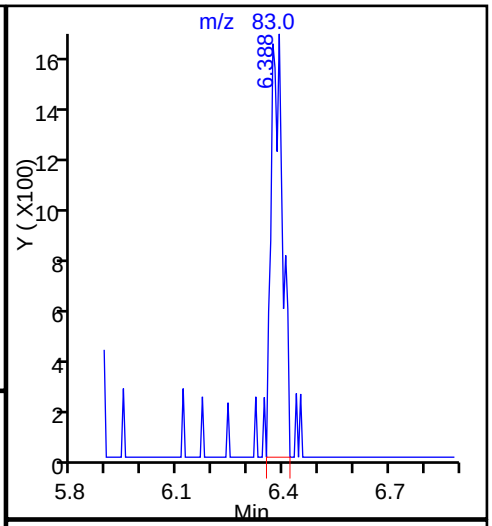
Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

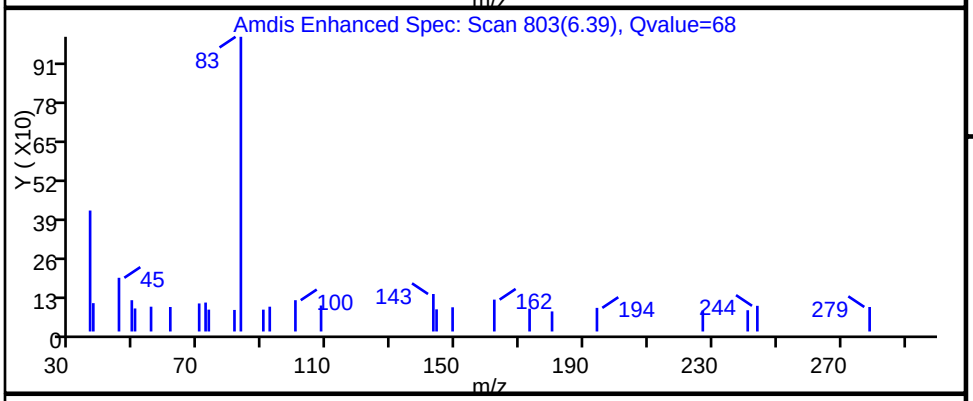
TestAmerica Pittsburgh

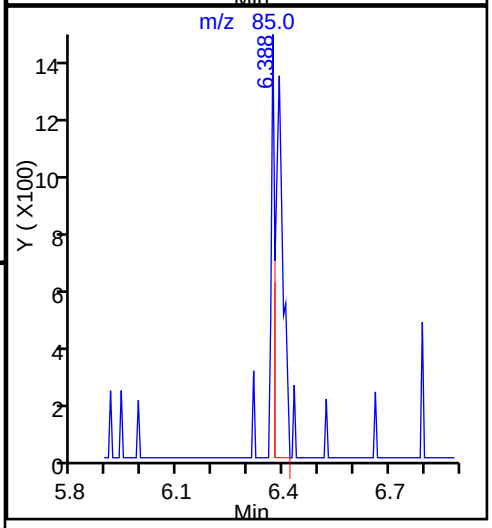
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D		
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

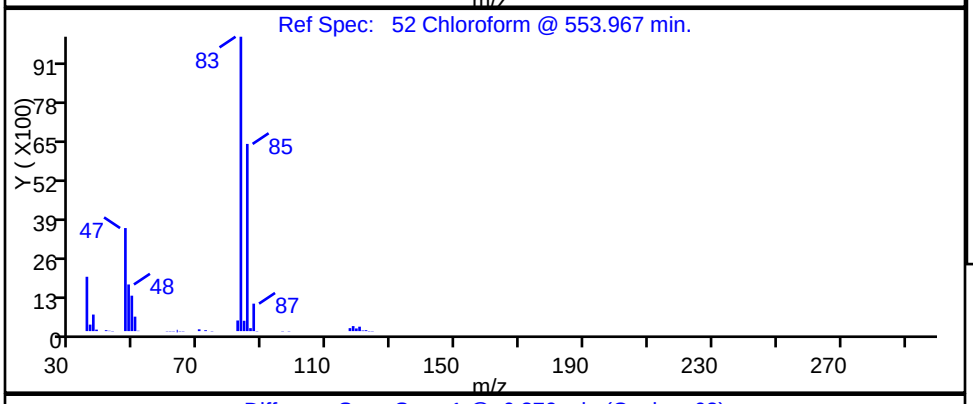
52 Chloroform, CAS: 67-66-3

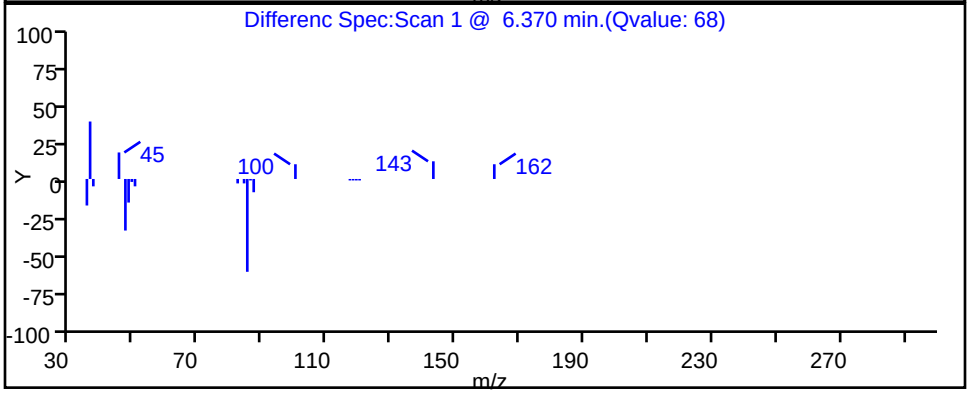










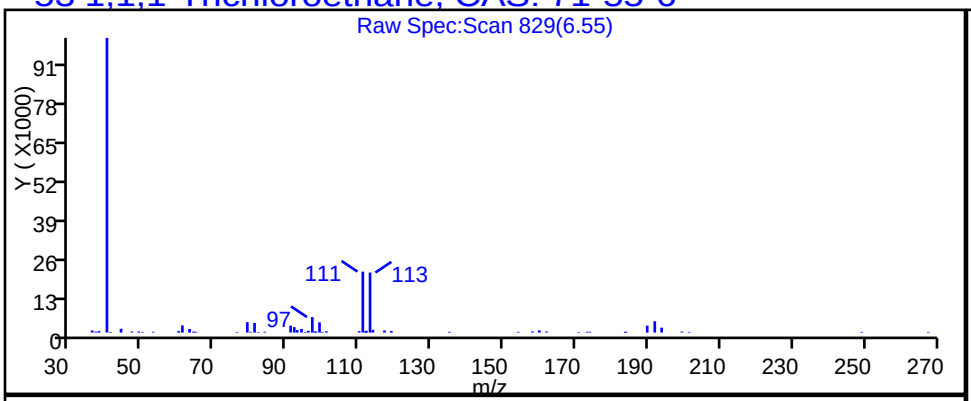


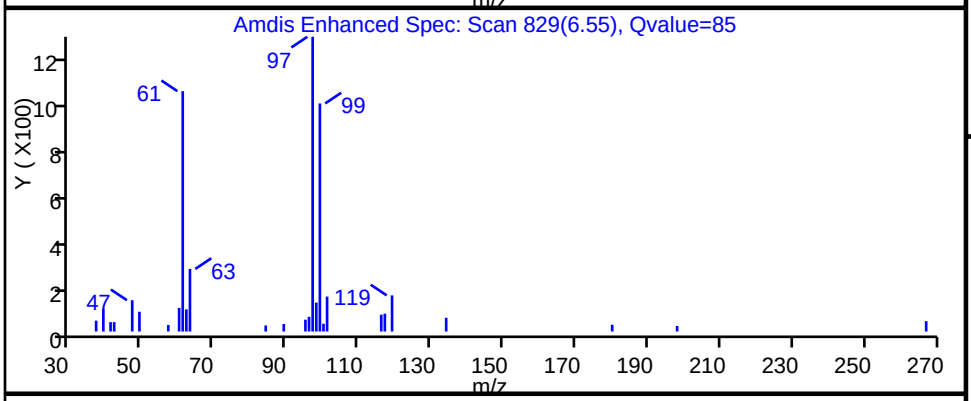
Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

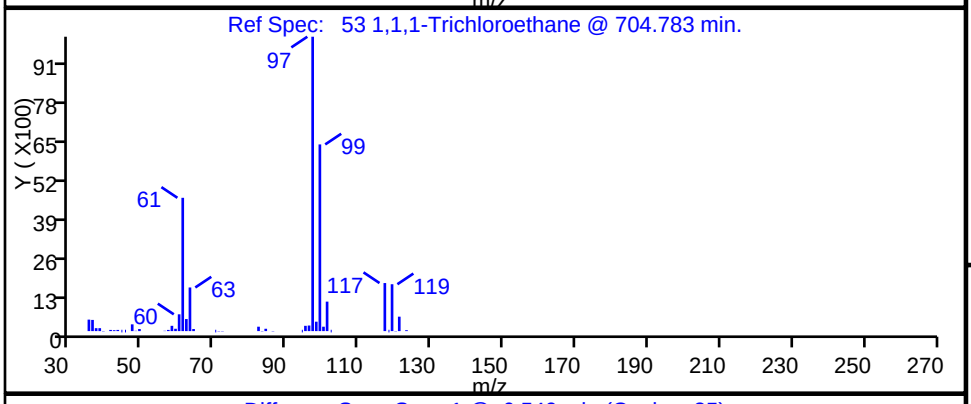
TestAmerica Pittsburgh

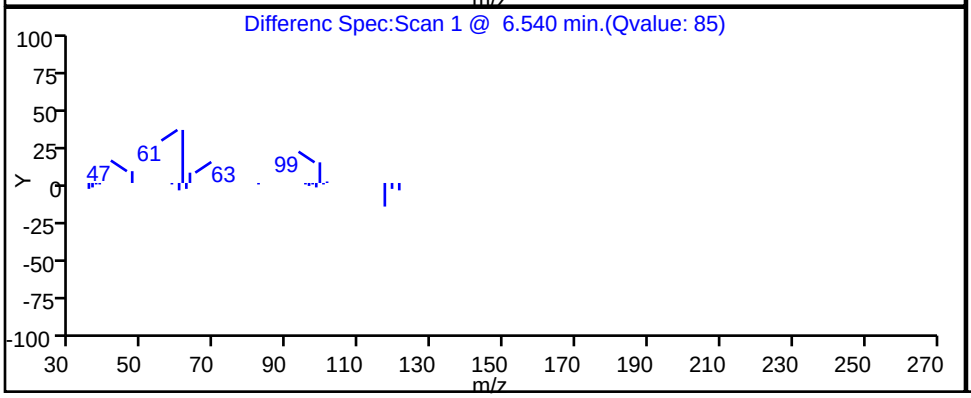
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D				
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3		
Client ID:	HD-MW-100I-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

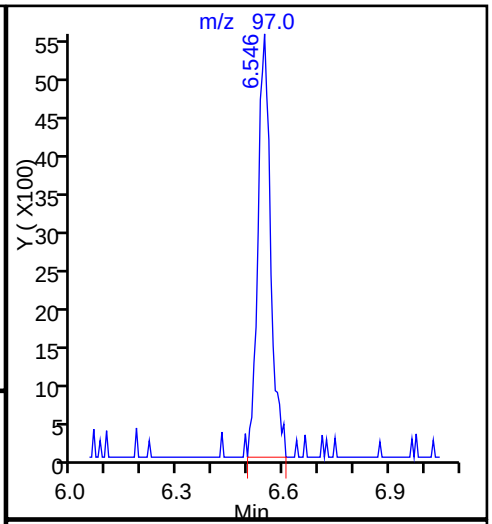
53 1,1,1-Trichloroethane, CAS: 71-55-6

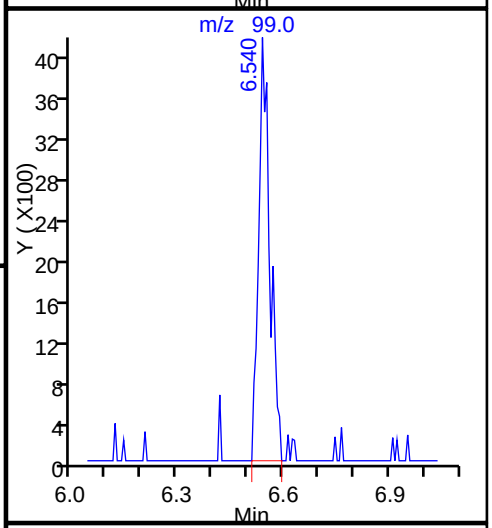


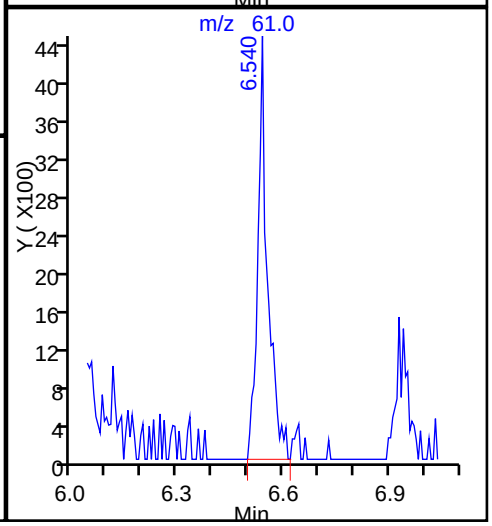










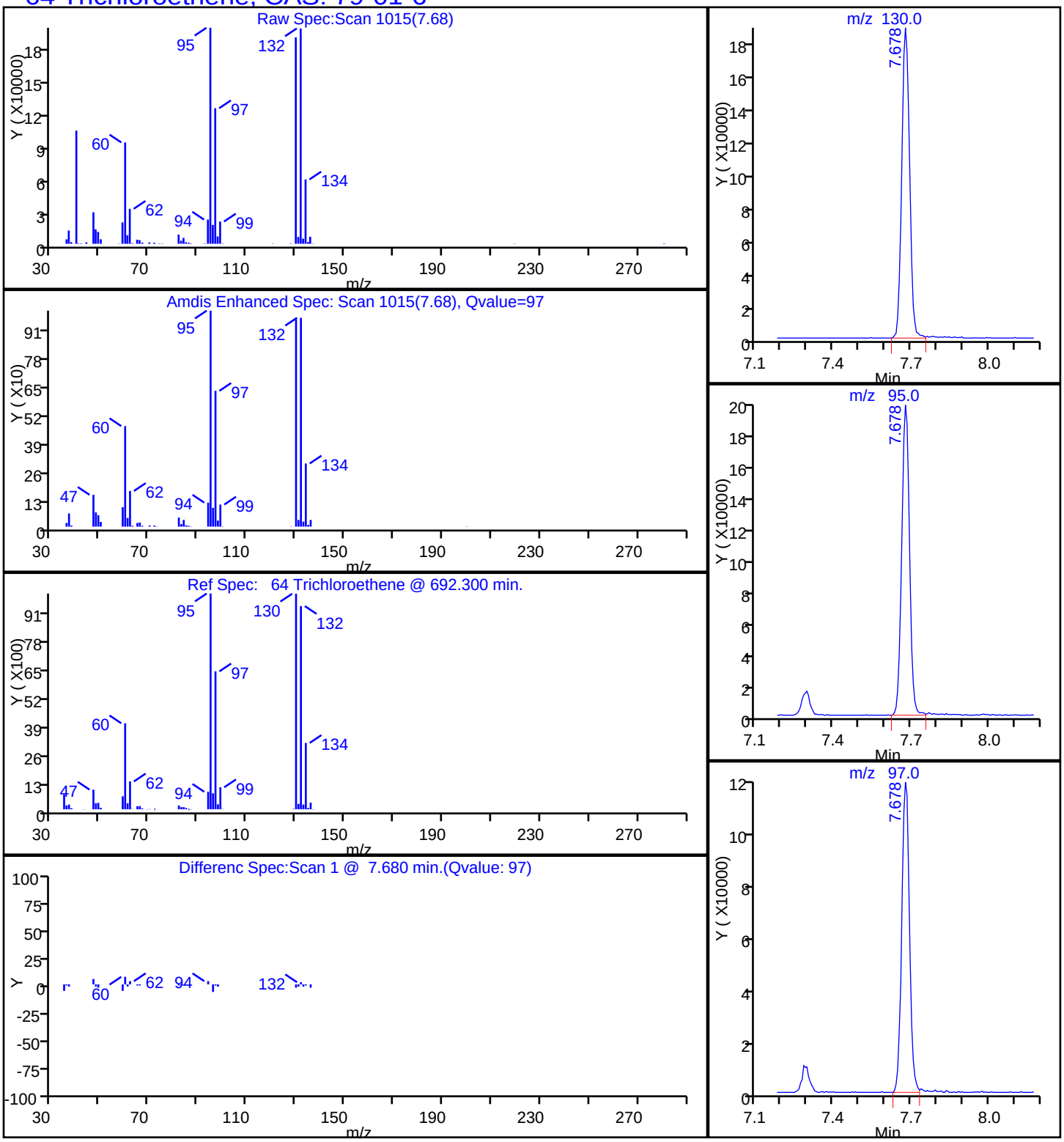


Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D				
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3		
Client ID:	HD-MW-100I-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

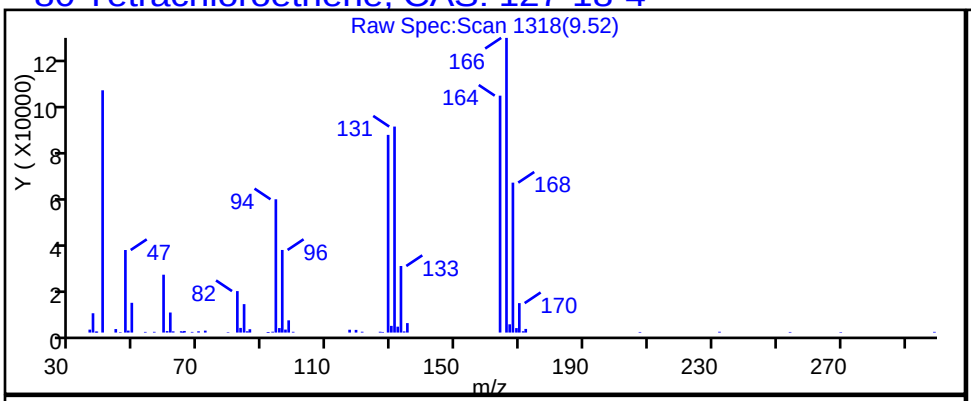


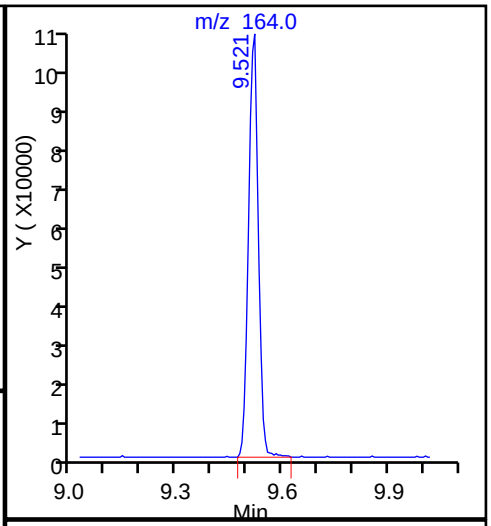
Report Date: 28-May-2015 07:44:21 Chrom Revision: 2.2 05-May-2015 11:39:10

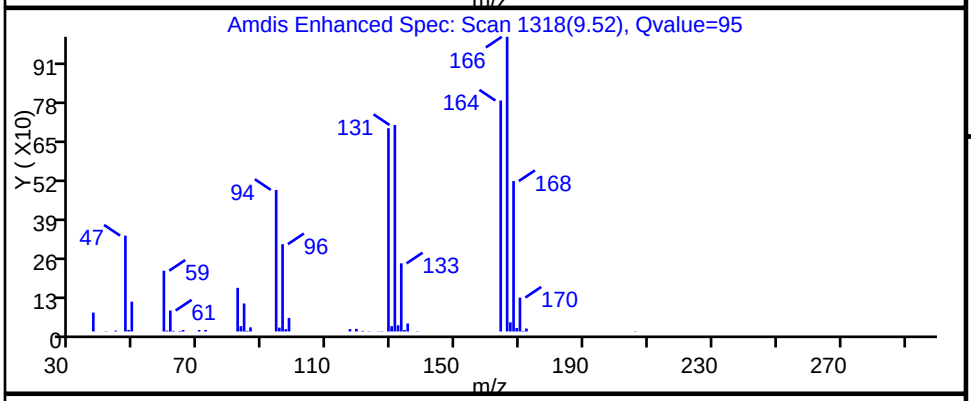
TestAmerica Pittsburgh

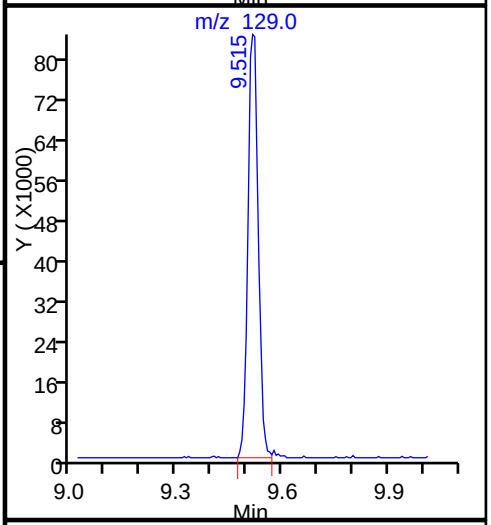
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D		
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3
Client ID:	HD-MW-100I-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

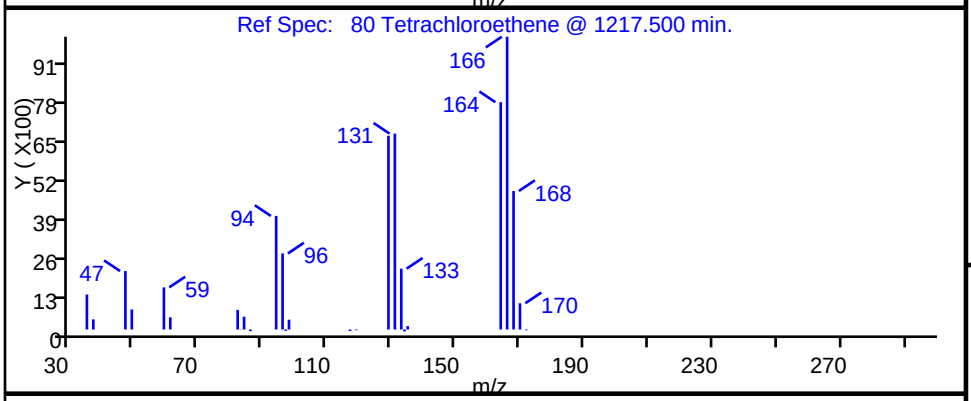
80 Tetrachloroethene, CAS: 127-18-4

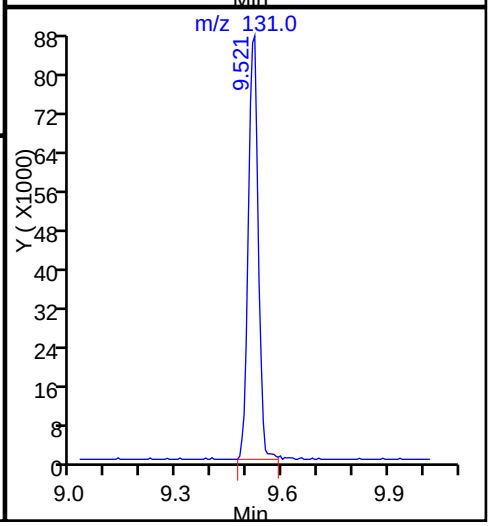


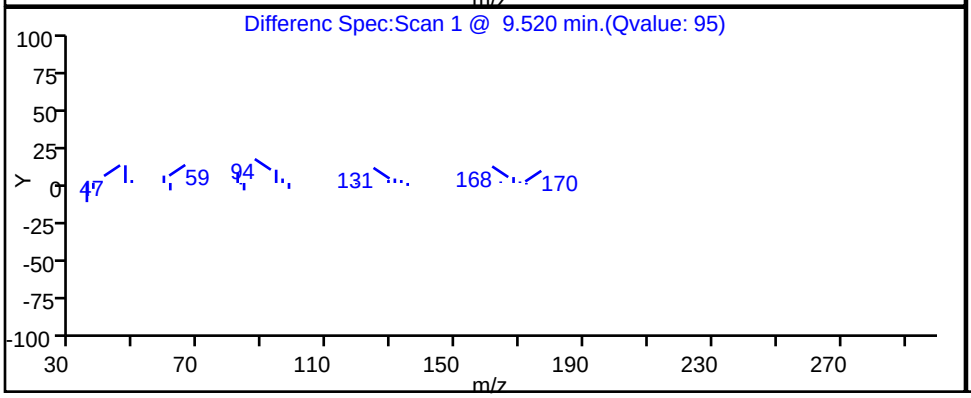












Manual Integration/User Assign Peak Report

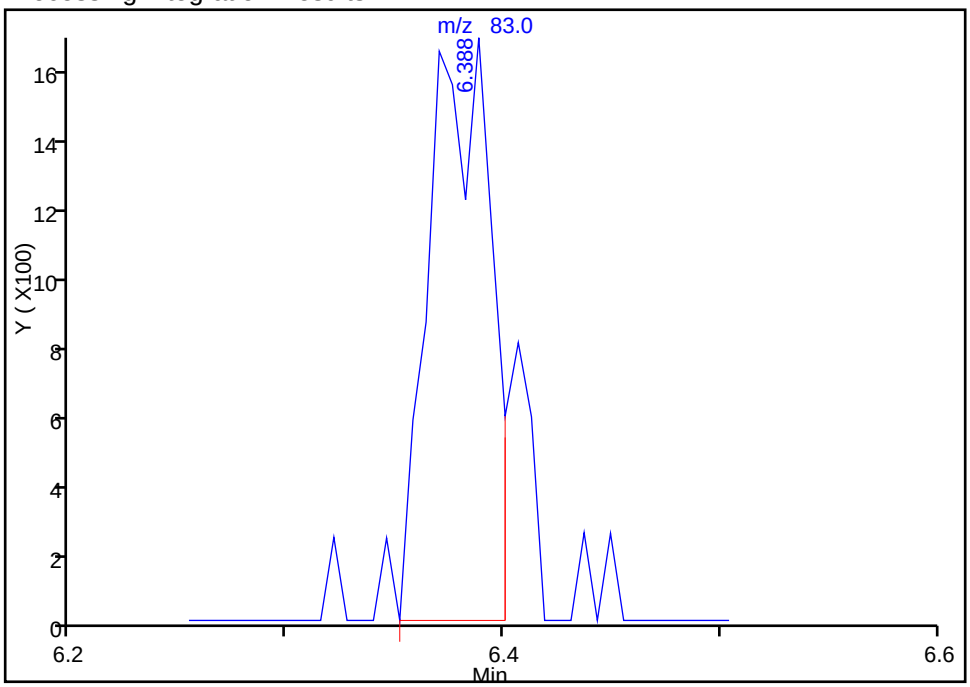
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527022.D				
Injection Date:	27-May-2015 18:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-3	Lab Sample ID:	180-44248-3		
Client ID:	HD-MW-100I-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	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		

52 Chloroform, CAS: 67-66-3

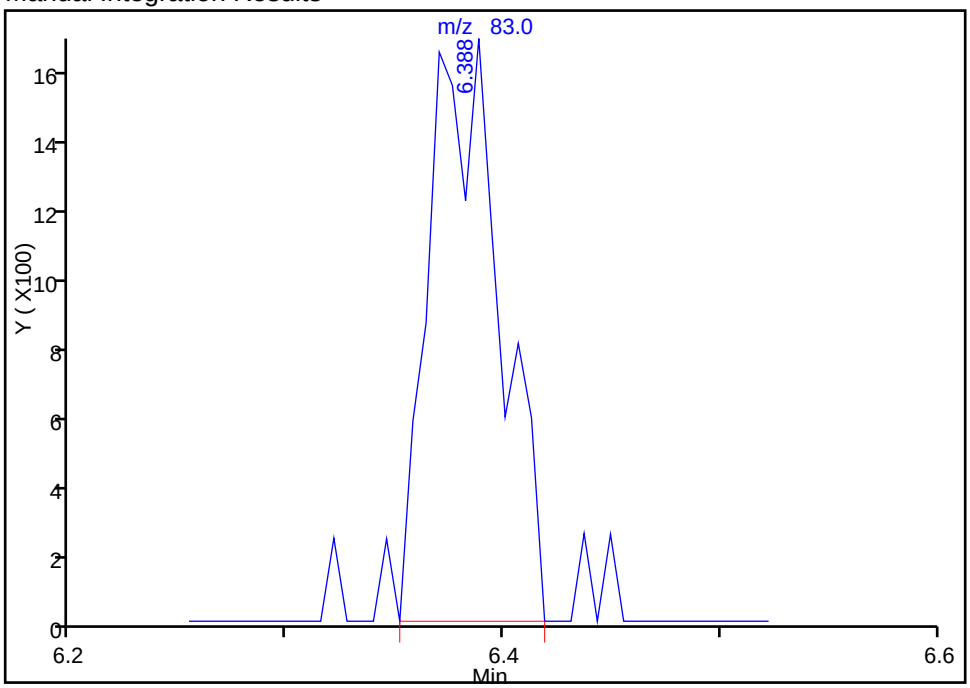
Processing Integration Results

RT: 6.39
Area: 3287
Amount: 1.048814
Amount Units: ng



Manual Integration Results

RT: 6.39
Area: 3781
Amount: 1.206440
Amount Units: ng



Reviewer: fergusond, 28-May-2015 07:44:20
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 | Lab Sample ID: 180-44248-4

Matrix: Water | Lab File ID: 50528014.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 16:49

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.3		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.44	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	19		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.22	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.82	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	31		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	25		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 | Lab Sample ID: 180-44248-4

Matrix: Water | Lab File ID: 50528014.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 16:49

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143033 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D
Lims ID: 180-44248-C-4 Lab Sample ID: 180-44248-4
Client ID: HD-MW-100D-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 16:49:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44248-C-4
Misc. Info.: 180-0007155-014
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:12:53 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:12:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.277	-0.005	0	178160	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	474531	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.385	0.001	87	100553	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.727	0.007	97	129760	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	110221	53.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.936	0.001	0	146076	57.3	
$ 7 Toluene-d8 (Surr)	98	8.938	8.937	0.001	94	412999	55.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	88	125265	46.7	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	94	14336	6.31	
24 Acetone	43	3.439	3.444	-0.005	58	2084	2.23	
26 Carbon disulfide	76	3.627	3.626	0.001	31	3811	0.6290	
31 Methylene Chloride	84		4.143				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96	4.558	4.563	-0.005	28	1334	0.5302	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63	5.197	5.196	0.001	85	10349	2.18	
45 cis-1,2-Dichloroethene	96	5.951	5.944	0.007	80	265257	95.4	
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.383	6.382	0.001	69	4722	1.11	
53 1,1,1-Trichloroethane	97	6.547	6.540	0.007	35	13442	4.08	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.679	7.678	0.001	97	415654	153.4	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.516	9.515	0.001	95	224254	124.4	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

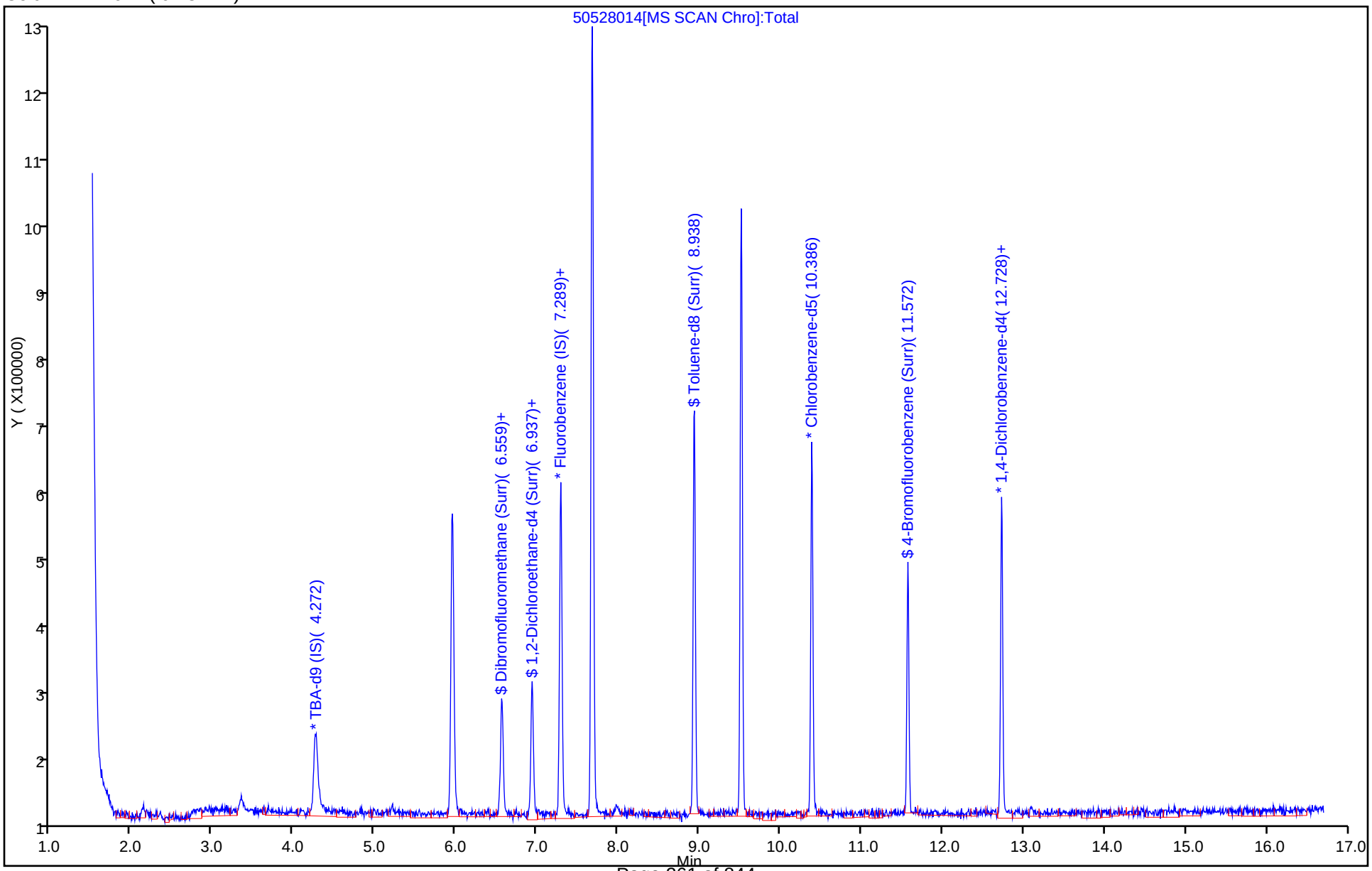
Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D

Injection Date:	28-May-2015 16:49:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-4	Lab Sample ID:	180-44248-4	Worklist Smp#:	14
Client ID:	HD-MW-100D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

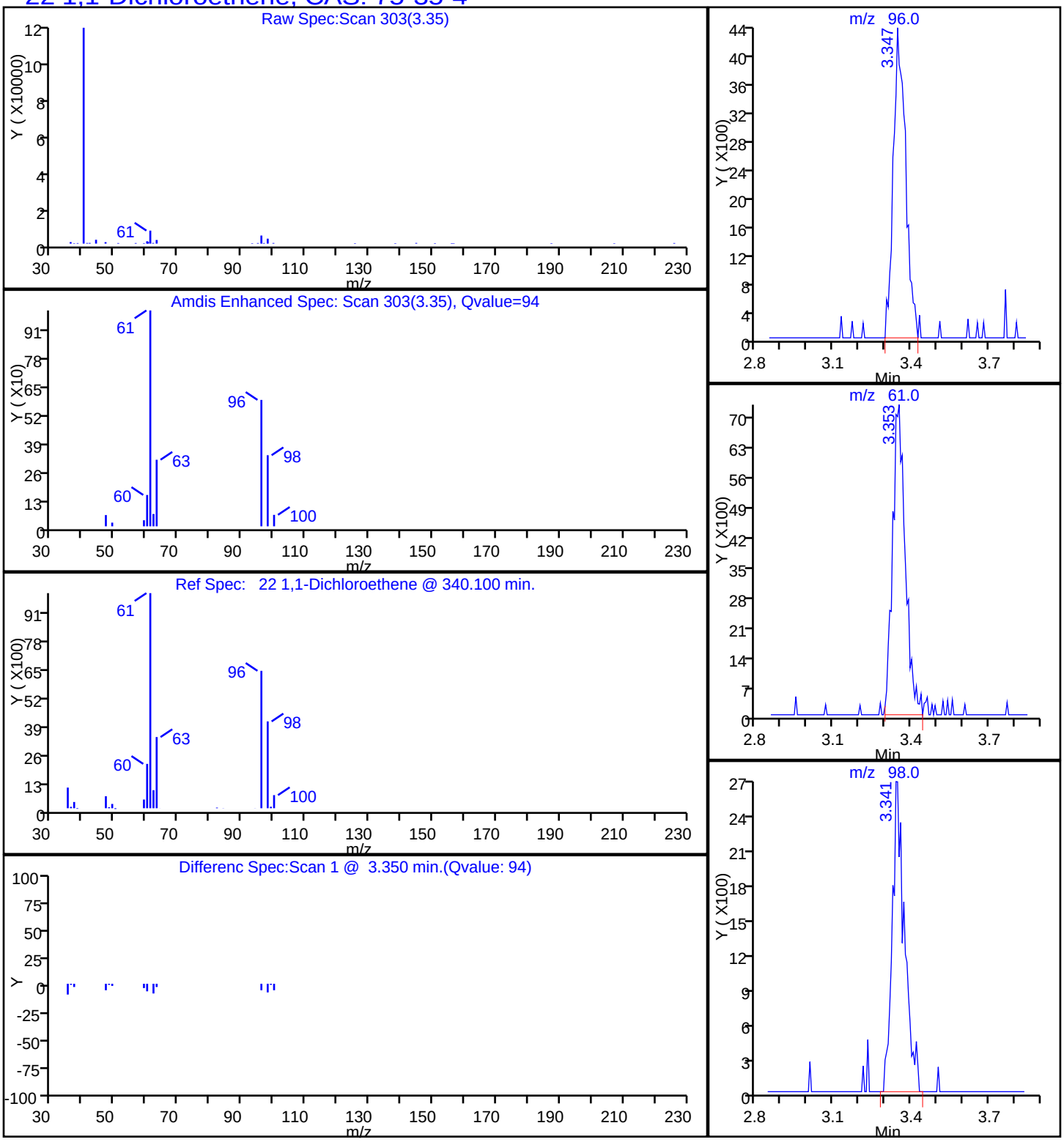


Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D				
Injection Date:	28-May-2015 16:49:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-4	Lab Sample ID:	180-44248-4		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

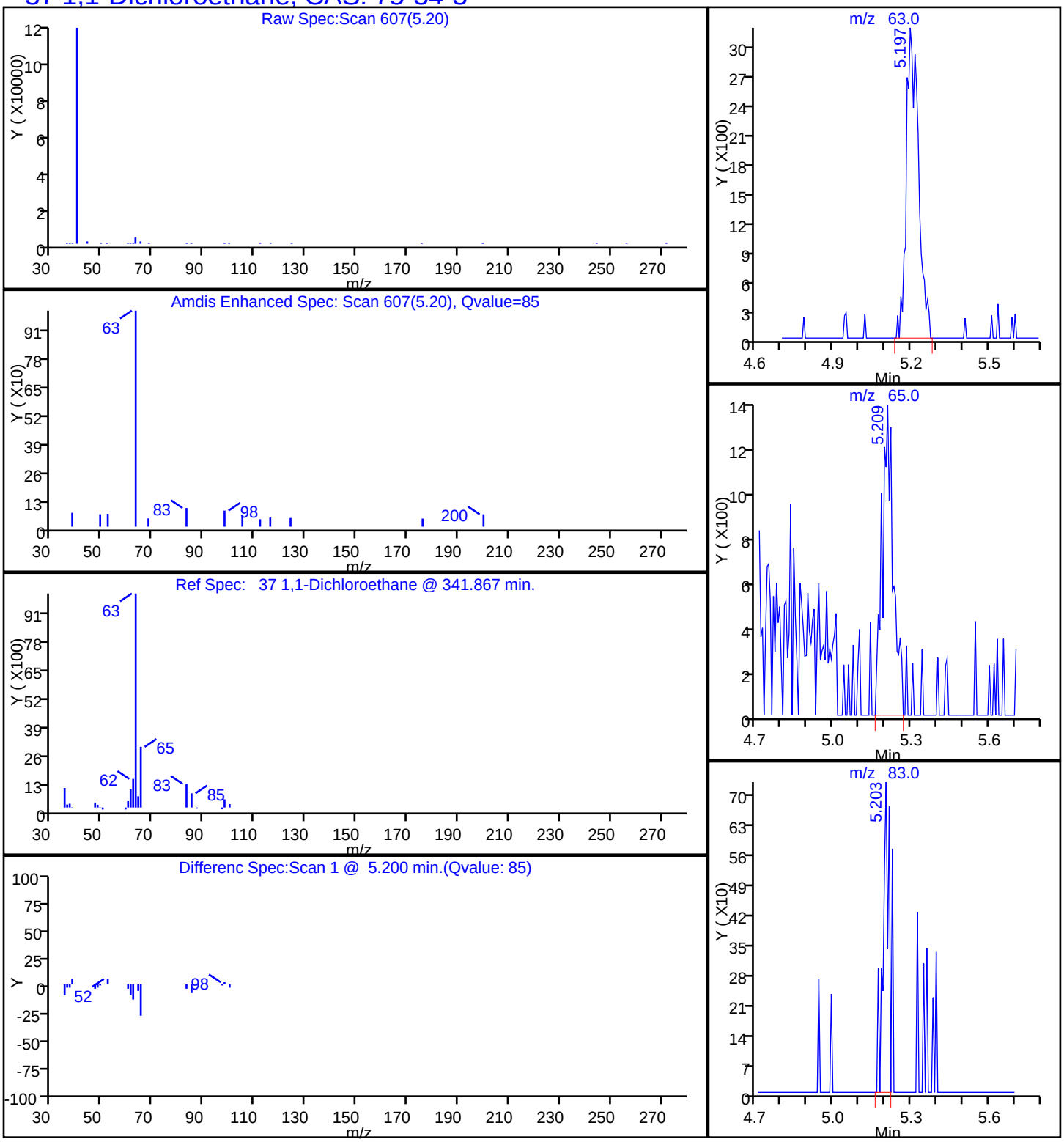


Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D				
Injection Date:	28-May-2015 16:49:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-4	Lab Sample ID:	180-44248-4		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

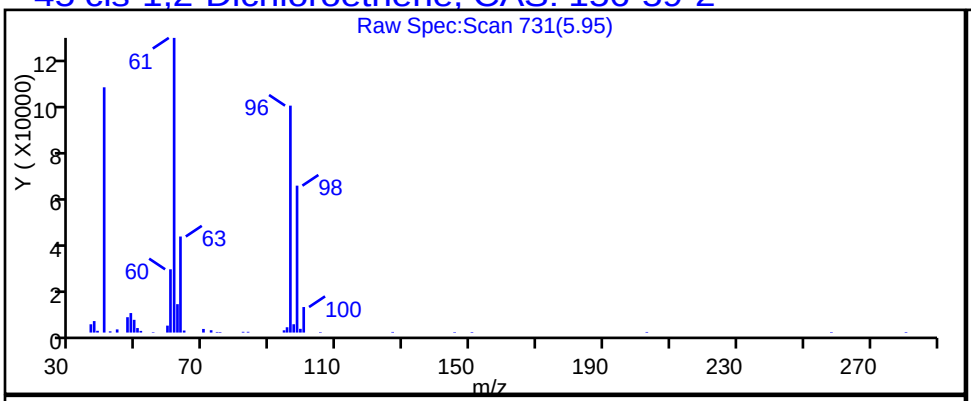


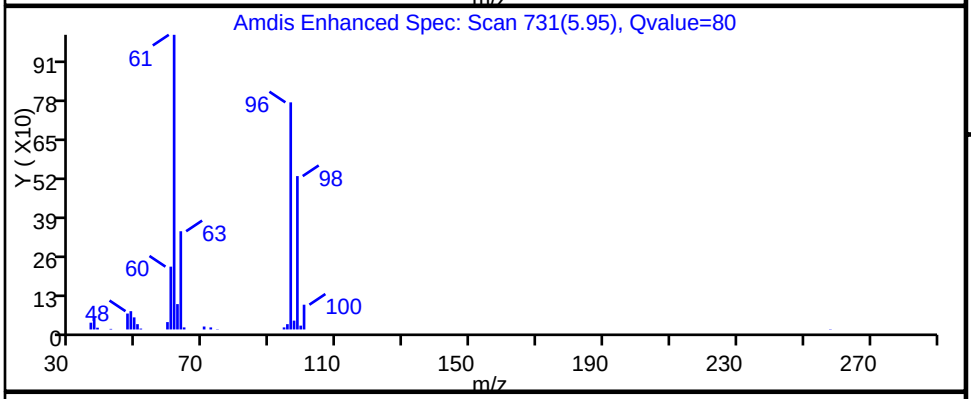
Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

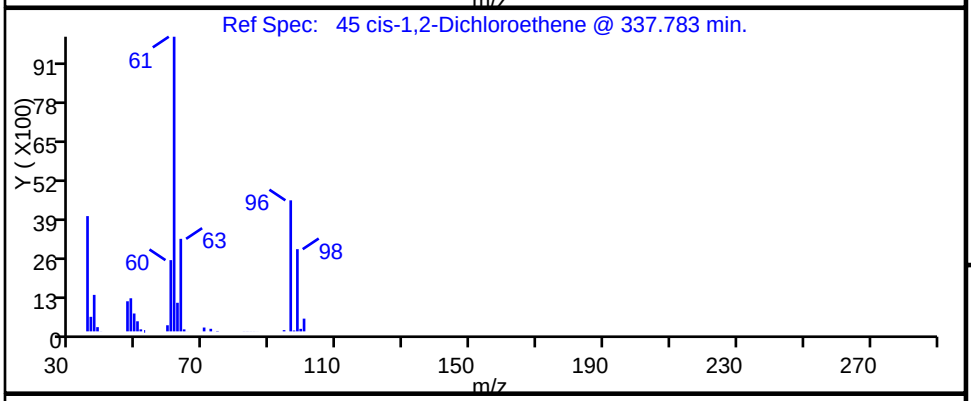
TestAmerica Pittsburgh

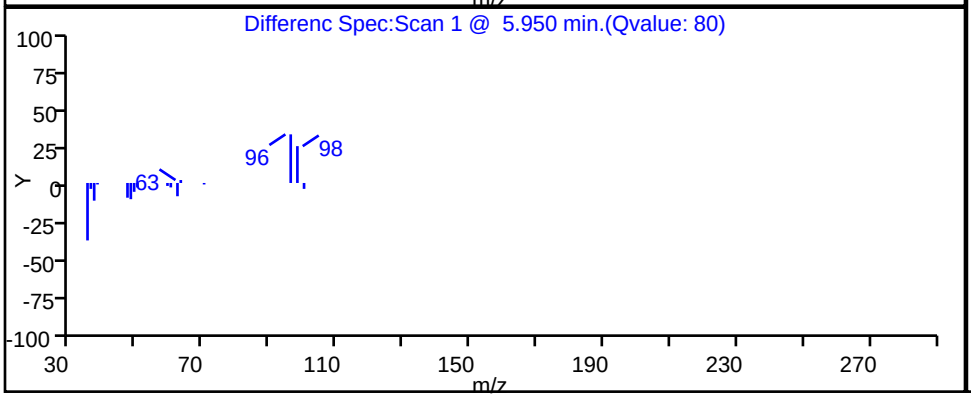
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D				
Injection Date:	28-May-2015 16:49:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-4	Lab Sample ID:	180-44248-4		
Client ID:	HD-MW-100D-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

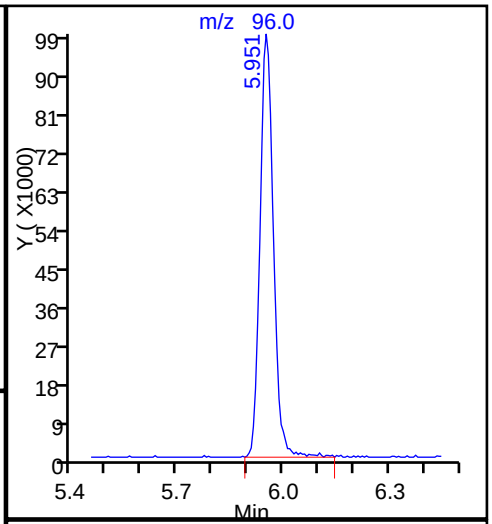
45 cis-1,2-Dichloroethene, CAS: 156-59-2

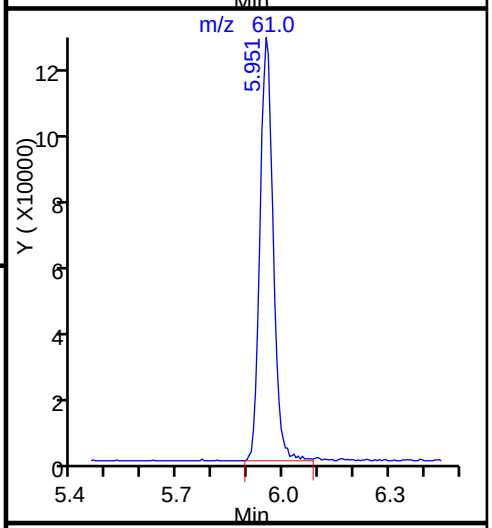


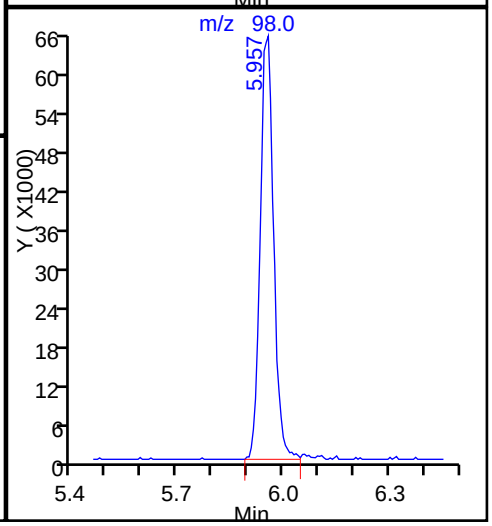












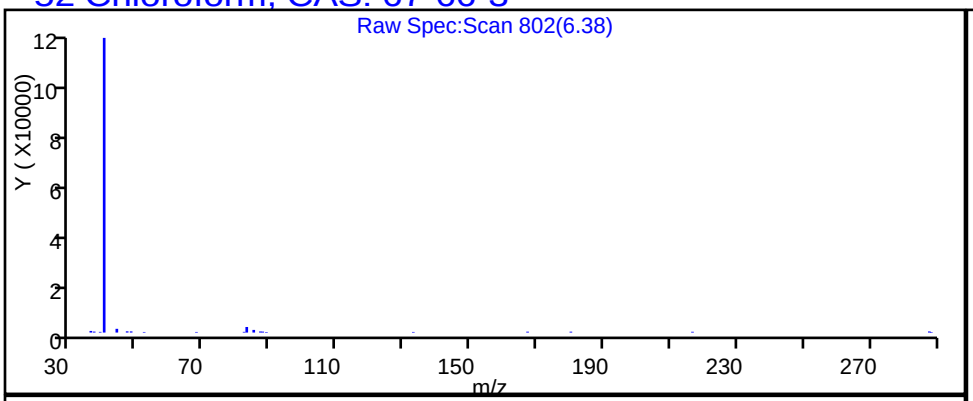
Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

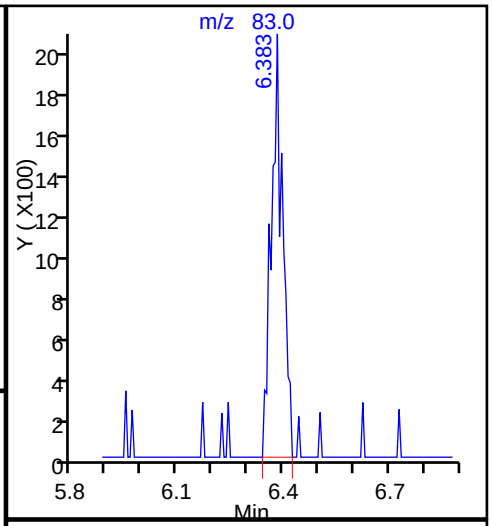
TestAmerica Pittsburgh

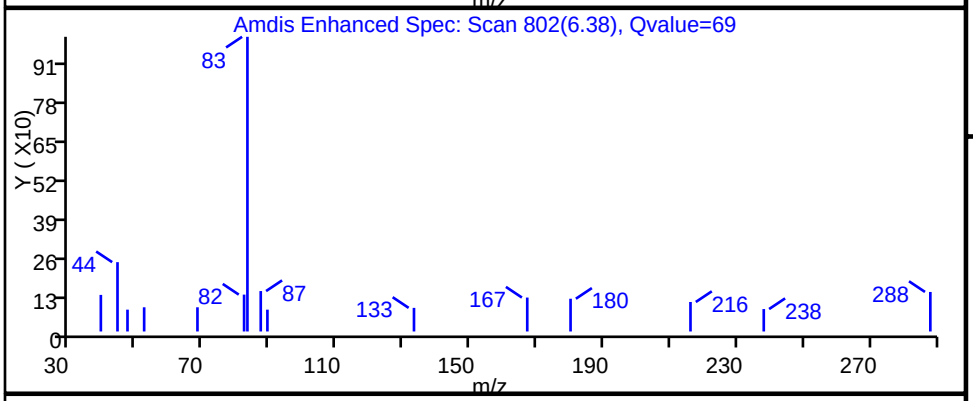
Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D

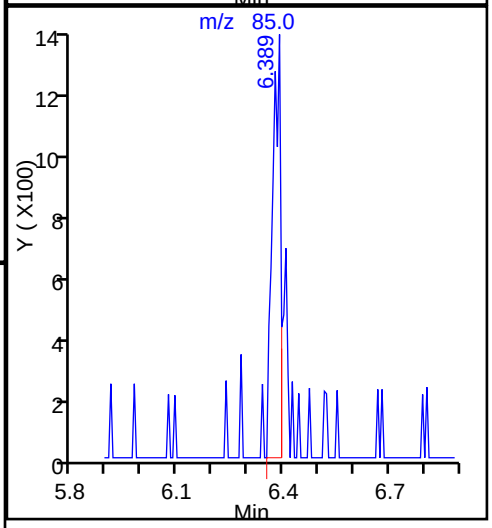
Injection Date:	28-May-2015 16:49:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-4	Lab Sample ID:	180-44248-4
Client ID:	HD-MW-100D-0/1-0		
Operator ID:	001562	ALS Bottle#:	13 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

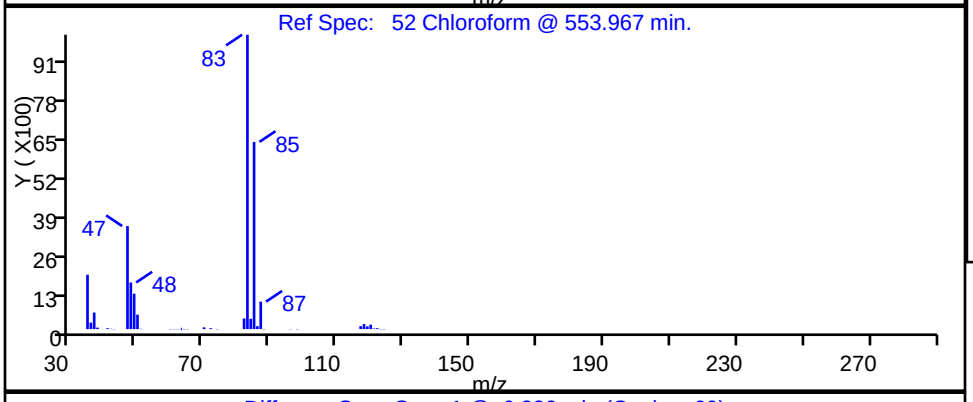
52 Chloroform, CAS: 67-66-3

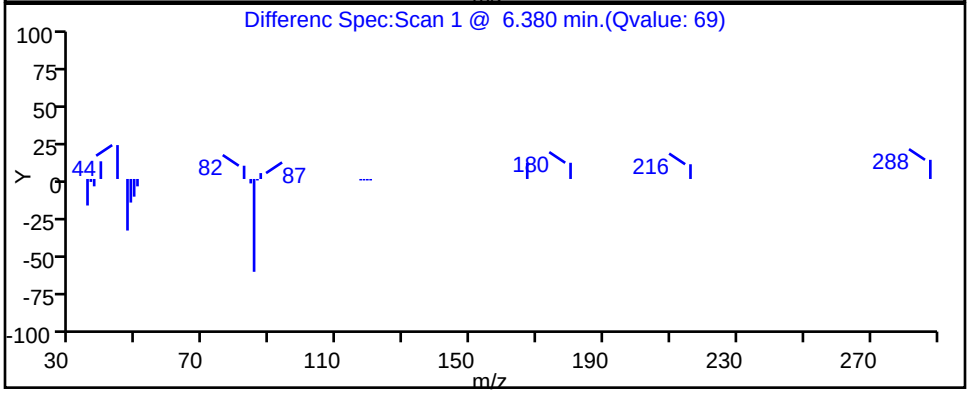












Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D

Injection Date: 28-May-2015 16:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-4 Lab Sample ID: 180-44248-4

Client ID: HD-MW-100D-0/1-0

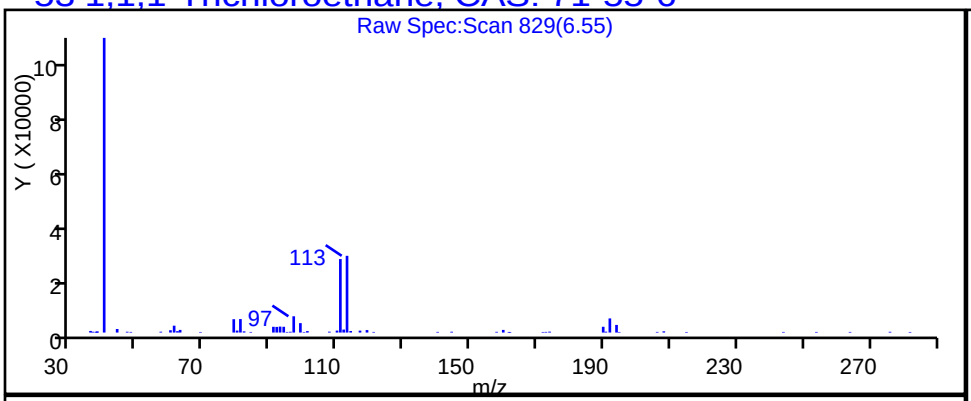
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 14

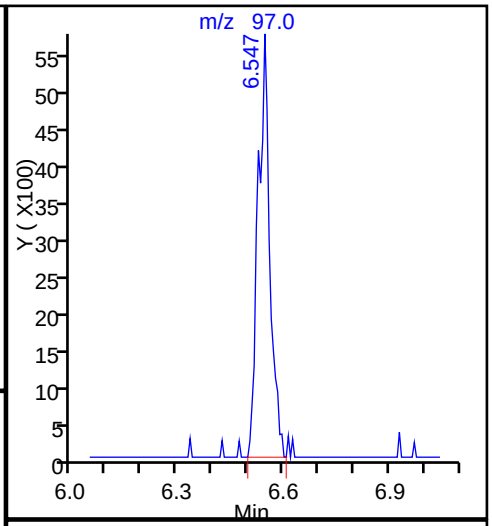
Purge Vol: 5.000 mL Dil. Factor: 1.0000

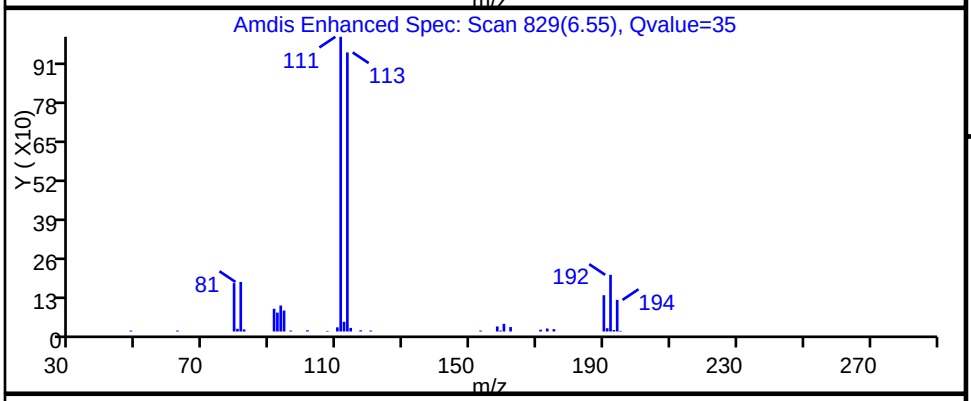
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

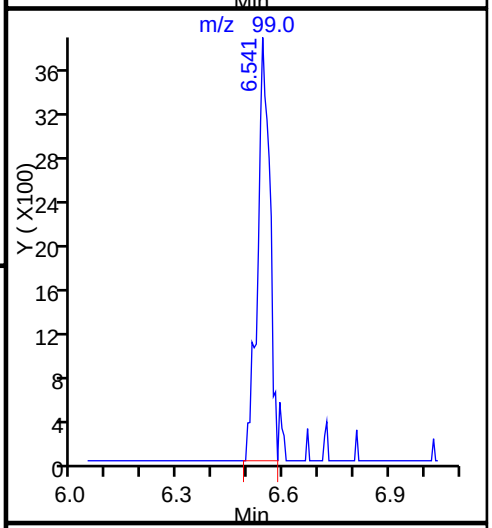
Column: DB-624 (0.18 mm) Detector MS SCAN

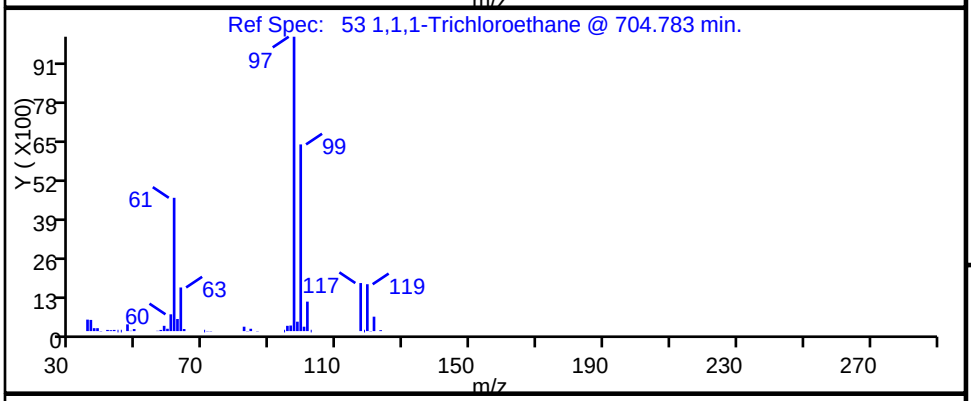
53 1,1,1-Trichloroethane, CAS: 71-55-6

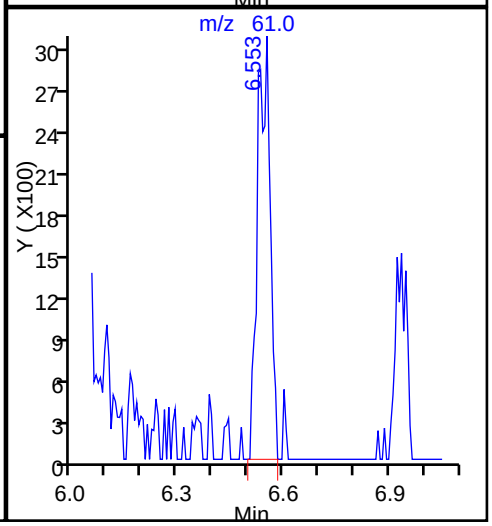


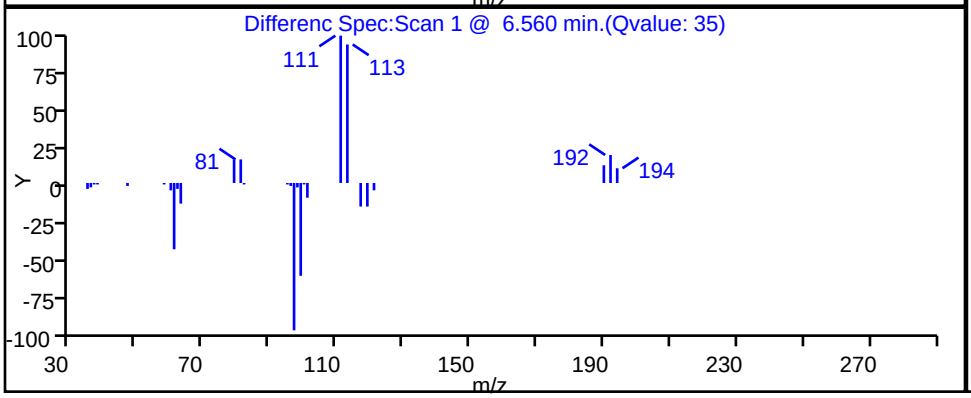












Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D

Injection Date: 28-May-2015 16:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-4 Lab Sample ID: 180-44248-4

Client ID: HD-MW-100D-0/1-0

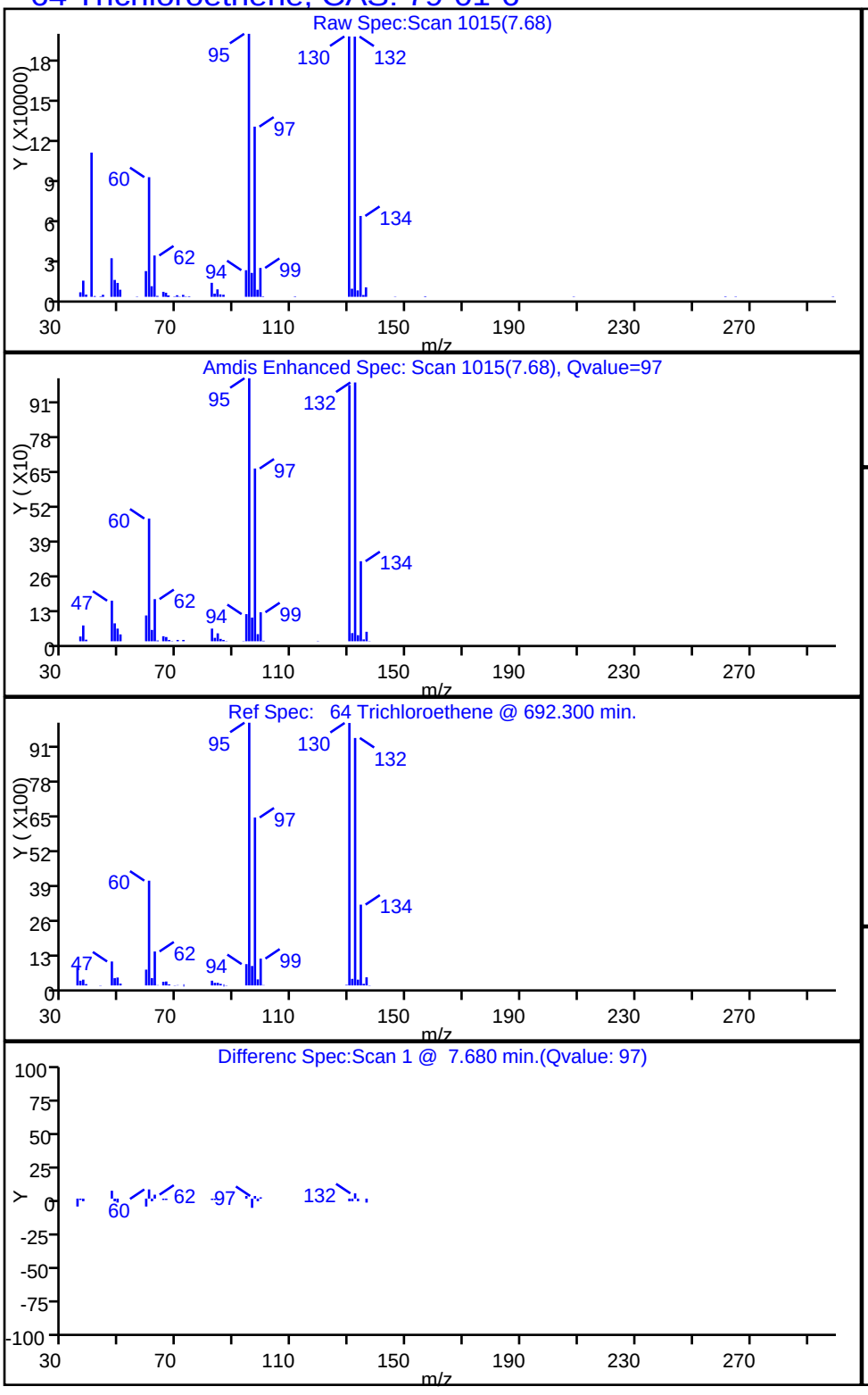
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 14

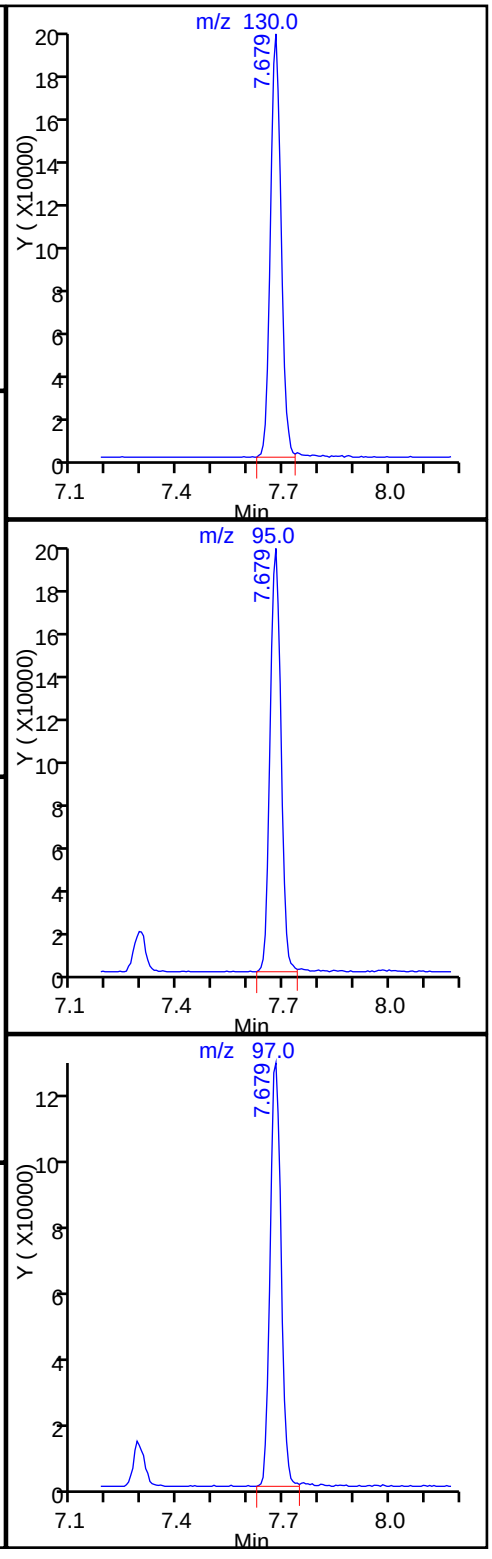
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

64 Trichloroethene, CAS: 79-01-6





Report Date: 29-May-2015 06:12:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528014.D

Injection Date: 28-May-2015 16:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-4 Lab Sample ID: 180-44248-4

Client ID: HD-MW-100D-0/1-0

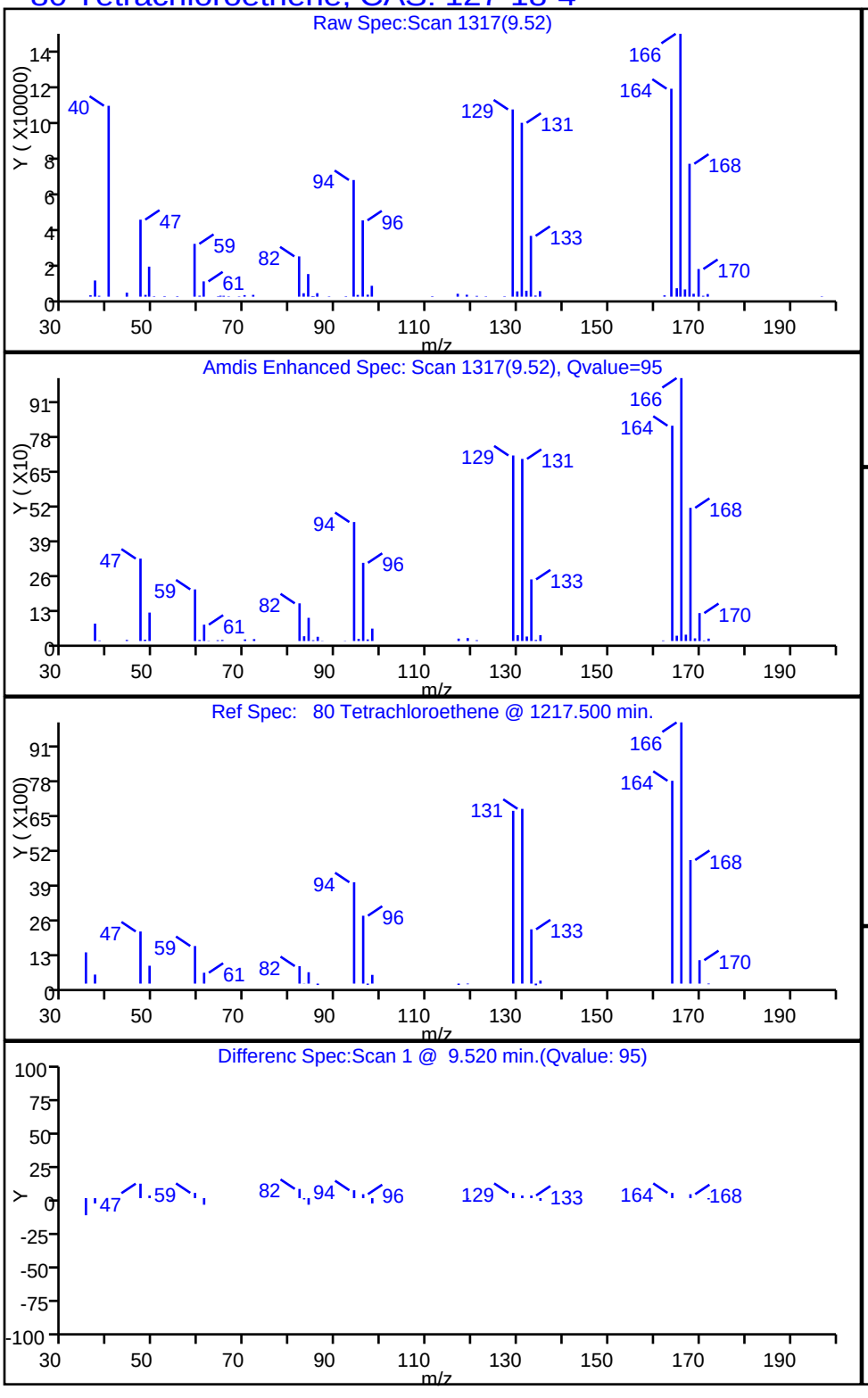
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 14

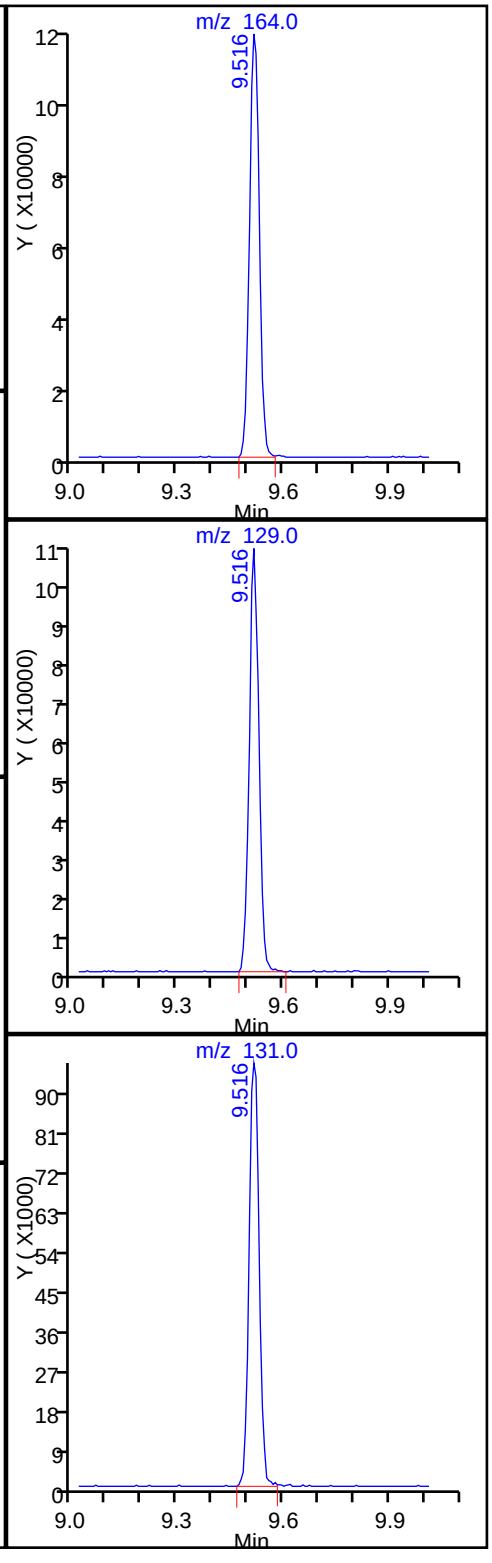
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 | Lab Sample ID: 180-44248-5

Matrix: Water | Lab File ID: 50527025.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 20:02

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.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	5.9		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.25	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	5.4		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	4.3		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 | Lab Sample ID: 180-44248-5

Matrix: Water | Lab File ID: 50527025.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 20:02

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.: 142864 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D
Lims ID: 180-44248-C-5 Lab Sample ID: 180-44248-5
Client ID: HD-MW-147A-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 20:02:30 ALS Bottle#: 22 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44248-C-5
Misc. Info.: 180-0007136-025
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:46:25 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:46:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.274	-0.008	0	139891	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.292	-0.002	98	330633	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	88	74810	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	97	94496	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.561	0.005	93	81938	57.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.933	0.004	0	105371	59.3	
$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	283698	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	88	93214	46.7	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.348	3.343	0.005	6	2188	1.38	
24 Acetone	43	3.451	3.441	0.010	1	2773	4.25	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	81	57249	29.5	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.389	6.379	0.010	25	3649	1.23	
53 1,1,1-Trichloroethane	97	6.541	6.543	-0.002	35	2768	1.20	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	96	51158	27.1	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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	90	28932	21.6	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

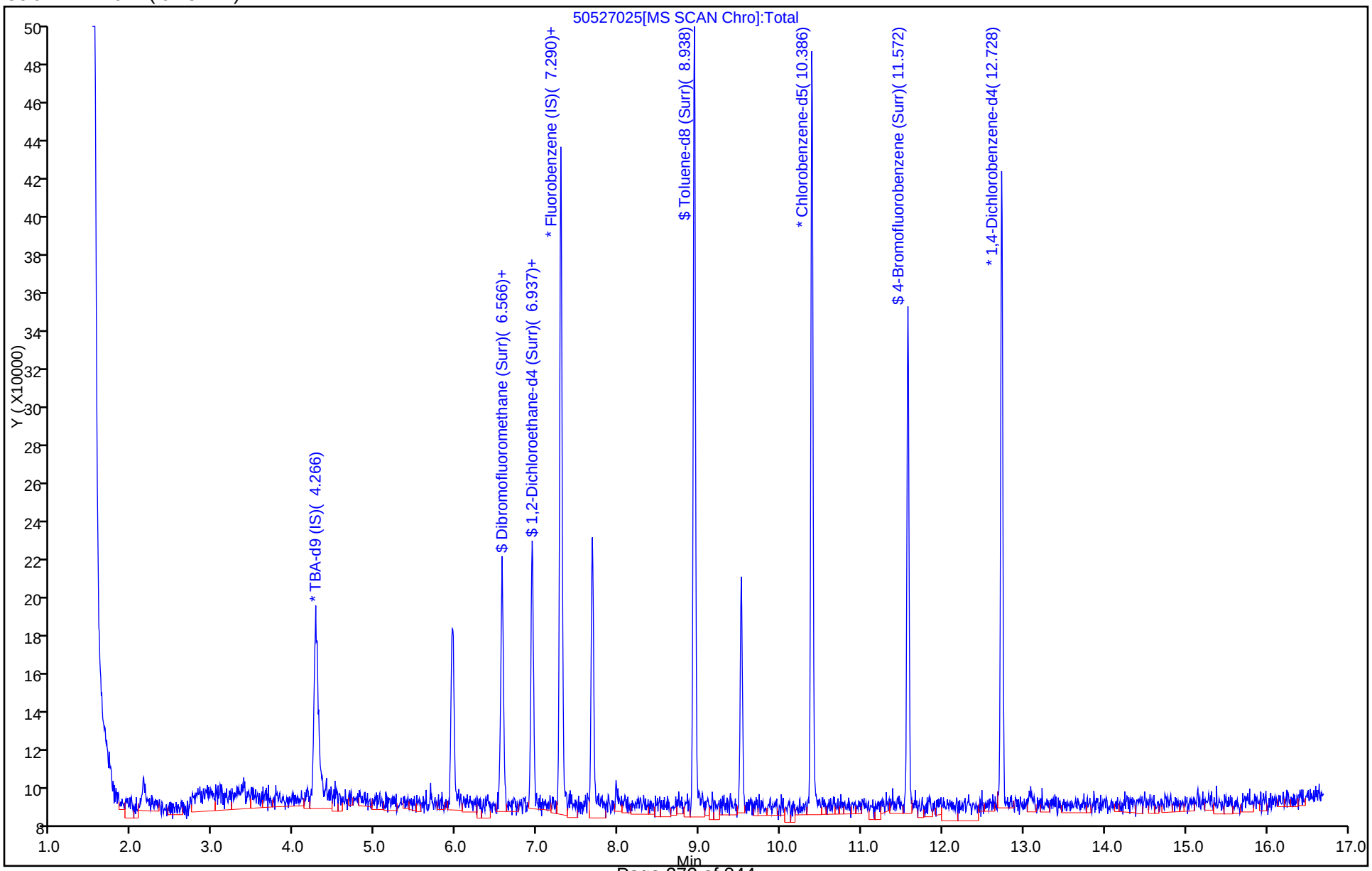
Report Date: 28-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D

Injection Date:	27-May-2015 20:02:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-5	Lab Sample ID:	180-44248-5	Worklist Smp#:	25
Client ID:	HD-MW-147A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

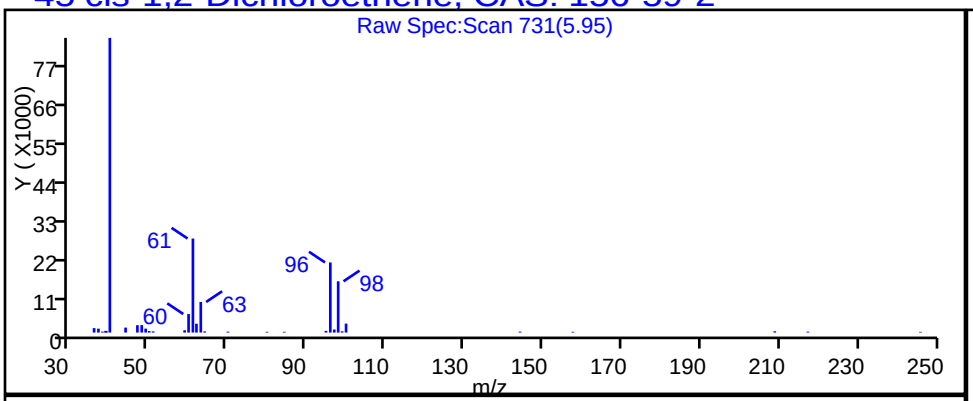


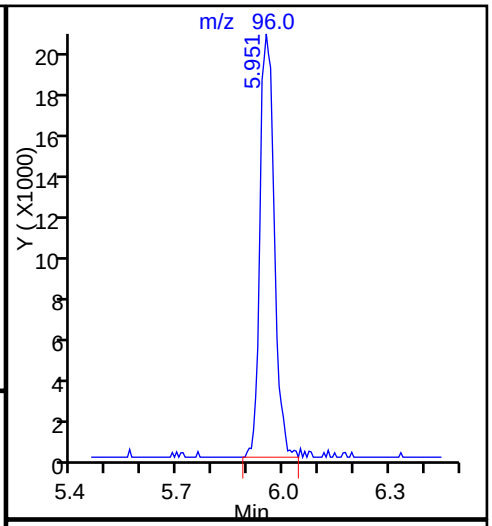
Report Date: 28-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

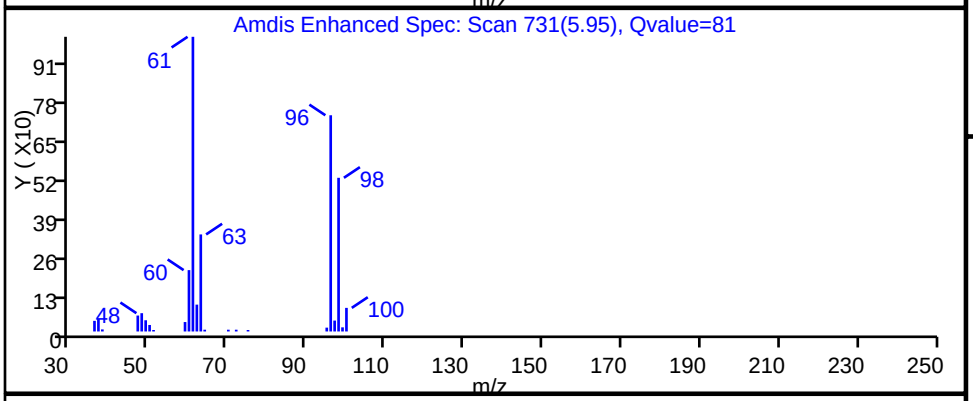
TestAmerica Pittsburgh

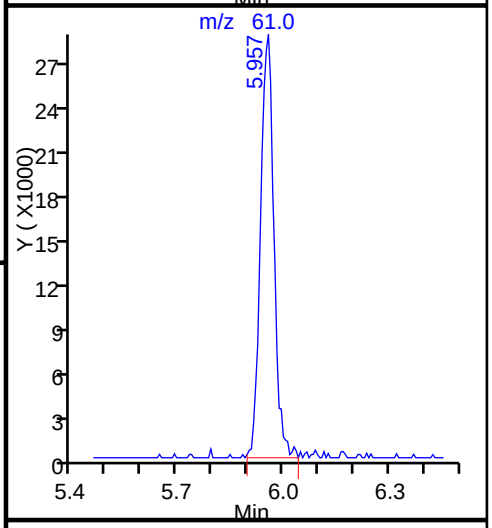
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D				
Injection Date:	27-May-2015 20:02:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-5	Lab Sample ID:	180-44248-5		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

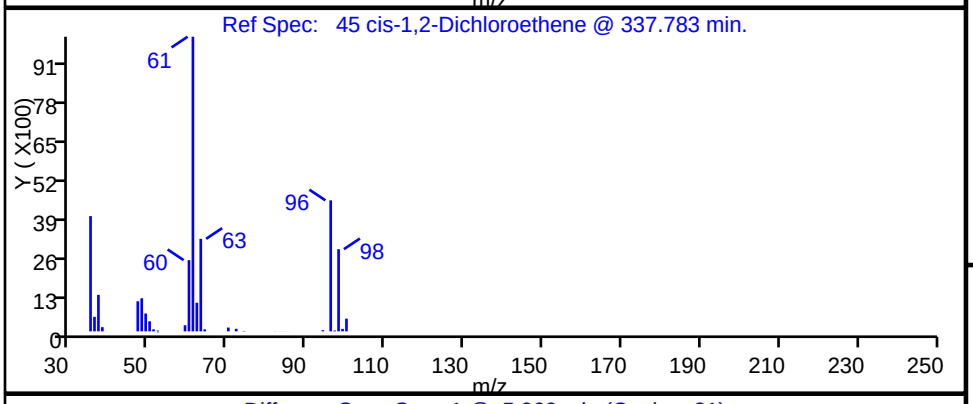
45 cis-1,2-Dichloroethene, CAS: 156-59-2

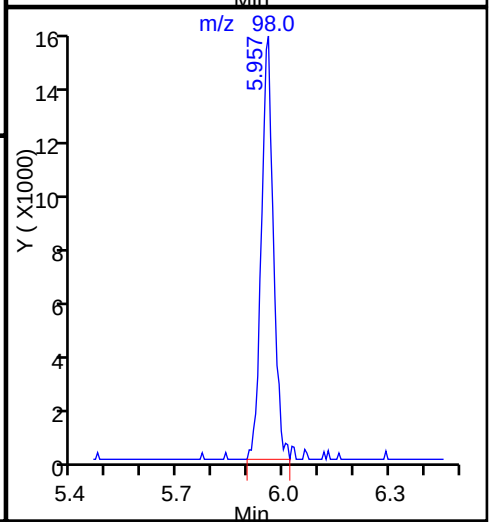


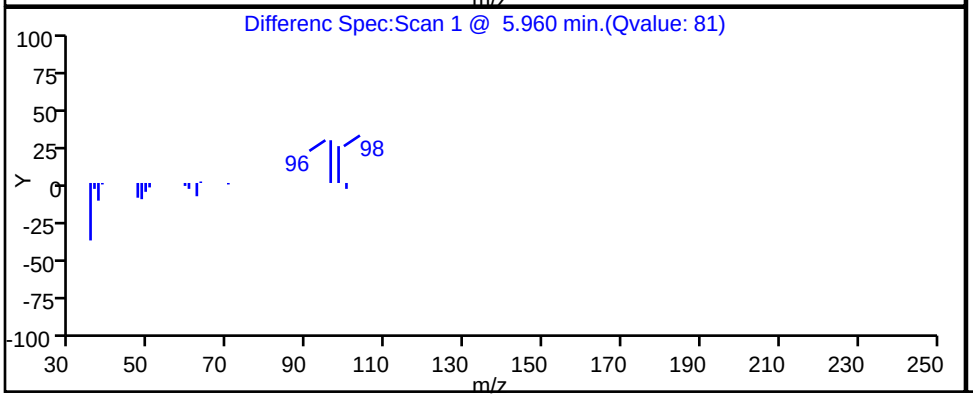










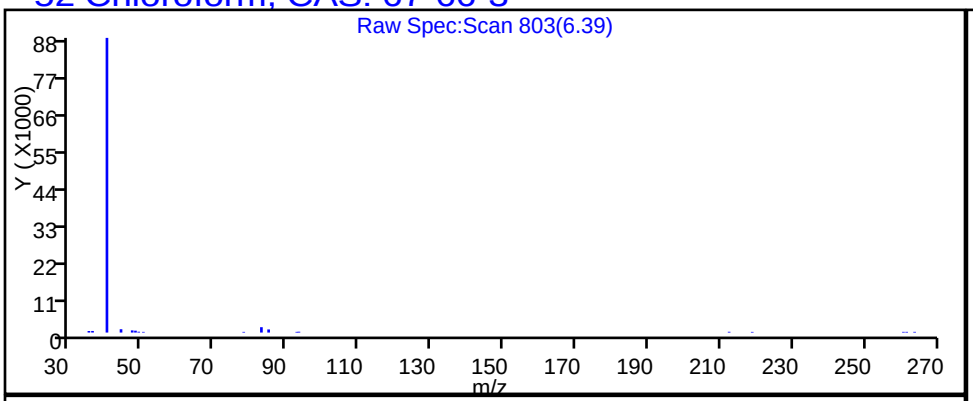


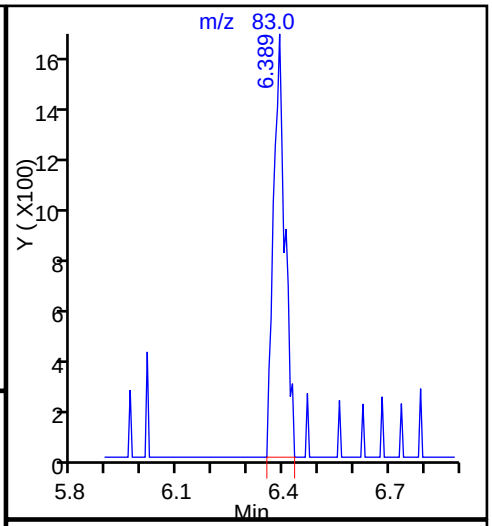
Report Date: 28-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

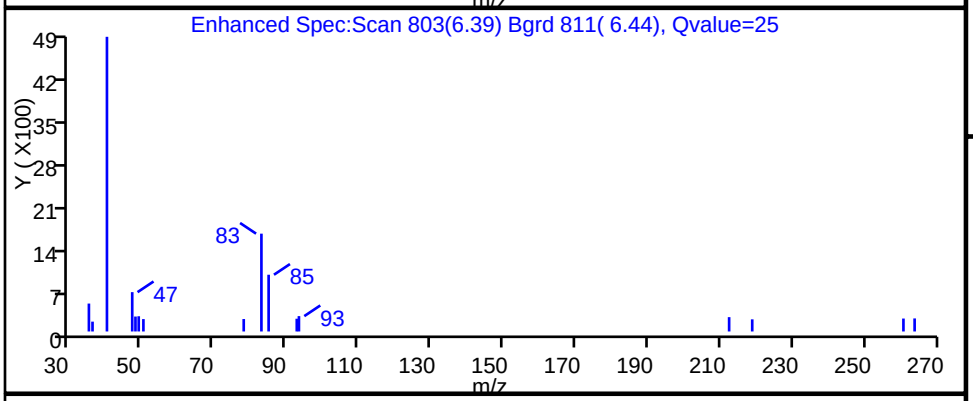
TestAmerica Pittsburgh

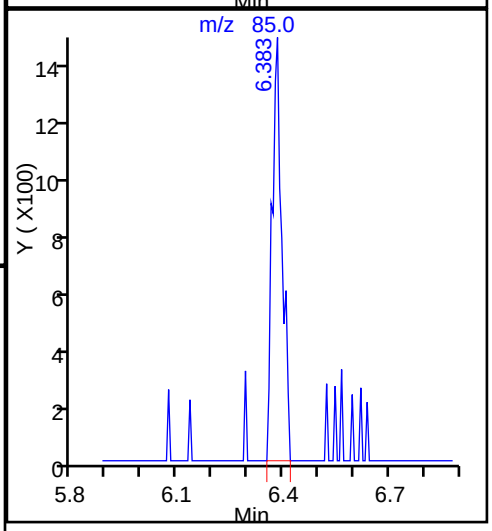
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D				
Injection Date:	27-May-2015 20:02:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-5	Lab Sample ID:	180-44248-5		
Client ID:	HD-MW-147A-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

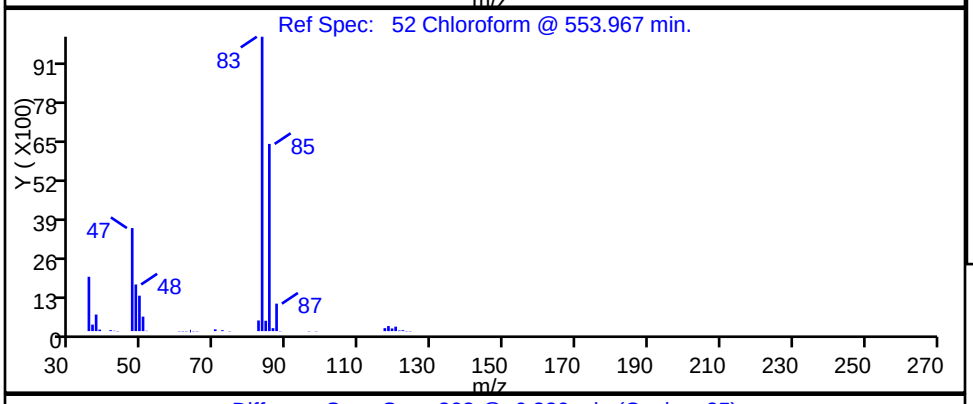
52 Chloroform, CAS: 67-66-3

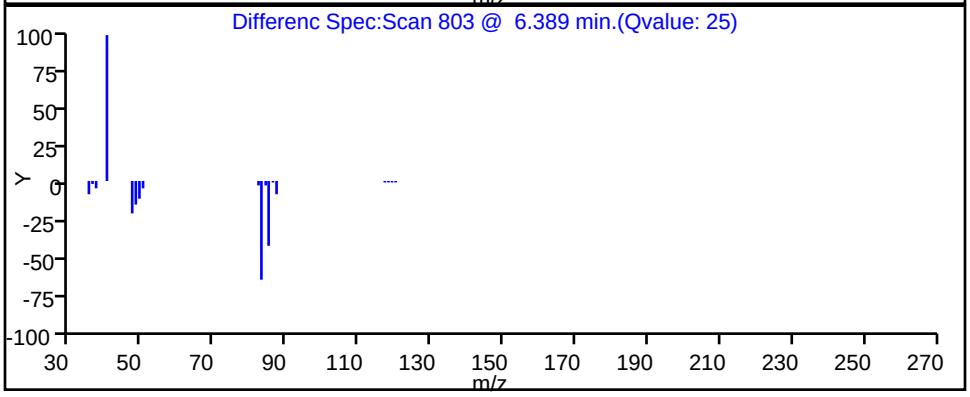










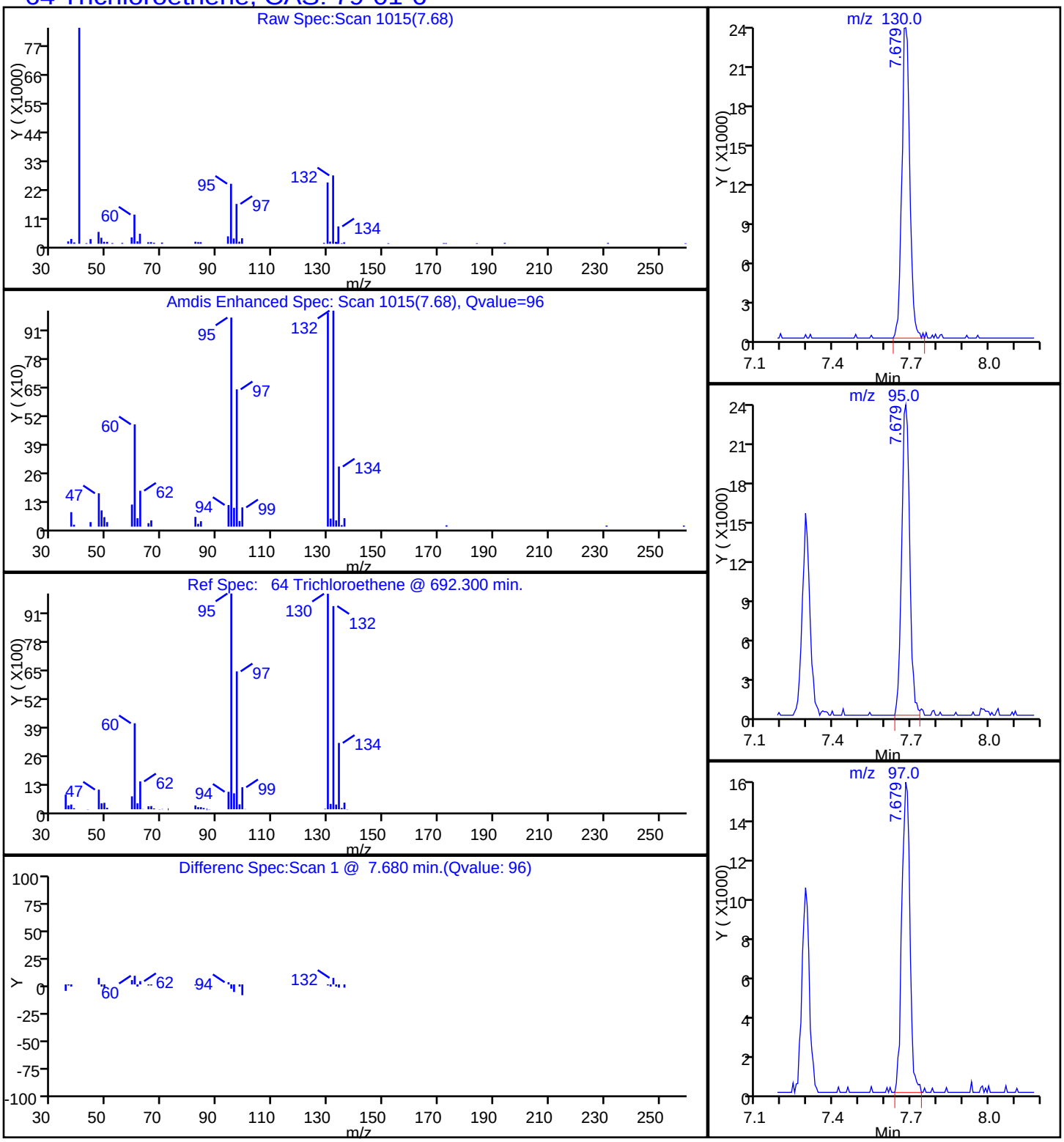


Report Date: 28-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D		
Injection Date:	27-May-2015 20:02:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-5	Lab Sample ID:	180-44248-5
Client ID:	HD-MW-147A-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 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

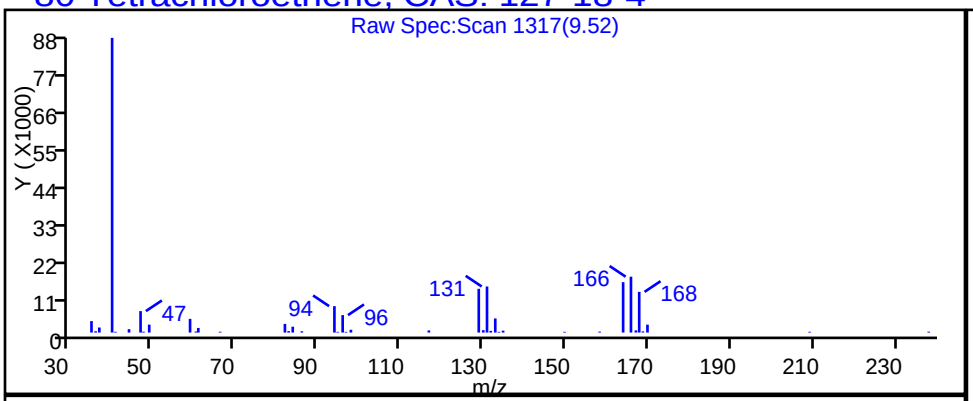


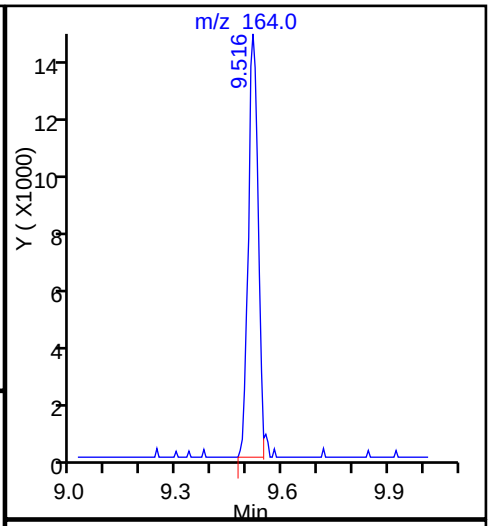
Report Date: 28-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

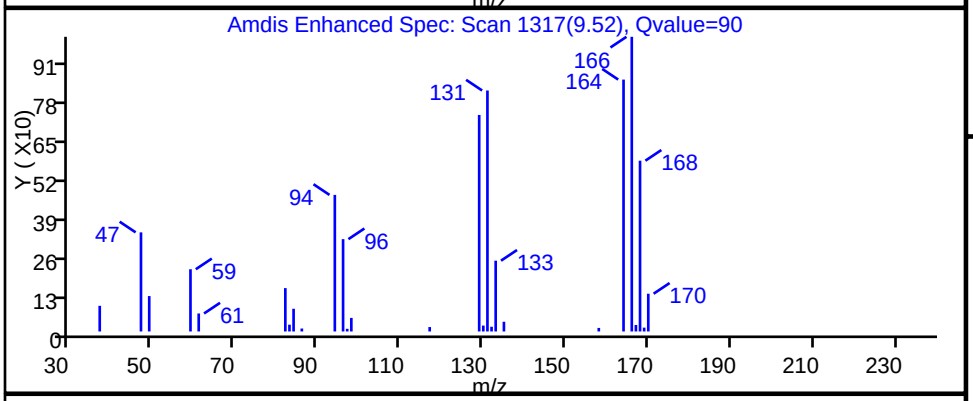
TestAmerica Pittsburgh

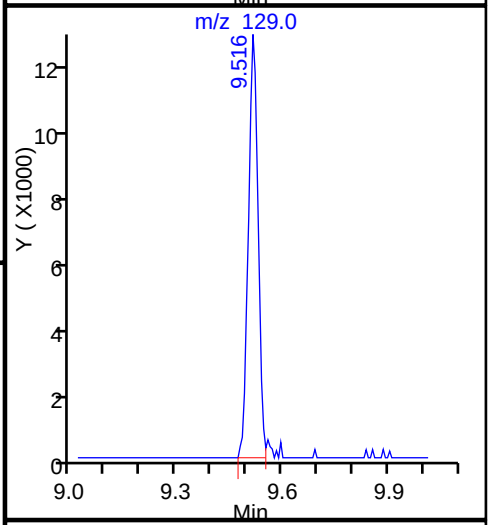
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527025.D		
Injection Date:	27-May-2015 20:02:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-5	Lab Sample ID:	180-44248-5
Client ID:	HD-MW-147A-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

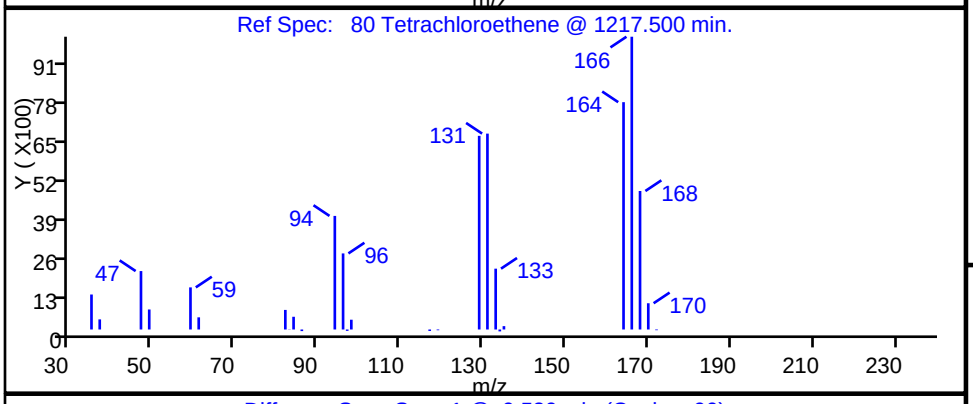
80 Tetrachloroethene, CAS: 127-18-4

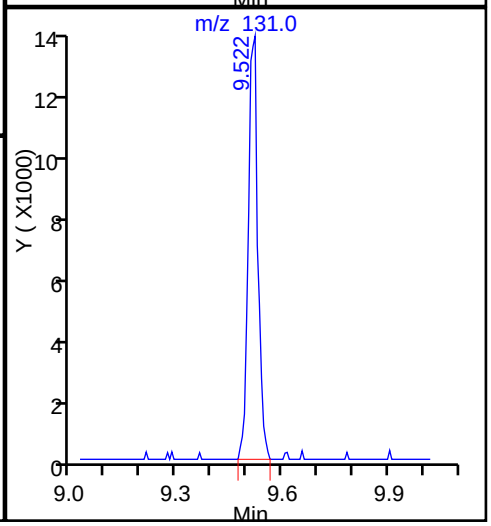


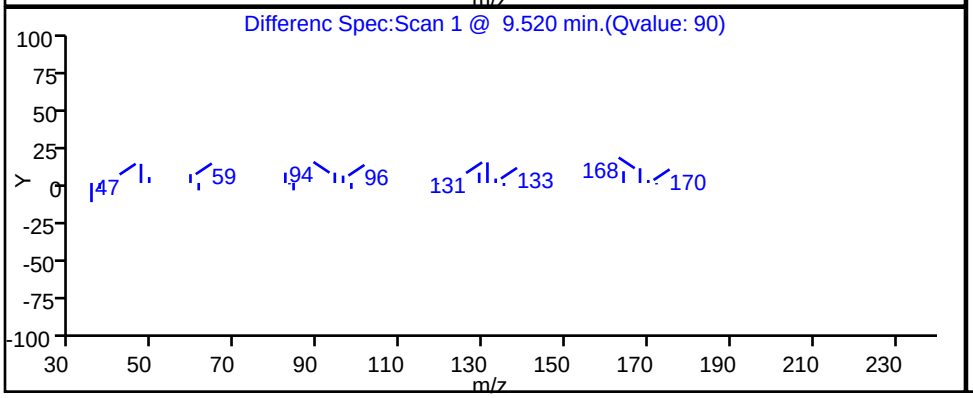












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 | Lab Sample ID: 180-44248-6

Matrix: Water | Lab File ID: 50528030.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 23:13

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.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	2.4		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	0.32	J	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	4.5		1.0	0.12
156-59-2	*cis-1,2-Dichloroethene*	*60*	*E*	*1.0*	*0.24*
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.22	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	23		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	46		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	*Tetrachloroethene*	*280*	*E*	*1.0*	*0.15*
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 | Lab Sample ID: 180-44248-6

Matrix: Water | Lab File ID: 50528030.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 23:13

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.: 143033 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	125		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	121		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D
Lims ID: 180-44248-D-6 Lab Sample ID: 180-44248-6
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 23:13:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44248-D-6
Misc. Info.: 180-0007155-030
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:50:16 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:50:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.277	-0.011	0	131907	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	399986	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	88324	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	96	110086	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	104359	60.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	133947	62.3	
$ 7 Toluene-d8 (Surr)	98	8.938	8.937	0.001	95	349347	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	87	104533	44.4	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96	3.353	3.347	0.006	96	23190	12.1	
24 Acetone	43	3.444	3.444	0.000	11	2283	2.89	
26 Carbon disulfide	76		3.626				ND	
31 Methylene Chloride	84		4.143				ND	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96	4.576	4.563	0.013	31	3364	1.59	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63	5.202	5.196	0.006	97	90741	22.7	
45 cis-1,2-Dichloroethene	96	5.951	5.944	0.007	80	697773	297.6	E
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.383	6.382	0.001	91	4009	1.12	
53 1,1,1-Trichloroethane	97	6.547	6.540	0.007	96	319119	114.8	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.678	7.678	0.000	97	526364	230.4	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.522	9.515	0.007	86	2189589	1382.5	E
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

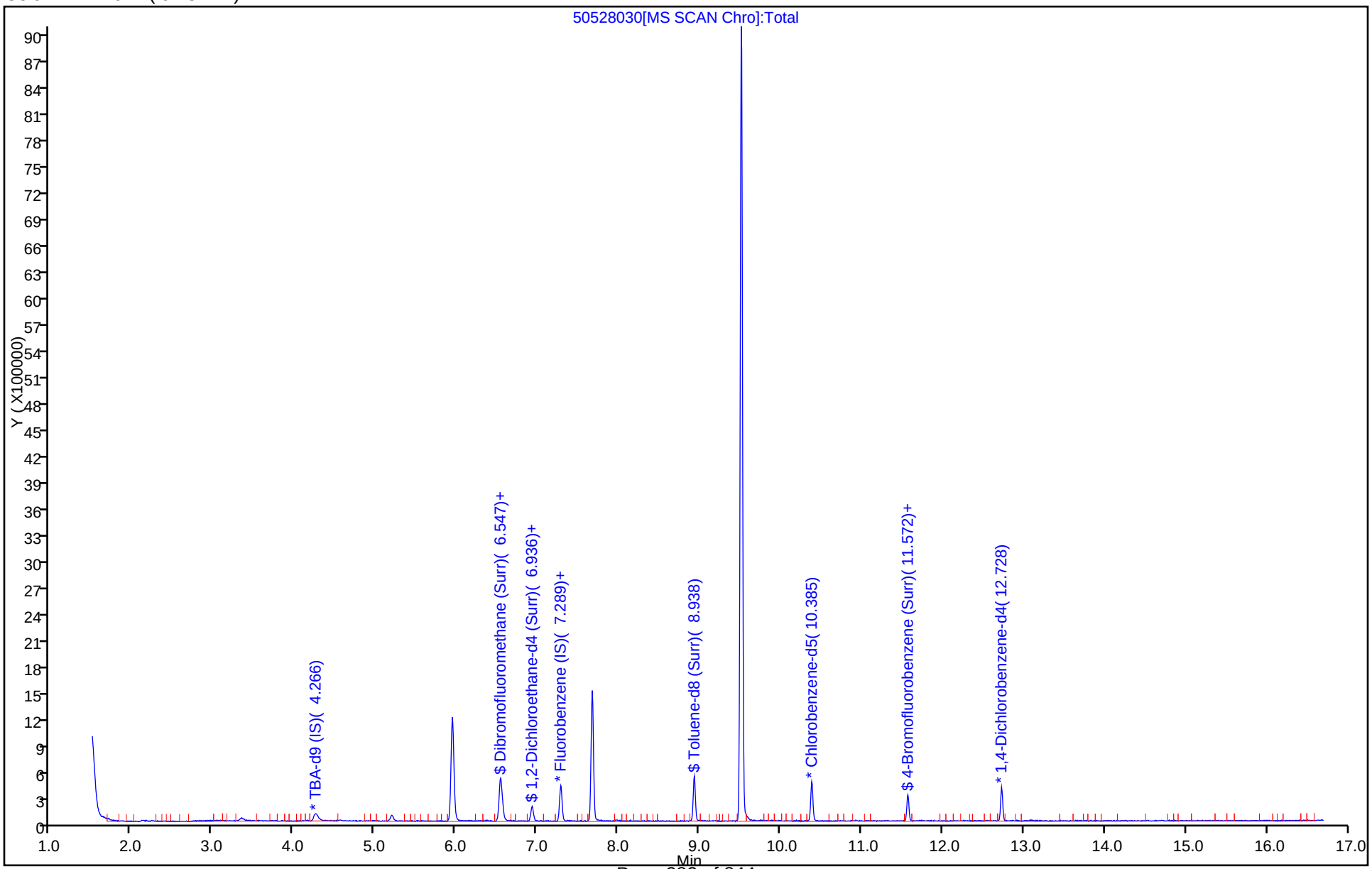
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D				
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6	Worklist Smp#:	30
Client ID:	HD-MW-37S-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)

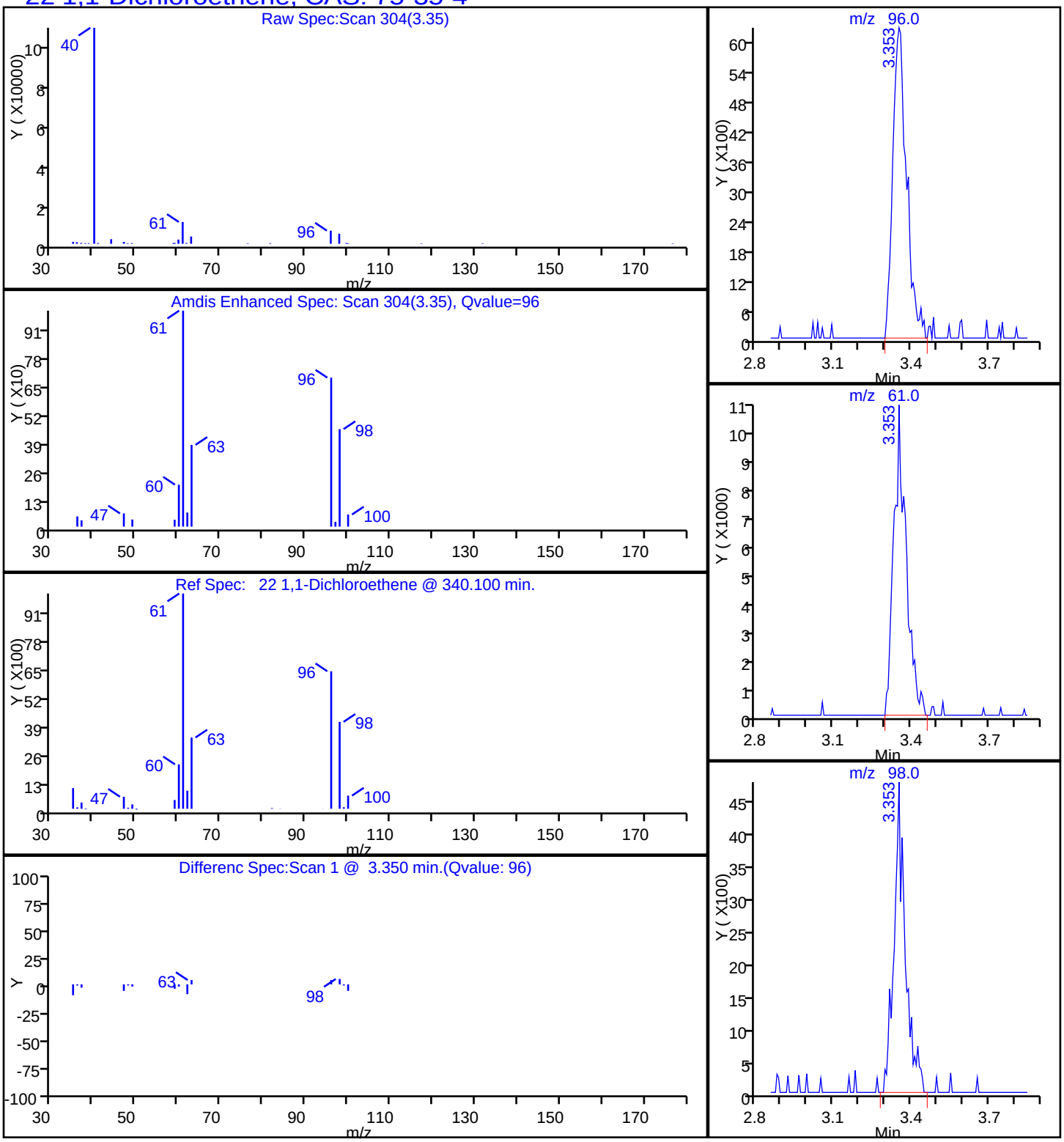


Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D		
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

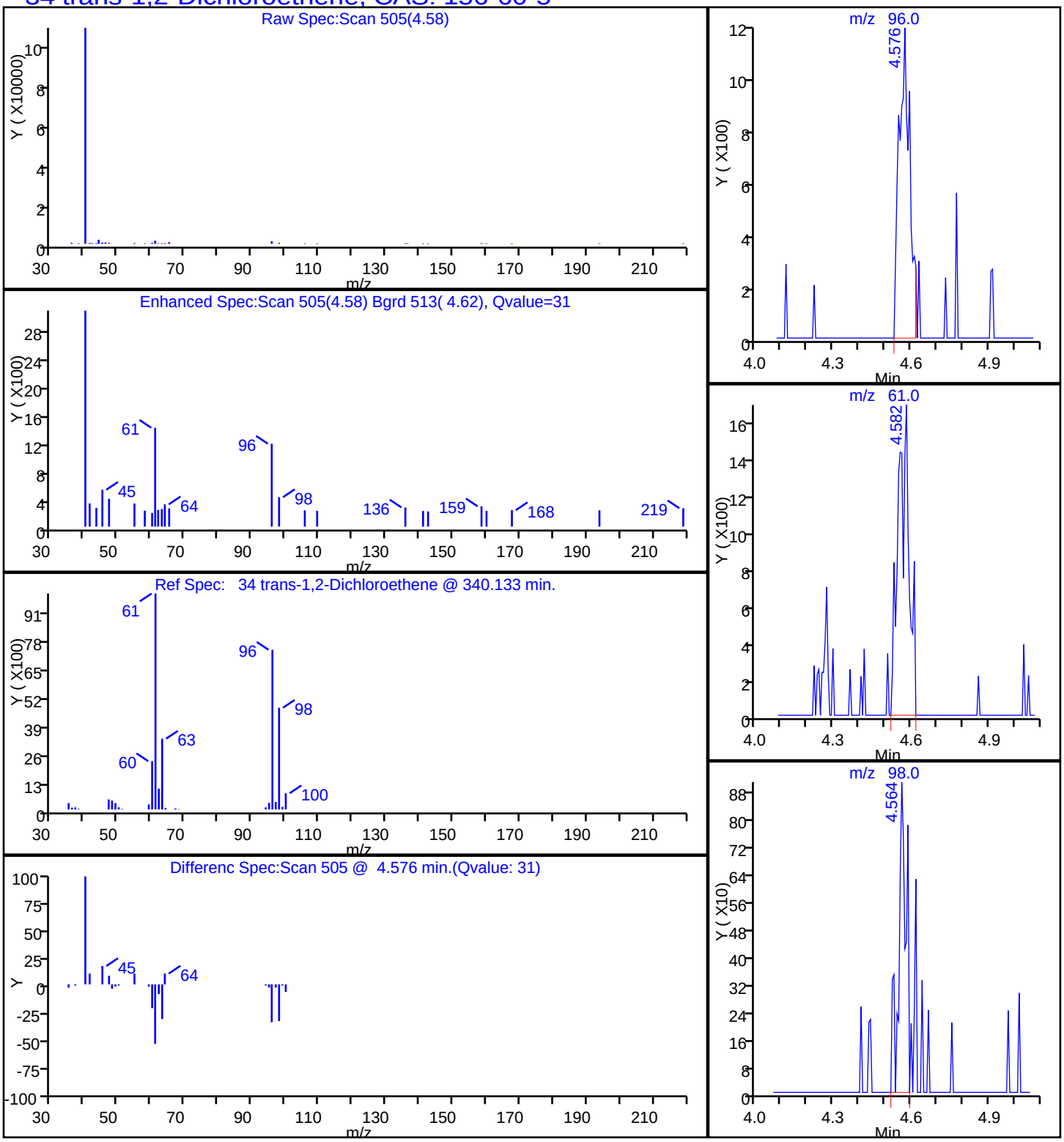


Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D				
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
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		

34 trans-1,2-Dichloroethene, CAS: 156-60-5

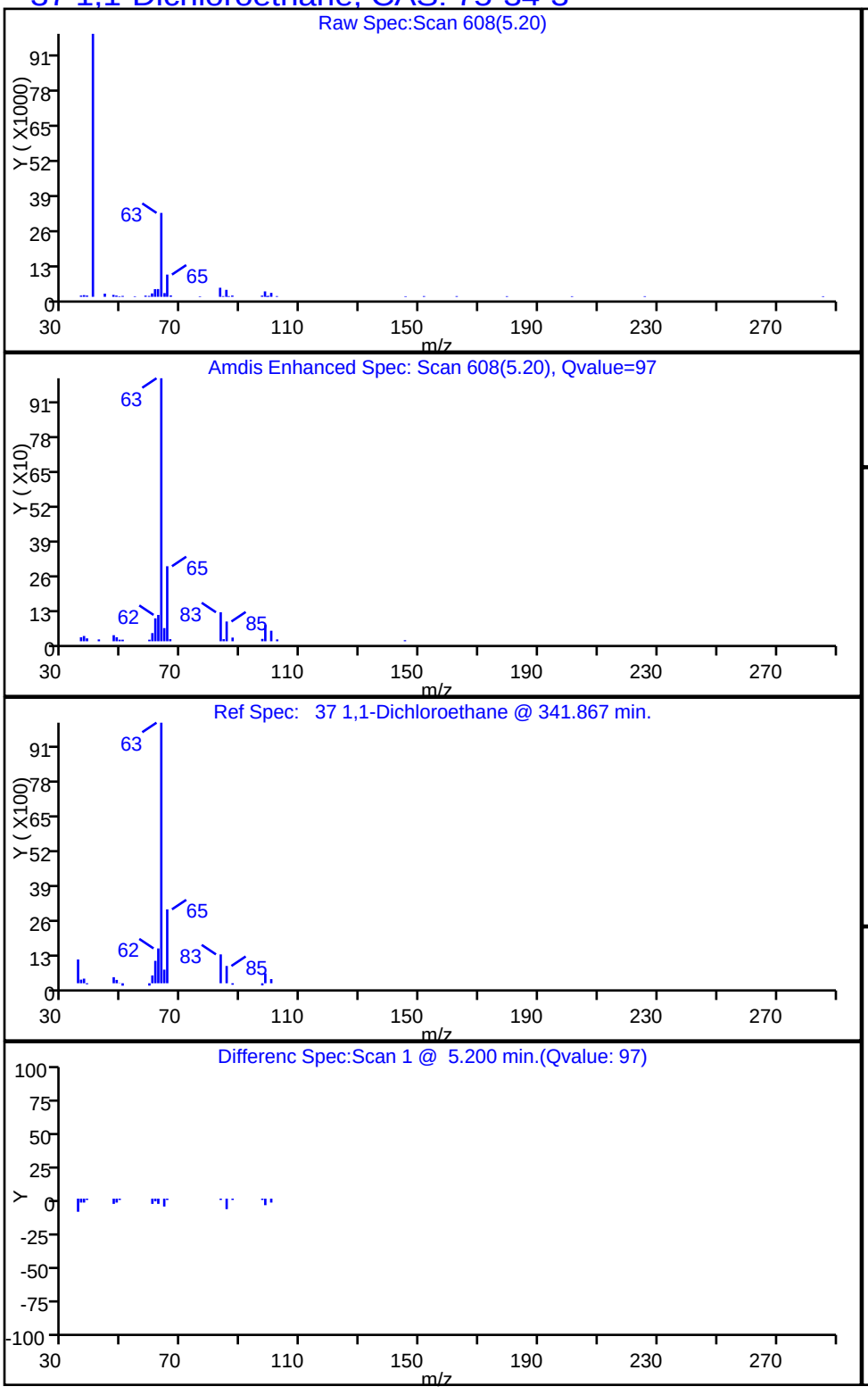


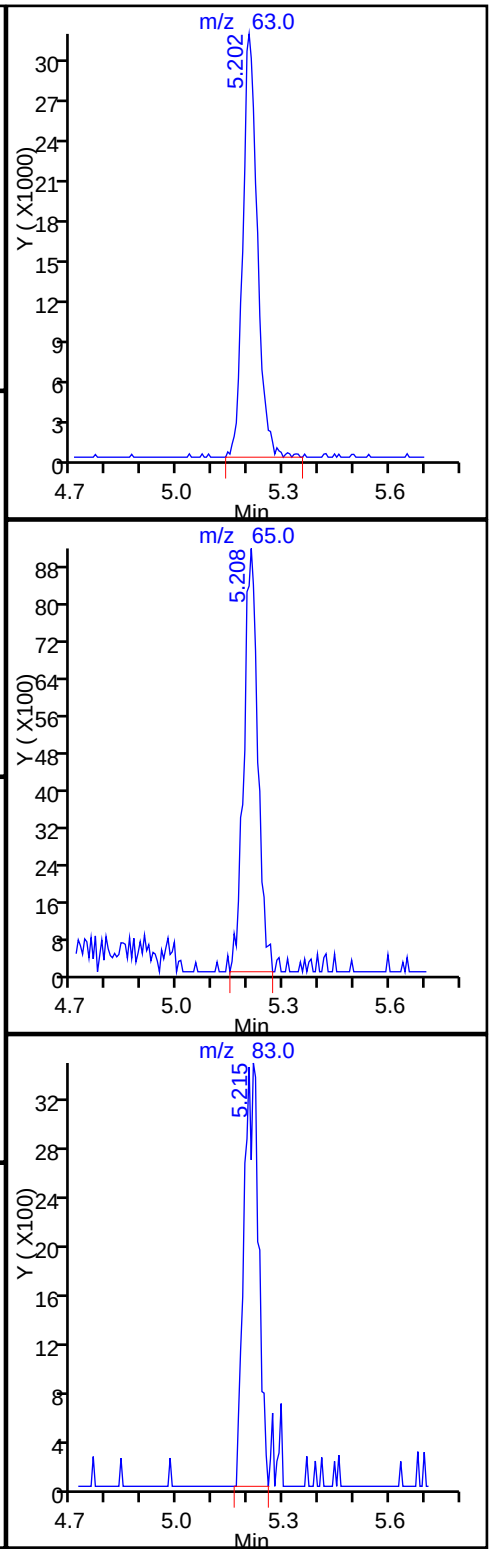
Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D		
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D				
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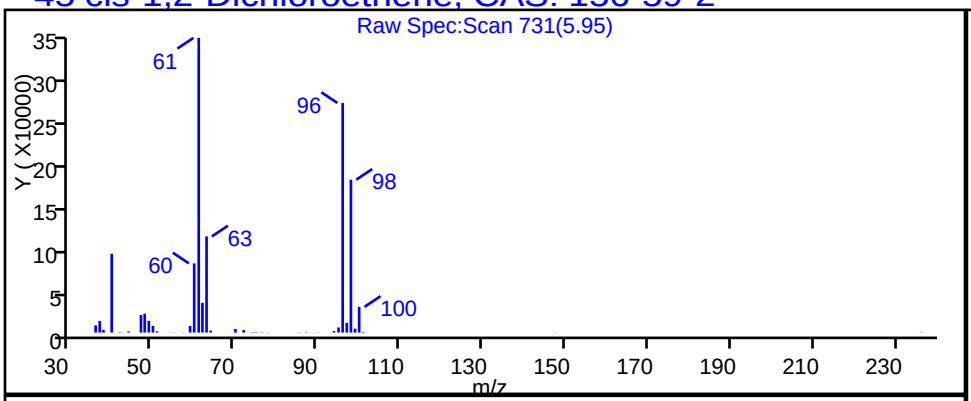
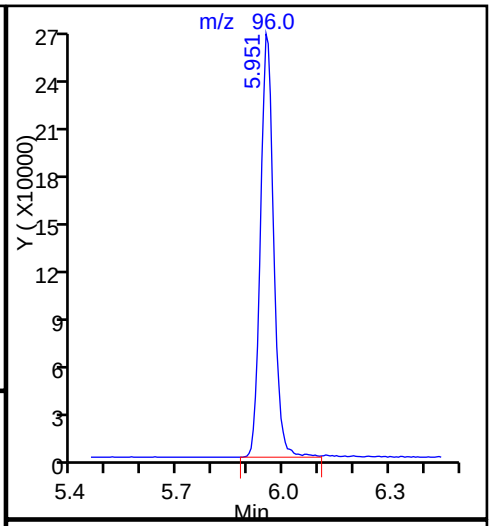
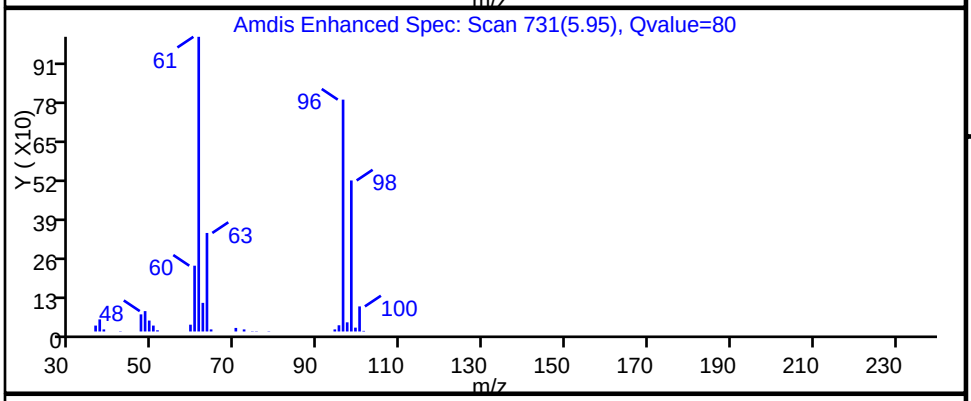
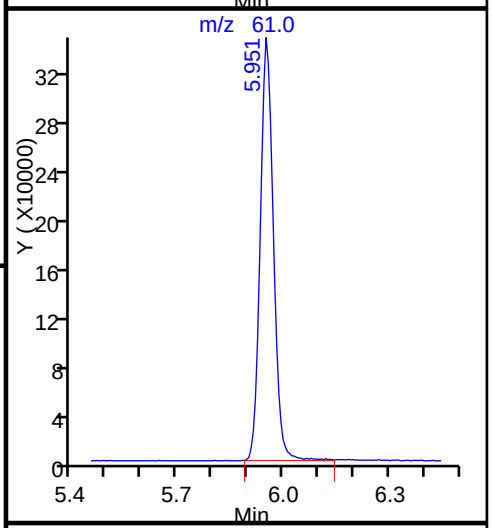
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

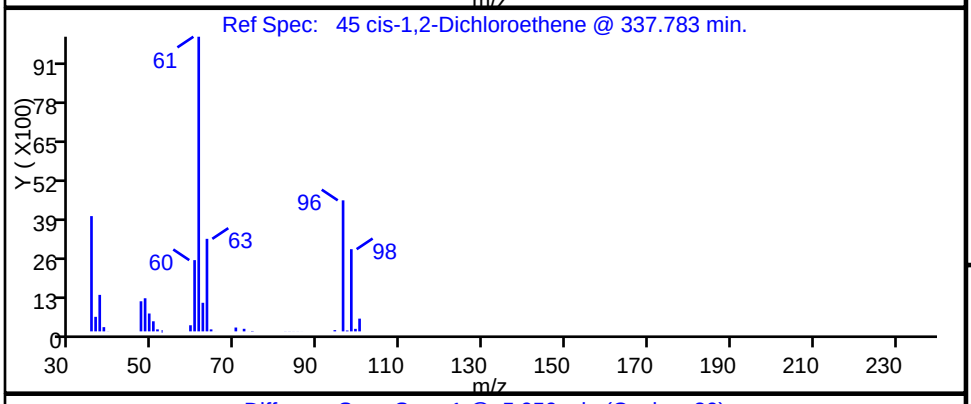
45 cis-1,2-Dichloroethene, CAS: 156-59-2

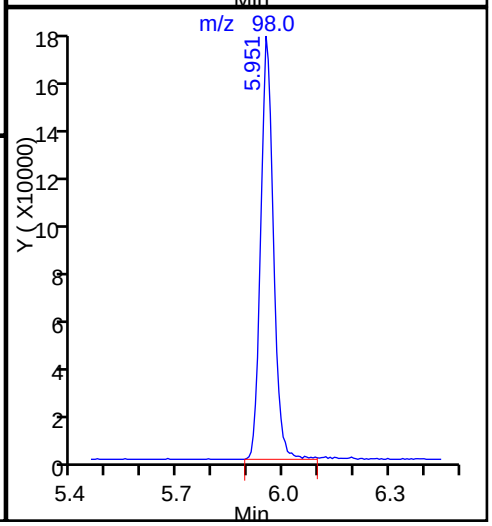


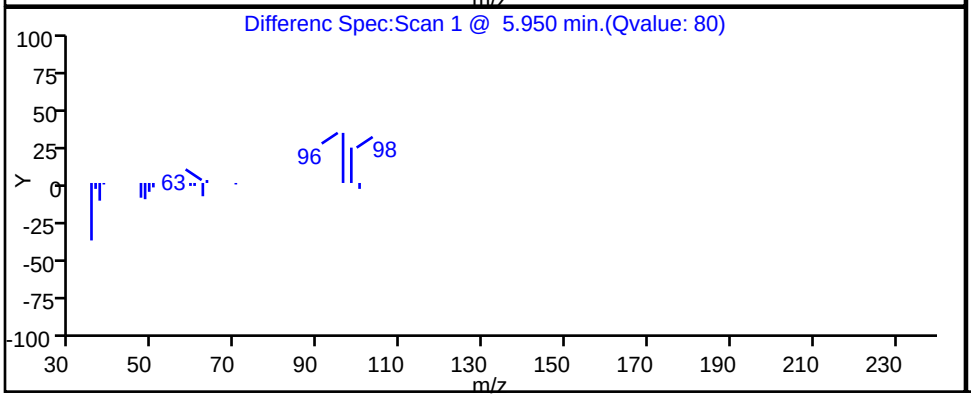










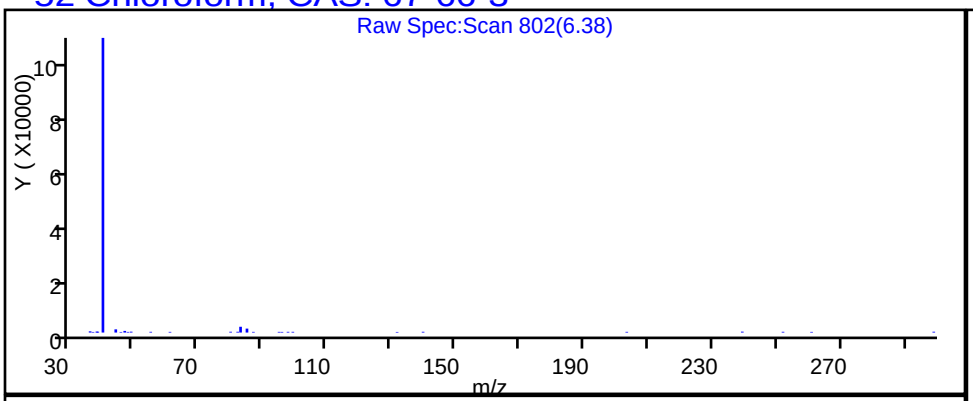


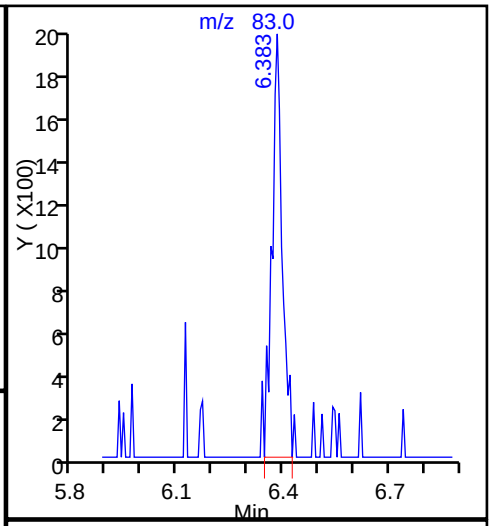
Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

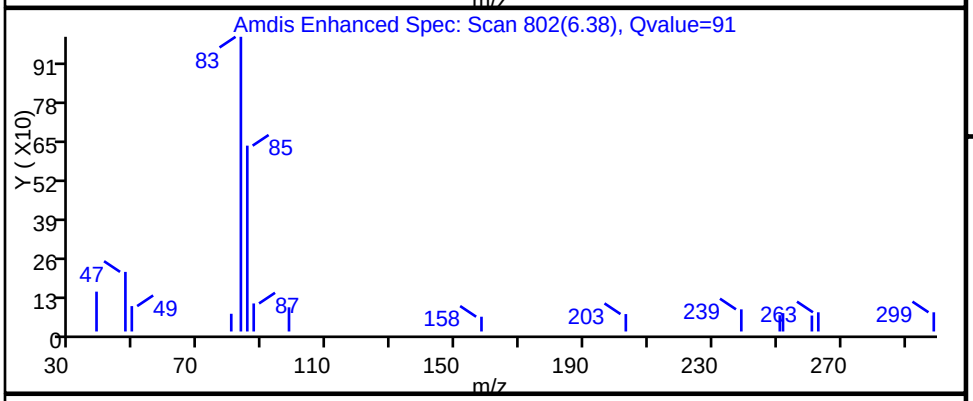
TestAmerica Pittsburgh

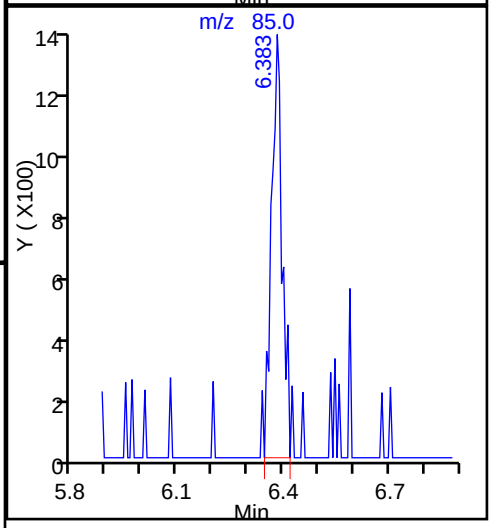
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D				
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

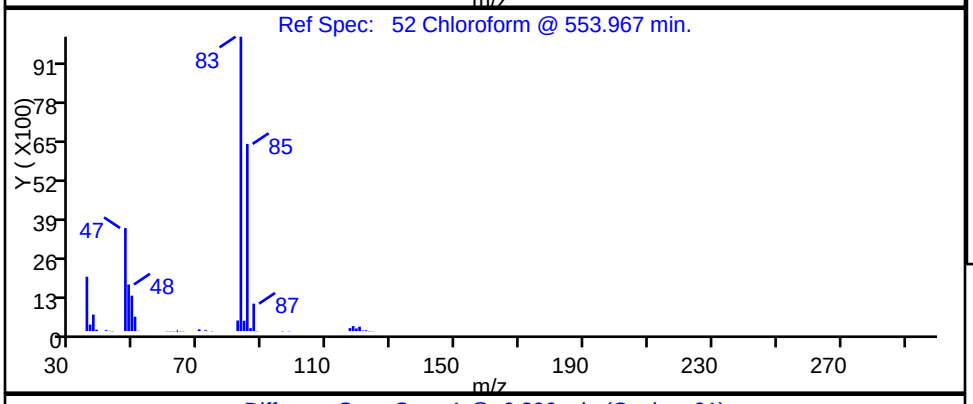
52 Chloroform, CAS: 67-66-3

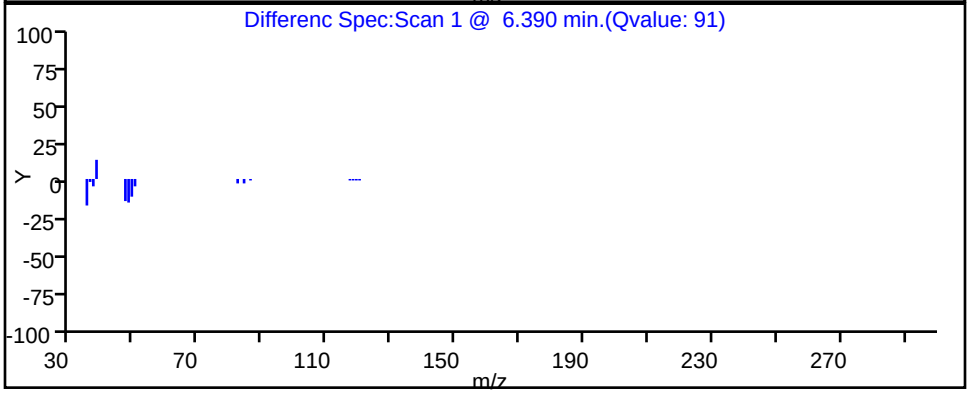










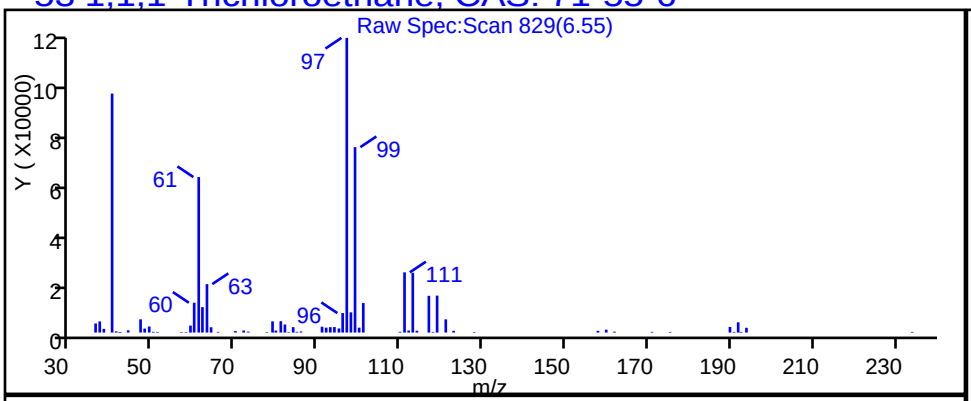


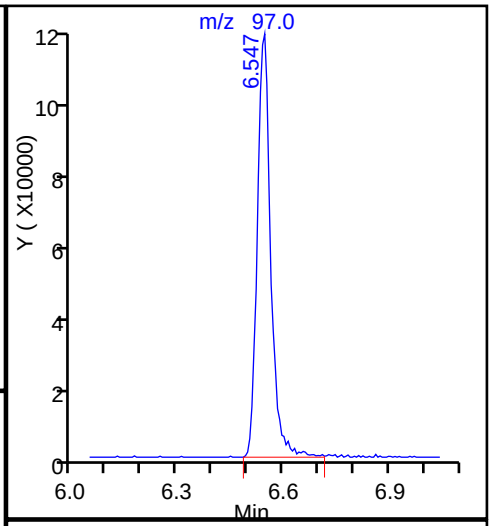
Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

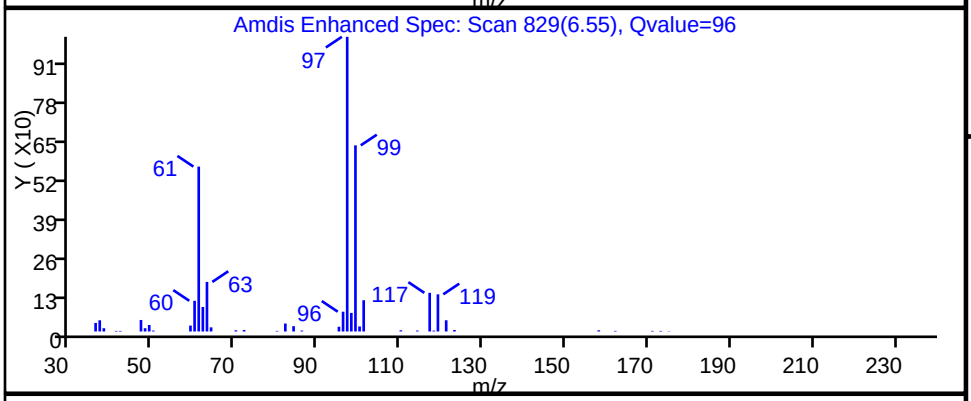
TestAmerica Pittsburgh

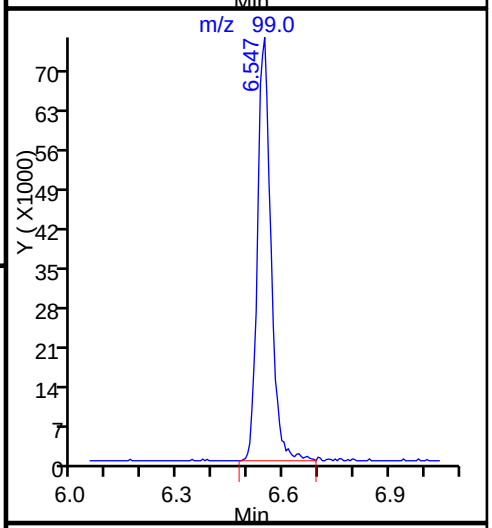
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D				
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

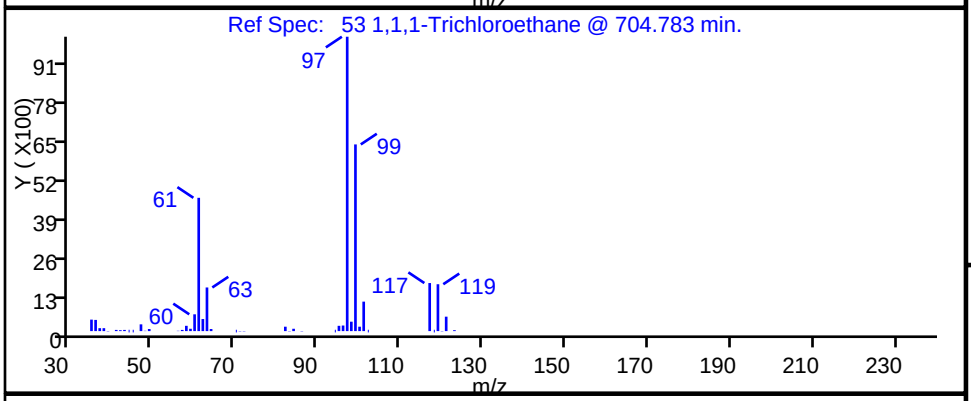
53 1,1,1-Trichloroethane, CAS: 71-55-6

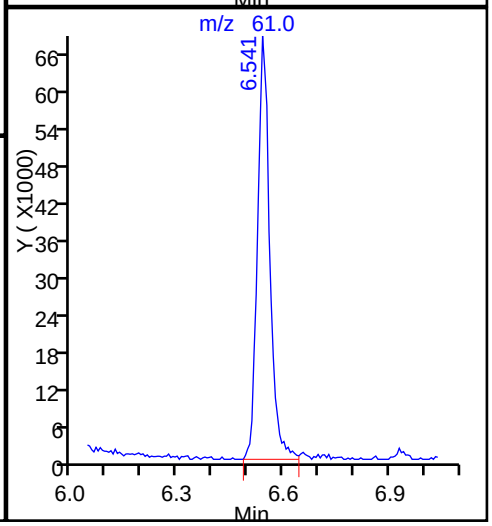


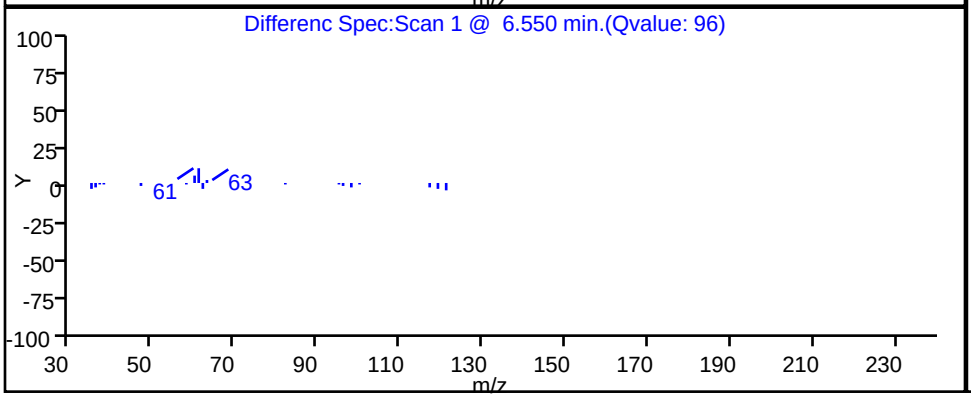










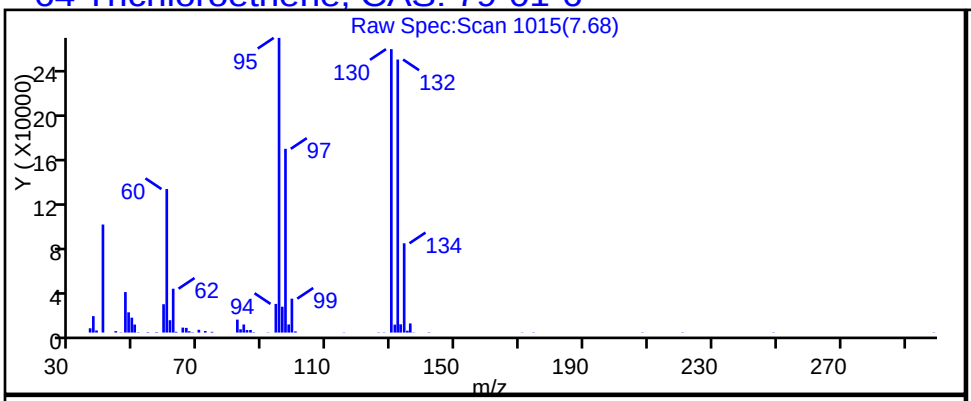


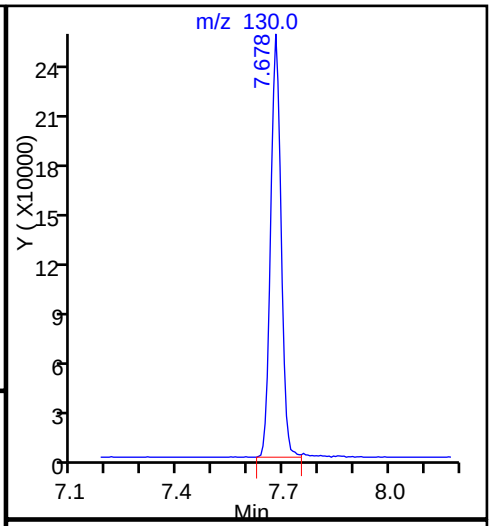
Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

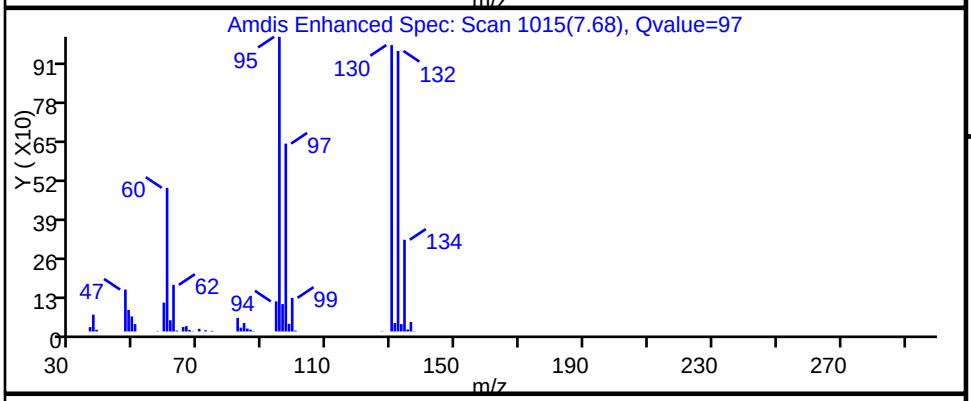
TestAmerica Pittsburgh

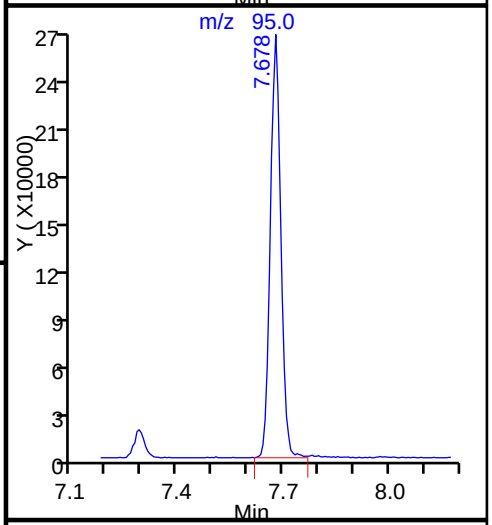
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D		
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

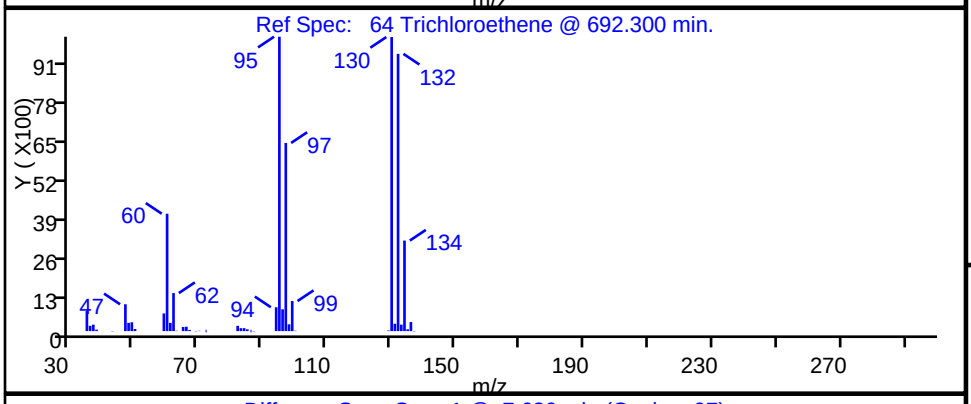
64 Trichloroethene, CAS: 79-01-6

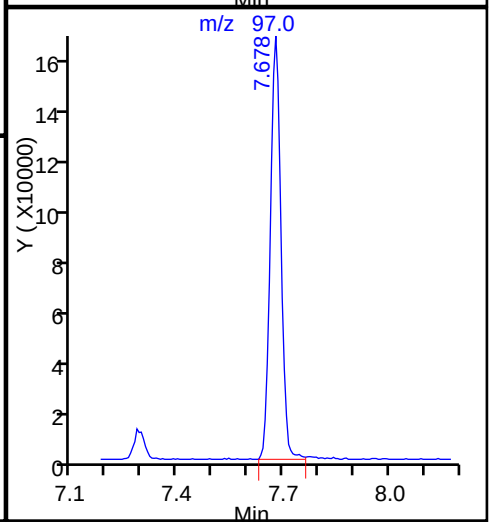


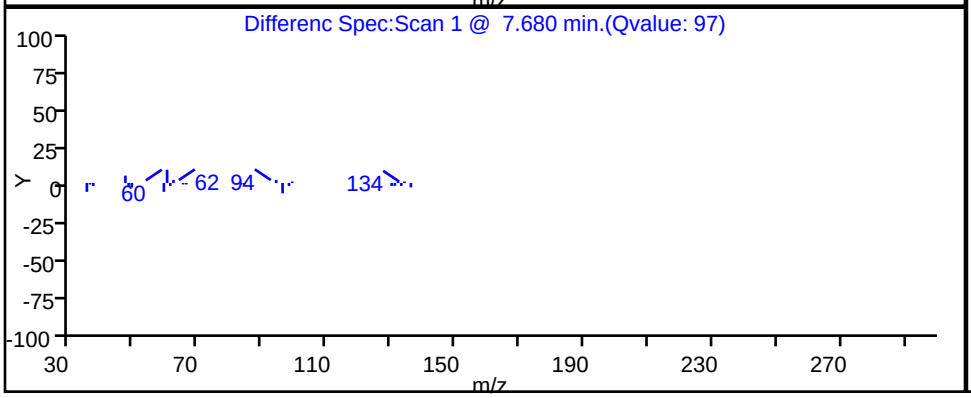










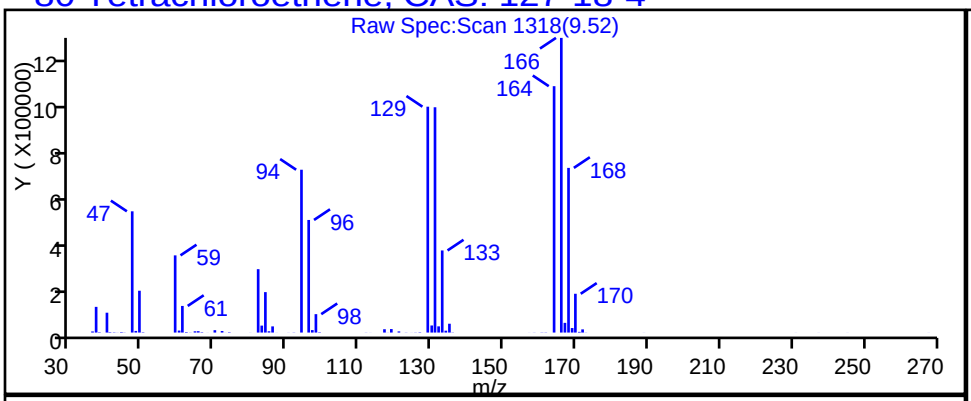


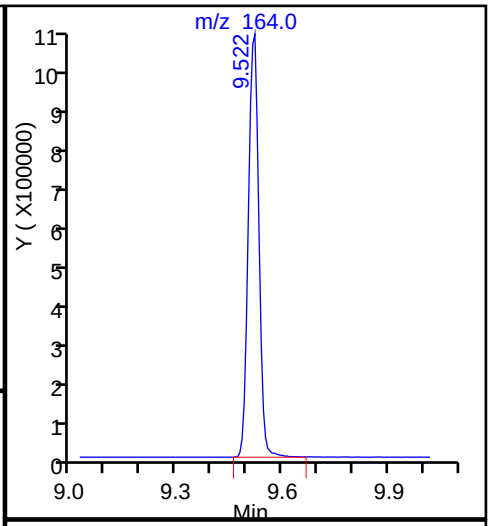
Report Date: 29-May-2015 06:50:17 Chrom Revision: 2.2 05-May-2015 11:39:10

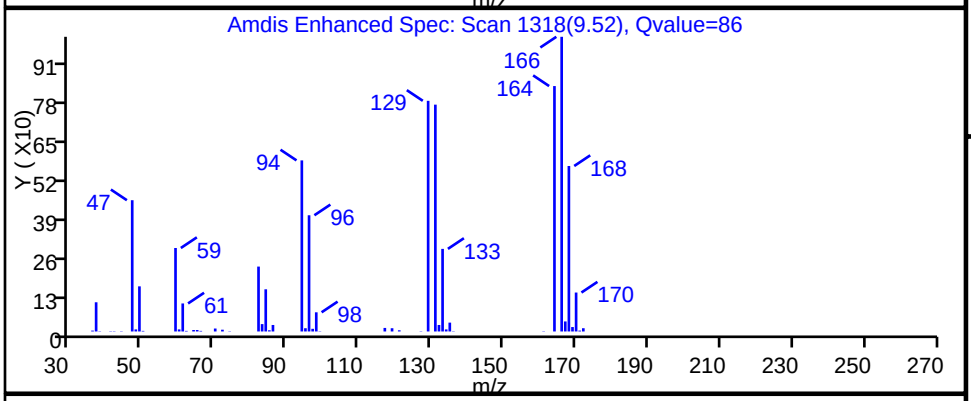
TestAmerica Pittsburgh

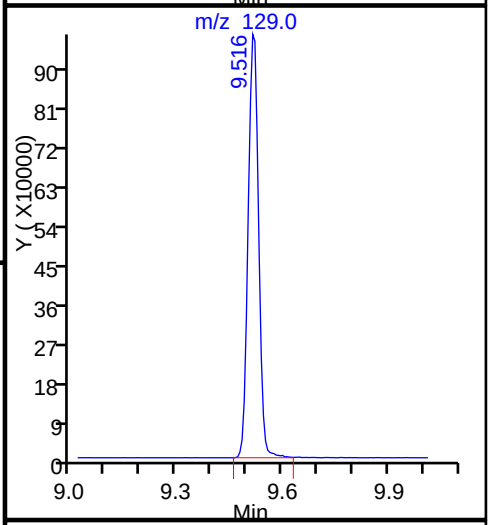
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528030.D		
Injection Date:	28-May-2015 23:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

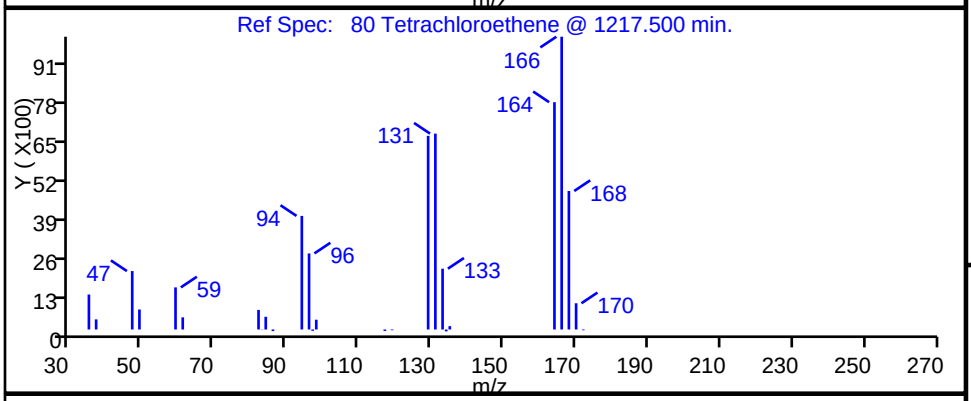
80 Tetrachloroethene, CAS: 127-18-4

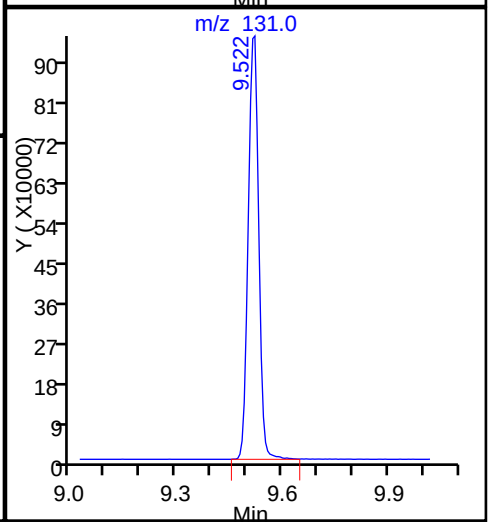


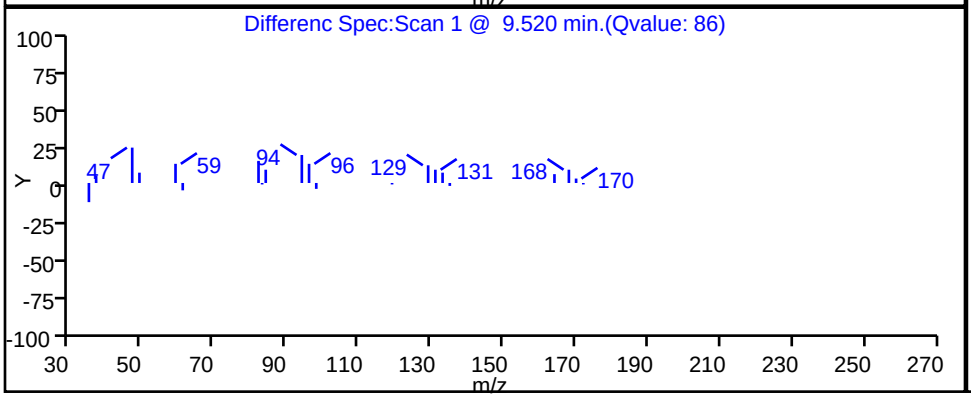












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL | Lab Sample ID: 180-44248-6 DL

Matrix: Water | Lab File ID: 50527026.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 20:26

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	10	U	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	4.1	J	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	4.7	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	58		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	20		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	44		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	270		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 DL | Lab Sample ID: 180-44248-6 DL

Matrix: Water | Lab File ID: 50527026.D

Analysis Method: 8260C | Date Collected: 05/19/2015 09:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 20:26

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*10*	*U*	*10*	*1.9*
79-34-5	*1,1,2,2-Tetrachloroethane*	*10*	*U*	*10*	*2.0*
107-13-1	*Acrylonitrile*	*200*	*U*	*200*	*5.5*
123-91-1	*1,4-Dioxane*	*2000*	*U*	*2000*	*340*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	119		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D
Lims ID: 180-44248-E-6 Lab Sample ID: 180-44248-6
Client ID: HD-MW-37S-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 20:26:30 ALS Bottle#: 23 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-44248-E-6, 10x
Misc. Info.: 180-0007136-026
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:50:02 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:50:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.274	-0.001	0	139681	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.292	-0.002	98	330633	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.388	-0.001	87	77292	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.730	-0.001	96	102343	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.561	-0.001	92	85036	59.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.933	0.004	0	108047	60.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.934	0.005	94	291377	50.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.574	-0.001	87	95708	46.4	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.354	3.343	0.011	22	2024	1.28	M
24 Acetone	43		3.441				ND	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84	4.145	4.140	0.005	79	10372	2.07	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63	5.216	5.205	0.011	61	7805	2.36	
45 cis-1,2-Dichloroethene	96	5.946	5.953	-0.007	82	55754	28.8	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.378	6.379	-0.001	3	949	0.3198	
53 1,1,1-Trichloroethane	97	6.542	6.543	-0.001	96	22621	9.85	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.686	7.681	0.005	95	41311	21.9	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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	9.517	9.518	-0.001	96	189542	136.8	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

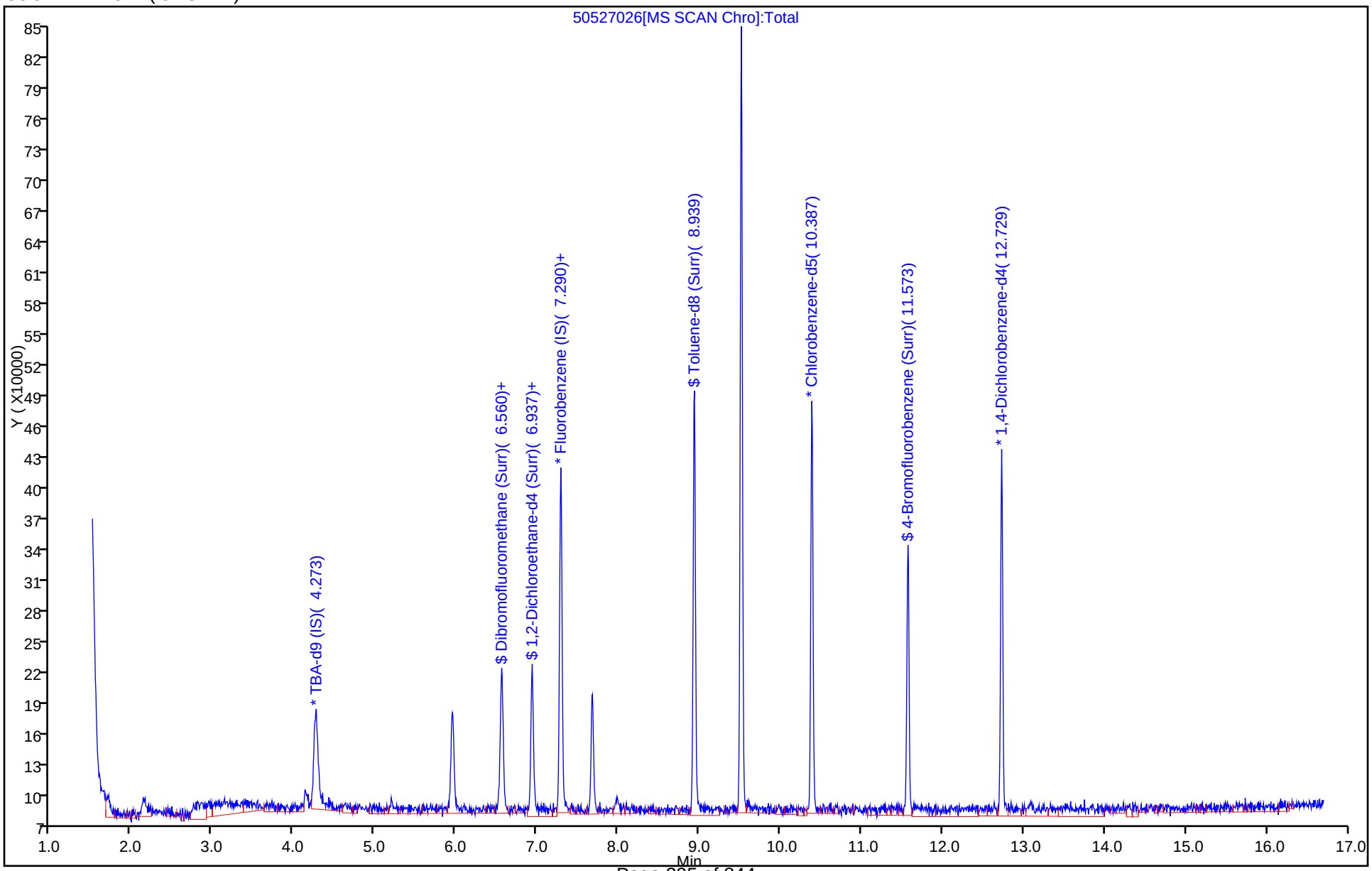
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D				
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6	Worklist Smp#:	26
Client ID:	HD-MW-37S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

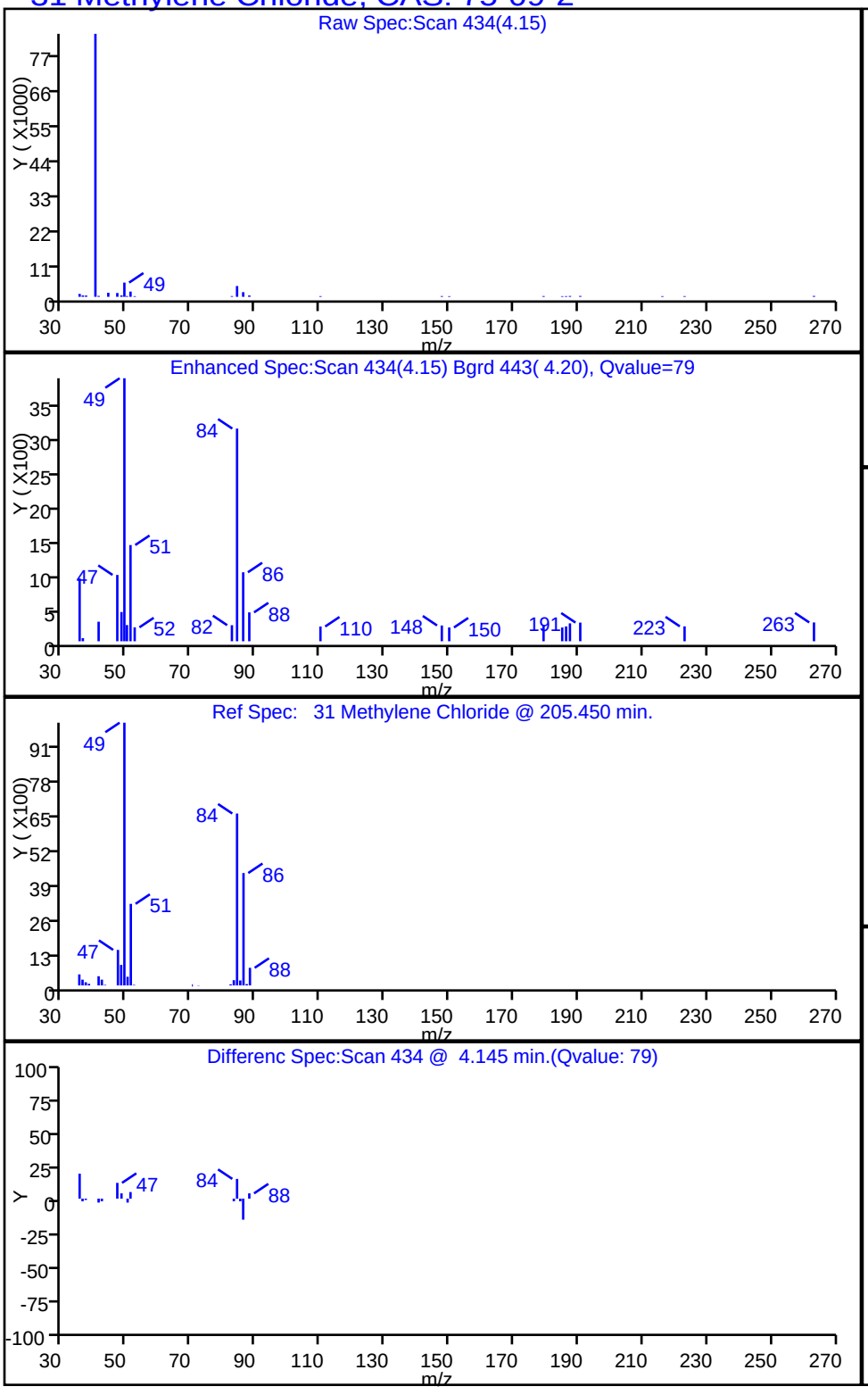


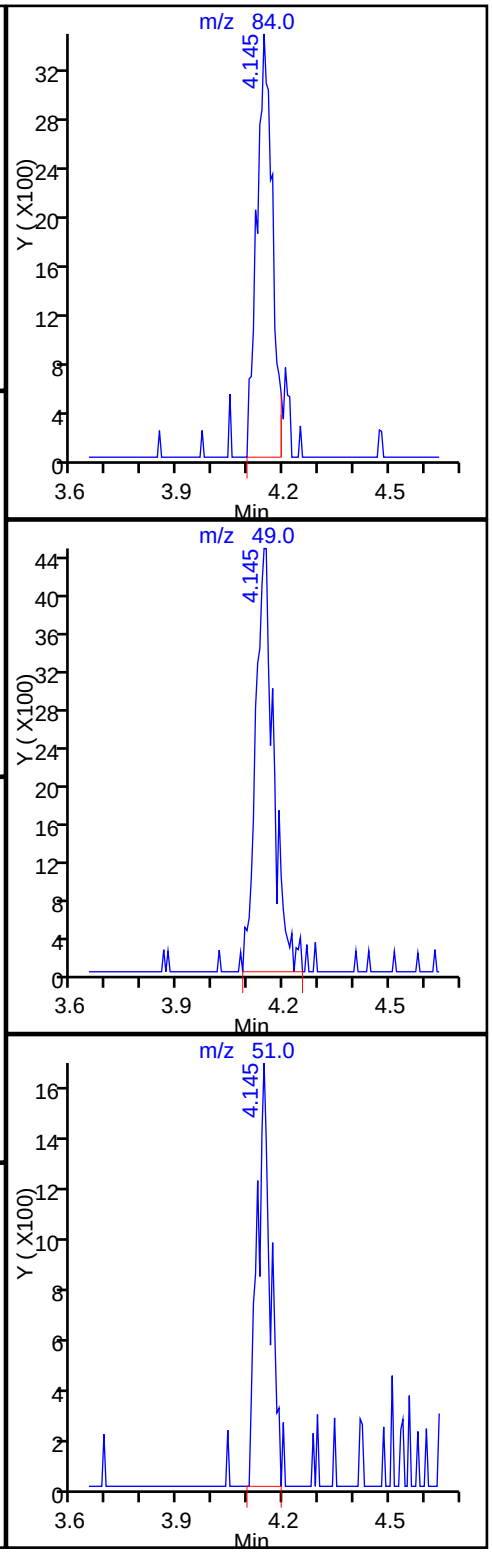
Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D		
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	23 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2



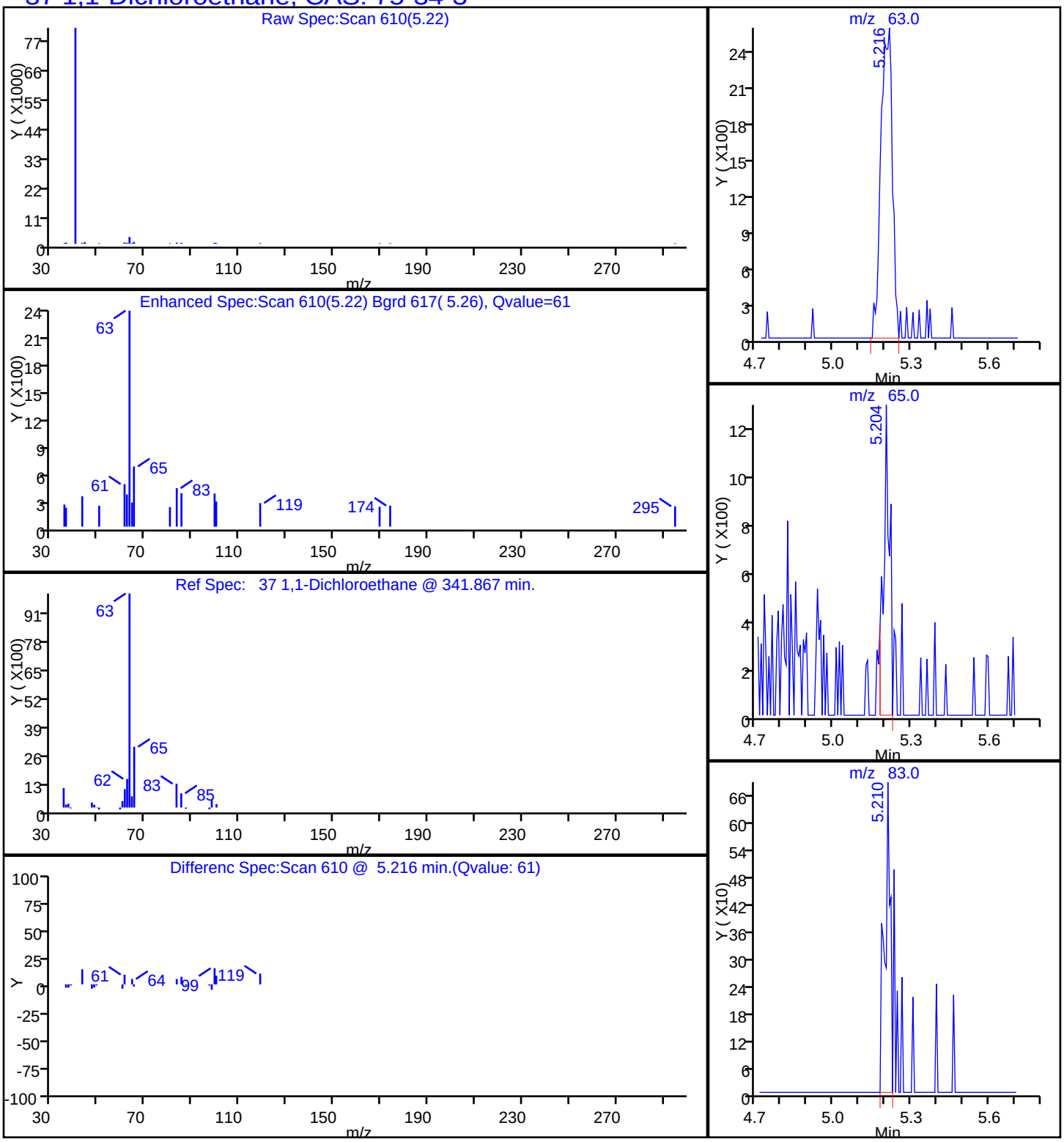


Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D				
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

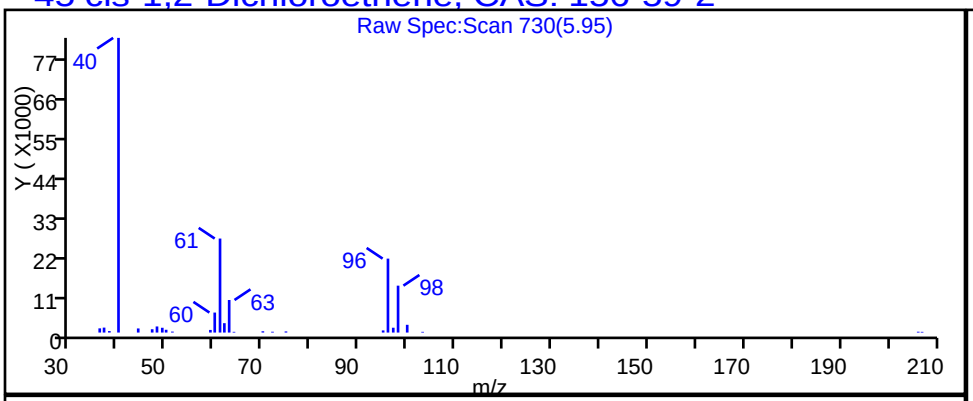


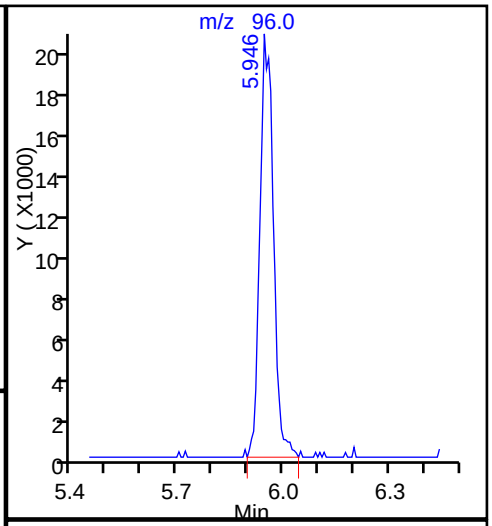
Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

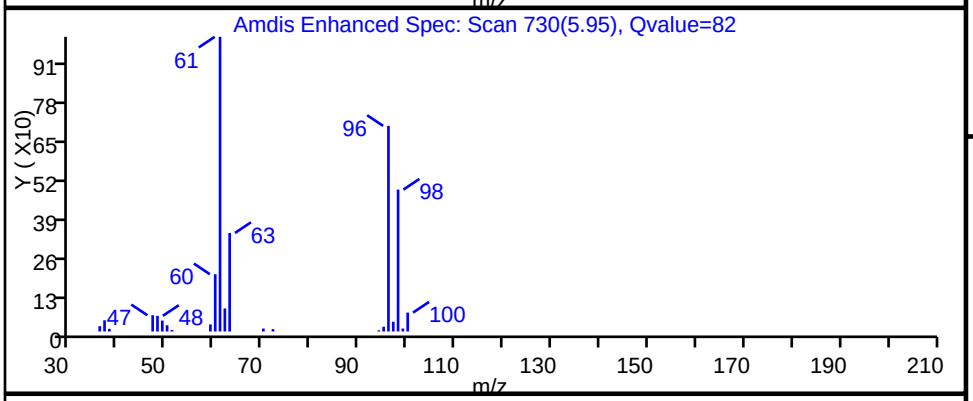
TestAmerica Pittsburgh

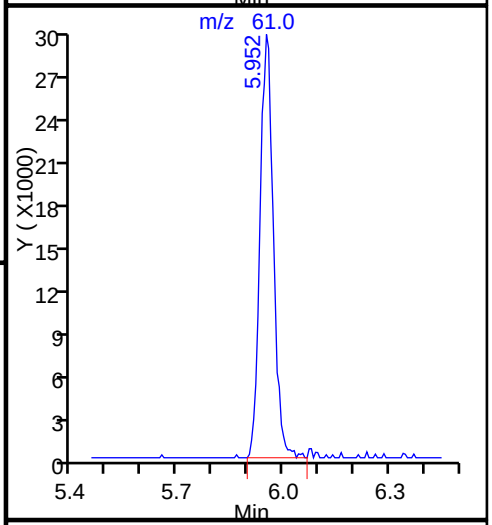
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D				
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

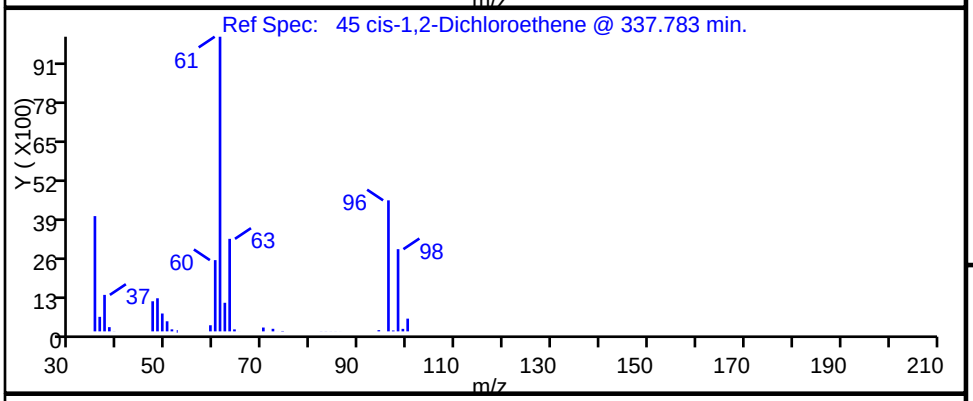
45 cis-1,2-Dichloroethene, CAS: 156-59-2

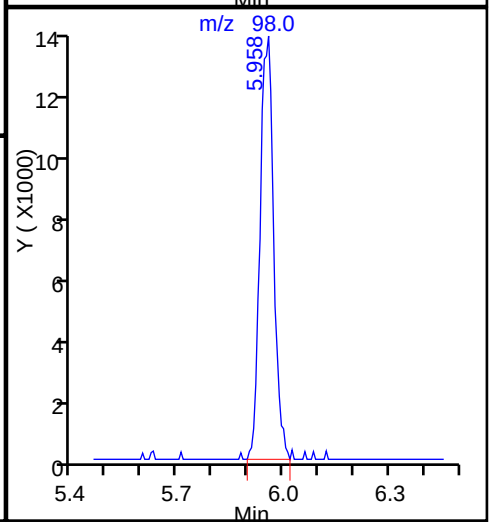


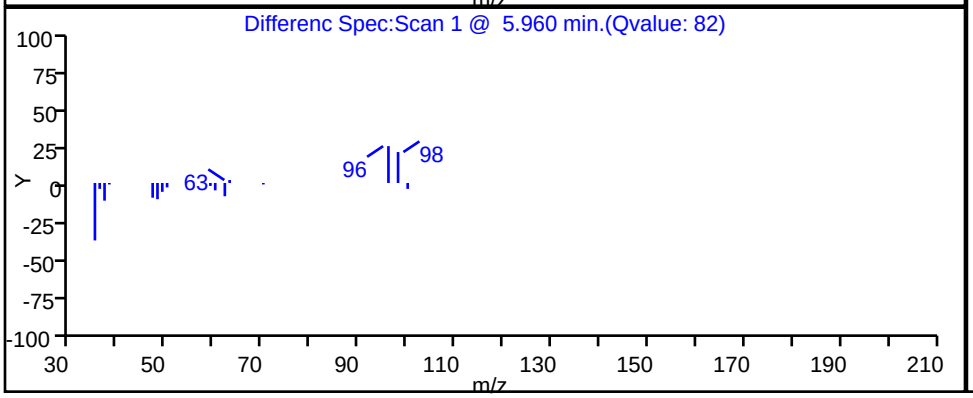










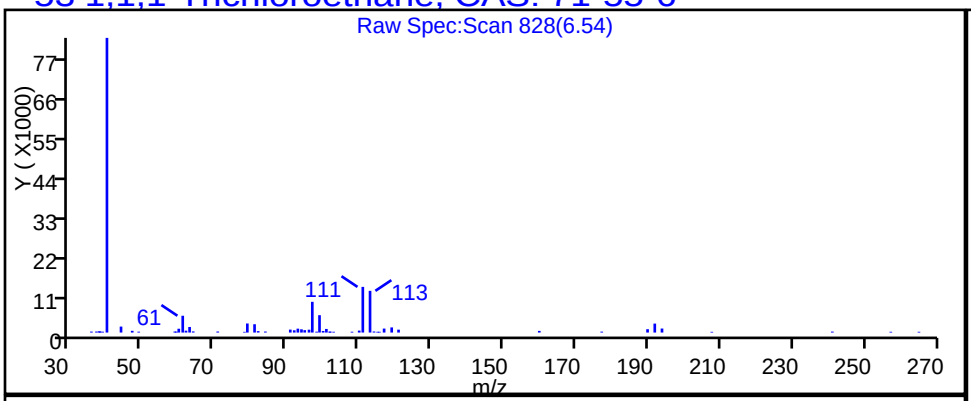


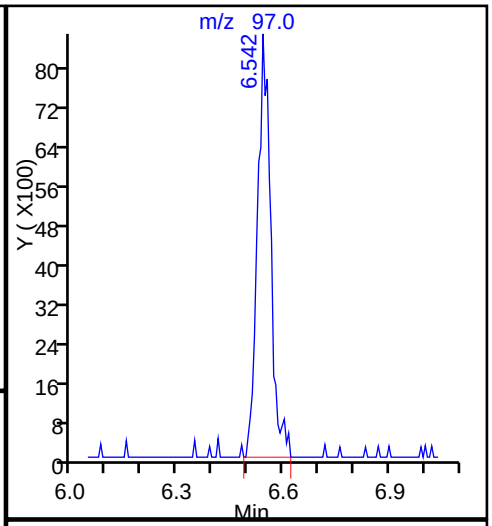
Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

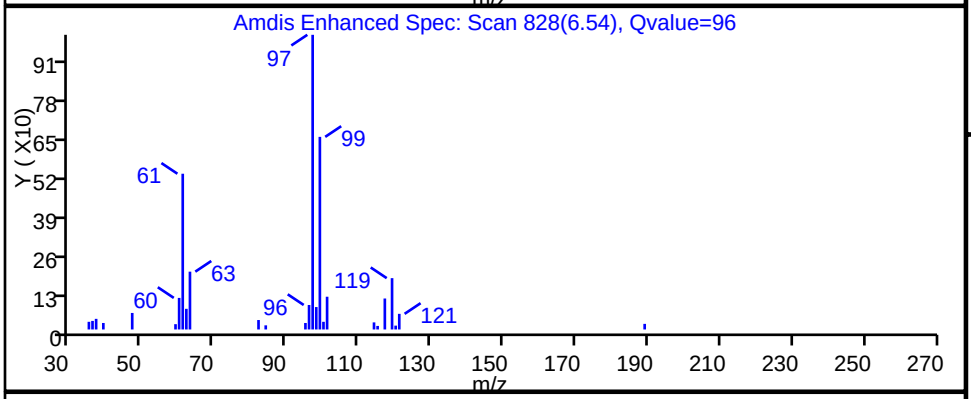
TestAmerica Pittsburgh

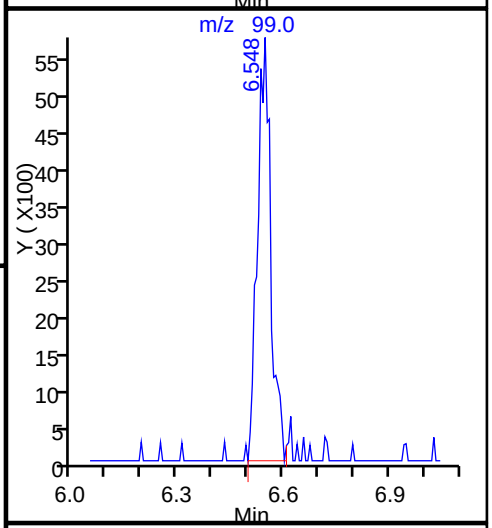
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D				
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

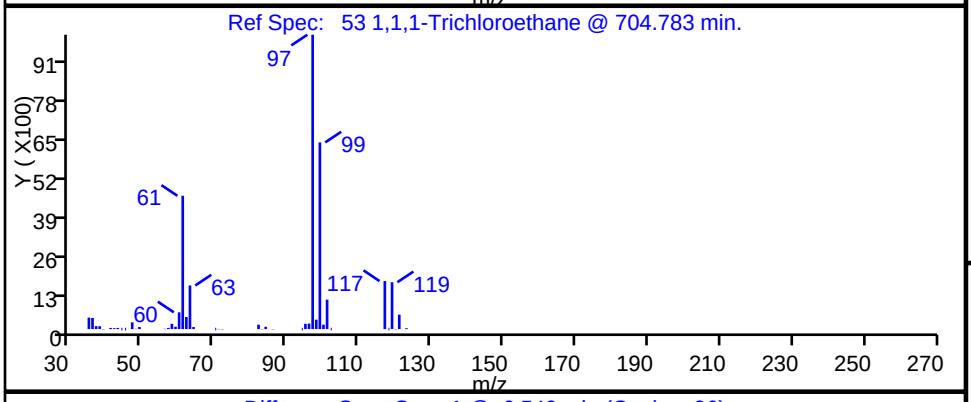
53 1,1,1-Trichloroethane, CAS: 71-55-6

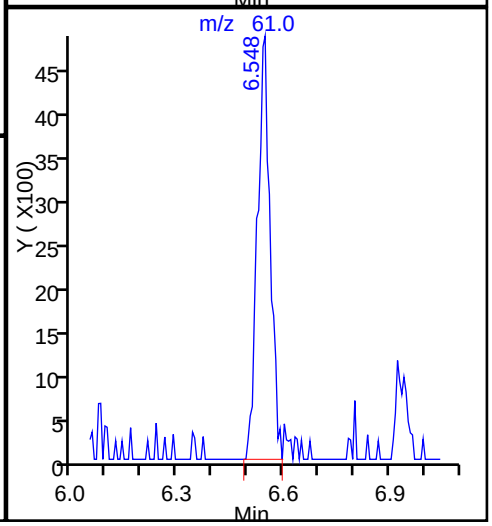


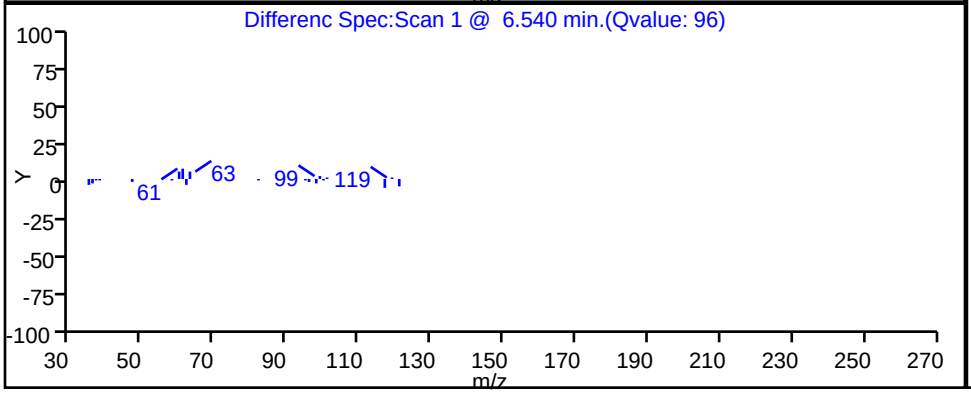












Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D

Injection Date: 27-May-2015 20:26:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-6 Lab Sample ID: 180-44248-6

Client ID: HD-MW-37S-0/1-0

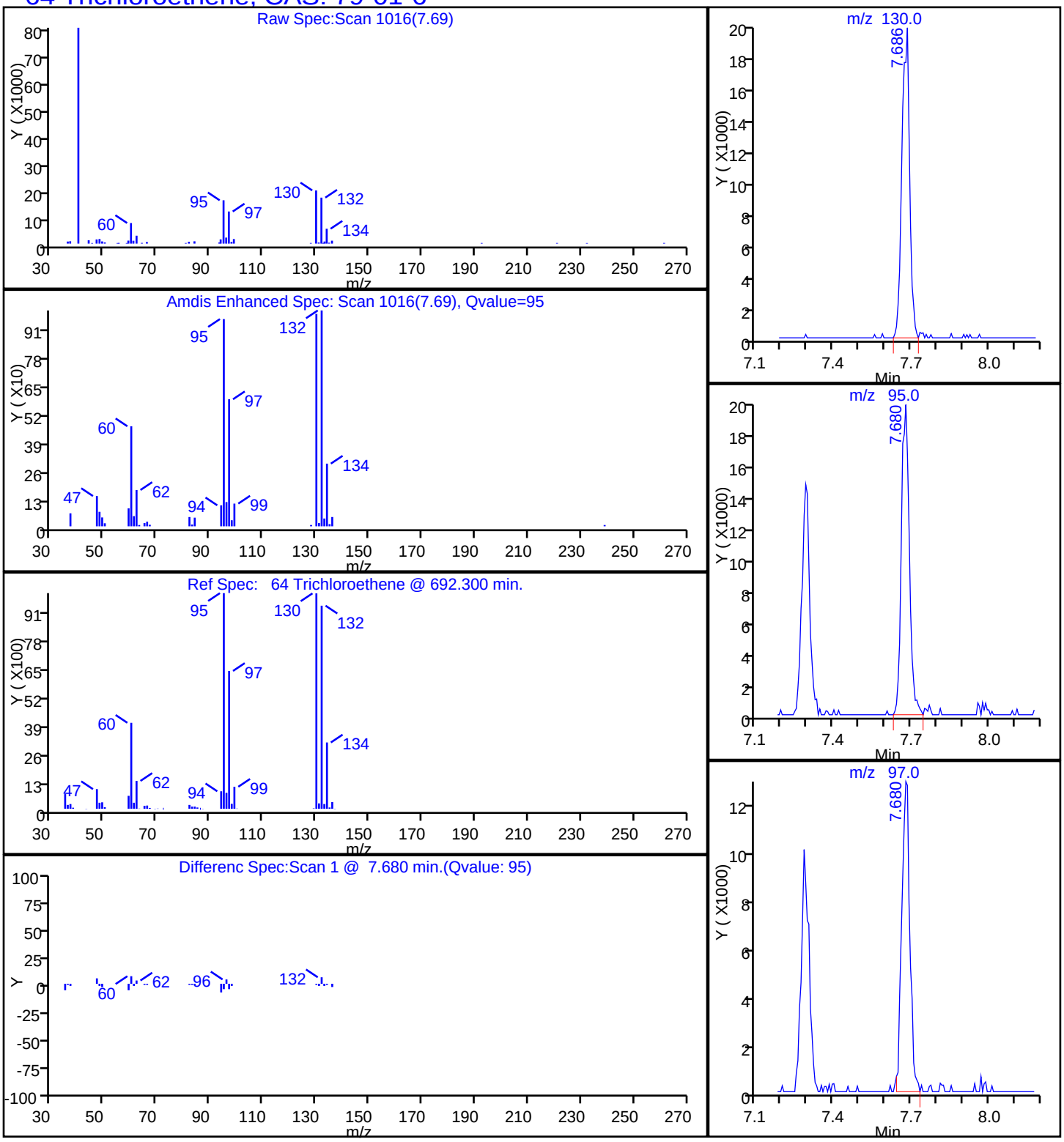
Operator ID: 001562 ALS Bottle#: 23 Worklist Smp#: 26

Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

64 Trichloroethene, CAS: 79-01-6

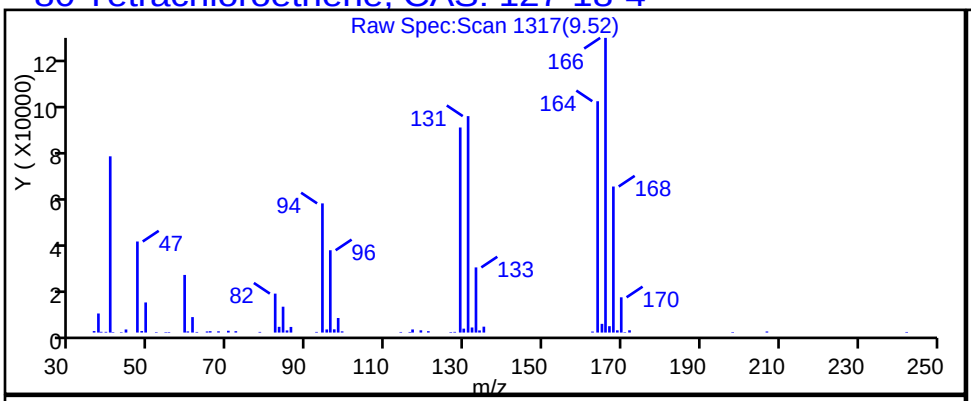


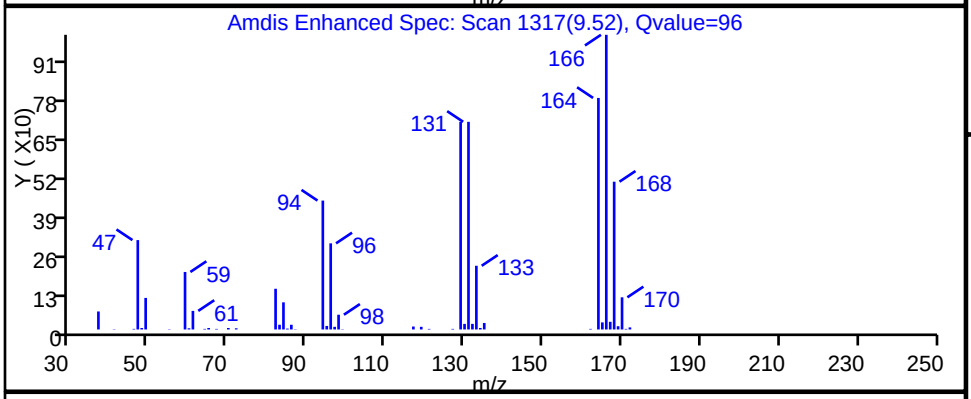
Report Date: 28-May-2015 07:50:03 Chrom Revision: 2.2 05-May-2015 11:39:10

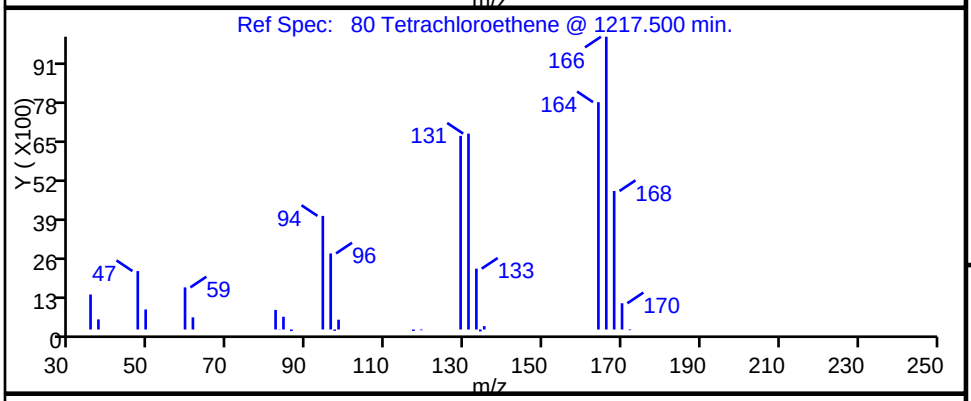
TestAmerica Pittsburgh

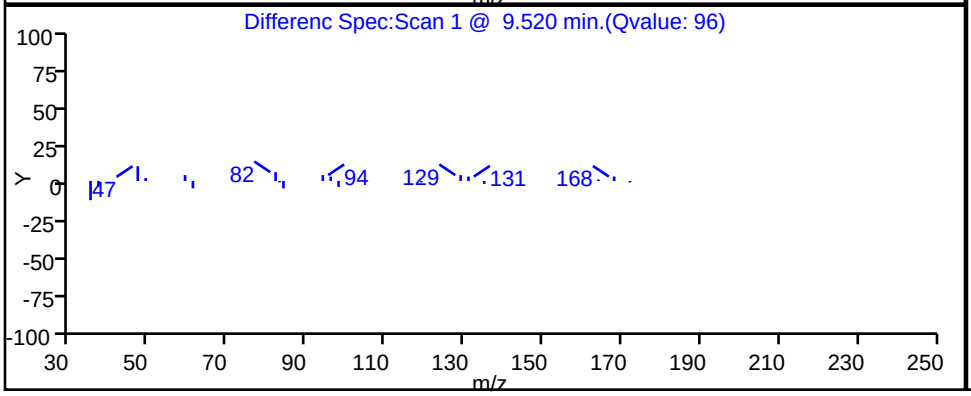
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D		
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6
Client ID:	HD-MW-37S-0/1-0		
Operator ID:	001562	ALS Bottle#:	23 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

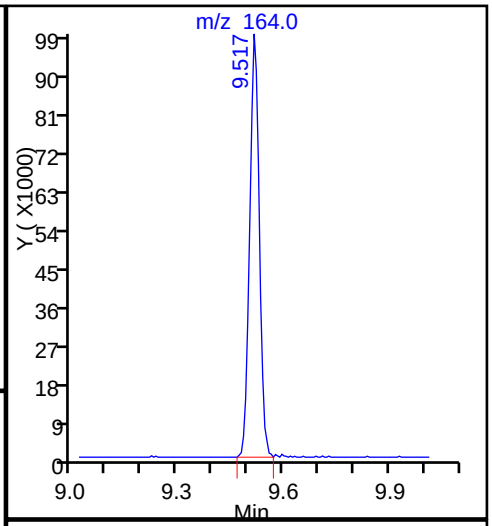
80 Tetrachloroethene, CAS: 127-18-4

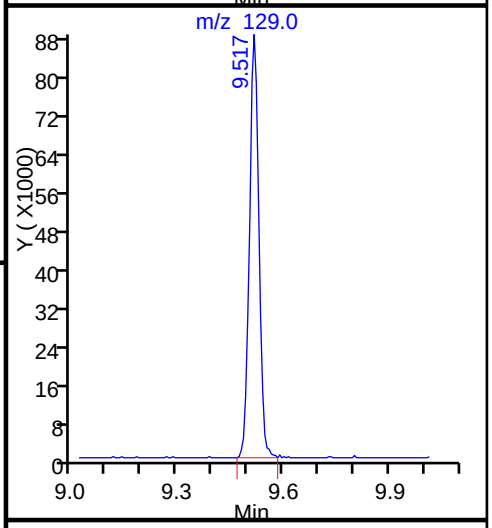


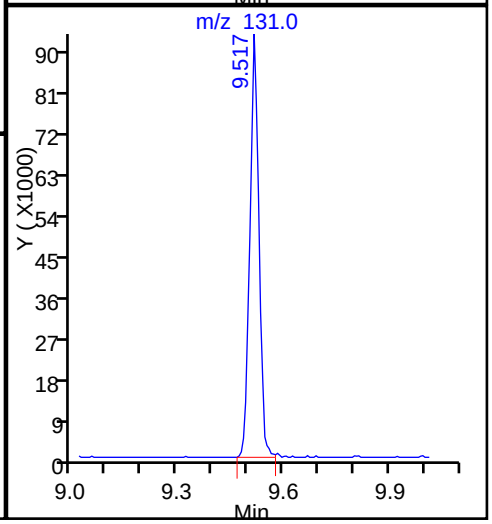












Manual Integration/User Assign Peak Report

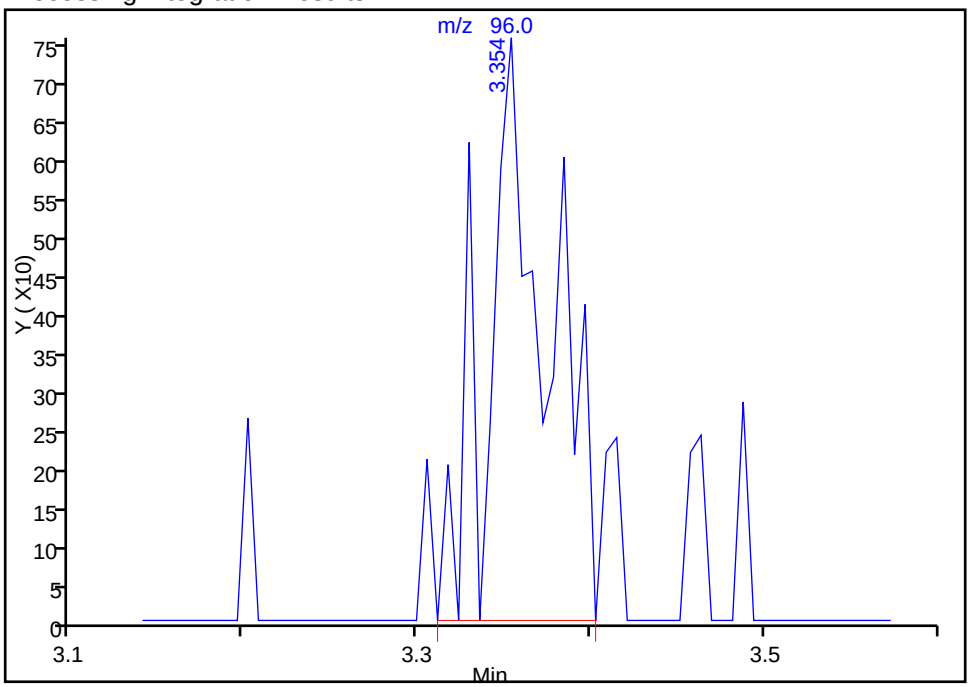
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527026.D				
Injection Date:	27-May-2015 20:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Operator ID:	001562	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

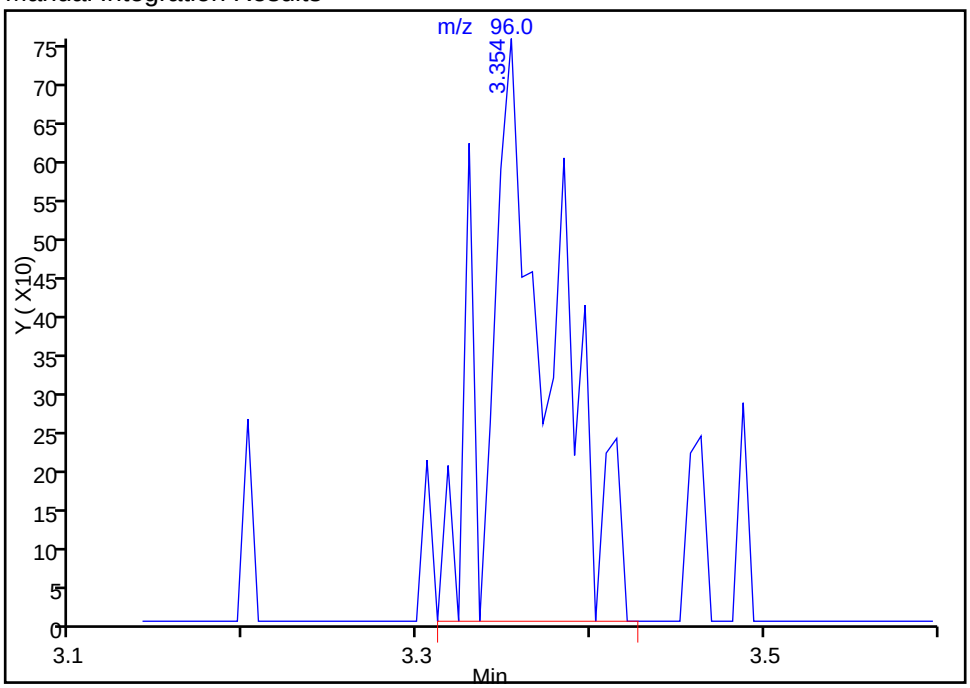
Processing Integration Results

RT: 3.35
Area: 1859
Amount: 1.173551
Amount Units: ng



Manual Integration Results

RT: 3.35
Area: 2024
Amount: 1.277712
Amount Units: ng



Reviewer: fergusond, 28-May-2015 07:50:02
Audit Action: Manually Integrated
Audit Reason: Split Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 | Lab Sample ID: 180-44248-7

Matrix: Water | Lab File ID: 50527028.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 21:14

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13	U	13	3.5
75-01-4	Vinyl chloride	13	U	13	2.8
74-83-9	Bromomethane	13	U	13	3.9
75-00-3	Chloroethane	13	U	13	2.7
75-35-4	1,1-Dichloroethene	8.9	J	13	3.7
67-64-1	Acetone	63	U	63	31
75-15-0	Carbon disulfide	13	U	13	2.7
75-09-2	Methylene Chloride	6.6	J	13	1.6
156-60-5	trans-1,2-Dichloroethene	13	U	13	2.1
1634-04-4	Methyl tert-butyl ether	13	U	13	2.3
75-34-3	1,1-Dichloroethane	6.8	J	13	1.5
156-59-2	cis-1,2-Dichloroethene	69		13	3.0
74-97-5	Bromochloromethane	13	U	13	2.3
78-93-3	2-Butanone (MEK)	63	U	63	6.8
67-66-3	Chloroform	13	U	13	2.1
71-55-6	1,1,1-Trichloroethane	66		13	3.6
56-23-5	Carbon tetrachloride	13	U	13	1.7
71-43-2	Benzene	13	U	13	1.3
107-06-2	1,2-Dichloroethane	13	U	13	2.6
79-01-6	Trichloroethene	250		13	1.8
78-87-5	1,2-Dichloropropane	13	U	13	1.2
75-27-4	Bromodichloromethane	13	U	13	1.6
10061-01-5	cis-1,3-Dichloropropene	13	U	13	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	63	U	63	6.6
108-88-3	Toluene	13	U	13	1.9
10061-02-6	trans-1,3-Dichloropropene	13	U	13	1.9
79-00-5	1,1,2-Trichloroethane	13	U	13	2.5
127-18-4	*Tetrachloroethene*	*700*	*E*	*13*	*1.9*
591-78-6	2-Hexanone	63	U	63	2.0
124-48-1	Dibromochloromethane	13	U	13	1.7
106-93-4	1,2-Dibromoethane (EDB)	13	U	13	2.3
108-90-7	Chlorobenzene	13	U	13	1.7
630-20-6	1,1,1,2-Tetrachloroethane	13	U	13	3.5
100-41-4	Ethylbenzene	13	U	13	2.8
1330-20-7	Xylenes, Total	38	U	38	6.1
100-42-5	Styrene	13	U	13	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 | Lab Sample ID: 180-44248-7

Matrix: Water | Lab File ID: 50527028.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 21:14

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	13	U	13	2.4
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	2.5
107-13-1	Acrylonitrile	250	U	250	6.8
123-91-1	1,4-Dioxane	2500	U	2500	430

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D
Lims ID: 180-44248-E-7 Lab Sample ID: 180-44248-7
Client ID: HD-MW-37D-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 21:14:30 ALS Bottle#: 25 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-44248-E-7, 12.5x
Misc. Info.: 180-0007136-028
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:53:53 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:53:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.274	-0.006	0	130754	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	98	334996	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	79843	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	97	97070	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.561	0.001	93	83007	57.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.933	0.006	0	109545	60.9	
$ 7 Toluene-d8 (Surr)	98	8.940	8.934	0.006	94	299890	50.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	88	94641	44.5	
12 Chloromethane	50	1.932	1.768	0.164	1	246	0.0835	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.350	3.343	0.007	89	5709	3.56	
24 Acetone	43		3.441				ND	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84	4.140	4.140	0.000	94	11499	2.64	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	90	9070	2.71	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	82	54290	27.6	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.385	6.379	0.006	1	1025	0.3409	
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	95	61586	26.5	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.681	7.681	0.000	96	192233	100.5	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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	9.518	0.000	94	399777	279.2	E
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

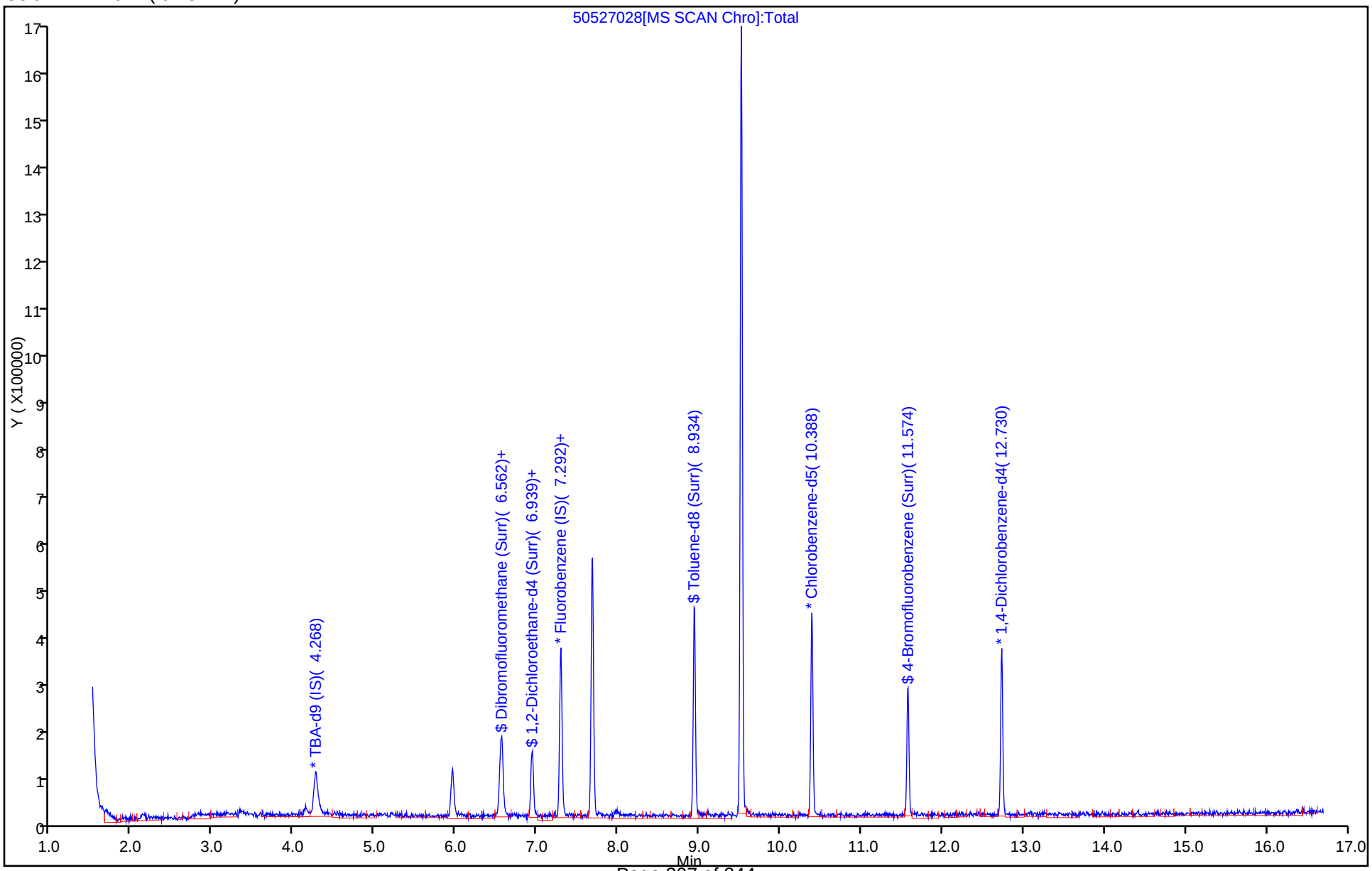
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D				
Injection Date:	27-May-2015 21:14:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-E-7	Lab Sample ID:	180-44248-7	Worklist Smp#:	28
Client ID:	HD-MW-37D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D

Injection Date: 27-May-2015 21:14:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-7 Lab Sample ID: 180-44248-7

Client ID: HD-MW-37D-0/1-0

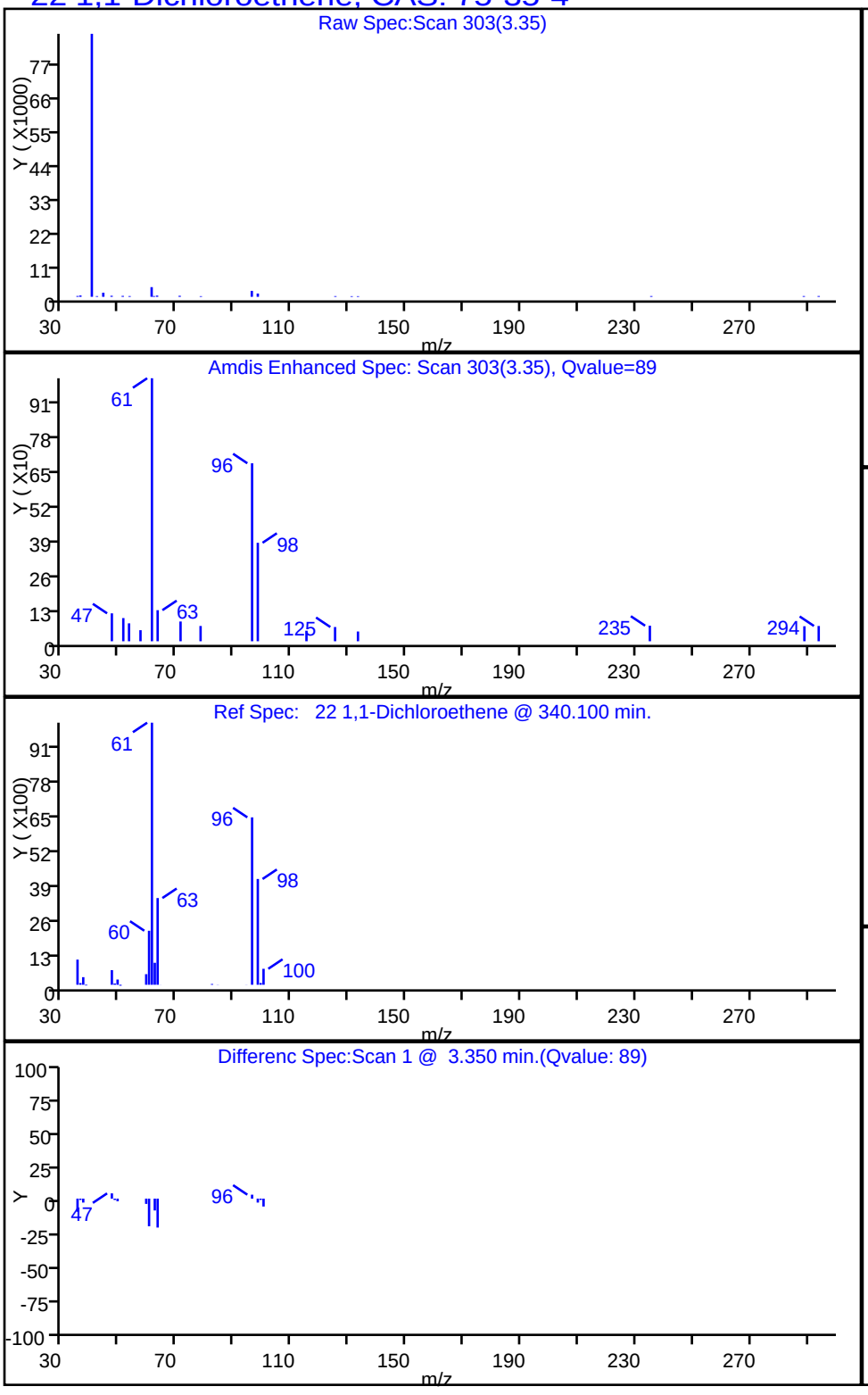
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 28

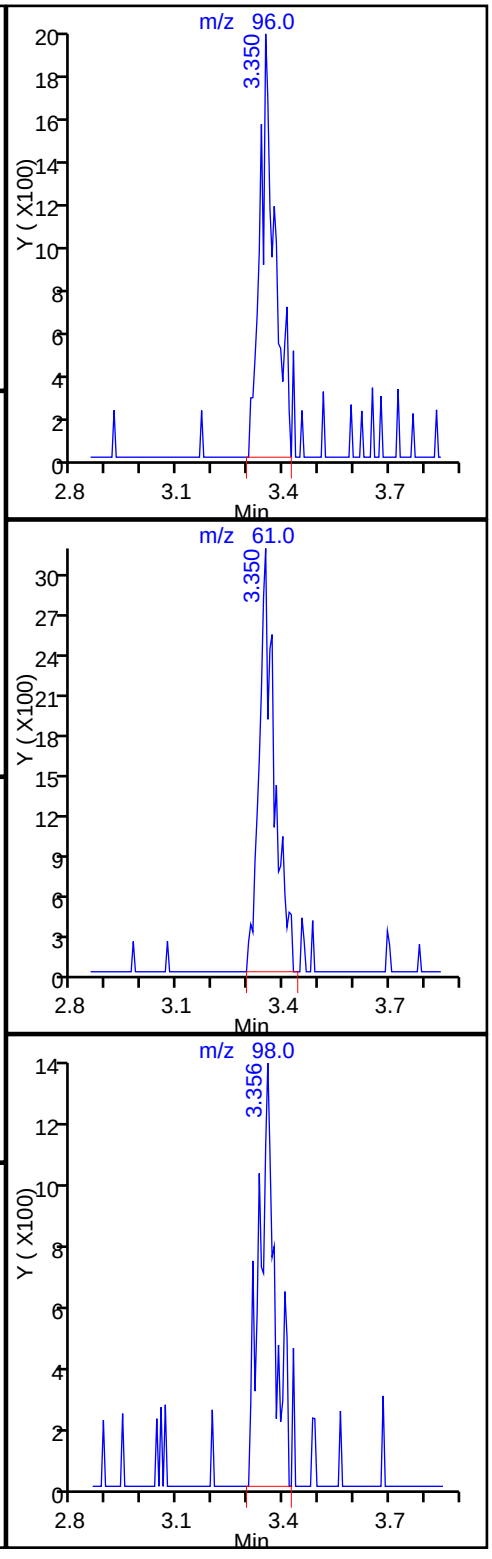
Purge Vol: 5.000 mL Dil. Factor: 12.5000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

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



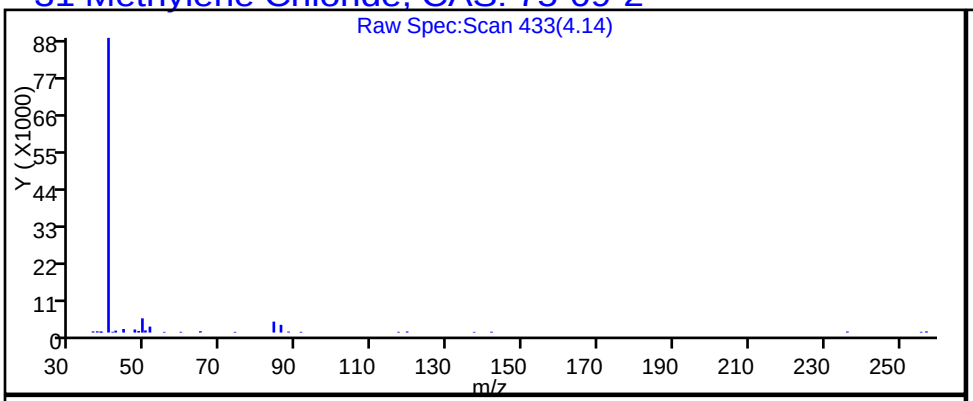


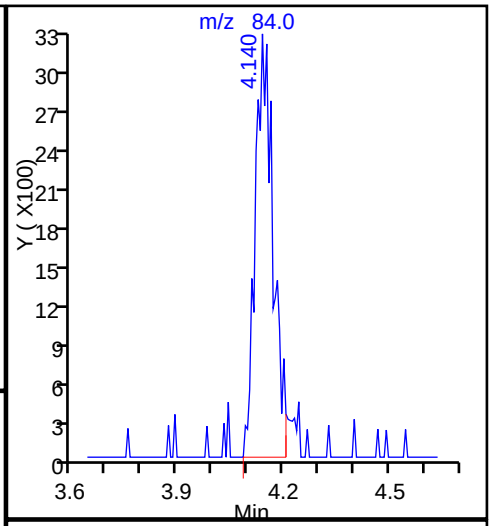
Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

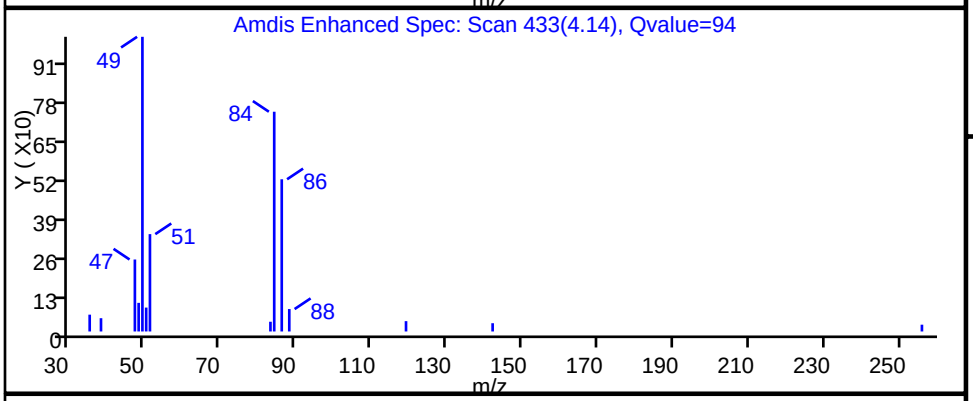
TestAmerica Pittsburgh

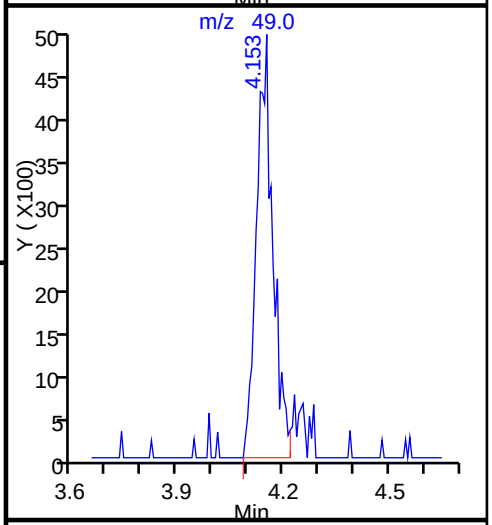
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D				
Injection Date:	27-May-2015 21:14:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-7	Lab Sample ID:	180-44248-7		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

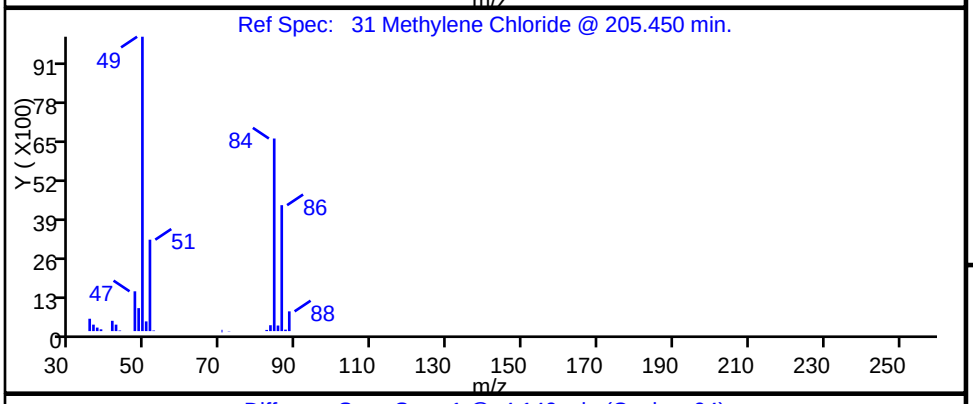
31 Methylene Chloride, CAS: 75-09-2

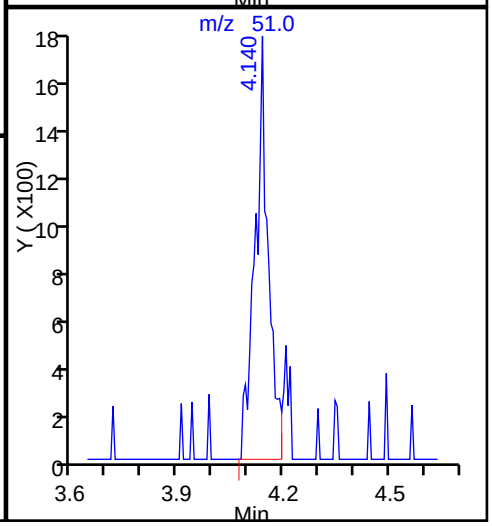


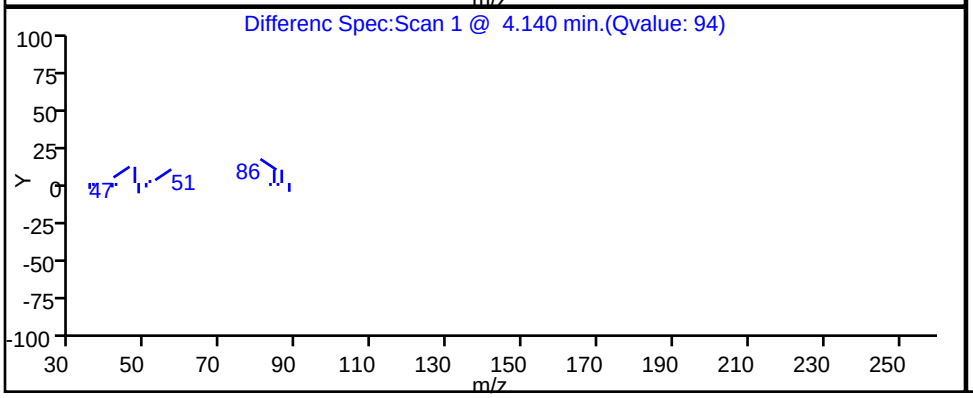












Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D

Injection Date: 27-May-2015 21:14:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-7 Lab Sample ID: 180-44248-7

Client ID: HD-MW-37D-0/1-0

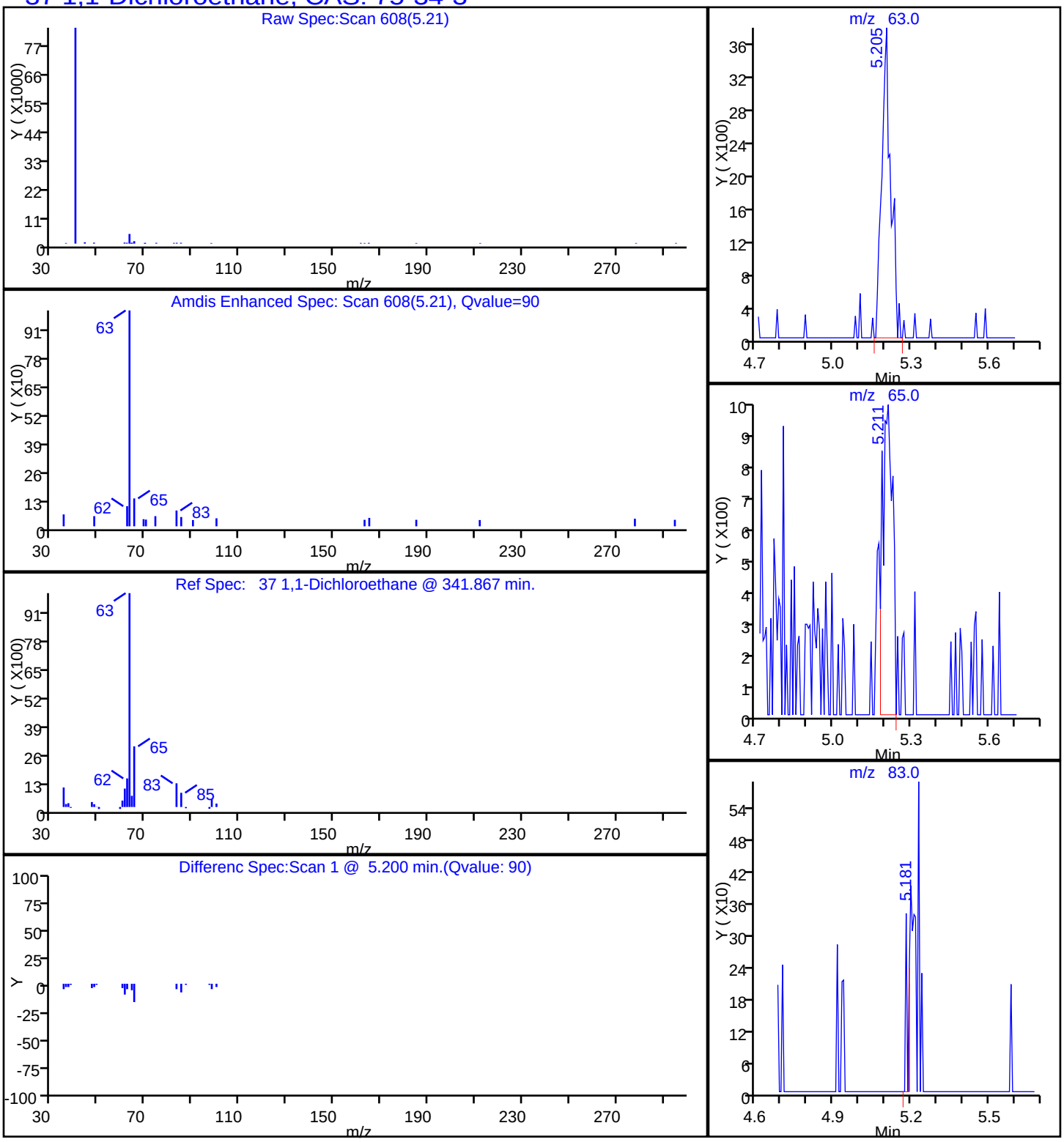
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 28

Purge Vol: 5.000 mL Dil. Factor: 12.5000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

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

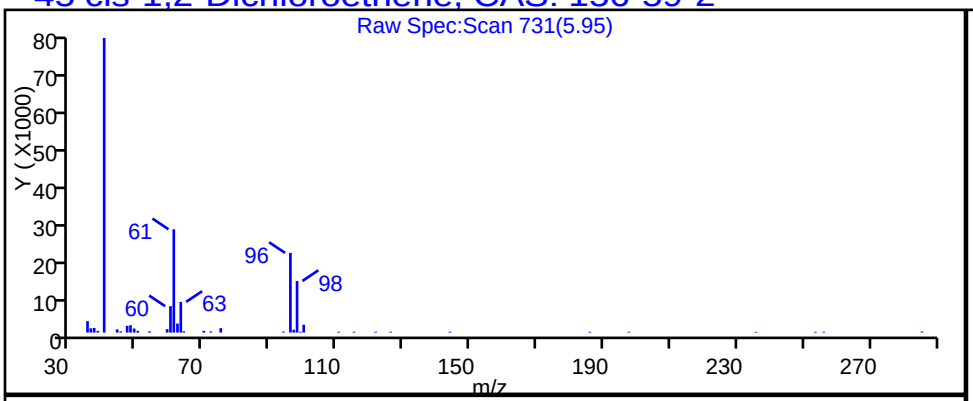


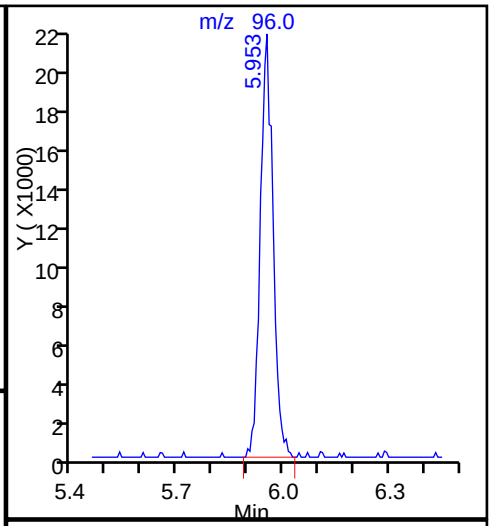
Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

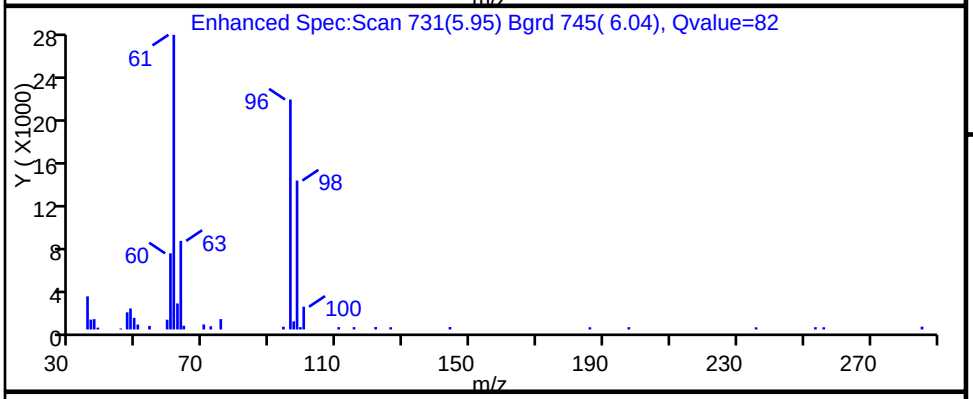
TestAmerica Pittsburgh

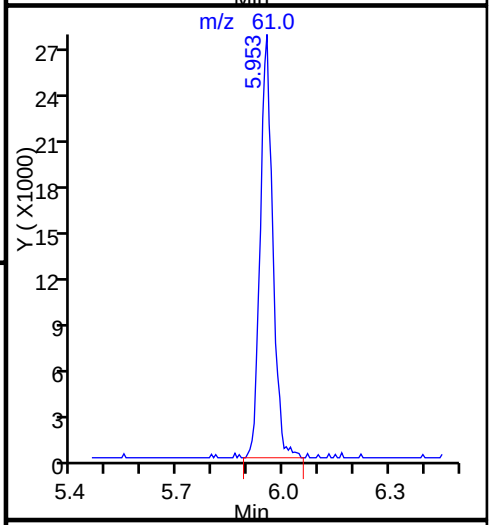
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D		
Injection Date:	27-May-2015 21:14:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	25 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

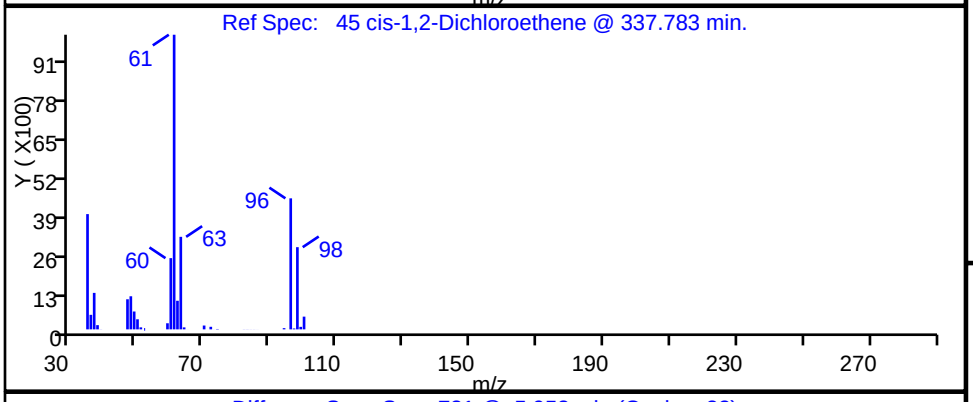
45 cis-1,2-Dichloroethene, CAS: 156-59-2

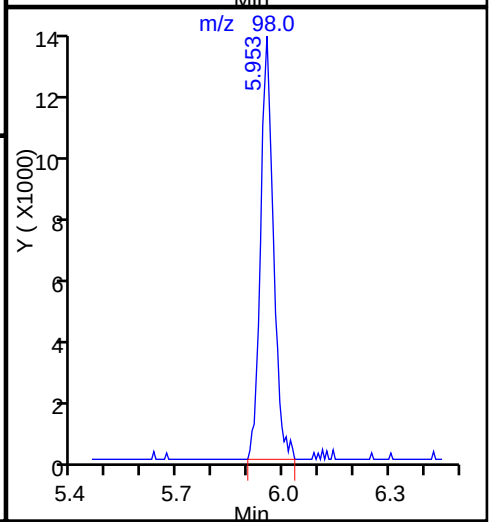


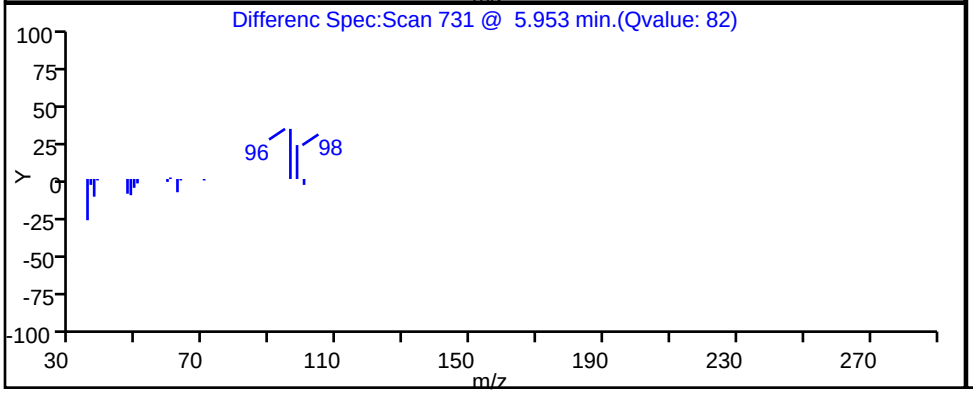










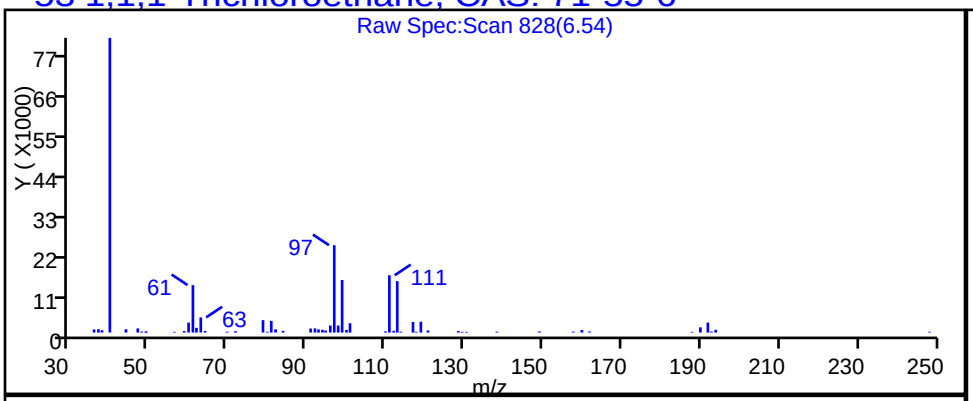


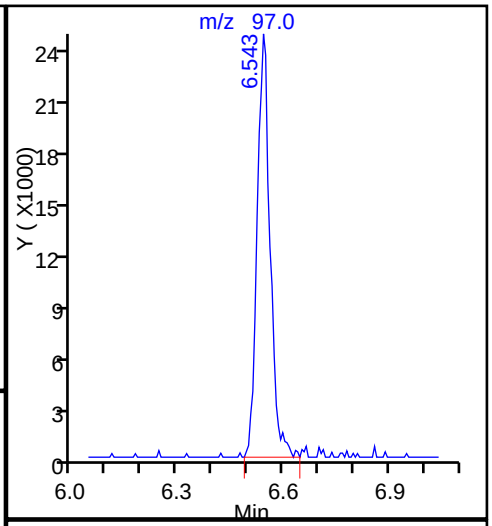
Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

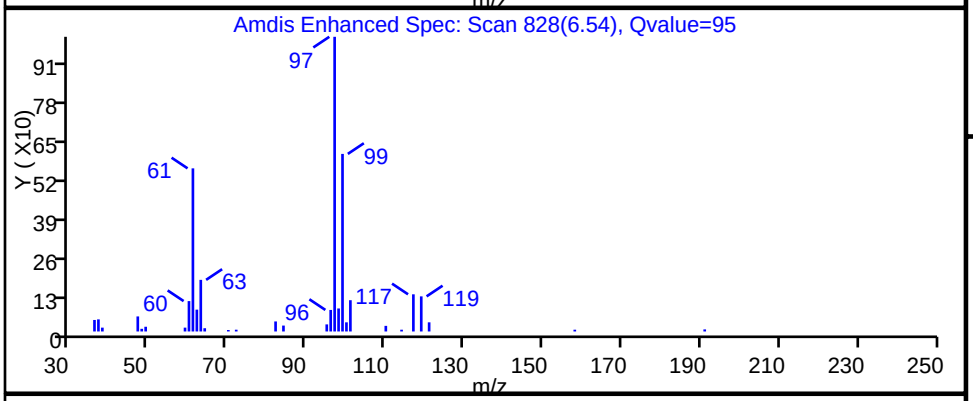
TestAmerica Pittsburgh

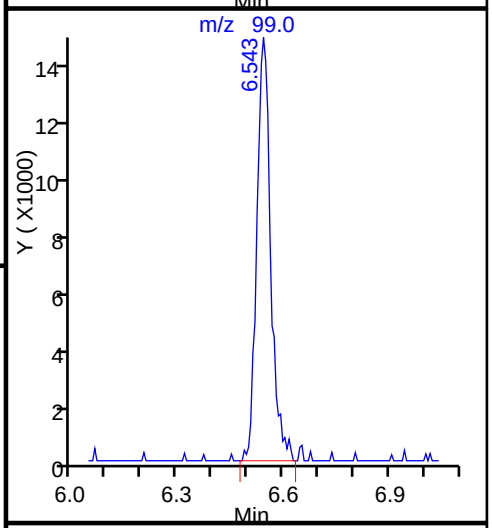
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D				
Injection Date:	27-May-2015 21:14:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-7	Lab Sample ID:	180-44248-7		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	001562	ALS Bottle#:	25	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

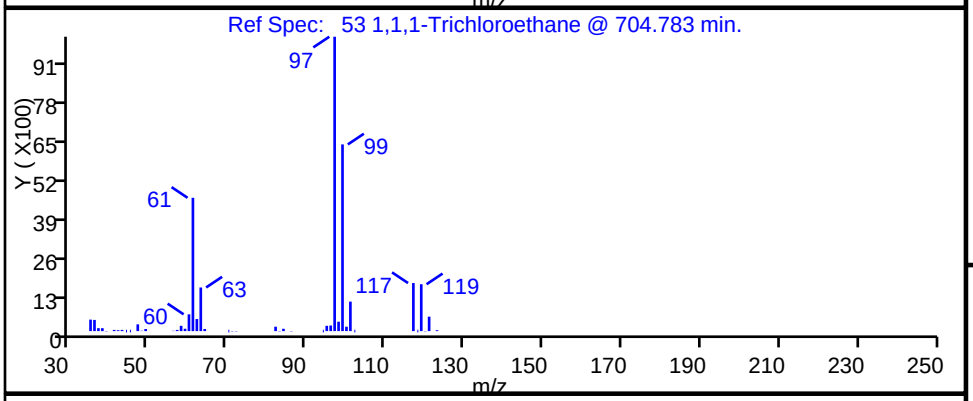
53 1,1,1-Trichloroethane, CAS: 71-55-6

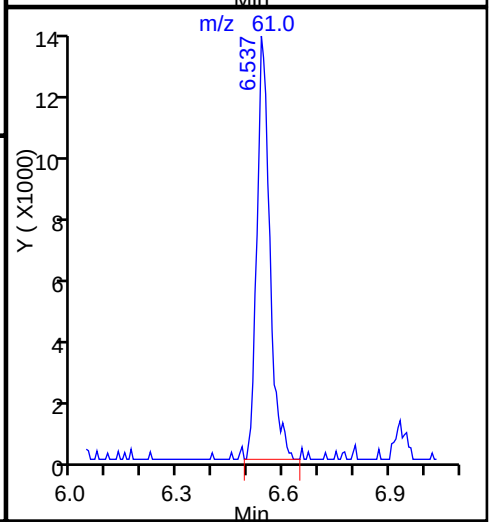


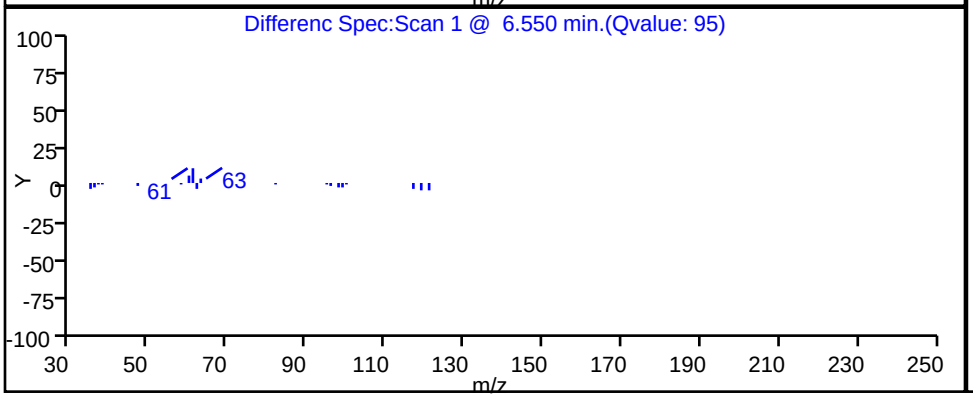










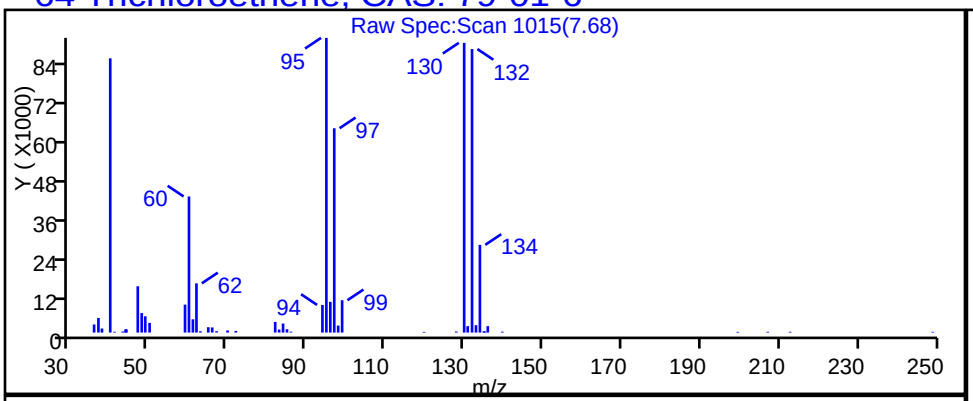


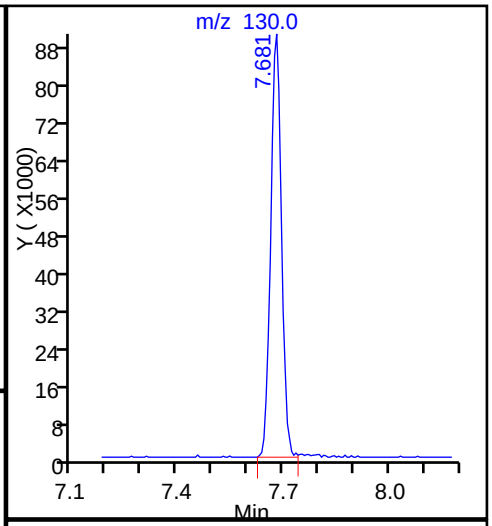
Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

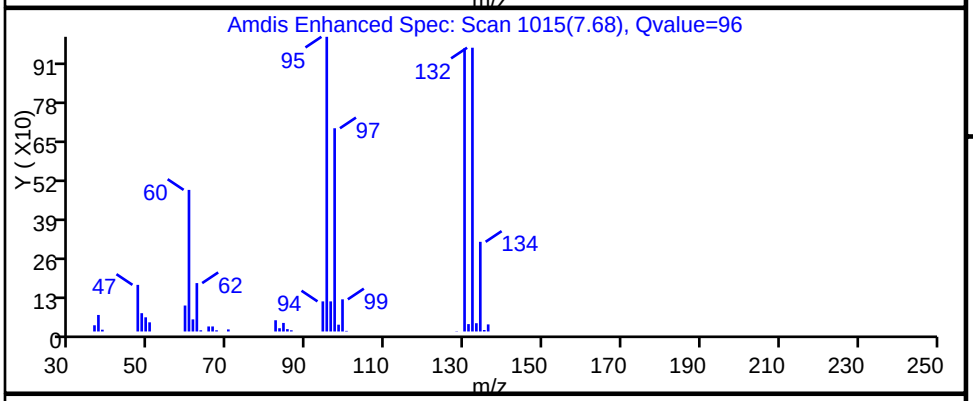
TestAmerica Pittsburgh

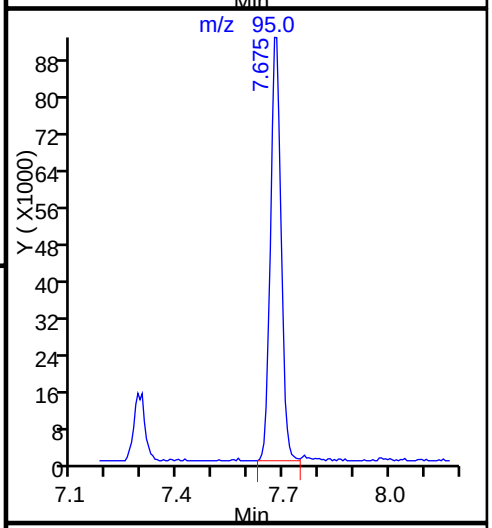
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D		
Injection Date:	27-May-2015 21:14:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	25 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	12.5000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

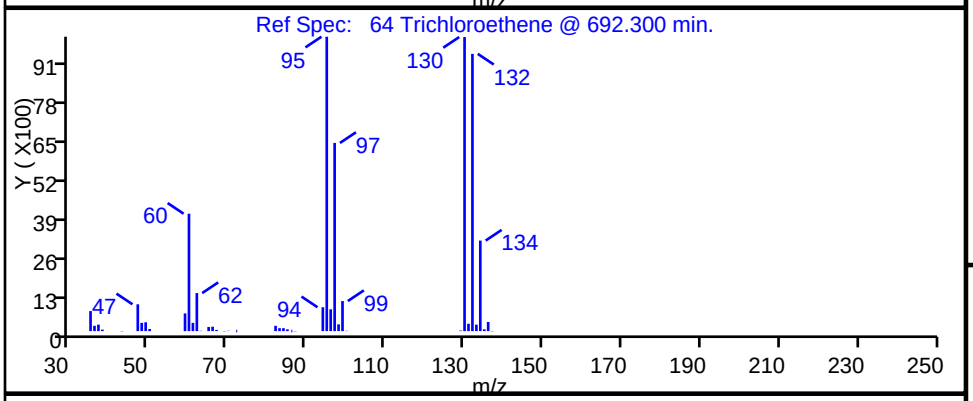
64 Trichloroethene, CAS: 79-01-6

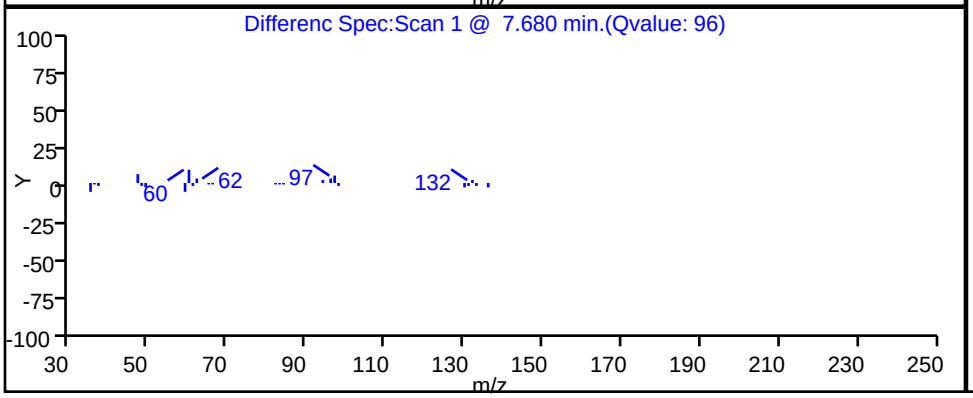


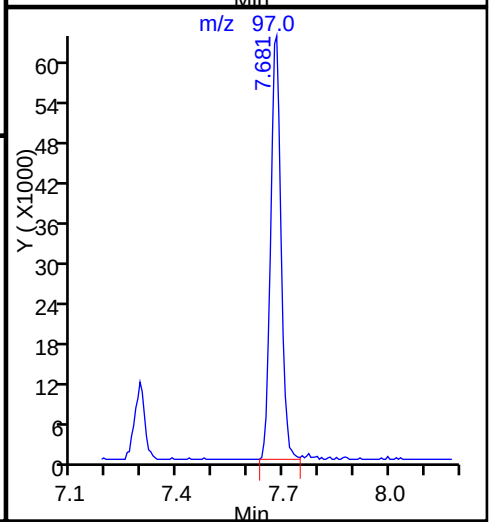












Report Date: 28-May-2015 07:53:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527028.D

Injection Date: 27-May-2015 21:14:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-7 Lab Sample ID: 180-44248-7

Client ID: HD-MW-37D-0/1-0

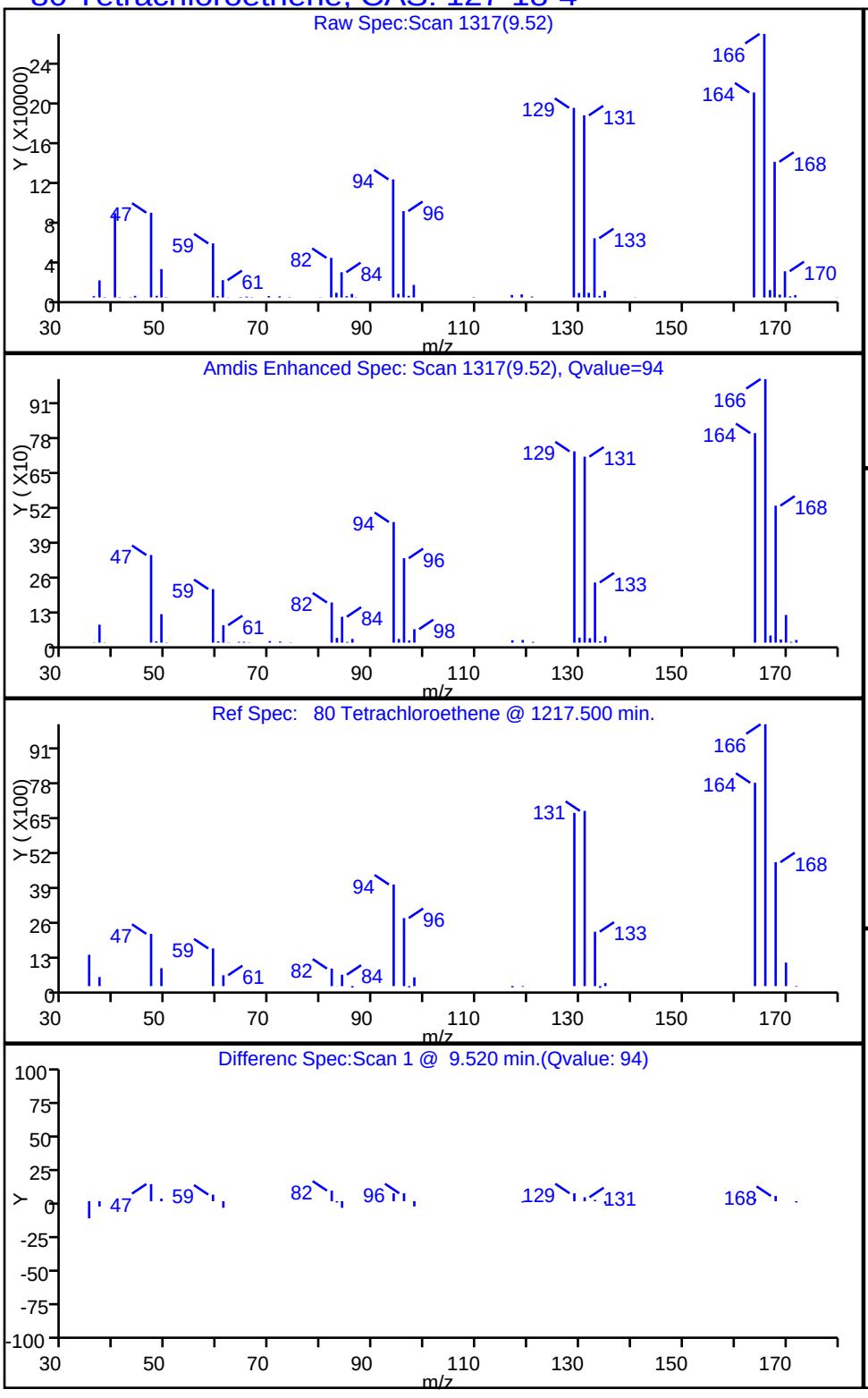
Operator ID: 001562 ALS Bottle#: 25 Worklist Smp#: 28

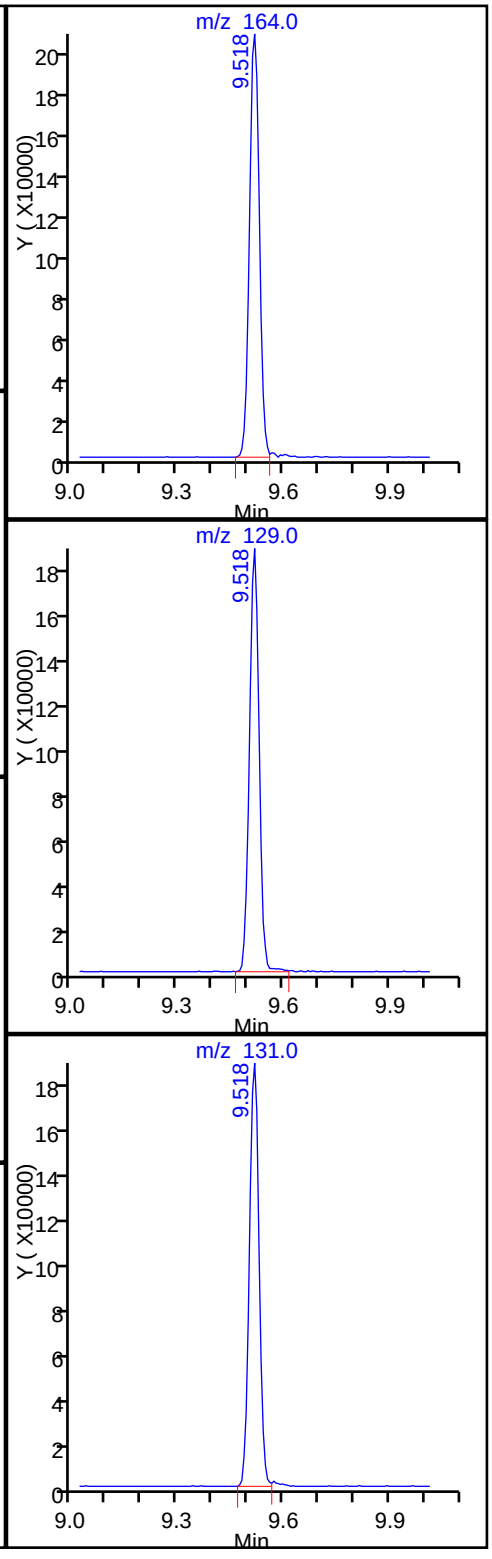
Purge Vol: 5.000 mL Dil. Factor: 12.5000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 DL | Lab Sample ID: 180-44248-7 DL

Matrix: Water | Lab File ID: 50528016.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 17:36

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	9.1	J	25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	14	J	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	6.2	J	25	2.9
156-59-2	cis-1,2-Dichloroethene	60		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	60		25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	220		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	740		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 DL | Lab Sample ID: 180-44248-7 DL

Matrix: Water | Lab File ID: 50528016.D

Analysis Method: 8260C | Date Collected: 05/19/2015 10:17

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 17:36

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*25*	*U*	*25*	*4.8*
79-34-5	*1,1,2,2-Tetrachloroethane*	*25*	*U*	*25*	*5.0*
107-13-1	*Acrylonitrile*	*500*	*U*	*500*	*14*
123-91-1	*1,4-Dioxane*	*5000*	*U*	*5000*	*860*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D
Lims ID: 180-44248-C-7 Lab Sample ID: 180-44248-7
Client ID: HD-MW-37D-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 17:36:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-44248-C-7, 25x
Misc. Info.: 180-0007155-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:20:23 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:20:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.271	4.277	-0.006	0	141871	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	99	420350	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	88	89698	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	96	114667	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	101095	55.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	131034	58.0	
$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	93	356835	53.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	89	107935	45.1	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	69	3684	1.83	M
24 Acetone	43		3.444				ND	
26 Carbon disulfide	76		3.626				ND	
31 Methylene Chloride	84	4.137	4.143	-0.006	79	14775	2.80	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63	5.220	5.196	0.024	0	5194	1.23	M
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	81	29719	12.1	
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.376	6.382	-0.006	9	1205	0.3194	
53 1,1,1-Trichloroethane	97	6.546	6.540	0.006	96	35055	12.0	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.678	7.678	0.000	97	107429	44.7	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	236751	147.2	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

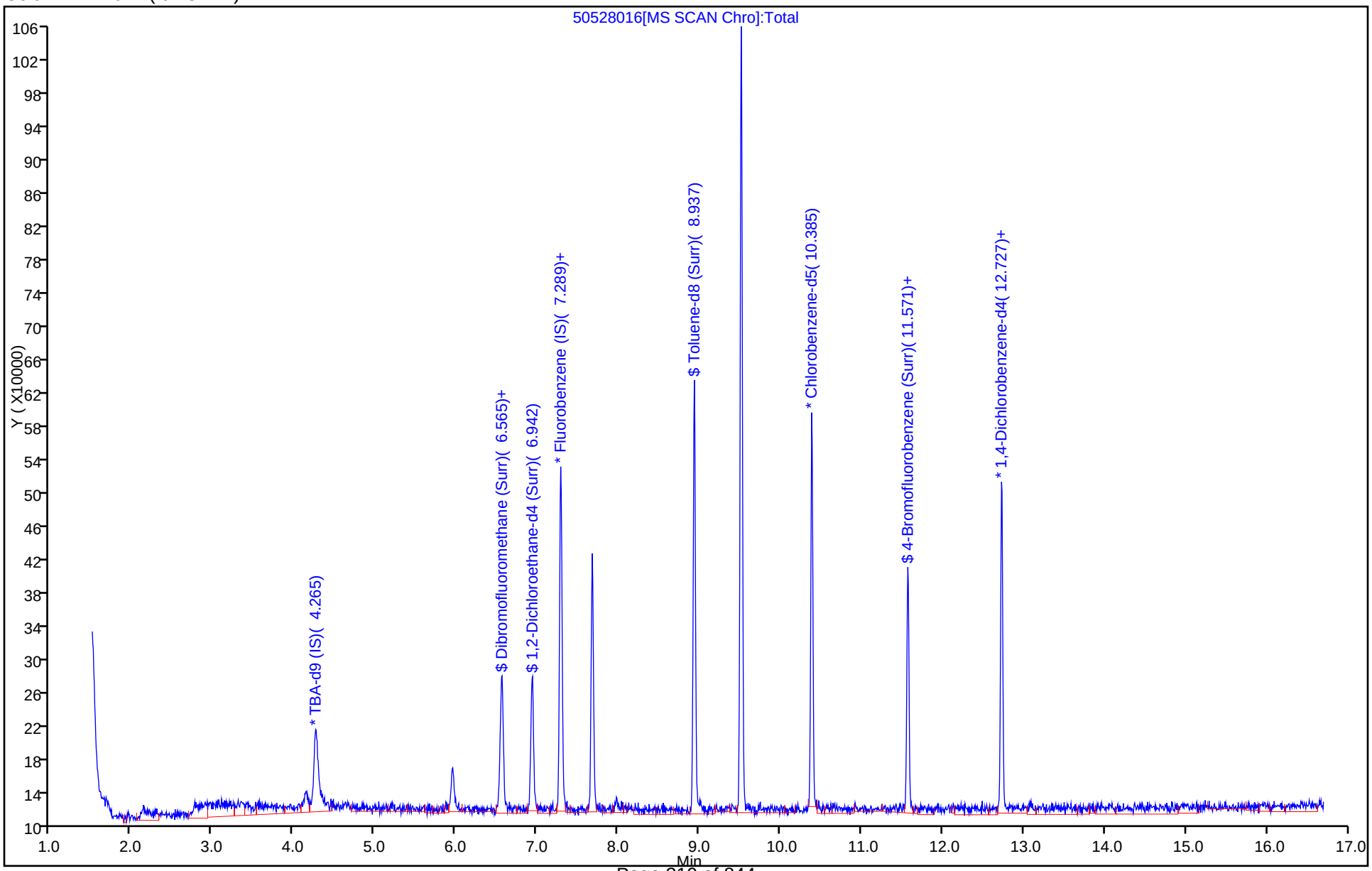
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D				
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7	Worklist Smp#:	16
Client ID:	HD-MW-37D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

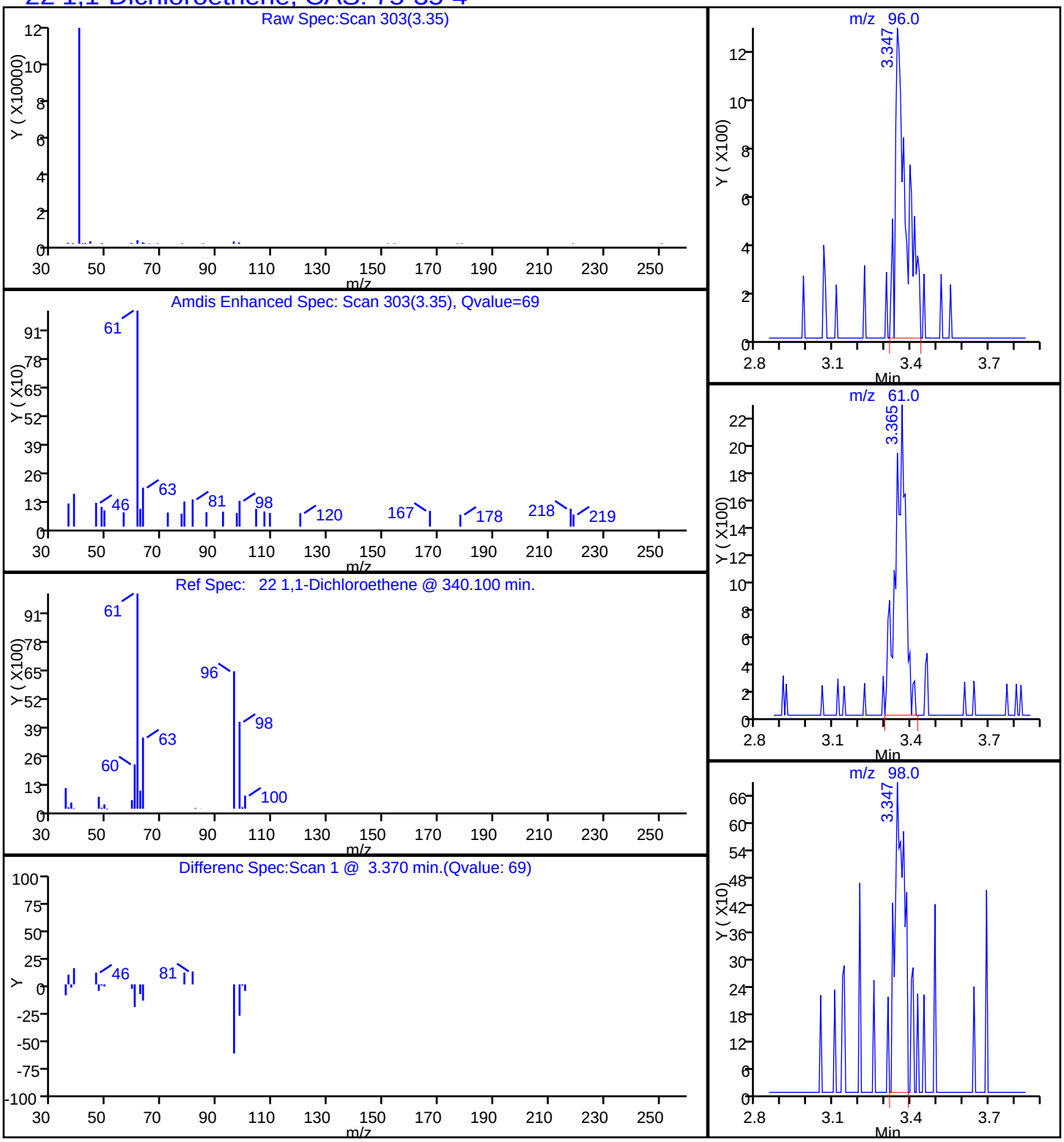


Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

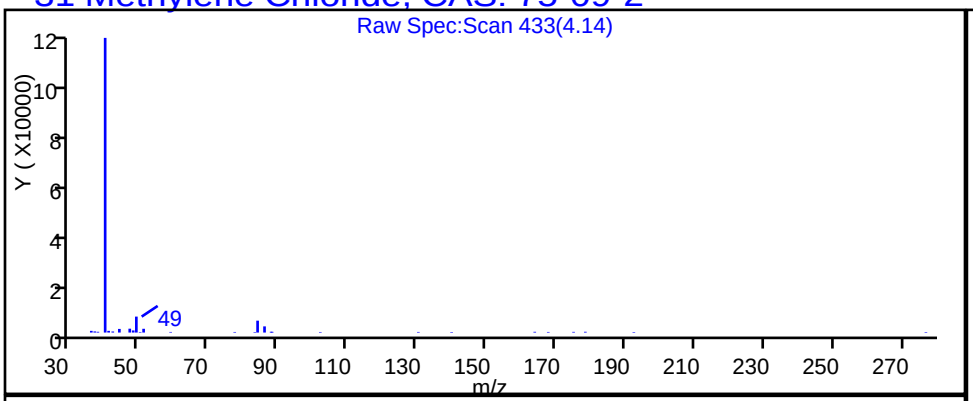


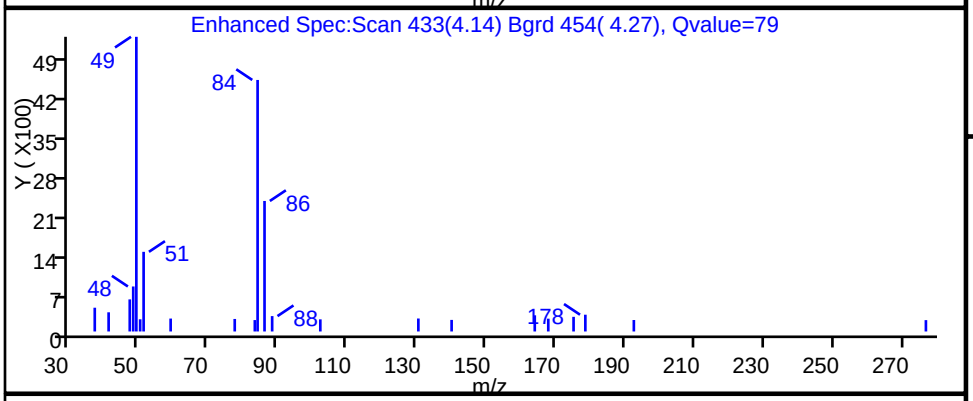
Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

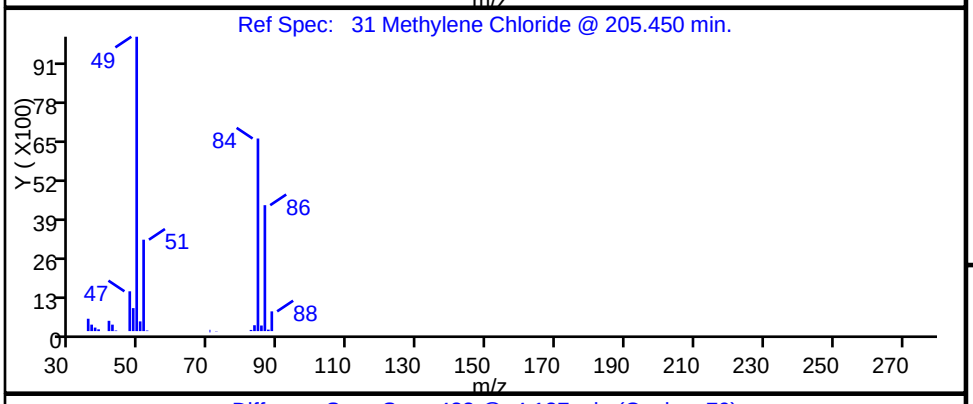
TestAmerica Pittsburgh

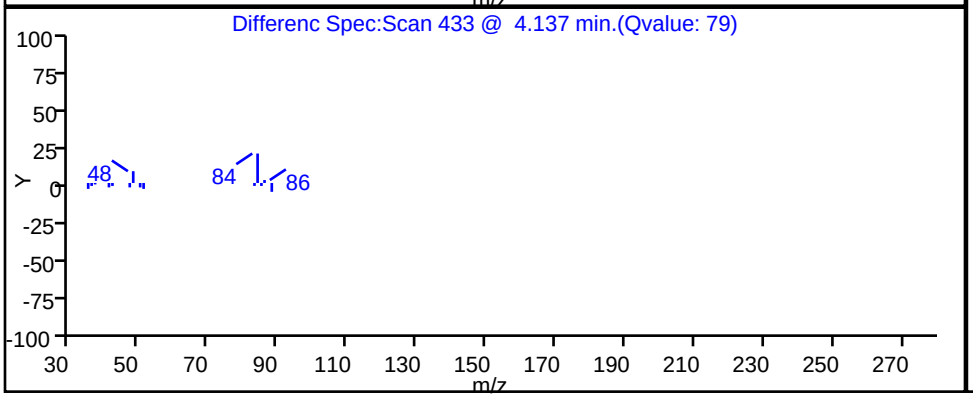
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

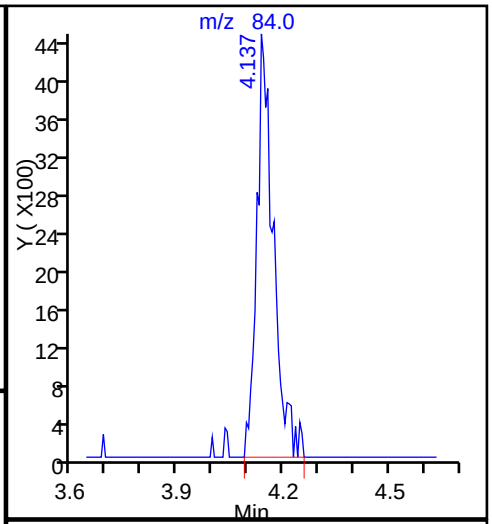
31 Methylene Chloride, CAS: 75-09-2

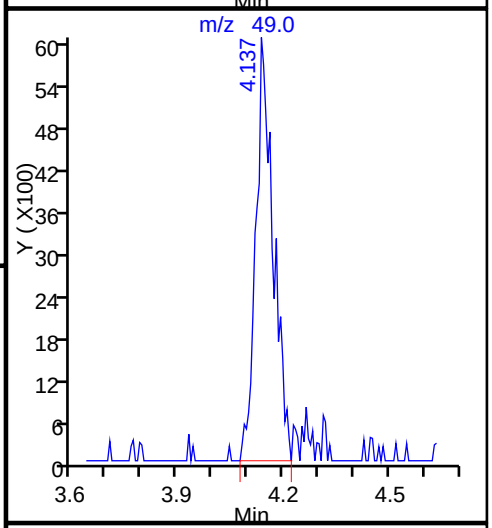


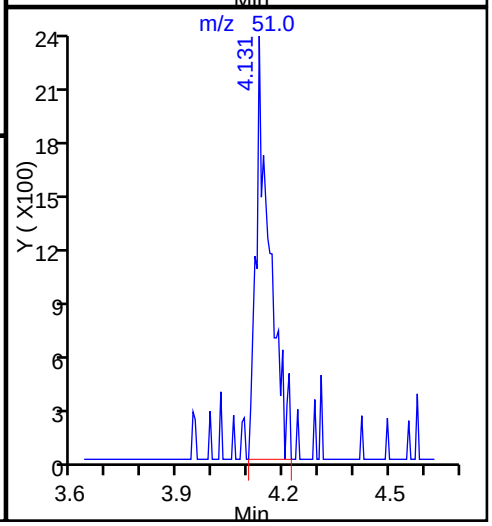










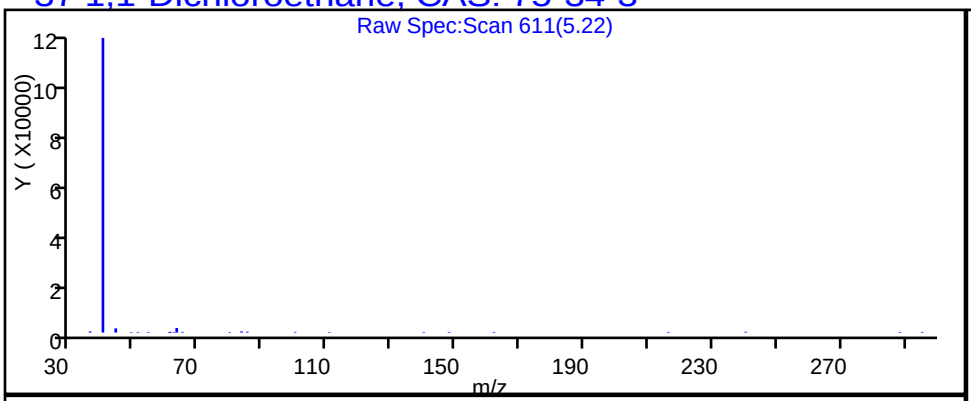


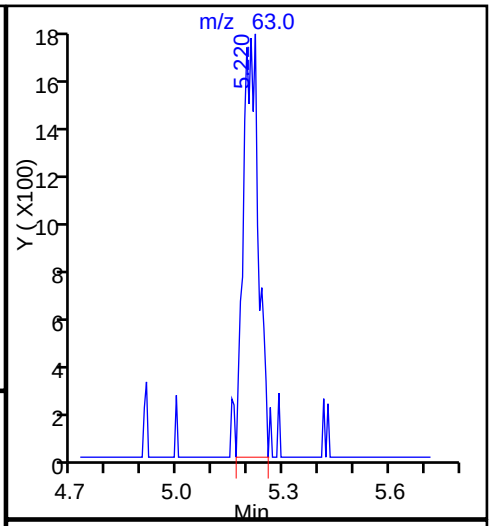
Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

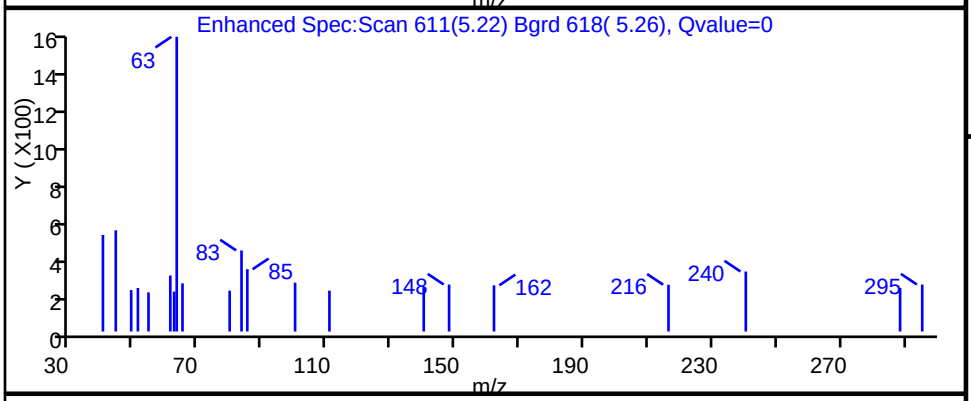
TestAmerica Pittsburgh

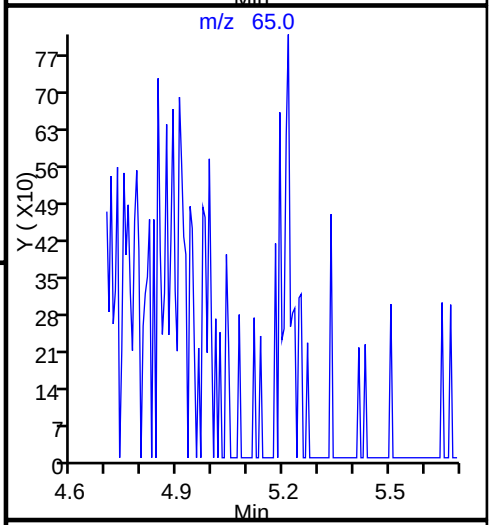
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

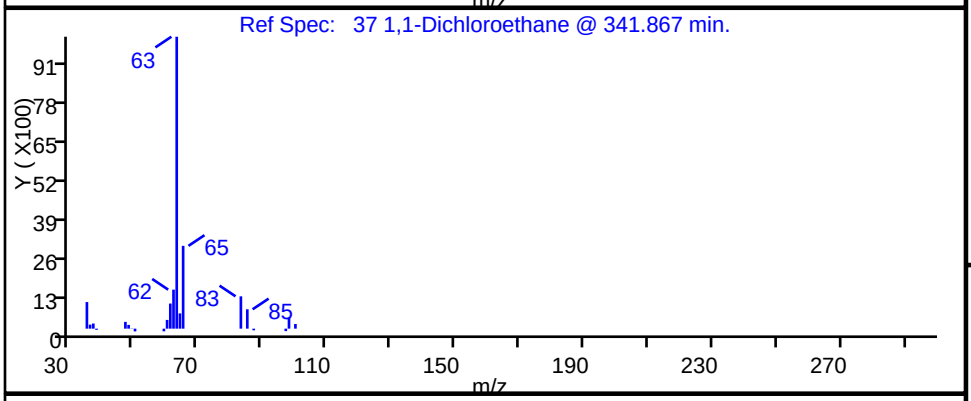
37 1,1-Dichloroethane, CAS: 75-34-3

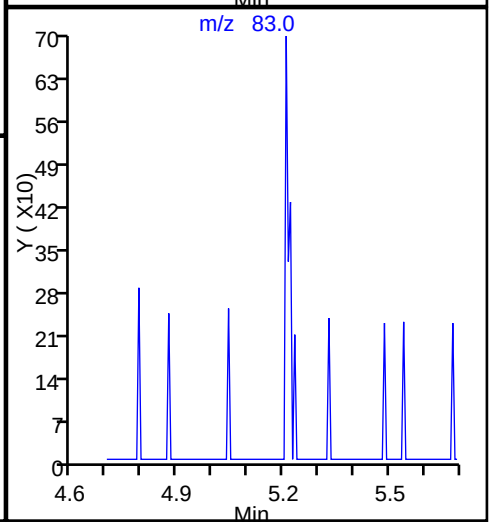


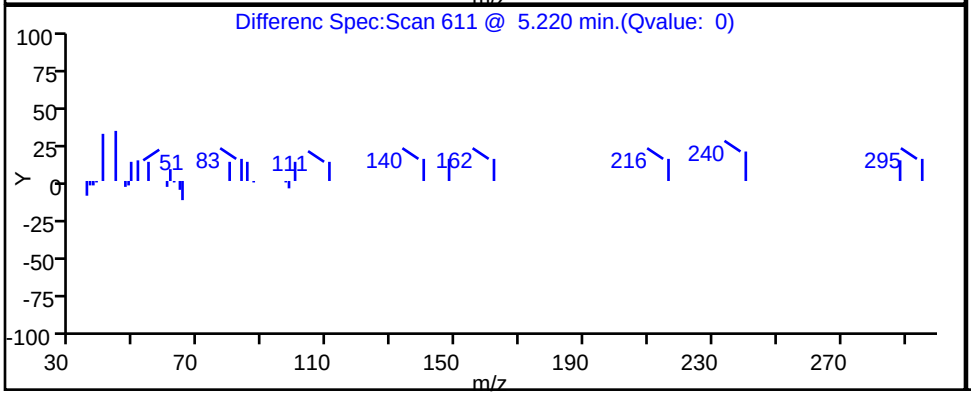










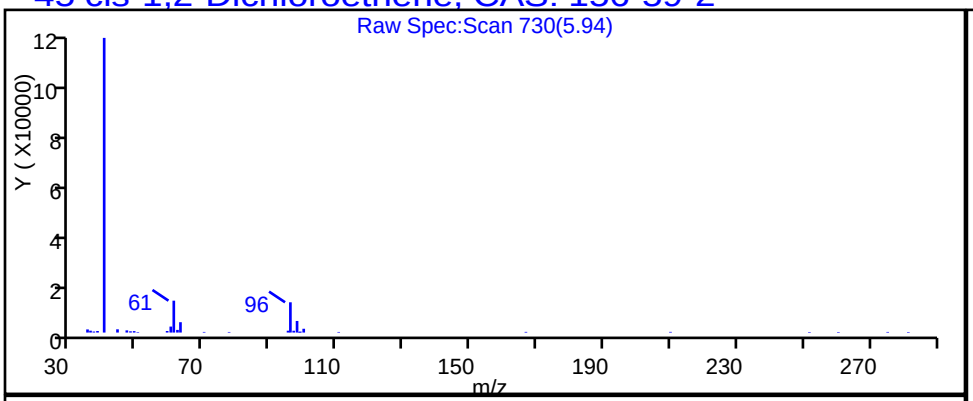


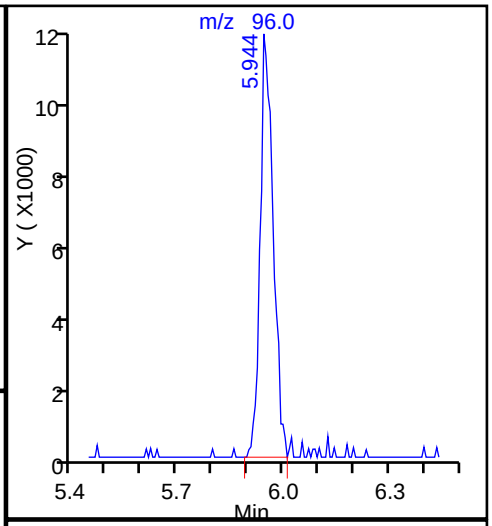
Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

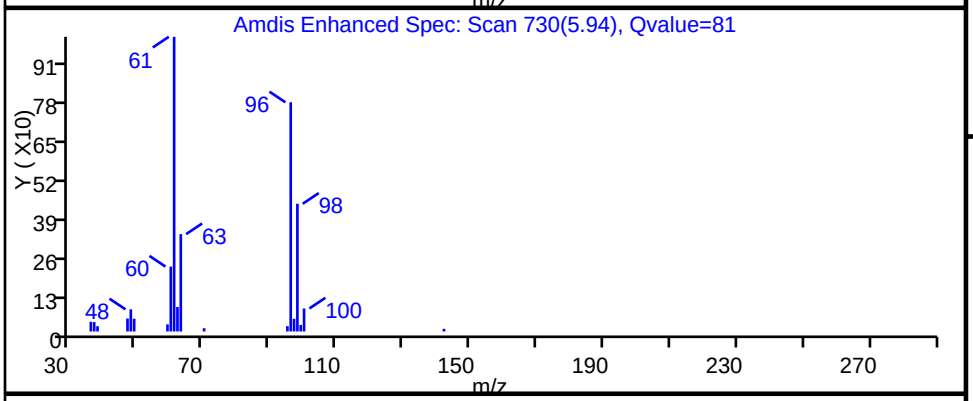
TestAmerica Pittsburgh

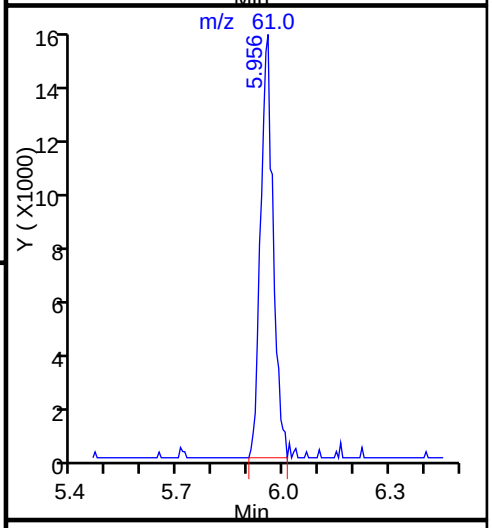
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

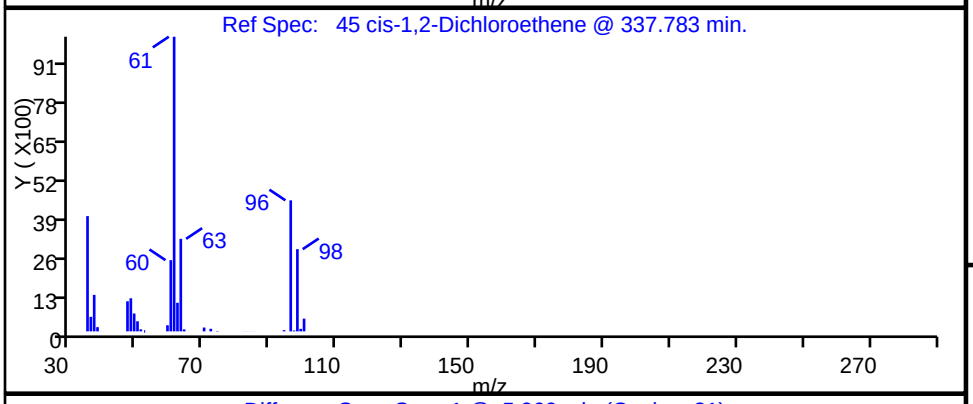
45 cis-1,2-Dichloroethene, CAS: 156-59-2

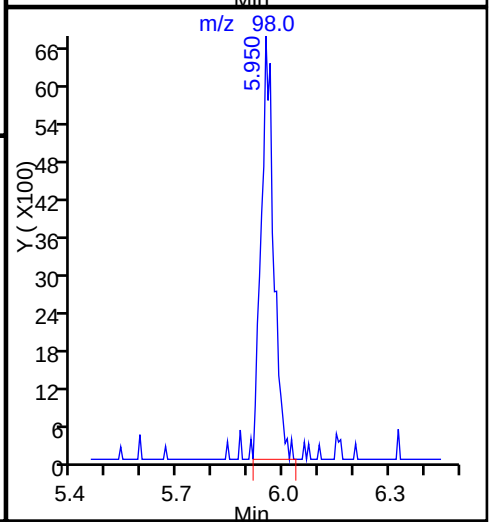


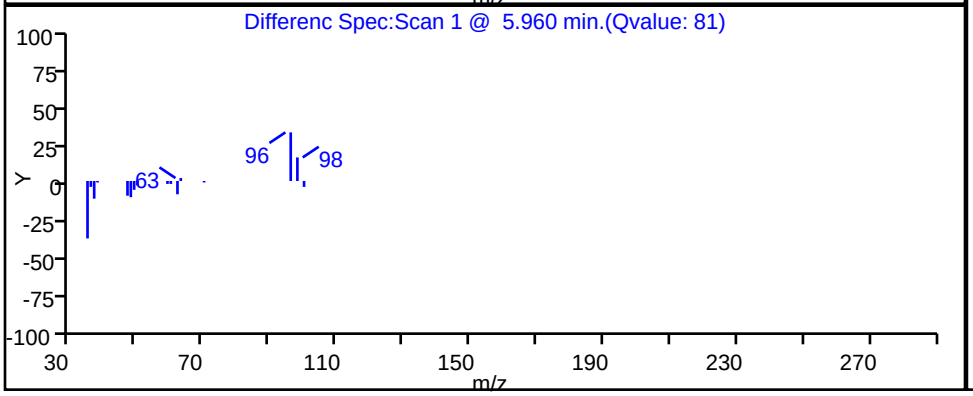










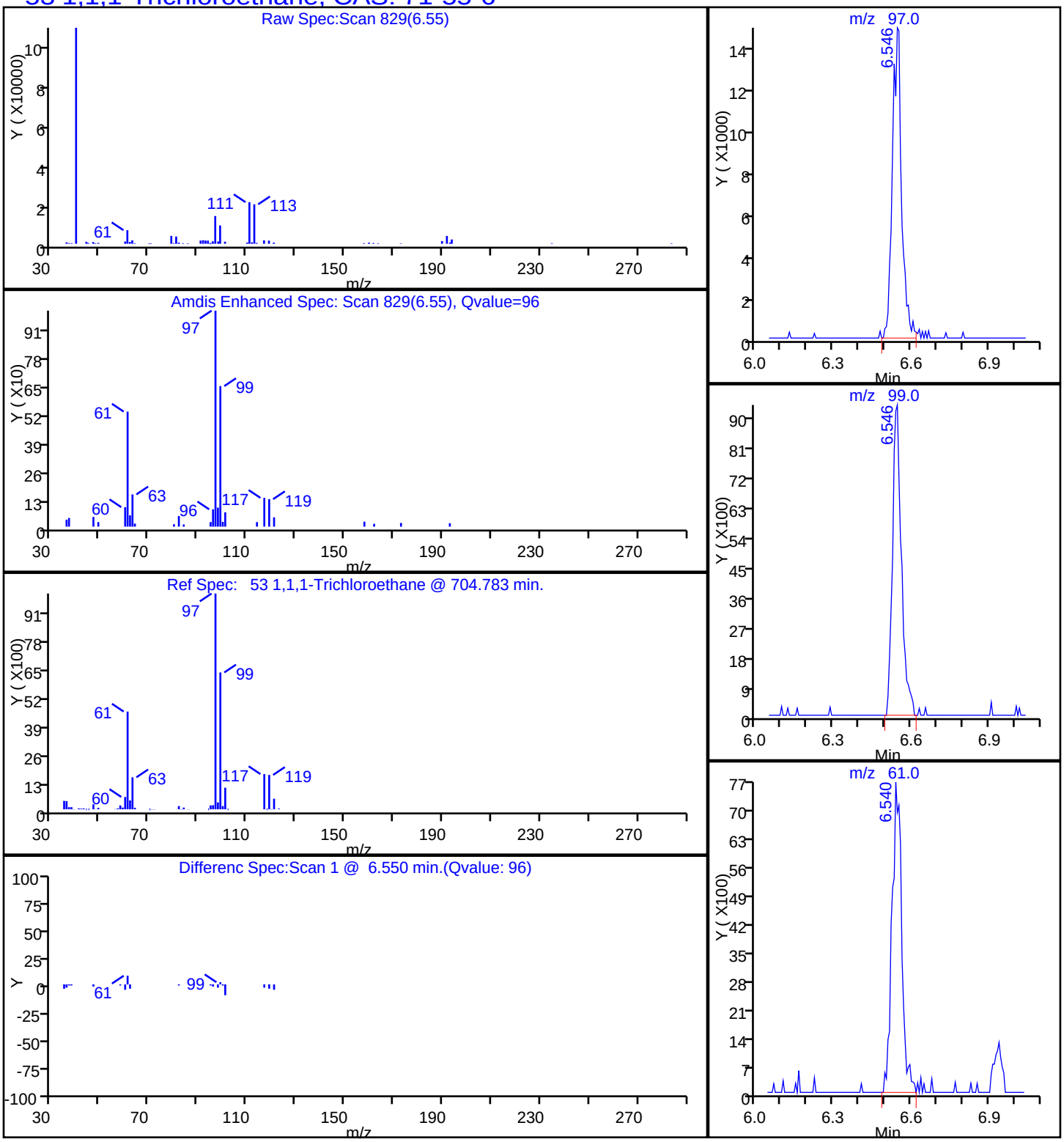


Report Date: 29-May-2015 06:20:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

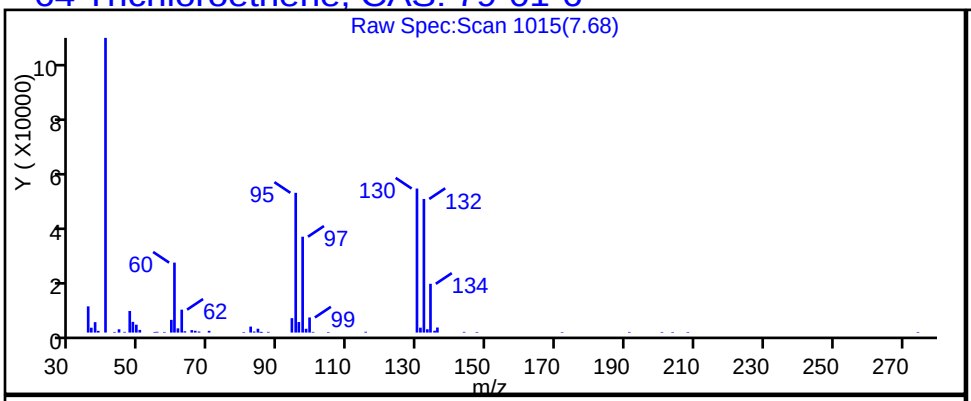


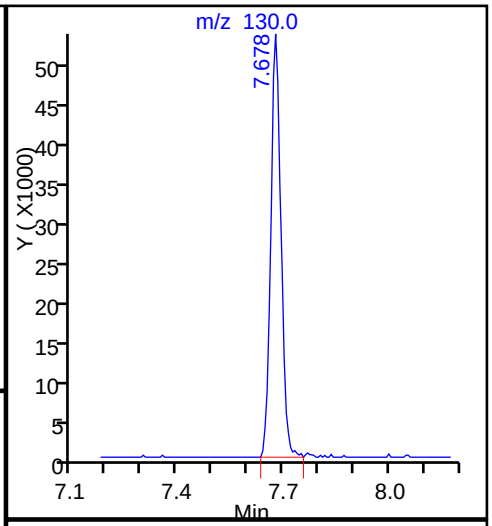
Report Date: 29-May-2015 06:20:24 Chrom Revision: 2.2 05-May-2015 11:39:10

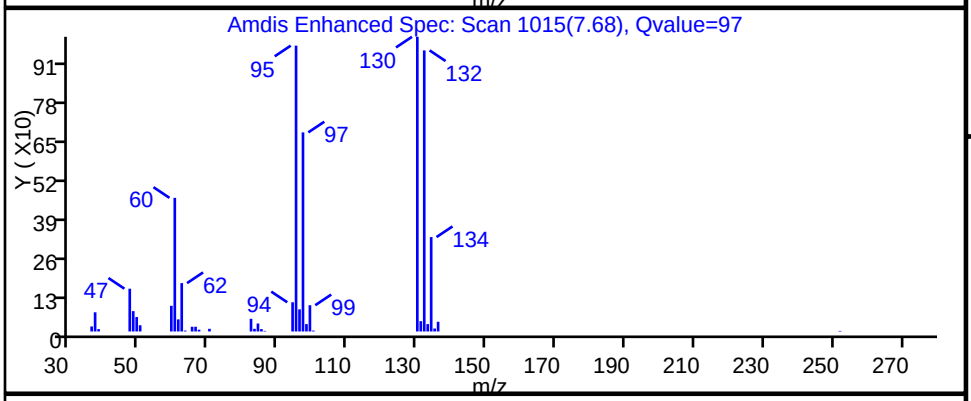
TestAmerica Pittsburgh

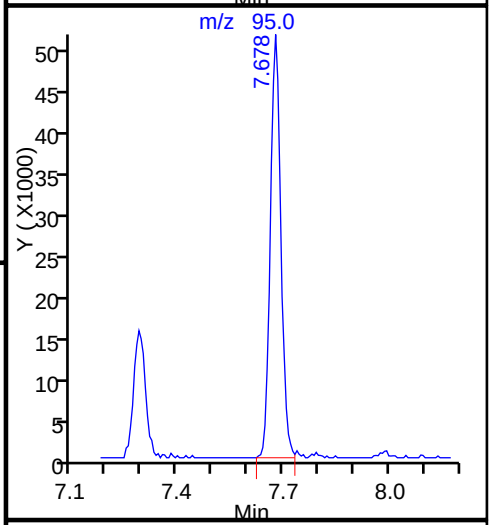
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D		
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7
Client ID:	HD-MW-37D-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

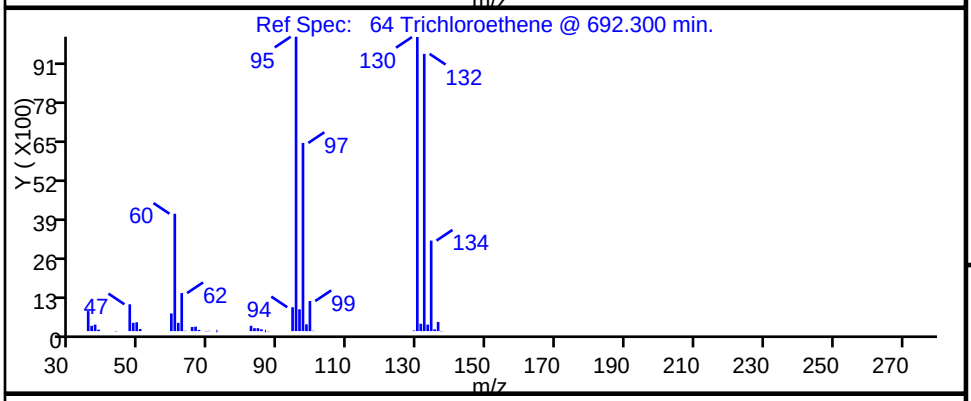
64 Trichloroethene, CAS: 79-01-6

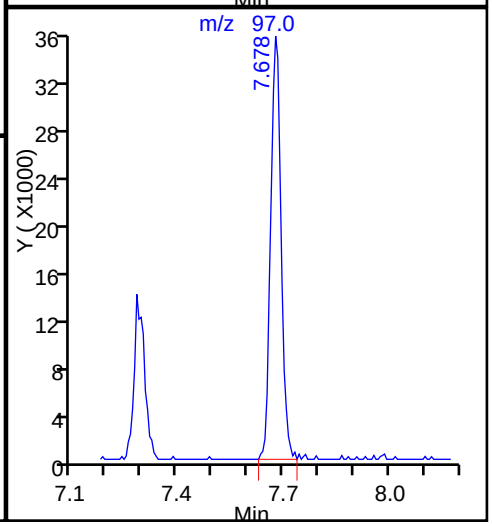


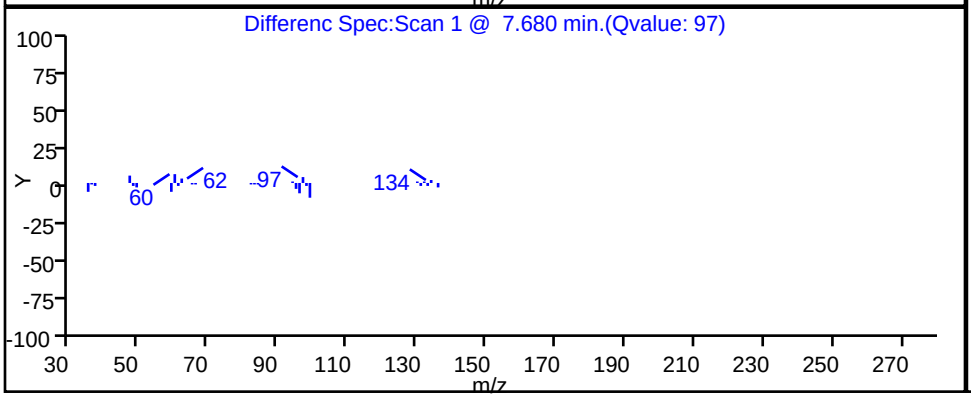












Report Date: 29-May-2015 06:20:24 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D

Injection Date: 28-May-2015 17:36:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-7 Lab Sample ID: 180-44248-7

Client ID: HD-MW-37D-0/1-0

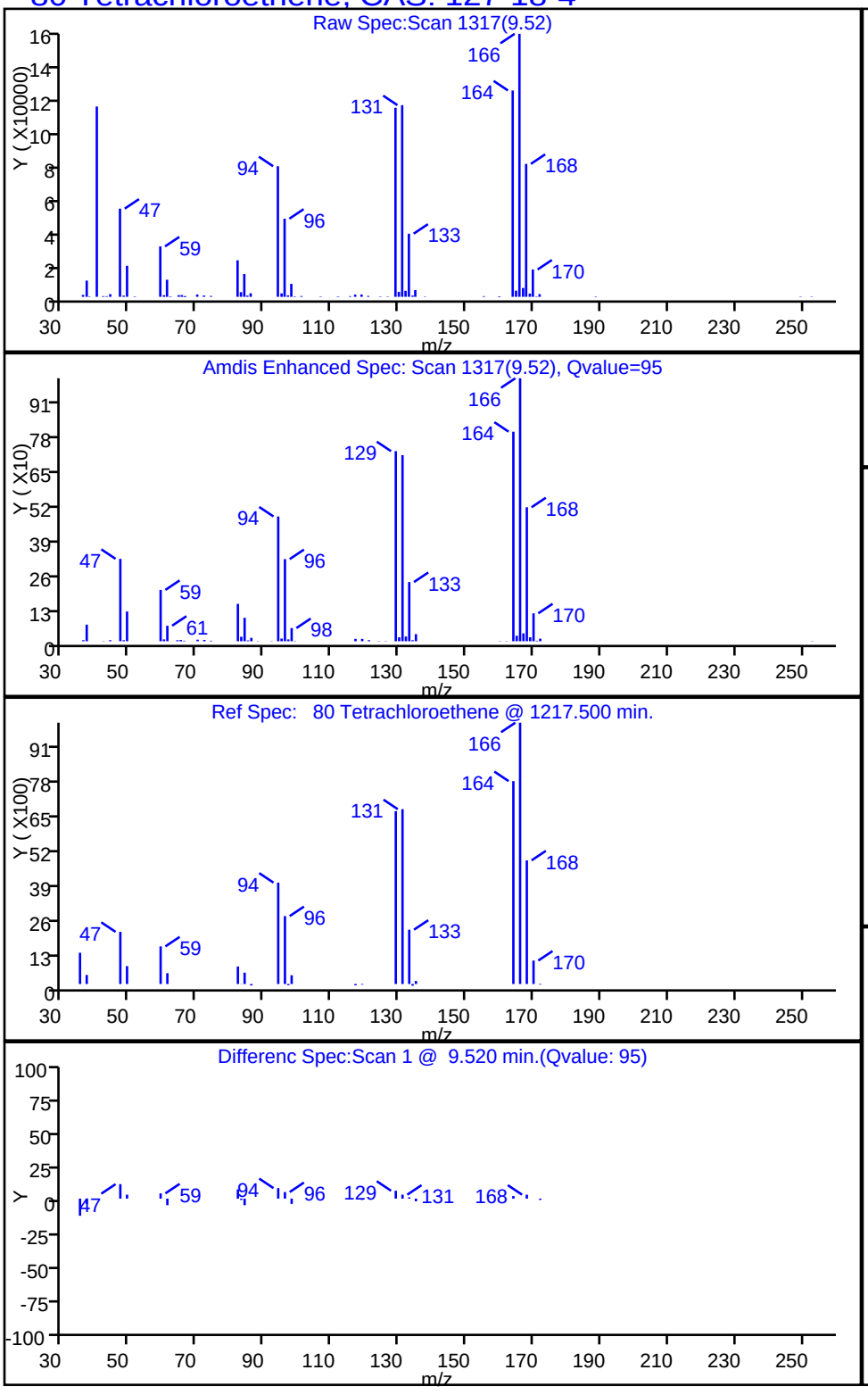
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 16

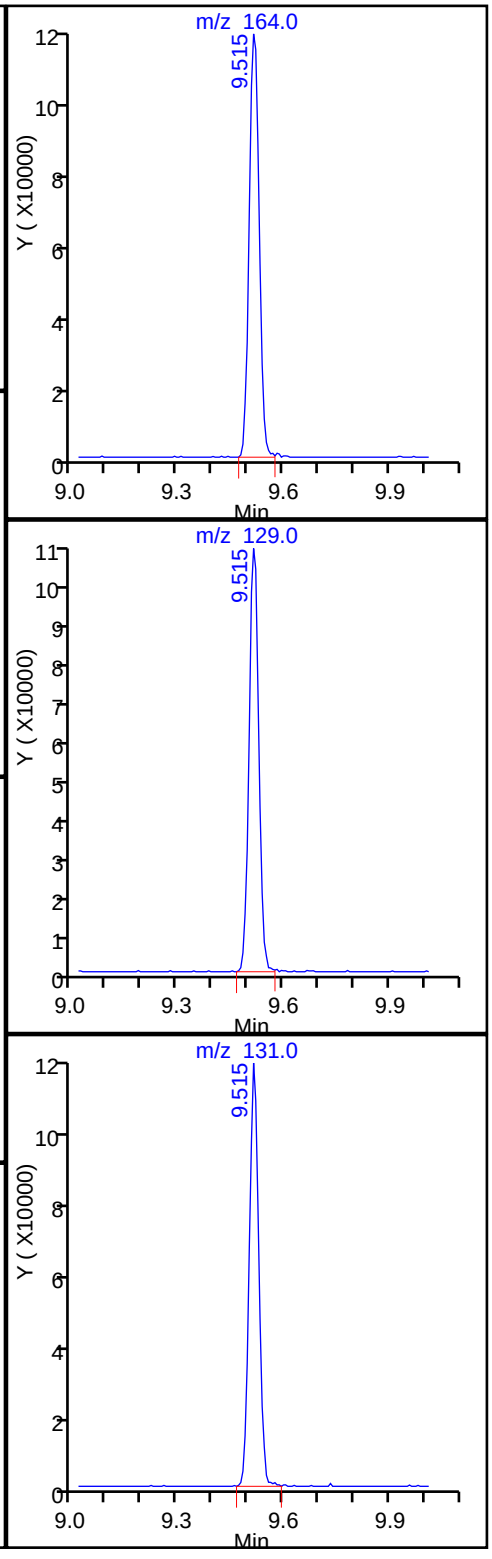
Purge Vol: 5.000 mL Dil. Factor: 25.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

80 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

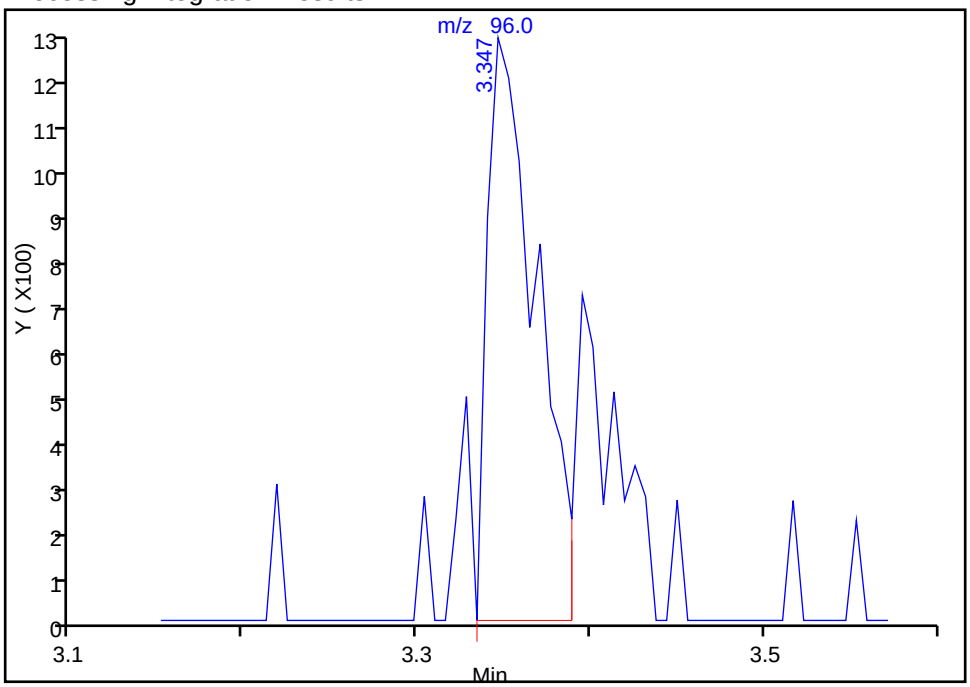
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D				
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

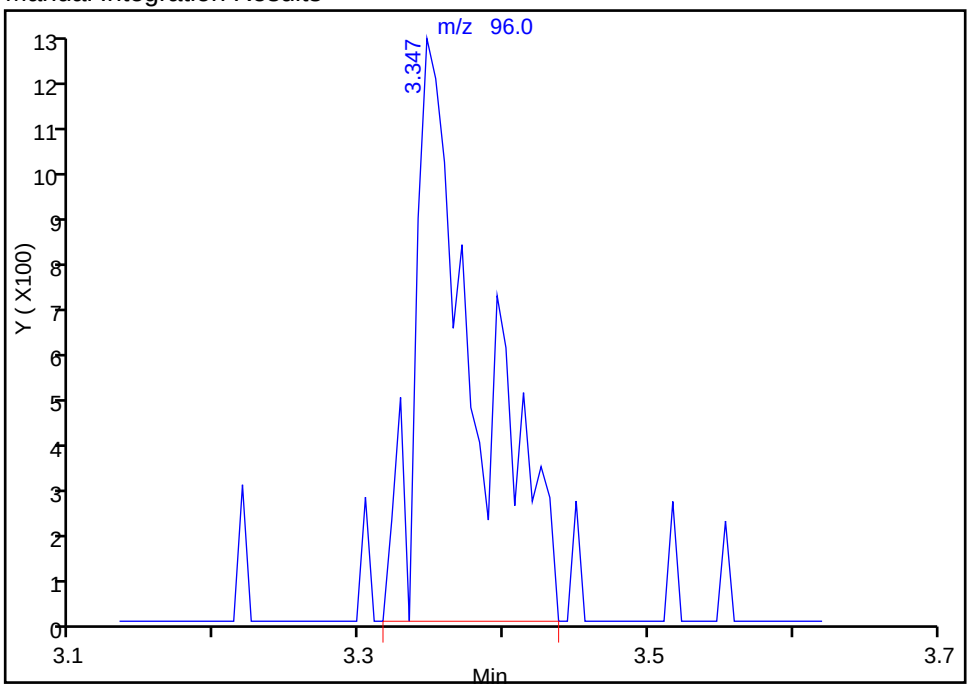
Processing Integration Results

RT: 3.35
Area: 2410
Amount: 1.196671
Amount Units: ng



Manual Integration Results

RT: 3.35
Area: 3684
Amount: 1.829267
Amount Units: ng



Reviewer: fergusond, 29-May-2015 06:20:23
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

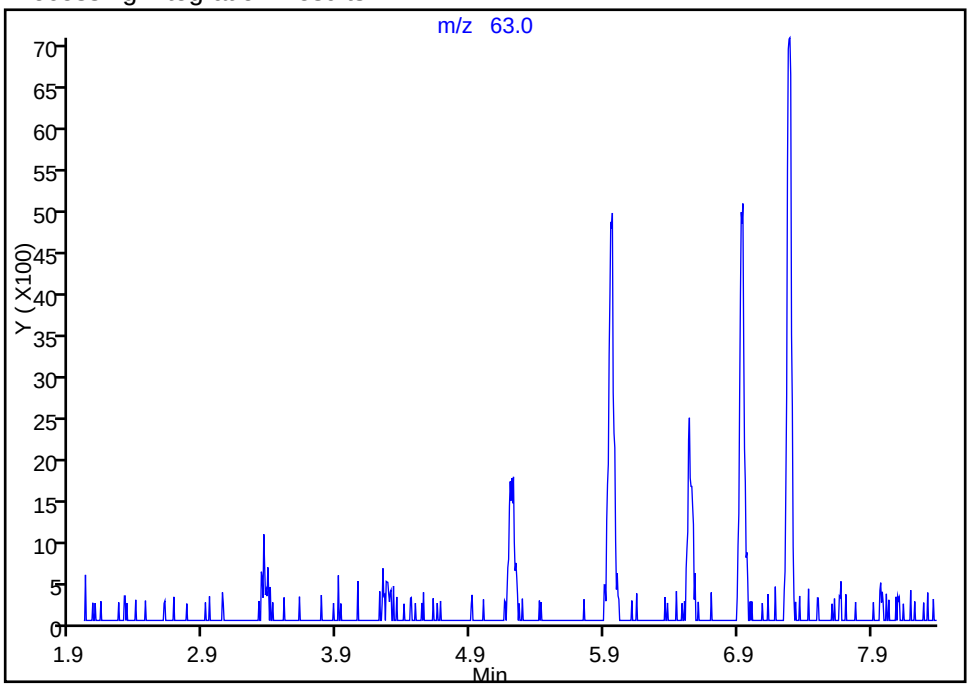
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528016.D				
Injection Date:	28-May-2015 17:36:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-7	Lab Sample ID:	180-44248-7		
Client ID:	HD-MW-37D-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

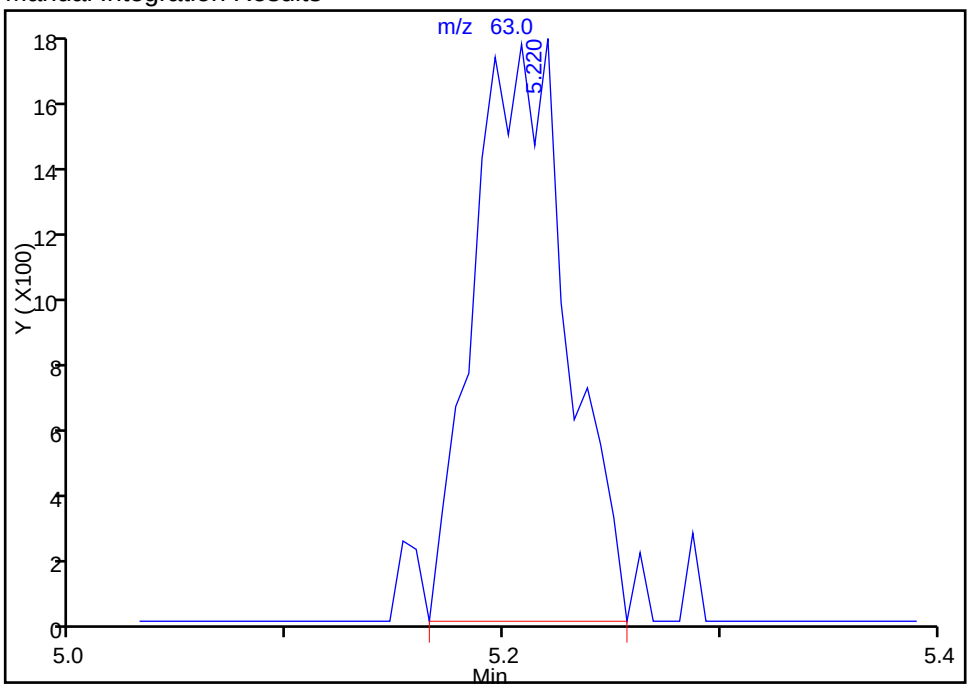
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.22
Area: 5194
Amount: 1.234784
Amount Units: ng



Reviewer: fergusond, 29-May-2015 06:20:23
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 | Lab Sample ID: 180-44248-8

Matrix: Water | Lab File ID: 50527029.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 21:38

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	50		50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	27	J	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	50	U	50	5.8
156-59-2	cis-1,2-Dichloroethene	140		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	250		50	14
56-23-5	Carbon tetrachloride	50	U	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	*Trichloroethene*	*2600*	*E*	*50*	*7.2*
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	*Tetrachloroethene*	*14000*	*E*	*50*	*7.4*
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 | Lab Sample ID: 180-44248-8

Matrix: Water | Lab File ID: 50527029.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 21:38

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 142864 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	120		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D
Lims ID: 180-44248-D-8 Lab Sample ID: 180-44248-8
Client ID: HD-MW-75S-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 21:38:30 ALS Bottle#: 26 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-44248-D-8, 50x
Misc. Info.: 180-0007136-029
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:58:19 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:58:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.274	-0.002	0	126685	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	324276	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.388	-0.002	88	80157	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	96	101562	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.571	6.561	0.010	92	83721	59.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	106238	61.0	
$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	292079	49.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	88	92440	43.3	
12 Chloromethane	50	1.893	1.768	0.125	1	185	0.0649	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.347	3.343	0.004	95	7812	5.03	
24 Acetone	43		3.441				ND	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84	4.150	4.140	0.010	85	11236	2.70	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.951	5.953	-0.002	79	27435	14.4	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.383	6.379	0.004	11	703	0.2416	
53 1,1,1-Trichloroethane	97	6.547	6.543	0.004	97	55891	24.8	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.679	7.681	-0.002	97	479295	258.8	E
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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	9.522	9.518	0.004	88	1959381	1363.2	E
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

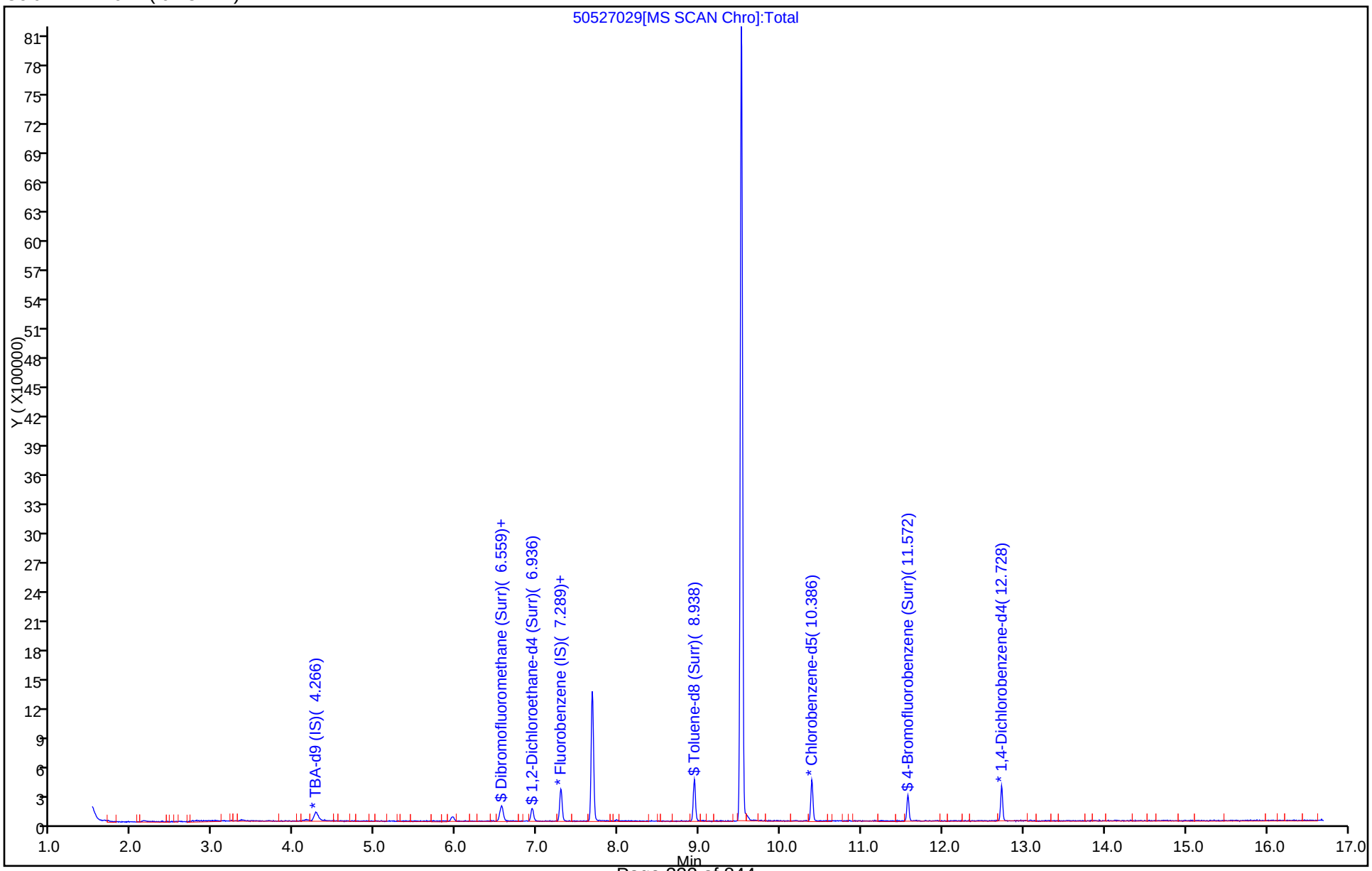
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D				
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8	Worklist Smp#:	29
Client ID:	HD-MW-75S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	26
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

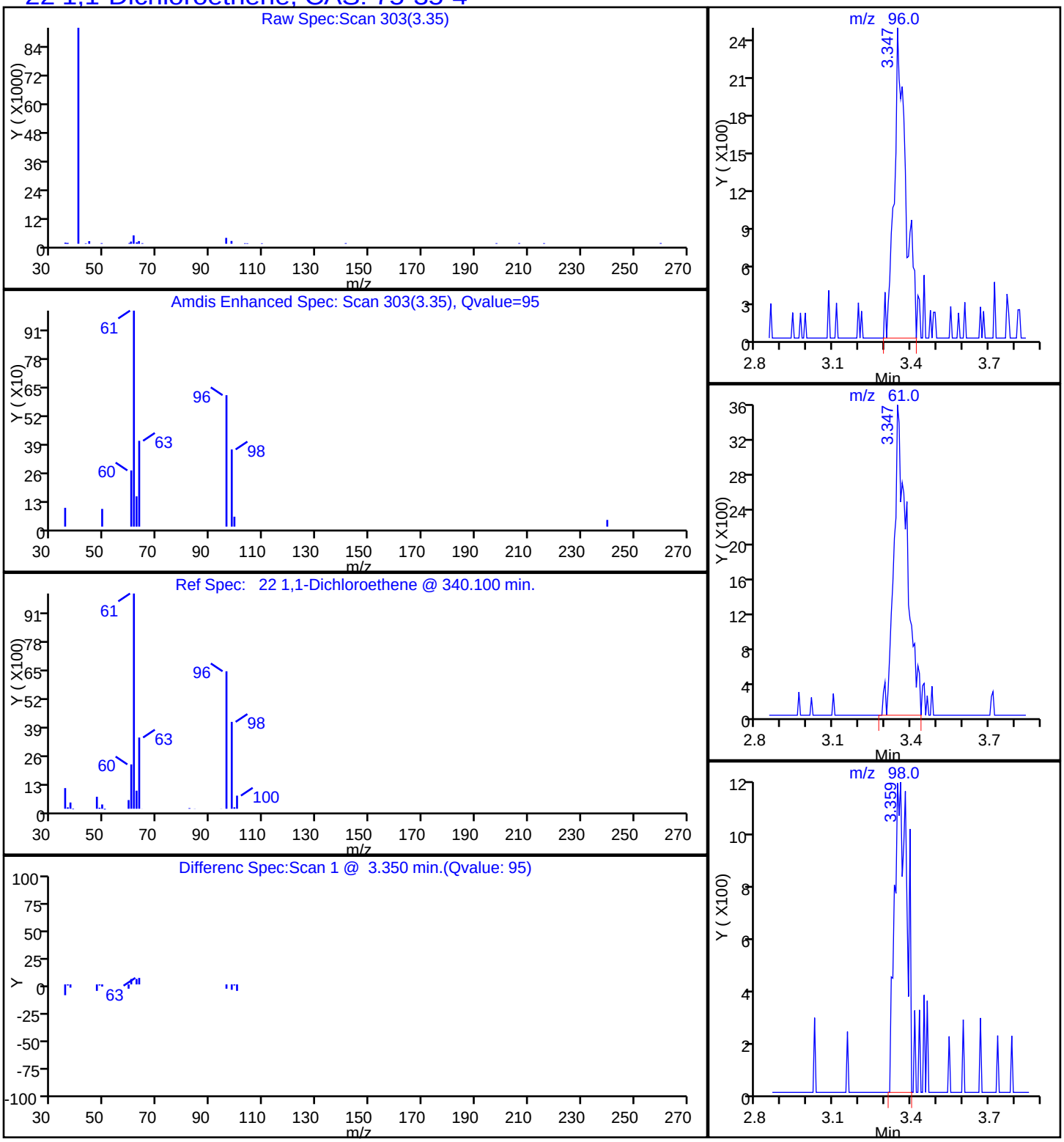


Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D		
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

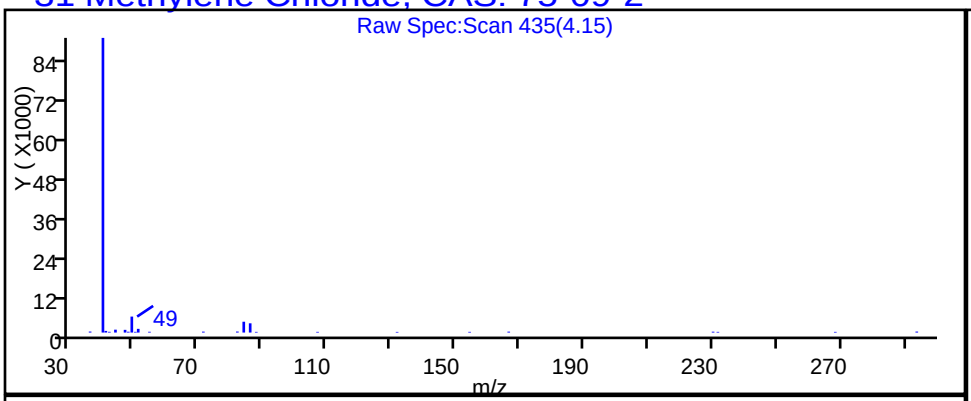


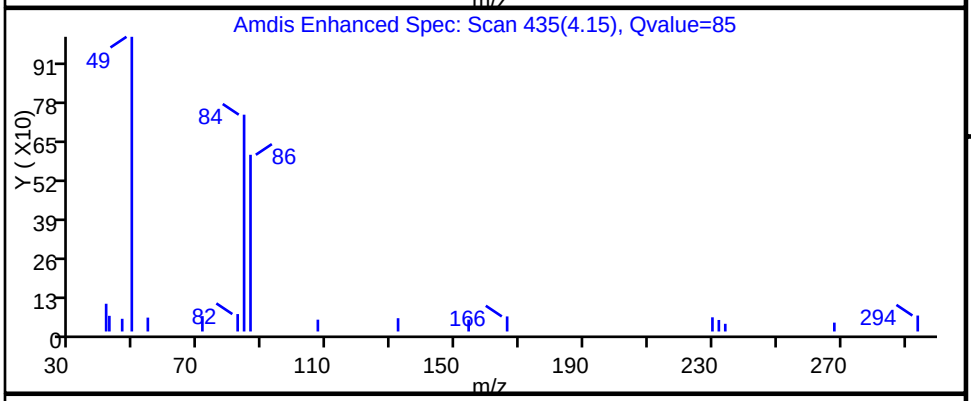
Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

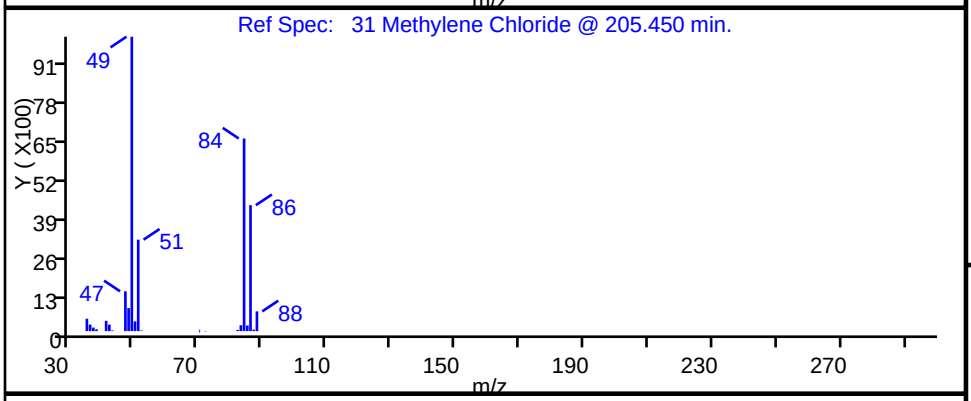
TestAmerica Pittsburgh

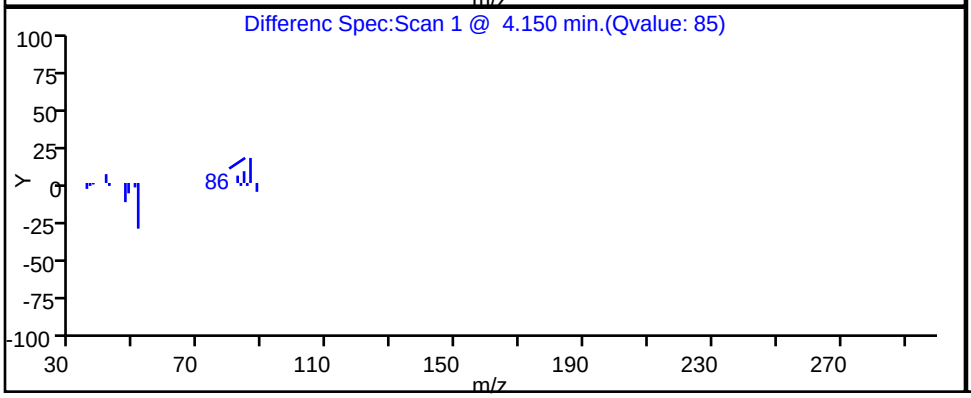
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D		
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

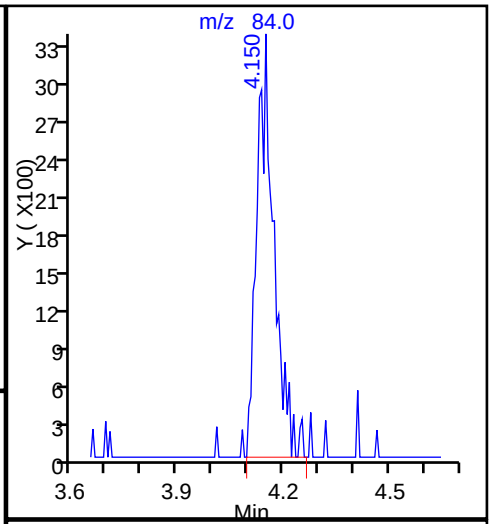
31 Methylene Chloride, CAS: 75-09-2

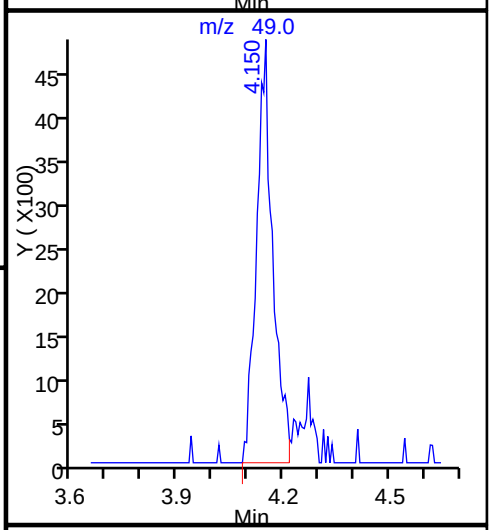


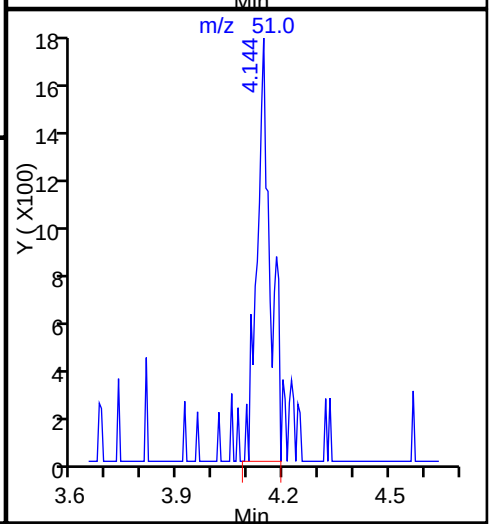










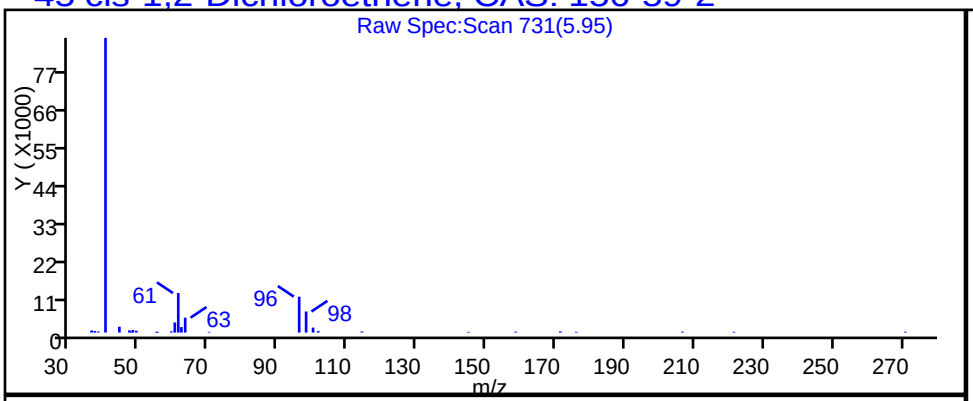


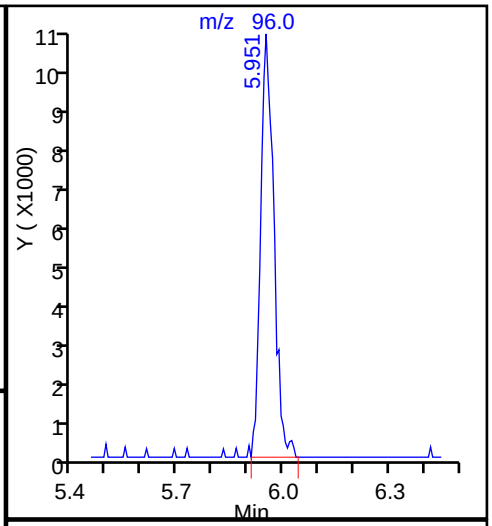
Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

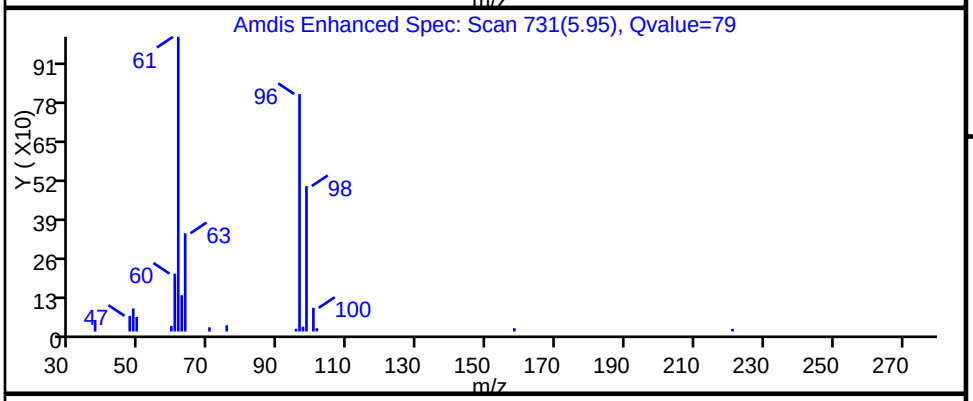
TestAmerica Pittsburgh

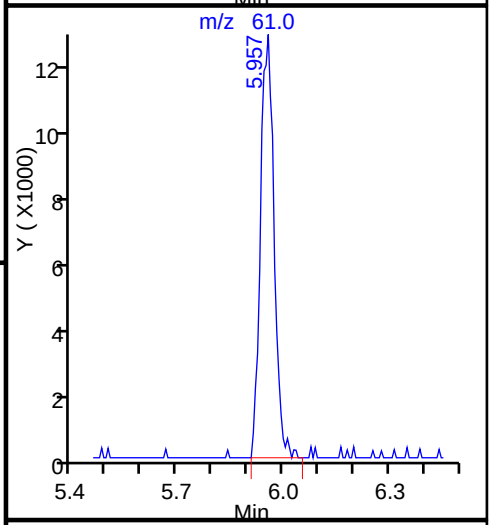
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D		
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

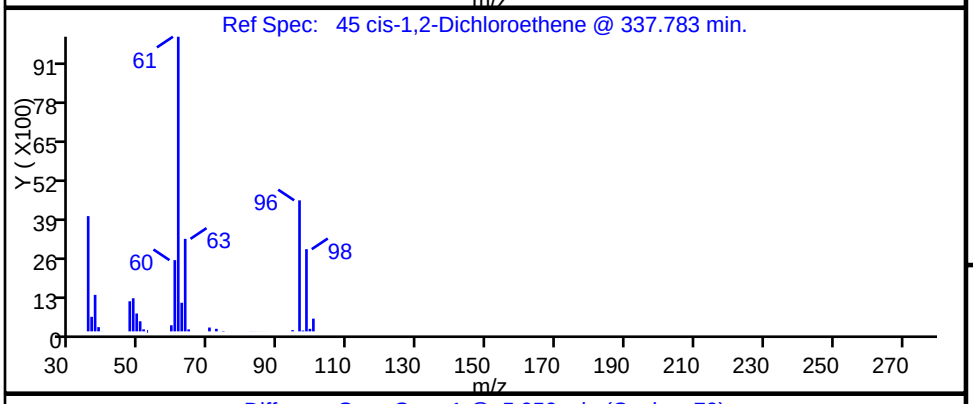
45 cis-1,2-Dichloroethene, CAS: 156-59-2

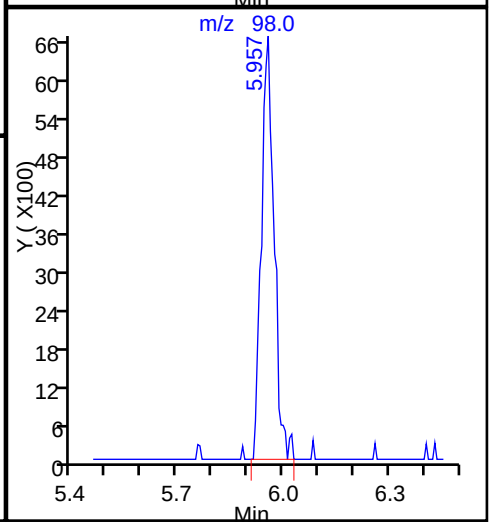


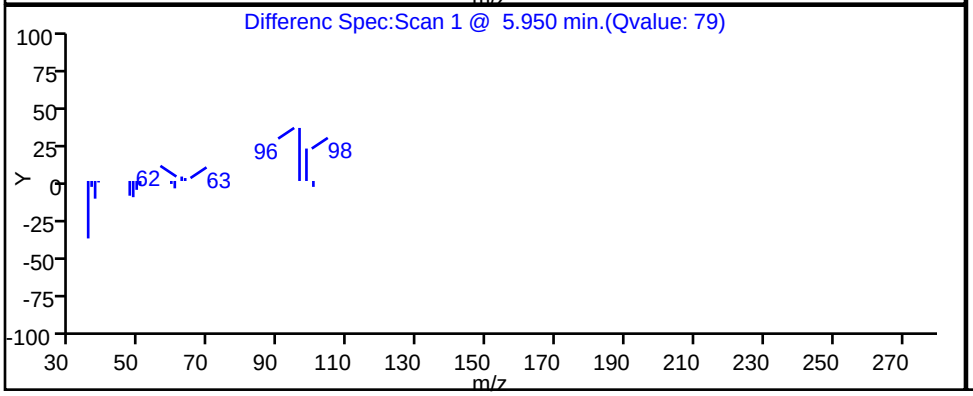










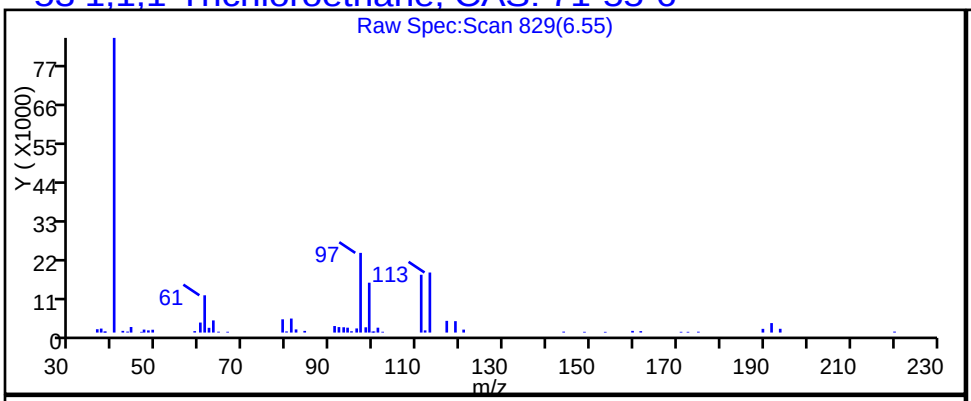


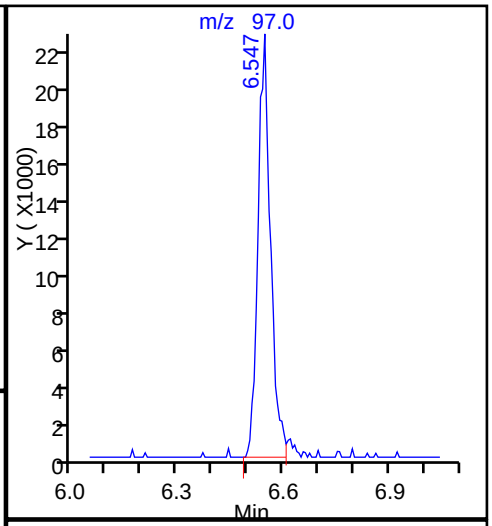
Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

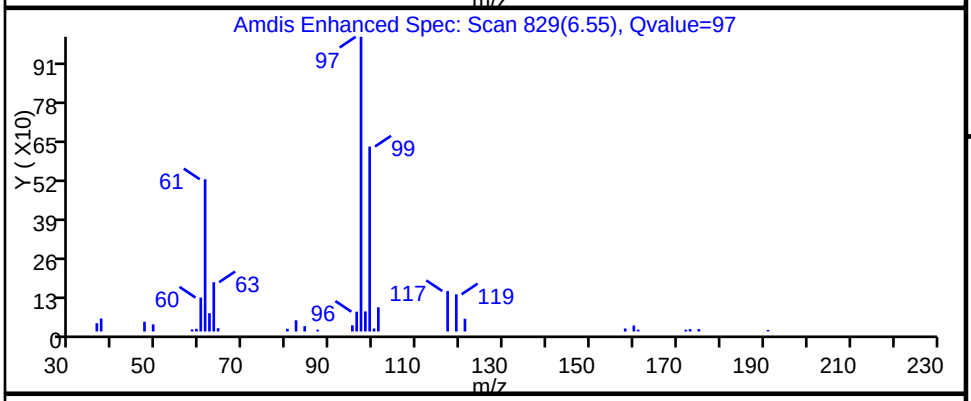
TestAmerica Pittsburgh

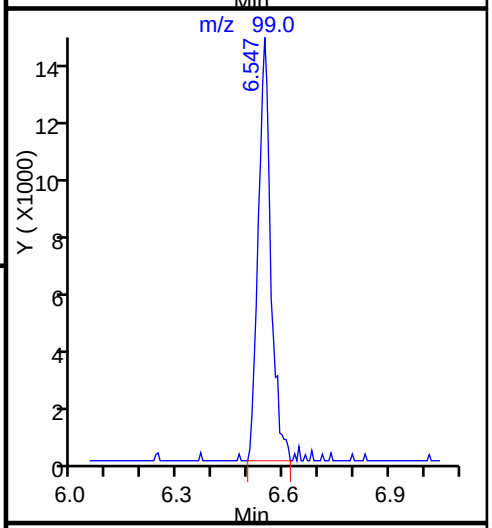
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D				
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	001562	ALS Bottle#:	26	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

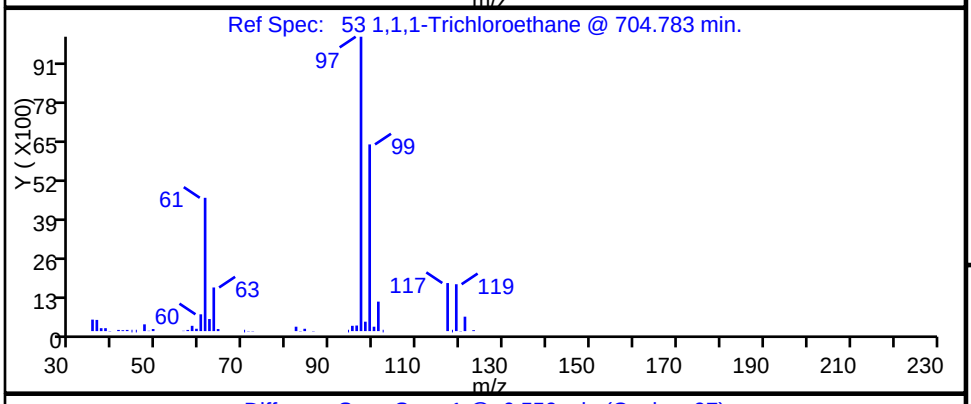
53 1,1,1-Trichloroethane, CAS: 71-55-6

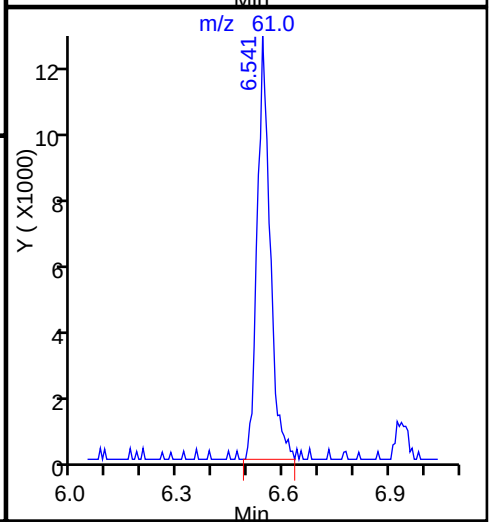


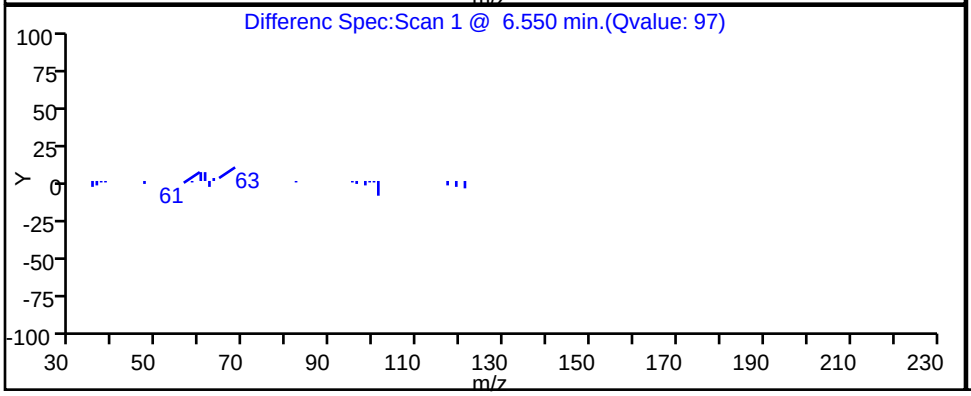










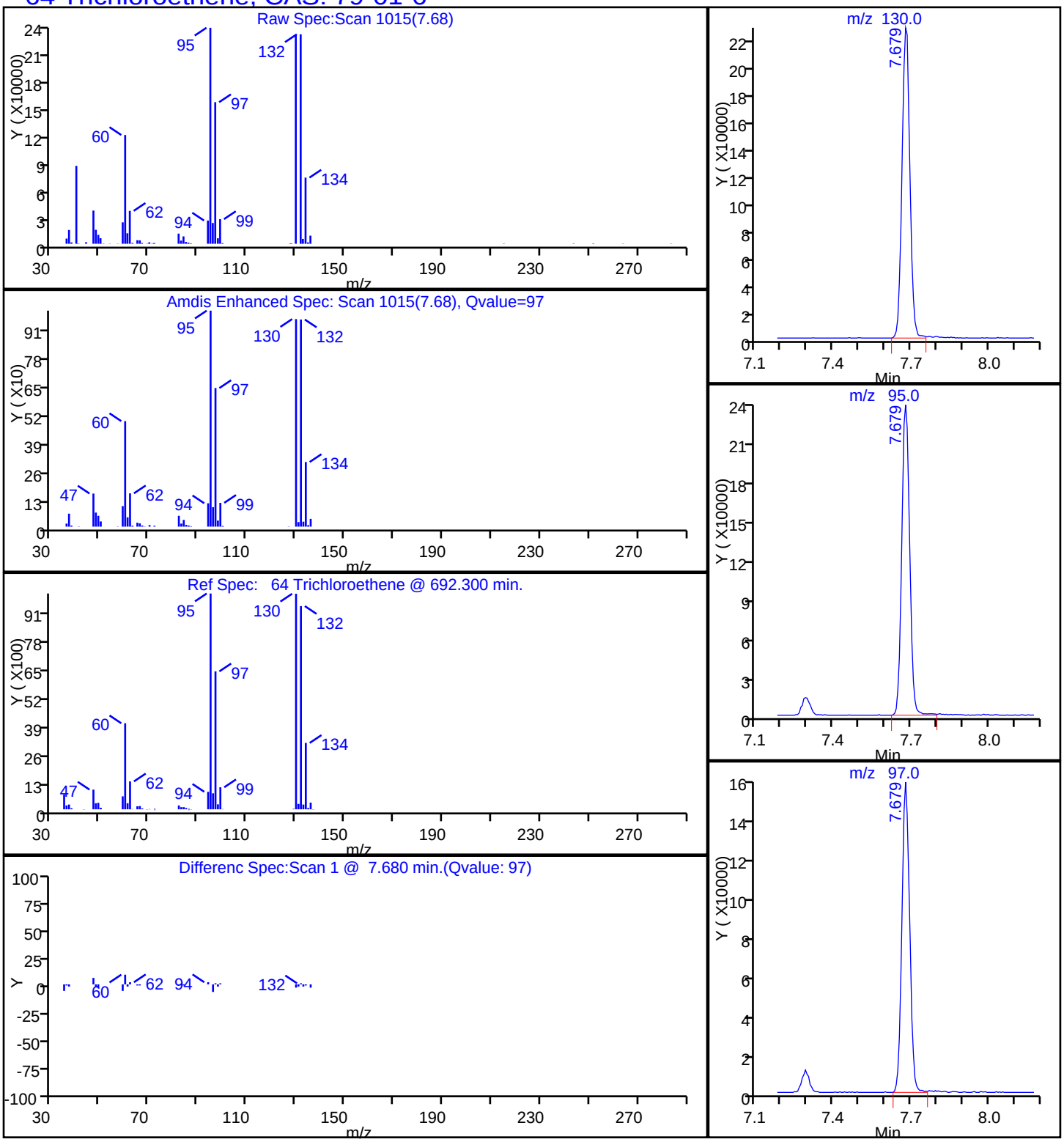


Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D		
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

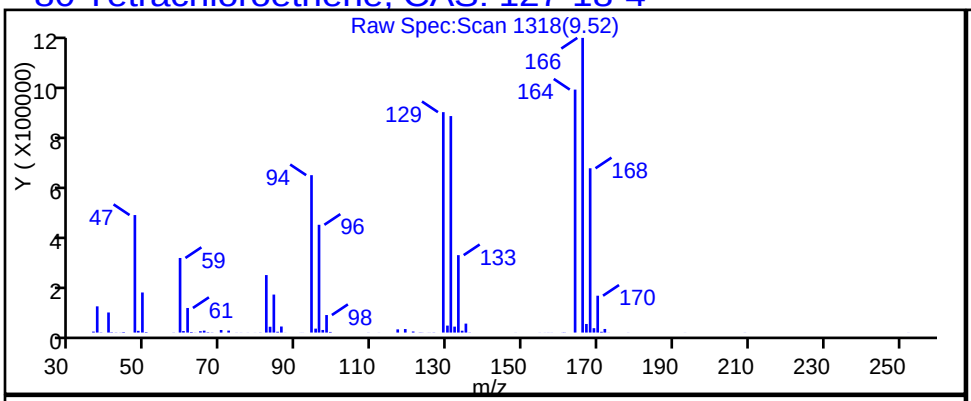


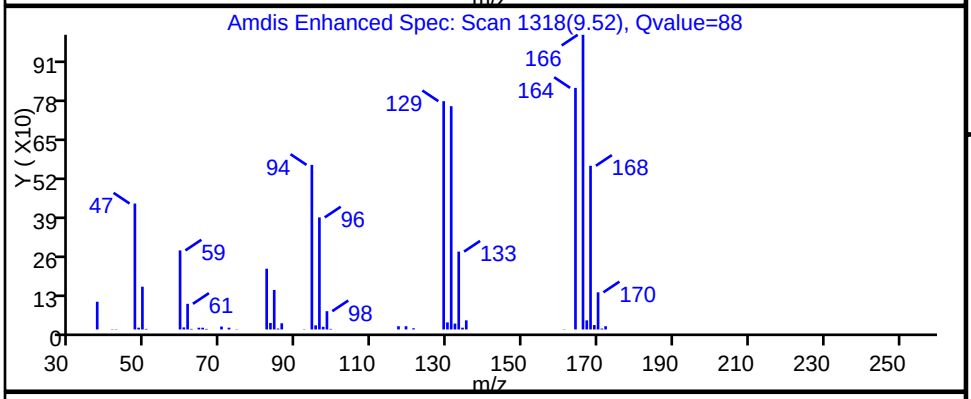
Report Date: 28-May-2015 07:58:20 Chrom Revision: 2.2 05-May-2015 11:39:10

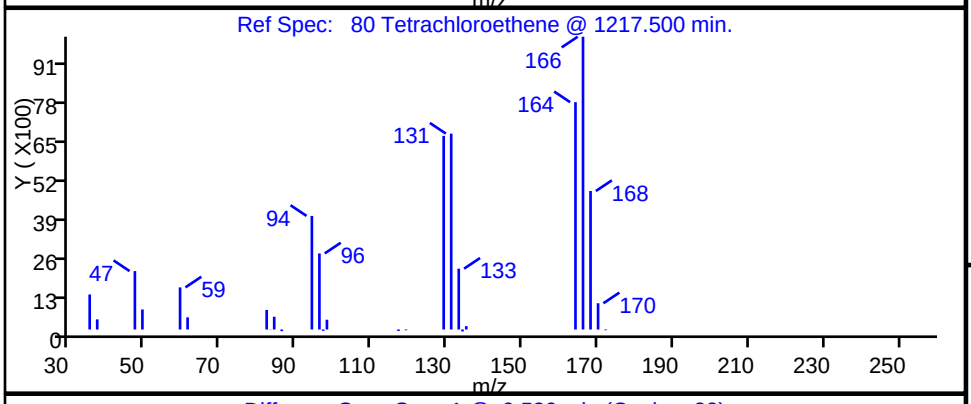
TestAmerica Pittsburgh

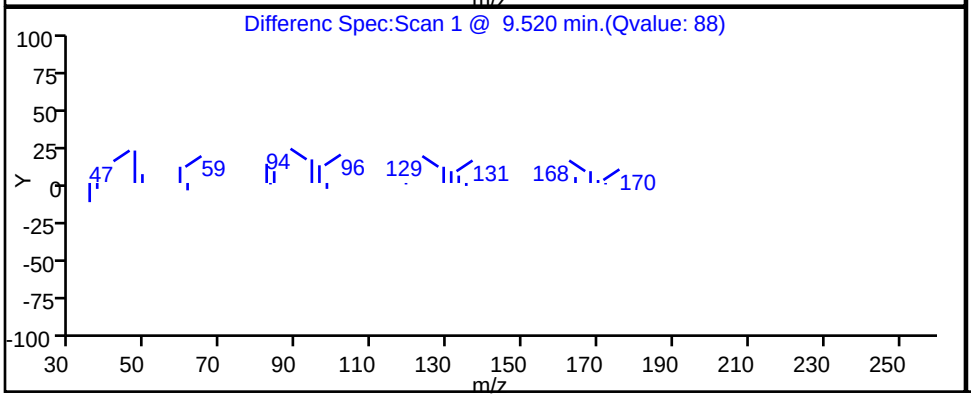
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527029.D		
Injection Date:	27-May-2015 21:38:30	Instrument ID:	CHHP5
Lims ID:	180-44248-D-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	26 Worklist Smp#: 29
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

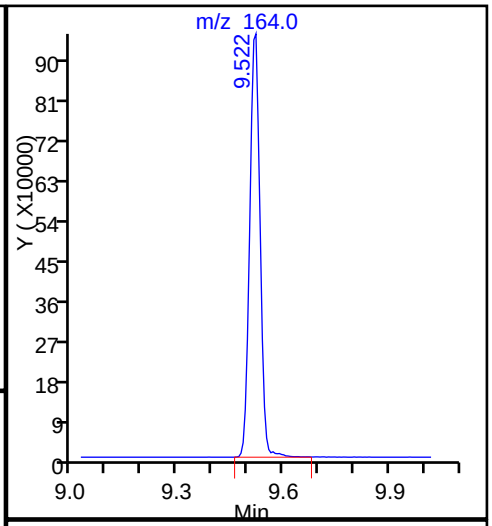
80 Tetrachloroethene, CAS: 127-18-4

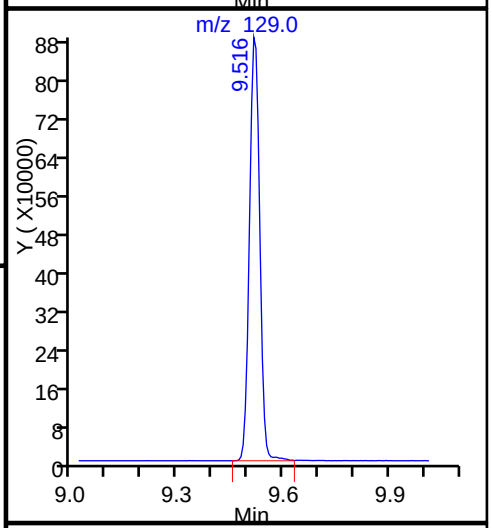


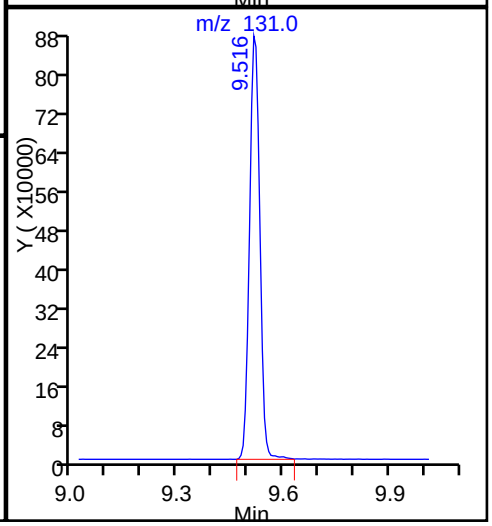












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 DL | Lab Sample ID: 180-44248-8 DL

Matrix: Water | Lab File ID: 50528017.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 18:01

Soil Aliquot Vol: | Dilution Factor: 500

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	500	U	500	140
75-01-4	Vinyl chloride	500	U	500	110
74-83-9	Bromomethane	500	U	500	160
75-00-3	Chloroethane	500	U	500	110
75-35-4	1,1-Dichloroethene	500	U	500	150
67-64-1	Acetone	2500	U	2500	1300
75-15-0	Carbon disulfide	500	U	500	110
75-09-2	Methylene Chloride	240	J	500	63
156-60-5	trans-1,2-Dichloroethene	500	U	500	85
1634-04-4	Methyl tert-butyl ether	500	U	500	92
75-34-3	1,1-Dichloroethane	500	U	500	58
156-59-2	cis-1,2-Dichloroethene	140	J	500	120
74-97-5	Bromochloromethane	500	U	500	90
78-93-3	2-Butanone (MEK)	2500	U	2500	270
67-66-3	Chloroform	500	U	500	85
71-55-6	1,1,1-Trichloroethane	210	J	500	140
56-23-5	Carbon tetrachloride	500	U	500	68
71-43-2	Benzene	500	U	500	53
107-06-2	1,2-Dichloroethane	500	U	500	110
79-01-6	Trichloroethene	2100		500	72
78-87-5	1,2-Dichloropropane	500	U	500	47
75-27-4	Bromodichloromethane	500	U	500	65
10061-01-5	cis-1,3-Dichloropropene	500	U	500	93
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	U	2500	260
108-88-3	Toluene	500	U	500	75
10061-02-6	trans-1,3-Dichloropropene	500	U	500	74
79-00-5	1,1,2-Trichloroethane	500	U	500	100
127-18-4	Tetrachloroethene	13000		500	74
591-78-6	2-Hexanone	2500	U	2500	80
124-48-1	Dibromochloromethane	500	U	500	68
106-93-4	1,2-Dibromoethane (EDB)	500	U	500	90
108-90-7	Chlorobenzene	500	U	500	68
630-20-6	1,1,1,2-Tetrachloroethane	500	U	500	140
100-41-4	Ethylbenzene	500	U	500	110
1330-20-7	Xylenes, Total	1500	U	1500	240
100-42-5	Styrene	500	U	500	48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 DL | Lab Sample ID: 180-44248-8 DL

Matrix: Water | Lab File ID: 50528017.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:36

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 18:01

Soil Aliquot Vol: | Dilution Factor: 500

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*500*	*U*	*500*	*96*
79-34-5	*1,1,2,2-Tetrachloroethane*	*500*	*U*	*500*	*100*
107-13-1	*Acrylonitrile*	*10000*	*U*	*10000*	*270*
123-91-1	*1,4-Dioxane*	*100000*	*U*	*100000*	*17000*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D
Lims ID: 180-44248-C-8 Lab Sample ID: 180-44248-8
Client ID: HD-MW-75S-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 18:01:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 500.0000
Sample Info: 180-44248-C-8, 500x
Misc. Info.: 180-0007155-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:21:36 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:21:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.261	4.277	-0.016	0	139868	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.289	0.002	99	407072	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.385	0.002	88	88664	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.729	12.727	0.002	96	110432	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.559	0.002	92	100786	57.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.936	0.002	0	127094	58.1	
$ 7 Toluene-d8 (Surr)	98	8.939	8.937	0.002	94	346664	52.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.571	0.003	87	108110	45.7	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43		3.444				ND	
26 Carbon disulfide	76		3.626				ND	
31 Methylene Chloride	84	4.140	4.143	-0.003	80	13492	2.41	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63		5.196				ND	
45 cis-1,2-Dichloroethene	96	5.952	5.944	0.008	73	3365	1.41	
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.384	6.382	0.002	11	730	0.1998	
53 1,1,1-Trichloroethane	97	6.536	6.540	-0.004	35	5842	2.07	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.680	7.678	0.002	94	48588	20.9	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.517	9.515	0.002	96	212319	133.5	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

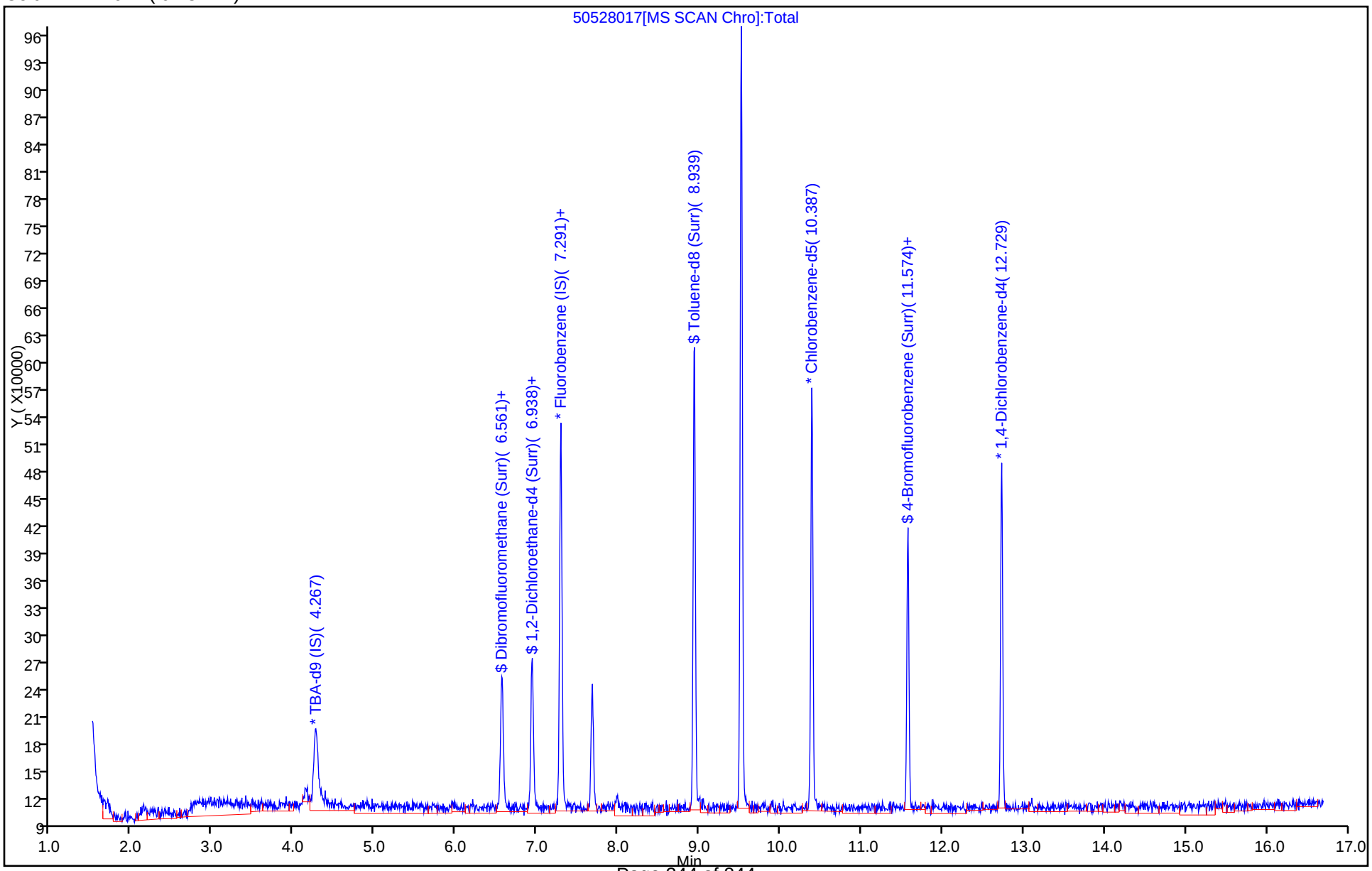
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D				
Injection Date:	28-May-2015 18:01:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-8	Lab Sample ID:	180-44248-8	Worklist Smp#:	17
Client ID:	HD-MW-75S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	500.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

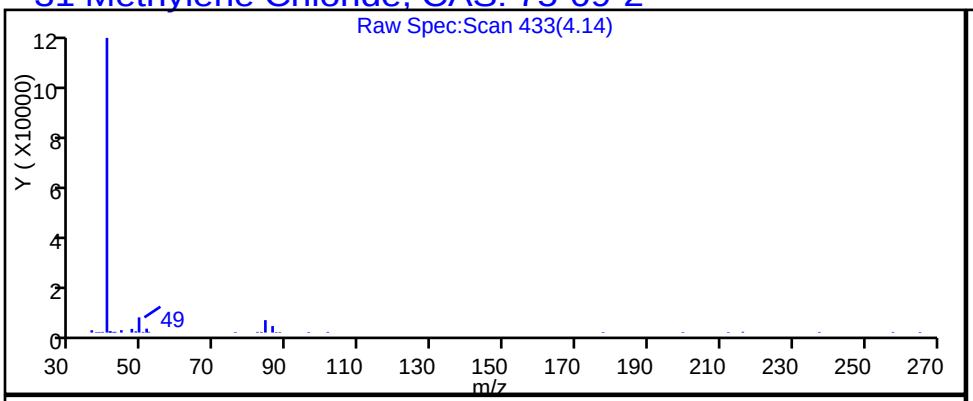


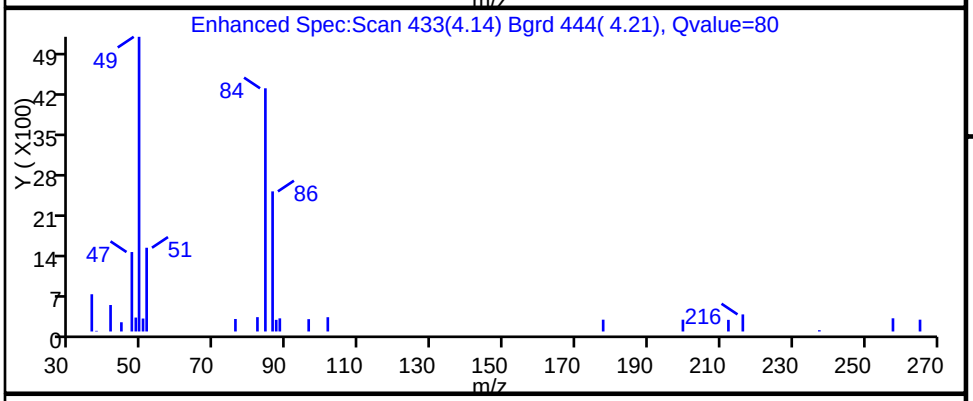
Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

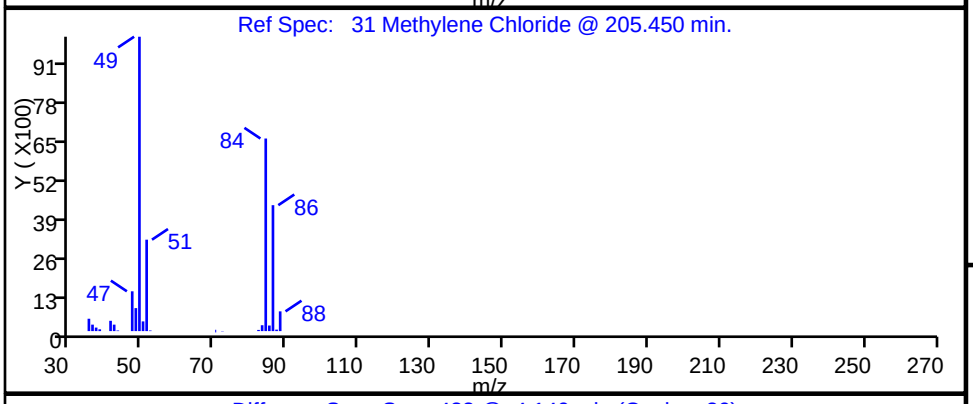
TestAmerica Pittsburgh

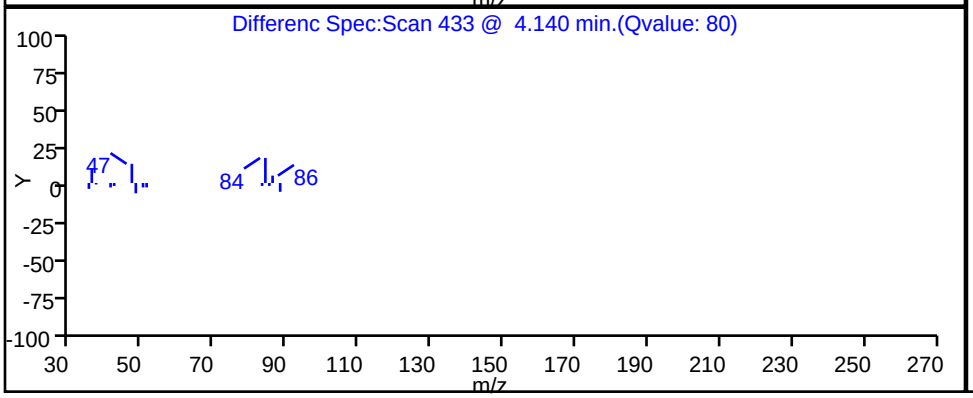
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D		
Injection Date:	28-May-2015 18:01:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-8	Lab Sample ID:	180-44248-8
Client ID:	HD-MW-75S-0/1-0		
Operator ID:	001562	ALS Bottle#:	16 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	500.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

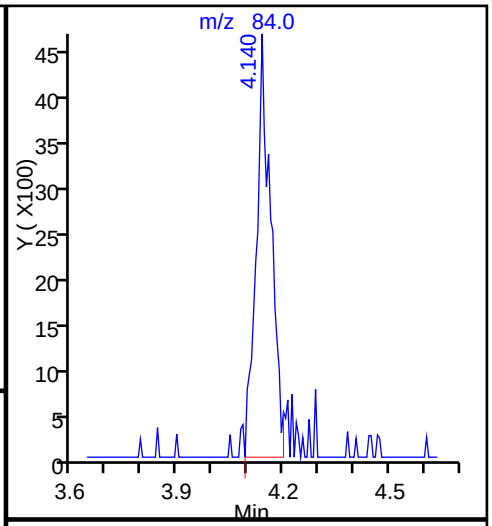
31 Methylene Chloride, CAS: 75-09-2

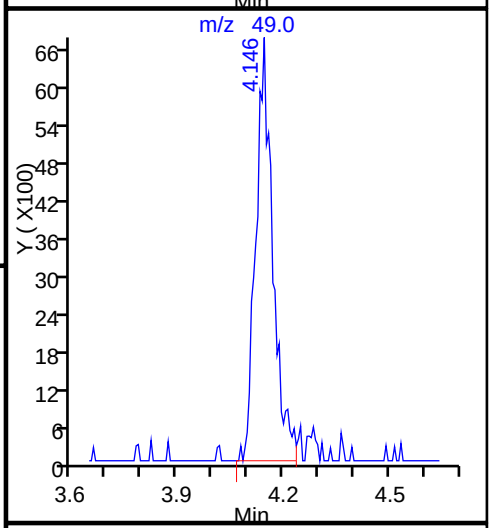


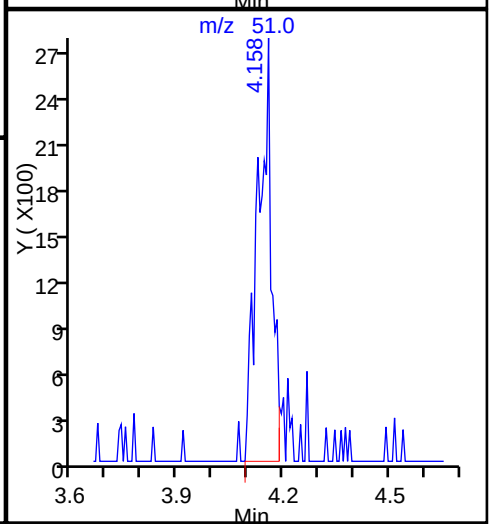










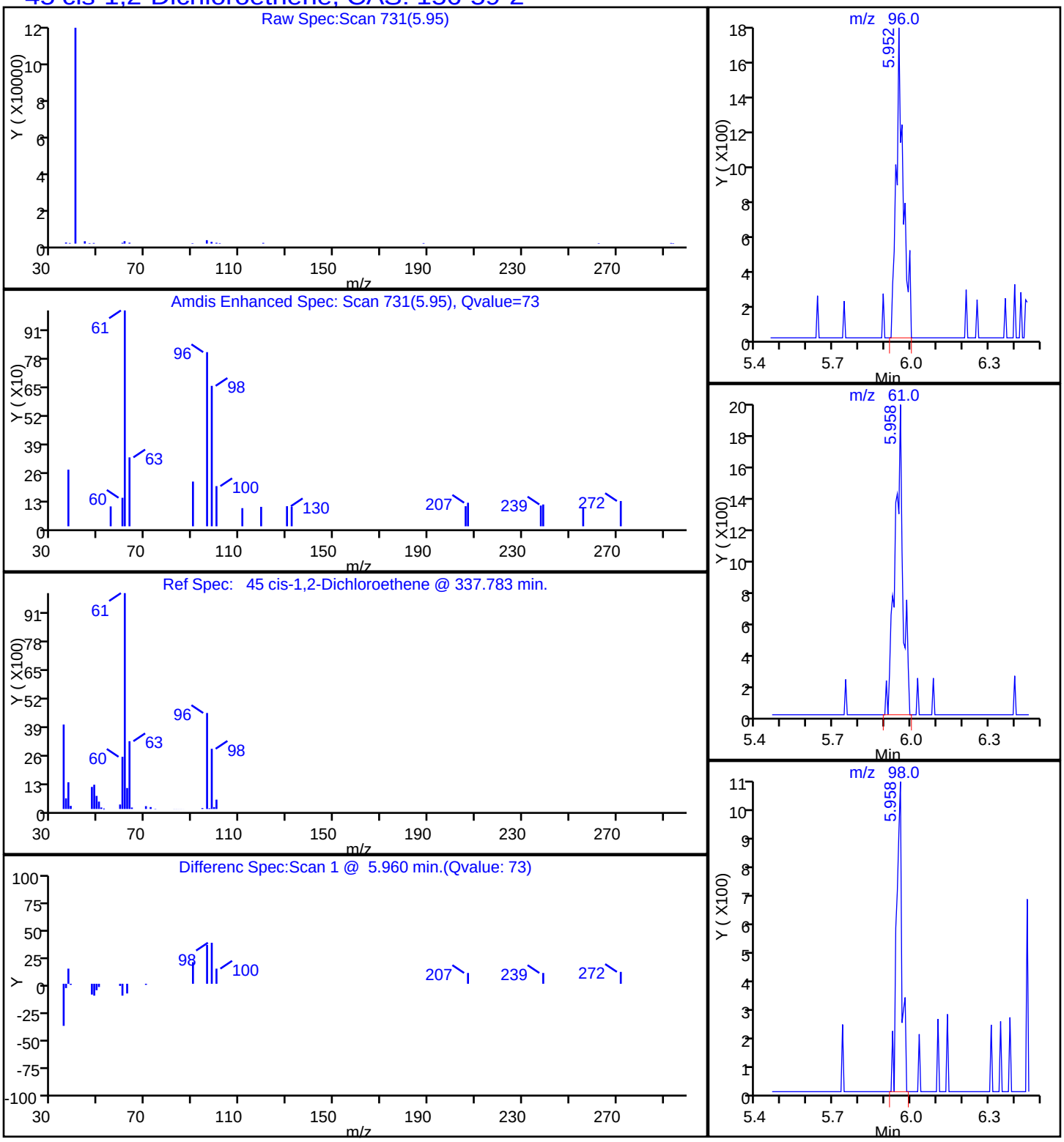


Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D				
Injection Date:	28-May-2015 18:01:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-8	Lab Sample ID:	180-44248-8		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

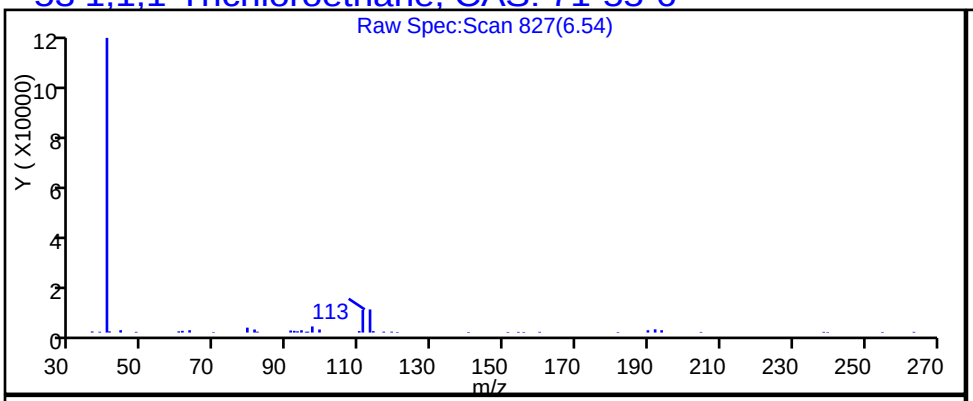


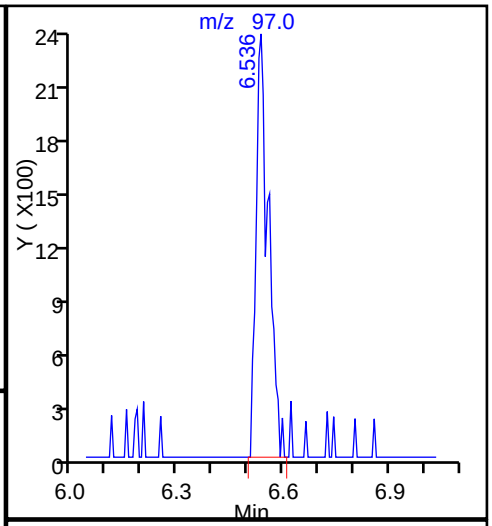
Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

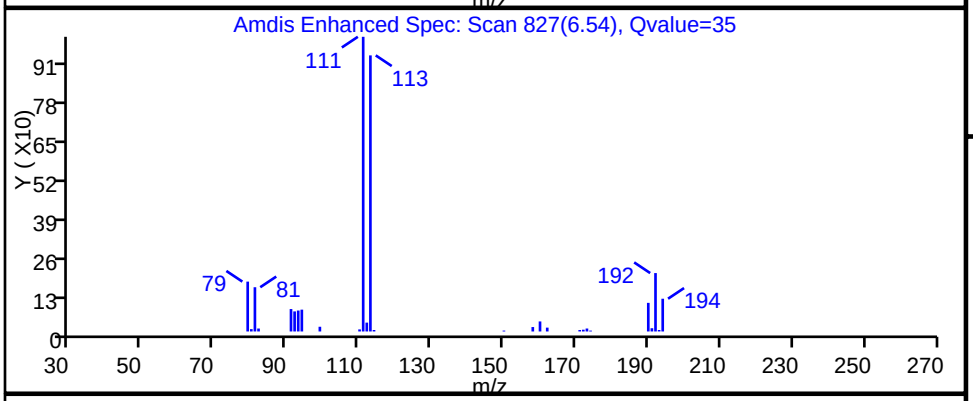
TestAmerica Pittsburgh

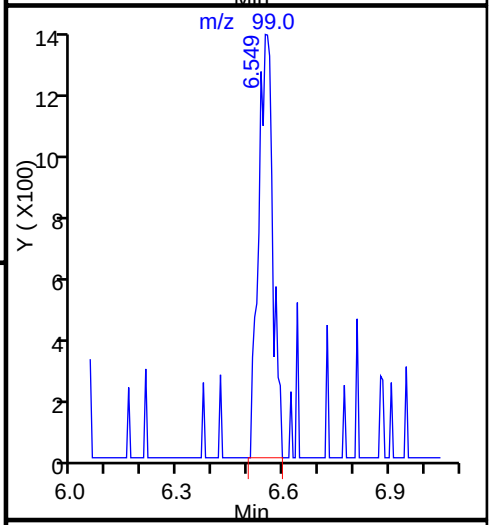
Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D				
Injection Date:	28-May-2015 18:01:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-C-8	Lab Sample ID:	180-44248-8		
Client ID:	HD-MW-75S-0/1-0				
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	500.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

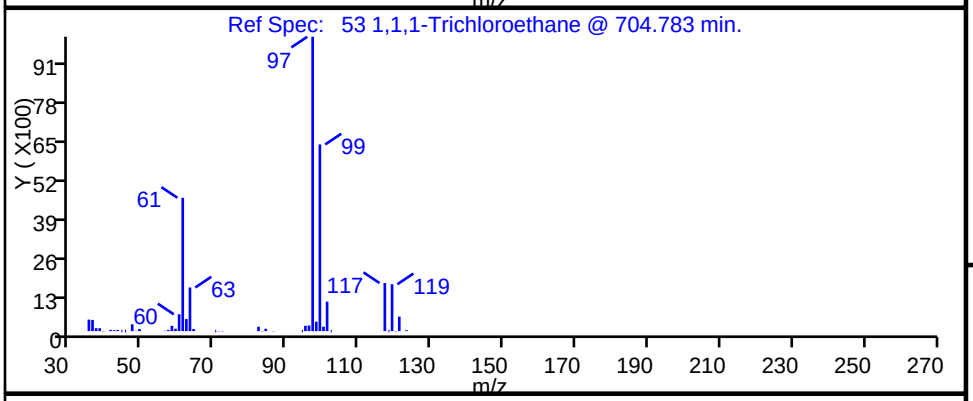
53 1,1,1-Trichloroethane, CAS: 71-55-6

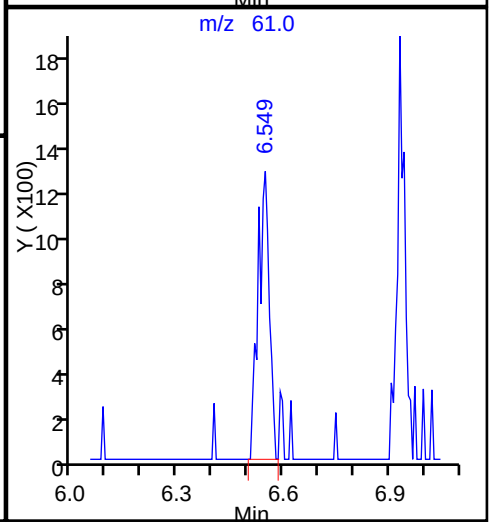


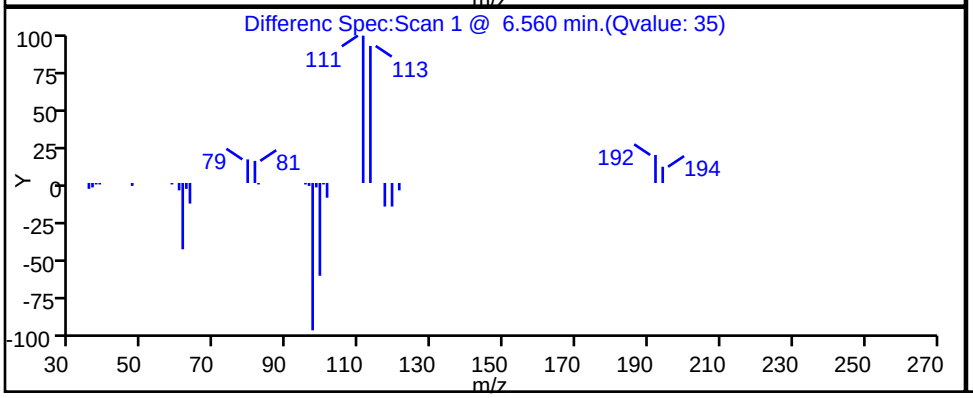












Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D

Injection Date: 28-May-2015 18:01:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-8 Lab Sample ID: 180-44248-8

Client ID: HD-MW-75S-0/1-0

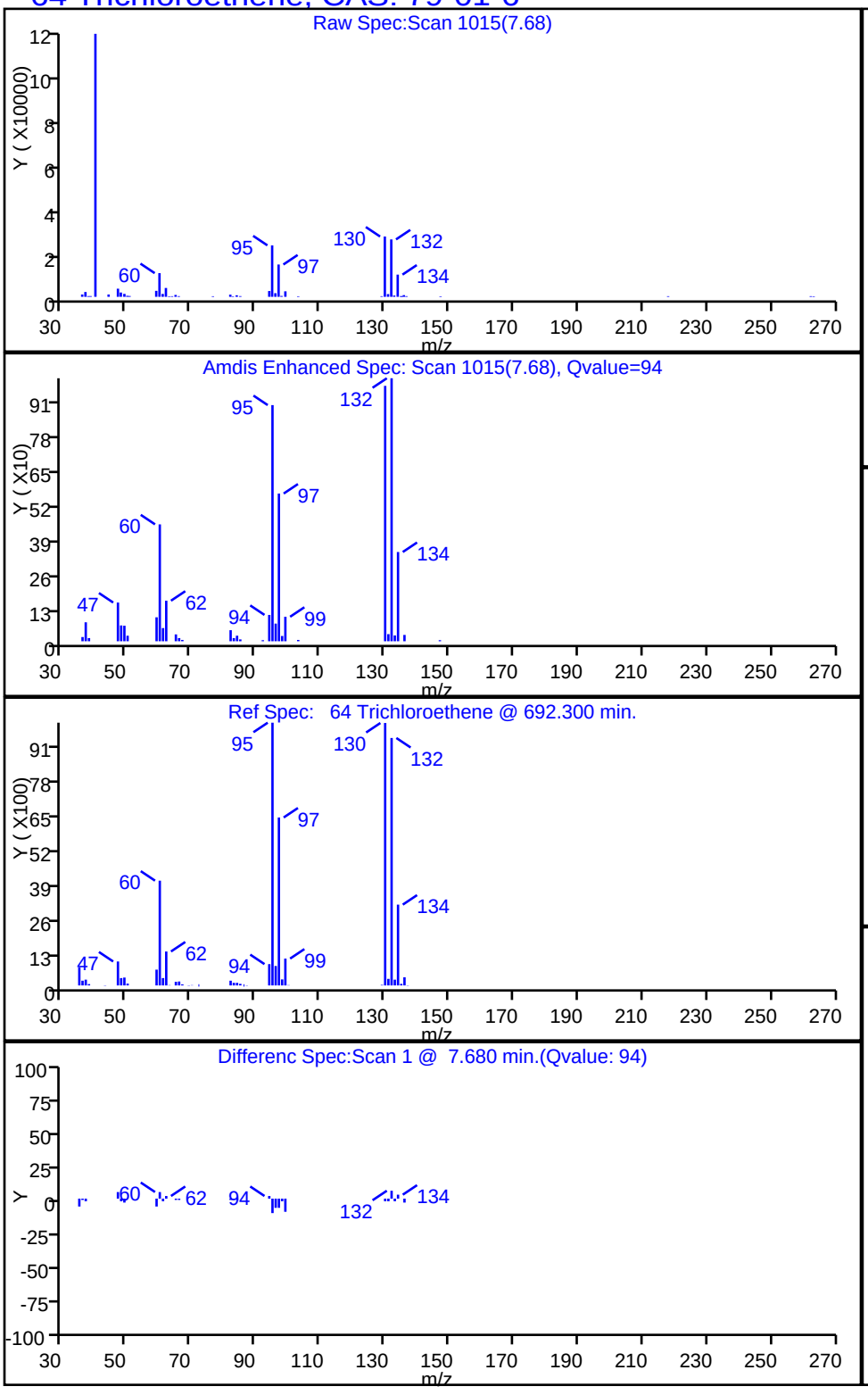
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 17

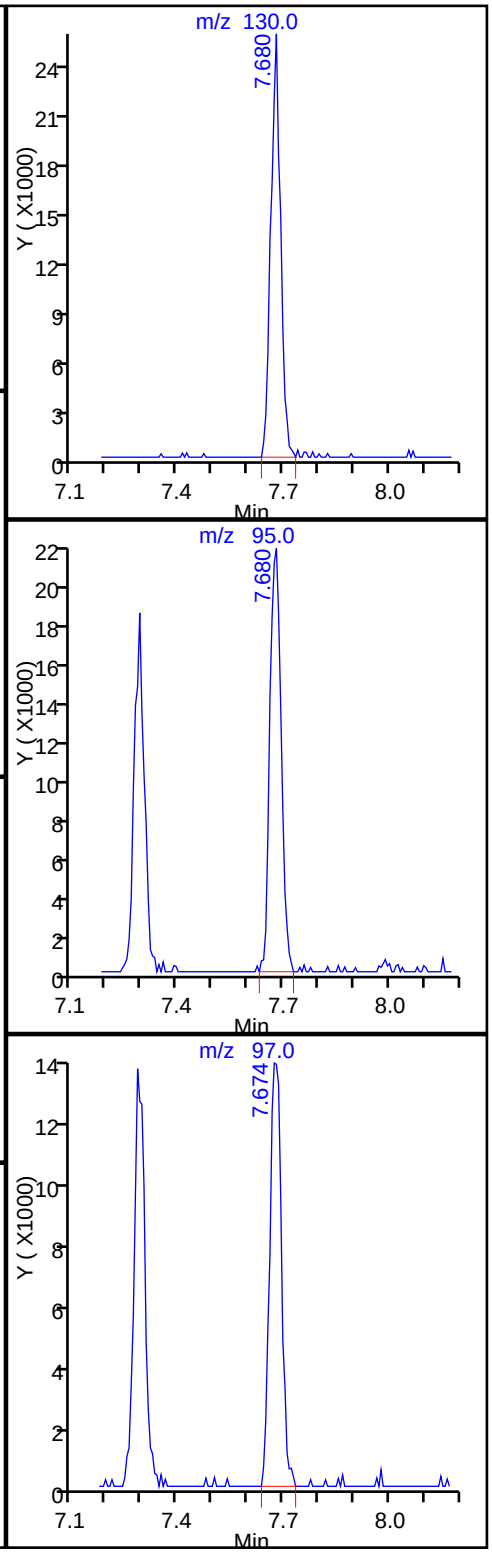
Purge Vol: 5.000 mL Dil. Factor: 500.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

64 Trichloroethene, CAS: 79-01-6





Report Date: 29-May-2015 06:21:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528017.D

Injection Date: 28-May-2015 18:01:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-8 Lab Sample ID: 180-44248-8

Client ID: HD-MW-75S-0/1-0

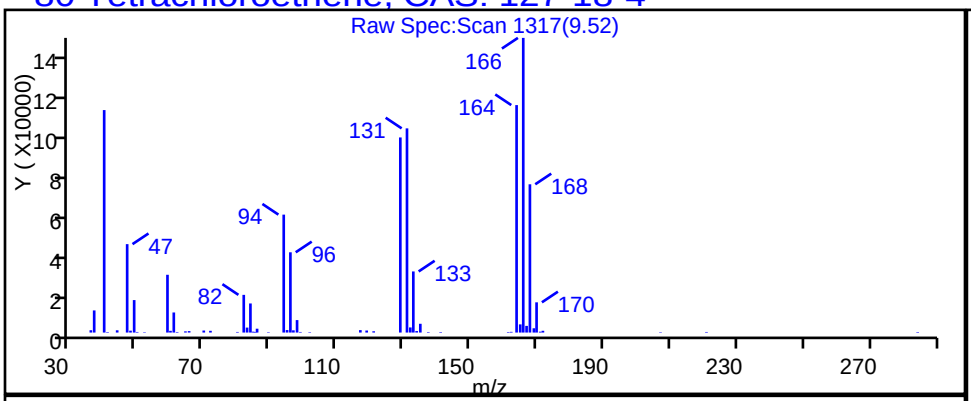
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 17

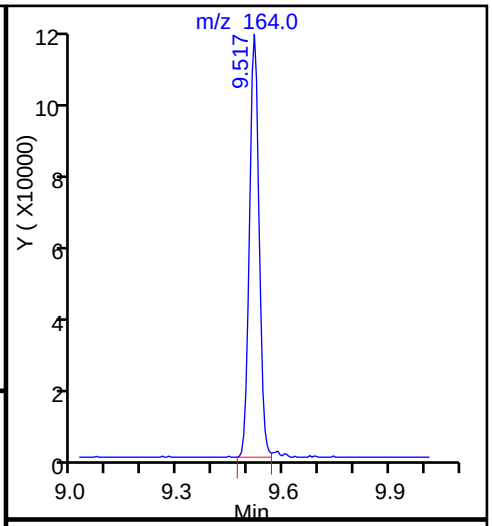
Purge Vol: 5.000 mL Dil. Factor: 500.0000

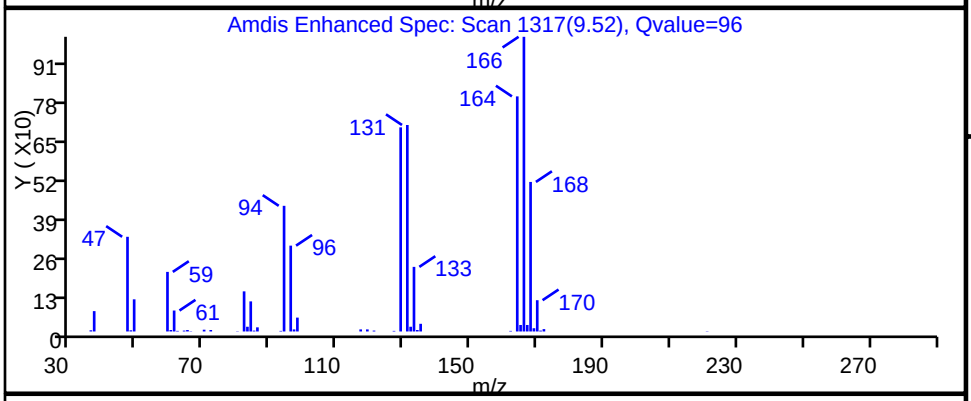
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

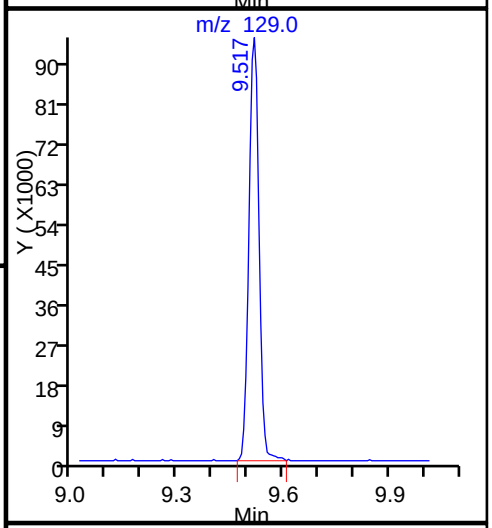
Column: DB-624 (0.18 mm) Detector MS SCAN

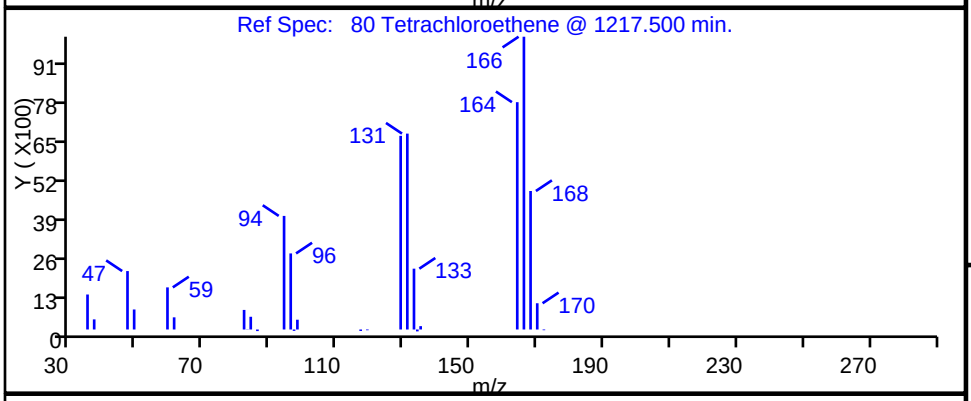
80 Tetrachloroethene, CAS: 127-18-4

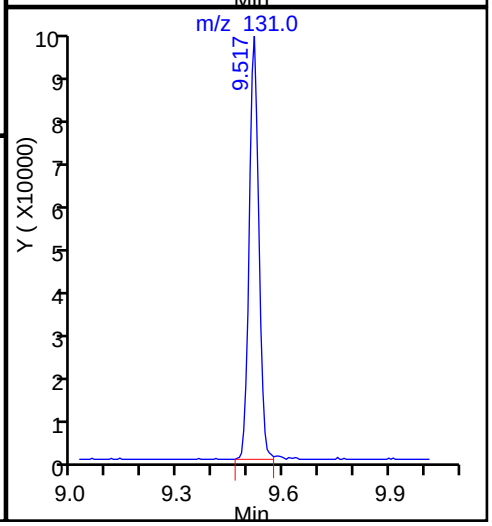


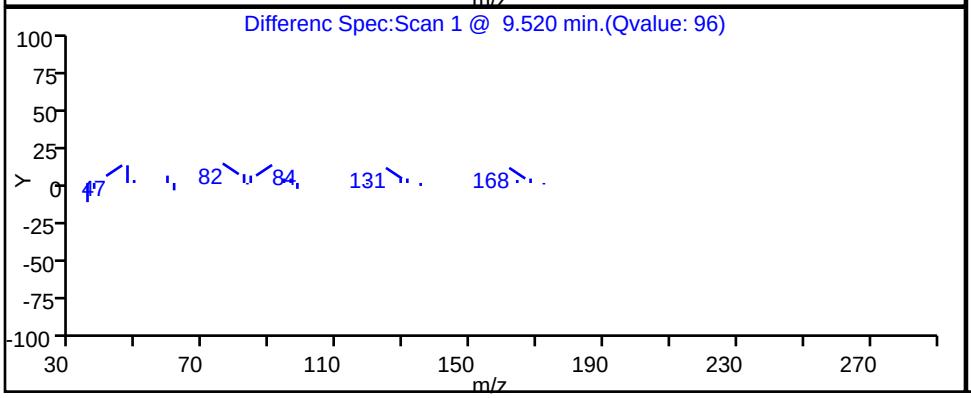












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75D-0/1-0 | Lab Sample ID: 180-44248-9

Matrix: Water | Lab File ID: 50529031.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/30/2015 00:27

Soil Aliquot Vol: | Dilution Factor: 40

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

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

Analysis Batch No.: 143223 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	40	U	40	11
75-01-4	Vinyl chloride	40	U	40	9.1
74-83-9	Bromomethane	40	U	40	13
75-00-3	Chloroethane	40	U	40	8.6
75-35-4	1,1-Dichloroethene	31	J	40	12
67-64-1	Acetone	200	U	200	100
75-15-0	Carbon disulfide	40	U	40	8.5
75-09-2	Methylene Chloride	72		40	5.0
156-60-5	trans-1,2-Dichloroethene	40	U	40	6.8
1634-04-4	Methyl tert-butyl ether	40	U	40	7.3
75-34-3	1,1-Dichloroethane	34	J	40	4.7
156-59-2	cis-1,2-Dichloroethene	380		40	9.5
74-97-5	Bromochloromethane	40	U	40	7.2
78-93-3	2-Butanone (MEK)	200	U	200	22
67-66-3	Chloroform	40	U	40	6.8
71-55-6	1,1,1-Trichloroethane	160		40	11
56-23-5	Carbon tetrachloride	40	U	40	5.5
71-43-2	Benzene	40	U	40	4.2
107-06-2	1,2-Dichloroethane	40	U	40	8.5
79-01-6	Trichloroethene	1400		40	5.7
78-87-5	1,2-Dichloropropane	40	U	40	3.8
75-27-4	Bromodichloromethane	40	U	40	5.2
10061-01-5	cis-1,3-Dichloropropene	40	U	40	7.5
108-10-1	4-Methyl-2-pentanone (MIBK)	200	U	200	21
108-88-3	Toluene	40	U	40	6.0
10061-02-6	trans-1,3-Dichloropropene	40	U	40	5.9
79-00-5	1,1,2-Trichloroethane	40	U	40	8.1
127-18-4	*Tetrachloroethene*	*6100*	*E*	*40*	*5.9*
591-78-6	2-Hexanone	200	U	200	6.4
124-48-1	Dibromochloromethane	40	U	40	5.5
106-93-4	1,2-Dibromoethane (EDB)	40	U	40	7.2
108-90-7	Chlorobenzene	40	U	40	5.4
630-20-6	1,1,1,2-Tetrachloroethane	40	U	40	11
100-41-4	Ethylbenzene	40	U	40	9.1
1330-20-7	Xylenes, Total	120	U	120	20
100-42-5	Styrene	40	U	40	3.9

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75D-0/1-0 | Lab Sample ID: 180-44248-9

Matrix: Water | Lab File ID: 50529031.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/30/2015 00:27

Soil Aliquot Vol: | Dilution Factor: 40

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

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

Analysis Batch No.: 143223 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	127		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	84		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D
Lims ID: 180-44248-D-9 Lab Sample ID: 180-44248-9
Client ID: HD-MW-75D-0/1-0
Sample Type: Client
Inject. Date: 30-May-2015 00:27:30 ALS Bottle#: 29 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 40.0000
Sample Info: 180-44248-D-9, 40x
Misc. Info.: 180-0007177-031
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 30-May-2015 09:23:06 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK031

First Level Reviewer: fergusond Date: 30-May-2015 09:23:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.272	-0.004	0	102774	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	351393	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.392	-0.004	88	78966	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.728	0.002	97	88903	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.562	0.006	93	87281	57.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.927	0.006	0	120043	63.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.935	-0.001	94	307059	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.569	0.005	87	88517	42.0	
12 Chloromethane	50		1.769				ND	
13 Vinyl chloride	62		1.903				ND	
15 Bromomethane	94		2.237				ND	
16 Chloroethane	64		2.389				ND	
22 1,1-Dichloroethene	96	3.349	3.344	0.005	86	6557	3.89	
24 Acetone	43		3.442				ND	
26 Carbon disulfide	76		3.624				ND	
31 Methylene Chloride	84	4.146	4.141	0.005	88	23578	8.94	
33 Acrylonitrile	53		4.518				ND	
34 trans-1,2-Dichloroethene	96		4.561				ND	
35 Methyl tert-butyl ether	73		4.573				ND	
37 1,1-Dichloroethane	63	5.211	5.200	0.011	67	15017	4.27	
45 cis-1,2-Dichloroethene	96	5.953	5.948	0.005	79	98322	47.7	
46 2-Butanone (MEK)	43		5.954				ND	
49 Chlorobromomethane	128		6.234				ND	
52 Chloroform	83		6.380				ND	
53 1,1,1-Trichloroethane	97	6.543	6.538	0.005	95	48926	20.0	
56 Carbon tetrachloride	117		6.708				ND	
58 Benzene	78		6.940				ND	
59 1,2-Dichloroethane	62		7.019				ND	
64 Trichloroethene	130	7.681	7.676	0.005	97	344687	171.8	
67 1,2-Dichloropropane	63		7.950				ND	
70 1,4-Dioxane	88		8.035				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.229				ND	
74 cis-1,3-Dichloropropene	75		8.673				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.826				ND	
76 Toluene	91		9.002				ND	
77 trans-1,3-Dichloropropene	75		9.251				ND	
79 1,1,2-Trichloroethane	97		9.446				ND	
80 Tetrachloroethene	164	9.518	9.519	-0.001	92	1071621	756.8	E
82 2-Hexanone	43		9.659				ND	
84 Chlorodibromomethane	129		9.817				ND	
85 Ethylene Dibromide	107		9.927				ND	
87 Chlorobenzene	112		10.413				ND	
89 1,1,1,2-Tetrachloroethane	131		10.511				ND	
90 Ethylbenzene	106		10.517				ND	
91 m-Xylene & p-Xylene	106		10.644				ND	
92 o-Xylene	106		11.028				ND	
93 Styrene	104		11.046				ND	
94 Bromoform	173		11.228				ND	
99 1,1,2,2-Tetrachloroethane	83		11.703				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

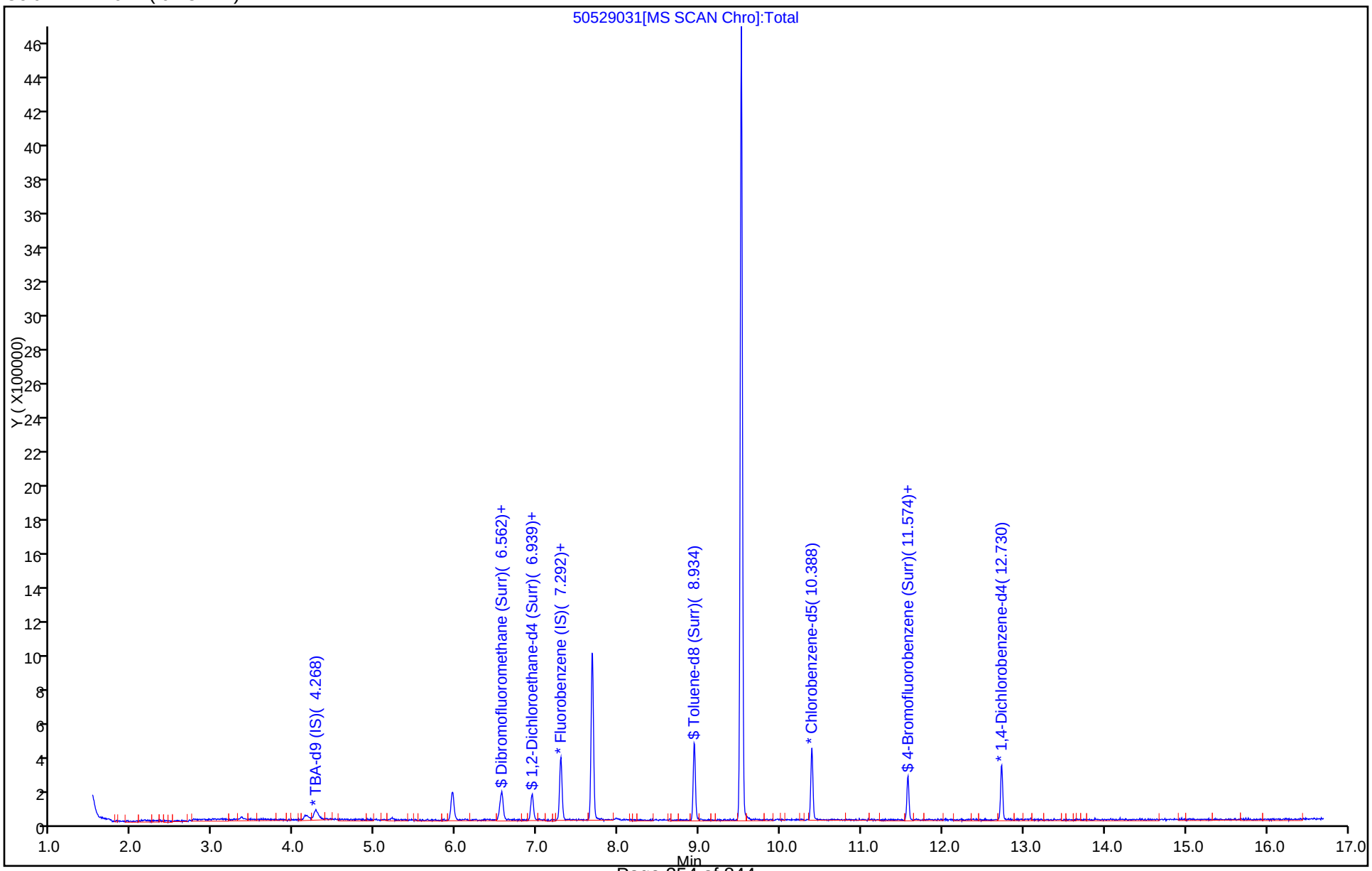
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9	Worklist Smp#:	31
Client ID:	HD-MW-75D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	40.0000	ALS Bottle#:	29
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

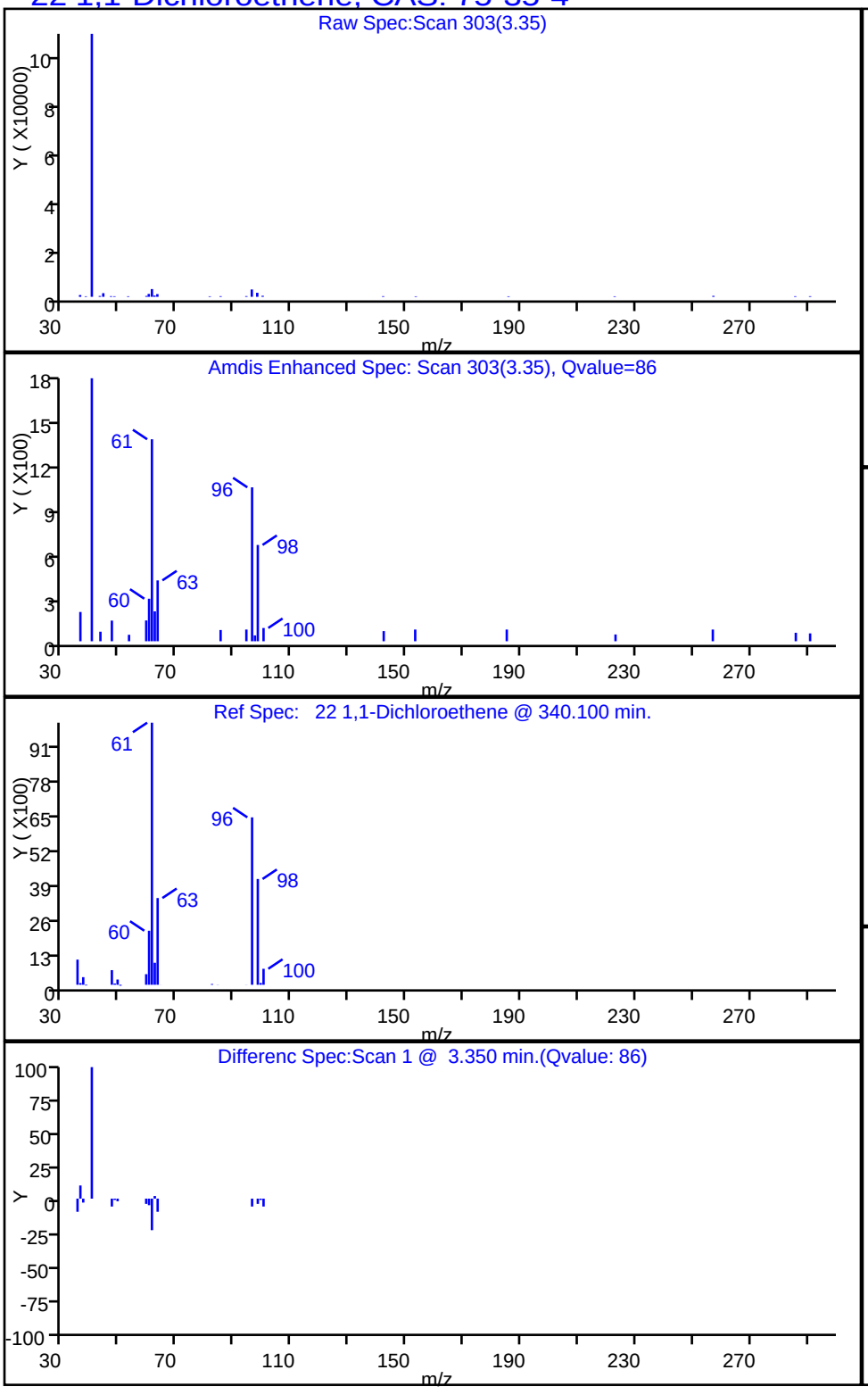


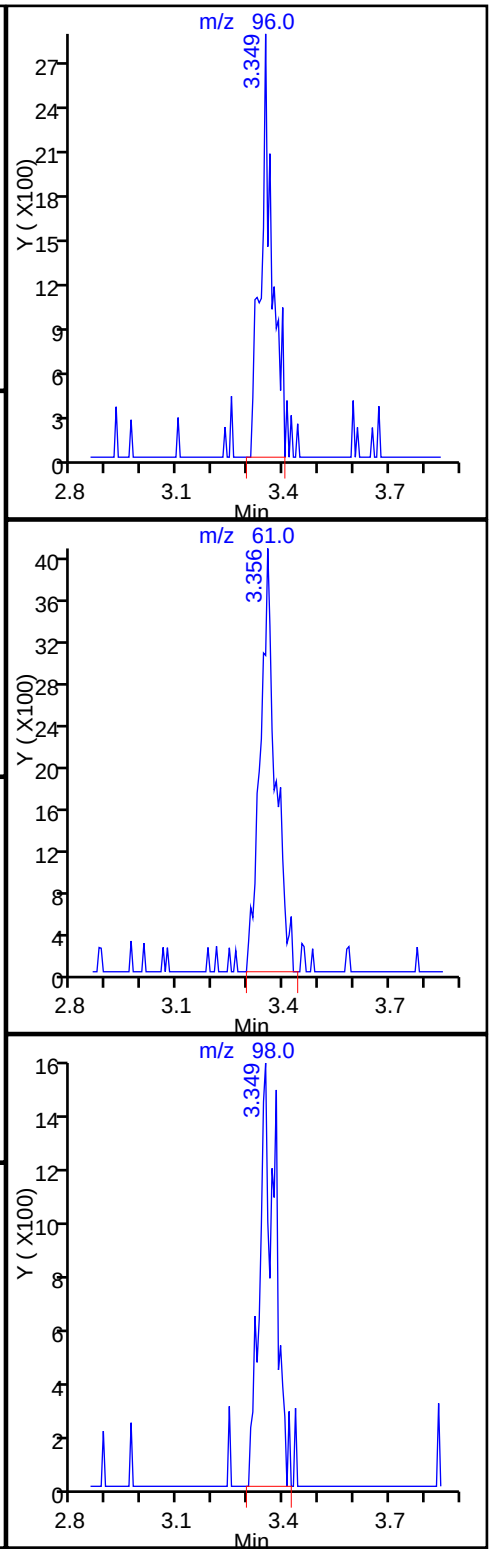
Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



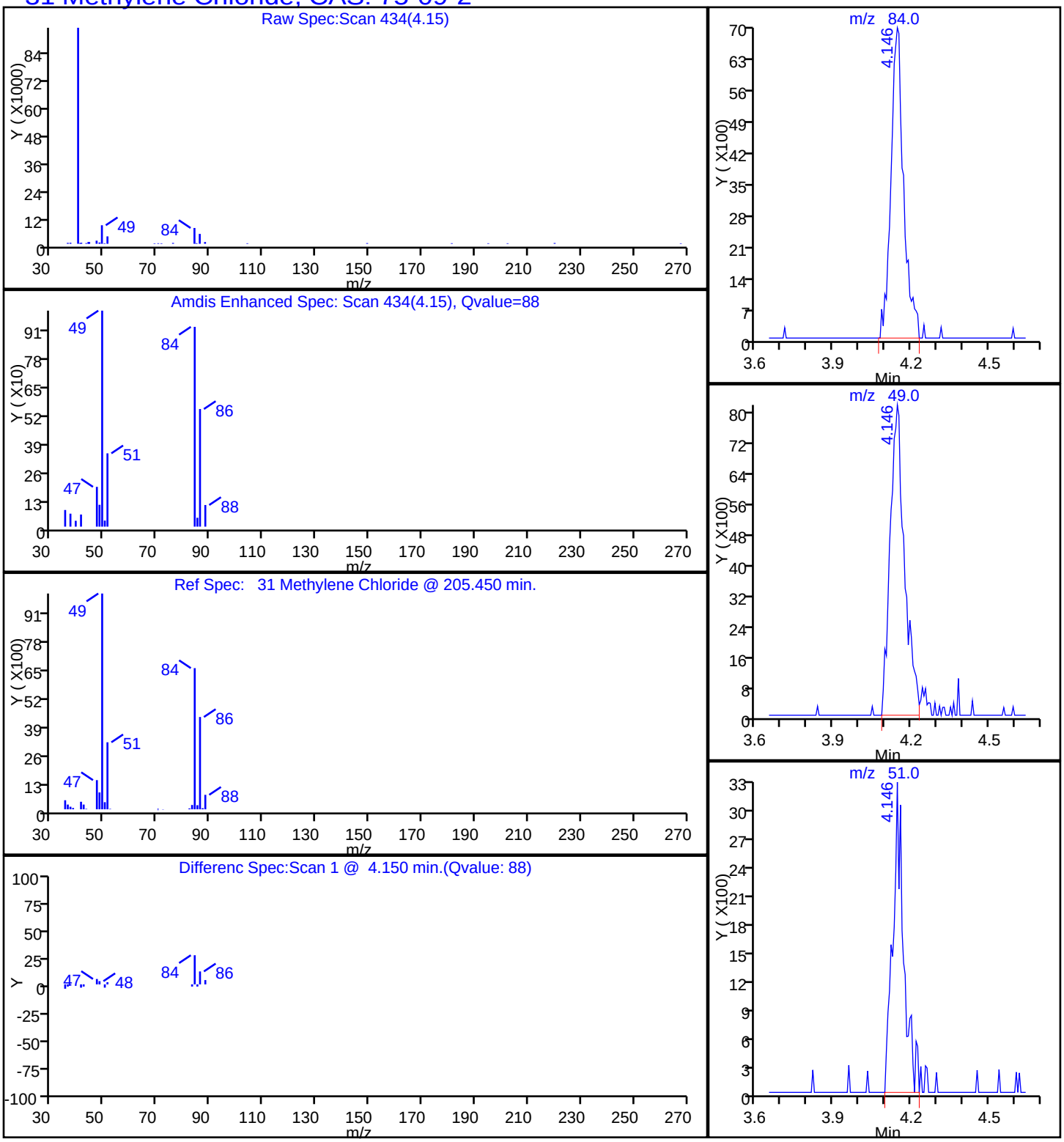


Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

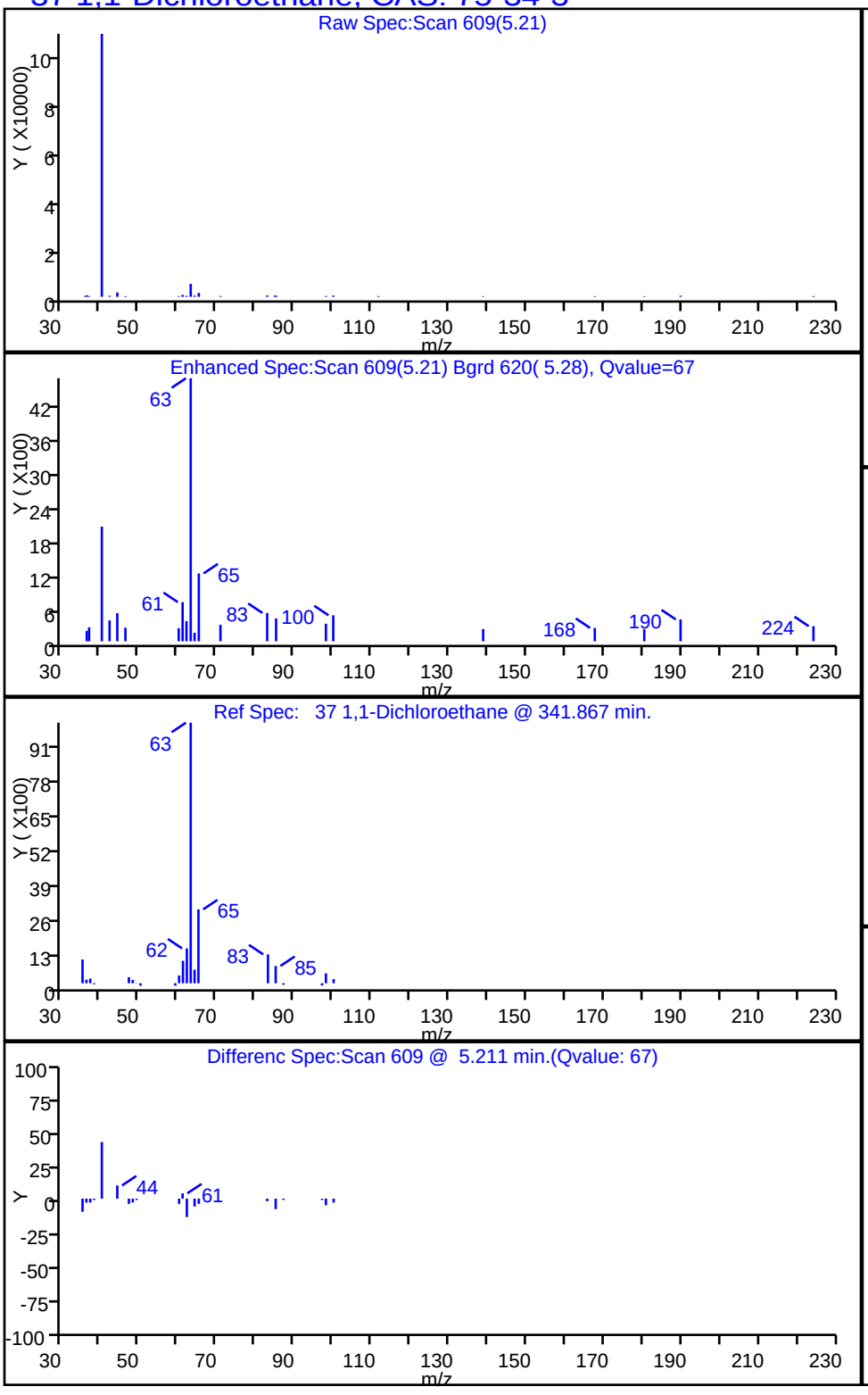


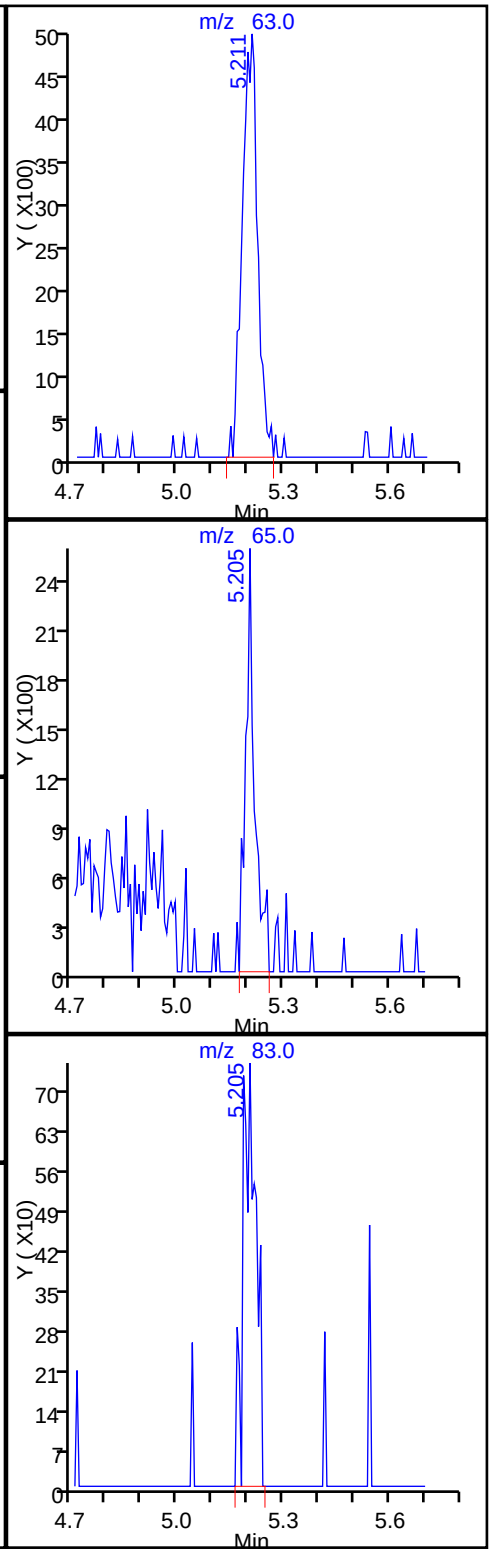
Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



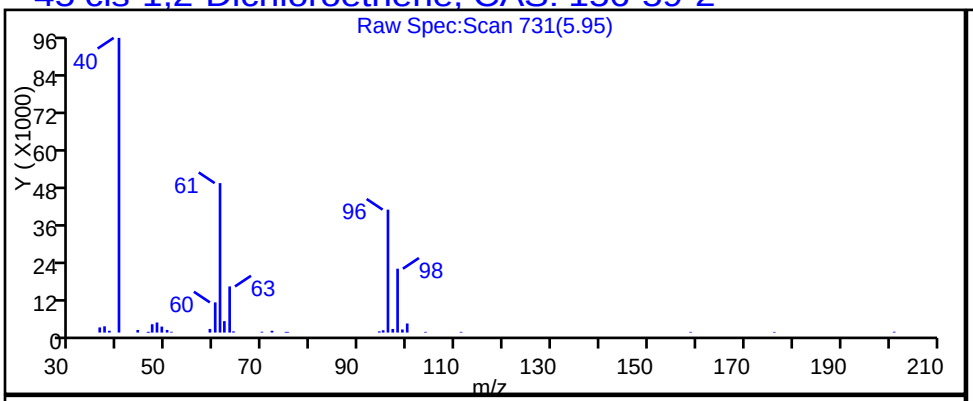


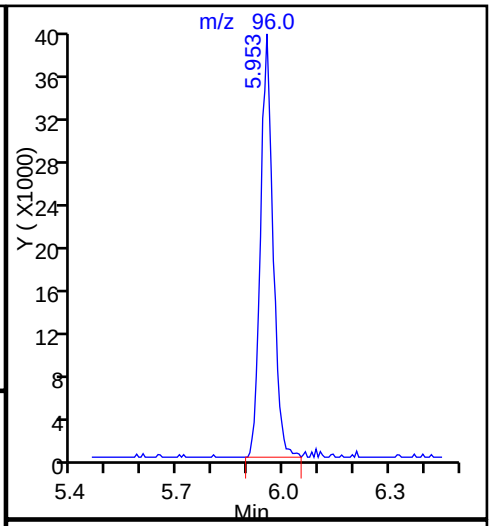
Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

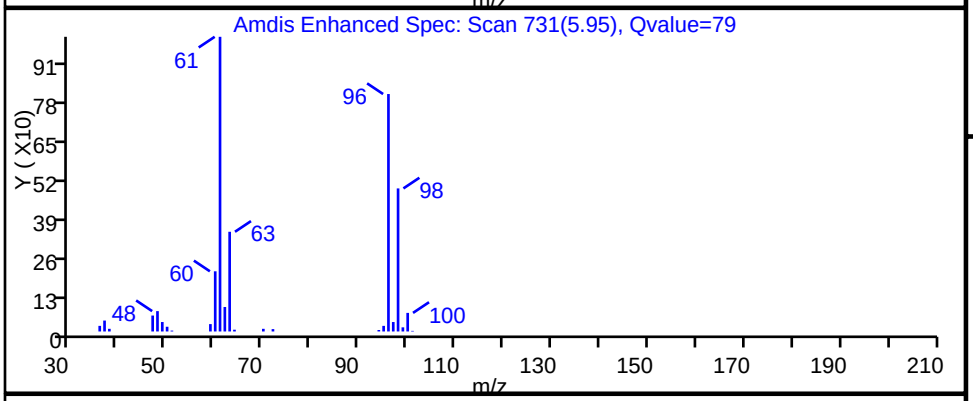
TestAmerica Pittsburgh

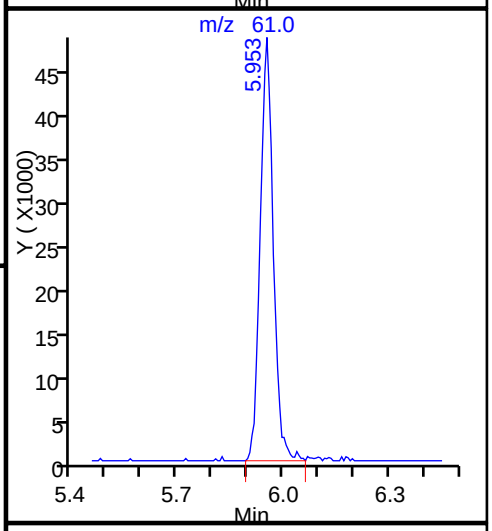
Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

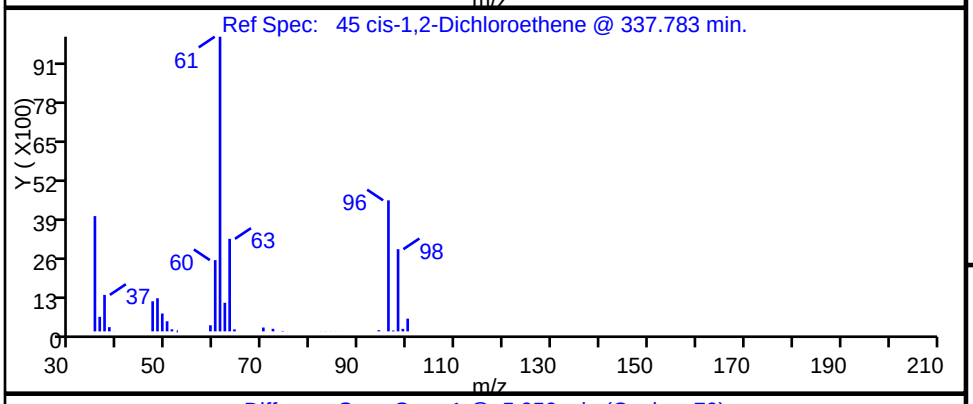
45 cis-1,2-Dichloroethene, CAS: 156-59-2

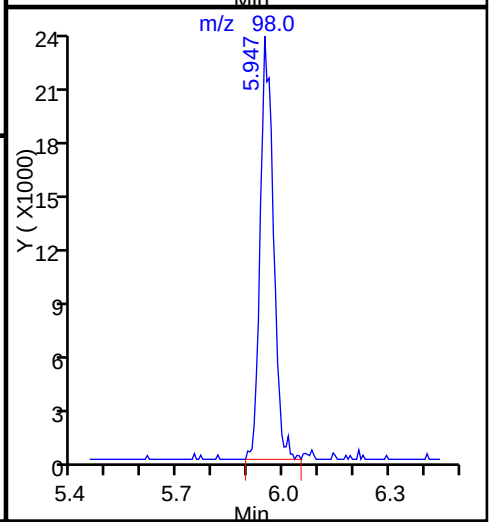


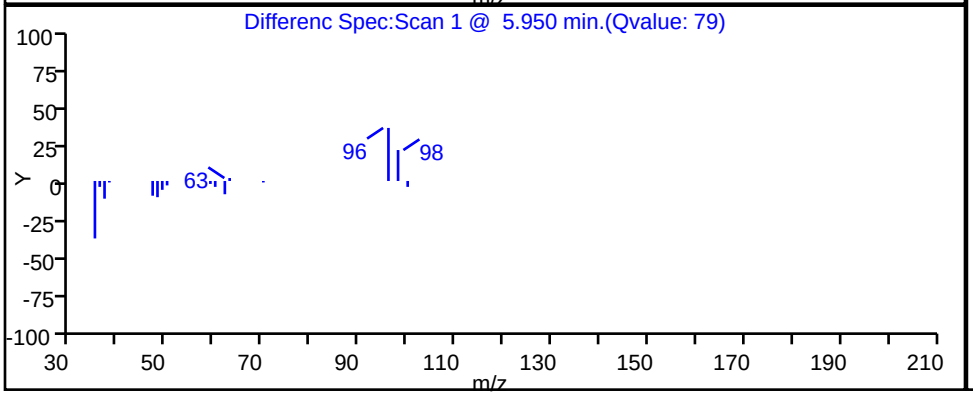










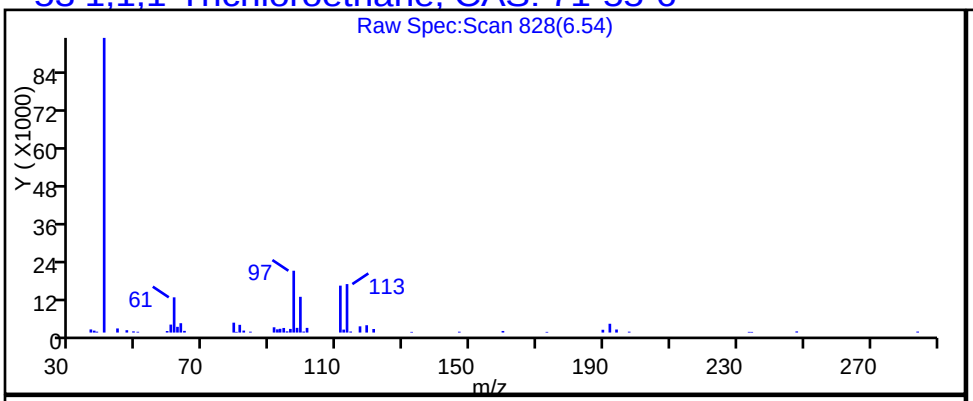


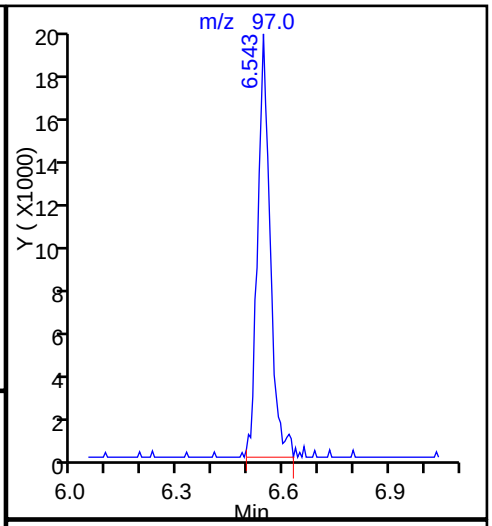
Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

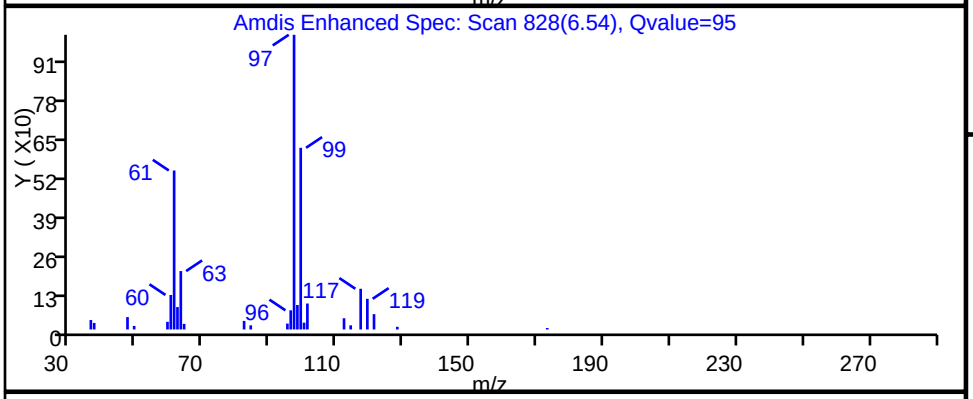
TestAmerica Pittsburgh

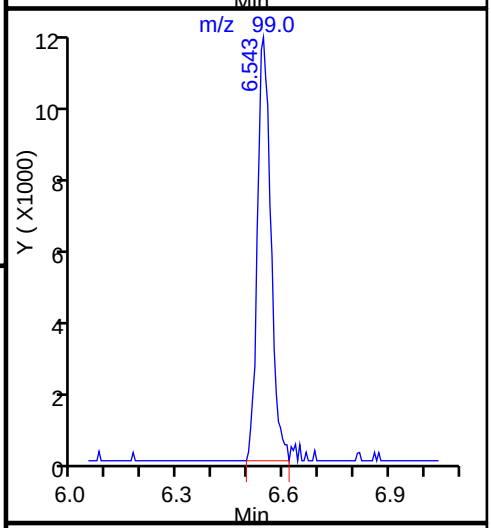
Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

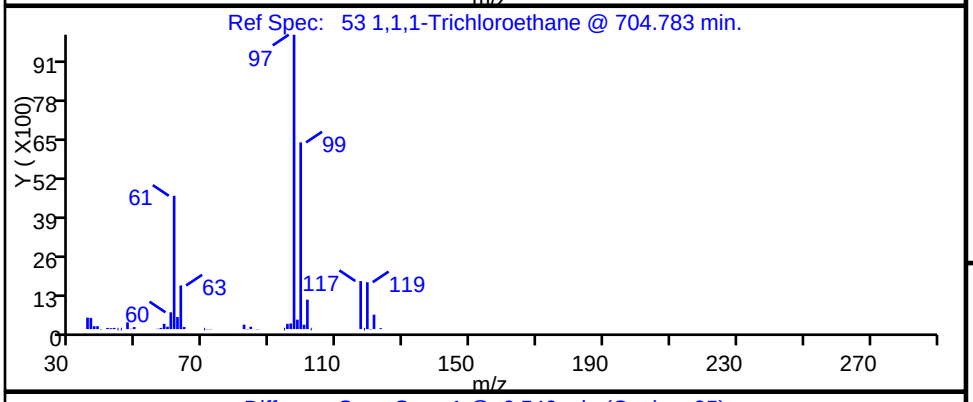
53 1,1,1-Trichloroethane, CAS: 71-55-6

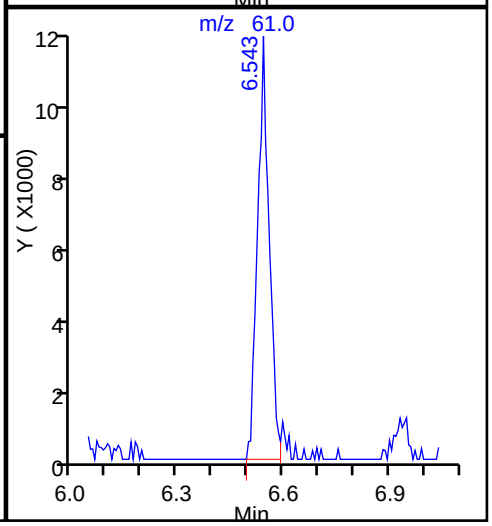


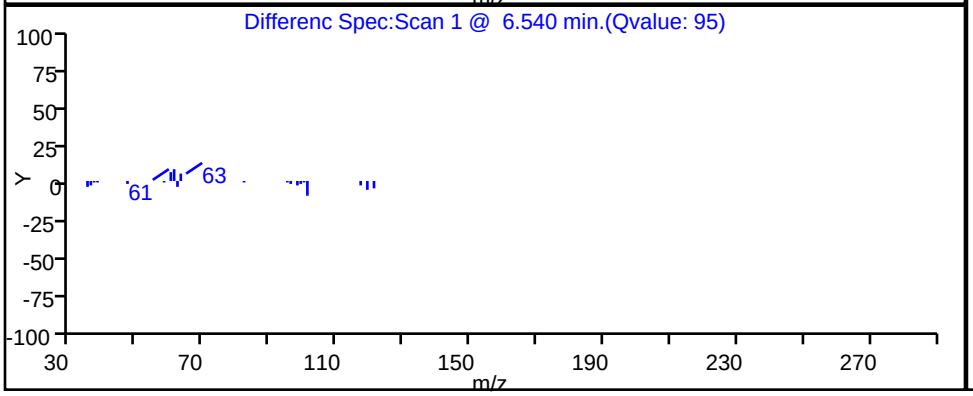












Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D

Injection Date: 30-May-2015 00:27:30 Instrument ID: CHHP5

Lims ID: 180-44248-D-9 Lab Sample ID: 180-44248-9

Client ID: HD-MW-75D-0/1-0

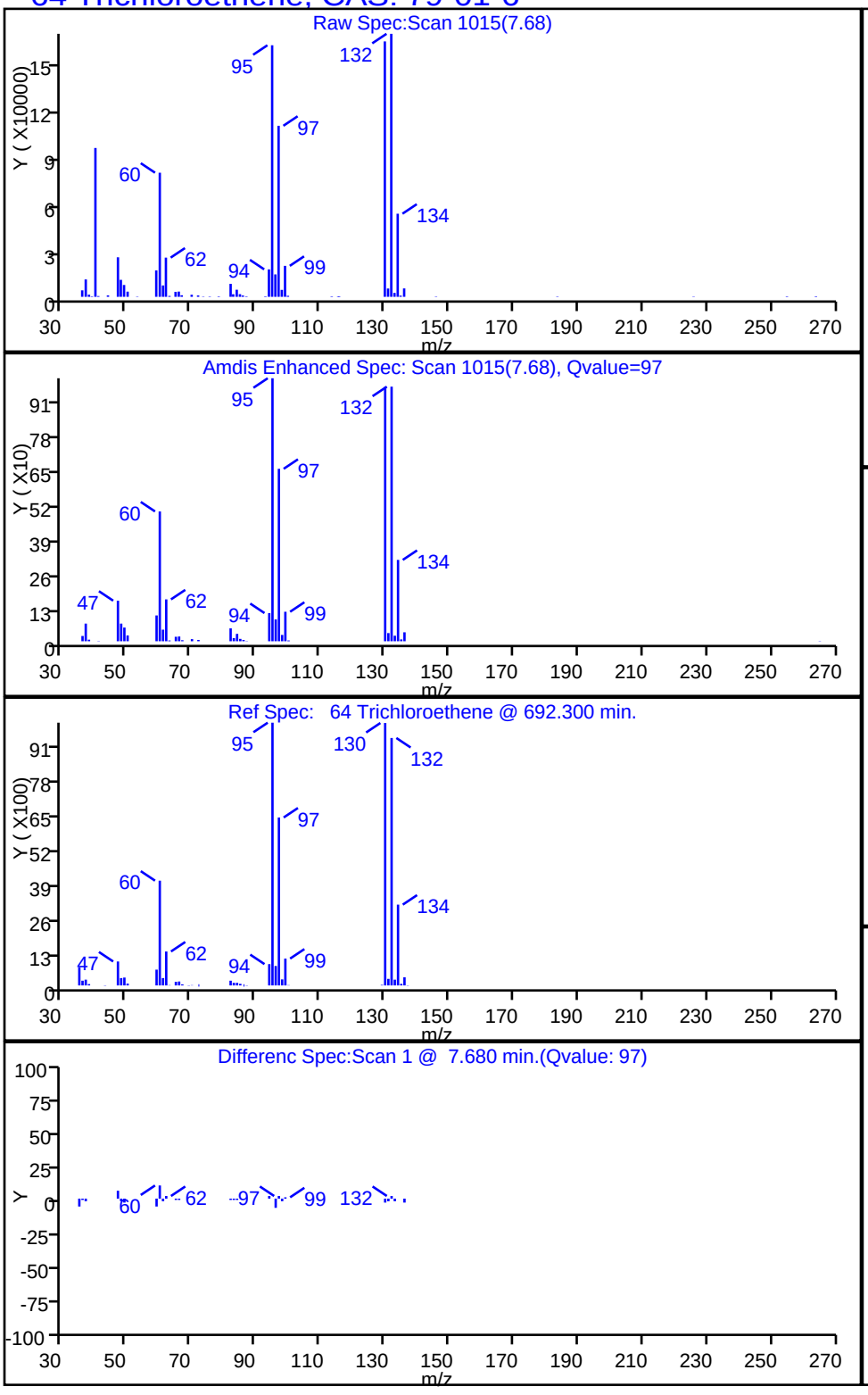
Operator ID: 001562 ALS Bottle#: 29 Worklist Smp#: 31

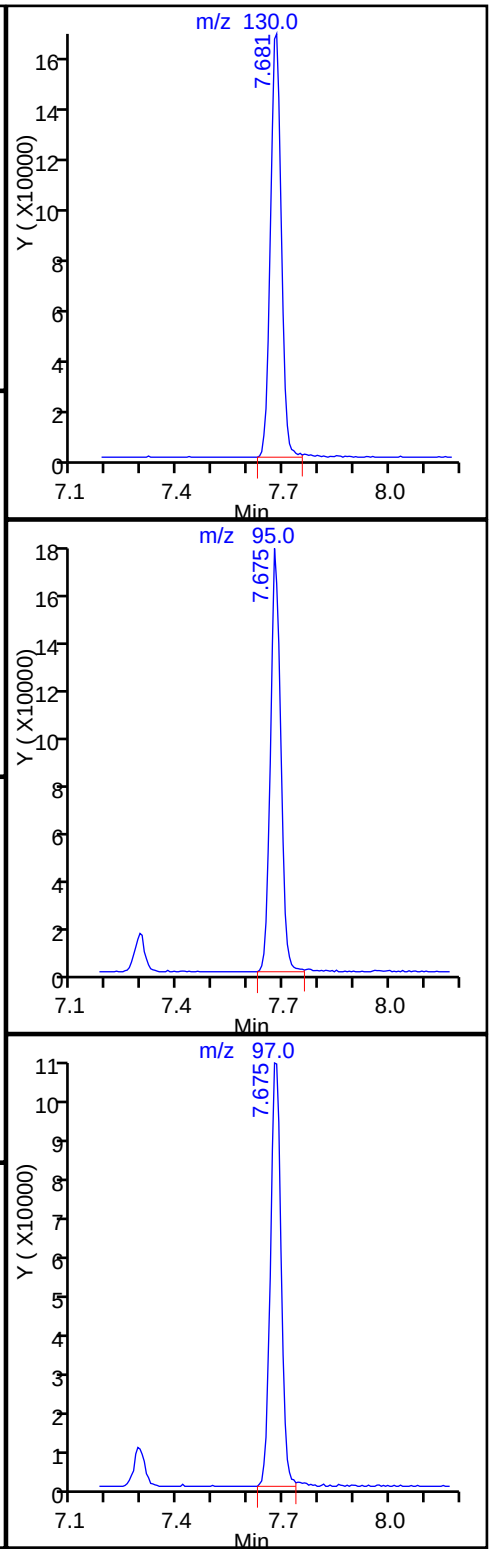
Purge Vol: 5.000 mL Dil. Factor: 40.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

64 Trichloroethene, CAS: 79-01-6



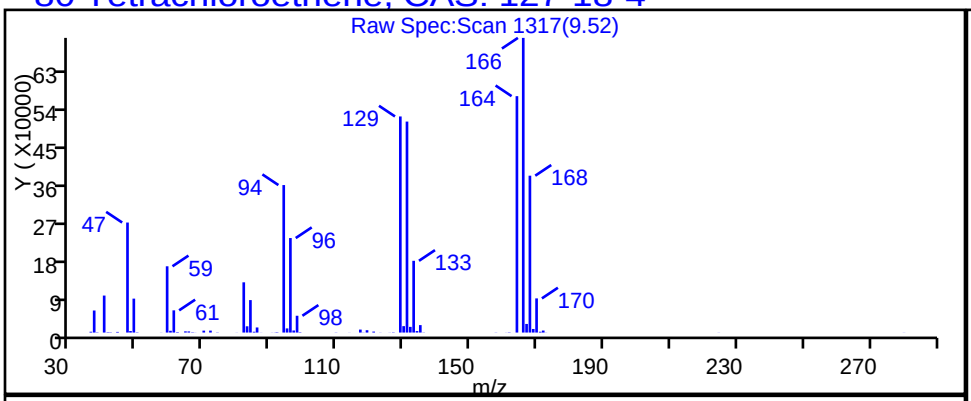


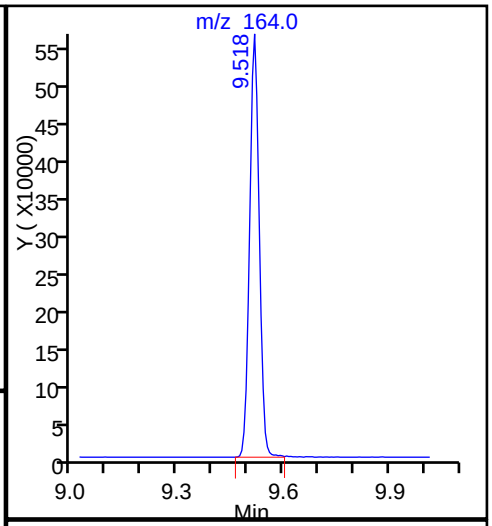
Report Date: 30-May-2015 09:23:07 Chrom Revision: 2.2 05-May-2015 11:39:10

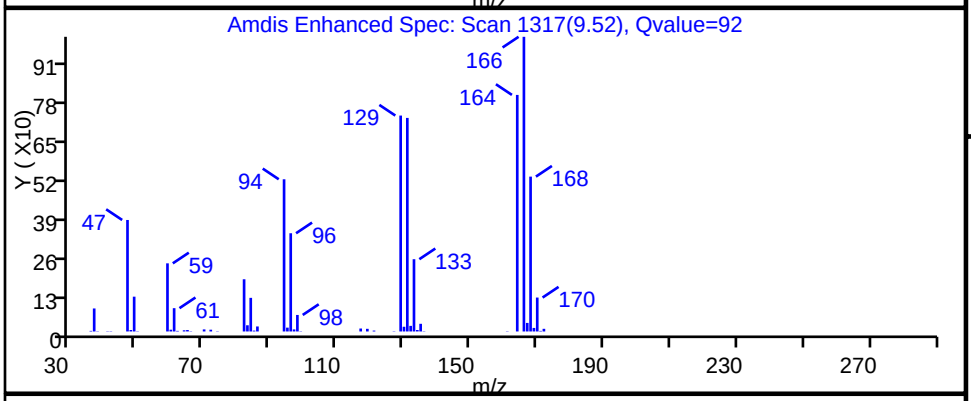
TestAmerica Pittsburgh

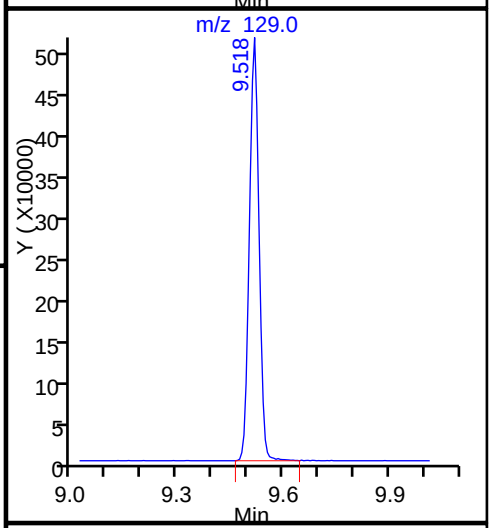
Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529031.D				
Injection Date:	30-May-2015 00:27:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-D-9	Lab Sample ID:	180-44248-9		
Client ID:	HD-MW-75D-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	31
Purge Vol:	5.000 mL	Dil. Factor:	40.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

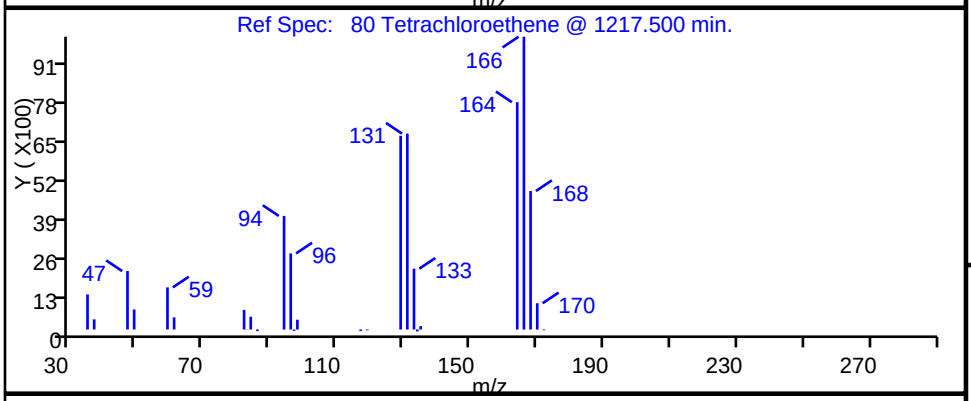
80 Tetrachloroethene, CAS: 127-18-4

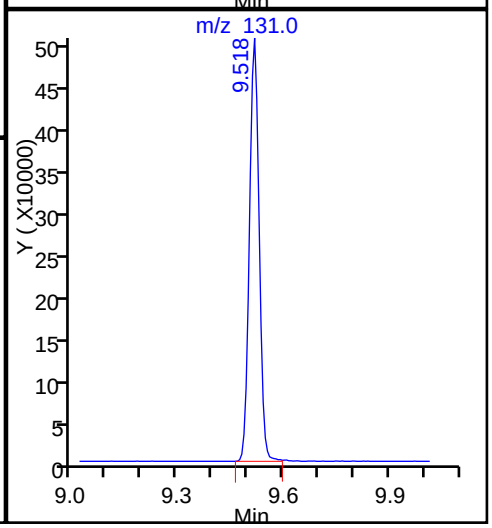


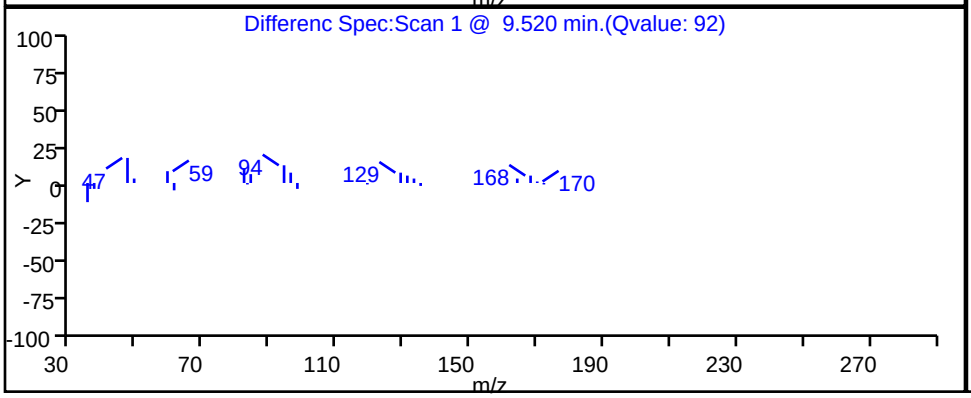












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75D-0/1-0 DL | Lab Sample ID: 180-44248-9 DL

Matrix: Water | Lab File ID: 50528019.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 18:49

Soil Aliquot Vol: | Dilution Factor: 400

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	400	U	400	110
75-01-4	Vinyl chloride	400	U	400	91
74-83-9	Bromomethane	400	U	400	130
75-00-3	Chloroethane	400	U	400	86
75-35-4	1,1-Dichloroethene	400	U	400	120
67-64-1	Acetone	2000	U	2000	1000
75-15-0	Carbon disulfide	400	U	400	85
75-09-2	Methylene Chloride	270	J	400	50
156-60-5	trans-1,2-Dichloroethene	400	U	400	68
1634-04-4	Methyl tert-butyl ether	400	U	400	73
75-34-3	1,1-Dichloroethane	400	U	400	47
156-59-2	cis-1,2-Dichloroethene	330	J	400	95
74-97-5	Bromochloromethane	400	U	400	72
78-93-3	2-Butanone (MEK)	2000	U	2000	220
67-66-3	Chloroform	400	U	400	68
71-55-6	1,1,1-Trichloroethane	160	J	400	110
56-23-5	Carbon tetrachloride	400	U	400	55
71-43-2	Benzene	400	U	400	42
107-06-2	1,2-Dichloroethane	400	U	400	85
79-01-6	Trichloroethene	1300		400	57
78-87-5	1,2-Dichloropropane	400	U	400	38
75-27-4	Bromodichloromethane	400	U	400	52
10061-01-5	cis-1,3-Dichloropropene	400	U	400	75
108-10-1	4-Methyl-2-pentanone (MIBK)	2000	U	2000	210
108-88-3	Toluene	400	U	400	60
10061-02-6	trans-1,3-Dichloropropene	400	U	400	59
79-00-5	1,1,2-Trichloroethane	400	U	400	81
127-18-4	Tetrachloroethene	6300		400	59
591-78-6	2-Hexanone	2000	U	2000	64
124-48-1	Dibromochloromethane	400	U	400	55
106-93-4	1,2-Dibromoethane (EDB)	400	U	400	72
108-90-7	Chlorobenzene	400	U	400	54
630-20-6	1,1,1,2-Tetrachloroethane	400	U	400	110
100-41-4	Ethylbenzene	400	U	400	91
1330-20-7	Xylenes, Total	1200	U	1200	200
100-42-5	Styrene	400	U	400	39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75D-0/1-0 DL | Lab Sample ID: 180-44248-9 DL

Matrix: Water | Lab File ID: 50528019.D

Analysis Method: 8260C | Date Collected: 05/19/2015 11:48

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 18:49

Soil Aliquot Vol: | Dilution Factor: 400

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

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

Analysis Batch No.: 143033 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D
Lims ID: 180-44248-C-9 Lab Sample ID: 180-44248-9
Client ID: HD-MW-75D-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 18:49:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 400.0000
Sample Info: 180-44248-C-9, 400x
Misc. Info.: 180-0007155-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:23:26 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:23:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.265	4.277	-0.012	0	134601	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	394825	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.385	0.006	88	85636	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	97	106668	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	94657	55.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	128967	60.8	
$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	94	335974	52.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	86	102467	44.9	
12 Chloromethane	50	1.771	1.765	0.006	1	401	0.1155	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96		3.347				ND	
24 Acetone	43		3.444				ND	
26 Carbon disulfide	76		3.626				ND	
31 Methylene Chloride	84	4.144	4.143	0.001	76	15027	3.36	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63		5.196				ND	
45 cis-1,2-Dichloroethene	96	5.950	5.944	0.006	78	9496	4.10	
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83		6.382				ND	
53 1,1,1-Trichloroethane	97	6.547	6.540	0.007	35	5505	2.01	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.678	7.678	0.000	97	36715	16.3	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.521	9.515	0.006	97	120601	78.5	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

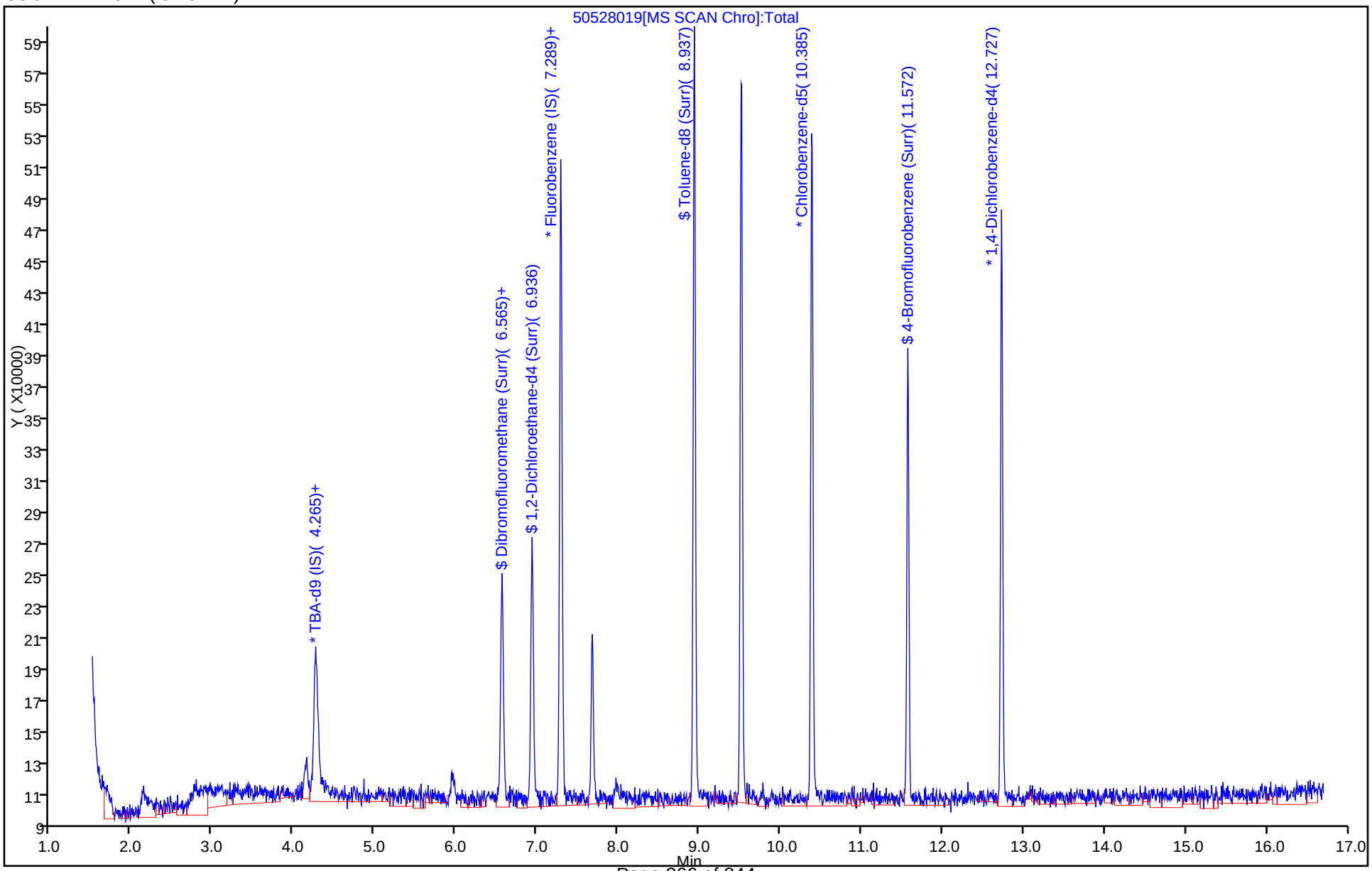
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 29-May-2015 06:23:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D				
Injection Date:	28-May-2015 18:49:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-C-9	Lab Sample ID:	180-44248-9	Worklist Smp#:	19
Client ID:	HD-MW-75D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	400.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

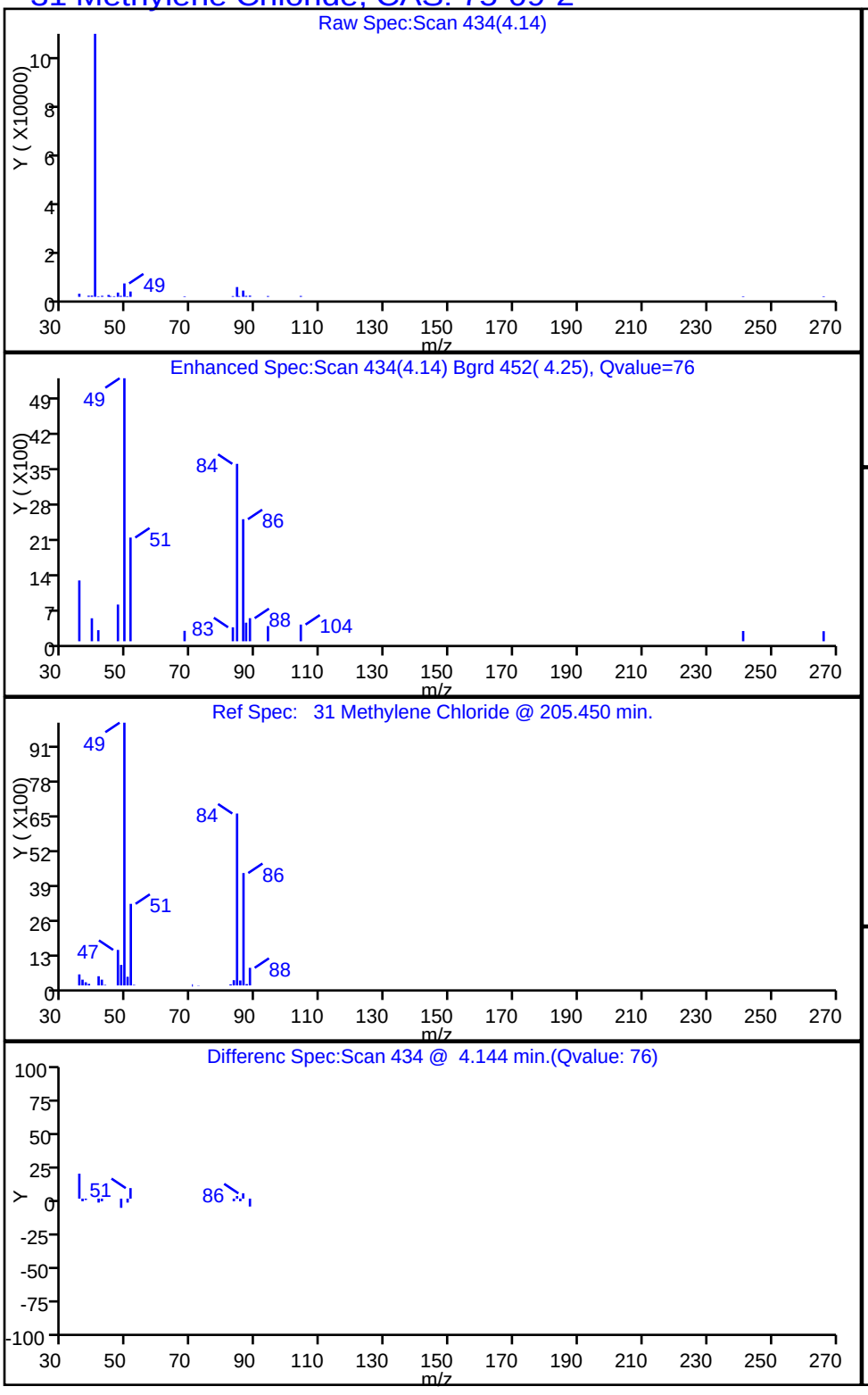


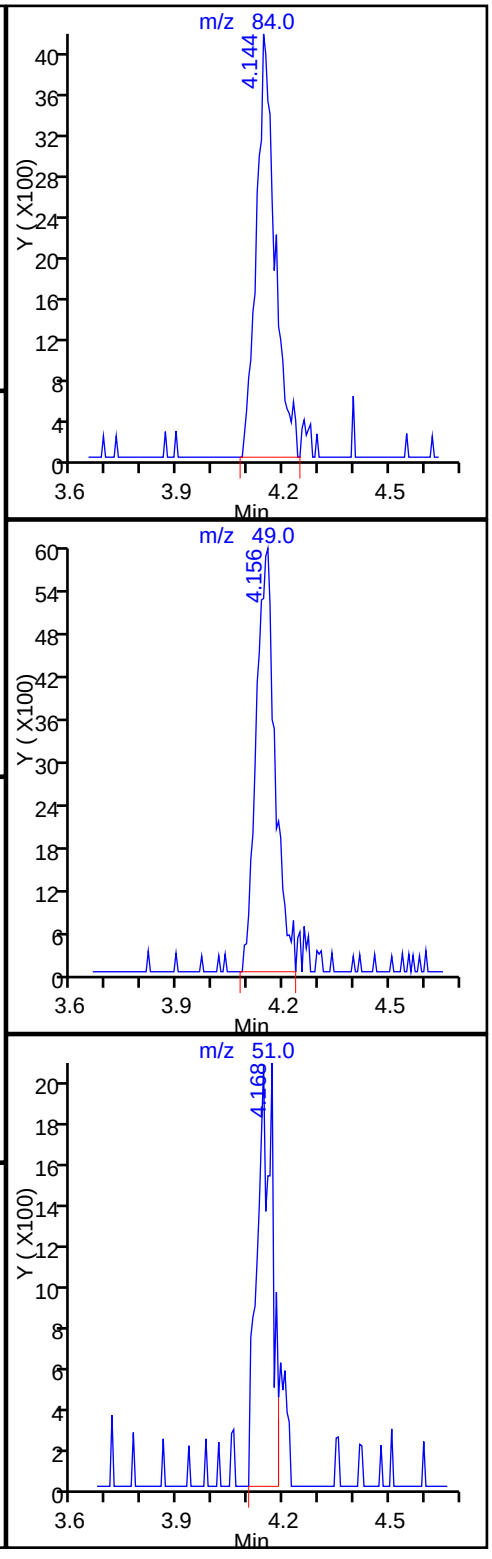
Report Date: 29-May-2015 06:23:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D		
Injection Date:	28-May-2015 18:49:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-9	Lab Sample ID:	180-44248-9
Client ID:	HD-MW-75D-0/1-0		
Operator ID:	001562	ALS Bottle#:	18 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

31 Methylene Chloride, CAS: 75-09-2





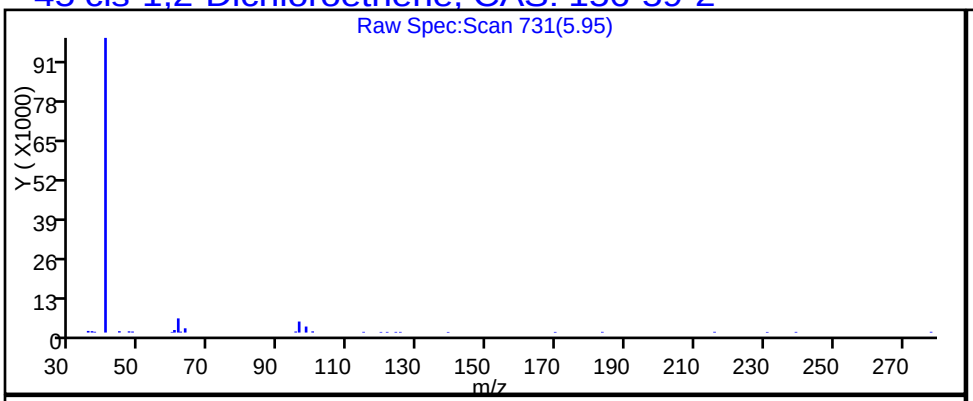
Report Date: 29-May-2015 06:23:26 Chrom Revision: 2.2 05-May-2015 11:39:10

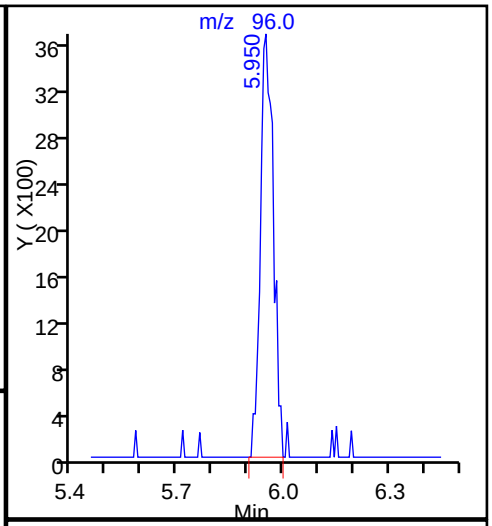
TestAmerica Pittsburgh

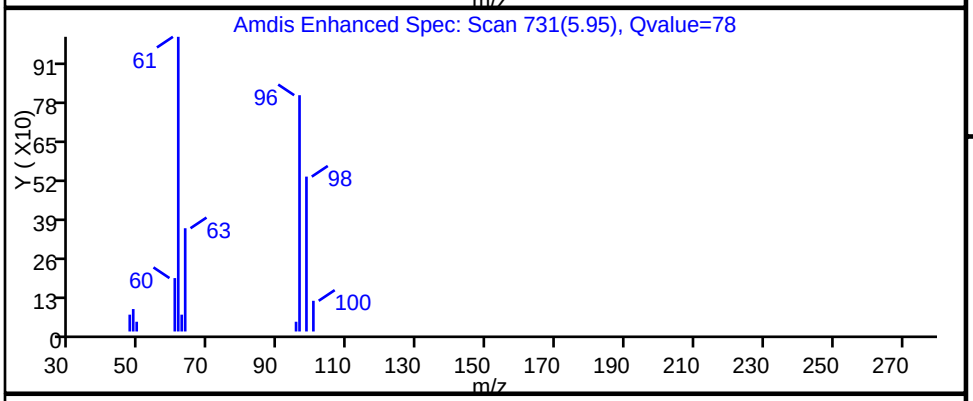
Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D

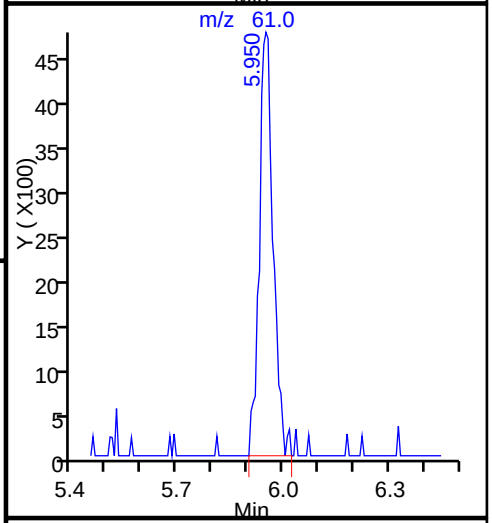
Injection Date:	28-May-2015 18:49:30	Instrument ID:	CHHP5
Lims ID:	180-44248-C-9	Lab Sample ID:	180-44248-9
Client ID:	HD-MW-75D-0/1-0		
Operator ID:	001562	ALS Bottle#:	18 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	400.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

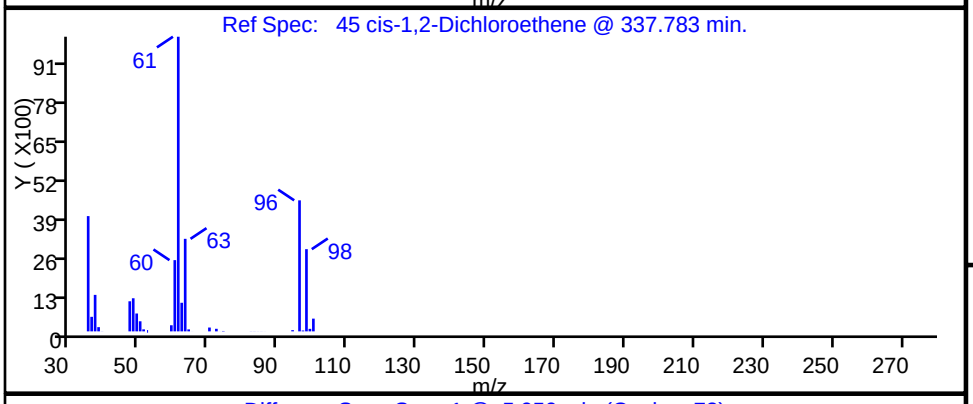
45 cis-1,2-Dichloroethene, CAS: 156-59-2

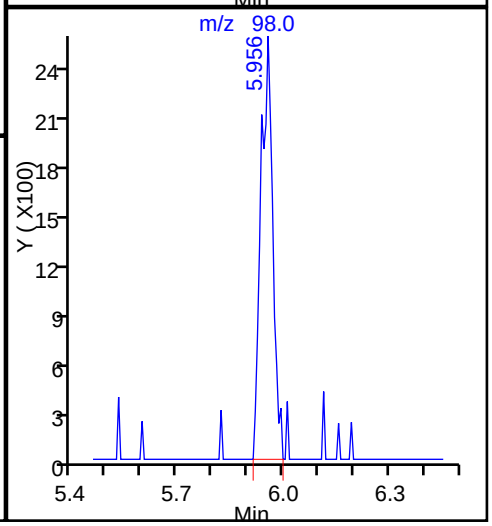


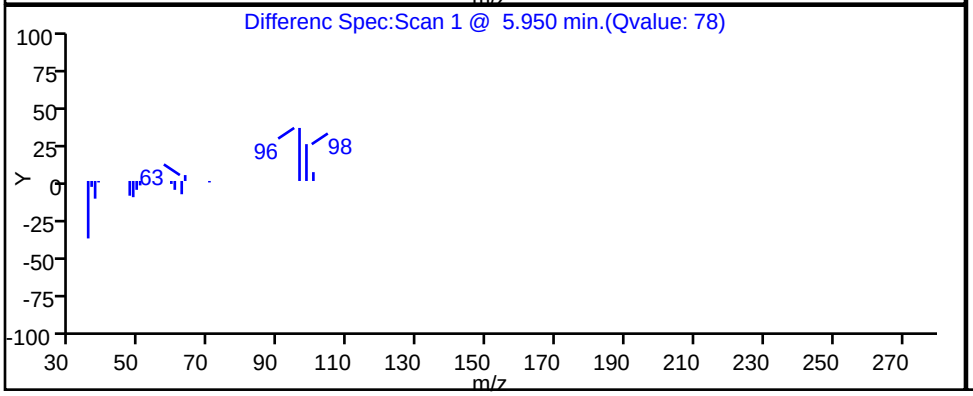












Report Date: 29-May-2015 06:23:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D

Injection Date: 28-May-2015 18:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-9 Lab Sample ID: 180-44248-9

Client ID: HD-MW-75D-0/1-0

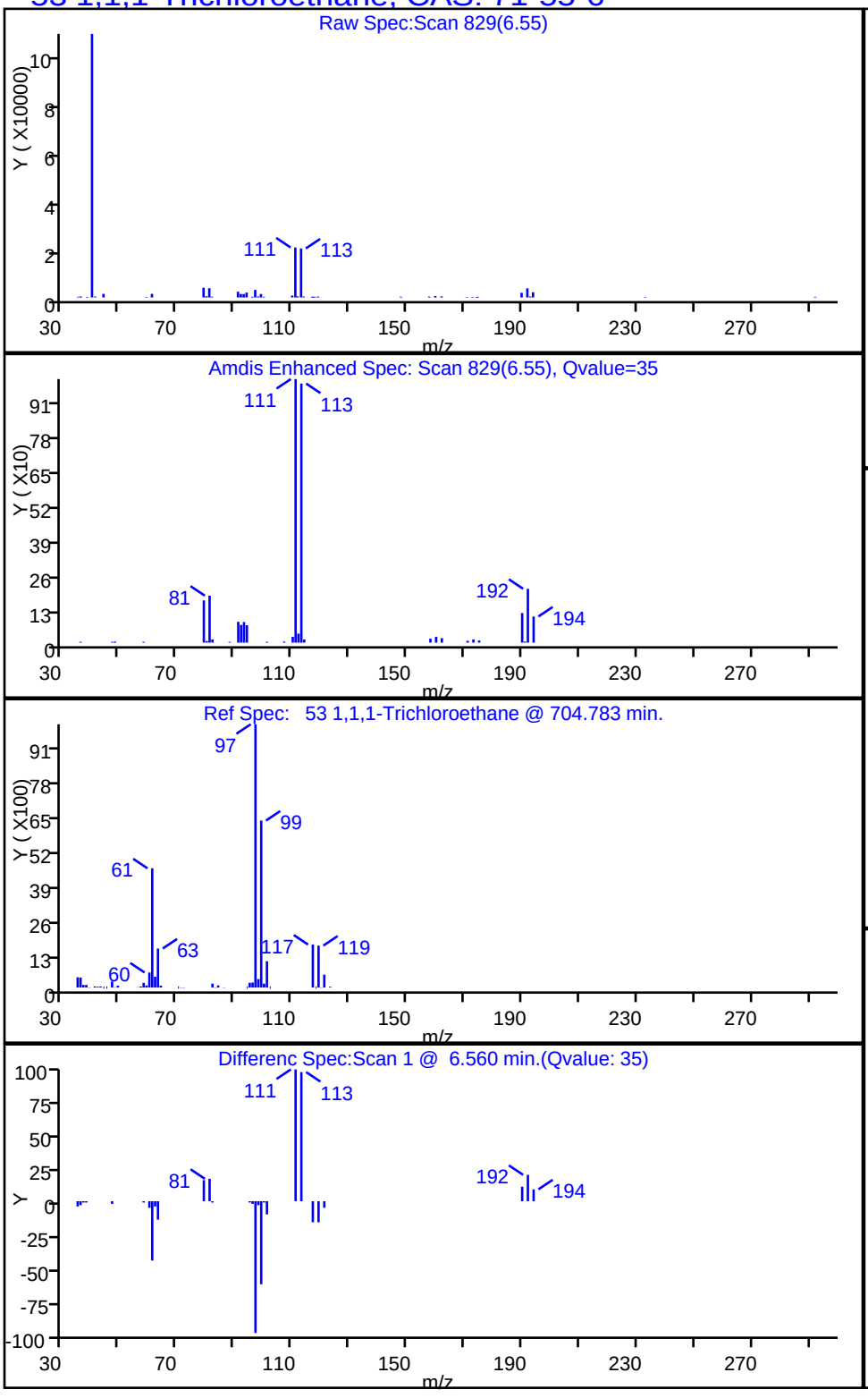
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 19

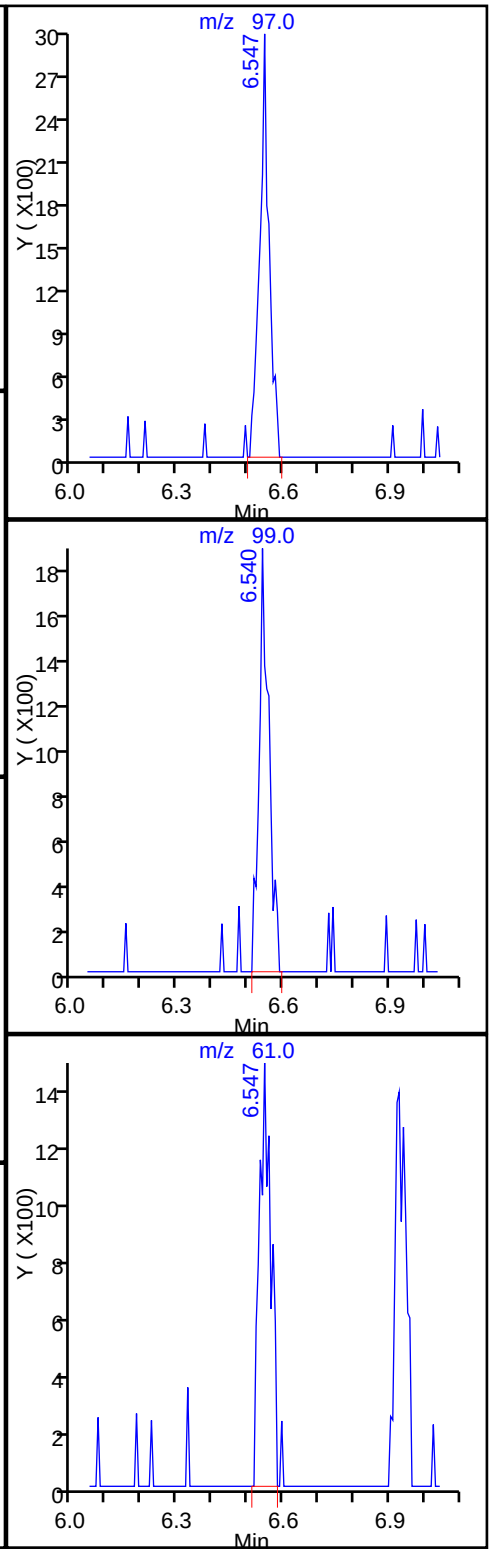
Purge Vol: 5.000 mL Dil. Factor: 400.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

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





Report Date: 29-May-2015 06:23:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D

Injection Date: 28-May-2015 18:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-9 Lab Sample ID: 180-44248-9

Client ID: HD-MW-75D-0/1-0

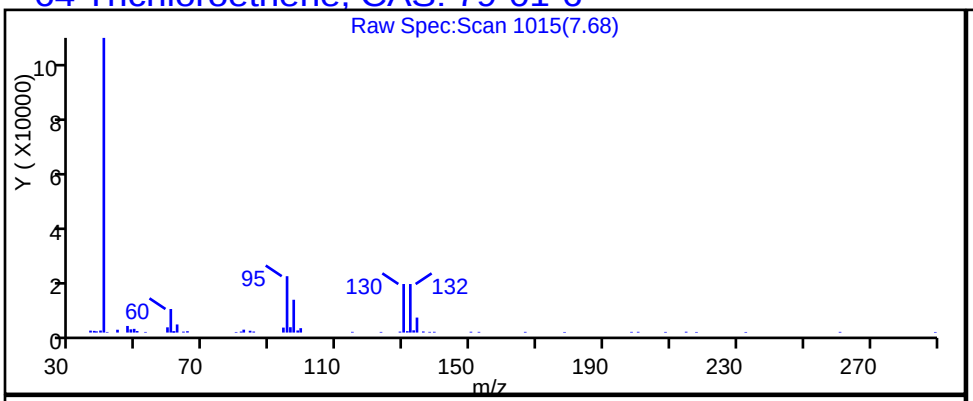
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 19

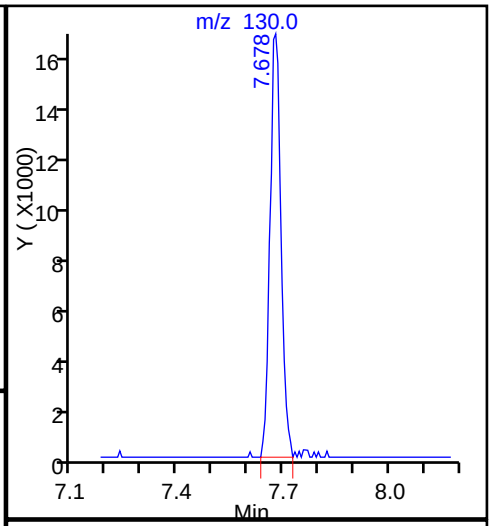
Purge Vol: 5.000 mL Dil. Factor: 400.0000

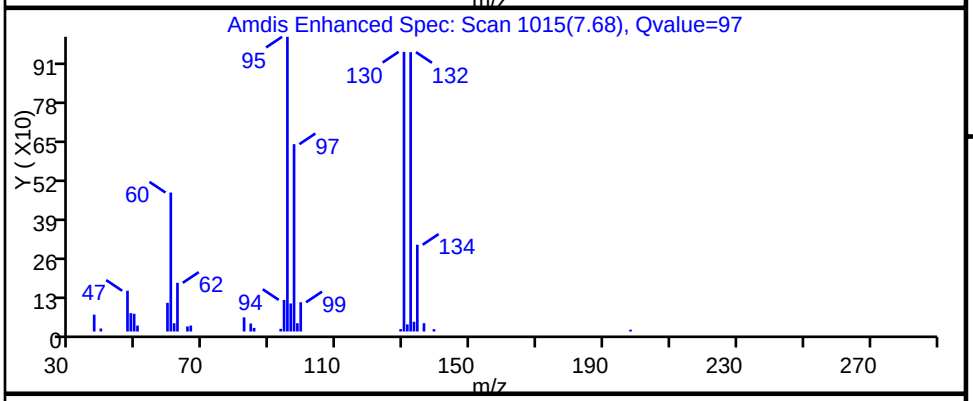
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

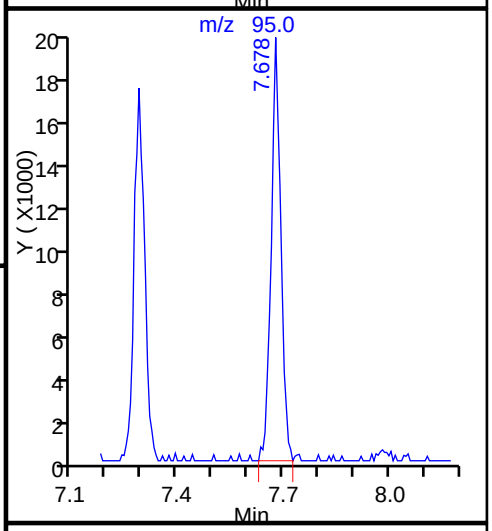
Column: DB-624 (0.18 mm) Detector MS SCAN

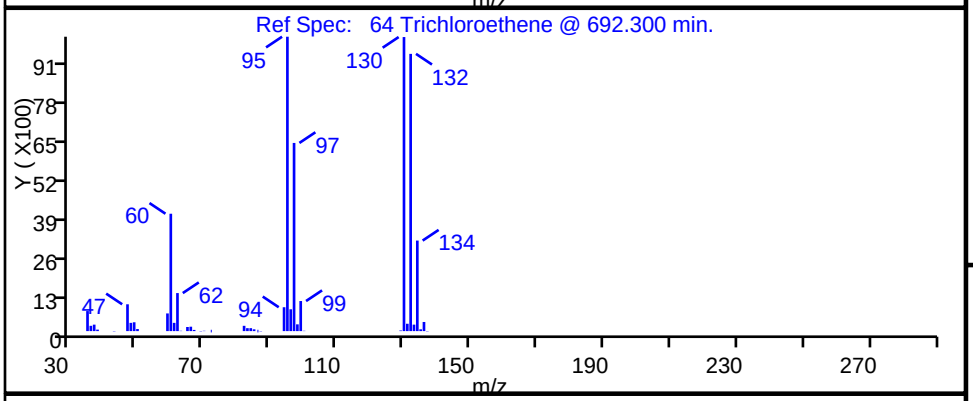
64 Trichloroethene, CAS: 79-01-6

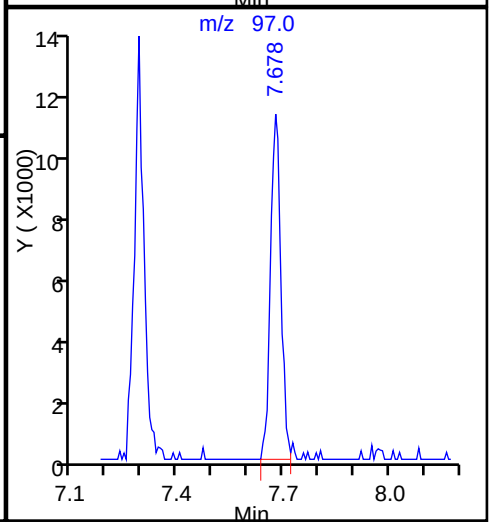


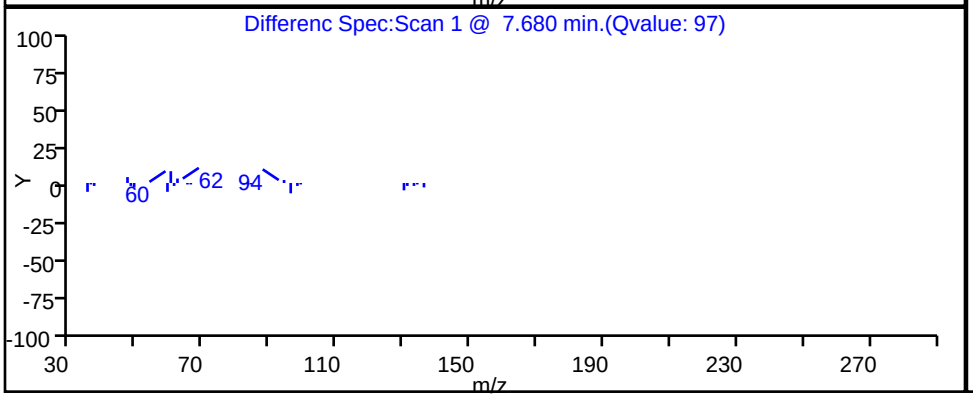












Report Date: 29-May-2015 06:23:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528019.D

Injection Date: 28-May-2015 18:49:30 Instrument ID: CHHP5

Lims ID: 180-44248-C-9 Lab Sample ID: 180-44248-9

Client ID: HD-MW-75D-0/1-0

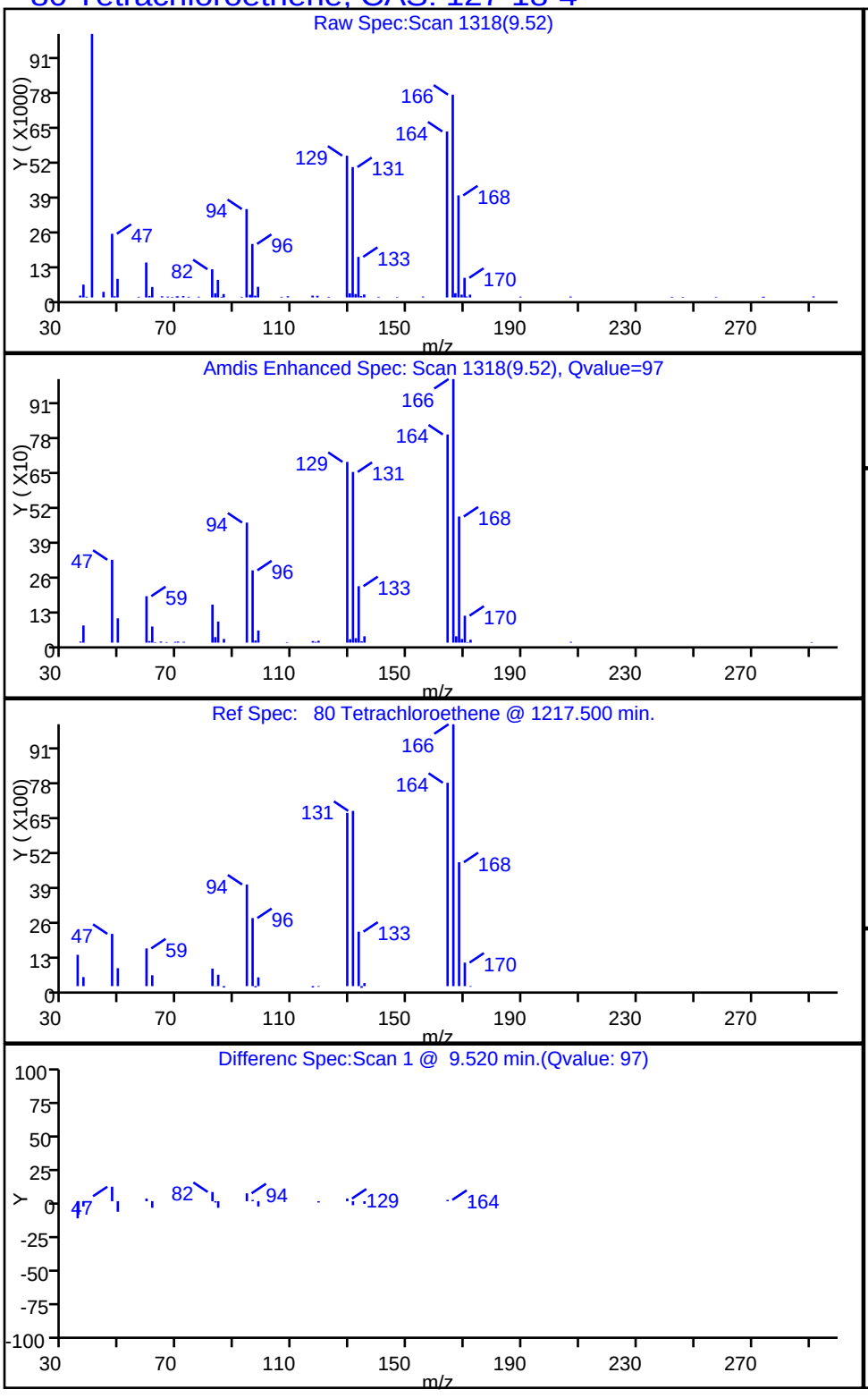
Operator ID: 001562 ALS Bottle#: 18 Worklist Smp#: 19

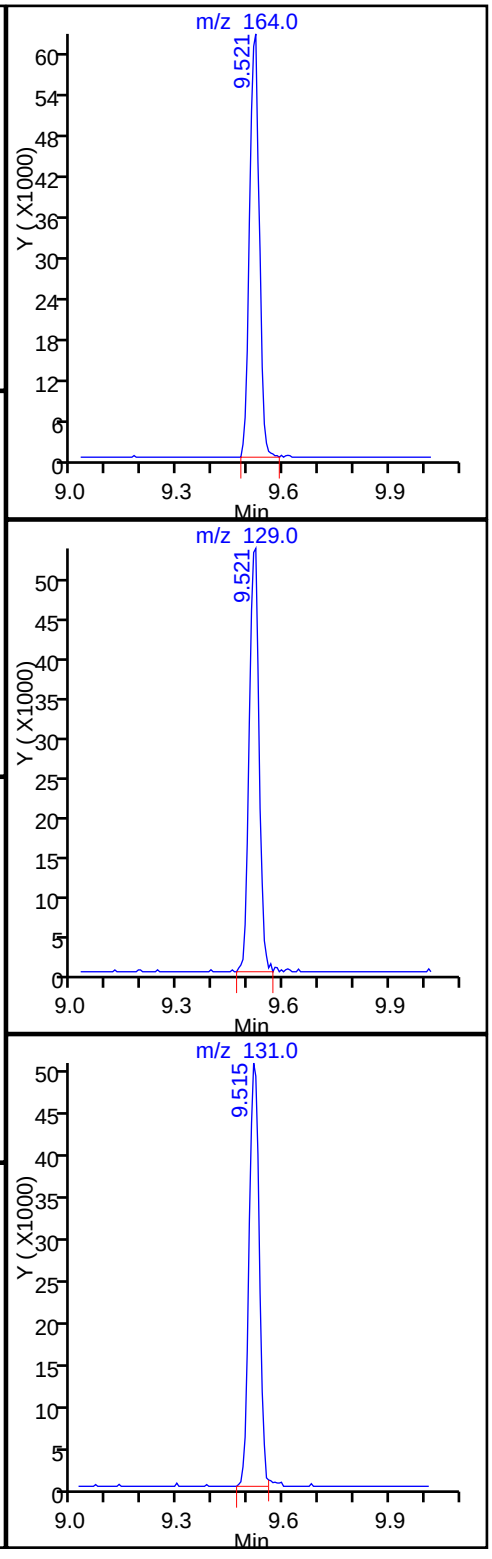
Purge Vol: 5.000 mL Dil. Factor: 400.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

80 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-44248-10

Matrix: Water | Lab File ID: 50528020.D

Analysis Method: 8260C | Date Collected: 05/19/2015 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 19:13

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	13		10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	6.6	J	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	4.9	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	140		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	21		10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	150		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	96		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 | Lab Sample ID: 180-44248-10

Matrix: Water | Lab File ID: 50528020.D

Analysis Method: 8260C | Date Collected: 05/19/2015 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 19:13

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D
Lims ID: 180-44248-E-10 Lab Sample ID: 180-44248-10
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 28-May-2015 19:13:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-44248-E-10, 10x
Misc. Info.: 180-0007155-020
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:25:09 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:25:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.267	4.277	-0.010	0	135401	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.289	0.002	99	404565	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.385	0.002	88	85574	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.727	0.003	96	105378	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.567	6.559	0.008	93	98069	56.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.936	-0.004	0	129224	59.4	
$ 7 Toluene-d8 (Surr)	98	8.933	8.937	-0.004	95	341559	53.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.571	-0.003	88	98987	43.4	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.233				ND	
16 Chloroethane	64		2.397				ND	
22 1,1-Dichloroethene	96	3.343	3.347	-0.004	94	13028	6.72	
24 Acetone	43	3.440	3.444	-0.004	76	3487	4.37	
26 Carbon disulfide	76		3.626				ND	
31 Methylene Chloride	84	4.146	4.143	0.003	71	15226	3.28	
33 Acrylonitrile	53		4.521				ND	
34 trans-1,2-Dichloroethene	96		4.563				ND	
35 Methyl tert-butyl ether	73		4.575				ND	
37 1,1-Dichloroethane	63	5.210	5.196	0.014	89	9971	2.46	
45 cis-1,2-Dichloroethene	96	5.953	5.944	0.009	83	163715	69.0	
46 2-Butanone (MEK)	43		5.962				ND	
49 Chlorobromomethane	128		6.236				ND	
52 Chloroform	83	6.403	6.382	0.021	1	1930	0.5316	M
53 1,1,1-Trichloroethane	97	6.549	6.540	0.009	97	29397	10.5	
56 Carbon tetrachloride	117		6.717				ND	
58 Benzene	78		6.942				ND	
59 1,2-Dichloroethane	62		7.021				ND	
64 Trichloroethene	130	7.674	7.678	-0.004	97	176307	76.3	
67 1,2-Dichloropropane	63		7.946				ND	
70 1,4-Dioxane	88		8.025				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.232				ND	
74 cis-1,3-Dichloropropene	75		8.676				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828				ND	
76 Toluene	91		9.004				ND	
77 trans-1,3-Dichloropropene	75		9.254				ND	
79 1,1,2-Trichloroethane	97		9.448				ND	
80 Tetrachloroethene	164	9.517	9.515	0.002	94	73566	47.9	
82 2-Hexanone	43		9.661				ND	
84 Chlorodibromomethane	129		9.819				ND	
85 Ethylene Dibromide	107		9.929				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.513				ND	
90 Ethylbenzene	106		10.513				ND	
91 m-Xylene & p-Xylene	106		10.653				ND	
92 o-Xylene	106		11.030				ND	
93 Styrene	104		11.048				ND	
94 Bromoform	173		11.237				ND	
99 1,1,2,2-Tetrachloroethane	83		11.711				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

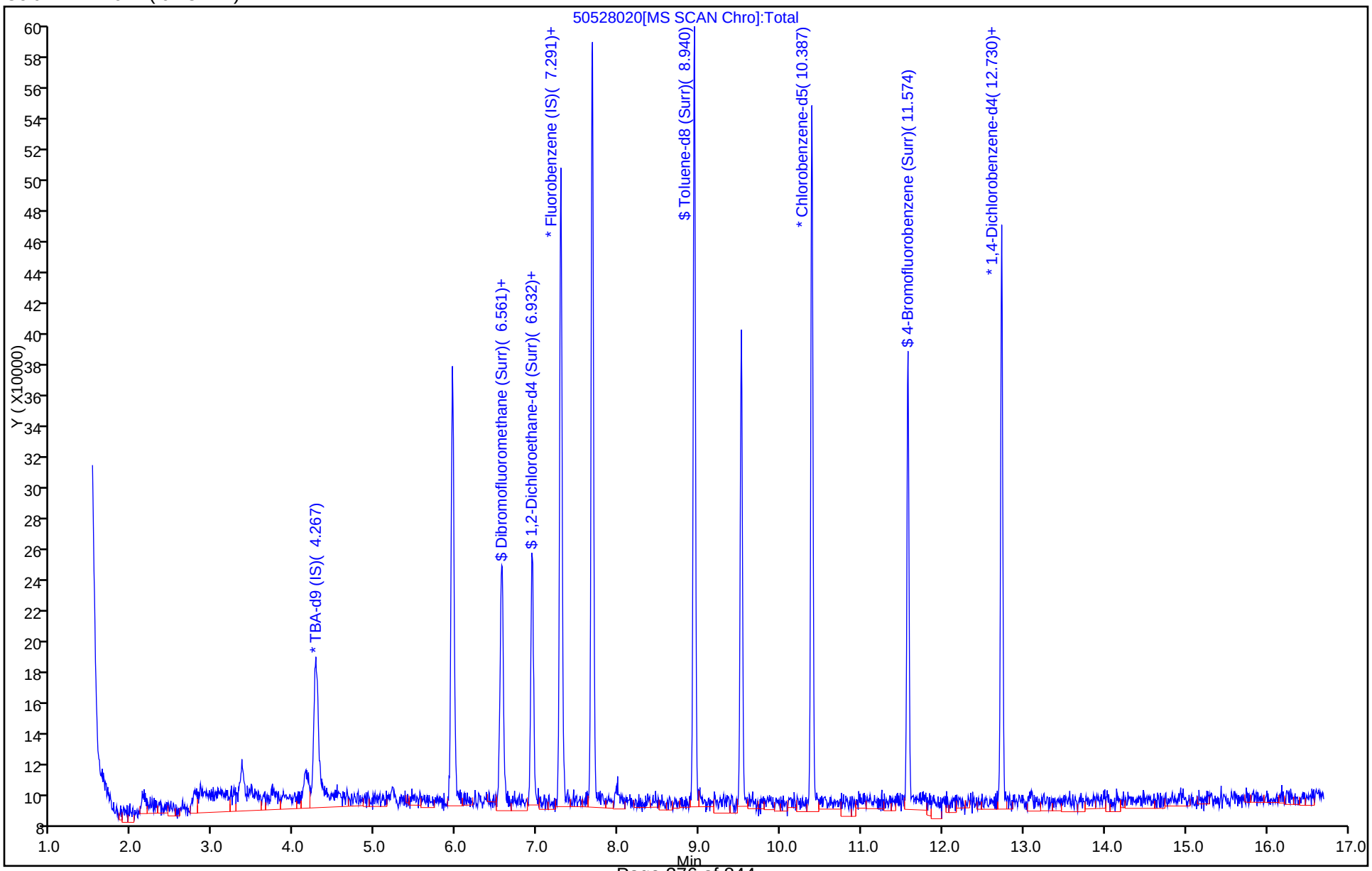
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D				
Injection Date:	28-May-2015 19:13:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-E-10	Lab Sample ID:	180-44248-10	Worklist Smp#:	20
Client ID:	HD-MW-7-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

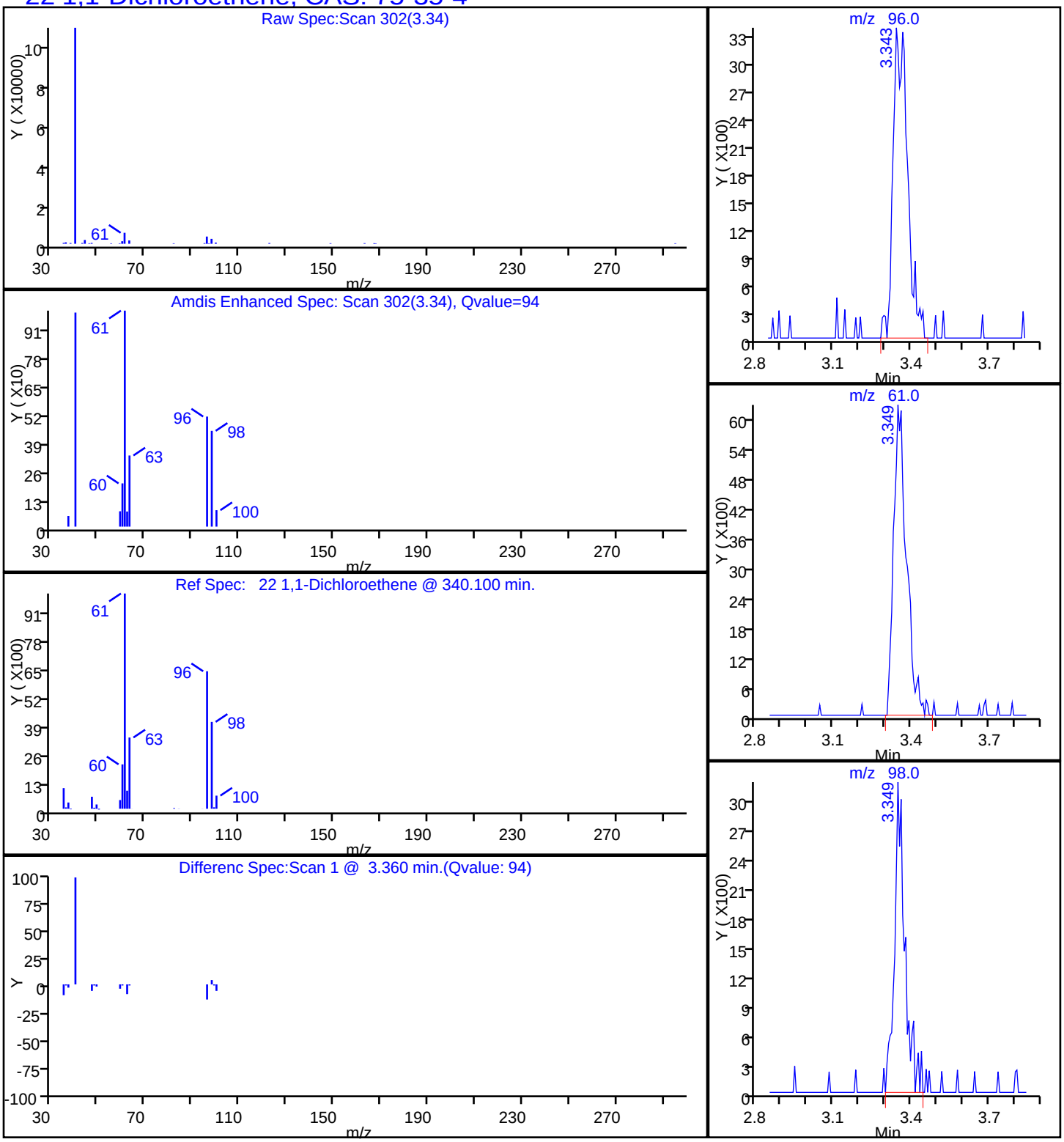


Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D		
Injection Date:	28-May-2015 19:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-10	Lab Sample ID:	180-44248-10
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D

Injection Date: 28-May-2015 19:13:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-10 Lab Sample ID: 180-44248-10

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

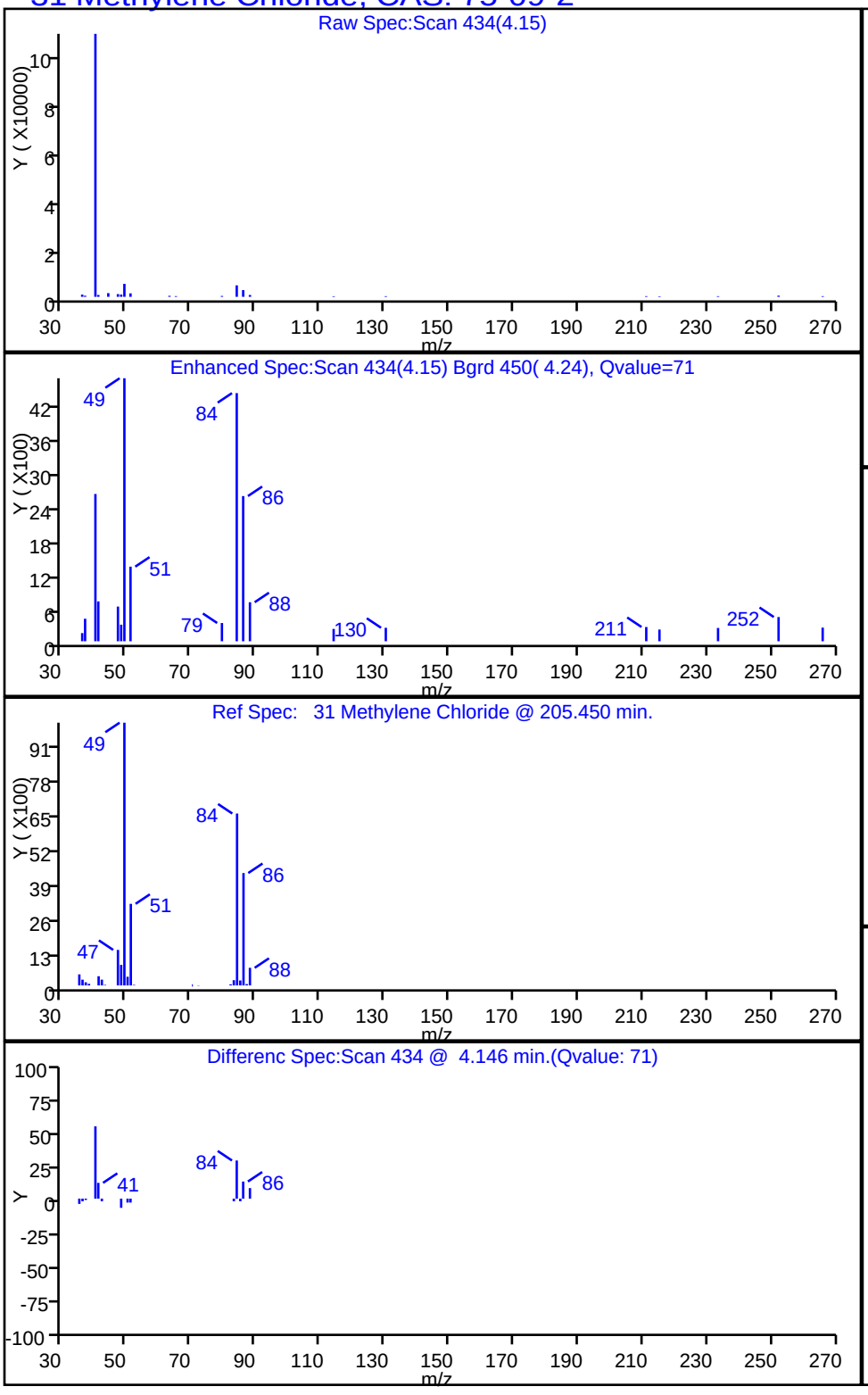
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 20

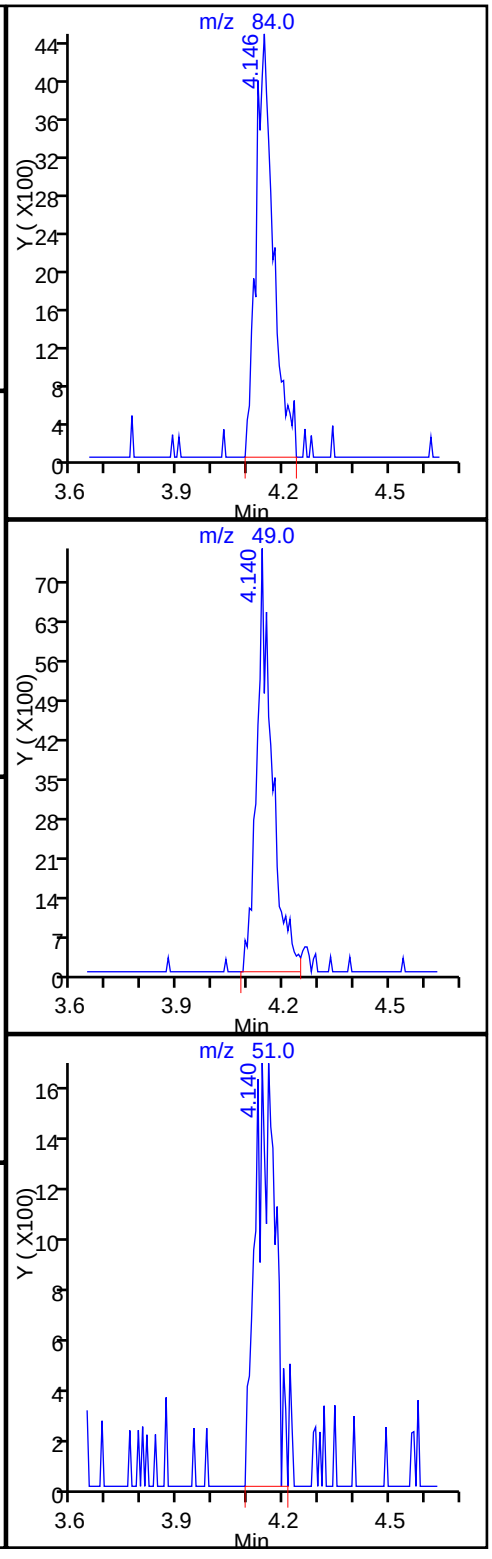
Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

31 Methylene Chloride, CAS: 75-09-2





Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D

Injection Date: 28-May-2015 19:13:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-10 Lab Sample ID: 180-44248-10

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

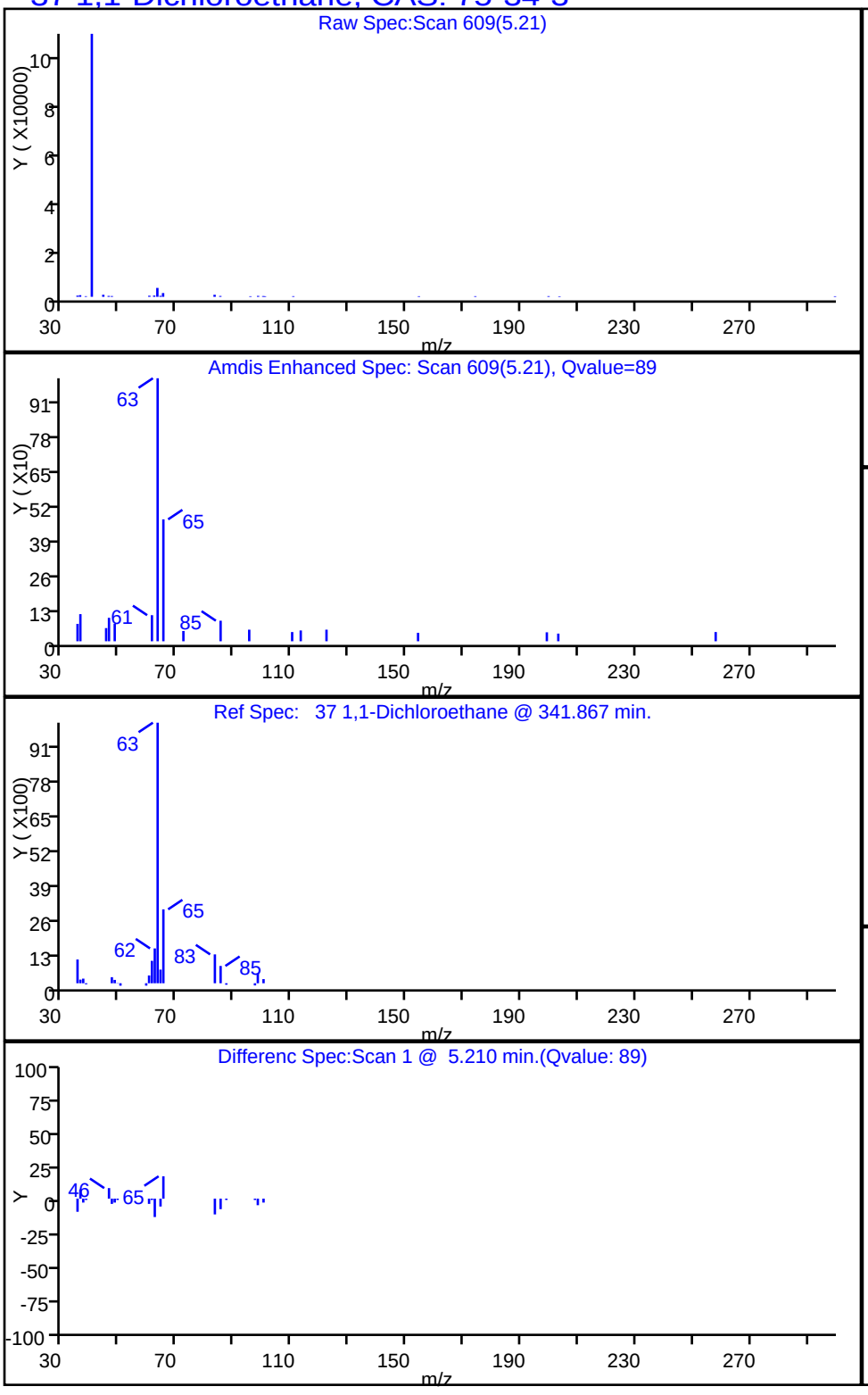
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 20

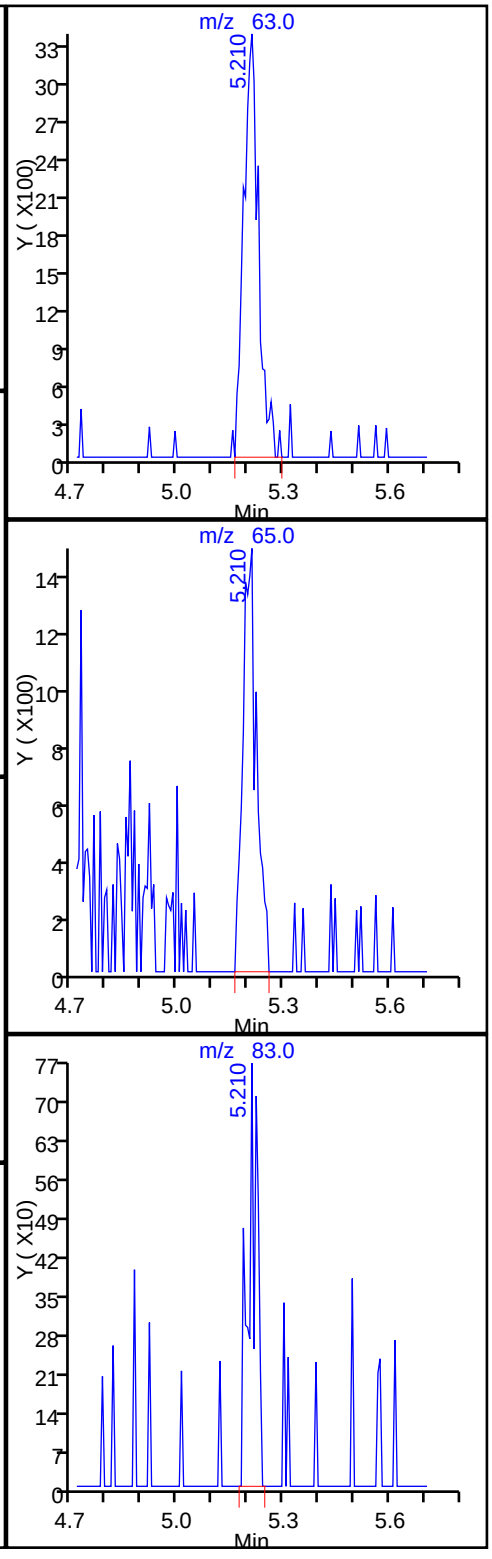
Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

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





Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

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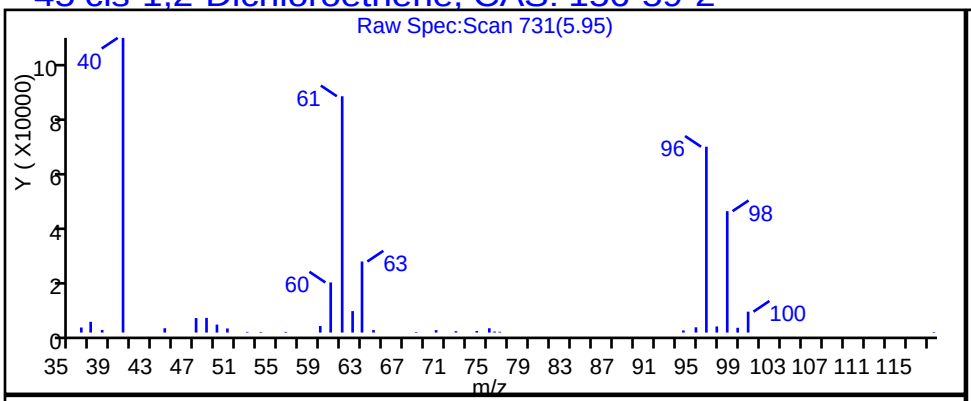
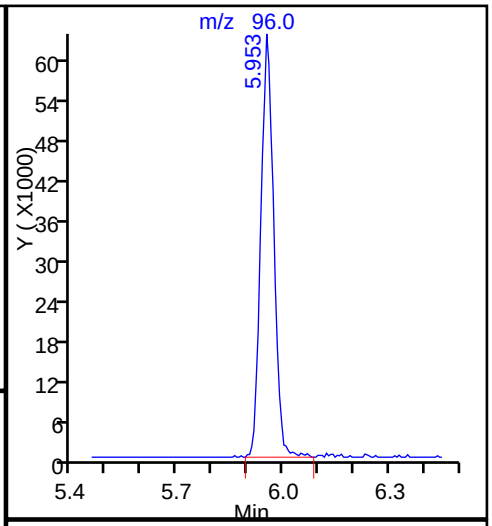
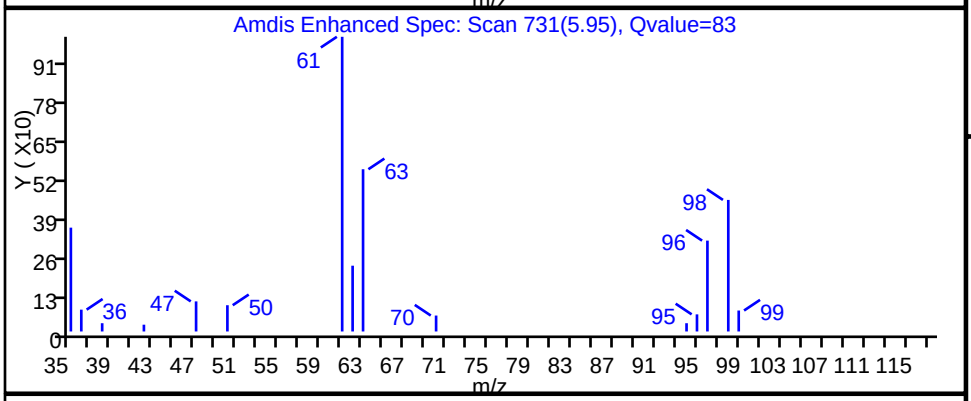
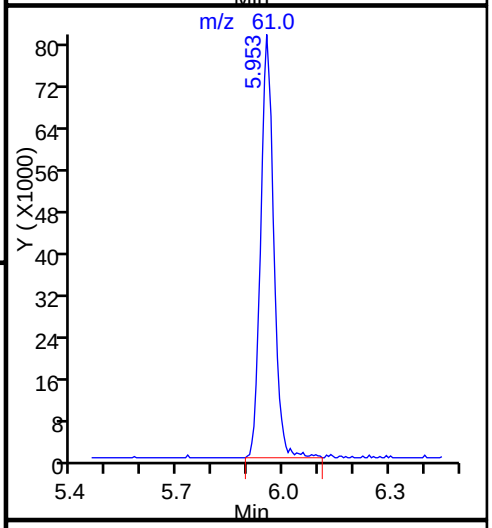
Injection Date:	28-May-2015 19:13:30	Instrument ID:	CHHP5
Lims ID:	180-44248-E-10	Lab Sample ID:	180-44248-10
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

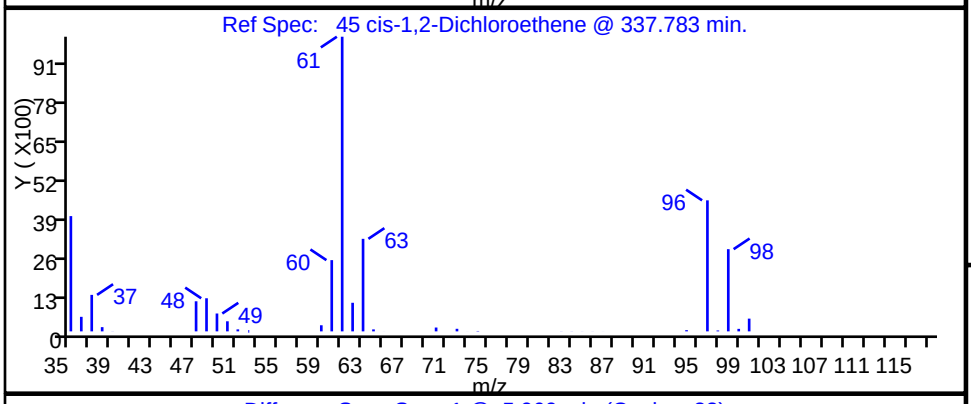
45 cis-1,2-Dichloroethene, CAS: 156-59-2

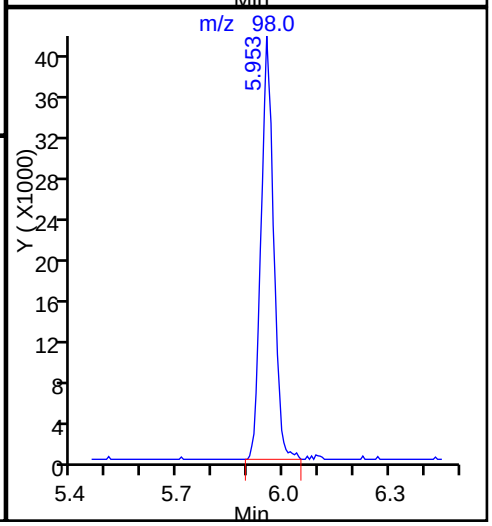


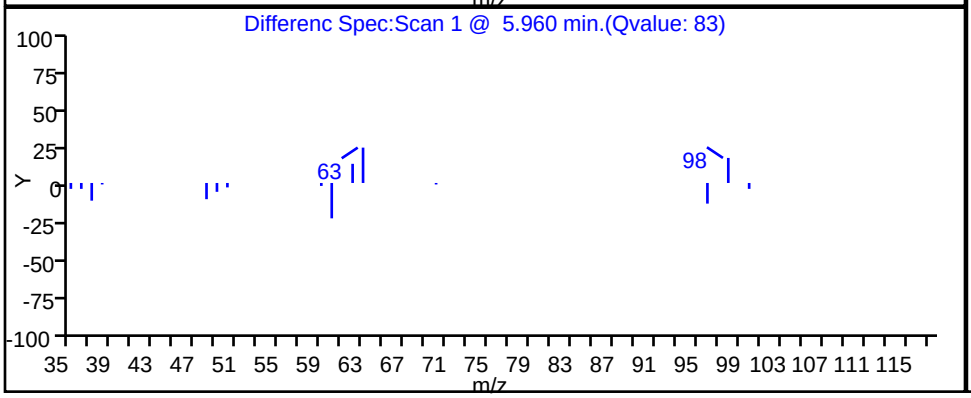












Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D

Injection Date: 28-May-2015 19:13:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-10 Lab Sample ID: 180-44248-10

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

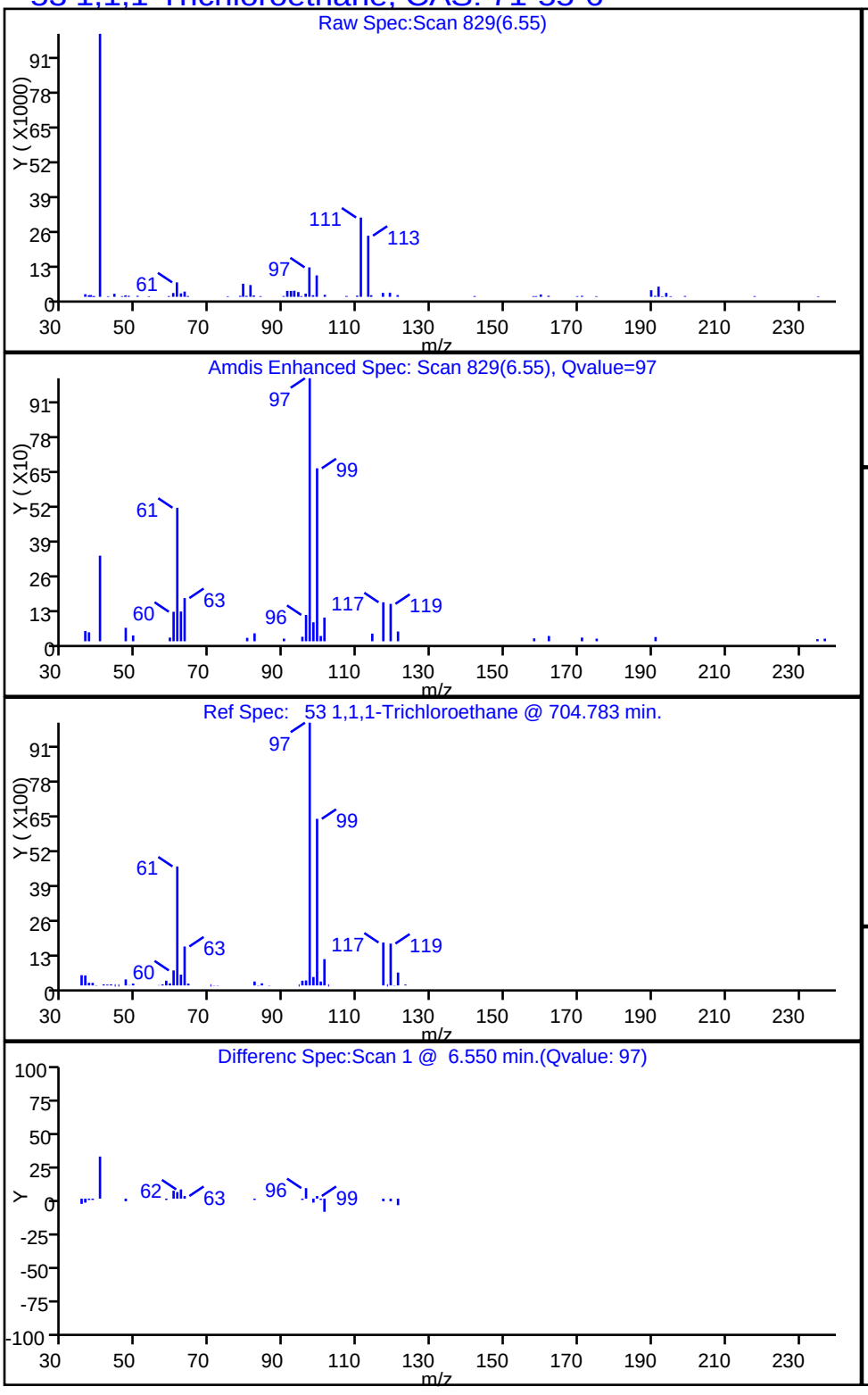
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 20

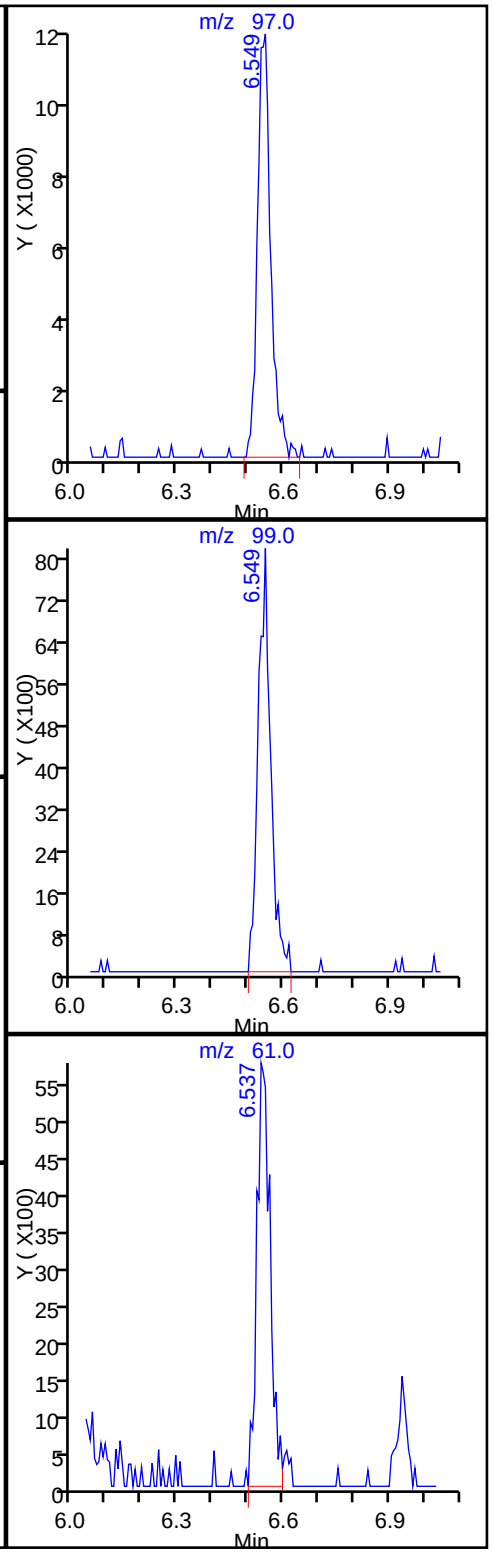
Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

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





Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D		
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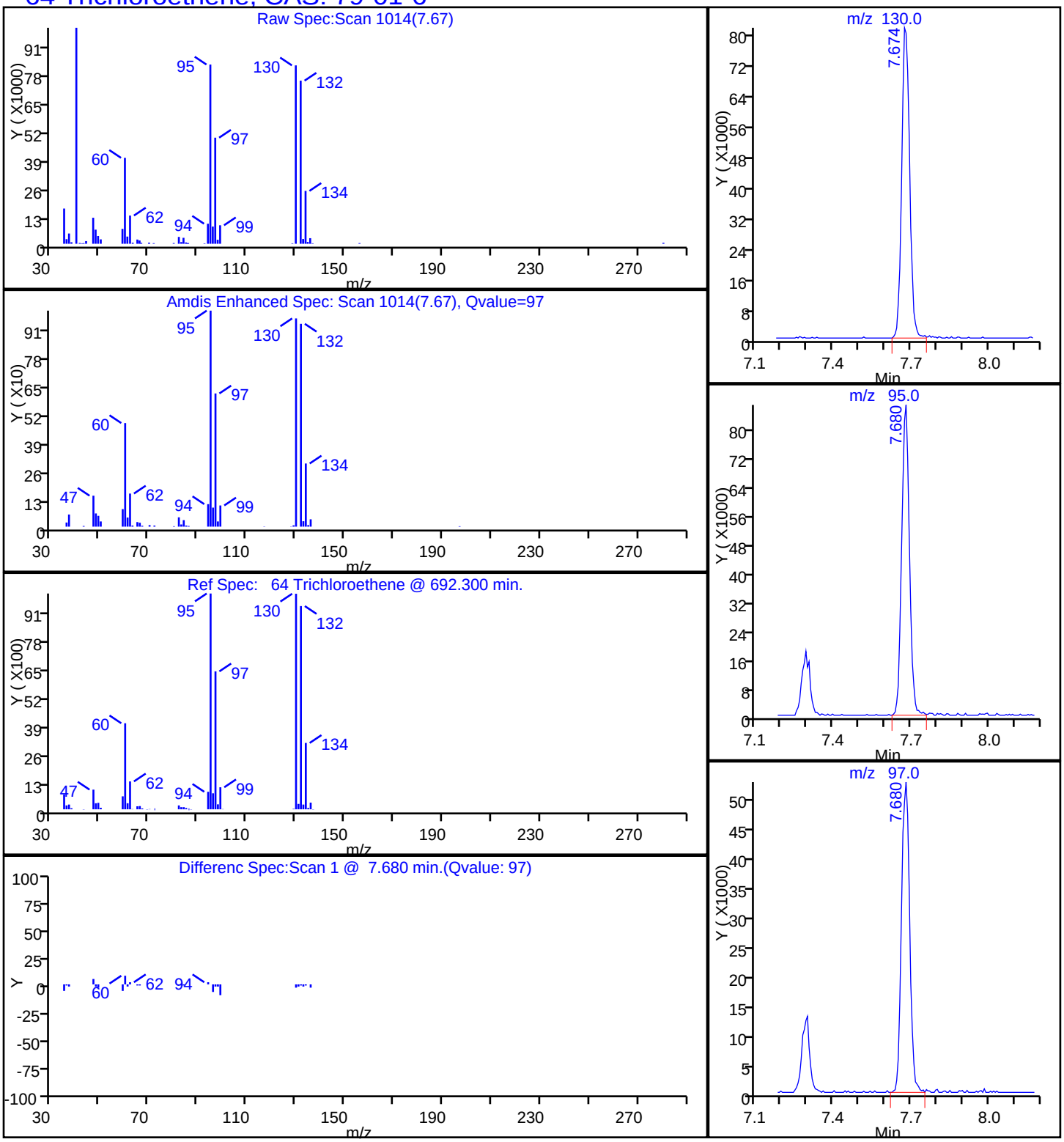
Lims ID:	180-44248-E-10	Lab Sample ID:	180-44248-10
Client ID:	HD-MW-7-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



Report Date: 29-May-2015 06:25:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D

Injection Date: 28-May-2015 19:13:30 Instrument ID: CHHP5

Lims ID: 180-44248-E-10 Lab Sample ID: 180-44248-10

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

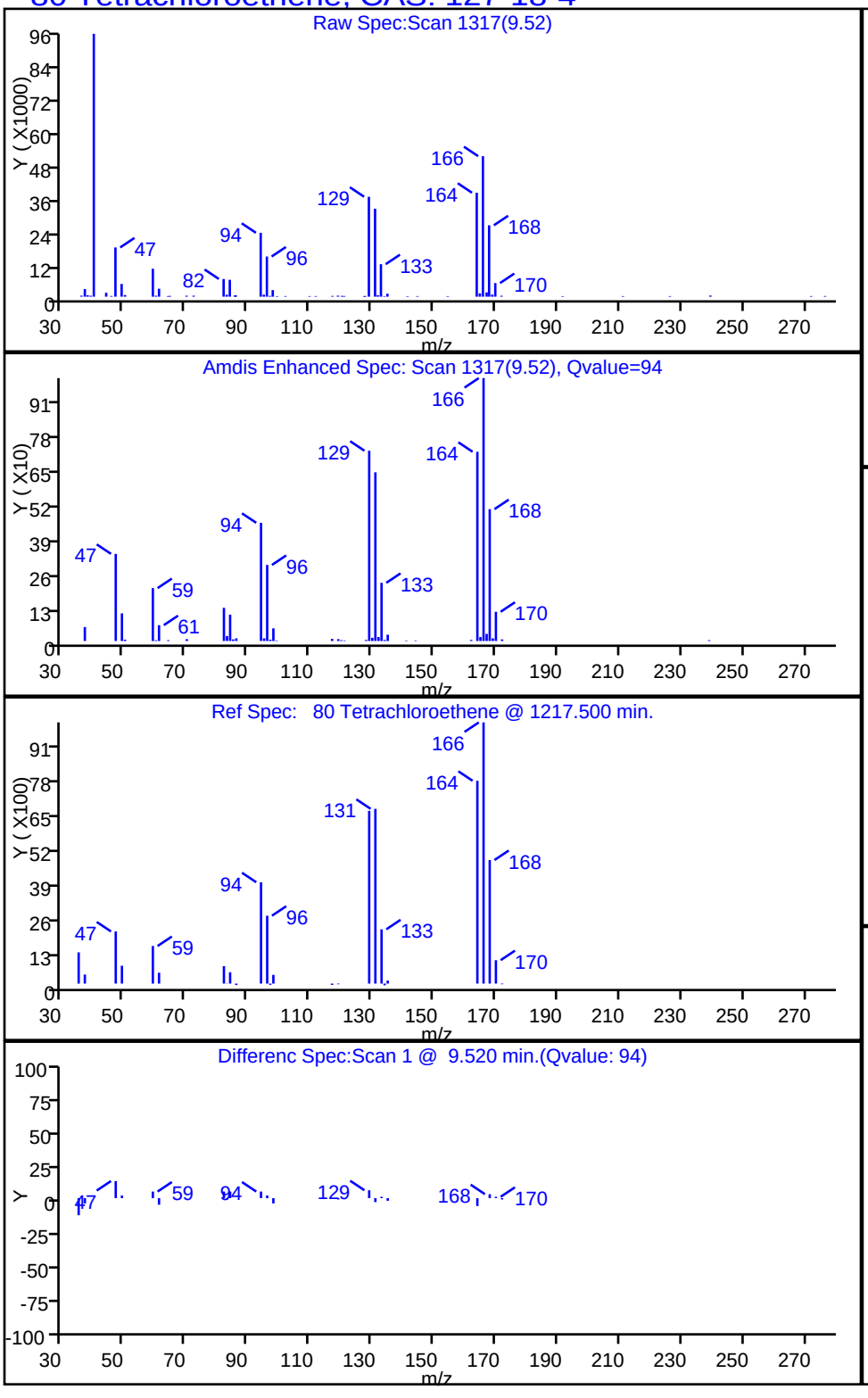
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 20

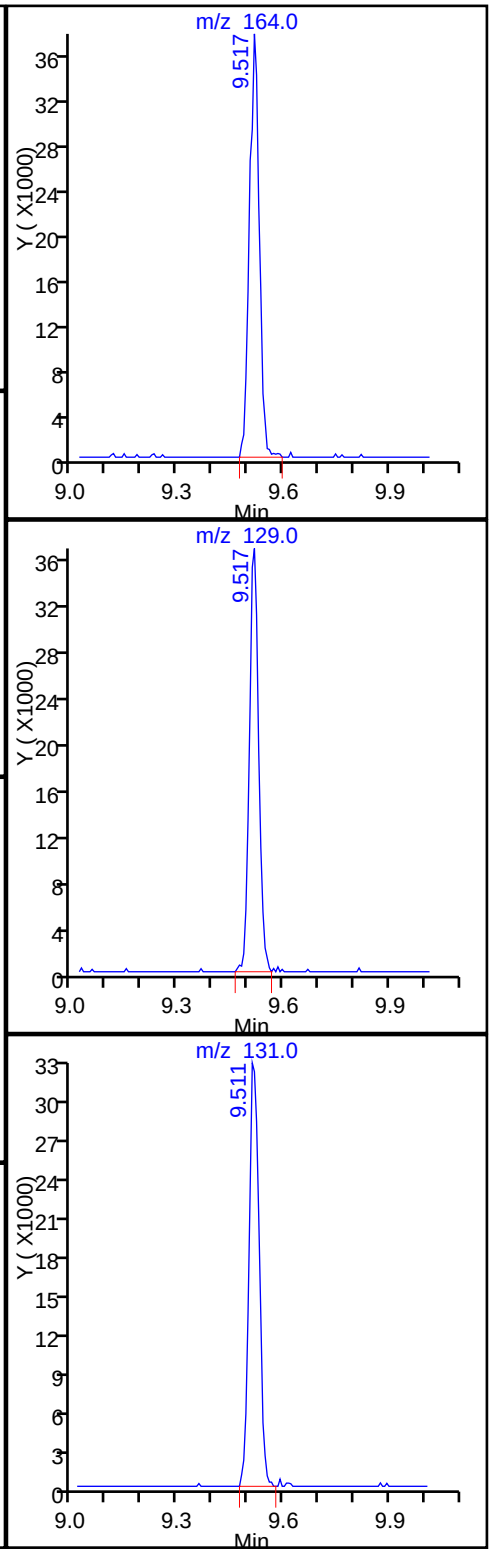
Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

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

80 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

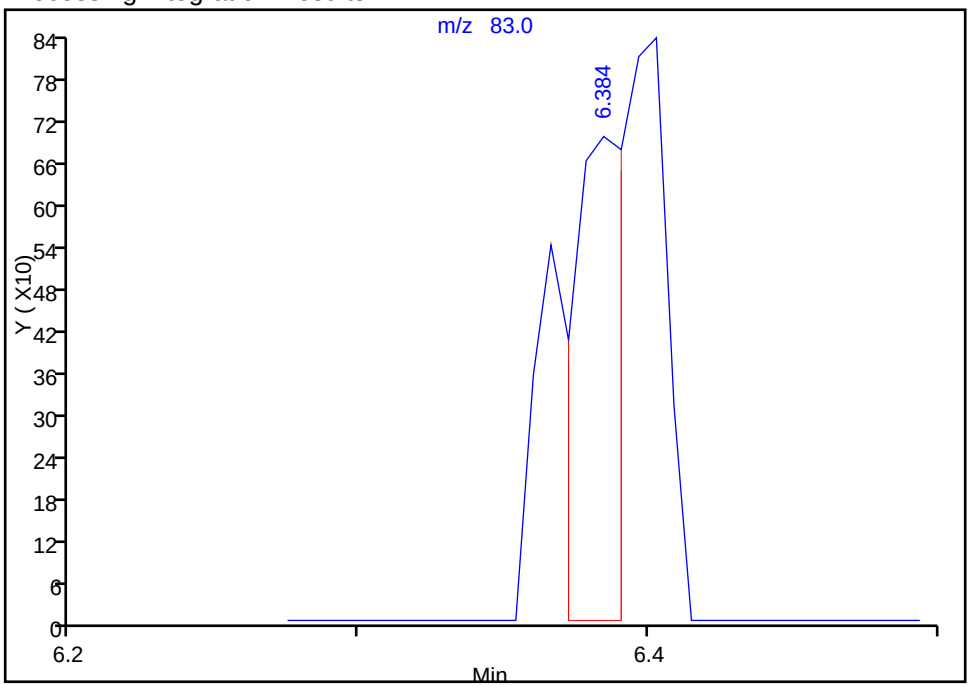
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528020.D				
Injection Date:	28-May-2015 19:13:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-E-10	Lab Sample ID:	180-44248-10		
Client ID:	HD-MW-7-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

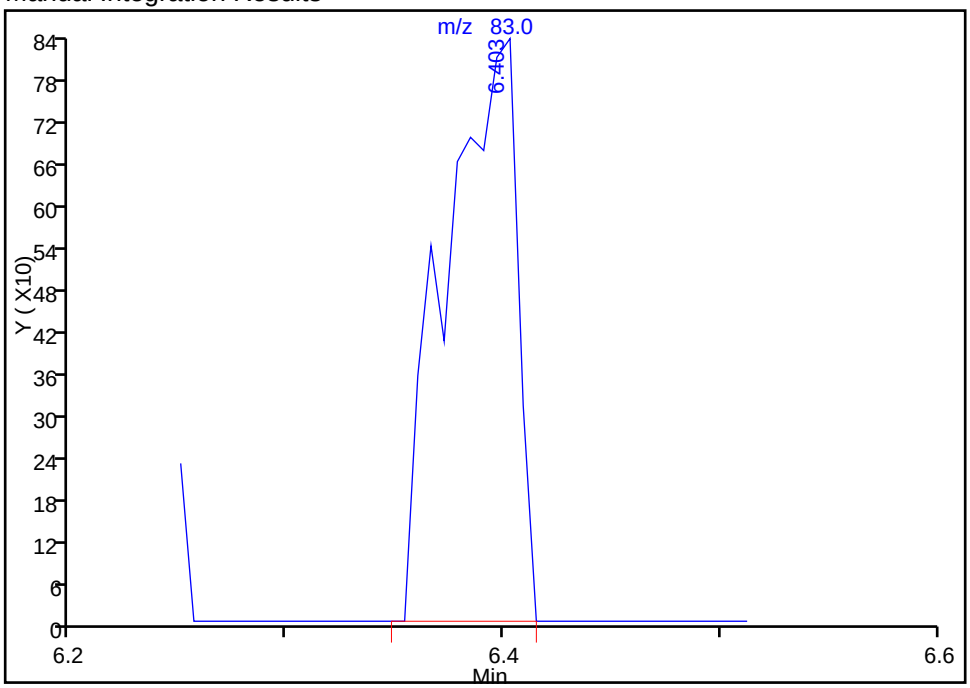
Processing Integration Results

RT: 6.38
Area: 890
Amount: 0.245135
Amount Units: ng



Manual Integration Results

RT: 6.40
Area: 1930
Amount: 0.531584
Amount Units: ng



Reviewer: fergusond, 29-May-2015 06:25:09
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-QC2-0/1-0 | Lab Sample ID: 180-44248-11

Matrix: Water | Lab File ID: 50527027.D

Analysis Method: 8260C | Date Collected: 05/19/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 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.: 142864 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-QC2-0/1-0 Lab Sample ID: 180-44248-11

Matrix: Water Lab File ID: 50527027.D

Analysis Method: 8260C Date Collected: 05/19/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2015 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.: 142864 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527027.D
Lims ID: 180-44248-A-11 Lab Sample ID: 180-44248-11
Client ID: HD-QC2-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 20:50:30 ALS Bottle#: 24 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44248-A-11
Misc. Info.: 180-0007136-027
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:51:50 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:51:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.274	-0.006	0	125287	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.292	-0.007	98	324920	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	73507	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	96	91929	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.567	6.561	0.006	93	80324	57.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.933	-0.001	0	106873	61.2	
$ 7 Toluene-d8 (Surr)	98	8.940	8.934	0.006	94	276726	50.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	87	89065	45.5	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96		3.343				ND	
24 Acetone	43	3.452	3.441	0.011	62	2635	4.11	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96		5.953				ND	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.366	6.379	-0.013	1	1149	0.3940	M
53 1,1,1-Trichloroethane	97		6.543				ND	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130		7.681				ND	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				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		8.825				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		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

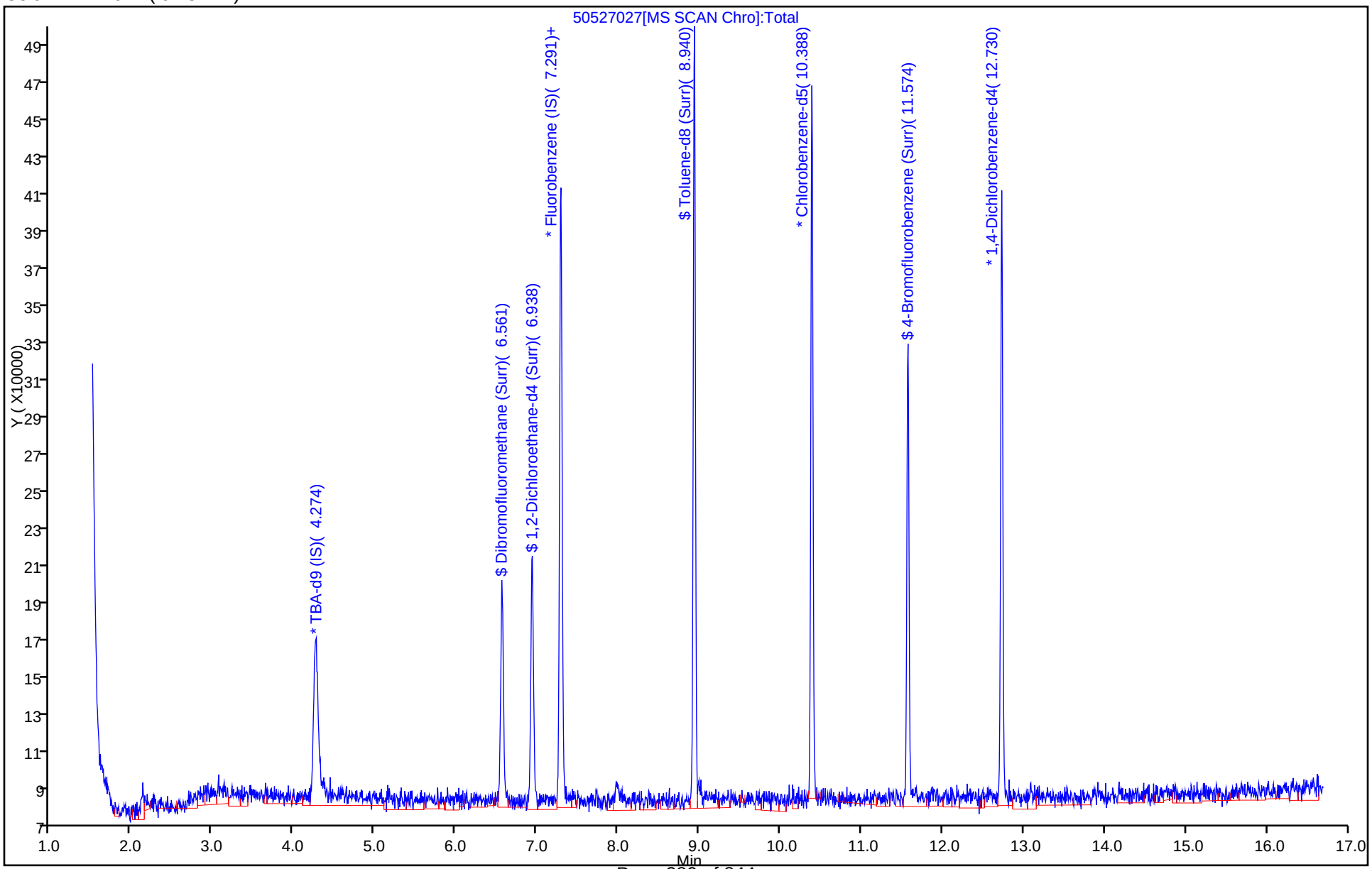
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:51:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527027.D				
Injection Date:	27-May-2015 20:50:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44248-A-11	Lab Sample ID:	180-44248-11	Worklist Smp#:	27
Client ID:	HD-QC2-0/1-0				
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)



Manual Integration/User Assign Peak Report

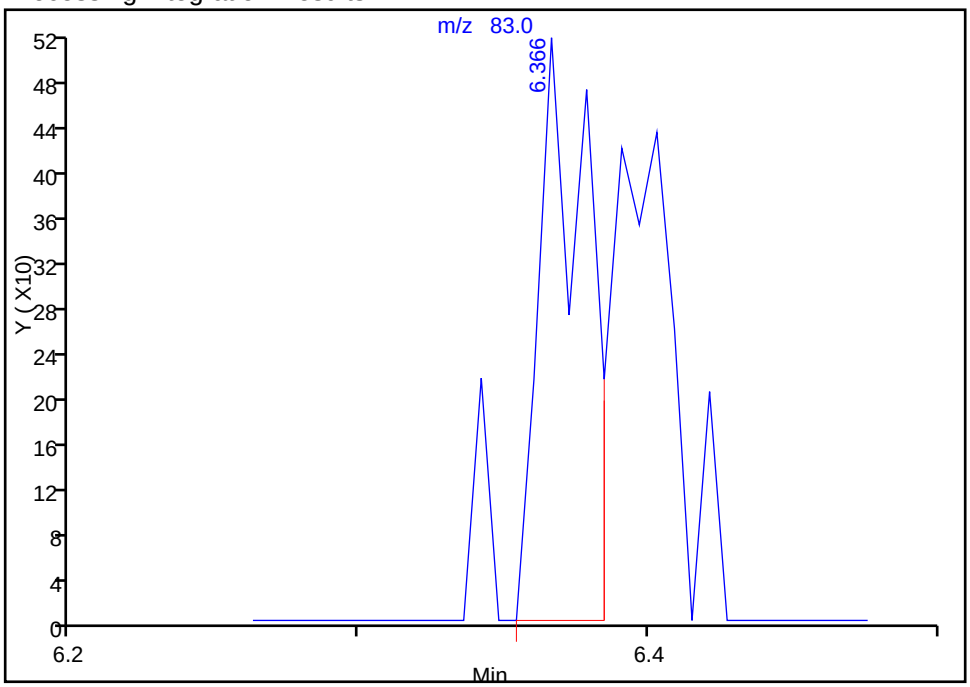
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527027.D				
Injection Date:	27-May-2015 20:50:30	Instrument ID:	CHHP5		
Lims ID:	180-44248-A-11	Lab Sample ID:	180-44248-11		
Client ID:	HD-QC2-0/1-0				
Operator ID:	001562	ALS Bottle#:	24	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

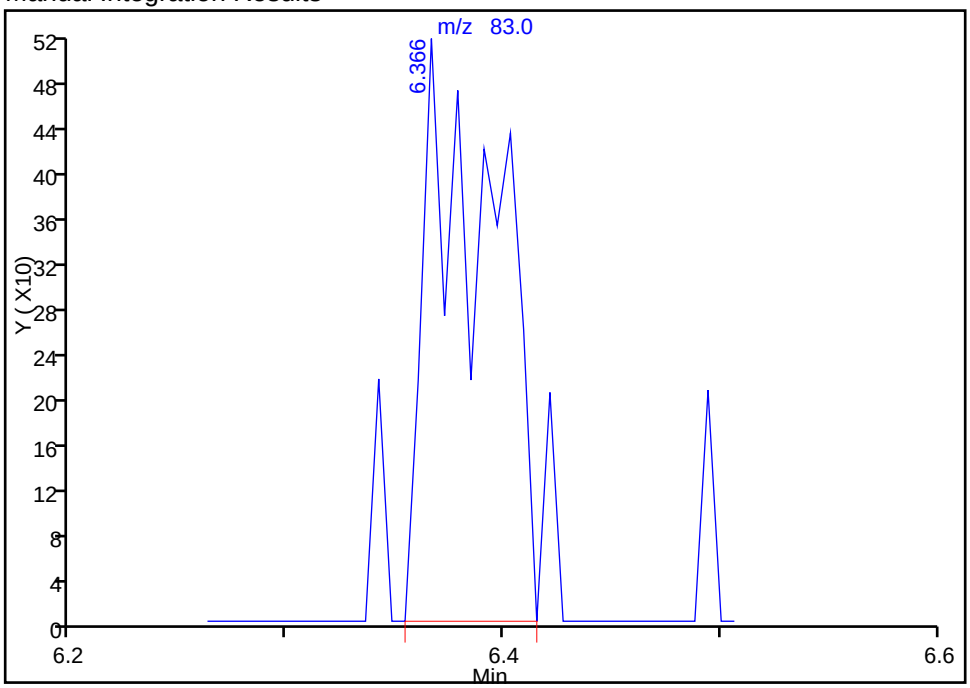
Processing Integration Results

RT: 6.37
Area: 616
Amount: 0.211255
Amount Units: ng



Manual Integration Results

RT: 6.37
Area: 1149
Amount: 0.394046
Amount Units: ng



Reviewer: fergusond, 28-May-2015 07:51:50
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-141828/16	50516016.D
Level 2	IC 180-141828/6	50516006.D
Level 3	ICIS 180-141828/7	50516007.D
Level 4	IC 180-141828/8	50516008.D
Level 5	IC 180-141828/9	50516009.D
Level 6	IC 180-141828/10	50516010.D
Level 7	IC 180-141828/11	50516011.D
Level 8	IC 180-141828/12	50516012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3385 0.3363	0.3560 0.3417	0.3413 0.3412	0.3253	0.3835	Ave		0.3455			0.1000	5.1		20.0			
Chloromethane	0.4972 0.4092	0.4387 0.4212	0.4451 0.4293	0.4127	0.4651	Ave		0.4398			0.1000	6.7		20.0			
Vinyl chloride	0.4006 0.3890	0.4089 0.3869	0.4064 0.3809	0.3671	0.4320	Ave		0.3965			0.1000	5.0		20.0			
1,3-Butadiene	0.5275 0.4357	0.4732 0.4327	0.4616 0.4199	0.4224	0.4843	Ave		0.4572			0.0100	8.1		20.0			
Bromomethane	0.2384 0.1645	0.1879 0.1624	0.1876 0.1578	0.1717	0.1840	Ave		0.1818			0.0500	14.1		20.0			
Chloroethane	0.2370 0.1972	0.2107 0.1980	0.2103 0.2121	0.1976	0.2179	Ave		0.2101			0.0500	6.4		20.0			
Dichlorofluoromethane	0.5457 0.4464	0.4955 0.4421	0.4726 0.4516	0.4445	0.5048	Ave		0.4754			0.0100	7.8		20.0			
Trichlorofluoromethane	0.4434 0.4495	0.4515 0.4407	0.4477 0.4353	0.4170	0.4969	Ave		0.4478			0.1000	5.1		20.0			
Ethyl ether	0.2752 0.2328	0.2484 0.2443	0.2562 0.2554	0.2474	0.2630	Ave		0.2528			0.0100	5.1		20.0			
Acrolein	0.0409 0.0401	0.0430 0.0424	0.0415 0.0440	0.0405	0.0450	Ave		0.0422			0.0100	4.1		20.0			
1,1-Dichloroethene	0.2694 0.2302	0.2343 0.2340	0.2361 0.2391	0.2162	0.2571	Ave		0.2396			0.1000	6.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2620 0.2470	0.2521 0.2502	0.2490 0.2506	0.2286	0.2656	Ave		0.2506			0.1000	4.4		20.0			
Acetone	0.1179 0.0860	0.1184 0.0882	0.0942 0.0969	0.0861	0.1013	Ave		0.0986			0.0500	13.4		20.0			
Iodomethane	0.3980 0.3535	0.3582 0.3621	0.3537 0.3693	0.3503	0.3923	Ave		0.3672			0.0100	5.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.6740 0.6242	0.6146 0.6432	0.6281 0.6537	0.5903	0.6794	Ave		0.6384			0.1000	4.7		20.0			
Allyl chloride	0.1617 0.1556	0.1604 0.1641	0.1555 0.1663	0.1438	0.1678	Ave		0.1594			0.0100	4.9		20.0			
Methyl acetate	0.2628 0.2189	0.2307 0.2270	0.2223 0.2392	0.2259	0.2467	Ave		0.2342			0.1000	6.3		20.0			
Methylene Chloride	0.4682 0.2548	0.2937 0.2675	0.2726 0.2782	0.2564	0.2952	Lin2	1.0305	0.2599			0.1000				0.9970		0.9900
tert-Butyl alcohol	1.0839 1.1096	1.1469 1.1479	1.1325 1.1020	1.1350	1.0839	Ave		1.1177			0.0100	2.4		20.0			
Acrylonitrile	0.1243 0.1126	0.1163 0.1156	0.1141 0.1214	0.1147	0.1270	Ave		0.1182			0.0100	4.5		20.0			
trans-1,2-Dichloroethene	0.2809 0.2584	0.2564 0.2666	0.2573 0.2740	0.2439	0.2831	Ave		0.2651			0.1000	5.1		20.0			
Methyl tert-butyl ether	0.7788 0.6921	0.7138 0.7151	0.7112 0.7599	0.6997	0.7757	Ave		0.7308			0.1000	4.8		20.0			
Hexane	0.4085 0.4167	0.4154 0.4231	0.4154 0.4248	0.3804	0.4578	Ave		0.4177			0.0100	5.1		20.0			
1,1-Dichloroethane	0.5390 0.4805	0.4866 0.4917	0.4985 0.5030	0.4694	0.5340	Ave		0.5003			0.2000	4.9		20.0			
Vinyl acetate	0.5005 0.5760	0.5682 0.5689	0.5654 0.5732	0.5546	0.5956	Ave		0.5628			0.0100	4.9		20.0			
2,2-Dichloropropane	0.2517 0.2489	0.2496 0.2500	0.2623 0.2516	0.2436	0.2729	Ave		0.2538			0.0100	3.7		20.0			
cis-1,2-Dichloroethene	0.3284 0.2792	0.2854 0.2868	0.2806 0.2995	0.2742	0.3107	Ave		0.2931			0.1000	6.3		20.0			
2-Butanone (MEK)	0.1677 0.1419	0.1525 0.1438	0.1384 0.1566	0.1419	0.1555	Ave		0.1498			0.0500	6.7		20.0			
Bromochloromethane	0.1506 0.1208	0.1268 0.1271	0.1251 0.1326	0.1215	0.1397	Ave		0.1305			0.0100	7.8		20.0			
Tetrahydrofuran	0.1275 0.0924	0.1004 0.0970	0.0964 0.1054	0.0937	0.1020	Ave		0.1018			0.0100	11.0		20.0			
Chloroform	0.5034 0.4282	0.4320 0.4402	0.4373 0.4498	0.4159	0.4829	Ave		0.4487			0.2000	6.6		20.0			
1,1,1-Trichloroethane	0.3227 0.3443	0.3421 0.3551	0.3559 0.3507	0.3254	0.3830	Ave		0.3474			0.1000	5.5		20.0			
Cyclohexane	0.5506 0.5226	0.5059 0.5313	0.5221 0.5282	0.4784	0.5696	Ave		0.5261			0.1000	5.2		20.0			
Carbon tetrachloride	0.2996 0.3151	0.3008 0.3222	0.3174 0.3197	0.2871	0.3426	Ave		0.3131			0.1000	5.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloropropene	0.3746 0.3656	0.3494 0.3751	0.3690 0.3704	0.3325	0.3910	Ave		0.3659			0.0100	4.9		20.0			
Isobutyl alcohol	0.0106 0.0084	0.0092 0.0088	0.0088 0.0106	0.0082	0.0100	Ave		0.0093		*	0.0100	10.4		20.0			
Benzene	1.2016 1.0695	1.0935 1.0795	1.0971 1.1109	1.0577	1.2036	Ave		1.1142			0.5000	5.1		20.0			
1,2-Dichloroethane	0.3368 0.3233	0.3289 0.3286	0.3231 0.3428	0.3251	0.3506	Ave		0.3324			0.1000	3.0		20.0			
n-Heptane	0.4104 0.3707	0.3453 0.3818	0.3561 0.3811	0.3355	0.3905	Ave		0.3714			0.0100	6.7		20.0			
Trichloroethene	0.3283 0.2734	0.2774 0.2781	0.2722 0.2850	0.2665	0.3036	Ave		0.2856			0.2000	7.2		20.0			
Methylcyclohexane	0.4556 0.4694	0.4577 0.4805	0.4823 0.4752	0.4346	0.5094	Ave		0.4706			0.1000	4.7		20.0			
1,2-Dichloropropane	0.2960 0.2835	0.2741 0.2912	0.2870 0.3038	0.2747	0.3053	Ave		0.2895			0.1000	4.1		20.0			
1,4-Dioxane	0.0016 0.0022	0.0023 0.0022	0.0023 0.0026	0.0021	0.0024	Ave		0.0022		*	0.0100	13.7		20.0			
Dibromomethane	0.1686 0.1412	0.1352 0.1447	0.1445 0.1533	0.1415	0.1542	Ave		0.1479			0.0100	7.1		20.0			
Bromodichloromethane	0.3057 0.3208	0.3119 0.3256	0.3118 0.3461	0.3072	0.3494	Ave		0.3223			0.2000	5.3		20.0			
cis-1,3-Dichloropropene	0.3953 0.4100	0.3919 0.4159	0.3919 0.4382	0.3866	0.4482	Ave		0.4097			0.2000	5.6		20.0			
4-Methyl-2-pentanone (MIBK)	1.3310 1.2167	1.3373 1.2281	1.3395 1.2056	1.2952	1.3744	Ave		1.2910			0.1000	5.1		20.0			
Toluene	5.1787 4.5088	5.0775 4.3926	5.1626 4.1766	4.6361	5.0090	Ave		4.7677			0.4000	8.1		20.0			
trans-1,3-Dichloropropene	1.4561 1.4301	1.4521 1.4209	1.4935 1.4015	1.3999	1.5035	Ave		1.4447			0.1000	2.7		20.0			
Ethyl methacrylate	1.5359 1.4062	1.4503 1.3709	1.5082 1.3669	1.4096	1.4592	Ave		1.4384			0.0100	4.3		20.0			
1,1,2-Trichloroethane	1.0014 0.8462	0.9249 0.8458	0.9347 0.8357	0.8867	0.9255	Ave		0.9001			0.1000	6.4		20.0			
Tetrachloroethene	0.9774 0.8615	0.9141 0.8517	0.9801 0.7880	0.8508	0.9491	Ave		0.8966			0.2000	7.7		20.0			
1,3-Dichloropropane	2.0951 1.5830	1.7359 1.5550	1.7446 1.5570	1.6493	1.7053	Ave		1.7032			0.0100	10.3		20.0			
2-Hexanone	0.9888 0.8772	0.9645 0.8618	0.9416 0.8375	0.9227	0.9498	Ave		0.9180			0.1000	5.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromochloromethane	0.8907 0.8631	0.8647 0.8653	0.9291 0.8596	0.8698	0.9261	Ave		0.8836			0.1000	3.3		20.0			
1,2-Dibromoethane (EDB)	1.0668 0.8785	0.9211 0.8712	0.9563 0.8546	0.9002	0.9512	Ave		0.9250			0.1000	7.4		20.0			
3-Chlorobenzotrifluoride	1.9370 1.5029	1.7812 1.5158	1.6907 1.3185	1.6012	1.6394	Ave		1.6233			0.0100	11.6		20.0			
Chlorobenzene	3.6477 2.8850	3.1879 2.8361	3.2309 2.7179	2.9847	3.1958	Ave		3.0858			0.5000	9.5		20.0			
4-Chlorobenzotrifluoride	1.6713 1.4123	1.6339 1.4191	1.5691 1.2405	1.5029	1.5393	Ave		1.4986			0.0100	9.3		20.0			
1,1,1,2-Tetrachloroethane	0.9963 1.0145	1.0509 1.0063	1.1149 0.9794	1.0260	1.0957	Ave		1.0355			0.0100	4.7		20.0			
Ethylbenzene	2.0248 1.7214	1.8230 1.6977	1.8761 1.6397	1.7139	1.8715	Ave		1.7960			0.1000	7.0		20.0			
m-Xylene & p-Xylene	2.4468 2.0853	2.2005 2.0481	2.3020 1.9741	2.0608	2.2818	Ave		2.1749			0.1000	7.4		20.0			
o-Xylene	2.4407 2.0206	2.1949 2.0094	2.2431 1.9478	2.0862	2.2286	Ave		2.1464			0.3000	7.5		20.0			
Styrene	3.5325 3.2490	3.4517 3.2126	3.5876 3.1459	3.3574	3.5543	Ave		3.3864			0.3000	5.0		20.0			
Bromoform	0.5602 0.5664	0.5451 0.5671	0.5838 0.5710	0.5557	0.6000	Ave		0.5687			0.1000	3.0		20.0			
2-Chlorobenzotrifluoride	1.9498 1.4951	1.6866 1.5100	1.6668 1.3249	1.5839	1.6344	Ave		1.6064			0.0100	11.3		20.0			
Isopropylbenzene	5.6376 4.9400	5.5685 4.8082	5.7360 4.5159	5.1172	5.5936	Ave		5.2396			0.1000	8.7		20.0			
1,1,2,2-Tetrachloroethane	1.4014 1.1926	1.2936 1.1784	1.3419 1.2132	1.2535	1.3050	Ave		1.2724			0.3000	6.1		20.0			
Bromobenzene	1.0062 0.8943	0.9376 0.9122	0.9077 0.9034	0.8816	0.9484	Ave		0.9239			0.0100	4.3		20.0			
trans-1,4-Dichloro-2-butene	0.3374 0.3121	0.2669 0.3077	0.3110 0.3170	0.2965	0.3071	Ave		0.3070			0.0100	6.5		20.0			
1,2,3-Trichloropropane	0.3450 0.2998	0.2929 0.2948	0.3006 0.2996	0.2931	0.3017	Ave		0.3034			0.0100	5.6		20.0			
N-Propylbenzene	1.0360 1.1205	1.0768 1.1398	1.0791 1.0986	1.0746	1.1785	Ave		1.1005			0.0100	4.0		20.0			
2-Chlorotoluene	1.0131 0.9404	0.9203 0.9425	0.9233 0.9337	0.9173	0.9539	Ave		0.9430			0.0100	3.3		20.0			
3-Chlorotoluene	1.1408 0.9154	0.9190 0.9548	0.9102 0.8851	0.9437	0.9956	Ave		0.9581			0.0100	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,3,5-Trimethylbenzene	3.0269 3.0864	3.1082 3.0993	3.1554 2.9896	3.0455	3.2549	Ave		3.0958			0.0100	2.7		20.0			
4-Chlorotoluene	1.0332 1.0037	0.9844 1.0182	0.9820 0.9787	0.9576	1.0063	Ave		0.9955			0.0100	2.4		20.0			
tert-Butylbenzene	2.7388 2.6452	2.5843 2.6608	2.6791 2.5315	2.5798	2.7591	Ave		2.6473			0.0100	3.0		20.0			
1,2,4-Trimethylbenzene	2.9725 3.0532	3.0404 3.1005	3.1863 2.9972	3.0880	3.2583	Ave		3.0870			0.0100	3.1		20.0			
3,4-Dichlorobenzotrifluoride	1.0213 0.7973	0.8316 0.8246	0.8117 0.7392	0.8107	0.8102	Ave		0.8308			0.0100	9.9		20.0			
sec-Butylbenzene	3.8331 3.7094	3.7241 3.7076	3.8008 3.5364	3.6466	3.9340	Ave		3.7365			0.0100	3.2		20.0			
1,3-Dichlorobenzene	1.6486 1.5723	1.5988 1.6044	1.6555 1.6051	1.5553	1.6737	Ave		1.6142			0.6000	2.6		20.0			
4-Isopropyltoluene	3.0528 3.0626	3.0124 3.0441	3.1093 2.9657	3.0023	3.2038	Ave		3.0566			0.0100	2.4		20.0			
1,4-Dichlorobenzene	1.8543 1.6100	1.5704 1.6353	1.6385 1.6313	1.5856	1.7127	Ave		1.6548			0.5000	5.5		20.0			
2,4-Dichlorobenzotrifluoride	0.8959 0.7461	0.7710 0.8052	0.7296 0.6952	0.7991	0.7412	Ave		0.7729			0.0100	8.0		20.0			
2,5-Dichlorobenzotrifluoride	0.9367 0.7952	0.8629 0.8472	0.8581 0.7874	0.8282	0.8626	Ave		0.8473			0.0100	5.5		20.0			
n-Butylbenzene	2.5038 2.6682	2.5067 2.7063	2.6755 2.6532	2.5342	2.7640	Ave		2.6265			0.0100	3.8		20.0			
1,2-Dichlorobenzene	1.6706 1.4387	1.4320 1.4700	1.4651 1.4977	1.4663	1.5209	Ave		1.4952			0.4000	5.1		20.0			
1,2-Dibromo-3-Chloropropane	0.1692 0.1390	0.1407 0.1469	0.1485 0.1584	0.1395	0.1482	Ave		0.1488			0.0500	7.0		20.0			
1,2,4-Trichlorobenzene	0.5790 0.5981	0.5733 0.6456	0.6459 0.6838	0.6119	0.6384	Ave		0.6220			0.2000	6.1		20.0			
Hexachlorobutadiene	0.2498 0.2905	0.2817 0.3126	0.2944 0.3090	0.2811	0.3003	Ave		0.2899			0.0100	6.8		20.0			
Naphthalene	1.5328 1.6895	1.5684 1.8135	1.6928 1.9595	1.7271	1.7962	Ave		1.7225			0.0100	8.0		20.0			
1,2,3-Trichlorobenzene	0.4345 0.4679	0.4460 0.5092	0.4816 0.5473	0.4862	0.5016	Ave		0.4843			0.0100	7.5		20.0			
2,4,5-Trichlorotoluene	0.1929 0.2190	0.1938 0.2548	0.2089 0.2514	0.2179	0.2163	Ave		0.2194			0.0100	10.6		20.0			
2,3,6-Trichlorotoluene	0.1549 +++++	0.1768 +++++	0.1936 +++++	0.2019	0.2018	Ave		0.1979			0.0100	12.3		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane (Surr)	0.2437 0.2111	0.2184 0.2082	0.2119 0.2201	0.2124	0.1997	Ave		0.2157				6.0		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3224 0.2563	0.2632 0.2580	0.2672 0.2713	0.2571	0.2540	Ave		0.2687				8.4		20.0			
Toluene-d8 (Surr)	4.6036 3.5497	3.9165 3.3576	4.0099 3.2197	3.7675	3.2809	Ave		3.7132				12.5		20.0			
4-Bromofluorobenzene (Surr)	1.6153 1.2499	1.4030 1.2076	1.4307 1.2137	1.3322	1.2112	Ave		1.3329				10.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-141828/16	50516016.D
Level 2	IC 180-141828/6	50516006.D
Level 3	ICIS 180-141828/7	50516007.D
Level 4	IC 180-141828/8	50516008.D
Level 5	IC 180-141828/9	50516009.D
Level 6	IC 180-141828/10	50516010.D
Level 7	IC 180-141828/11	50516011.D
Level 8	IC 180-141828/12	50516012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	12513 489556	70934 571054	139772 677972	198147	284090	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18383 595634	87407 704073	182305 853061	251404	344598	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	14812 566283	81471 646662	166449 756967	223607	320054	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	19501 634286	94284 723158	189069 834397	257309	358834	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	8813 239513	37441 271395	76846 313631	104570	136319	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	8762 287097	41990 330931	86143 421453	120354	161455	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	20175 649772	98720 738885	193540 897395	270770	373977	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	16394 654292	89972 736625	183341 864903	254032	368166	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	10174 338873	49497 408402	104936 507453	150731	194864	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	30234 75025	42888 88651	51004 96098	57567	66638	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	9961 335036	46676 391170	96707 475066	131710	190502	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	9687 359471	50237 418214	101970 498000	139284	196759	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	21797 250330	47200 294993	77143 384917	104849	150082	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	14714 514557	71377 605171	144879 733771	213381	290615	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	24919 908552	122453 1075123	257225 1298935	359618	503316	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	5978 226558	31965 274256	63699 330407	87584	124326	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	48572 1593543	229790 1896769	455285 2376963	688206	913845	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	17309 370938	58513 447077	111625 552796	156184	218733	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	7157 310446	51697 386153	98788 512805	133879	192394	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	45954 1638590	231706 1932324	467180 2412653	698952	940824	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	10386 376161	51093 445623	105390 544478	148571	209713	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	28792 1007461	142227 1195212	291276 1509991	426281	574699	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	15102 606508	82772 707171	170117 844126	231711	339162	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	19928 699468	96960 821765	204154 999556	285975	395632	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	18503 838397	113208 950875	231574 1138937	337865	441287	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9307 362248	49736 417803	107432 500050	148401	202218	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	12142 406370	56864 479341	114911 595141	167014	230222	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	31006 413184	60768 480568	113388 622273	172923	230372	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5566 175842	25264 212511	51243 263556	74026	103519	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	9426 268899	40005 324299	78927 419005	114171	151096	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	18610 623315	86085 735696	179091 893900	253342	357774	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	11932 501196	68170 593527	145763 696824	198228	283726	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	20355 760681	100809 887972	213844 1049572	291411	421978	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	11078 458714	59940 538483	129982 635270	174900	253847	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	13850 532113	69623 626963	151117 735954	202545	289670	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	9787 306921	45812 367512	89662 528662	124554	185654	125 4375	625 5000	1250 6250	1875	2500

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	44424 1556800	217892 1804376	449313 2207544	644345	891733	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	12453 470597	65542 549195	132308 681235	198068	259711	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	15172 539599	68804 638200	145862 757243	204400	289291	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12139 397937	55263 464834	111483 566380	162356	224913	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	16844 683293	91190 803074	197540 944316	264739	377428	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	10943 412685	54622 486757	117533 603740	167326	226207	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1153 63617	9166 72304	19231 102170	25640	36079	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	6235 205482	26937 241803	59201 304535	86196	114272	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	11303 466967	62149 544261	127705 687742	187125	258861	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	14613 596748	78080 695090	160488 870707	235501	332080	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	52342 854345	118427 1022549	241157 1279570	363974	491050	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	40730 1582981	224826 1828639	464739 2216424	651396	894815	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	11452 502087	64299 591530	134442 743755	196686	268588	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	12080 493696	64218 570691	135767 725382	198049	260669	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	7876 297075	40952 352121	84146 443499	124580	165328	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	7687 302473	40477 354566	88231 418170	119542	169544	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	16478 555783	76862 647342	157053 826269	231741	304646	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	38885 615972	85414 717499	169527 888839	259288	339351	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7005 303040	38287 360233	83636 456166	122216	165444	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8390 308447	40787 362695	86087 453495	126486	169918	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	15234 527642	78870 631042	152198 699677	224982	292861	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	28689 1012881	141159 1180656	290849 1442349	419367	570910	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	13145 495834	72349 590776	141246 658310	211166	274980	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	7836 356190	46532 418931	100367 519767	144165	195742	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	15925 604351	80722 706749	168885 870182	240815	334335	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	19244 732122	97434 852624	207226 1047590	289558	407630	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	19196 709393	97187 836498	201921 1033655	293127	398116	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	27783 1140683	152840 1337390	322959 1669453	471737	634944	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	4406 198852	24135 236082	52554 303024	78081	107188	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	15335 524920	74681 628620	150042 703113	222548	291981	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	44339 1734373	246567 2001663	516352 2396507	718989	999249	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	11022 418695	57279 490555	120795 643838	176119	233122	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	10926 398529	58460 473382	116689 600210	166541	230103	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3664 139100	16644 159664	39979 210584	56013	74514	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	3746 133594	18265 153012	38651 199028	55364	73189	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	11250 499315	67141 591500	138735 729900	203005	285930	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11001 419063	57380 489127	118701 620292	173296	231421	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	12388 407920	57302 495496	117016 587998	178285	241548	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	32870 1375415	193803 1608417	405661 1986196	575343	789696	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	11220 447268	61378 528393	126246 650195	180900	244132	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	29741 1178813	161138 1380885	344428 1681816	487360	669393	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	32279 1360625	189572 1609046	409626 1991208	583360	790516	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	11090 355323	51853 427937	104350 491068	153151	196577	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	41624 1653035	232206 1924108	488634 2349439	688902	954454	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	17902 700660	99688 832640	212835 1066399	293827	406066	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	33151 1364814	187830 1579772	399737 1970323	567183	777298	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	20136 717486	97915 848655	210640 1083798	299547	415537	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	9729 332494	48075 417880	93800 461859	150960	179817	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	10172 354350	53803 439671	110314 523106	156467	209283	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	27189 1189032	156297 1404498	343964 1762668	478753	670595	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	18141 641130	89288 762881	188357 995030	277004	368987	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1837 61945	8772 76236	19090 105258	26350	35965	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	6288 266554	35744 335069	83043 454311	115597	154892	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	2713 129453	17563 162203	37852 205269	53104	72860	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	16645 752912	97794 941162	217630 1301801	326282	435794	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	4718 208528	27811 264239	61918 363631	91856	121692	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	2095 97593	12082 132246	26853 167048	41170	52474	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	1682 +++++	11025 +++++	24889 +++++	38141	48949	5.00 +++++	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9010 307223	43510 348028	86766 437325	129378	147987	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	11918 373050	52451 431230	109451 539180	156609	188154	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	36207 1246255	173419 1397781	360970 1708627	529355	586112	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	12704 438835	62122 502727	128795 644083	187179	216366	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516006.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2015 14:25:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0006955-006
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:58:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 07:54:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.284	-0.005	0	180307	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	98	398506	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.392	-0.005	87	88558	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.734	0.001	95	124703	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	94	43510	25.0	25.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	52451	25.0	24.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	93	173419	25.0	26.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.572	0.001	89	62122	25.0	26.3	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	70934	25.0	25.8	
12 Chloromethane	50	1.760	1.760	0.000	99	87407	25.0	24.9	
13 Vinyl chloride	62	1.888	1.893	-0.005	98	81471	25.0	25.8	
14 Butadiene	39	1.937	1.936	0.001	100	94284	25.0	25.9	
15 Bromomethane	94	2.241	2.240	0.001	92	37441	25.0	25.8	
16 Chloroethane	64	2.393	2.386	0.007	99	41990	25.0	25.1	
17 Dichlorofluoromethane	67	2.661	2.666	-0.005	96	98720	25.0	26.1	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	96	89972	25.0	25.2	
20 Ethyl ether	59	3.050	3.049	0.001	93	49497	25.0	24.6	
21 Acrolein	56	3.232	3.226	0.006	98	42888	125.0	127.6	
22 1,1-Dichloroethene	96	3.342	3.353	-0.011	96	46676	25.0	24.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.414	0.007	93	50237	25.0	25.1	
24 Acetone	43	3.439	3.451	-0.012	97	47200	50.0	60.0	
25 Iodomethane	142	3.537	3.536	0.001	96	71377	25.0	24.4	
26 Carbon disulfide	76	3.634	3.633	0.001	100	122453	25.0	24.1	
28 3-Chloro-1-propene	76	3.914	3.919	-0.005	92	31965	25.0	25.2	
30 Methyl acetate	43	3.938	3.944	-0.006	99	229790	125.0	123.1	
31 Methylene Chloride	84	4.139	4.144	-0.005	87	58513	25.0	24.3	
32 2-Methyl-2-propanol	59	4.413	4.412	0.001	97	51697	250.0	256.5	
33 Acrylonitrile	53	4.528	4.528	0.000	100	231706	250.0	245.9	
34 trans-1,2-Dichloroethene	96	4.571	4.570	0.001	97	51093	25.0	24.2	
35 Methyl tert-butyl ether	73	4.583	4.588	-0.005	97	142227	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.990	0.001	95	82772	25.0	24.9	
37 1,1-Dichloroethane	63	5.204	5.203	0.001	96	96960	25.0	24.3	
38 Vinyl acetate	43	5.252	5.252	0.000	96	113208	25.0	25.2	
44 2,2-Dichloropropane	77	5.946	5.945	0.001	59	49736	25.0	24.6	
45 cis-1,2-Dichloroethene	96	5.952	5.951	0.001	82	56864	25.0	24.3	
46 2-Butanone (MEK)	43	5.964	5.963	0.001	91	60768	50.0	50.9	
49 Chlorobromomethane	128	6.232	6.243	-0.011	96	25264	25.0	24.3	
51 Tetrahydrofuran	42	6.256	6.261	-0.005	90	40005	50.0	49.3	
52 Chloroform	83	6.384	6.383	0.001	95	86085	25.0	24.1	
53 1,1,1-Trichloroethane	97	6.542	6.541	0.001	98	68170	25.0	24.6	
54 Cyclohexane	56	6.609	6.614	-0.005	94	100809	25.0	24.0	
56 Carbon tetrachloride	117	6.718	6.718	0.000	97	59940	25.0	24.0	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	93	69623	25.0	23.9	
57 Isobutyl alcohol	41	6.931	6.937	-0.006	95	45812	625.0	616.3	
58 Benzene	78	6.949	6.943	0.006	97	217892	25.0	24.5	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	65542	25.0	24.7	
62 n-Heptane	43	7.308	7.308	0.000	94	68804	25.0	23.2	
64 Trichloroethene	130	7.680	7.685	-0.005	97	55263	25.0	24.3	
66 Methylcyclohexane	83	7.917	7.916	0.001	90	91190	25.0	24.3	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	93	54622	25.0	23.7	
70 1,4-Dioxane	88	8.032	8.032	0.000	42	9166	500.0	520.8	
68 Dibromomethane	93	8.038	8.038	0.000	95	26937	25.0	22.9	
71 Dichlorobromomethane	83	8.233	8.232	0.001	98	62149	25.0	24.2	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	78080	25.0	23.9	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	118427	50.0	51.8	
76 Toluene	91	9.006	9.005	0.001	97	224826	25.0	26.6	
77 trans-1,3-Dichloropropene	75	9.249	9.254	-0.005	96	64299	25.0	25.1	
78 Ethyl methacrylate	69	9.310	9.309	0.001	90	64218	25.0	25.2	
79 1,1,2-Trichloroethane	97	9.450	9.443	0.007	93	40952	25.0	25.7	
80 Tetrachloroethene	164	9.517	9.516	0.001	97	40477	25.0	25.5	
81 1,3-Dichloropropane	76	9.608	9.601	0.007	95	76862	25.0	25.5	
82 2-Hexanone	43	9.663	9.662	0.001	98	85414	50.0	52.5	
84 Chlorodibromomethane	129	9.815	9.814	0.001	90	38287	25.0	24.5	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	40787	25.0	24.9	
86 3-Chlorobenzotrifluoride	180	10.393	10.392	0.001	76	78870	25.0	27.4	
87 Chlorobenzene	112	10.417	10.422	-0.005	95	141159	25.0	25.8	
88 4-Chlorobenzotrifluoride	180	10.478	10.477	0.001	95	72349	25.0	27.3	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	93	46532	25.0	25.4	
90 Ethylbenzene	106	10.520	10.520	0.000	98	80722	25.0	25.4	
91 m-Xylene & p-Xylene	106	10.648	10.654	-0.006	0	97434	25.0	25.3	
92 o-Xylene	106	11.032	11.031	0.001	96	97187	25.0	25.6	
93 Styrene	104	11.050	11.049	0.001	96	152840	25.0	25.5	
94 Bromoform	173	11.232	11.232	0.000	95	24135	25.0	24.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.298	0.001	96	74681	25.0	26.2	
97 Isopropylbenzene	105	11.397	11.396	0.000	96	246567	25.0	26.6	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.706	0.001	77	57279	25.0	25.4	
100 Bromobenzene	156	11.713	11.712	0.001	93	58460	25.0	25.4	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.749	-0.006	77	16644	25.0	21.7	
101 1,2,3-Trichloropropane	110	11.762	11.761	0.001	86	18265	25.0	24.1	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	67141	25.0	24.5	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	57380	25.0	24.4	
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	57302	25.0	24.0	

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	11.999	11.998	0.001	94	193803	25.0	25.1	
107 4-Chlorotoluene	126	12.029	12.029	0.001	97	61378	25.0	24.7	
108 tert-Butylbenzene	119	12.309	12.308	0.001	94	161138	25.0	24.4	
110 1,2,4-Trimethylbenzene	105	12.370	12.369	0.001	98	189572	25.0	24.6	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	51853	25.0	25.0	
112 sec-Butylbenzene	105	12.534	12.533	0.001	94	232206	25.0	24.9	
113 1,3-Dichlorobenzene	146	12.650	12.655	-0.005	98	99688	25.0	24.8	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	187830	25.0	24.6	
115 1,4-Dichlorobenzene	146	12.759	12.752	0.007	96	97915	25.0	23.7	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.783	0.001	96	48075	25.0	24.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.825	0.001	0	53803	25.0	25.5	
120 n-Butylbenzene	91	13.100	13.099	0.001	98	156297	25.0	23.9	
121 1,2-Dichlorobenzene	146	13.112	13.111	0.001	96	89288	25.0	23.9	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.902	0.001	81	8772	25.0	23.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.042	0.007	0	178905	75.0	75.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.462	0.001	0	111029	50.0	49.8	
126 1,2,4-Trichlorobenzene	180	14.724	14.723	0.001	95	35744	25.0	23.0	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	96	17563	25.0	24.3	
128 Naphthalene	128	14.992	14.991	0.001	97	97794	25.0	22.8	
129 1,2,3-Trichlorobenzene	180	15.217	15.216	0.001	96	27811	25.0	23.0	
131 2,4,5-Trichlorotoluene	159	15.996	15.989	0.007	0	12082	25.0	22.1	
130 2,3,6-Trichlorotoluene	159	16.093	16.092	0.001	94	11025	25.0	22.3	
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		50.0	50.9	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.5	
S 135 1,3-Dichloropropene, Total	1				0		50.0	49.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	5.00	Units: uL		
VOA8260SURR_00036	Amount Added:	1.00	Units: uL		
VOA8260VOAPRI_00115	Amount Added:	1.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	1.00	Units: uL		
voaWketPri Re_00005	Amount Added:	1.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	1.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	

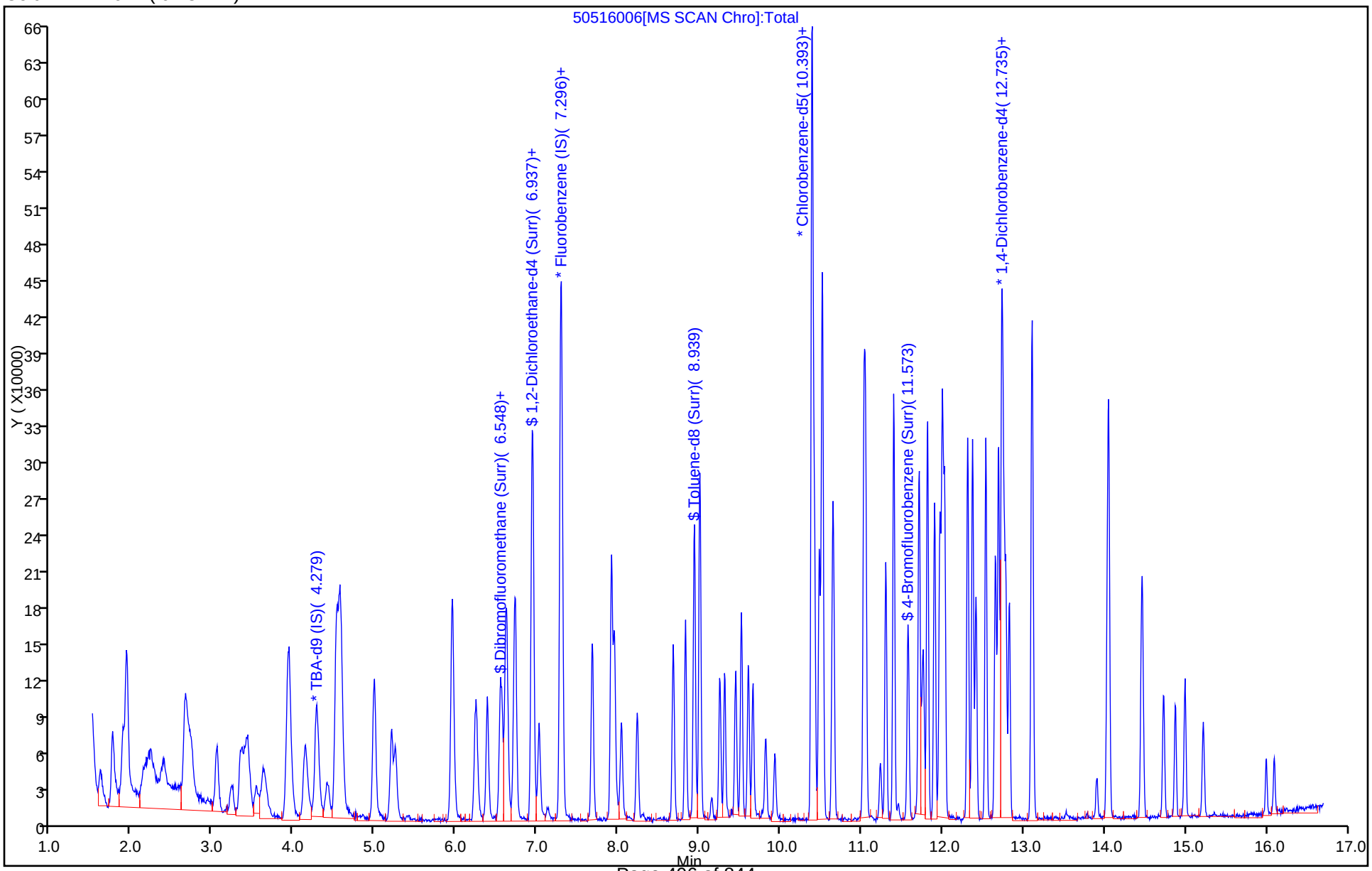
Report Date: 20-May-2015 07:58:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516006.D

Injection Date:	16-May-2015 14:25:30	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#:	6
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\20150516-6955.b\50516007.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 16-May-2015 14:49:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0006955-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 08:06:56 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 08:06:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.284	0.000	0	174462	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	409556	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.392	0.000	86	90020	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	92	128560	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	92	86766	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109451	50.0	49.7	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	360970	50.0	54.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	89	128795	50.0	53.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	100	139772	50.0	49.4	
12 Chloromethane	50	1.760	1.760	0.000	99	182305	50.0	50.6	
13 Vinyl chloride	62	1.893	1.893	0.000	99	166449	50.0	51.3	
14 Butadiene	39	1.936	1.936	0.000	98	189069	50.0	50.5	
15 Bromomethane	94	2.240	2.240	0.000	92	76846	50.0	51.6	
16 Chloroethane	64	2.386	2.386	0.000	99	86143	50.0	50.1	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	193540	50.0	49.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	96	183341	50.0	50.0	
20 Ethyl ether	59	3.049	3.049	0.000	94	104936	50.0	50.7	
21 Acrolein	56	3.226	3.226	0.000	99	51004	150.0	147.6	
22 1,1-Dichloroethene	96	3.353	3.353	0.000	97	96707	50.0	49.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	92	101970	50.0	49.7	
24 Acetone	43	3.451	3.451	0.000	98	77143	100.0	95.5	
25 Iodomethane	142	3.536	3.536	0.000	97	144879	50.0	48.2	
26 Carbon disulfide	76	3.633	3.633	0.000	100	257225	50.0	49.2	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	90	63699	50.0	48.8	
30 Methyl acetate	43	3.944	3.944	0.000	99	455285	250.0	237.3	
31 Methylene Chloride	84	4.144	4.144	0.000	97	111625	50.0	48.5	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	95	98788	500.0	506.6	
33 Acrylonitrile	53	4.528	4.528	0.000	99	467180	500.0	482.3	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	98	105390	50.0	48.5	
35 Methyl tert-butyl ether	73	4.588	4.588	0.000	98	291276	50.0	48.7	

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	96	170117	50.0	49.7	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	96	204154	50.0	49.8	
38 Vinyl acetate	43	5.252	5.252	0.000	97	231574	50.0	50.2	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	64	107432	50.0	51.7	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	85	114911	50.0	47.9	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	90	113388	100.0	92.4	
49 Chlorobromomethane	128	6.243	6.243	0.000	97	51243	50.0	47.9	
51 Tetrahydrofuran	42	6.261	6.261	0.000	91	78927	100.0	94.6	
52 Chloroform	83	6.383	6.383	0.000	95	179091	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	99	145763	50.0	51.2	
54 Cyclohexane	56	6.614	6.614	0.000	94	213844	50.0	49.6	
56 Carbon tetrachloride	117	6.718	6.718	0.000	96	129982	50.0	50.7	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	94	151117	50.0	50.4	
57 Isobutyl alcohol	41	6.937	6.937	0.000	94	89662	1250.0	1173.6	
58 Benzene	78	6.943	6.943	0.000	97	449313	50.0	49.2	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	132308	50.0	48.6	
62 n-Heptane	43	7.308	7.308	0.000	94	145862	50.0	47.9	
64 Trichloroethene	130	7.685	7.685	0.000	96	111483	50.0	47.7	
66 Methylcyclohexane	83	7.916	7.916	0.000	89	197540	50.0	51.2	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	94	117533	50.0	49.6	
68 Dibromomethane	93	8.038	8.038	0.000	97	59201	50.0	48.9	
70 1,4-Dioxane	88	8.032	8.032	0.000	44	19231	1000.0	1063.2	M
71 Dichlorobromomethane	83	8.232	8.232	0.000	99	127705	50.0	48.4	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	160488	50.0	47.8	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	241157	100.0	103.8	
76 Toluene	91	9.005	9.005	0.000	98	464739	50.0	54.1	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	134442	50.0	51.7	
78 Ethyl methacrylate	69	9.309	9.309	0.000	90	135767	50.0	52.4	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	92	84146	50.0	51.9	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	88231	50.0	54.7	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	94	157053	50.0	51.2	
82 2-Hexanone	43	9.662	9.662	0.000	98	169527	100.0	102.6	
84 Chlorodibromomethane	129	9.814	9.814	0.000	90	83636	50.0	52.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	86087	50.0	51.7	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	84	152198	50.0	52.1	
87 Chlorobenzene	112	10.422	10.422	0.000	94	290849	50.0	52.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	95	141246	50.0	52.4	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	93	100367	50.0	53.8	
90 Ethylbenzene	106	10.520	10.520	0.000	99	168885	50.0	52.2	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	207226	50.0	52.9	
92 o-Xylene	106	11.031	11.031	0.000	96	201921	50.0	52.3	
93 Styrene	104	11.049	11.049	0.000	95	322959	50.0	53.0	
94 Bromoform	173	11.232	11.232	0.000	94	52554	50.0	51.3	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	96	150042	50.0	51.9	
97 Isopropylbenzene	105	11.396	11.396	0.000	96	516352	50.0	54.7	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	77	120795	50.0	52.7	
100 Bromobenzene	156	11.712	11.712	0.000	92	116689	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	83	39979	50.0	50.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	86	38651	50.0	49.5	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	138735	50.0	49.0	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	118701	50.0	49.0	
105 3-Chlorotoluene	126	11.968	11.968	0.000	95	117016	50.0	47.5	

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	11.998	11.998	0.000	93	405661	50.0	51.0	
107 4-Chlorotoluene	126	12.029	12.029	0.000	98	126246	50.0	49.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	94	344428	50.0	50.6	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	409626	50.0	51.6	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	104350	50.0	48.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	94	488634	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.655	12.655	0.000	98	212835	50.0	51.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	96	399737	50.0	50.9	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	210640	50.0	49.5	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	97	93800	50.0	47.2	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.825	0.000	0	110314	50.0	50.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	343964	50.0	50.9	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	188357	50.0	49.0	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	77	19090	50.0	49.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	364691	150.0	149.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	231450	100.0	100.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	83043	50.0	51.9	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	98	37852	50.0	50.8	
128 Naphthalene	128	14.991	14.991	0.000	97	217630	50.0	49.1	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	93	61918	50.0	49.7	
131 2,4,5-Trichlorotoluene	159	15.989	15.989	0.000	0	26853	50.0	47.6	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	96	24889	50.0	48.9	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	99.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	2.00	Units: uL	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

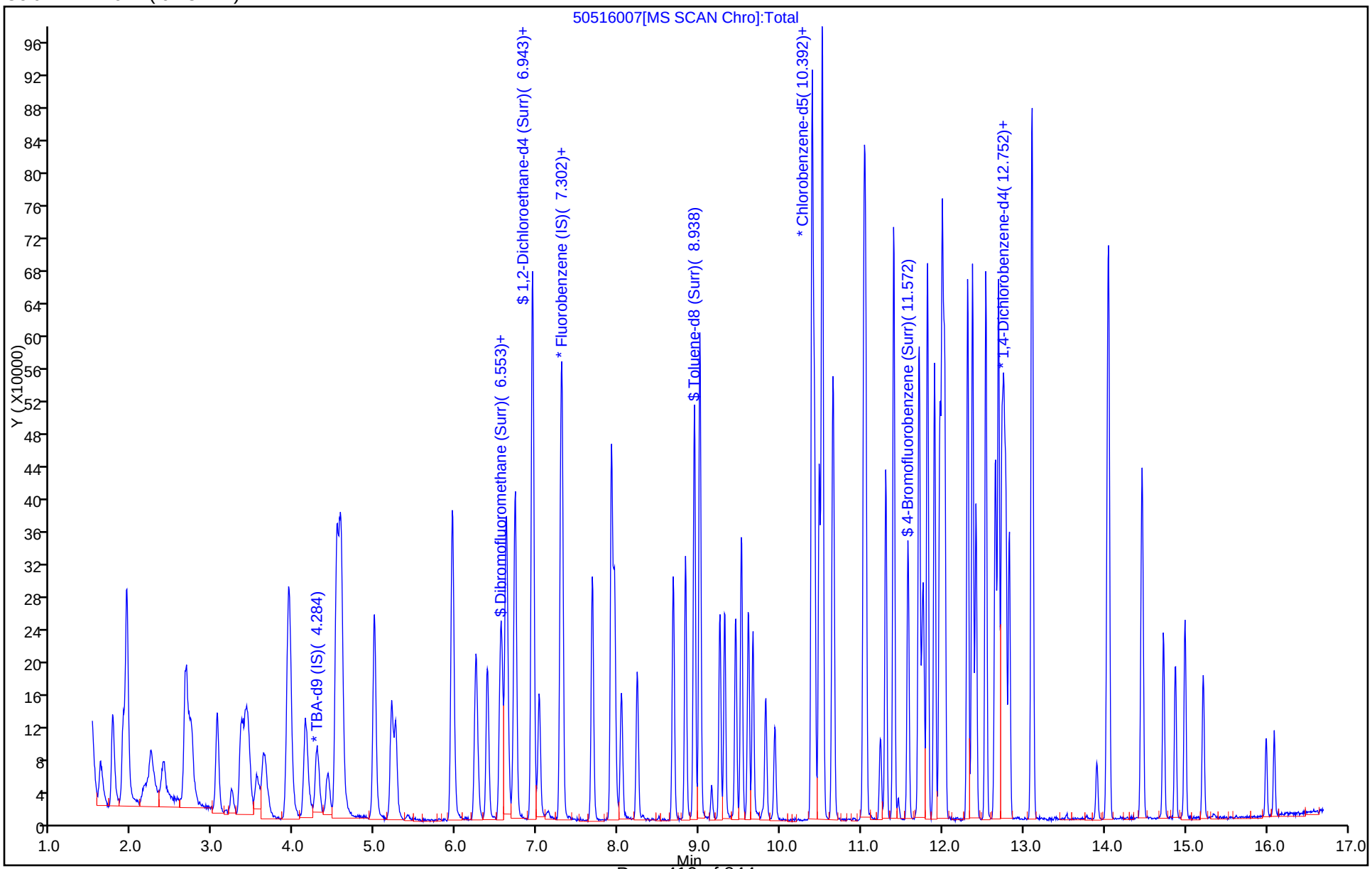
Report Date: 20-May-2015 08:06:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516007.D

Injection Date:	16-May-2015 14:49:30	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#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

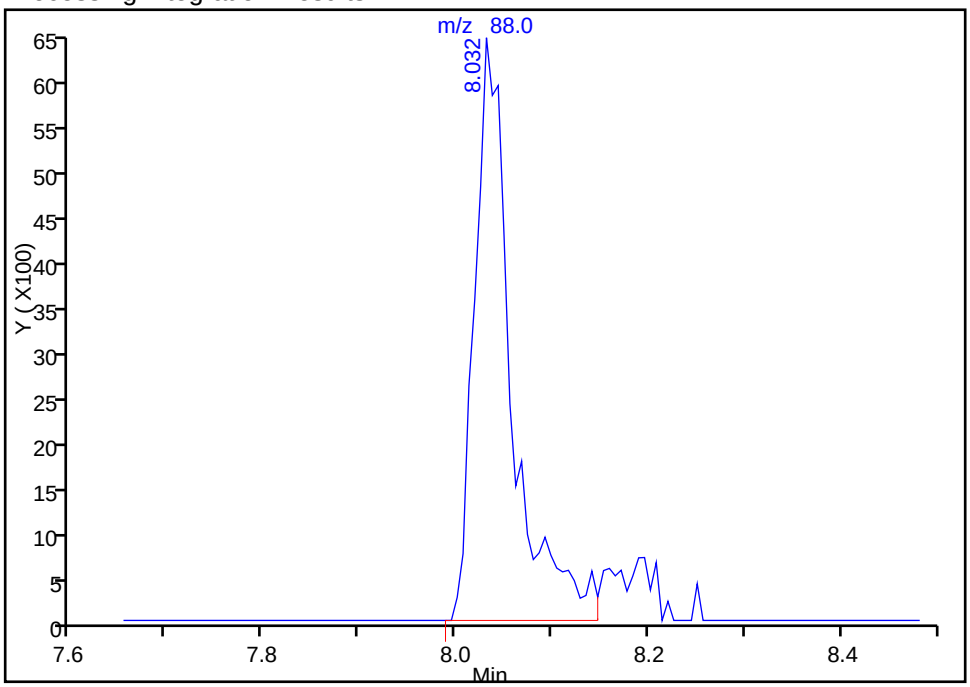
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516007.D
Injection Date: 16-May-2015 14:49:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

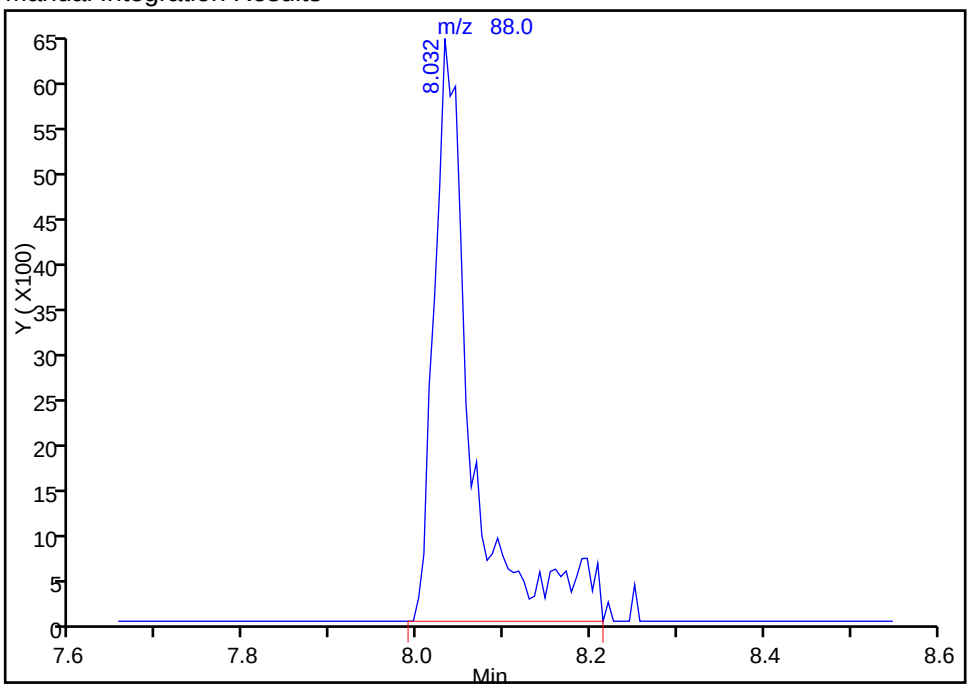
Processing Integration Results

RT: 8.03
Area: 17281
Amount: 961.0766
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 19231
Amount: 1063.2170
Amount Units: ng



Reviewer: fergusond, 17-May-2015 09:57:10
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516008.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2015 15:13:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0006955-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:00 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 19-May-2015 16:55:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.294	4.294	0.000	0	157279	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.287	0.000	98	406127	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	87	93670	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.731	0.000	95	125943	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.563	0.000	93	129378	75.0	73.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.934	0.000	0	156609	75.0	71.8	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	93	529355	75.0	76.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.576	11.576	0.000	88	187179	75.0	75.0	
11 Dichlorodifluoromethane	85	1.611	1.611	0.000	99	198147	75.0	70.6	
12 Chloromethane	50	1.763	1.763	0.000	99	251404	75.0	70.4	
13 Vinyl chloride	62	1.891	1.891	0.000	98	223607	75.0	69.4	
14 Butadiene	39	1.933	1.933	0.000	98	257309	75.0	69.3	
15 Bromomethane	94	2.231	2.231	0.000	90	104570	75.0	70.8	
16 Chloroethane	64	2.384	2.384	0.000	99	120354	75.0	70.5	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	270770	75.0	70.1	
18 Trichlorofluoromethane	101	2.700	2.700	0.000	98	254032	75.0	69.8	
20 Ethyl ether	59	3.047	3.047	0.000	95	150731	75.0	73.4	
21 Acrolein	56	3.223	3.223	0.000	96	57567	175.0	168.0	
22 1,1-Dichloroethene	96	3.345	3.345	0.000	97	131710	75.0	67.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.406	3.406	0.000	95	139284	75.0	68.4	
24 Acetone	43	3.442	3.442	0.000	99	104849	150.0	130.9	
25 Iodomethane	142	3.539	3.539	0.000	97	213381	75.0	71.5	
26 Carbon disulfide	76	3.631	3.631	0.000	100	359618	75.0	69.3	
28 3-Chloro-1-propene	76	3.923	3.923	0.000	91	87584	75.0	67.6	
30 Methyl acetate	43	3.941	3.941	0.000	99	688206	375.0	361.8	
31 Methylene Chloride	84	4.136	4.136	0.000	97	156184	75.0	70.0	
32 2-Methyl-2-propanol	59	4.409	4.409	0.000	96	133879	750.0	761.6	
33 Acrylonitrile	53	4.525	4.525	0.000	99	698952	750.0	727.7	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	98	148571	75.0	69.0	
35 Methyl tert-butyl ether	73	4.586	4.586	0.000	98	426281	75.0	71.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	231711	75.0	68.3	
37 1,1-Dichloroethane	63	5.200	5.200	0.000	96	285975	75.0	70.4	
38 Vinyl acetate	43	5.255	5.255	0.000	97	337865	75.0	73.9	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	62	148401	75.0	72.0	
45 cis-1,2-Dichloroethene	96	5.955	5.955	0.000	83	167014	75.0	70.2	
46 2-Butanone (MEK)	43	5.967	5.967	0.000	99	172923	150.0	142.1	
49 Chlorobromomethane	128	6.234	6.234	0.000	97	74026	75.0	69.8	
51 Tetrahydrofuran	42	6.253	6.253	0.000	91	114171	150.0	138.0	
52 Chloroform	83	6.380	6.380	0.000	94	253342	75.0	69.5	
53 1,1,1-Trichloroethane	97	6.539	6.539	0.000	98	198228	75.0	70.2	
54 Cyclohexane	56	6.612	6.612	0.000	95	291411	75.0	68.2	
56 Carbon tetrachloride	117	6.715	6.715	0.000	96	174900	75.0	68.8	
55 1,1-Dichloropropene	75	6.733	6.733	0.000	96	202545	75.0	68.1	
57 Isobutyl alcohol	41	6.928	6.928	0.000	94	124554	1875.0	1644.1	
58 Benzene	78	6.946	6.946	0.000	97	644345	75.0	71.2	
59 1,2-Dichloroethane	62	7.019	7.019	0.000	96	198068	75.0	73.4	
62 n-Heptane	43	7.311	7.311	0.000	96	204400	75.0	67.8	
64 Trichloroethene	130	7.676	7.676	0.000	97	162356	75.0	70.0	
66 Methylcyclohexane	83	7.913	7.913	0.000	91	264739	75.0	69.3	
67 1,2-Dichloropropane	63	7.950	7.950	0.000	93	167326	75.0	71.2	
70 1,4-Dioxane	88	8.035	8.035	0.000	38	25640	1500.0	1429.5	
68 Dibromomethane	93	8.035	8.035	0.000	95	86196	75.0	71.8	
71 Dichlorobromomethane	83	8.230	8.230	0.000	98	187125	75.0	71.5	
74 cis-1,3-Dichloropropene	75	8.680	8.680	0.000	93	235501	75.0	70.8	
75 4-Methyl-2-pentanone (MIBK	43	8.832	8.832	0.000	97	363974	150.0	150.5	
76 Toluene	91	9.002	9.002	0.000	98	651396	75.0	72.9	
77 trans-1,3-Dichloropropene	75	9.252	9.252	0.000	97	196686	75.0	72.7	
78 Ethyl methacrylate	69	9.313	9.313	0.000	91	198049	75.0	73.5	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	92	124580	75.0	73.9	
80 Tetrachloroethene	164	9.519	9.519	0.000	97	119542	75.0	71.2	
81 1,3-Dichloropropane	76	9.605	9.605	0.000	93	231741	75.0	72.6	
82 2-Hexanone	43	9.659	9.659	0.000	99	259288	150.0	150.8	
84 Chlorodibromomethane	129	9.818	9.818	0.000	91	122216	75.0	73.8	
85 Ethylene Dibromide	107	9.933	9.933	0.000	98	126486	75.0	73.0	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	92	224982	75.0	74.0	
87 Chlorobenzene	112	10.420	10.420	0.000	94	419367	75.0	72.5	
88 4-Chlorobenzotrifluoride	180	10.481	10.481	0.000	97	211166	75.0	75.2	
89 1,1,1,2-Tetrachloroethane	131	10.511	10.511	0.000	92	144165	75.0	74.3	
90 Ethylbenzene	106	10.517	10.517	0.000	99	240815	75.0	71.6	
91 m-Xylene & p-Xylene	106	10.651	10.651	0.000	0	289558	75.0	71.1	
92 o-Xylene	106	11.028	11.028	0.000	96	293127	75.0	72.9	
93 Styrene	104	11.052	11.052	0.000	95	471737	75.0	74.4	
94 Bromoform	173	11.235	11.235	0.000	94	78081	75.0	73.3	
96 2-Chlorobenzotrifluoride	180	11.302	11.302	0.000	97	222548	75.0	73.9	
97 Isopropylbenzene	105	11.399	11.399	0.000	96	718989	75.0	73.2	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.709	0.000	79	176119	75.0	73.9	
100 Bromobenzene	156	11.709	11.709	0.000	94	166541	75.0	71.6	
102 trans-1,4-Dichloro-2-buten	53	11.746	11.746	0.000	89	56013	75.0	72.4	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	87	55364	75.0	72.4	
103 N-Propylbenzene	120	11.813	11.813	0.000	99	203005	75.0	73.2	
104 2-Chlorotoluene	126	11.904	11.904	0.000	96	173296	75.0	73.0	
105 3-Chlorotoluene	126	11.965	11.965	0.000	94	178285	75.0	73.9	

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	11.995	11.995	0.000	95	575343	75.0	73.8	
107 4-Chlorotoluene	126	12.026	12.026	0.000	98	180900	75.0	72.1	
108 tert-Butylbenzene	119	12.312	12.312	0.000	94	487360	75.0	73.1	
110 1,2,4-Trimethylbenzene	105	12.373	12.373	0.000	98	583360	75.0	75.0	
111 1,2-dichloro-4-(trifluorom	214	12.415	12.415	0.000	98	153151	75.0	73.2	
112 sec-Butylbenzene	105	12.537	12.537	0.000	94	688902	75.0	73.2	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	293827	75.0	72.3	
114 4-Isopropyltoluene	119	12.689	12.689	0.000	96	567183	75.0	73.7	
115 1,4-Dichlorobenzene	146	12.756	12.756	0.000	95	299547	75.0	71.9	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	96	150960	75.0	77.5	
118 2,5-Dichlorobenzotrifluori	214	12.823	12.823	0.000	0	156467	75.0	73.3	
120 n-Butylbenzene	91	13.097	13.097	0.000	98	478753	75.0	72.4	
121 1,2-Dichlorobenzene	146	13.115	13.115	0.000	96	277004	75.0	73.6	
122 1,2-Dibromo-3-Chloropropan	75	13.900	13.900	0.000	80	26350	75.0	70.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.046	14.046	0.000	0	545686	225.0	227.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.459	0.000	0	336189	150.0	149.4	
126 1,2,4-Trichlorobenzene	180	14.727	14.727	0.000	94	115597	75.0	73.8	
127 Hexachlorobutadiene	225	14.867	14.867	0.000	97	53104	75.0	72.7	
128 Naphthalene	128	14.988	14.988	0.000	97	326282	75.0	75.2	
129 1,2,3-Trichlorobenzene	180	15.220	15.220	0.000	96	91856	75.0	75.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	41170	75.0	74.5	
130 2,3,6-Trichlorotoluene	159	16.090	16.090	0.000	96	38141	75.0	76.5	
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		150.0	144.0	
S 134 1,2-Dichloroethene, Total	96				0		150.0	139.2	
S 135 1,3-Dichloropropene, Total	1				0		150.0	143.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	7.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	3.00	Units: uL	
VOA8260SURR_00036	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	3.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	3.00	Units: uL	
voaWketPri Re_00005	Amount Added:	3.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

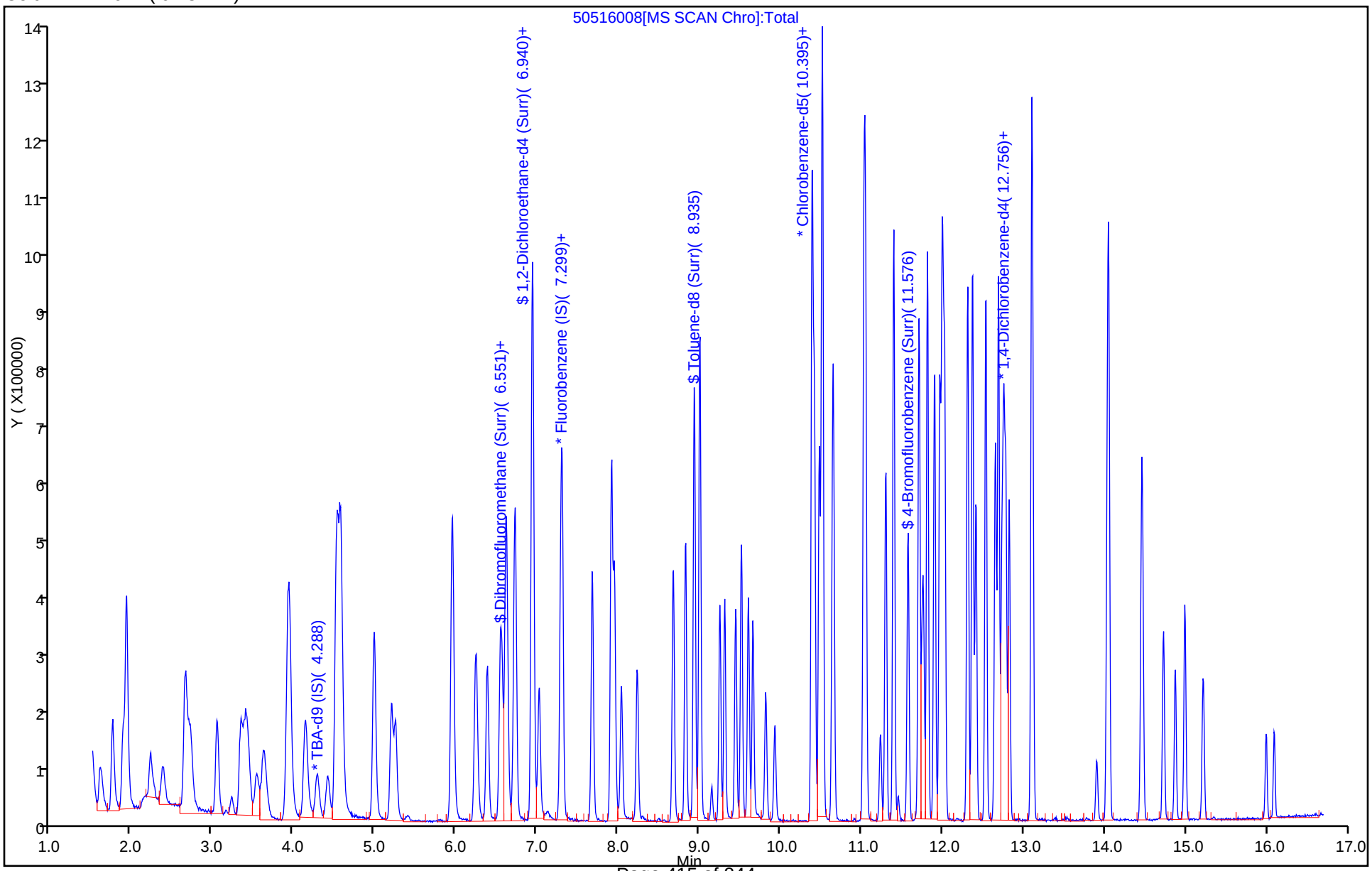
Report Date: 20-May-2015 07:59:00 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516008.D

Injection Date:	16-May-2015 15:13:30	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#:	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\20150516-6955.b\50516009.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-May-2015 15:37:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0006955-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:02 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:24:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.294	-0.021	0	177496	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.287	0.003	98	370431	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.389	0.004	87	89321	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.731	0.004	92	121307	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.563	0.003	94	147987	100.0	92.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.934	0.003	0	188154	100.0	94.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.935	0.004	93	586112	100.0	88.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.576	-0.003	87	216366	100.0	90.9	
11 Dichlorodifluoromethane	85	1.608	1.611	-0.003	99	284090	100.0	111.0	
12 Chloromethane	50	1.760	1.763	-0.003	99	344598	100.0	105.8	
13 Vinyl chloride	62	1.894	1.891	0.003	100	320054	100.0	109.0	
14 Butadiene	39	1.937	1.933	0.004	97	358834	100.0	105.9	
15 Bromomethane	94	2.241	2.231	0.010	91	136319	100.0	101.2	
16 Chloroethane	64	2.387	2.384	0.003	99	161455	100.0	103.7	
17 Dichlorofluoromethane	67	2.661	2.663	-0.002	98	373977	100.0	106.2	
18 Trichlorofluoromethane	101	2.709	2.700	0.009	95	368166	100.0	111.0	
20 Ethyl ether	59	3.044	3.047	-0.003	95	194864	100.0	104.0	
21 Acrolein	56	3.232	3.223	0.009	97	66638	200.0	213.3	
22 1,1-Dichloroethene	96	3.342	3.345	-0.003	98	190502	100.0	107.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.406	0.009	93	196759	100.0	106.0	
24 Acetone	43	3.445	3.442	0.003	99	150082	200.0	205.4	
25 Iodomethane	142	3.537	3.539	-0.002	97	290615	100.0	106.8	
26 Carbon disulfide	76	3.628	3.631	-0.003	100	503316	100.0	106.4	
28 3-Chloro-1-propene	76	3.920	3.923	-0.003	91	124326	100.0	105.3	
30 Methyl acetate	43	3.938	3.941	-0.003	99	913845	500.0	526.7	
31 Methylene Chloride	84	4.139	4.136	0.003	97	218733	100.0	109.6	
32 2-Methyl-2-propanol	59	4.419	4.409	0.010	96	192394	1000.0	969.8	
33 Acrylonitrile	53	4.522	4.525	-0.003	99	940824	1000.0	1073.9	
34 trans-1,2-Dichloroethene	96	4.571	4.561	0.010	98	209713	100.0	106.8	
35 Methyl tert-butyl ether	73	4.583	4.586	-0.003	98	574699	100.0	106.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.987	0.004	95	339162	100.0	109.6	
37 1,1-Dichloroethane	63	5.204	5.200	0.004	96	395632	100.0	106.7	
38 Vinyl acetate	43	5.252	5.255	-0.003	97	441287	100.0	105.8	
44 2,2-Dichloropropane	77	5.952	5.942	0.010	91	202218	100.0	107.5	
45 cis-1,2-Dichloroethene	96	5.958	5.955	0.003	83	230222	100.0	106.0	
46 2-Butanone (MEK)	43	5.964	5.967	-0.003	100	230372	200.0	207.6	
49 Chlorobromomethane	128	6.238	6.234	0.004	97	103519	100.0	107.0	
51 Tetrahydrofuran	42	6.256	6.253	0.003	91	151096	200.0	200.3	
52 Chloroform	83	6.384	6.380	0.004	95	357774	100.0	107.6	
53 1,1,1-Trichloroethane	97	6.548	6.539	0.009	98	283726	100.0	110.2	
54 Cyclohexane	56	6.615	6.612	0.003	95	421978	100.0	108.3	
56 Carbon tetrachloride	117	6.718	6.715	0.003	94	253847	100.0	109.4	
55 1,1-Dichloropropene	75	6.730	6.733	-0.003	93	289670	100.0	106.8	
57 Isobutyl alcohol	41	6.931	6.928	0.003	94	185654	2500.0	2686.7	
58 Benzene	78	6.943	6.946	-0.003	98	891733	100.0	108.0	
59 1,2-Dichloroethane	62	7.022	7.019	0.003	96	259711	100.0	105.5	
62 n-Heptane	43	7.308	7.311	-0.003	95	289291	100.0	105.1	
64 Trichloroethene	130	7.680	7.676	0.004	97	224913	100.0	106.3	
66 Methylcyclohexane	83	7.917	7.913	0.004	93	377428	100.0	108.3	
67 1,2-Dichloropropane	63	7.947	7.950	-0.003	94	226207	100.0	105.5	
70 1,4-Dioxane	88	8.032	8.035	-0.003	42	36079	2000.0	2205.4	
68 Dibromomethane	93	8.038	8.035	0.003	97	114272	100.0	104.3	
71 Dichlorobromomethane	83	8.233	8.230	0.003	98	258861	100.0	108.4	
74 cis-1,3-Dichloropropene	75	8.677	8.680	-0.003	94	332080	100.0	109.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.832	-0.003	98	491050	200.0	212.9	
76 Toluene	91	9.006	9.002	0.004	98	894815	100.0	105.1	
77 trans-1,3-Dichloropropene	75	9.255	9.252	0.003	96	268588	100.0	104.1	
78 Ethyl methacrylate	69	9.310	9.313	-0.003	92	260669	100.0	101.4	
79 1,1,2-Trichloroethane	97	9.450	9.446	0.004	91	165328	100.0	102.8	
80 Tetrachloroethene	164	9.517	9.519	-0.002	96	169544	100.0	105.9	
81 1,3-Dichloropropane	76	9.602	9.605	-0.003	95	304646	100.0	100.1	
82 2-Hexanone	43	9.663	9.659	0.004	98	339351	200.0	206.9	
84 Chlorodibromomethane	129	9.821	9.818	0.003	91	165444	100.0	104.8	
85 Ethylene Dibromide	107	9.930	9.933	-0.003	97	169918	100.0	102.8	
86 3-Chlorobenzotrifluoride	180	10.393	10.389	0.004	93	292861	100.0	101.0	
87 Chlorobenzene	112	10.417	10.420	-0.003	94	570910	100.0	103.6	
88 4-Chlorobenzotrifluoride	180	10.478	10.481	-0.003	96	274980	100.0	102.7	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.511	0.003	93	195742	100.0	105.8	
90 Ethylbenzene	106	10.520	10.517	0.003	98	334335	100.0	104.2	
91 m-Xylene & p-Xylene	106	10.648	10.651	-0.003	0	407630	100.0	104.9	
92 o-Xylene	106	11.031	11.028	0.003	97	398116	100.0	103.8	
93 Styrene	104	11.050	11.052	-0.002	95	634944	100.0	105.0	
94 Bromoform	173	11.232	11.235	-0.003	95	107188	100.0	105.5	
96 2-Chlorobenzotrifluoride	180	11.299	11.302	-0.003	96	291981	100.0	101.7	
97 Isopropylbenzene	105	11.397	11.399	-0.003	96	999249	100.0	106.8	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.709	-0.002	87	233122	100.0	102.6	
100 Bromobenzene	156	11.713	11.709	0.004	93	230103	100.0	102.7	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.746	0.003	84	74514	100.0	100.1	
101 1,2,3-Trichloropropane	110	11.762	11.764	-0.002	87	73189	100.0	99.4	
103 N-Propylbenzene	120	11.816	11.813	0.003	98	285930	100.0	107.1	
104 2-Chlorotoluene	126	11.901	11.904	-0.003	96	231421	100.0	101.1	
105 3-Chlorotoluene	126	11.968	11.965	0.003	95	241548	100.0	103.9	

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	11.999	11.995	0.004	94	789696	100.0	105.1	
107 4-Chlorotoluene	126	12.023	12.026	-0.003	98	244132	100.0	101.1	
108 tert-Butylbenzene	119	12.309	12.312	-0.003	94	669393	100.0	104.2	
110 1,2,4-Trimethylbenzene	105	12.370	12.373	-0.003	98	790516	100.0	105.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.415	-0.003	97	196577	100.0	97.5	
112 sec-Butylbenzene	105	12.534	12.537	-0.003	95	954454	100.0	105.3	
113 1,3-Dichlorobenzene	146	12.656	12.652	0.004	97	406066	100.0	103.7	
114 4-Isopropyltoluene	119	12.692	12.689	0.003	96	777298	100.0	104.8	
115 1,4-Dichlorobenzene	146	12.759	12.756	0.003	94	415537	100.0	103.5	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.780	0.004	96	179817	100.0	95.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.823	0.003	0	209283	100.0	101.8	
120 n-Butylbenzene	91	13.100	13.097	0.004	98	670595	100.0	105.2	
121 1,2-Dichlorobenzene	146	13.112	13.115	-0.003	95	368987	100.0	101.7	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.900	0.003	85	35965	100.0	99.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.046	0.003	0	718214	300.0	311.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.459	0.004	0	444255	200.0	205.0	
126 1,2,4-Trichlorobenzene	180	14.730	14.727	0.003	95	154892	100.0	102.6	
127 Hexachlorobutadiene	225	14.870	14.867	0.003	98	72860	100.0	103.6	
128 Naphthalene	128	14.992	14.988	0.004	97	435794	100.0	104.3	
129 1,2,3-Trichlorobenzene	180	15.217	15.220	-0.003	95	121692	100.0	103.6	
131 2,4,5-Trichlorotoluene	159	15.996	15.992	0.004	0	52474	100.0	98.6	
130 2,3,6-Trichlorotoluene	159	16.093	16.090	0.003	96	48949	100.0	102.0	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	208.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	212.8	
S 135 1,3-Dichloropropene, Total	1				0		200.0	213.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketPri Re_00005	Amount Added:	4.00	Units: uL		
VOA8260SURR_00036	Amount Added:	4.00	Units: uL		
VOA8260VOAPRI_00115	Amount Added:	4.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	4.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	4.00	Units: uL		
VOAACROPRI_00005	Amount Added:	8.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	

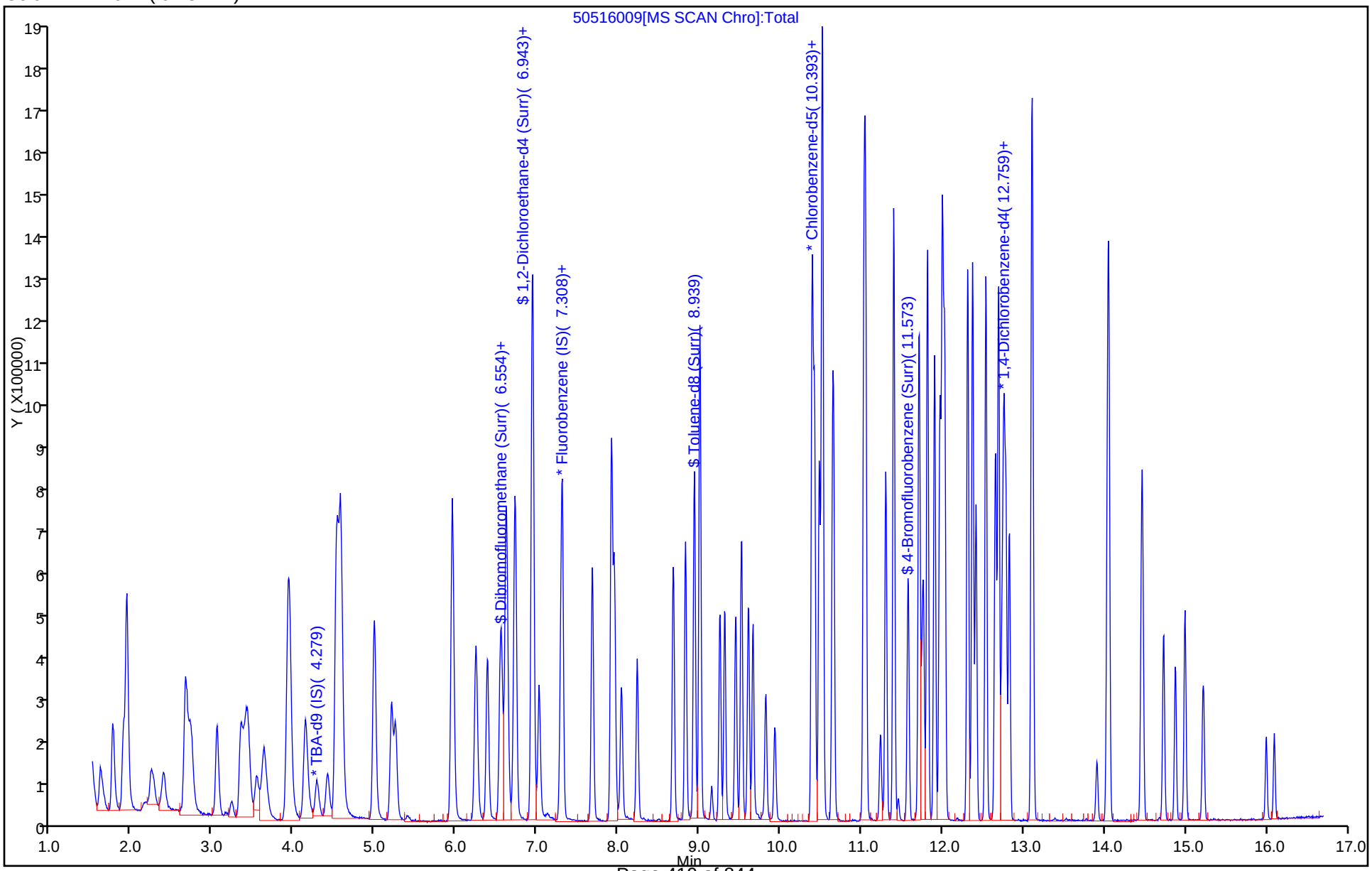
Report Date: 20-May-2015 07:59:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516009.D

Injection Date:	16-May-2015 15:37:30	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#:	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\20150516-6955.b\50516010.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2015 16:01:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0006955-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:04 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:25:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.294	-0.020	0	159875	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.287	0.005	99	415895	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.389	-0.001	61	100311	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.737	12.731	0.006	93	127325	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.563	-0.001	93	307223	175.0	171.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.934	-0.001	0	373050	175.0	166.9	
$ 7 Toluene-d8 (Surr)	98	8.940	8.935	0.005	94	1246255	175.0	167.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.576	-0.001	88	438835	175.0	164.1	
11 Dichlorodifluoromethane	85	1.610	1.611	-0.001	99	489556	175.0	170.4	
12 Chloromethane	50	1.762	1.763	-0.001	99	595634	175.0	162.8	
13 Vinyl chloride	62	1.896	1.891	0.005	98	566283	175.0	171.7	
14 Butadiene	39	1.932	1.933	-0.001	97	634286	175.0	166.8	
15 Bromomethane	94	2.249	2.231	0.018	92	239513	175.0	158.4	
16 Chloroethane	64	2.382	2.384	-0.002	99	287097	175.0	164.3	
17 Dichlorofluoromethane	67	2.662	2.663	-0.001	98	649772	175.0	164.3	
18 Trichlorofluoromethane	101	2.705	2.700	0.005	96	654292	175.0	175.7	
20 Ethyl ether	59	3.052	3.047	0.005	94	338873	175.0	161.1	
21 Acrolein	56	3.228	3.223	0.005	98	75025	225.0	213.9	
22 1,1-Dichloroethene	96	3.338	3.345	-0.007	97	335036	175.0	168.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.406	0.005	93	359471	175.0	172.4	
24 Acetone	43	3.441	3.442	-0.001	100	250330	350.0	305.2	
25 Iodomethane	142	3.532	3.539	-0.007	97	514557	175.0	168.5	
26 Carbon disulfide	76	3.624	3.631	-0.007	100	908552	175.0	171.1	
28 3-Chloro-1-propene	76	3.922	3.923	-0.001	91	226558	175.0	170.9	
30 Methyl acetate	43	3.940	3.941	-0.001	98	1593543	875.0	818.0	
31 Methylene Chloride	84	4.141	4.136	0.005	96	370938	175.0	167.6	
32 2-Methyl-2-propanol	59	4.408	4.409	-0.001	96	310446	1750.0	1737.3	
33 Acrylonitrile	53	4.524	4.525	-0.001	100	1638590	1750.0	1666.0	
34 trans-1,2-Dichloroethene	96	4.560	4.561	-0.001	98	376161	175.0	170.6	
35 Methyl tert-butyl ether	73	4.579	4.586	-0.007	98	1007461	175.0	165.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.987	-0.001	96	606508	175.0	174.5	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	96	699468	175.0	168.1	
38 Vinyl acetate	43	5.248	5.255	-0.007	97	838397	175.0	179.1	
44 2,2-Dichloropropane	77	5.947	5.942	0.005	92	362248	175.0	171.6	
45 cis-1,2-Dichloroethene	96	5.947	5.955	-0.008	85	406370	175.0	166.7	
46 2-Butanone (MEK)	43	5.960	5.967	-0.007	99	413184	350.0	331.6	
49 Chlorobromomethane	128	6.233	6.234	-0.001	96	175842	175.0	161.9	
51 Tetrahydrofuran	42	6.252	6.253	-0.001	90	268899	350.0	317.4	
52 Chloroform	83	6.385	6.380	0.005	94	623315	175.0	167.0	
53 1,1,1-Trichloroethane	97	6.544	6.539	0.005	98	501196	175.0	173.4	
54 Cyclohexane	56	6.610	6.612	-0.002	95	760681	175.0	173.8	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	95	458714	175.0	176.2	
55 1,1-Dichloropropene	75	6.732	6.733	-0.001	94	532113	175.0	174.8	
57 Isobutyl alcohol	41	6.927	6.928	-0.001	94	306921	4375.0	3956.2	
58 Benzene	78	6.945	6.946	-0.001	98	1556800	175.0	168.0	
59 1,2-Dichloroethane	62	7.024	7.019	0.005	96	470597	175.0	170.2	
62 n-Heptane	43	7.310	7.311	-0.001	94	539599	175.0	174.7	
64 Trichloroethene	130	7.681	7.676	0.005	97	397937	175.0	167.5	
66 Methylcyclohexane	83	7.912	7.913	-0.001	93	683293	175.0	174.6	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	93	412685	175.0	171.4	
68 Dibromomethane	93	8.034	8.035	-0.001	96	205482	175.0	167.0	
70 1,4-Dioxane	88	8.028	8.035	-0.007	41	63617	3500.0	3463.6	
71 Dichlorobromomethane	83	8.235	8.230	0.005	99	466967	175.0	174.2	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	94	596748	175.0	175.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	854345	350.0	329.9	
76 Toluene	91	9.007	9.002	0.005	98	1582981	175.0	165.5	
77 trans-1,3-Dichloropropene	75	9.251	9.252	-0.001	96	502087	175.0	173.2	
78 Ethyl methacrylate	69	9.312	9.313	-0.001	91	493696	175.0	171.1	
79 1,1,2-Trichloroethane	97	9.445	9.446	-0.001	92	297075	175.0	164.5	
80 Tetrachloroethene	164	9.518	9.519	-0.001	95	302473	175.0	168.2	
81 1,3-Dichloropropane	76	9.604	9.605	-0.001	95	555783	175.0	162.7	
82 2-Hexanone	43	9.658	9.659	-0.001	98	615972	350.0	334.5	
84 Chlorodibromomethane	129	9.816	9.818	-0.002	91	303040	175.0	171.0	
85 Ethylene Dibromide	107	9.932	9.933	-0.001	99	308447	175.0	166.2	
86 3-Chlorobenzotrifluoride	180	10.394	10.389	0.005	93	527642	175.0	162.0	
87 Chlorobenzene	112	10.419	10.420	-0.001	94	1012881	175.0	163.6	
88 4-Chlorobenzotrifluoride	180	10.480	10.481	-0.001	96	495834	175.0	164.9	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.511	-0.001	94	356190	175.0	171.5	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	604351	175.0	167.7	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	732122	175.0	167.8	
92 o-Xylene	106	11.027	11.028	-0.001	95	709393	175.0	164.7	
93 Styrene	104	11.051	11.052	-0.001	95	1140683	175.0	167.9	
94 Bromoform	173	11.234	11.235	-0.001	96	198852	175.0	174.3	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	524920	175.0	162.9	
97 Isopropylbenzene	105	11.398	11.399	-0.001	97	1734373	175.0	165.0	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.709	-0.001	78	418695	175.0	164.0	
100 Bromobenzene	156	11.708	11.709	-0.001	93	398529	175.0	169.4	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.746	-0.001	86	139100	175.0	177.9	
101 1,2,3-Trichloropropane	110	11.763	11.764	-0.001	86	133594	175.0	172.9	
103 N-Propylbenzene	120	11.812	11.813	-0.001	98	499315	175.0	178.2	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	97	419063	175.0	174.5	
105 3-Chlorotoluene	126	11.970	11.965	0.005	95	407920	175.0	167.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.994	11.995	-0.001	95	1375415	175.0	174.5	
107 4-Chlorotoluene	126	12.025	12.026	-0.001	98	447268	175.0	176.4	
108 tert-Butylbenzene	119	12.311	12.312	-0.001	81	1178813	175.0	174.9	
110 1,2,4-Trimethylbenzene	105	12.372	12.373	-0.001	97	1360625	175.0	173.1	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	98	355323	175.0	167.9	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	95	1653035	175.0	173.7	
113 1,3-Dichlorobenzene	146	12.651	12.652	-0.001	97	700660	175.0	170.5	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	96	1364814	175.0	175.3	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	94	717486	175.0	170.3	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.780	0.005	96	332494	175.0	168.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.823	-0.001	0	354350	175.0	164.2	
120 n-Butylbenzene	91	13.102	13.097	0.006	97	1189032	175.0	177.8	
121 1,2-Dichlorobenzene	146	13.114	13.115	-0.001	95	641130	175.0	168.4	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.900	0.005	83	61945	175.0	163.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.046	-0.002	0	1225990	525.0	505.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.459	0.005	0	764884	350.0	336.3	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	94	266554	175.0	168.3	
127 Hexachlorobutadiene	225	14.872	14.867	0.005	98	129453	175.0	175.3	
128 Naphthalene	128	14.994	14.988	0.006	98	752912	175.0	171.6	
129 1,2,3-Trichlorobenzene	180	15.219	15.220	-0.001	95	208528	175.0	169.1	
131 2,4,5-Trichlorotoluene	159	15.991	15.992	-0.001	0	97593	175.0	174.7	
130 2,3,6-Trichlorotoluene	159	16.095	16.090	0.005	96	88195	175.0	175.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	332.5	
S 134 1,2-Dichloroethene, Total	96				0		350.0	337.3	
S 135 1,3-Dichloropropene, Total	1				0		350.0	348.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	9.00	Units: uL	
VOA8260SURR_00036	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	7.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	7.00	Units: uL	
voaWketPri Re_00005	Amount Added:	7.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	7.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

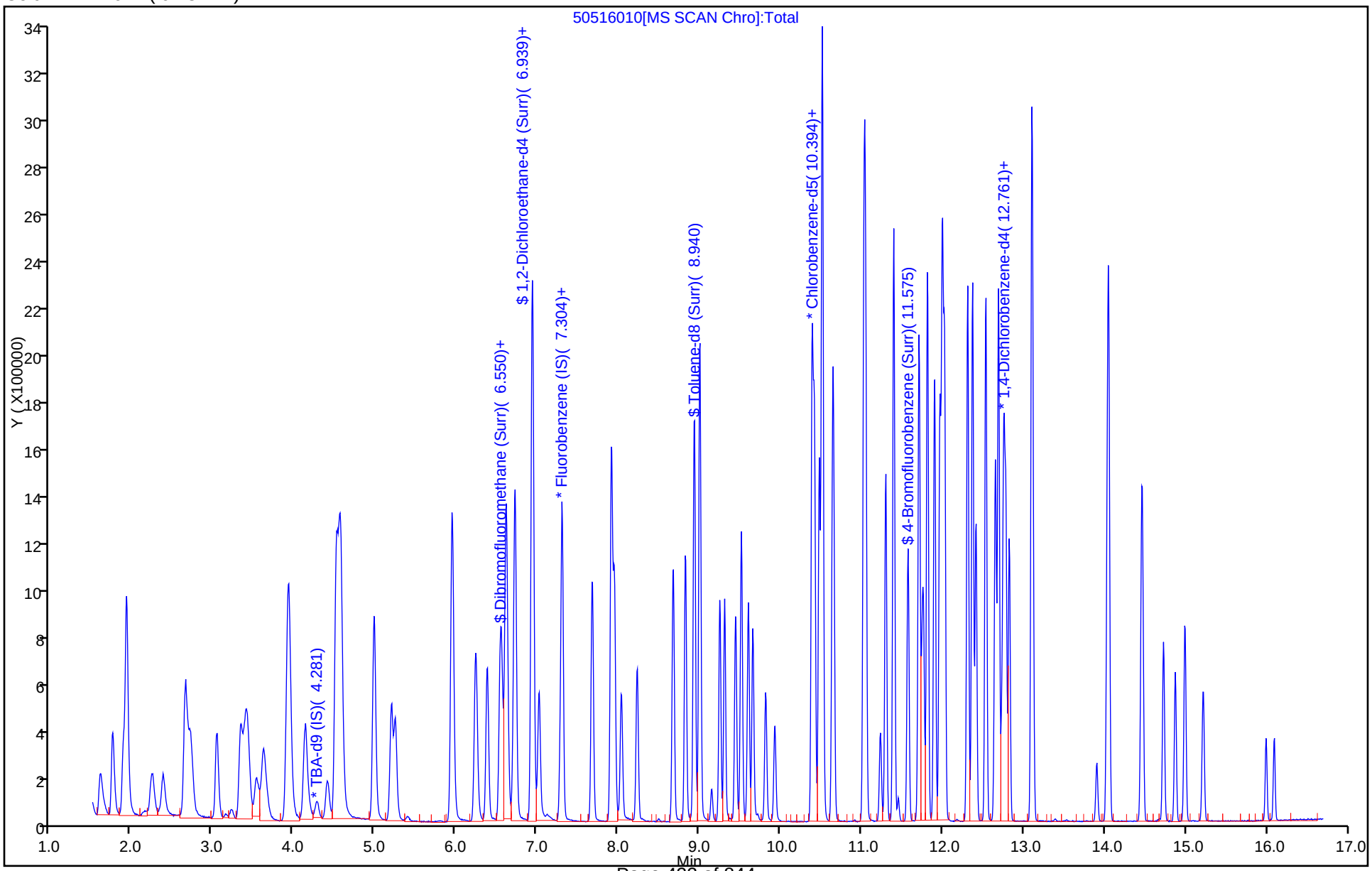
Report Date: 20-May-2015 07:59:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516010.D

Injection Date:	16-May-2015 16:01:30	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#:	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\20150516-6955.b\50516011.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2015 16:25:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0006955-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:05 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:30:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.287	4.294	-0.007	0	168203	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.287	-0.001	98	417857	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	58	104075	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.731	0.000	93	129741	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.563	-0.001	94	348028	200.0	193.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.934	0.005	0	431230	200.0	192.0	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	94	1397781	200.0	180.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.576	-0.001	87	502727	200.0	181.2	
11 Dichlorodifluoromethane	85	1.616	1.611	0.005	99	571054	200.0	197.8	
12 Chloromethane	50	1.762	1.763	-0.001	99	704073	200.0	191.6	
13 Vinyl chloride	62	1.896	1.891	0.005	98	646662	200.0	195.2	
14 Butadiene	39	1.933	1.933	0.000	97	723158	200.0	189.3	
15 Bromomethane	94	2.231	2.231	0.000	92	271395	200.0	178.6	
16 Chloroethane	64	2.383	2.384	-0.001	100	330931	200.0	188.5	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	738885	200.0	186.0	
18 Trichlorofluoromethane	101	2.699	2.700	-0.001	98	736625	200.0	196.9	
20 Ethyl ether	59	3.046	3.047	-0.001	94	408402	200.0	193.3	
21 Acrolein	56	3.222	3.223	-0.001	99	88651	250.0	251.5	
22 1,1-Dichloroethene	96	3.338	3.345	-0.007	98	391170	200.0	195.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.406	0.005	93	418214	200.0	199.7	
24 Acetone	43	3.441	3.442	-0.001	100	294993	400.0	357.9	
25 Iodomethane	142	3.533	3.539	-0.006	97	605171	200.0	197.2	
26 Carbon disulfide	76	3.618	3.631	-0.013	100	1075123	200.0	201.5	
28 3-Chloro-1-propene	76	3.916	3.923	-0.007	91	274256	200.0	205.9	
30 Methyl acetate	43	3.934	3.941	-0.007	98	1896769	1000.0	969.1	
31 Methylene Chloride	84	4.141	4.136	0.005	97	447077	200.0	201.9	
32 2-Methyl-2-propanol	59	4.415	4.409	0.006	96	386153	2000.0	2054.0	
33 Acrylonitrile	53	4.524	4.525	-0.001	98	1932324	2000.0	1955.4	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	98	445623	200.0	201.2	
35 Methyl tert-butyl ether	73	4.579	4.586	-0.007	97	1195212	200.0	195.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	707171	200.0	202.6	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	96	821765	200.0	196.5	
38 Vinyl acetate	43	5.248	5.255	-0.007	97	950875	200.0	202.2	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	92	417803	200.0	197.0	
45 cis-1,2-Dichloroethene	96	5.948	5.955	-0.007	83	479341	200.0	195.7	
46 2-Butanone (MEK)	43	5.960	5.967	-0.007	100	480568	400.0	383.9	
49 Chlorobromomethane	128	6.234	6.234	0.000	97	212511	200.0	194.8	
51 Tetrahydrofuran	42	6.252	6.253	-0.001	90	324299	400.0	381.0	
52 Chloroform	83	6.380	6.380	0.000	95	735696	200.0	196.2	
53 1,1,1-Trichloroethane	97	6.538	6.539	-0.001	98	593527	200.0	204.4	
54 Cyclohexane	56	6.617	6.612	0.005	95	887972	200.0	202.0	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	95	538483	200.0	205.8	
55 1,1-Dichloropropene	75	6.726	6.733	-0.007	93	626963	200.0	205.0	
57 Isobutyl alcohol	41	6.933	6.928	0.005	93	367512	5000.0	4714.9	
58 Benzene	78	6.939	6.946	-0.007	98	1804376	200.0	193.8	
59 1,2-Dichloroethane	62	7.018	7.019	-0.001	96	549195	200.0	197.7	
62 n-Heptane	43	7.304	7.311	-0.007	94	638200	200.0	205.6	
64 Trichloroethene	130	7.675	7.676	-0.001	97	464834	200.0	194.8	
66 Methylcyclohexane	83	7.913	7.913	0.000	91	803074	200.0	204.2	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	93	486757	200.0	201.2	
68 Dibromomethane	93	8.034	8.035	-0.001	97	241803	200.0	195.6	
70 1,4-Dioxane	88	8.034	8.035	-0.001	40	72304	4000.0	3918.0	
71 Dichlorobromomethane	83	8.229	8.230	-0.001	98	544261	200.0	202.1	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	93	695090	200.0	203.0	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	1022549	400.0	380.5	
76 Toluene	91	9.008	9.002	0.006	98	1828639	200.0	184.3	
77 trans-1,3-Dichloropropene	75	9.251	9.252	-0.001	97	591530	200.0	196.7	
78 Ethyl methacrylate	69	9.312	9.313	-0.001	91	570691	200.0	190.6	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	91	352121	200.0	187.9	
80 Tetrachloroethene	164	9.519	9.519	0.000	95	354566	200.0	190.0	
81 1,3-Dichloropropane	76	9.604	9.605	-0.001	94	647342	200.0	182.6	
82 2-Hexanone	43	9.659	9.659	0.000	98	717499	400.0	375.5	
84 Chlorodibromomethane	129	9.817	9.818	-0.001	90	360233	200.0	195.9	
85 Ethylene Dibromide	107	9.926	9.933	-0.007	98	362695	200.0	188.4	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	93	631042	200.0	186.8	
87 Chlorobenzene	112	10.419	10.420	-0.001	93	1180656	200.0	183.8	
88 4-Chlorobenzotrifluoride	180	10.480	10.481	-0.001	97	590776	200.0	189.4	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.511	-0.001	95	418931	200.0	194.4	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	706749	200.0	189.0	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	852624	200.0	188.3	
92 o-Xylene	106	11.027	11.028	-0.001	96	836498	200.0	187.2	
93 Styrene	104	11.052	11.052	0.000	95	1337390	200.0	189.7	
94 Bromoform	173	11.234	11.235	-0.001	96	236082	200.0	199.4	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	628620	200.0	188.0	
97 Isopropylbenzene	105	11.399	11.399	-0.001	97	2001663	200.0	183.5	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.709	0.000	92	490555	200.0	185.2	
100 Bromobenzene	156	11.715	11.709	0.006	94	473382	200.0	197.5	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.746	-0.001	86	159664	200.0	200.5	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	86	153012	200.0	194.3	
103 N-Propylbenzene	120	11.812	11.813	-0.001	98	591500	200.0	207.1	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	96	489127	200.0	199.9	
105 3-Chlorotoluene	126	11.964	11.965	-0.001	95	495496	200.0	199.3	

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	11.995	11.995	0.000	95	1608417	200.0	200.2	
107 4-Chlorotoluene	126	12.025	12.026	-0.001	98	528393	200.0	204.6	
108 tert-Butylbenzene	119	12.311	12.312	-0.001	94	1380885	200.0	201.0	
110 1,2,4-Trimethylbenzene	105	12.372	12.373	-0.001	97	1609046	200.0	200.9	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	98	427937	200.0	198.5	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	95	1924108	200.0	198.5	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	832640	200.0	198.8	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	96	1579772	200.0	199.2	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	92	848655	200.0	197.6	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.780	-0.001	96	417880	200.0	208.4	
118 2,5-Dichlorobenzotrifluori	214	12.828	12.823	0.005	0	439671	200.0	200.0	
120 n-Butylbenzene	91	13.102	13.097	0.006	97	1404498	200.0	206.1	
121 1,2-Dichlorobenzene	146	13.114	13.115	-0.001	95	762881	200.0	196.6	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.900	0.005	79	76236	200.0	197.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.046	-0.001	0	1539388	600.0	623.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.459	-0.001	0	962981	400.0	415.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	94	335069	200.0	207.6	
127 Hexachlorobutadiene	225	14.872	14.867	0.005	98	162203	200.0	215.6	
128 Naphthalene	128	14.988	14.988	0.000	98	941162	200.0	210.6	
129 1,2,3-Trichlorobenzene	180	15.219	15.220	-0.001	94	264239	200.0	210.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	132246	200.0	232.3	
130 2,3,6-Trichlorotoluene	159	16.089	16.090	-0.001	95	119597	200.0	238.5	
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		400.0	375.6	
S 134 1,2-Dichloroethene, Total	96				0		400.0	396.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	399.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	
VOAACROPRI_00005	Amount Added:	10.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

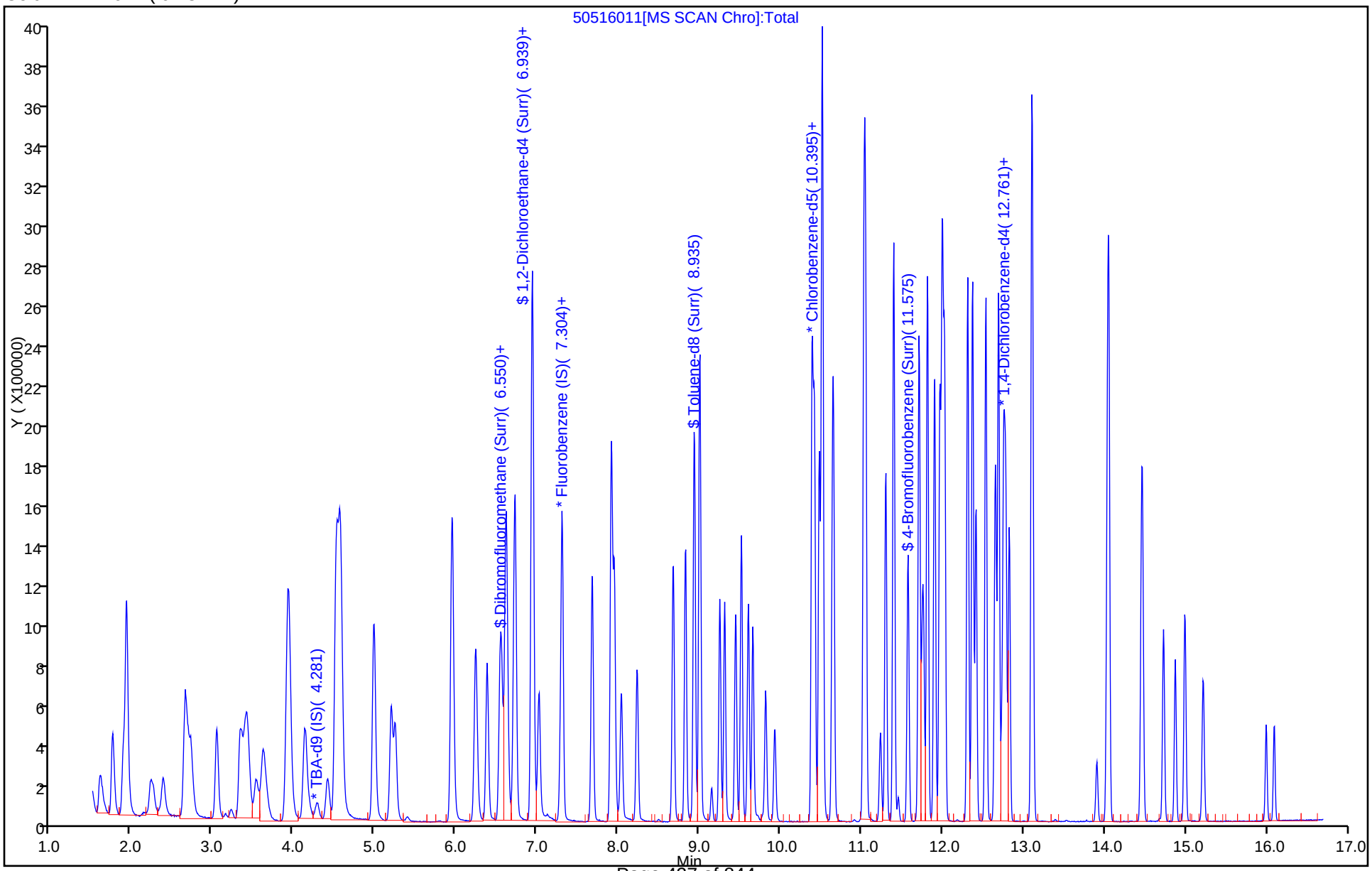
Report Date: 20-May-2015 07:59:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516011.D

Injection Date:	16-May-2015 16:25:30	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#:	11
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\20150516-6955.b\50516012.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 16-May-2015 16:49:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0006955-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:07 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 19-May-2015 16:52:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.291	4.294	-0.003	0	186139	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.287	0.003	98	397426	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.389	-0.003	85	106136	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.731	0.004	90	132873	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.563	-0.003	93	437325	250.0	255.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.934	0.003	0	539180	250.0	252.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.935	0.004	93	1708627	250.0	216.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.576	-0.003	87	644083	250.0	227.6	
11 Dichlorodifluoromethane	85	1.608	1.611	-0.003	99	677972	250.0	246.9	
12 Chloromethane	50	1.760	1.763	-0.003	99	853061	250.0	244.0	
13 Vinyl chloride	62	1.900	1.891	0.009	98	756967	250.0	240.2	
14 Butadiene	39	1.930	1.933	-0.003	97	834397	250.0	229.6	
15 Bromomethane	94	2.229	2.231	-0.002	90	313631	250.0	217.1	
16 Chloroethane	64	2.375	2.384	-0.009	99	421453	250.0	252.4	
17 Dichlorofluoromethane	67	2.654	2.663	-0.009	98	897395	250.0	237.5	
18 Trichlorofluoromethane	101	2.709	2.700	0.009	96	864903	250.0	243.0	
20 Ethyl ether	59	3.044	3.047	-0.003	94	507453	250.0	252.5	
21 Acrolein	56	3.232	3.223	0.009	100	96098	275.0	286.7	
22 1,1-Dichloroethene	96	3.336	3.345	-0.009	98	475066	250.0	249.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.409	3.406	0.003	93	498000	250.0	250.0	
24 Acetone	43	3.439	3.442	-0.003	100	384917	500.0	491.0	
25 Iodomethane	142	3.536	3.539	-0.003	97	733771	250.0	251.4	
26 Carbon disulfide	76	3.622	3.631	-0.009	100	1298935	250.0	256.0	
28 3-Chloro-1-propene	76	3.914	3.923	-0.009	92	330407	250.0	260.8	
30 Methyl acetate	43	3.938	3.941	-0.003	98	2376963	1250.0	1276.9	
31 Methylene Chloride	84	4.133	4.136	-0.003	96	552796	250.0	263.6	
32 2-Methyl-2-propanol	59	4.419	4.409	0.010	95	512805	2500.0	2464.8	
33 Acrylonitrile	53	4.522	4.525	-0.003	98	2412653	2500.0	2567.0	
34 trans-1,2-Dichloroethene	96	4.559	4.561	-0.003	98	544478	250.0	258.4	
35 Methyl tert-butyl ether	73	4.577	4.586	-0.009	98	1509991	250.0	260.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.987	-0.003	95	844126	250.0	254.2	
37 1,1-Dichloroethane	63	5.197	5.200	-0.003	96	999556	250.0	251.3	
38 Vinyl acetate	43	5.246	5.255	-0.009	97	1138937	250.0	254.6	
44 2,2-Dichloropropane	77	5.946	5.942	0.004	93	500050	250.0	247.8	
45 cis-1,2-Dichloroethene	96	5.946	5.955	-0.009	82	595141	250.0	255.5	
46 2-Butanone (MEK)	43	5.958	5.967	-0.009	100	622273	500.0	522.7	
49 Chlorobromomethane	128	6.238	6.234	0.004	97	263556	250.0	254.0	
51 Tetrahydrofuran	42	6.250	6.253	-0.003	91	419005	500.0	517.6	
52 Chloroform	83	6.377	6.380	-0.003	95	893900	250.0	250.6	
53 1,1,1-Trichloroethane	97	6.536	6.539	-0.003	98	696824	250.0	252.3	
54 Cyclohexane	56	6.609	6.612	-0.003	95	1049572	250.0	251.0	
56 Carbon tetrachloride	117	6.718	6.715	0.003	94	635270	250.0	255.3	
55 1,1-Dichloropropene	75	6.730	6.733	-0.003	93	735954	250.0	253.0	
57 Isobutyl alcohol	41	6.931	6.928	0.003	94	528662	6250.0	7131.0	
58 Benzene	78	6.943	6.946	-0.003	99	2207544	250.0	249.3	
59 1,2-Dichloroethane	62	7.022	7.019	0.003	96	681235	250.0	257.8	
62 n-Heptane	43	7.308	7.311	-0.003	94	757243	250.0	256.5	
64 Trichloroethene	130	7.679	7.676	0.003	96	566380	250.0	249.5	
66 Methylcyclohexane	83	7.917	7.913	0.004	93	944316	250.0	252.5	
67 1,2-Dichloropropane	63	7.947	7.950	-0.003	94	603740	250.0	262.4	
68 Dibromomethane	93	8.038	8.035	0.003	97	304535	250.0	259.0	
70 1,4-Dioxane	88	8.032	8.035	-0.003	92	102170	5000.0	5821.0	
71 Dichlorobromomethane	83	8.233	8.230	0.003	98	687742	250.0	268.4	
74 cis-1,3-Dichloropropene	75	8.677	8.680	-0.003	93	870707	250.0	267.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.832	-0.003	98	1279570	500.0	466.9	
76 Toluene	91	9.006	9.002	0.004	98	2216424	250.0	219.0	
77 trans-1,3-Dichloropropene	75	9.255	9.252	0.003	97	743755	250.0	242.5	
78 Ethyl methacrylate	69	9.310	9.313	-0.003	91	725382	250.0	237.6	
79 1,1,2-Trichloroethane	97	9.444	9.446	-0.002	92	443499	250.0	232.1	
80 Tetrachloroethene	164	9.517	9.519	-0.002	95	418170	250.0	219.7	
81 1,3-Dichloropropane	76	9.602	9.605	-0.003	94	826269	250.0	228.5	
82 2-Hexanone	43	9.663	9.659	0.004	97	888839	500.0	456.1	
84 Chlorodibromomethane	129	9.815	9.818	-0.003	91	456166	250.0	243.2	
85 Ethylene Dibromide	107	9.930	9.933	-0.003	99	453495	250.0	231.0	
86 3-Chlorobenzotrifluoride	180	10.393	10.389	0.004	94	699677	250.0	203.0	
87 Chlorobenzene	112	10.417	10.420	-0.003	92	1442349	250.0	220.2	
88 4-Chlorobenzotrifluoride	180	10.478	10.481	-0.003	97	658310	250.0	207.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.511	0.003	95	519767	250.0	236.5	
90 Ethylbenzene	106	10.520	10.517	0.003	98	870182	250.0	228.2	
91 m-Xylene & p-Xylene	106	10.648	10.651	-0.003	0	1047590	250.0	226.9	
92 o-Xylene	106	11.031	11.028	0.003	96	1033655	250.0	226.9	
93 Styrene	104	11.050	11.052	-0.002	95	1669453	250.0	232.2	
94 Bromoform	173	11.232	11.235	-0.003	96	303024	250.0	251.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.302	-0.003	96	703113	250.0	206.2	
97 Isopropylbenzene	105	11.396	11.399	-0.003	97	2396507	250.0	215.5	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.709	-0.002	79	643838	250.0	238.4	
100 Bromobenzene	156	11.713	11.709	0.004	95	600210	250.0	244.5	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.746	-0.003	85	210584	250.0	258.1	
101 1,2,3-Trichloropropane	110	11.761	11.764	-0.003	85	199028	250.0	246.8	
103 N-Propylbenzene	120	11.816	11.813	0.003	97	729900	250.0	249.6	
104 2-Chlorotoluene	126	11.901	11.904	-0.003	96	620292	250.0	247.5	
105 3-Chlorotoluene	126	11.968	11.965	0.003	95	587998	250.0	230.9	

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	11.999	11.995	0.004	95	1986196	250.0	241.4	
107 4-Chlorotoluene	126	12.023	12.026	-0.003	98	650195	250.0	245.8	
108 tert-Butylbenzene	119	12.309	12.312	-0.003	93	1681816	250.0	239.1	
110 1,2,4-Trimethylbenzene	105	12.370	12.373	-0.003	98	1991208	250.0	242.7	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.415	-0.003	98	491068	250.0	222.4	
112 sec-Butylbenzene	105	12.534	12.537	-0.003	95	2349439	250.0	236.6	
113 1,3-Dichlorobenzene	146	12.650	12.652	-0.002	97	1066399	250.0	248.6	
114 4-Isopropyltoluene	119	12.692	12.689	0.003	95	1970323	250.0	242.6	
115 1,4-Dichlorobenzene	146	12.759	12.756	0.003	94	1083798	250.0	246.5	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.780	0.003	95	461859	250.0	224.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.823	0.003	0	523106	250.0	232.3	
120 n-Butylbenzene	91	13.100	13.097	0.004	97	1762668	250.0	252.5	
121 1,2-Dichlorobenzene	146	13.112	13.115	-0.003	95	995030	250.0	250.4	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.900	0.003	83	105258	250.0	266.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.046	-0.003	0	1871521	750.0	739.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.459	0.003	0	1224014	500.0	515.7	
126 1,2,4-Trichlorobenzene	180	14.730	14.727	0.003	94	454311	250.0	274.8	
127 Hexachlorobutadiene	225	14.870	14.867	0.003	98	205269	250.0	266.4	
128 Naphthalene	128	14.992	14.988	0.004	98	1301801	250.0	284.4	
129 1,2,3-Trichlorobenzene	180	15.217	15.220	-0.003	95	363631	250.0	282.5	
131 2,4,5-Trichlorotoluene	159	15.995	15.992	0.003	0	167048	250.0	286.5	
130 2,3,6-Trichlorotoluene	159	16.093	16.090	0.003	95	149988	250.0	291.1	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	453.8	
S 134 1,2-Dichloroethene, Total	96				0		500.0	513.9	
S 135 1,3-Dichloropropene, Total	1				0		500.0	509.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	11.00	Units: uL	
VOA8260SURR_00036	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	10.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	10.00	Units: uL	
voaWketPri Re_00005	Amount Added:	10.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	10.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

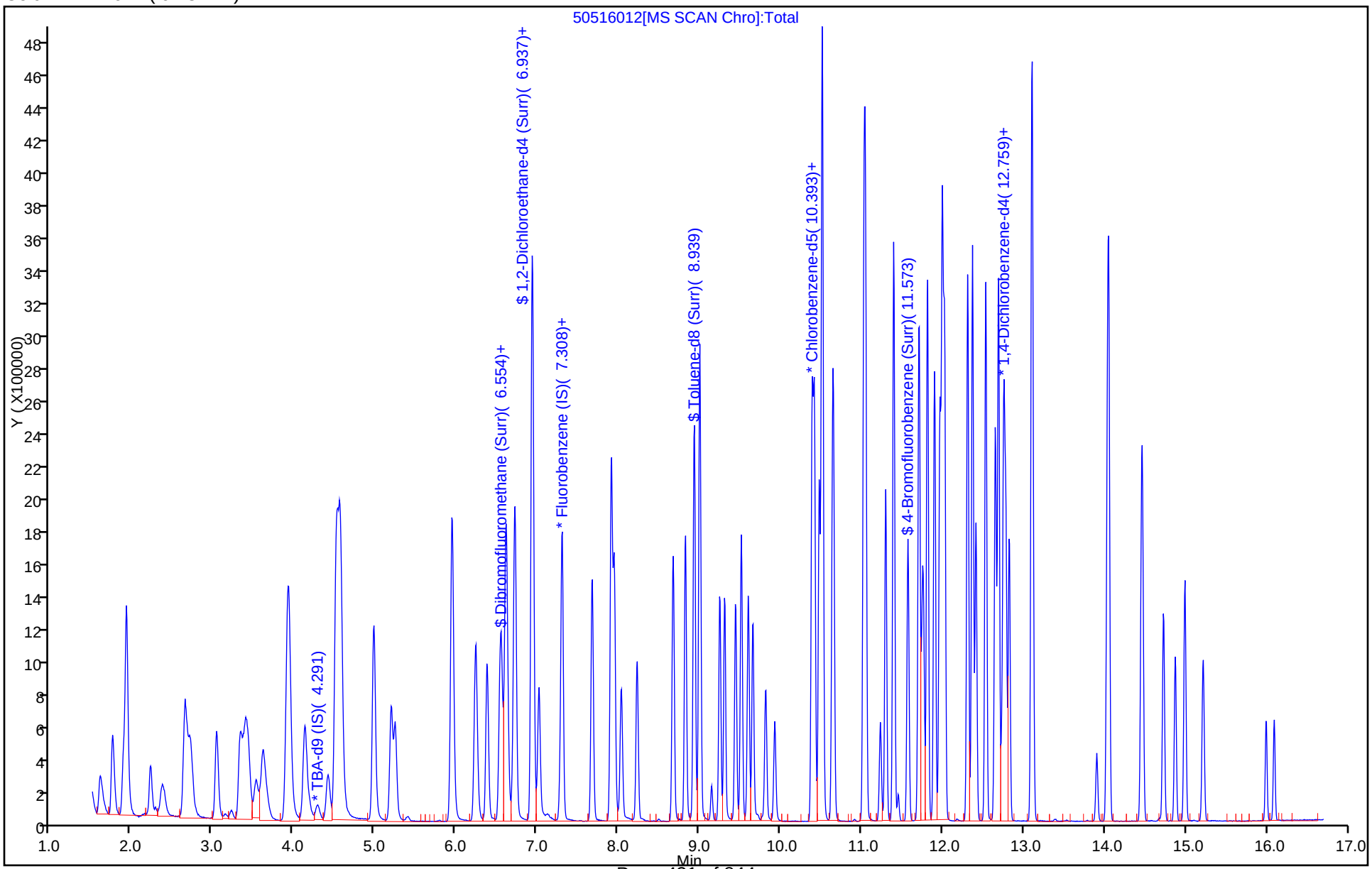
Report Date: 20-May-2015 07:59:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516012.D

Injection Date:	16-May-2015 16:49:30	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#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2015 18:25:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0006955-016
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:09 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 07:57:45

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	4.294	-0.020	0	132057	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.287	-0.001	98	369705	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.389	-0.001	87	78649	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.731	-0.001	96	108592	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.563	0.005	88	9010	5.00	5.65	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.934	0.005	0	11918	5.00	6.00	
$ 7 Toluene-d8 (Surr)	98	8.940	8.935	0.005	93	36207	5.00	6.20	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.576	-0.008	89	12704	5.00	6.06	
11 Dichlorodifluoromethane	85	1.622	1.611	0.011	92	12513	5.00	4.90	
12 Chloromethane	50	1.756	1.763	-0.007	99	18383	5.00	5.65	
13 Vinyl chloride	62	1.889	1.891	-0.002	96	14812	5.00	5.05	
14 Butadiene	39	1.932	1.933	-0.001	97	19501	5.00	5.77	
15 Bromomethane	94	2.242	2.231	0.011	80	8813	5.00	6.56	
16 Chloroethane	64	2.382	2.384	-0.002	79	8762	5.00	5.64	
17 Dichlorofluoromethane	67	2.662	2.663	-0.001	96	20175	5.00	5.74	
18 Trichlorofluoromethane	101	2.692	2.700	-0.008	80	16394	5.00	4.95	M
20 Ethyl ether	59	3.045	3.047	-0.002	82	10174	5.00	5.44	
21 Acrolein	56	3.234	3.223	0.011	98	30234	100.0	97.0	
22 1,1-Dichloroethene	96	3.337	3.345	-0.008	69	9961	5.00	5.62	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.406	0.004	57	9687	5.00	5.23	
24 Acetone	43	3.453	3.442	0.011	88	21797	25.0	29.9	
25 Iodomethane	142	3.544	3.539	0.005	82	14714	5.00	5.42	
26 Carbon disulfide	76	3.629	3.631	-0.002	96	24919	5.00	5.28	
28 3-Chloro-1-propene	76	3.934	3.923	0.011	84	5978	5.00	5.07	
30 Methyl acetate	43	3.940	3.941	-0.001	97	48572	25.0	28.0	
31 Methylene Chloride	84	4.134	4.136	-0.002	80	17309	5.00	5.04	
32 2-Methyl-2-propanol	59	4.426	4.409	0.017	90	7157	50.0	48.5	
33 Acrylonitrile	53	4.530	4.525	0.005	99	45954	50.0	52.6	
34 trans-1,2-Dichloroethene	96	4.560	4.561	-0.001	98	10386	5.00	5.30	
35 Methyl tert-butyl ether	73	4.591	4.586	0.005	97	28792	5.00	5.33	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.987	-0.007	93	15102	5.00	4.89	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	95	19928	5.00	5.39	
38 Vinyl acetate	43	5.254	5.255	-0.001	93	18503	5.00	4.45	
44 2,2-Dichloropropane	77	5.935	5.942	-0.007	58	9307	5.00	4.96	
45 cis-1,2-Dichloroethene	96	5.947	5.955	-0.008	82	12142	5.00	5.60	
46 2-Butanone (MEK)	43	5.971	5.967	0.004	100	31006	25.0	28.0	
49 Chlorobromomethane	128	6.239	6.234	0.005	95	5566	5.00	5.77	
51 Tetrahydrofuran	42	6.270	6.253	0.017	87	9426	10.0	12.5	
52 Chloroform	83	6.379	6.380	-0.001	94	18610	5.00	5.61	
53 1,1,1-Trichloroethane	97	6.543	6.539	0.004	99	11932	5.00	4.65	
54 Cyclohexane	56	6.610	6.612	-0.002	96	20355	5.00	5.23	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	78	11078	5.00	4.79	
55 1,1-Dichloropropene	75	6.732	6.733	-0.001	90	13850	5.00	5.12	
57 Isobutyl alcohol	41	6.939	6.928	0.011	70	9787	125.0	141.9	M
58 Benzene	78	6.939	6.946	-0.007	95	44424	5.00	5.39	
59 1,2-Dichloroethane	62	7.024	7.019	0.005	94	12453	5.00	5.07	
62 n-Heptane	43	7.310	7.311	-0.001	39	15172	5.00	5.52	
64 Trichloroethene	130	7.675	7.676	-0.001	90	12139	5.00	5.75	
66 Methylcyclohexane	83	7.918	7.913	0.005	91	16844	5.00	4.84	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	90	10943	5.00	5.11	
68 Dibromomethane	93	8.040	8.035	0.005	95	6235	5.00	5.70	
70 1,4-Dioxane	88	8.046	8.035	0.011	1	1153	100.0	70.6	M
71 Dichlorobromomethane	83	8.228	8.230	-0.002	97	11303	5.00	4.74	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	92	14613	5.00	4.82	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	52342	25.0	25.8	
76 Toluene	91	9.007	9.002	0.005	98	40730	5.00	5.43	
77 trans-1,3-Dichloropropene	75	9.250	9.252	-0.002	96	11452	5.00	5.04	
78 Ethyl methacrylate	69	9.311	9.313	-0.002	88	12080	5.00	5.34	
79 1,1,2-Trichloroethane	97	9.451	9.446	0.005	90	7876	5.00	5.56	
80 Tetrachloroethene	164	9.524	9.519	0.005	95	7687	5.00	5.45	
81 1,3-Dichloropropane	76	9.609	9.605	0.004	92	16478	5.00	6.15	
82 2-Hexanone	43	9.664	9.659	0.005	99	38885	25.0	26.9	
84 Chlorodibromomethane	129	9.822	9.818	0.004	88	7005	5.00	5.04	
85 Ethylene Dibromide	107	9.932	9.933	-0.001	99	8390	5.00	5.77	
86 3-Chlorobenzotrifluoride	180	10.388	10.389	-0.001	64	15234	5.00	5.97	
87 Chlorobenzene	112	10.418	10.420	-0.002	96	28689	5.00	5.91	
88 4-Chlorobenzotrifluoride	180	10.479	10.481	-0.002	95	13145	5.00	5.58	
89 1,1,1,2-Tetrachloroethane	131	10.504	10.511	-0.007	42	7836	5.00	4.81	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	15925	5.00	5.64	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	19244	5.00	5.63	
92 o-Xylene	106	11.033	11.028	0.005	97	19196	5.00	5.69	
93 Styrene	104	11.051	11.052	-0.001	96	27783	5.00	5.22	
94 Bromoform	173	11.228	11.235	-0.007	91	4406	5.00	4.93	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	15335	5.00	6.07	
97 Isopropylbenzene	105	11.398	11.399	-0.001	96	44339	5.00	5.38	
99 1,1,2,2-Tetrachloroethane	83	11.714	11.709	0.005	74	11022	5.00	5.51	
100 Bromobenzene	156	11.714	11.709	0.005	94	10926	5.00	5.45	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.746	-0.007	77	3664	5.00	5.50	
101 1,2,3-Trichloropropane	110	11.769	11.764	0.005	87	3746	5.00	5.68	
103 N-Propylbenzene	120	11.818	11.813	0.005	99	11250	5.00	4.71	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	97	11001	5.00	5.37	
105 3-Chlorotoluene	126	11.964	11.965	-0.001	96	12388	5.00	5.95	

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	11.995	-0.001	94	32870	5.00	4.89	
107 4-Chlorotoluene	126	12.031	12.026	0.005	98	11220	5.00	5.19	
108 tert-Butylbenzene	119	12.310	12.312	-0.002	93	29741	5.00	5.17	
110 1,2,4-Trimethylbenzene	105	12.371	12.373	-0.002	97	32279	5.00	4.81	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	95	11090	5.00	6.15	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	94	41624	5.00	5.13	
113 1,3-Dichlorobenzene	146	12.651	12.652	-0.001	95	17902	5.00	5.11	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	97	33151	5.00	4.99	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	94	20136	5.00	5.60	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.780	-0.001	95	9729	5.00	5.80	
118 2,5-Dichlorobenzotrifluori	214	12.828	12.823	0.005	0	10172	5.00	5.53	
120 n-Butylbenzene	91	13.095	13.097	-0.001	96	27189	5.00	4.77	
121 1,2-Dichlorobenzene	146	13.113	13.115	-0.002	96	18141	5.00	5.59	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.900	0.004	64	1837	5.00	5.68	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.046	-0.002	0	29912	15.0	14.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.459	-0.001	0	18293	10.0	9.43	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	91	6288	5.00	4.65	
127 Hexachlorobutadiene	225	14.878	14.867	0.011	90	2713	5.00	4.31	
128 Naphthalene	128	14.993	14.988	0.005	96	16645	5.00	4.45	
129 1,2,3-Trichlorobenzene	180	15.212	15.220	-0.008	93	4718	5.00	4.49	
131 2,4,5-Trichlorotoluene	159	15.991	15.992	-0.001	0	2095	5.00	4.40	
130 2,3,6-Trichlorotoluene	159	16.094	16.090	0.004	81	1682	5.00	3.91	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	11.3	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.9	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.86	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	0.20	Units: uL	
VOA8260SURR_00036	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	0.20	Units: uL	
voaWEEmix1st_00001	Amount Added:	0.20	Units: uL	
voaWketPri Re_00005	Amount Added:	0.80	Units: uL	
VOAACROPRI_00005	Amount Added:	4.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

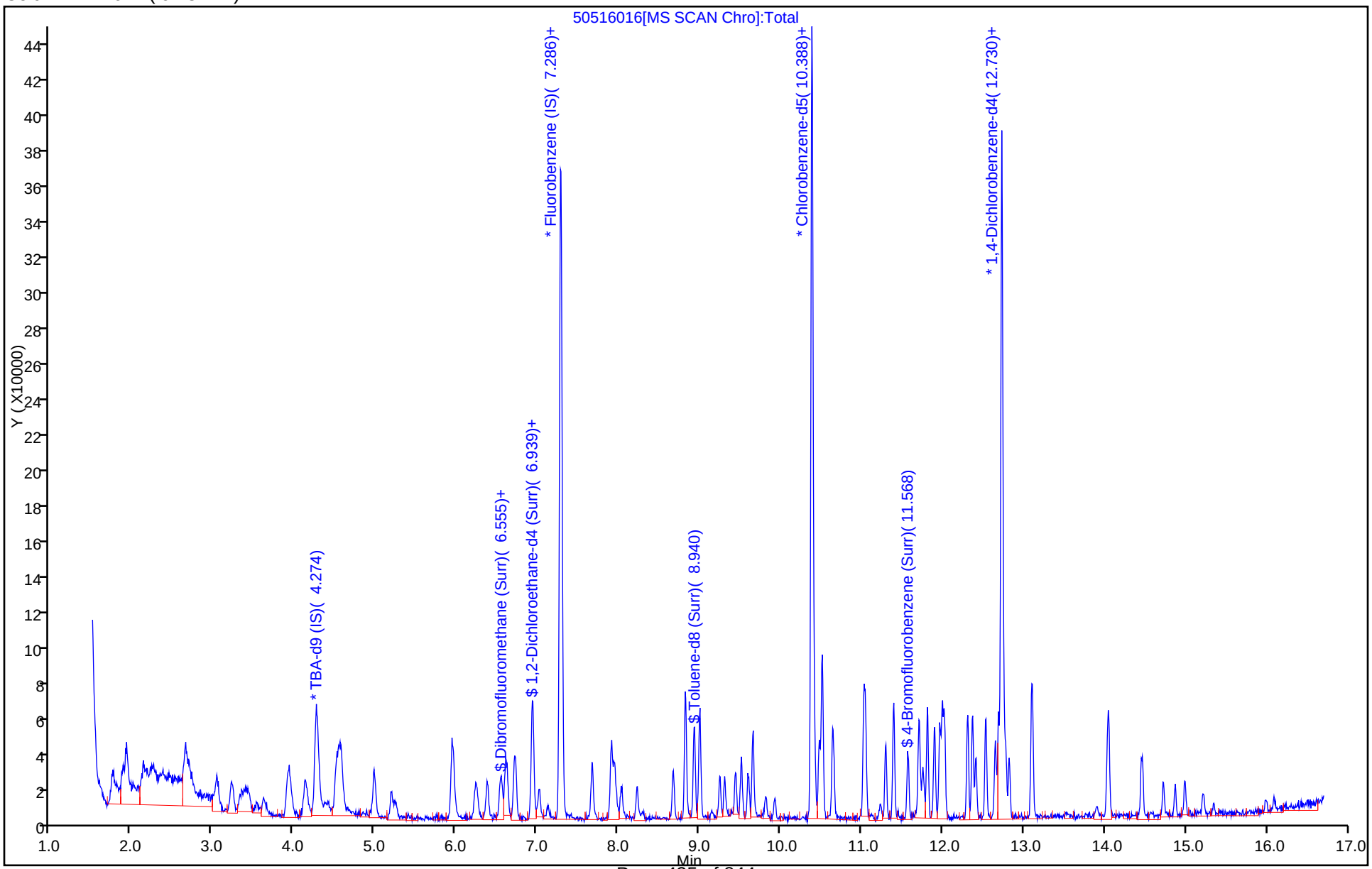
Report Date: 20-May-2015 07:59:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Injection Date:	16-May-2015 18:25:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	16
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



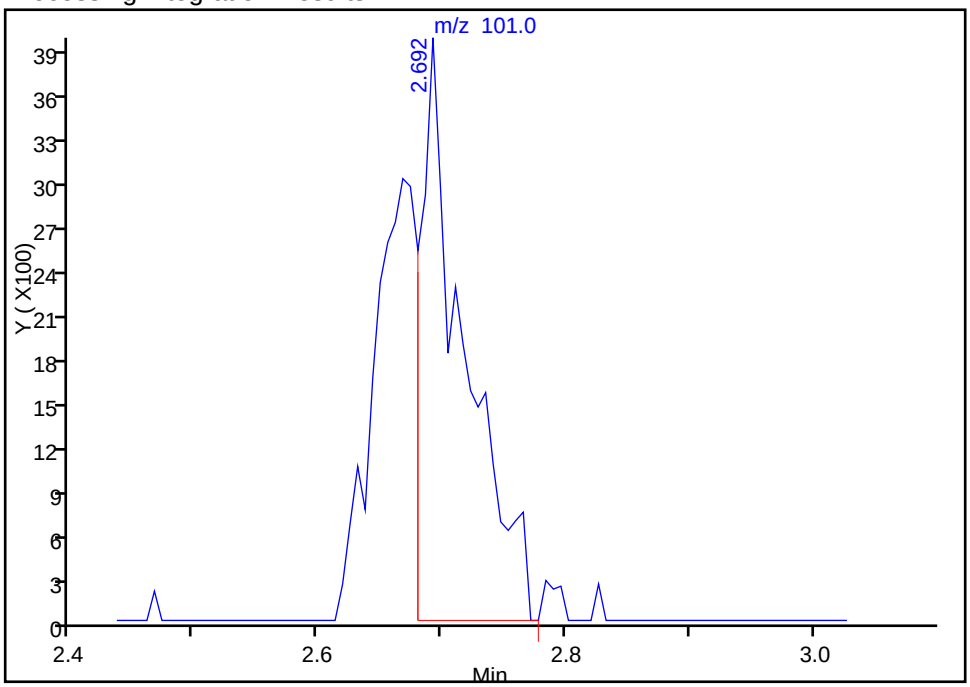
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Injection Date: 16-May-2015 18:25:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16
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

18 Trichlorofluoromethane, CAS: 75-69-4

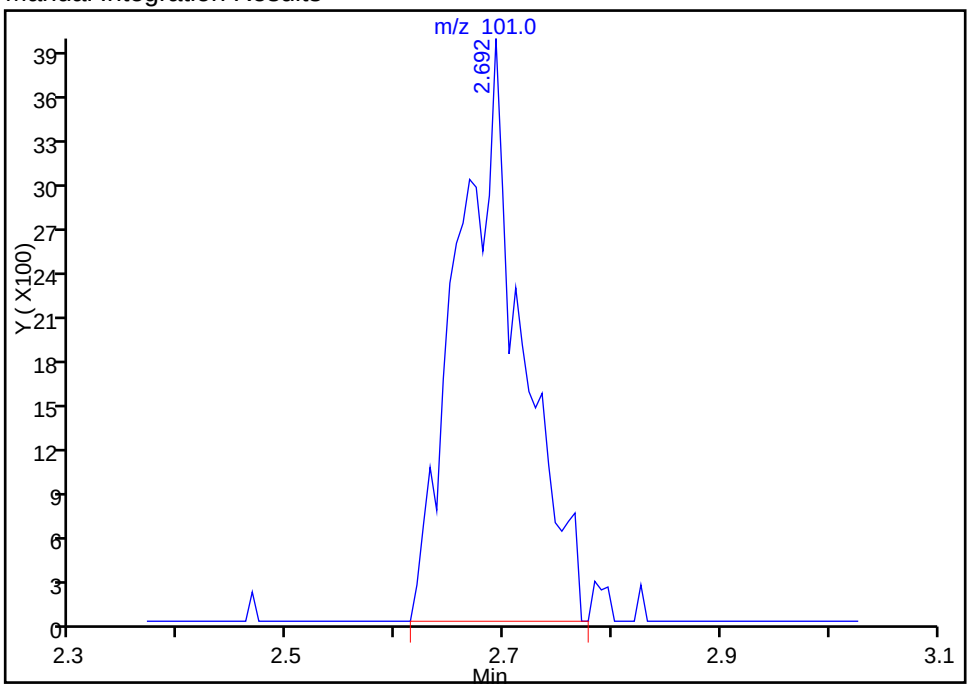
Processing Integration Results

RT: 2.69
Area: 9803
Amount: 4.940155
Amount Units: ng



Manual Integration Results

RT: 2.69
Area: 16394
Amount: 4.951756
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Split Peak

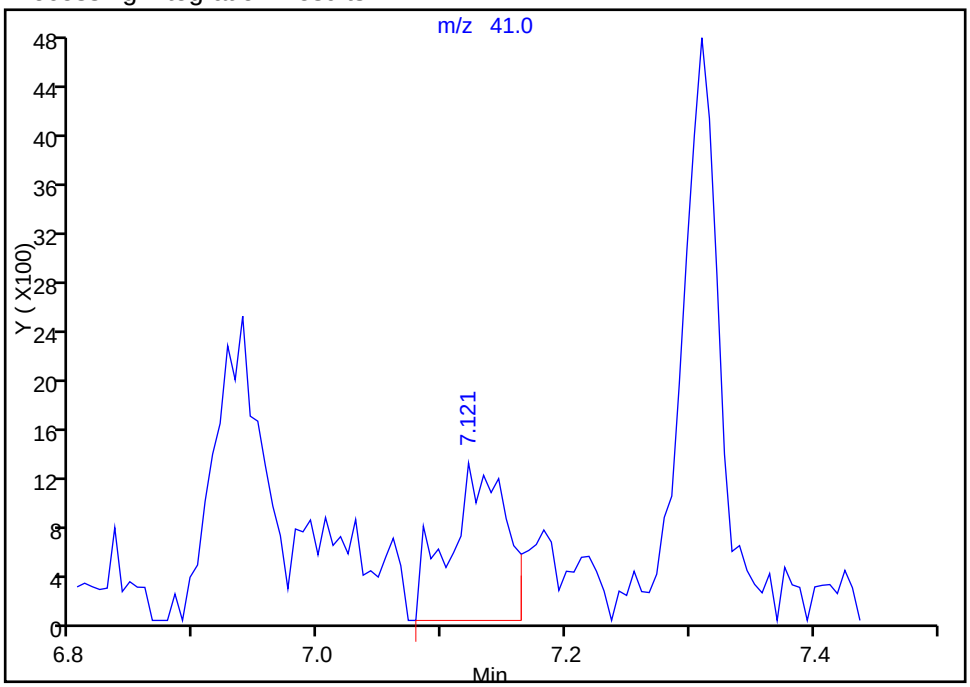
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Injection Date: 16-May-2015 18:25:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

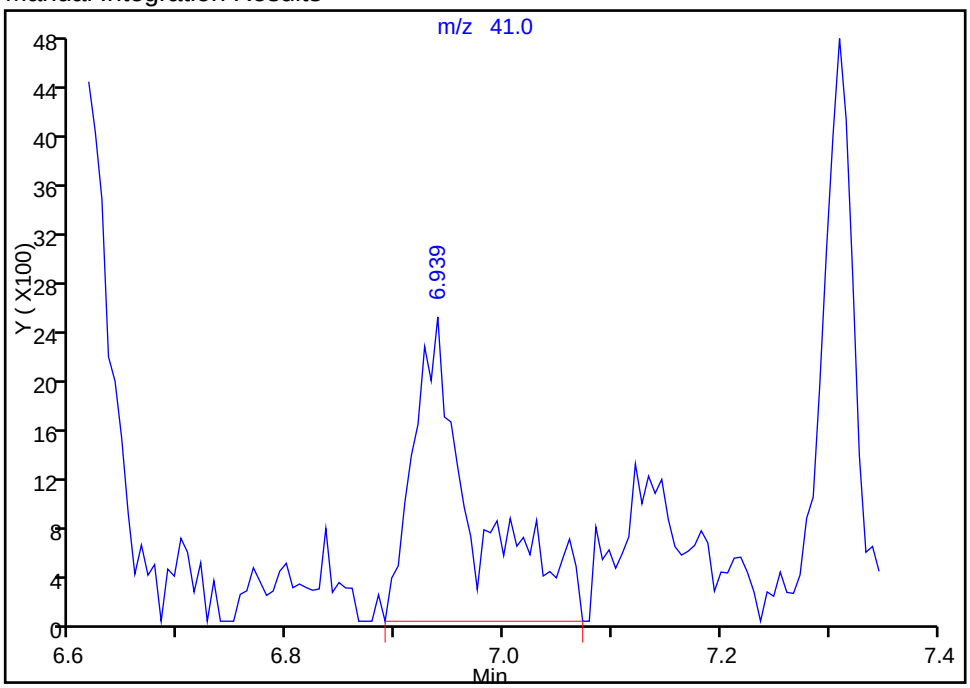
Processing Integration Results

RT: 7.12
Area: 4044
Amount: 123.9494
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 9787
Amount: 141.9137
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

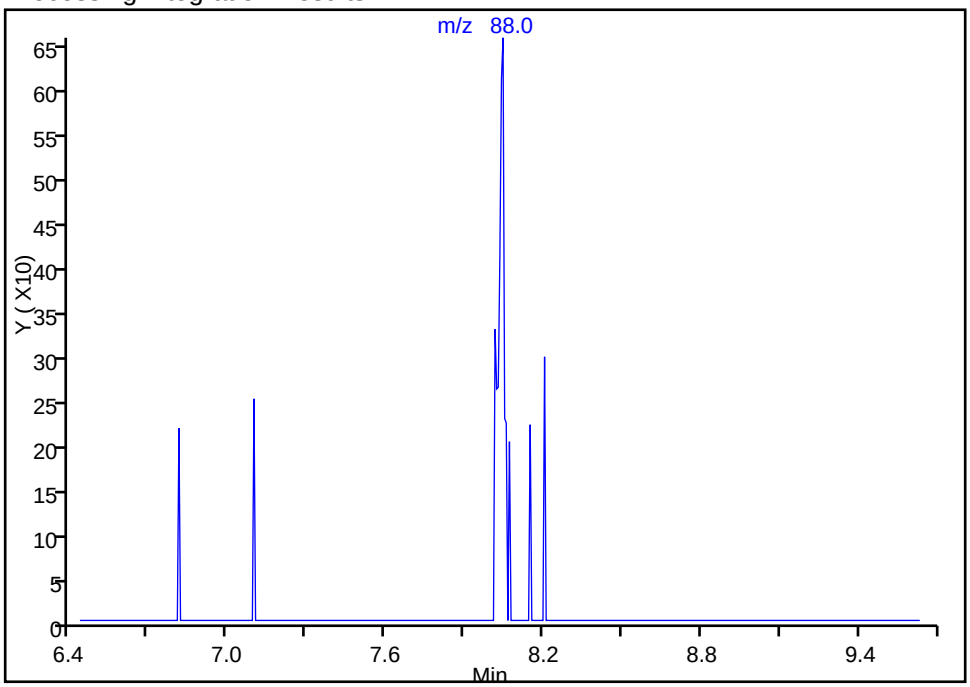
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Injection Date:	16-May-2015 18:25:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	16
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

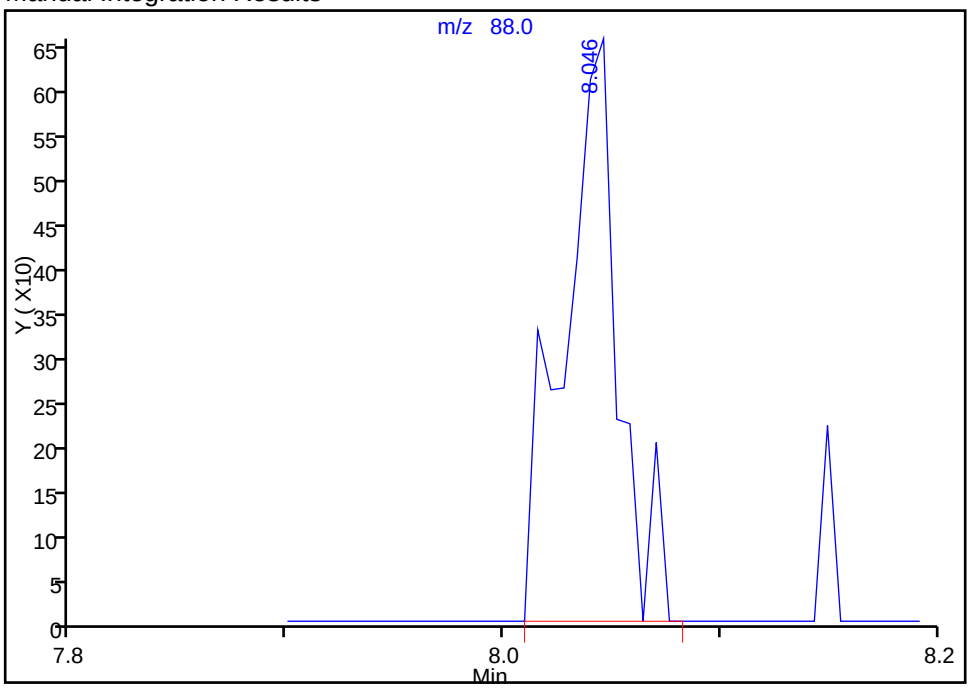
Not Detected
Expected RT: 8.04

Processing Integration Results



Manual Integration Results

RT: 8.05
Area: 1153
Amount: 70.616682
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

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: 50526002.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	0.1315	0.0100	15.9	20.0	-20.4*	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 26-May-2015 10:48:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007112-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:20:30 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

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

First Level Reviewer: fergusond Date: 26-May-2015 11:08:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	130784	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	434095	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	81	92571	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	90	134489	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	57	92008	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109159	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	360381	50.0	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	86	117905	50.0	47.8	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	62	127561	50.0	42.5	
12 Chloromethane	50	1.766	1.766	0.000	83	145790	50.0	38.2	
13 Vinyl chloride	62	1.900	1.900	0.000	82	138311	50.0	40.2	
14 Butadiene	39	1.937	1.937	0.000	97	169478	50.0	42.7	
15 Bromomethane	94	2.247	2.247	0.000	87	82550	50.0	52.3	
16 Chloroethane	64	2.399	2.399	0.000	93	91109	50.0	49.9	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	81	217860	50.0	52.8	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	186457	50.0	48.0	M
20 Ethyl ether	59	3.050	3.050	0.000	91	114151	50.0	52.0	
21 Acrolein	56	3.226	3.226	0.000	87	59868	150.0	163.5	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	88	117111	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	83	126557	50.0	58.2	
24 Acetone	43	3.439	3.439	0.000	88	70016	100.0	81.8	
25 Iodomethane	142	3.537	3.537	0.000	99	170233	50.0	53.4	
26 Carbon disulfide	76	3.628	3.628	0.000	99	289087	50.0	52.2	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	76	62741	50.0	45.3	
30 Methyl acetate	43	3.938	3.938	0.000	97	526555	250.0	259.0	
31 Methylene Chloride	84	4.139	4.139	0.000	86	142172	50.0	59.0	
32 2-Methyl-2-propanol	59	4.413	4.413	0.000	71	69262	500.0	473.8	
33 Acrylonitrile	53	4.522	4.522	0.000	99	501972	500.0	489.0	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	84	127341	50.0	55.3	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	88	263000	50.0	41.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	94	183574	50.0	50.6	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	86	223669	50.0	51.5	
38 Vinyl acetate	43	5.246	5.246	0.000	97	194826	50.0	39.9	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	62	95104	50.0	43.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	69	127107	50.0	50.0	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	83	100480	100.0	77.3	
49 Chlorobromomethane	128	6.238	6.238	0.000	91	53134	50.0	46.9	
51 Tetrahydrofuran	42	6.256	6.256	0.000	85	73567	100.0	83.2	
52 Chloroform	83	6.384	6.384	0.000	83	194986	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	54	150855	50.0	50.0	
54 Cyclohexane	56	6.615	6.615	0.000	77	224764	50.0	49.2	
56 Carbon tetrachloride	117	6.712	6.712	0.000	83	134256	50.0	49.4	
55 1,1-Dichloropropene	75	6.731	6.731	0.000	91	169990	50.0	53.5	
57 Isobutyl alcohol	41	6.931	6.931	0.000	50	88637	1250.0	1094.6	
58 Benzene	78	6.943	6.943	0.000	96	514107	50.0	53.1	
59 1,2-Dichloroethane	62	7.023	7.023	0.000	96	142359	50.0	49.3	
62 n-Heptane	43	7.308	7.308	0.000	89	163561	50.0	50.7	
64 Trichloroethene	130	7.680	7.680	0.000	93	113275	50.0	45.7	
66 Methylcyclohexane	83	7.917	7.917	0.000	93	187203	50.0	45.8	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	84	118828	50.0	47.3	
68 Dibromomethane	93	8.032	8.032	0.000	95	63498	50.0	49.5	
70 1,4-Dioxane	88	8.032	8.032	0.000	33	15352	1000.0	800.8	M
71 Dichlorobromomethane	83	8.233	8.233	0.000	88	125175	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	90	114139	100.0	79.6	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	88	139671	50.0	39.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	67	195877	100.0	82.0	
76 Toluene	91	9.006	9.006	0.000	92	498382	50.0	56.5	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	113967	50.0	42.6	
78 Ethyl methacrylate	69	9.310	9.310	0.000	89	109279	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.450	9.450	0.000	81	88520	50.0	53.1	
80 Tetrachloroethene	164	9.517	9.517	0.000	90	94475	50.0	56.9	
81 1,3-Dichloropropane	76	9.608	9.608	0.000	86	158047	50.0	50.1	
82 2-Hexanone	43	9.657	9.657	0.000	98	146788	100.0	86.4	
84 Chlorodibromomethane	129	9.815	9.815	0.000	86	72941	50.0	44.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	81578	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	86	165780	50.0	55.2	
87 Chlorobenzene	112	10.423	10.423	0.000	77	297749	50.0	52.1	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	93	155472	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	39	95076	50.0	49.6	
90 Ethylbenzene	106	10.521	10.521	0.000	98	162978	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	204491	50.0	50.8	
92 o-Xylene	106	11.032	11.032	0.000	96	185140	50.0	46.6	
93 Styrene	104	11.050	11.050	0.000	93	313400	50.0	50.0	
94 Bromoform	173	11.232	11.232	0.000	89	43159	50.0	41.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	157046	50.0	52.8	
97 Isopropylbenzene	105	11.403	11.403	0.000	96	475119	50.0	49.0	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	55	116680	50.0	49.5	
100 Bromobenzene	156	11.713	11.713	0.000	83	111549	50.0	44.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	71	33633	50.0	40.7	
101 1,2,3-Trichloropropane	110	11.768	11.768	0.000	67	38720	50.0	47.4	
103 N-Propylbenzene	120	11.816	11.816	0.000	97	138319	50.0	46.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	117264	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	72	123278	50.0	47.8	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	93	400233	50.0	48.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124305	50.0	46.4	
108 tert-Butylbenzene	119	12.315	12.315	0.000	83	301533	50.0	42.3	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	385782	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	120033	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	93	468100	50.0	46.6	
113 1,3-Dichlorobenzene	146	12.656	12.656	0.000	79	210643	50.0	48.5	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	80	375144	50.0	45.6	
115 1,4-Dichlorobenzene	146	12.759	12.759	0.000	93	209858	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.784	0.000	90	108160	50.0	52.0	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.826	0.000	0	122388	50.0	53.7	
120 n-Butylbenzene	91	13.100	13.100	0.000	95	321162	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	90	192606	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.909	13.909	0.000	64	15778	50.0	39.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.049	0.000	0	328258	150.0	128.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	194772	100.0	81.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	91	72819	50.0	43.5	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	89	46391	50.0	59.5	
128 Naphthalene	128	14.992	14.992	0.000	94	160864	50.0	34.7	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	93	58679	50.0	45.0	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	17873	50.0	30.3	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	84	19012	50.0	35.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

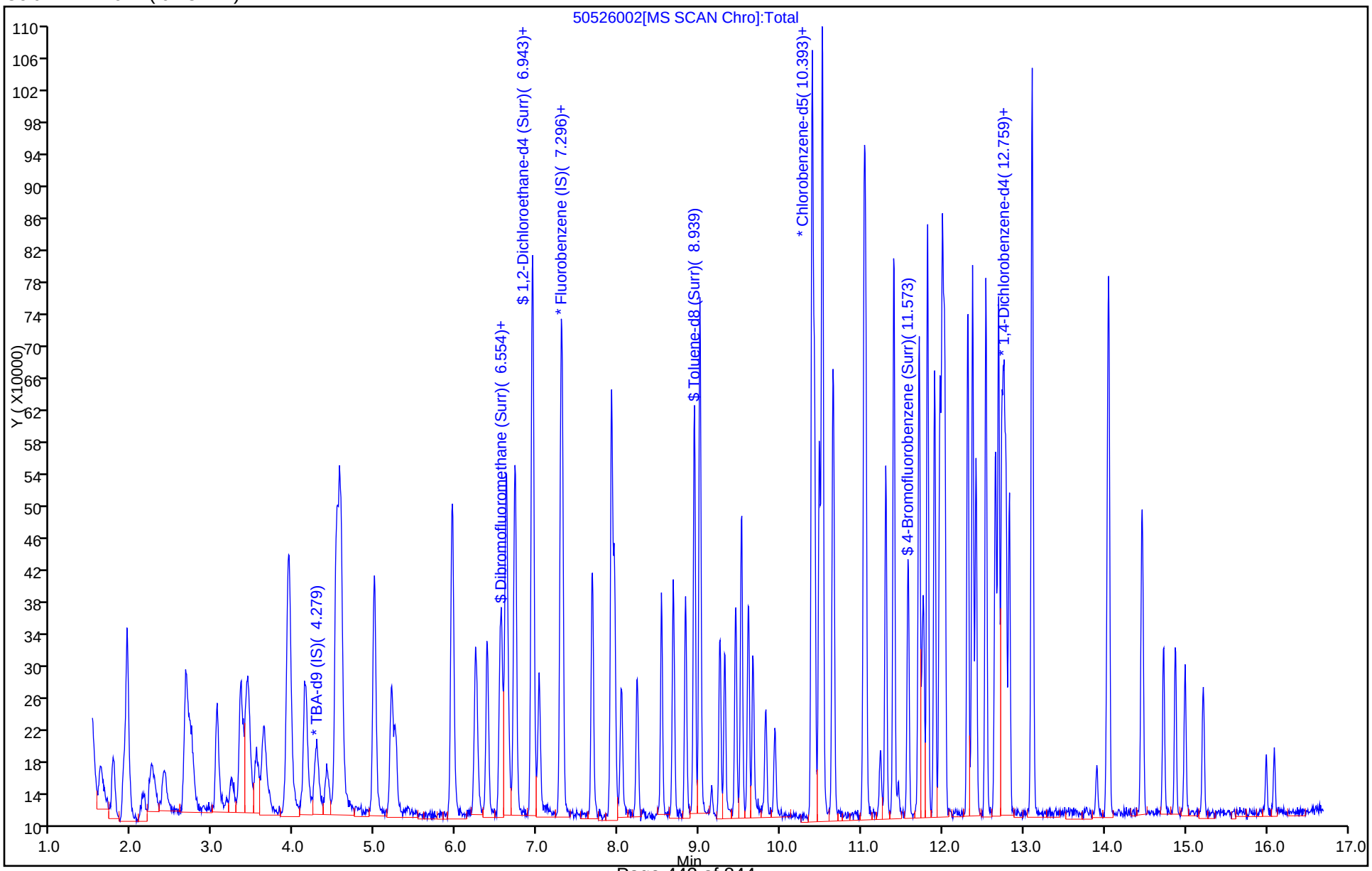
Report Date: 26-May-2015 12:20:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D

Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.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	0.3455	0.2939	0.1000	8.51	10.0	-14.9	20.0
Chloromethane	Ave	0.4398	0.3359	0.1000	7.64	10.0	-23.6*	20.0
Vinyl chloride	Ave	0.3965	0.3186	0.1000	8.04	10.0	-19.6	20.0
Bromomethane	Ave	0.1818	0.1902	0.0500	10.5	10.0	4.6	20.0
Chloroethane	Ave	0.2101	0.2099	0.0500	9.99	10.0	-0.1	20.0
Dichlorofluoromethane	Ave	0.4754	0.5019	0.0100	10.6	10.0	5.6	20.0
Trichlorofluoromethane	Ave	0.4478	0.4295	0.1000	9.59	10.0	-4.1	20.0
Ethyl ether	Ave	0.2528	0.2630	0.0100	10.4	10.0	4.0	20.0
Acrolein	Ave	0.0422	0.0460	0.0100	32.7	30.0	9.0	20.0
1,1-Dichloroethene	Ave	0.2396	0.2698	0.1000	11.3	10.0	12.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.2915	0.1000	11.6	10.0	16.3	20.0
Acetone	Ave	0.0986	0.0807	0.0500	16.4	20.0	-18.2	20.0
Iodomethane	Ave	0.3672	0.3922	0.0100	10.7	10.0	6.8	20.0
Carbon disulfide	Ave	0.6384	0.6660	0.1000	10.4	10.0	4.3	20.0
Allyl chloride	Ave	0.1594	0.1445	0.0100	9.07	10.0	-9.3	20.0
Methyl acetate	Ave	0.2342	0.2426	0.1000	51.8	50.0	3.6	20.0
Methylene Chloride	Lin2		0.3275	0.1000	11.8	10.0	18.1	20.0
tert-Butyl alcohol	Ave	1.118	1.059	0.0100	94.8	100	-5.2	20.0
Acrylonitrile	Ave	0.1182	0.1156	0.0100	97.8	100	-2.2	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.2934	0.1000	11.1	10.0	10.7	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6059	0.1000	8.29	10.0	-17.1	20.0
Hexane	Ave	0.4177	0.4229	0.0100	10.1	10.0	1.2	20.0
1,1-Dichloroethane	Ave	0.5003	0.5153	0.2000	10.3	10.0	3.0	20.0
Vinyl acetate	Ave	0.5628	0.4488	0.0100	7.97	10.0	-20.3*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2191	0.0100	8.63	10.0	-13.7	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.2928	0.1000	9.99	10.0	-0.1	20.0
2-Butanone (MEK)	Ave	0.1498	0.1157	0.0500	15.5	20.0	-22.7*	20.0
Bromochloromethane	Ave	0.1305	0.1224	0.0100	9.38	10.0	-6.2	20.0
Tetrahydrofuran	Ave	0.1018	0.0847	0.0100	16.6	20.0	-16.8	20.0
Chloroform	Ave	0.4487	0.4492	0.2000	10.0	10.0	0.1	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3475	0.1000	10.0	10.0	0.0	20.0
Cyclohexane	Ave	0.5261	0.5178	0.1000	9.84	10.0	-1.6	20.0
Carbon tetrachloride	Ave	0.3131	0.3093	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.3659	0.3916	0.0100	10.7	10.0	7.0	20.0
Isobutyl alcohol	Ave	0.0093	0.0082*	0.0100	219	250	-12.4	20.0
Benzene	Ave	1.114	1.184	0.5000	10.6	10.0	6.3	20.0
1,2-Dichloroethane	Ave	0.3324	0.3279	0.1000	9.87	10.0	-1.3	20.0
n-Heptane	Ave	0.3714	0.3768	0.0100	10.1	10.0	1.4	20.0
Trichloroethene	Ave	0.2856	0.2610	0.2000	9.14	10.0	-8.6	20.0
Methylcyclohexane	Ave	0.4706	0.4313	0.1000	9.16	10.0	-8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2895	0.2737	0.1000	9.46	10.0	-5.4	20.0
1,4-Dioxane	Ave	0.0022	0.0018*	0.0100	160	200	-19.9	20.0
Dibromomethane	Ave	0.1479	0.1463	0.0100	9.89	10.0	-1.1	20.0
Bromodichloromethane	Ave	0.3223	0.2884	0.2000	8.95	10.0	-10.5	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3218	0.2000	7.85	10.0	-21.5*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.058	0.1000	16.4	20.0	-18.0	20.0
Toluene	Ave	4.768	5.384	0.4000	11.3	10.0	12.9	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.231	0.1000	8.52	10.0	-14.8	20.0
Ethyl methacrylate	Ave	1.438	1.180	0.0100	8.21	10.0	-17.9	20.0
1,1,2-Trichloroethane	Ave	0.9001	0.9562	0.1000	10.6	10.0	6.2	20.0
Tetrachloroethene	Ave	0.8966	1.021	0.2000	11.4	10.0	13.8	20.0
1,3-Dichloropropane	Ave	1.703	1.707	0.0100	10.0	10.0	0.2	20.0
2-Hexanone	Ave	0.9180	0.7928	0.1000	17.3	20.0	-13.6	20.0
Dibromochloromethane	Ave	0.8836	0.7880	0.1000	8.92	10.0	-10.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.8813	0.1000	9.53	10.0	-4.7	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.791	0.0100	11.0	10.0	10.3	20.0
Chlorobenzene	Ave	3.086	3.216	0.5000	10.4	10.0	4.2	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.679	0.0100	11.2	10.0	12.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.027	0.0100	9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	1.796	1.761	0.1000	9.80	10.0	-2.0	20.0
m-Xylene & p-Xylene	Ave	2.175	2.209	0.1000	10.2	10.0	1.6	20.0
o-Xylene	Ave	2.146	2.000	0.3000	9.32	10.0	-6.8	20.0
Styrene	Ave	3.386	3.386	0.3000	10.0	10.0	-0.0	20.0
Bromoform	Ave	0.5687	0.4662	0.1000	8.20	10.0	-18.0	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.696	0.0100	10.6	10.0	5.6	20.0
Isopropylbenzene	Ave	5.240	5.132	0.1000	9.80	10.0	-2.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.260	0.3000	9.91	10.0	-0.9	20.0
Bromobenzene	Ave	0.9239	0.8294	0.0100	8.98	10.0	-10.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2501	0.0100	8.15	10.0	-18.5	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2879	0.0100	9.49	10.0	-5.1	20.0
N-Propylbenzene	Ave	1.100	1.028	0.0100	9.35	10.0	-6.5	20.0
2-Chlorotoluene	Ave	0.9430	0.8719	0.0100	9.25	10.0	-7.5	20.0
3-Chlorotoluene	Ave	0.9581	0.9166	0.0100	9.57	10.0	-4.3	20.0
1,3,5-Trimethylbenzene	Ave	3.096	2.976	0.0100	9.61	10.0	-3.9	20.0
4-Chlorotoluene	Ave	0.995	0.9243	0.0100	9.28	10.0	-7.2	20.0
tert-Butylbenzene	Ave	2.647	2.242	0.0100	8.47	10.0	-15.3	20.0
1,2,4-Trimethylbenzene	Ave	3.087	2.869	0.0100	9.29	10.0	-7.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.8925	0.0100	10.7	10.0	7.4	20.0
sec-Butylbenzene	Ave	3.737	3.481	0.0100	9.32	10.0	-6.8	20.0
1,3-Dichlorobenzene	Ave	1.614	1.566	0.6000	9.70	10.0	-3.0	20.0
4-Isopropyltoluene	Ave	3.057	2.789	0.0100	9.13	10.0	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.655	1.560	0.5000	9.43	10.0	-5.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.8042	0.0100	10.4	10.0	4.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9100	0.0100	10.7	10.0	7.4	20.0
n-Butylbenzene	Ave	2.626	2.388	0.0100	9.09	10.0	-9.1	20.0
1,2-Dichlorobenzene	Ave	1.495	1.432	0.4000	9.58	10.0	-4.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1173	0.0500	7.88	10.0	-21.2*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.8136	0.0100	25.6	30.0	-14.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.7241	0.0100	16.2	20.0	-18.9	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5415	0.2000	8.70	10.0	-13.0	20.0
Hexachlorobutadiene	Ave	0.2899	0.3449	0.0100	11.9	10.0	19.0	20.0
Naphthalene	Ave	1.722	1.196	0.0100	6.94	10.0	-30.6*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4363	0.0100	9.01	10.0	-9.9	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1329	0.0100	6.06	10.0	-39.4*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1414	0.0100	7.14	10.0	-28.6*	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2120		9.83	10.0	-1.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2515		9.36	10.0	-6.4	20.0
Toluene-d8 (Surr)	Ave	3.713	3.893		10.5	10.0	4.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.274		9.56	10.0	-4.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 26-May-2015 10:48:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007112-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:20:30 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

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

First Level Reviewer: fergusond Date: 26-May-2015 11:08:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	130784	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	434095	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	81	92571	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	90	134489	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	57	92008	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109159	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	360381	50.0	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	86	117905	50.0	47.8	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	62	127561	50.0	42.5	
12 Chloromethane	50	1.766	1.766	0.000	83	145790	50.0	38.2	
13 Vinyl chloride	62	1.900	1.900	0.000	82	138311	50.0	40.2	
14 Butadiene	39	1.937	1.937	0.000	97	169478	50.0	42.7	
15 Bromomethane	94	2.247	2.247	0.000	87	82550	50.0	52.3	
16 Chloroethane	64	2.399	2.399	0.000	93	91109	50.0	49.9	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	81	217860	50.0	52.8	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	186457	50.0	48.0	M
20 Ethyl ether	59	3.050	3.050	0.000	91	114151	50.0	52.0	
21 Acrolein	56	3.226	3.226	0.000	87	59868	150.0	163.5	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	88	117111	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	83	126557	50.0	58.2	
24 Acetone	43	3.439	3.439	0.000	88	70016	100.0	81.8	
25 Iodomethane	142	3.537	3.537	0.000	99	170233	50.0	53.4	
26 Carbon disulfide	76	3.628	3.628	0.000	99	289087	50.0	52.2	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	76	62741	50.0	45.3	
30 Methyl acetate	43	3.938	3.938	0.000	97	526555	250.0	259.0	
31 Methylene Chloride	84	4.139	4.139	0.000	86	142172	50.0	59.0	
32 2-Methyl-2-propanol	59	4.413	4.413	0.000	71	69262	500.0	473.8	
33 Acrylonitrile	53	4.522	4.522	0.000	99	501972	500.0	489.0	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	84	127341	50.0	55.3	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	88	263000	50.0	41.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	94	183574	50.0	50.6	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	86	223669	50.0	51.5	
38 Vinyl acetate	43	5.246	5.246	0.000	97	194826	50.0	39.9	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	62	95104	50.0	43.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	69	127107	50.0	50.0	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	83	100480	100.0	77.3	
49 Chlorobromomethane	128	6.238	6.238	0.000	91	53134	50.0	46.9	
51 Tetrahydrofuran	42	6.256	6.256	0.000	85	73567	100.0	83.2	
52 Chloroform	83	6.384	6.384	0.000	83	194986	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	54	150855	50.0	50.0	
54 Cyclohexane	56	6.615	6.615	0.000	77	224764	50.0	49.2	
56 Carbon tetrachloride	117	6.712	6.712	0.000	83	134256	50.0	49.4	
55 1,1-Dichloropropene	75	6.731	6.731	0.000	91	169990	50.0	53.5	
57 Isobutyl alcohol	41	6.931	6.931	0.000	50	88637	1250.0	1094.6	
58 Benzene	78	6.943	6.943	0.000	96	514107	50.0	53.1	
59 1,2-Dichloroethane	62	7.023	7.023	0.000	96	142359	50.0	49.3	
62 n-Heptane	43	7.308	7.308	0.000	89	163561	50.0	50.7	
64 Trichloroethene	130	7.680	7.680	0.000	93	113275	50.0	45.7	
66 Methylcyclohexane	83	7.917	7.917	0.000	93	187203	50.0	45.8	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	84	118828	50.0	47.3	
68 Dibromomethane	93	8.032	8.032	0.000	95	63498	50.0	49.5	
70 1,4-Dioxane	88	8.032	8.032	0.000	33	15352	1000.0	800.8	M
71 Dichlorobromomethane	83	8.233	8.233	0.000	88	125175	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	90	114139	100.0	79.6	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	88	139671	50.0	39.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	67	195877	100.0	82.0	
76 Toluene	91	9.006	9.006	0.000	92	498382	50.0	56.5	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	113967	50.0	42.6	
78 Ethyl methacrylate	69	9.310	9.310	0.000	89	109279	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.450	9.450	0.000	81	88520	50.0	53.1	
80 Tetrachloroethene	164	9.517	9.517	0.000	90	94475	50.0	56.9	
81 1,3-Dichloropropane	76	9.608	9.608	0.000	86	158047	50.0	50.1	
82 2-Hexanone	43	9.657	9.657	0.000	98	146788	100.0	86.4	
84 Chlorodibromomethane	129	9.815	9.815	0.000	86	72941	50.0	44.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	81578	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	86	165780	50.0	55.2	
87 Chlorobenzene	112	10.423	10.423	0.000	77	297749	50.0	52.1	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	93	155472	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	39	95076	50.0	49.6	
90 Ethylbenzene	106	10.521	10.521	0.000	98	162978	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	204491	50.0	50.8	
92 o-Xylene	106	11.032	11.032	0.000	96	185140	50.0	46.6	
93 Styrene	104	11.050	11.050	0.000	93	313400	50.0	50.0	
94 Bromoform	173	11.232	11.232	0.000	89	43159	50.0	41.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	157046	50.0	52.8	
97 Isopropylbenzene	105	11.403	11.403	0.000	96	475119	50.0	49.0	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	55	116680	50.0	49.5	
100 Bromobenzene	156	11.713	11.713	0.000	83	111549	50.0	44.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	71	33633	50.0	40.7	
101 1,2,3-Trichloropropane	110	11.768	11.768	0.000	67	38720	50.0	47.4	
103 N-Propylbenzene	120	11.816	11.816	0.000	97	138319	50.0	46.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	117264	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	72	123278	50.0	47.8	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	93	400233	50.0	48.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124305	50.0	46.4	
108 tert-Butylbenzene	119	12.315	12.315	0.000	83	301533	50.0	42.3	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	385782	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	120033	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	93	468100	50.0	46.6	
113 1,3-Dichlorobenzene	146	12.656	12.656	0.000	79	210643	50.0	48.5	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	80	375144	50.0	45.6	
115 1,4-Dichlorobenzene	146	12.759	12.759	0.000	93	209858	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.784	0.000	90	108160	50.0	52.0	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.826	0.000	0	122388	50.0	53.7	
120 n-Butylbenzene	91	13.100	13.100	0.000	95	321162	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	90	192606	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.909	13.909	0.000	64	15778	50.0	39.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.049	0.000	0	328258	150.0	128.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	194772	100.0	81.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	91	72819	50.0	43.5	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	89	46391	50.0	59.5	
128 Naphthalene	128	14.992	14.992	0.000	94	160864	50.0	34.7	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	93	58679	50.0	45.0	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	17873	50.0	30.3	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	84	19012	50.0	35.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

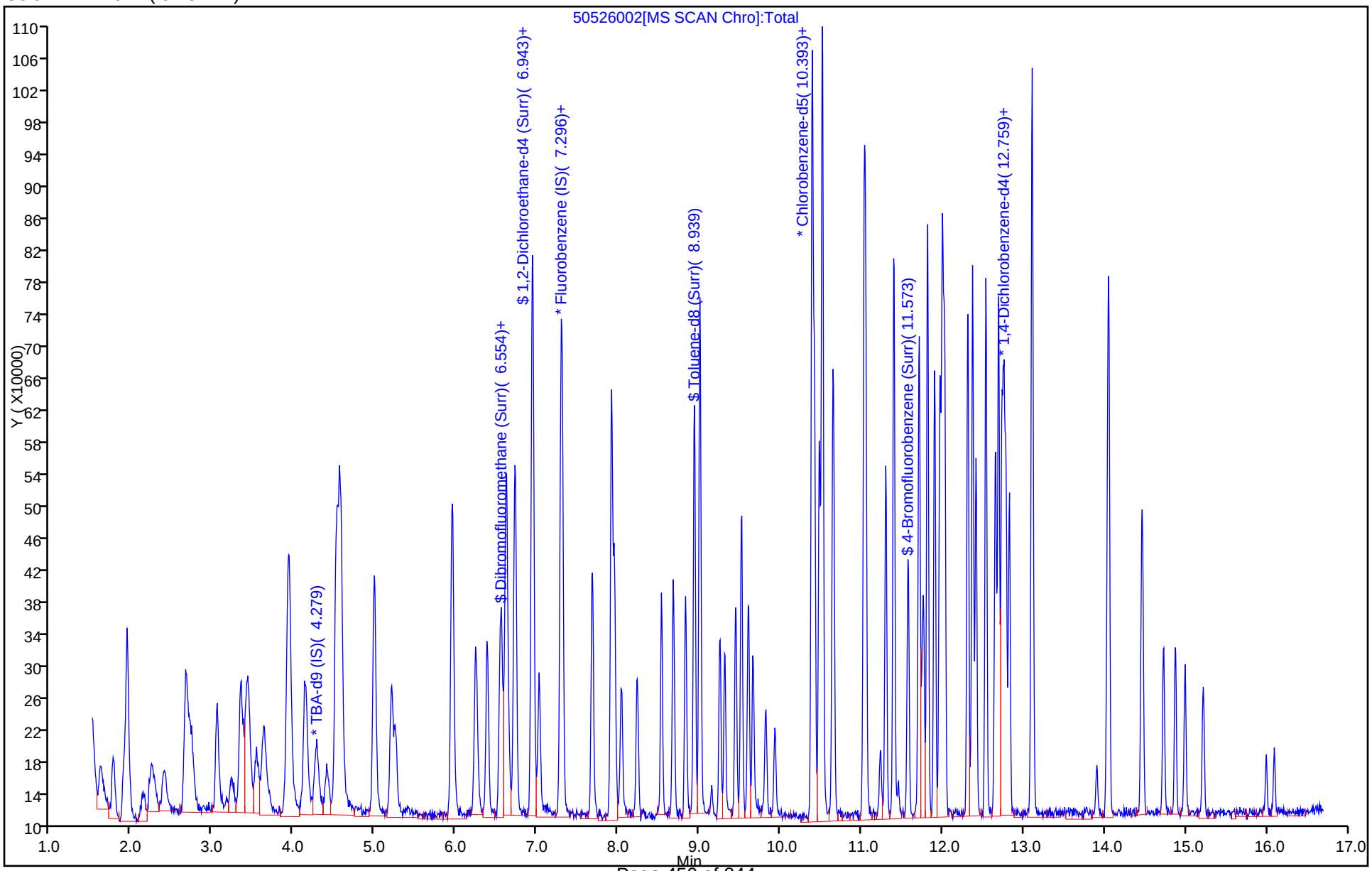
Report Date: 26-May-2015 12:20:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D

Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

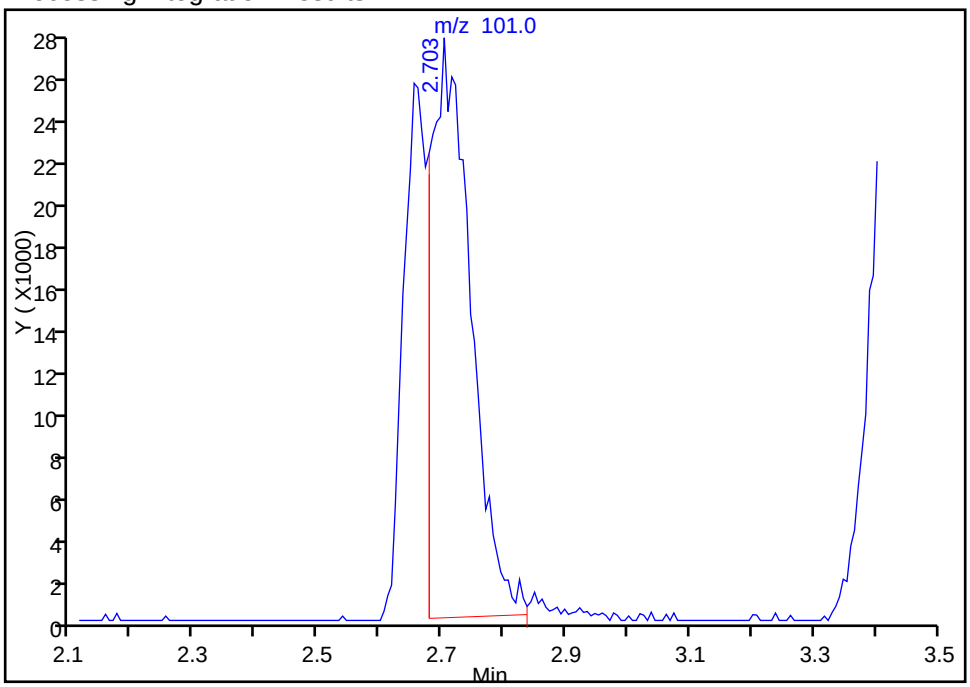
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D				
Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

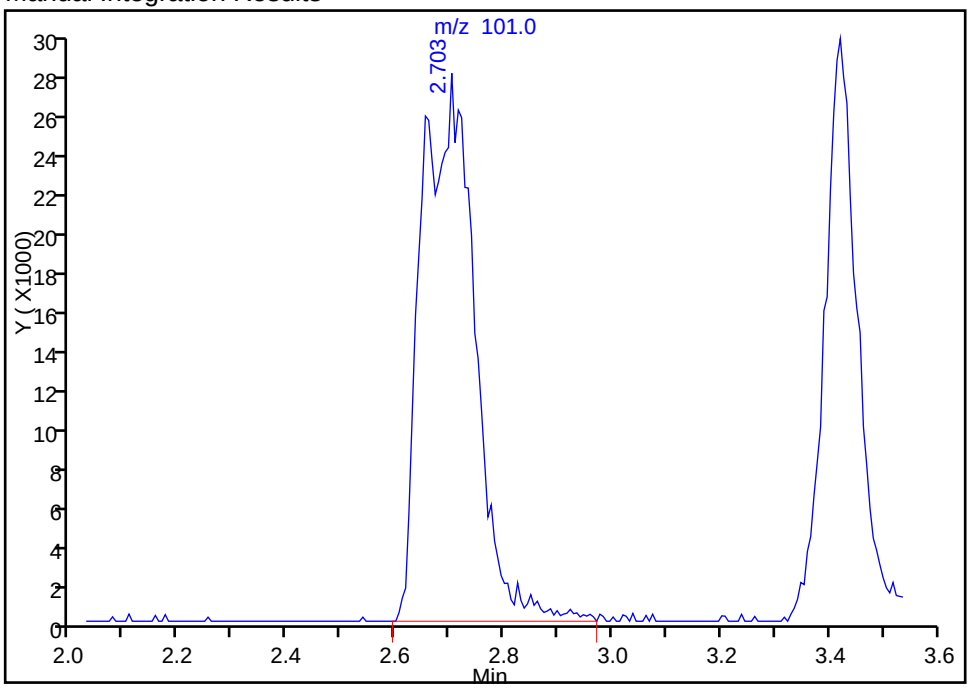
Processing Integration Results

RT: 2.70
Area: 119297
Amount: 30.688410
Amount Units: ng



Manual Integration Results

RT: 2.70
Area: 186457
Amount: 47.964901
Amount Units: ng



Reviewer: fergusond, 26-May-2015 11:08:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

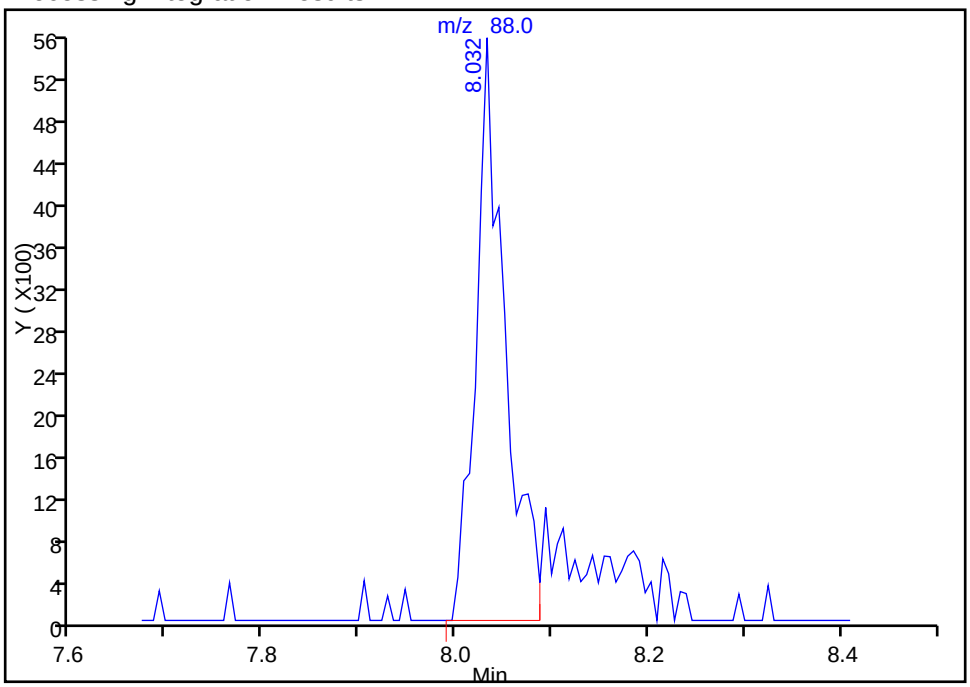
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D				
Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

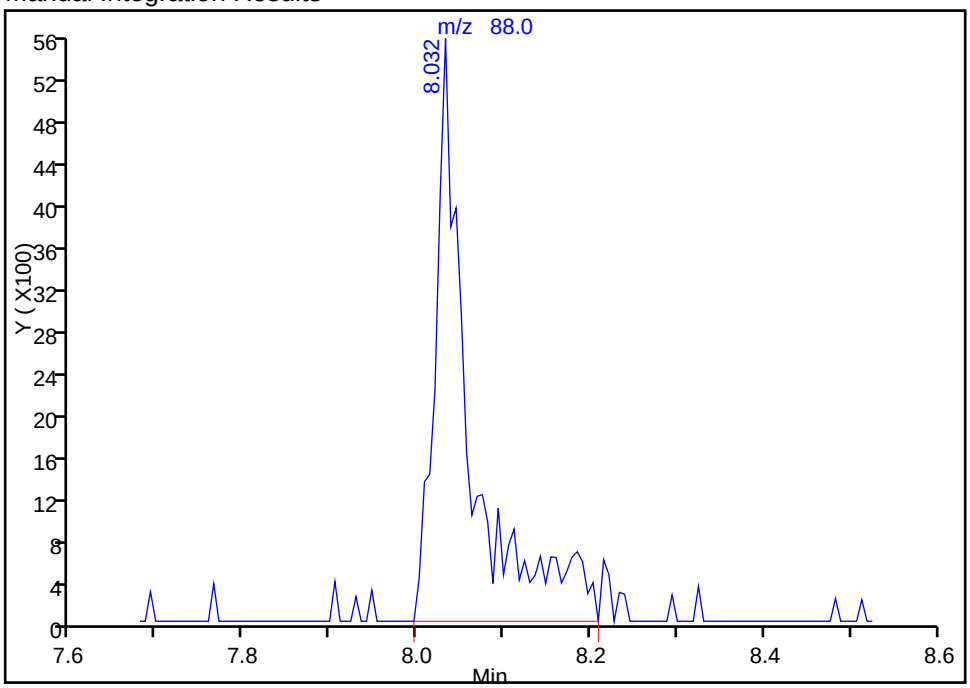
Processing Integration Results

RT: 8.03
Area: 11576
Amount: 603.8194
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 15352
Amount: 800.7805
Amount Units: ng



Reviewer: fergusond, 26-May-2015 11:08:19
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

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: 50527007.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	0.1480	0.0100	17.9	20.0	-10.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-May-2015 12:33:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007136-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:31:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 13:17:58

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.274	4.274	0.000	0	142779	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.292	7.292	0.000	99	435254	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.388	10.388	0.000	86	94901	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	93	135191	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.561	6.561	0.000	92	92129	50.0	49.1	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	113646	50.0	48.6	
$	7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	390331	50.0	55.4	
$	8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	90	129706	50.0	51.3	
	11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	135988	50.0	45.2	
	12 Chloromethane	50	1.768	1.768	0.000	99	155381	50.0	40.6	
	13 Vinyl chloride	62	1.908	1.908	0.000	99	144360	50.0	41.8	
	14 Butadiene	39	1.938	1.938	0.000	99	177922	50.0	44.7	
	15 Bromomethane	94	2.273	2.273	0.000	93	81840	50.0	51.7	
	16 Chloroethane	64	2.413	2.413	0.000	99	94452	50.0	51.6	
	17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	227639	50.0	55.0	
	18 Trichlorofluoromethane	101	2.723	2.723	0.000	97	194907	50.0	50.0	
	20 Ethyl ether	59	3.051	3.051	0.000	93	124544	50.0	56.6	
	21 Acrolein	56	3.228	3.228	0.000	99	64332	150.0	175.2	
	22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	125363	50.0	60.1	
	23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	93	133488	50.0	61.2	
	24 Acetone	43	3.441	3.441	0.000	78	82089	100.0	95.6	
	25 Iodomethane	142	3.532	3.532	0.000	97	177369	50.0	55.5	
	26 Carbon disulfide	76	3.629	3.629	0.000	100	240865	50.0	43.3	
	28 3-Chloro-1-propene	76	3.915	3.915	0.000	73	66949	50.0	48.2	
	30 Methyl acetate	43	3.946	3.946	0.000	99	579915	250.0	284.5	
	31 Methylene Chloride	84	4.140	4.140	0.000	96	149373	50.0	62.1	
	32 2-Methyl-2-propanol	59	4.414	4.414	0.000	88	75036	500.0	470.2	
	33 Acrylonitrile	53	4.524	4.524	0.000	98	560202	500.0	544.2	
	34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	99	132003	50.0	57.2	
	35 Methyl tert-butyl ether	73	4.584	4.584	0.000	96	287172	50.0	45.1	

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	96	204367	50.0	56.2	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	97	238548	50.0	54.8	
38 Vinyl acetate	43	5.254	5.254	0.000	98	190754	50.0	38.9	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	58	100487	50.0	45.5	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	82	135749	50.0	53.2	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	71	116883	100.0	89.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	57886	50.0	50.9	
51 Tetrahydrofuran	42	6.251	6.251	0.000	89	77832	100.0	87.8	
52 Chloroform	83	6.379	6.379	0.000	95	211154	50.0	54.1	
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	97	154584	50.0	51.1	
54 Cyclohexane	56	6.616	6.616	0.000	97	248796	50.0	54.3	
56 Carbon tetrachloride	117	6.714	6.714	0.000	94	136462	50.0	50.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	92	177165	50.0	55.6	
57 Isobutyl alcohol	41	6.926	6.926	0.000	86	94866	1250.0	1168.4	
58 Benzene	78	6.945	6.945	0.000	98	553193	50.0	57.0	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	96	154769	50.0	53.5	
62 n-Heptane	43	7.310	7.310	0.000	91	177425	50.0	54.9	
64 Trichloroethene	130	7.681	7.681	0.000	97	124200	50.0	50.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	95	215994	50.0	52.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	94	129849	50.0	51.5	
70 1,4-Dioxane	88	8.034	8.034	0.000	39	18912	1000.0	983.8	M
68 Dibromomethane	93	8.040	8.040	0.000	96	64935	50.0	50.4	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	119877	50.0	42.7	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	128794	100.0	89.6	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	149485	50.0	41.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	226240	100.0	92.3	
76 Toluene	91	9.007	9.007	0.000	98	548659	50.0	60.6	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	98	120223	50.0	43.8	
78 Ethyl methacrylate	69	9.311	9.311	0.000	90	122470	50.0	44.9	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	91	101757	50.0	59.6	
80 Tetrachloroethene	164	9.518	9.518	0.000	96	101635	50.0	59.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	96	176722	50.0	54.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	177190	100.0	101.7	
84 Chlorodibromomethane	129	9.822	9.822	0.000	89	72431	50.0	43.2	
85 Ethylene Dibromide	107	9.932	9.932	0.000	97	88745	50.0	50.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	89	184745	50.0	60.0	
87 Chlorobenzene	112	10.418	10.418	0.000	94	330810	50.0	56.5	
88 4-Chlorobenzotrifluoride	180	10.479	10.479	0.000	96	175765	50.0	61.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	87	101617	50.0	51.7	
90 Ethylbenzene	106	10.516	10.516	0.000	99	181040	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.650	10.650	0.000	0	219349	50.0	53.1	
92 o-Xylene	106	11.027	11.027	0.000	98	204458	50.0	50.2	
93 Styrene	104	11.051	11.051	0.000	96	342459	50.0	53.3	
94 Bromoform	173	11.234	11.234	0.000	96	38700	50.0	35.9	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	184902	50.0	60.6	
97 Isopropylbenzene	105	11.398	11.398	0.000	96	521002	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	90	132604	50.0	54.9	
100 Bromobenzene	156	11.714	11.714	0.000	94	122557	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	79	35336	50.0	42.6	
101 1,2,3-Trichloropropane	110	11.769	11.769	0.000	86	38987	50.0	47.5	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	154254	50.0	51.8	
104 2-Chlorotoluene	126	11.903	11.903	0.000	96	127497	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.970	11.970	0.000	95	140269	50.0	54.1	
106 1,3,5-Trimethylbenzene	105	12.000	12.000	0.000	96	427403	50.0	51.1	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	135161	50.0	50.2	
108 tert-Butylbenzene	119	12.310	12.310	0.000	94	341166	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.371	12.371	0.000	98	424051	50.0	50.8	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.414	0.000	98	131721	50.0	58.6	
112 sec-Butylbenzene	105	12.535	12.535	0.000	94	513862	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.651	12.651	0.000	97	222880	50.0	51.1	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	401158	50.0	48.5	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	92	222804	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.785	0.000	96	129533	50.0	62.0	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	132342	50.0	57.8	
120 n-Butylbenzene	91	13.101	13.101	0.000	99	362135	50.0	51.0	
121 1,2-Dichlorobenzene	146	13.113	13.113	0.000	95	205961	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	69	13550	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	375769	150.0	146.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.464	0.000	0	223483	100.0	92.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	93	79743	50.0	47.4	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	45365	50.0	57.9	
128 Naphthalene	128	14.993	14.993	0.000	97	174452	50.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	95	61311	50.0	46.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20440	50.0	34.5	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	93	19015	50.0	35.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	110.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

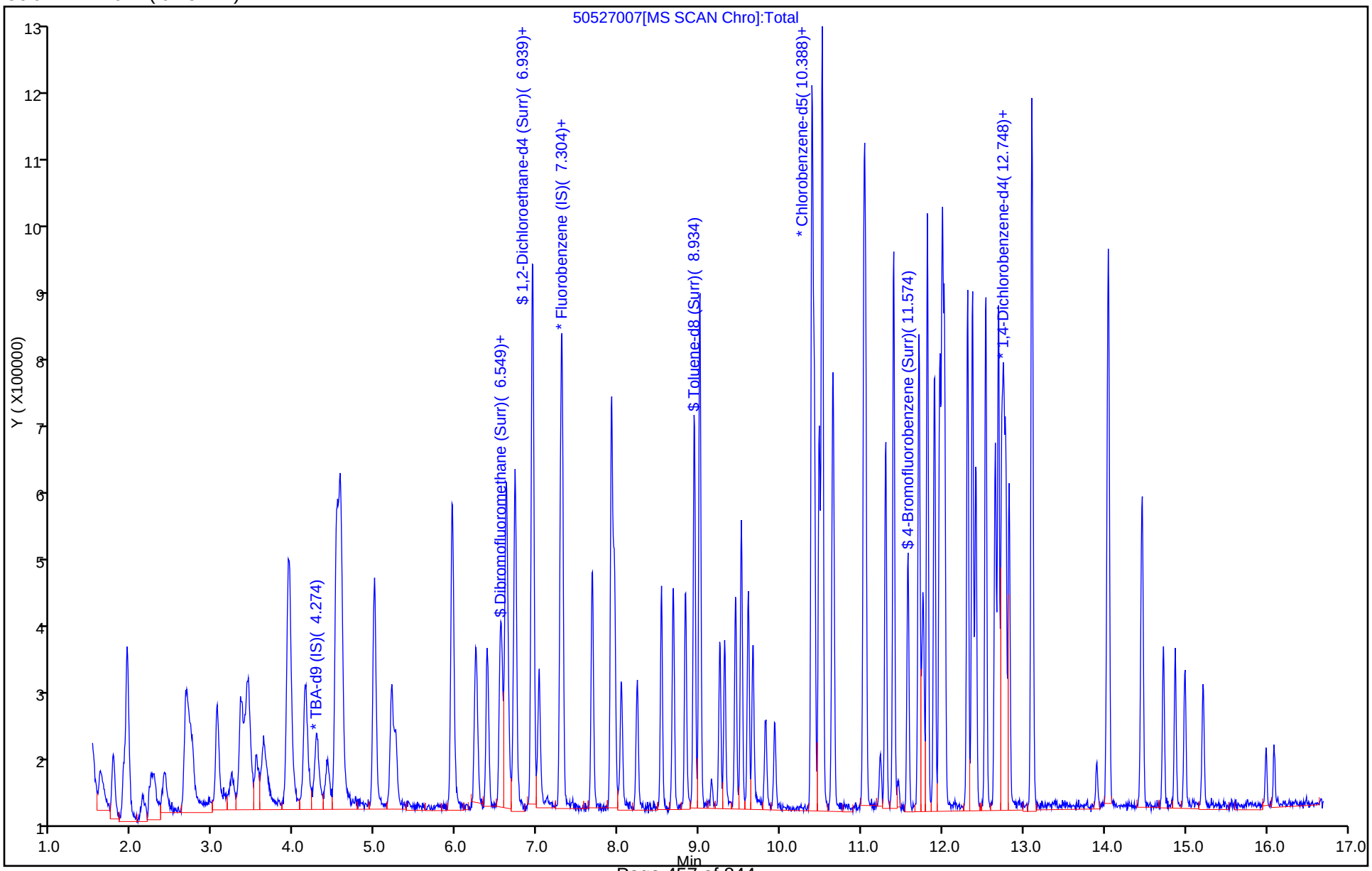
Report Date: 27-May-2015 16:31:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D

Injection Date:	27-May-2015 12:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	7
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.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.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	0.3455	0.3124	0.1000	9.04	10.0	-9.6	20.0
Chloromethane	Ave	0.4398	0.3570	0.1000	8.12	10.0	-18.8	20.0
Vinyl chloride	Ave	0.3965	0.3317	0.1000	8.37	10.0	-16.3	20.0
Bromomethane	Ave	0.1818	0.1880	0.0500	10.3	10.0	3.4	20.0
Chloroethane	Ave	0.2101	0.2170	0.0500	10.3	10.0	3.3	20.0
Dichlorofluoromethane	Ave	0.4754	0.5230	0.0100	11.0	10.0	10.0	20.0
Trichlorofluoromethane	Ave	0.4478	0.4478	0.1000	10.0	10.0	0.0	20.0
Ethyl ether	Ave	0.2528	0.2861	0.0100	11.3	10.0	13.2	20.0
Acrolein	Ave	0.0422	0.0493	0.0100	35.0	30.0	16.8	20.0
1,1-Dichloroethene	Ave	0.2396	0.2880	0.1000	12.0	10.0	20.2*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.3067	0.1000	12.2	10.0	22.4*	20.0
Acetone	Ave	0.0986	0.0943	0.0500	19.1	20.0	-4.4	20.0
Iodomethane	Ave	0.3672	0.4075	0.0100	11.1	10.0	11.0	20.0
Carbon disulfide	Ave	0.6384	0.5534	0.1000	8.67	10.0	-13.3	20.0
Allyl chloride	Ave	0.1594	0.1538	0.0100	9.65	10.0	-3.5	20.0
Methyl acetate	Ave	0.2342	0.2665	0.1000	56.9	50.0	13.8	20.0
Methylene Chloride	Lin2		0.3432	0.1000	12.4	10.0	24.1*	20.0
tert-Butyl alcohol	Ave	1.118	1.051	0.0100	94.0	100	-6.0	20.0
Acrylonitrile	Ave	0.1182	0.1287	0.0100	109	100	8.8	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.3033	0.1000	11.4	10.0	14.4	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6598	0.1000	9.03	10.0	-9.7	20.0
Hexane	Ave	0.4177	0.4695	0.0100	11.2	10.0	12.4	20.0
1,1-Dichloroethane	Ave	0.5003	0.5481	0.2000	11.0	10.0	9.5	20.0
Vinyl acetate	Ave	0.5628	0.4383	0.0100	7.79	10.0	-22.1*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2309	0.0100	9.10	10.0	-9.0	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.3119	0.1000	10.6	10.0	6.4	20.0
2-Butanone (MEK)	Ave	0.1498	0.1343	0.0500	17.9	20.0	-10.4	20.0
Bromochloromethane	Ave	0.1305	0.1330	0.0100	10.2	10.0	1.9	20.0
Tetrahydrofuran	Ave	0.1018	0.0894	0.0100	17.6	20.0	-12.2	20.0
Chloroform	Ave	0.4487	0.4851	0.2000	10.8	10.0	8.1	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3552	0.1000	10.2	10.0	2.2	20.0
Cyclohexane	Ave	0.5261	0.5716	0.1000	10.9	10.0	8.7	20.0
Carbon tetrachloride	Ave	0.3131	0.3135	0.1000	10.0	10.0	0.1	20.0
1,1-Dichloropropene	Ave	0.3659	0.4070	0.0100	11.1	10.0	11.2	20.0
Isobutyl alcohol	Ave	0.0093	0.0087*	0.0100	234	250	-6.5	20.0
Benzene	Ave	1.114	1.271	0.5000	11.4	10.0	14.1	20.0
1,2-Dichloroethane	Ave	0.3324	0.3556	0.1000	10.7	10.0	7.0	20.0
n-Heptane	Ave	0.3714	0.4076	0.0100	11.0	10.0	9.7	20.0
Trichloroethene	Ave	0.2856	0.2854	0.2000	9.99	10.0	-0.0	20.0
Methylcyclohexane	Ave	0.4706	0.4963	0.1000	10.5	10.0	5.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2895	0.2983	0.1000	10.3	10.0	3.1	20.0
1,4-Dioxane	Ave	0.0022	0.0022*	0.0100	197	200	-1.6	20.0
Dibromomethane	Ave	0.1479	0.1492	0.0100	10.1	10.0	0.9	20.0
Bromodichloromethane	Ave	0.3223	0.2754	0.2000	8.54	10.0	-14.6	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3434	0.2000	8.38	10.0	-16.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.192	0.1000	18.5	20.0	-7.7	20.0
Toluene	Ave	4.768	5.781	0.4000	12.1	10.0	21.3*	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.267	0.1000	8.77	10.0	-12.3	20.0
Ethyl methacrylate	Ave	1.438	1.291	0.0100	8.97	10.0	-10.3	20.0
1,1,2-Trichloroethane	Ave	0.9001	1.072	0.1000	11.9	10.0	19.1	20.0
Tetrachloroethene	Ave	0.8966	1.071	0.2000	11.9	10.0	19.4	20.0
1,3-Dichloropropane	Ave	1.703	1.862	0.0100	10.9	10.0	9.3	20.0
2-Hexanone	Ave	0.9180	0.9336	0.1000	20.3	20.0	1.7	20.0
Dibromochloromethane	Ave	0.8836	0.7632	0.1000	8.64	10.0	-13.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.9351	0.1000	10.1	10.0	1.1	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.947	0.0100	12.0	10.0	19.9	20.0
Chlorobenzene	Ave	3.086	3.486	0.5000	11.3	10.0	13.0	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.852	0.0100	12.4	10.0	23.6*	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.071	0.0100	10.3	10.0	3.4	20.0
Ethylbenzene	Ave	1.796	1.908	0.1000	10.6	10.0	6.2	20.0
m-Xylene & p-Xylene	Ave	2.175	2.311	0.1000	10.6	10.0	6.3	20.0
o-Xylene	Ave	2.146	2.154	0.3000	10.0	10.0	0.4	20.0
Styrene	Ave	3.386	3.609	0.3000	10.7	10.0	6.6	20.0
Bromoform	Ave	0.5687	0.4078	0.1000	7.17	10.0	-28.3*	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.948	0.0100	12.1	10.0	21.3*	20.0
Isopropylbenzene	Ave	5.240	5.490	0.1000	10.5	10.0	4.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.397	0.3000	11.0	10.0	9.8	20.0
Bromobenzene	Ave	0.9239	0.9066	0.0100	9.81	10.0	-1.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2614	0.0100	8.51	10.0	-14.9	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2884	0.0100	9.50	10.0	-5.0	20.0
N-Propylbenzene	Ave	1.100	1.141	0.0100	10.4	10.0	3.7	20.0
2-Chlorotoluene	Ave	0.9430	0.9431	0.0100	10.0	10.0	0.0	20.0
3-Chlorotoluene	Ave	0.9581	1.038	0.0100	10.8	10.0	8.3	20.0
1,3,5-Trimethylbenzene	Ave	3.096	3.161	0.0100	10.2	10.0	2.1	20.0
4-Chlorotoluene	Ave	0.995	1.000	0.0100	10.0	10.0	0.4	20.0
tert-Butylbenzene	Ave	2.647	2.524	0.0100	9.53	10.0	-4.7	20.0
1,2,4-Trimethylbenzene	Ave	3.087	3.137	0.0100	10.2	10.0	1.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.9743	0.0100	11.7	10.0	17.3	20.0
sec-Butylbenzene	Ave	3.737	3.801	0.0100	10.2	10.0	1.7	20.0
1,3-Dichlorobenzene	Ave	1.614	1.649	0.6000	10.2	10.0	2.1	20.0
4-Isopropyltoluene	Ave	3.057	2.967	0.0100	9.71	10.0	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.655	1.648	0.5000	9.96	10.0	-0.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.9582	0.0100	12.4	10.0	24.0*	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9789	0.0100	11.6	10.0	15.5	20.0
n-Butylbenzene	Ave	2.626	2.679	0.0100	10.2	10.0	2.0	20.0
1,2-Dichlorobenzene	Ave	1.495	1.523	0.4000	10.2	10.0	1.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1002	0.0500	6.74	10.0	-32.6*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.9265	0.0100	29.2	30.0	-2.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.8266	0.0100	18.5	20.0	-7.5	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5899	0.2000	9.48	10.0	-5.2	20.0
Hexachlorobutadiene	Ave	0.2899	0.3356	0.0100	11.6	10.0	15.7	20.0
Naphthalene	Ave	1.722	1.290	0.0100	7.49	10.0	-25.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4535	0.0100	9.36	10.0	-6.4	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1512	0.0100	6.89	10.0	-31.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1407	0.0100	7.11	10.0	-28.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2117		9.81	10.0	-1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2611		9.72	10.0	-2.8	20.0
Toluene-d8 (Surr)	Ave	3.713	4.113		11.1	10.0	10.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.367		10.3	10.0	2.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-May-2015 12:33:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007136-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:31:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 13:17:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.274	0.000	0	142779	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	99	435254	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	86	94901	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	93	135191	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.561	0.000	92	92129	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	113646	50.0	48.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	390331	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	90	129706	50.0	51.3	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	135988	50.0	45.2	
12 Chloromethane	50	1.768	1.768	0.000	99	155381	50.0	40.6	
13 Vinyl chloride	62	1.908	1.908	0.000	99	144360	50.0	41.8	
14 Butadiene	39	1.938	1.938	0.000	99	177922	50.0	44.7	
15 Bromomethane	94	2.273	2.273	0.000	93	81840	50.0	51.7	
16 Chloroethane	64	2.413	2.413	0.000	99	94452	50.0	51.6	
17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	227639	50.0	55.0	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	97	194907	50.0	50.0	
20 Ethyl ether	59	3.051	3.051	0.000	93	124544	50.0	56.6	
21 Acrolein	56	3.228	3.228	0.000	99	64332	150.0	175.2	
22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	125363	50.0	60.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	93	133488	50.0	61.2	
24 Acetone	43	3.441	3.441	0.000	78	82089	100.0	95.6	
25 Iodomethane	142	3.532	3.532	0.000	97	177369	50.0	55.5	
26 Carbon disulfide	76	3.629	3.629	0.000	100	240865	50.0	43.3	
28 3-Chloro-1-propene	76	3.915	3.915	0.000	73	66949	50.0	48.2	
30 Methyl acetate	43	3.946	3.946	0.000	99	579915	250.0	284.5	
31 Methylene Chloride	84	4.140	4.140	0.000	96	149373	50.0	62.1	
32 2-Methyl-2-propanol	59	4.414	4.414	0.000	88	75036	500.0	470.2	
33 Acrylonitrile	53	4.524	4.524	0.000	98	560202	500.0	544.2	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	99	132003	50.0	57.2	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	96	287172	50.0	45.1	

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	96	204367	50.0	56.2	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	97	238548	50.0	54.8	
38 Vinyl acetate	43	5.254	5.254	0.000	98	190754	50.0	38.9	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	58	100487	50.0	45.5	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	82	135749	50.0	53.2	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	71	116883	100.0	89.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	57886	50.0	50.9	
51 Tetrahydrofuran	42	6.251	6.251	0.000	89	77832	100.0	87.8	
52 Chloroform	83	6.379	6.379	0.000	95	211154	50.0	54.1	
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	97	154584	50.0	51.1	
54 Cyclohexane	56	6.616	6.616	0.000	97	248796	50.0	54.3	
56 Carbon tetrachloride	117	6.714	6.714	0.000	94	136462	50.0	50.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	92	177165	50.0	55.6	
57 Isobutyl alcohol	41	6.926	6.926	0.000	86	94866	1250.0	1168.4	
58 Benzene	78	6.945	6.945	0.000	98	553193	50.0	57.0	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	96	154769	50.0	53.5	
62 n-Heptane	43	7.310	7.310	0.000	91	177425	50.0	54.9	
64 Trichloroethene	130	7.681	7.681	0.000	97	124200	50.0	50.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	95	215994	50.0	52.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	94	129849	50.0	51.5	
70 1,4-Dioxane	88	8.034	8.034	0.000	39	18912	1000.0	983.8	M
68 Dibromomethane	93	8.040	8.040	0.000	96	64935	50.0	50.4	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	119877	50.0	42.7	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	128794	100.0	89.6	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	149485	50.0	41.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	226240	100.0	92.3	
76 Toluene	91	9.007	9.007	0.000	98	548659	50.0	60.6	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	98	120223	50.0	43.8	
78 Ethyl methacrylate	69	9.311	9.311	0.000	90	122470	50.0	44.9	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	91	101757	50.0	59.6	
80 Tetrachloroethene	164	9.518	9.518	0.000	96	101635	50.0	59.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	96	176722	50.0	54.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	177190	100.0	101.7	
84 Chlorodibromomethane	129	9.822	9.822	0.000	89	72431	50.0	43.2	
85 Ethylene Dibromide	107	9.932	9.932	0.000	97	88745	50.0	50.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	89	184745	50.0	60.0	
87 Chlorobenzene	112	10.418	10.418	0.000	94	330810	50.0	56.5	
88 4-Chlorobenzotrifluoride	180	10.479	10.479	0.000	96	175765	50.0	61.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	87	101617	50.0	51.7	
90 Ethylbenzene	106	10.516	10.516	0.000	99	181040	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.650	10.650	0.000	0	219349	50.0	53.1	
92 o-Xylene	106	11.027	11.027	0.000	98	204458	50.0	50.2	
93 Styrene	104	11.051	11.051	0.000	96	342459	50.0	53.3	
94 Bromoform	173	11.234	11.234	0.000	96	38700	50.0	35.9	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	184902	50.0	60.6	
97 Isopropylbenzene	105	11.398	11.398	0.000	96	521002	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	90	132604	50.0	54.9	
100 Bromobenzene	156	11.714	11.714	0.000	94	122557	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	79	35336	50.0	42.6	
101 1,2,3-Trichloropropane	110	11.769	11.769	0.000	86	38987	50.0	47.5	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	154254	50.0	51.8	
104 2-Chlorotoluene	126	11.903	11.903	0.000	96	127497	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.970	11.970	0.000	95	140269	50.0	54.1	
106 1,3,5-Trimethylbenzene	105	12.000	12.000	0.000	96	427403	50.0	51.1	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	135161	50.0	50.2	
108 tert-Butylbenzene	119	12.310	12.310	0.000	94	341166	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.371	12.371	0.000	98	424051	50.0	50.8	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.414	0.000	98	131721	50.0	58.6	
112 sec-Butylbenzene	105	12.535	12.535	0.000	94	513862	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.651	12.651	0.000	97	222880	50.0	51.1	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	401158	50.0	48.5	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	92	222804	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.785	0.000	96	129533	50.0	62.0	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	132342	50.0	57.8	
120 n-Butylbenzene	91	13.101	13.101	0.000	99	362135	50.0	51.0	
121 1,2-Dichlorobenzene	146	13.113	13.113	0.000	95	205961	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	69	13550	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	375769	150.0	146.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.464	0.000	0	223483	100.0	92.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	93	79743	50.0	47.4	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	45365	50.0	57.9	
128 Naphthalene	128	14.993	14.993	0.000	97	174452	50.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	95	61311	50.0	46.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20440	50.0	34.5	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	93	19015	50.0	35.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	110.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

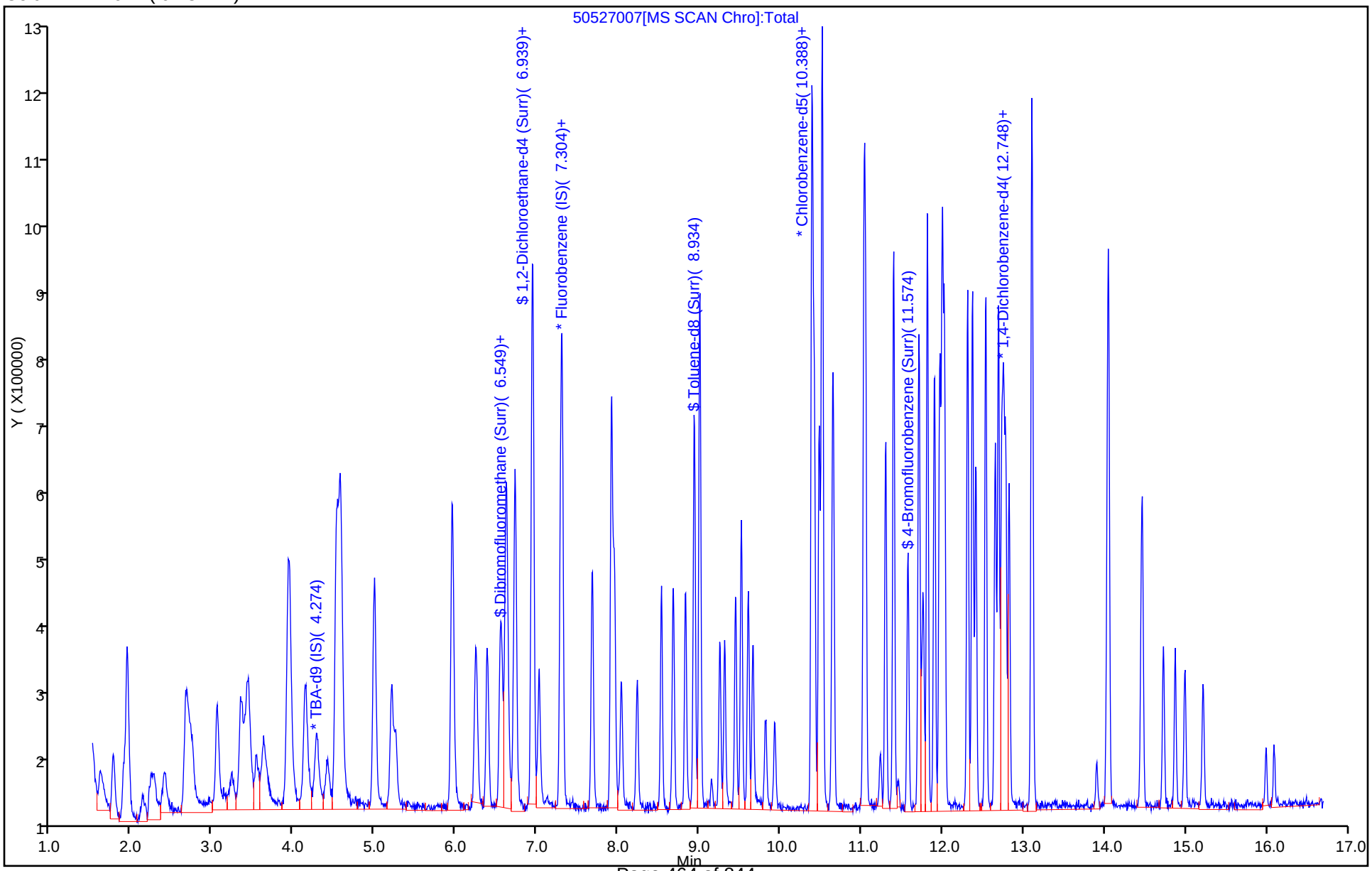
Report Date: 27-May-2015 16:31:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D

Injection Date:	27-May-2015 12:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	7
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)



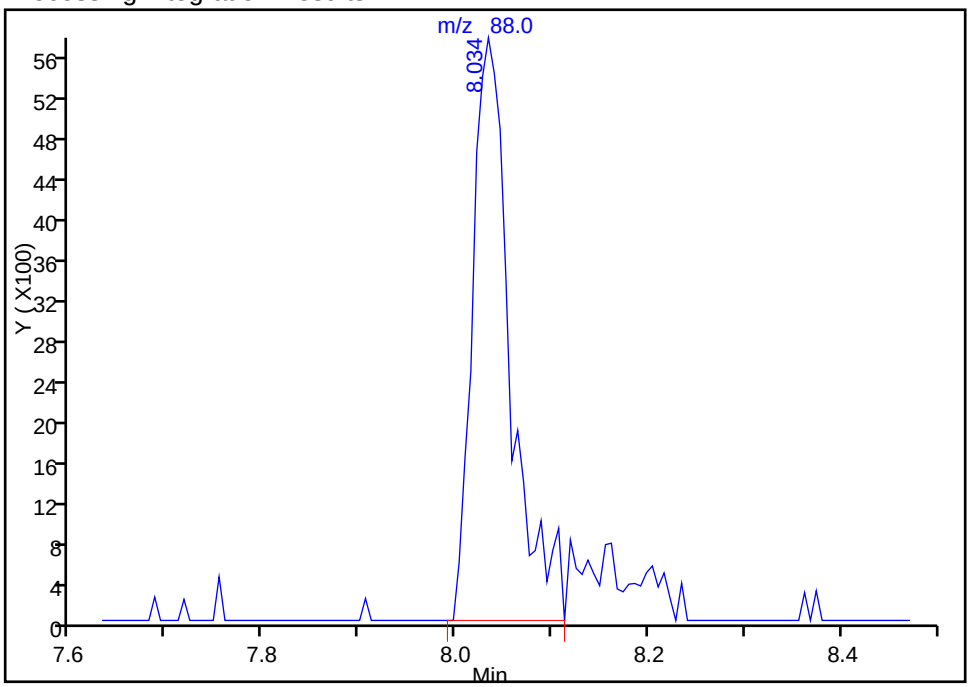
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Injection Date: 27-May-2015 12:33:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

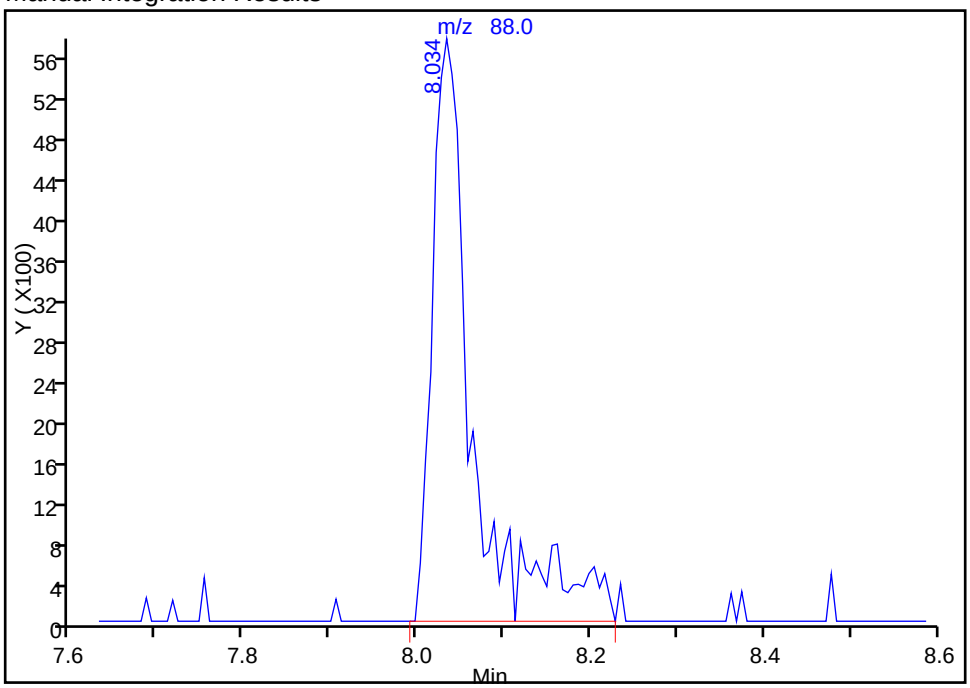
Processing Integration Results

RT: 8.03
Area: 15841
Amount: 824.0872
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 18912
Amount: 983.8480
Amount Units: ng



Reviewer: fergusond, 27-May-2015 13:17:58
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143033/2 Calibration Date: 05/28/2015 12:06

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: 50528002.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	0.1553	0.0100	18.8	20.0	-6.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 28-May-2015 12:06:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007155-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 16:32:11 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 12:59:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.277	0.000	0	137619	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	459728	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	87	102384	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	95	143335	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	99271	50.0	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	123865	50.0	50.1	
$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	94	410417	50.0	54.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	88	128081	50.0	46.9	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	99	147291	50.0	46.4	
12 Chloromethane	50	1.765	1.765	0.000	99	164140	50.0	40.6	
13 Vinyl chloride	62	1.905	1.905	0.000	83	152618	50.0	41.9	
14 Butadiene	39	1.935	1.935	0.000	100	183193	50.0	43.6	
15 Bromomethane	94	2.233	2.233	0.000	92	86975	50.0	52.0	
16 Chloroethane	64	2.397	2.397	0.000	99	99913	50.0	51.7	
17 Dichlorofluoromethane	67	2.665	2.665	0.000	97	241846	50.0	55.3	
18 Trichlorofluoromethane	101	2.714	2.714	0.000	95	203354	50.0	49.4	
20 Ethyl ether	59	3.048	3.048	0.000	93	122955	50.0	52.9	
21 Acrolein	56	3.231	3.231	0.000	99	60888	150.0	157.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	99	129321	50.0	58.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	92	138018	50.0	59.9	
24 Acetone	43	3.444	3.444	0.000	86	80187	100.0	88.4	
25 Iodomethane	142	3.541	3.541	0.000	98	186739	50.0	55.3	
26 Carbon disulfide	76	3.626	3.626	0.000	100	248919	50.0	42.4	
28 3-Chloro-1-propene	76	3.912	3.912	0.000	89	66383	50.0	45.3	
30 Methyl acetate	43	3.943	3.943	0.000	99	575648	250.0	267.3	
31 Methylene Chloride	84	4.143	4.143	0.000	96	169132	50.0	66.8	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	84	71014	500.0	461.7	
33 Acrylonitrile	53	4.521	4.521	0.000	98	543656	500.0	500.0	
34 trans-1,2-Dichloroethene	96	4.563	4.563	0.000	98	134097	50.0	55.0	
35 Methyl tert-butyl ether	73	4.575	4.575	0.000	96	291454	50.0	43.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.983	0.000	94	206166	50.0	53.7	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	96	242604	50.0	52.7	
38 Vinyl acetate	43	5.251	5.251	0.000	98	188327	50.0	36.4	
44 2,2-Dichloropropane	77	5.938	5.938	0.000	59	105372	50.0	45.1	
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	89	136443	50.0	50.6	
46 2-Butanone (MEK)	43	5.962	5.962	0.000	82	116768	100.0	84.8	
49 Chlorobromomethane	128	6.236	6.236	0.000	93	57647	50.0	48.0	
51 Tetrahydrofuran	42	6.248	6.248	0.000	88	80340	100.0	85.8	
52 Chloroform	83	6.382	6.382	0.000	95	216903	50.0	52.6	
53 1,1,1-Trichloroethane	97	6.540	6.540	0.000	97	161813	50.0	50.7	
54 Cyclohexane	56	6.613	6.613	0.000	94	253472	50.0	52.4	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	139922	50.0	48.6	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	95	181762	50.0	54.0	
57 Isobutyl alcohol	41	6.930	6.930	0.000	87	92427	1250.0	1077.8	
58 Benzene	78	6.942	6.942	0.000	98	572228	50.0	55.9	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	96	157665	50.0	51.6	
62 n-Heptane	43	7.307	7.307	0.000	94	188984	50.0	55.3	
64 Trichloroethene	130	7.678	7.678	0.000	97	126764	50.0	48.3	
66 Methylcyclohexane	83	7.915	7.915	0.000	91	214579	50.0	49.6	
67 1,2-Dichloropropane	63	7.946	7.946	0.000	92	134464	50.0	50.5	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	17917	1000.0	882.5	M
68 Dibromomethane	93	8.037	8.037	0.000	95	65966	50.0	48.5	
71 Dichlorobromomethane	83	8.232	8.232	0.000	97	126320	50.0	42.6	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	92	142780	100.0	94.0	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	151350	50.0	40.2	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	230521	100.0	87.2	
76 Toluene	91	9.004	9.004	0.000	98	561445	50.0	57.5	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	98	116795	50.0	39.5	
78 Ethyl methacrylate	69	9.314	9.314	0.000	89	119766	50.0	40.7	
79 1,1,2-Trichloroethane	97	9.448	9.448	0.000	91	95876	50.0	52.0	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	107152	50.0	58.4	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	95	179643	50.0	51.5	
82 2-Hexanone	43	9.661	9.661	0.000	99	174877	100.0	93.0	
84 Chlorodibromomethane	129	9.819	9.819	0.000	90	72703	50.0	40.2	
85 Ethylene Dibromide	107	9.929	9.929	0.000	99	85298	50.0	45.0	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	91	169590	50.0	51.0	
87 Chlorobenzene	112	10.416	10.416	0.000	94	340249	50.0	53.8	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	160062	50.0	52.2	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.513	0.000	90	99261	50.0	46.8	
90 Ethylbenzene	106	10.513	10.513	0.000	99	182900	50.0	49.7	
91 m-Xylene & p-Xylene	106	10.653	10.653	0.000	0	222983	50.0	50.1	
92 o-Xylene	106	11.030	11.030	0.000	97	207918	50.0	47.3	
93 Styrene	104	11.048	11.048	0.000	95	348607	50.0	50.3	
94 Bromoform	173	11.237	11.237	0.000	93	37795	50.0	32.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	97	163759	50.0	49.8	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	520998	50.0	48.6	
99 1,1,2,2-Tetrachloroethane	83	11.711	11.711	0.000	79	131288	50.0	50.4	
100 Bromobenzene	156	11.711	11.711	0.000	94	123935	50.0	46.8	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	77	36415	50.0	41.4	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	84	40515	50.0	46.6	
103 N-Propylbenzene	120	11.815	11.815	0.000	99	156050	50.0	49.5	
104 2-Chlorotoluene	126	11.900	11.900	0.000	96	131216	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.967	11.967	0.000	95	130383	50.0	47.5	
106 1,3,5-Trimethylbenzene	105	11.997	11.997	0.000	95	435319	50.0	49.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	138087	50.0	48.4	
108 tert-Butylbenzene	119	12.307	12.307	0.000	94	340944	50.0	44.9	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	97	428526	50.0	48.4	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	120972	50.0	50.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	522181	50.0	48.7	
113 1,3-Dichlorobenzene	146	12.654	12.654	0.000	97	225026	50.0	48.6	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	96	422668	50.0	48.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	95	233037	50.0	49.1	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.782	0.000	96	109931	50.0	49.6	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.818	0.000	0	125941	50.0	51.9	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	364870	50.0	48.5	
121 1,2-Dichlorobenzene	146	13.110	13.110	0.000	95	206767	50.0	48.2	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	74	14169	50.0	33.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.047	14.047	0.000	0	340400	150.0	124.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	206439	100.0	80.6	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	93	82262	50.0	46.1	
127 Hexachlorobutadiene	225	14.875	14.875	0.000	95	46500	50.0	55.9	
128 Naphthalene	128	14.990	14.990	0.000	97	180244	50.0	36.5	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	95	63970	50.0	46.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	20080	50.0	31.9	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	95	19040	50.0	33.6	
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	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

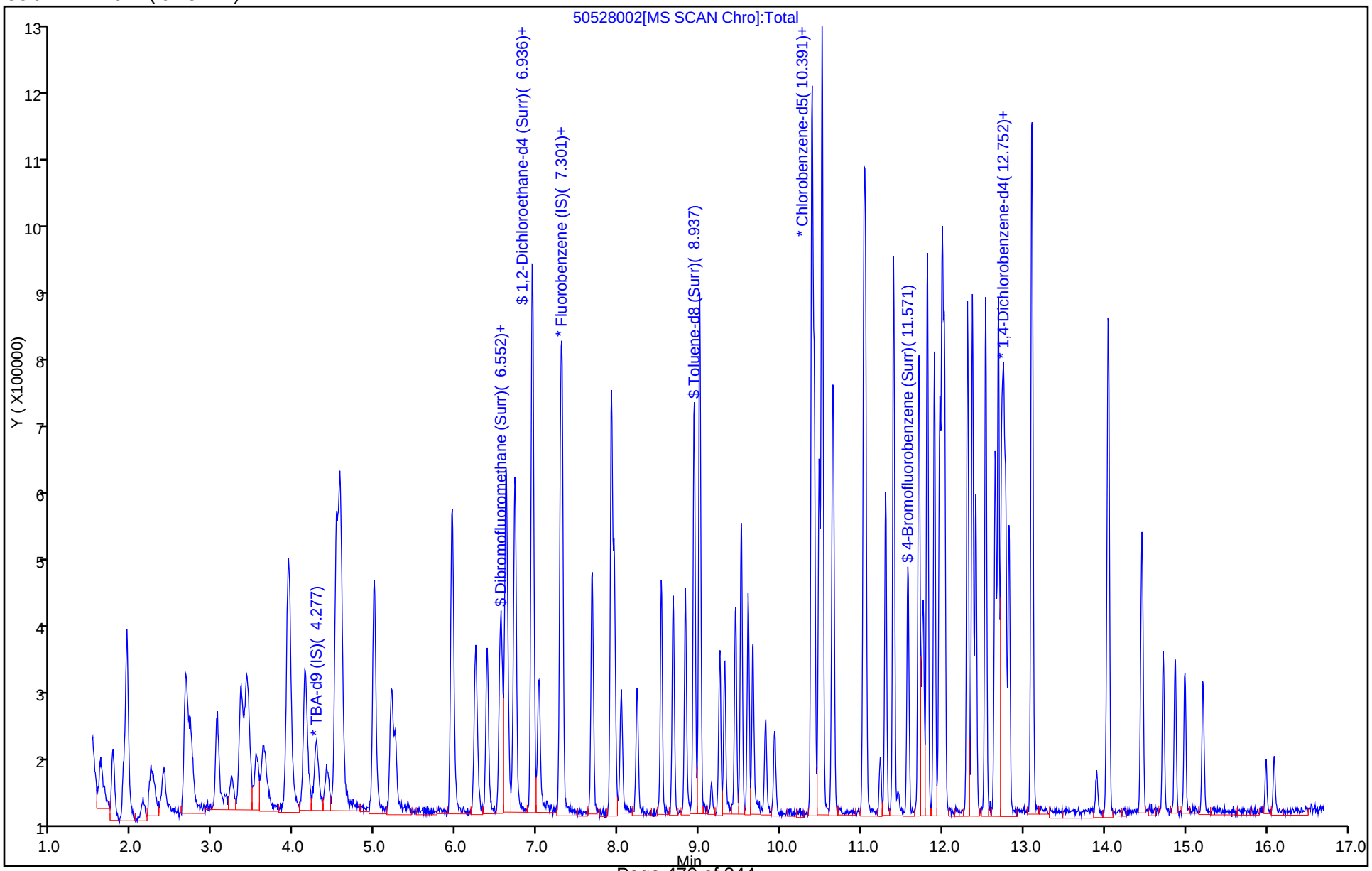
Report Date: 28-May-2015 16:32:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528002.D

Injection Date:	28-May-2015 12:06:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143033/2 Calibration Date: 05/28/2015 12:06

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50528002.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	0.3455	0.3204	0.1000	9.27	10.0	-7.3	20.0
Chloromethane	Ave	0.4398	0.3570	0.1000	8.12	10.0	-18.8	20.0
Vinyl chloride	Ave	0.3965	0.3320	0.1000	8.37	10.0	-16.3	20.0
Bromomethane	Ave	0.1818	0.1892	0.0500	10.4	10.0	4.1	20.0
Chloroethane	Ave	0.2101	0.2173	0.0500	10.3	10.0	3.4	20.0
Dichlorofluoromethane	Ave	0.4754	0.5261	0.0100	11.1	10.0	10.7	20.0
Trichlorofluoromethane	Ave	0.4478	0.4423	0.1000	9.88	10.0	-1.2	20.0
Ethyl ether	Ave	0.2528	0.2675	0.0100	10.6	10.0	5.8	20.0
Acrolein	Ave	0.0422	0.0442	0.0100	31.4	30.0	4.7	20.0
1,1-Dichloroethene	Ave	0.2396	0.2813	0.1000	11.7	10.0	17.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.3002	0.1000	12.0	10.0	19.8	20.0
Acetone	Ave	0.0986	0.0872	0.0500	17.7	20.0	-11.6	20.0
Iodomethane	Ave	0.3672	0.4062	0.0100	11.1	10.0	10.6	20.0
Carbon disulfide	Ave	0.6384	0.5415	0.1000	8.48	10.0	-15.2	20.0
Allyl chloride	Ave	0.1594	0.1444	0.0100	9.06	10.0	-9.4	20.0
Methyl acetate	Ave	0.2342	0.2504	0.1000	53.5	50.0	6.9	20.0
Methylene Chloride	Lin2		0.3679	0.1000	13.4	10.0	33.6*	20.0
tert-Butyl alcohol	Ave	1.118	1.032	0.0100	92.3	100	-7.7	20.0
Acrylonitrile	Ave	0.1182	0.1183	0.0100	100	100	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.2917	0.1000	11.0	10.0	10.0	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6340	0.1000	8.68	10.0	-13.2	20.0
Hexane	Ave	0.4177	0.4485	0.0100	10.7	10.0	7.4	20.0
1,1-Dichloroethane	Ave	0.5003	0.5277	0.2000	10.5	10.0	5.5	20.0
Vinyl acetate	Ave	0.5628	0.4097	0.0100	7.28	10.0	-27.2*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2292	0.0100	9.03	10.0	-9.7	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.2968	0.1000	10.1	10.0	1.3	20.0
2-Butanone (MEK)	Ave	0.1498	0.1270	0.0500	17.0	20.0	-15.2	20.0
Bromochloromethane	Ave	0.1305	0.1254	0.0100	9.61	10.0	-3.9	20.0
Tetrahydrofuran	Ave	0.1018	0.0874	0.0100	17.2	20.0	-14.2	20.0
Chloroform	Ave	0.4487	0.4718	0.2000	10.5	10.0	5.1	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3520	0.1000	10.1	10.0	1.3	20.0
Cyclohexane	Ave	0.5261	0.5514	0.1000	10.5	10.0	4.8	20.0
Carbon tetrachloride	Ave	0.3131	0.3044	0.1000	9.72	10.0	-2.8	20.0
1,1-Dichloropropene	Ave	0.3659	0.3954	0.0100	10.8	10.0	8.0	20.0
Isobutyl alcohol	Ave	0.0093	0.0080*	0.0100	216	250	-13.8	20.0
Benzene	Ave	1.114	1.245	0.5000	11.2	10.0	11.7	20.0
1,2-Dichloroethane	Ave	0.3324	0.3430	0.1000	10.3	10.0	3.2	20.0
n-Heptane	Ave	0.3714	0.4111	0.0100	11.1	10.0	10.7	20.0
Trichloroethene	Ave	0.2856	0.2757	0.2000	9.66	10.0	-3.4	20.0
Methylcyclohexane	Ave	0.4706	0.4668	0.1000	9.92	10.0	-0.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143033/2 Calibration Date: 05/28/2015 12:06

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50528002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2895	0.2925	0.1000	10.1	10.0	1.0	20.0
1,4-Dioxane	Ave	0.0022	0.0020*	0.0100	176	200	-11.8	20.0
Dibromomethane	Ave	0.1479	0.1435	0.0100	9.70	10.0	-3.0	20.0
Bromodichloromethane	Ave	0.3223	0.2748	0.2000	8.52	10.0	-14.8	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3292	0.2000	8.04	10.0	-19.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.126	0.1000	17.4	20.0	-12.8	20.0
Toluene	Ave	4.768	5.484	0.4000	11.5	10.0	15.0	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.141	0.1000	7.90	10.0	-21.0*	20.0
Ethyl methacrylate	Ave	1.438	1.170	0.0100	8.13	10.0	-18.7	20.0
1,1,2-Trichloroethane	Ave	0.9001	0.9364	0.1000	10.4	10.0	4.0	20.0
Tetrachloroethene	Ave	0.8966	1.047	0.2000	11.7	10.0	16.7	20.0
1,3-Dichloropropane	Ave	1.703	1.755	0.0100	10.3	10.0	3.0	20.0
2-Hexanone	Ave	0.9180	0.8540	0.1000	18.6	20.0	-7.0	20.0
Dibromochloromethane	Ave	0.8836	0.7101	0.1000	8.04	10.0	-19.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.8331	0.1000	9.01	10.0	-9.9	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.656	0.0100	10.2	10.0	2.0	20.0
Chlorobenzene	Ave	3.086	3.323	0.5000	10.8	10.0	7.7	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.563	0.0100	10.4	10.0	4.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	0.9695	0.0100	9.36	10.0	-6.4	20.0
Ethylbenzene	Ave	1.796	1.786	0.1000	9.95	10.0	-0.5	20.0
m-Xylene & p-Xylene	Ave	2.175	2.178	0.1000	10.0	10.0	0.1	20.0
o-Xylene	Ave	2.146	2.031	0.3000	9.46	10.0	-5.4	20.0
Styrene	Ave	3.386	3.405	0.3000	10.1	10.0	0.5	20.0
Bromoform	Ave	0.5687	0.3692	0.1000	6.49	10.0	-35.1*	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.599	0.0100	9.96	10.0	-0.4	20.0
Isopropylbenzene	Ave	5.240	5.089	0.1000	9.71	10.0	-2.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.282	0.3000	10.1	10.0	0.8	20.0
Bromobenzene	Ave	0.9239	0.8647	0.0100	9.36	10.0	-6.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2541	0.0100	8.28	10.0	-17.2	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2827	0.0100	9.32	10.0	-6.8	20.0
N-Propylbenzene	Ave	1.100	1.089	0.0100	9.89	10.0	-1.1	20.0
2-Chlorotoluene	Ave	0.9430	0.9155	0.0100	9.71	10.0	-2.9	20.0
3-Chlorotoluene	Ave	0.9581	0.9096	0.0100	9.49	10.0	-5.1	20.0
1,3,5-Trimethylbenzene	Ave	3.096	3.037	0.0100	9.81	10.0	-1.9	20.0
4-Chlorotoluene	Ave	0.995	0.9634	0.0100	9.68	10.0	-3.2	20.0
tert-Butylbenzene	Ave	2.647	2.379	0.0100	8.99	10.0	-10.1	20.0
1,2,4-Trimethylbenzene	Ave	3.087	2.990	0.0100	9.68	10.0	-3.2	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.8440	0.0100	10.2	10.0	1.6	20.0
sec-Butylbenzene	Ave	3.737	3.643	0.0100	9.75	10.0	-2.5	20.0
1,3-Dichlorobenzene	Ave	1.614	1.570	0.6000	9.73	10.0	-2.7	20.0
4-Isopropyltoluene	Ave	3.057	2.949	0.0100	9.65	10.0	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143033/2 Calibration Date: 05/28/2015 12:06

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50528002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.655	1.626	0.5000	9.83	10.0	-1.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.7670	0.0100	9.92	10.0	-0.8	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.8787	0.0100	10.4	10.0	3.7	20.0
n-Butylbenzene	Ave	2.626	2.546	0.0100	9.69	10.0	-3.1	20.0
1,2-Dichlorobenzene	Ave	1.495	1.443	0.4000	9.65	10.0	-3.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.0989	0.0500	6.64	10.0	-33.6*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.7916	0.0100	25.0	30.0	-16.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.7201	0.0100	16.1	20.0	-19.4	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5739	0.2000	9.23	10.0	-7.7	20.0
Hexachlorobutadiene	Ave	0.2899	0.3244	0.0100	11.2	10.0	11.9	20.0
Naphthalene	Ave	1.722	1.258	0.0100	7.30	10.0	-27.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4463	0.0100	9.22	10.0	-7.8	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1401	0.0100	6.39	10.0	-36.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1328	0.0100	6.71	10.0	-32.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2159		10.0	10.0	0.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2694		10.0	10.0	0.3	20.0
Toluene-d8 (Surr)	Ave	3.713	4.009		10.8	10.0	8.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.251		9.39	10.0	-6.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 28-May-2015 12:06:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007155-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 16:32:11 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 12:59:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.277	0.000	0	137619	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	459728	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.385	10.385	0.000	87	102384	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.727	12.727	0.000	95	143335	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.559	0.000	93	99271	50.0	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	123865	50.0	50.1	
$ 7 Toluene-d8 (Surr)	98	8.937	8.937	0.000	94	410417	50.0	54.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.571	0.000	88	128081	50.0	46.9	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	99	147291	50.0	46.4	
12 Chloromethane	50	1.765	1.765	0.000	99	164140	50.0	40.6	
13 Vinyl chloride	62	1.905	1.905	0.000	83	152618	50.0	41.9	
14 Butadiene	39	1.935	1.935	0.000	100	183193	50.0	43.6	
15 Bromomethane	94	2.233	2.233	0.000	92	86975	50.0	52.0	
16 Chloroethane	64	2.397	2.397	0.000	99	99913	50.0	51.7	
17 Dichlorofluoromethane	67	2.665	2.665	0.000	97	241846	50.0	55.3	
18 Trichlorofluoromethane	101	2.714	2.714	0.000	95	203354	50.0	49.4	
20 Ethyl ether	59	3.048	3.048	0.000	93	122955	50.0	52.9	
21 Acrolein	56	3.231	3.231	0.000	99	60888	150.0	157.0	
22 1,1-Dichloroethene	96	3.347	3.347	0.000	99	129321	50.0	58.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.420	0.000	92	138018	50.0	59.9	
24 Acetone	43	3.444	3.444	0.000	86	80187	100.0	88.4	
25 Iodomethane	142	3.541	3.541	0.000	98	186739	50.0	55.3	
26 Carbon disulfide	76	3.626	3.626	0.000	100	248919	50.0	42.4	
28 3-Chloro-1-propene	76	3.912	3.912	0.000	89	66383	50.0	45.3	
30 Methyl acetate	43	3.943	3.943	0.000	99	575648	250.0	267.3	
31 Methylene Chloride	84	4.143	4.143	0.000	96	169132	50.0	66.8	
32 2-Methyl-2-propanol	59	4.399	4.399	0.000	84	71014	500.0	461.7	
33 Acrylonitrile	53	4.521	4.521	0.000	98	543656	500.0	500.0	
34 trans-1,2-Dichloroethene	96	4.563	4.563	0.000	98	134097	50.0	55.0	
35 Methyl tert-butyl ether	73	4.575	4.575	0.000	96	291454	50.0	43.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.983	0.000	94	206166	50.0	53.7	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	96	242604	50.0	52.7	
38 Vinyl acetate	43	5.251	5.251	0.000	98	188327	50.0	36.4	
44 2,2-Dichloropropane	77	5.938	5.938	0.000	59	105372	50.0	45.1	
45 cis-1,2-Dichloroethene	96	5.944	5.944	0.000	89	136443	50.0	50.6	
46 2-Butanone (MEK)	43	5.962	5.962	0.000	82	116768	100.0	84.8	
49 Chlorobromomethane	128	6.236	6.236	0.000	93	57647	50.0	48.0	
51 Tetrahydrofuran	42	6.248	6.248	0.000	88	80340	100.0	85.8	
52 Chloroform	83	6.382	6.382	0.000	95	216903	50.0	52.6	
53 1,1,1-Trichloroethane	97	6.540	6.540	0.000	97	161813	50.0	50.7	
54 Cyclohexane	56	6.613	6.613	0.000	94	253472	50.0	52.4	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	139922	50.0	48.6	
55 1,1-Dichloropropene	75	6.729	6.729	0.000	95	181762	50.0	54.0	
57 Isobutyl alcohol	41	6.930	6.930	0.000	87	92427	1250.0	1077.8	
58 Benzene	78	6.942	6.942	0.000	98	572228	50.0	55.9	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	96	157665	50.0	51.6	
62 n-Heptane	43	7.307	7.307	0.000	94	188984	50.0	55.3	
64 Trichloroethene	130	7.678	7.678	0.000	97	126764	50.0	48.3	
66 Methylcyclohexane	83	7.915	7.915	0.000	91	214579	50.0	49.6	
67 1,2-Dichloropropane	63	7.946	7.946	0.000	92	134464	50.0	50.5	
70 1,4-Dioxane	88	8.025	8.025	0.000	38	17917	1000.0	882.5	M
68 Dibromomethane	93	8.037	8.037	0.000	95	65966	50.0	48.5	
71 Dichlorobromomethane	83	8.232	8.232	0.000	97	126320	50.0	42.6	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	92	142780	100.0	94.0	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	151350	50.0	40.2	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	230521	100.0	87.2	
76 Toluene	91	9.004	9.004	0.000	98	561445	50.0	57.5	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	98	116795	50.0	39.5	
78 Ethyl methacrylate	69	9.314	9.314	0.000	89	119766	50.0	40.7	
79 1,1,2-Trichloroethane	97	9.448	9.448	0.000	91	95876	50.0	52.0	
80 Tetrachloroethene	164	9.515	9.515	0.000	95	107152	50.0	58.4	
81 1,3-Dichloropropane	76	9.600	9.600	0.000	95	179643	50.0	51.5	
82 2-Hexanone	43	9.661	9.661	0.000	99	174877	100.0	93.0	
84 Chlorodibromomethane	129	9.819	9.819	0.000	90	72703	50.0	40.2	
85 Ethylene Dibromide	107	9.929	9.929	0.000	99	85298	50.0	45.0	
86 3-Chlorobenzotrifluoride	180	10.391	10.391	0.000	91	169590	50.0	51.0	
87 Chlorobenzene	112	10.416	10.416	0.000	94	340249	50.0	53.8	
88 4-Chlorobenzotrifluoride	180	10.476	10.476	0.000	96	160062	50.0	52.2	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.513	0.000	90	99261	50.0	46.8	
90 Ethylbenzene	106	10.513	10.513	0.000	99	182900	50.0	49.7	
91 m-Xylene & p-Xylene	106	10.653	10.653	0.000	0	222983	50.0	50.1	
92 o-Xylene	106	11.030	11.030	0.000	97	207918	50.0	47.3	
93 Styrene	104	11.048	11.048	0.000	95	348607	50.0	50.3	
94 Bromoform	173	11.237	11.237	0.000	93	37795	50.0	32.5	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	97	163759	50.0	49.8	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	520998	50.0	48.6	
99 1,1,2,2-Tetrachloroethane	83	11.711	11.711	0.000	79	131288	50.0	50.4	
100 Bromobenzene	156	11.711	11.711	0.000	94	123935	50.0	46.8	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	77	36415	50.0	41.4	
101 1,2,3-Trichloropropane	110	11.760	11.760	0.000	84	40515	50.0	46.6	
103 N-Propylbenzene	120	11.815	11.815	0.000	99	156050	50.0	49.5	
104 2-Chlorotoluene	126	11.900	11.900	0.000	96	131216	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.967	11.967	0.000	95	130383	50.0	47.5	
106 1,3,5-Trimethylbenzene	105	11.997	11.997	0.000	95	435319	50.0	49.1	
107 4-Chlorotoluene	126	12.022	12.022	0.000	99	138087	50.0	48.4	
108 tert-Butylbenzene	119	12.307	12.307	0.000	94	340944	50.0	44.9	
110 1,2,4-Trimethylbenzene	105	12.368	12.368	0.000	97	428526	50.0	48.4	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	120972	50.0	50.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	522181	50.0	48.7	
113 1,3-Dichlorobenzene	146	12.654	12.654	0.000	97	225026	50.0	48.6	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	96	422668	50.0	48.2	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	95	233037	50.0	49.1	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.782	0.000	96	109931	50.0	49.6	
118 2,5-Dichlorobenzotrifluori	214	12.818	12.818	0.000	0	125941	50.0	51.9	
120 n-Butylbenzene	91	13.098	13.098	0.000	99	364870	50.0	48.5	
121 1,2-Dichlorobenzene	146	13.110	13.110	0.000	95	206767	50.0	48.2	
122 1,2-Dibromo-3-Chloropropan	75	13.901	13.901	0.000	74	14169	50.0	33.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.047	14.047	0.000	0	340400	150.0	124.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.461	0.000	0	206439	100.0	80.6	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	93	82262	50.0	46.1	
127 Hexachlorobutadiene	225	14.875	14.875	0.000	95	46500	50.0	55.9	
128 Naphthalene	128	14.990	14.990	0.000	97	180244	50.0	36.5	
129 1,2,3-Trichlorobenzene	180	15.215	15.215	0.000	95	63970	50.0	46.1	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	20080	50.0	31.9	
130 2,3,6-Trichlorotoluene	159	16.091	16.091	0.000	95	19040	50.0	33.6	
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	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

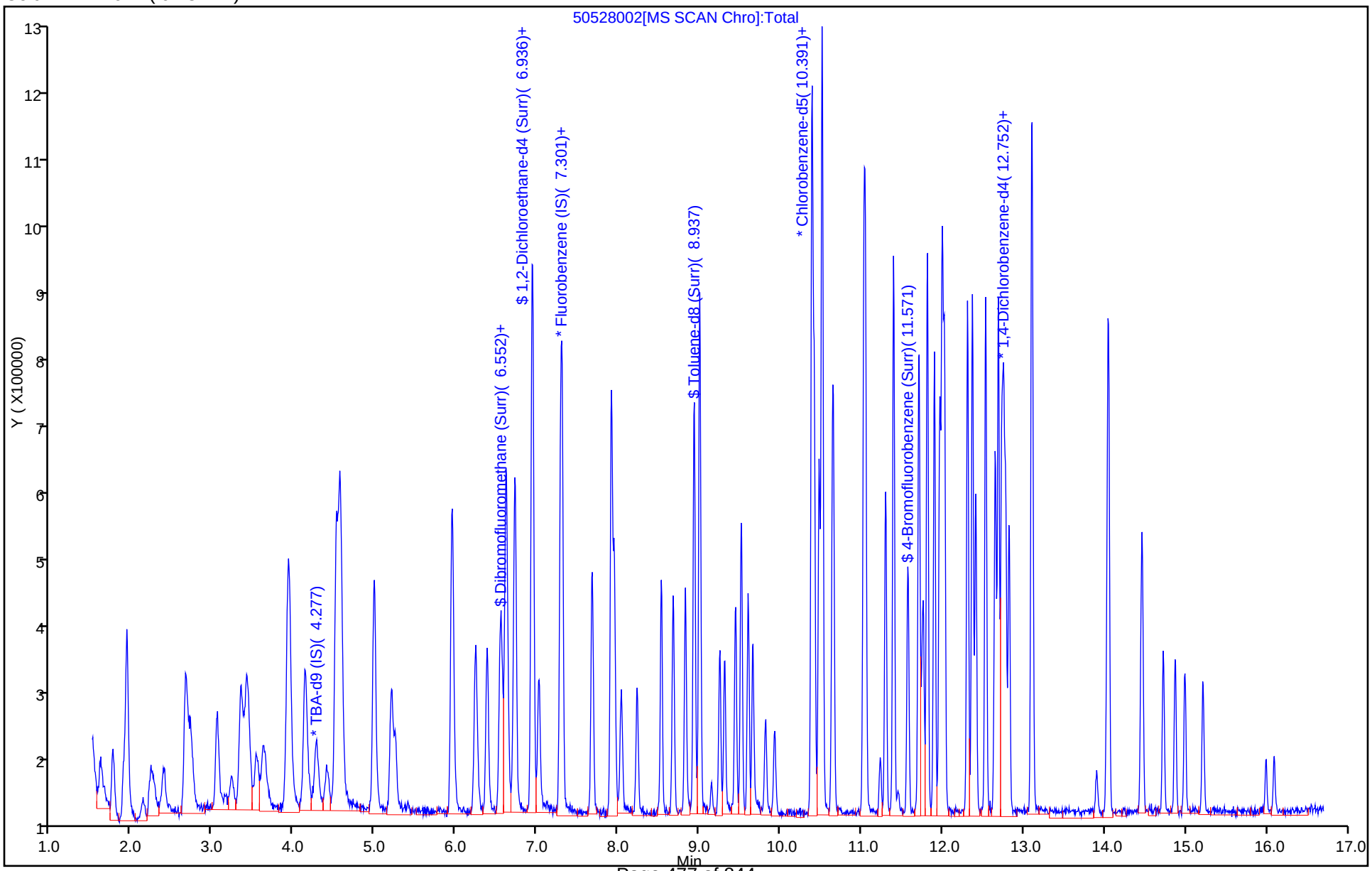
Report Date: 28-May-2015 16:32:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528002.D

Injection Date:	28-May-2015 12:06:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

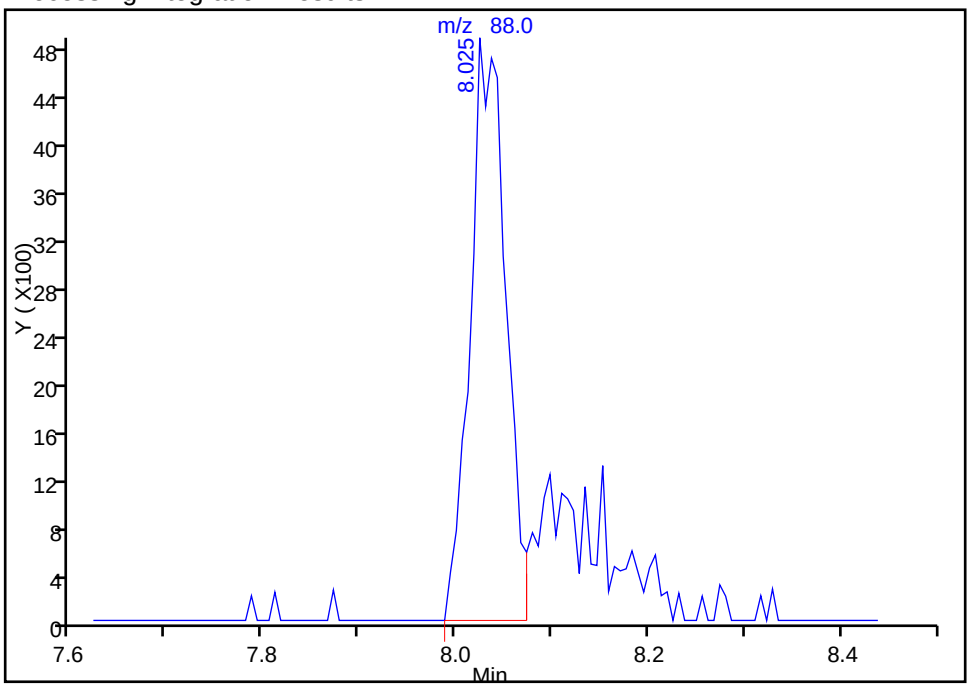
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528002.D
Injection Date: 28-May-2015 12:06:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

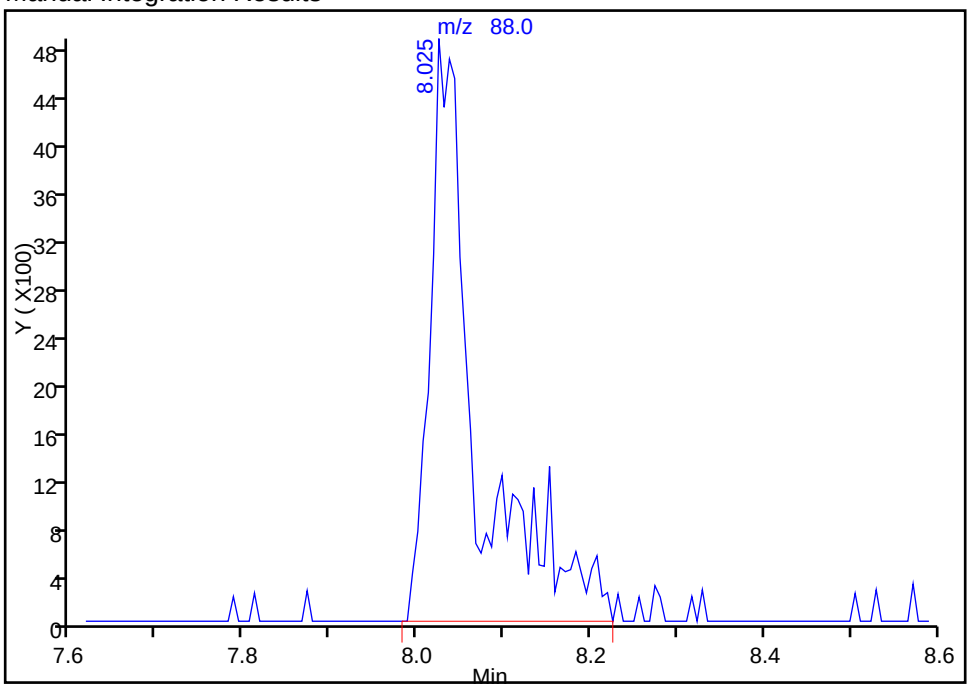
Processing Integration Results

RT: 8.02
Area: 12400
Amount: 610.7368
Amount Units: ng



Manual Integration Results

RT: 8.02
Area: 17917
Amount: 882.4654
Amount Units: ng



Reviewer: fergusond, 28-May-2015 12:59:02
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143223/2 Calibration Date: 05/29/2015 13:25

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: 50529002.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	0.1441	0.0100	17.4	20.0	-12.8	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-May-2015 13:25:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007177-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 17:25:52 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 13:53:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.275	0.000	0	145943	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.286	0.000	98	457192	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	87	97917	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.725	0.000	95	147116	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.562	0.000	93	88933	50.0	45.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.927	0.000	0	116797	50.0	47.5	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	94	376780	50.0	51.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.569	0.000	88	124039	50.0	47.5	
11 Dichlorodifluoromethane	85	1.617	1.617	0.000	99	147117	50.0	46.6	
12 Chloromethane	50	1.769	1.769	0.000	99	165267	50.0	41.1	
13 Vinyl chloride	62	1.903	1.903	0.000	97	156904	50.0	43.3	
14 Butadiene	39	1.939	1.939	0.000	97	188322	50.0	45.1	
15 Bromomethane	94	2.237	2.237	0.000	91	81079	50.0	48.8	
16 Chloroethane	64	2.389	2.389	0.000	99	101054	50.0	52.6	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	243062	50.0	55.9	
18 Trichlorofluoromethane	101	2.706	2.706	0.000	96	192324	50.0	47.0	
20 Ethyl ether	59	3.046	3.046	0.000	93	121357	50.0	52.5	
21 Acrolein	56	3.229	3.229	0.000	98	45747	150.0	118.6	
22 1,1-Dichloroethene	96	3.344	3.344	0.000	98	128242	50.0	58.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	93	137560	50.0	60.0	
24 Acetone	43	3.442	3.442	0.000	82	84790	100.0	94.0	
25 Iodomethane	142	3.527	3.527	0.000	96	189490	50.0	56.4	
26 Carbon disulfide	76	3.624	3.624	0.000	100	269218	50.0	46.1	
28 3-Chloro-1-propene	76	3.904	3.904	0.000	88	67942	50.0	46.6	
30 Methyl acetate	43	3.934	3.934	0.000	99	554393	250.0	258.9	
31 Methylene Chloride	84	4.141	4.141	0.000	86	176523	50.0	70.3	
32 2-Methyl-2-propanol	59	4.403	4.403	0.000	84	81440	500.0	499.3	
33 Acrylonitrile	53	4.518	4.518	0.000	98	560026	500.0	518.0	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	99	136984	50.0	56.5	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	96	285964	50.0	42.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	205395	50.0	53.8	
37 1,1-Dichloroethane	63	5.200	5.200	0.000	96	241911	50.0	52.9	
38 Vinyl acetate	43	5.242	5.242	0.000	98	226972	50.0	44.1	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	60	95131	50.0	41.0	
45 cis-1,2-Dichloroethene	96	5.948	5.948	0.000	82	141632	50.0	52.8	
46 2-Butanone (MEK)	43	5.954	5.954	0.000	67	116940	100.0	85.4	
49 Chlorobromomethane	128	6.234	6.234	0.000	96	57619	50.0	48.3	
51 Tetrahydrofuran	42	6.246	6.246	0.000	87	78708	100.0	84.5	
52 Chloroform	83	6.380	6.380	0.000	95	216732	50.0	52.8	
53 1,1,1-Trichloroethane	97	6.538	6.538	0.000	98	162869	50.0	51.3	
54 Cyclohexane	56	6.617	6.617	0.000	93	253349	50.0	52.7	
56 Carbon tetrachloride	117	6.708	6.708	0.000	97	134015	50.0	46.8	
55 1,1-Dichloropropene	75	6.727	6.727	0.000	92	176693	50.0	52.8	
57 Isobutyl alcohol	41	6.927	6.927	0.000	89	97537	1250.0	1143.7	
58 Benzene	78	6.940	6.940	0.000	98	572290	50.0	56.2	
59 1,2-Dichloroethane	62	7.019	7.019	0.000	97	161457	50.0	53.1	
62 n-Heptane	43	7.305	7.305	0.000	93	174717	50.0	51.4	
64 Trichloroethene	130	7.676	7.676	0.000	97	126457	50.0	48.4	
66 Methylcyclohexane	83	7.913	7.913	0.000	94	213948	50.0	49.7	
67 1,2-Dichloropropane	63	7.950	7.950	0.000	93	133225	50.0	50.3	
68 Dibromomethane	93	8.035	8.035	0.000	94	69934	50.0	51.7	
70 1,4-Dioxane	88	8.035	8.035	0.000	38	18760	1000.0	929.1	
71 Dichlorobromomethane	83	8.229	8.229	0.000	98	127291	50.0	43.2	
73 2-Chloroethyl vinyl ether	63	8.527	8.527	0.000	91	131777	100.0	87.2	
74 cis-1,3-Dichloropropene	75	8.673	8.673	0.000	92	152315	50.0	40.7	
75 4-Methyl-2-pentanone (MIBK	43	8.826	8.826	0.000	99	222979	100.0	88.2	
76 Toluene	91	9.002	9.002	0.000	98	550963	50.0	59.0	
77 trans-1,3-Dichloropropene	75	9.251	9.251	0.000	99	120224	50.0	42.5	
78 Ethyl methacrylate	69	9.312	9.312	0.000	90	119715	50.0	42.5	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	92	99682	50.0	56.6	
80 Tetrachloroethene	164	9.519	9.519	0.000	97	104281	50.0	59.4	
81 1,3-Dichloropropane	76	9.598	9.598	0.000	95	178555	50.0	53.5	
82 2-Hexanone	43	9.659	9.659	0.000	98	168158	100.0	93.5	
84 Chlorodibromomethane	129	9.817	9.817	0.000	89	75569	50.0	43.7	
85 Ethylene Dibromide	107	9.927	9.927	0.000	99	89075	50.0	49.2	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	87	172730	50.0	54.3	
87 Chlorobenzene	112	10.413	10.413	0.000	94	332701	50.0	55.1	
88 4-Chlorobenzotrifluoride	180	10.480	10.480	0.000	95	163313	50.0	55.6	
89 1,1,1,2-Tetrachloroethane	131	10.511	10.511	0.000	93	98374	50.0	48.5	
90 Ethylbenzene	106	10.517	10.517	0.000	99	184517	50.0	52.5	
91 m-Xylene & p-Xylene	106	10.644	10.644	0.000	0	224290	50.0	52.7	
92 o-Xylene	106	11.028	11.028	0.000	97	214287	50.0	51.0	
93 Styrene	104	11.046	11.046	0.000	95	354079	50.0	53.4	
94 Bromoform	173	11.228	11.228	0.000	93	41081	50.0	36.9	
96 2-Chlorobenzotrifluoride	180	11.295	11.295	0.000	97	177353	50.0	56.4	
97 Isopropylbenzene	105	11.393	11.393	0.000	97	531679	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.703	0.000	77	133083	50.0	53.4	
100 Bromobenzene	156	11.709	11.709	0.000	94	127223	50.0	46.8	
102 trans-1,4-Dichloro-2-buten	53	11.746	11.746	0.000	73	34058	50.0	37.7	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	87	42272	50.0	47.3	
103 N-Propylbenzene	120	11.813	11.813	0.000	99	156317	50.0	48.3	
104 2-Chlorotoluene	126	11.898	11.898	0.000	96	133378	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.965	11.965	0.000	96	140538	50.0	49.9	
106 1,3,5-Trimethylbenzene	105	11.995	11.995	0.000	95	455669	50.0	50.0	
107 4-Chlorotoluene	126	12.025	12.025	0.000	97	141867	50.0	48.4	
108 tert-Butylbenzene	119	12.305	12.305	0.000	94	357317	50.0	45.9	
110 1,2,4-Trimethylbenzene	105	12.366	12.366	0.000	98	450413	50.0	49.6	
111 1,2-dichloro-4-(trifluorom	214	12.409	12.409	0.000	97	130609	50.0	53.4	
112 sec-Butylbenzene	105	12.530	12.530	0.000	95	542635	50.0	49.4	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	239703	50.0	50.5	
114 4-Isopropyltoluene	119	12.689	12.689	0.000	96	438946	50.0	48.8	
115 1,4-Dichlorobenzene	146	12.755	12.755	0.000	95	246248	50.0	50.6	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	96	122898	50.0	54.0	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.822	0.000	0	140732	50.0	56.5	
120 n-Butylbenzene	91	13.096	13.096	0.000	98	399280	50.0	51.7	
121 1,2-Dichlorobenzene	146	13.108	13.108	0.000	96	227231	50.0	51.7	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.899	0.000	74	14720	50.0	33.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.045	0.000	0	414491	150.0	148.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.459	0.000	0	250282	100.0	95.2	
126 1,2,4-Trichlorobenzene	180	14.720	14.720	0.000	92	94400	50.0	51.6	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	52917	50.0	62.0	
128 Naphthalene	128	14.988	14.988	0.000	97	211463	50.0	41.7	
129 1,2,3-Trichlorobenzene	180	15.213	15.213	0.000	94	73079	50.0	51.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	25942	50.0	40.2	
130 2,3,6-Trichlorotoluene	159	16.089	16.089	0.000	93	24997	50.0	42.9	
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	109.4	
S 133 Xylenes, Total	106				0		100.0	103.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	83.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL		
VOAACROPRI_00005	Amount Added:	6.00	Units: uL		
VOACEVE2ND_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

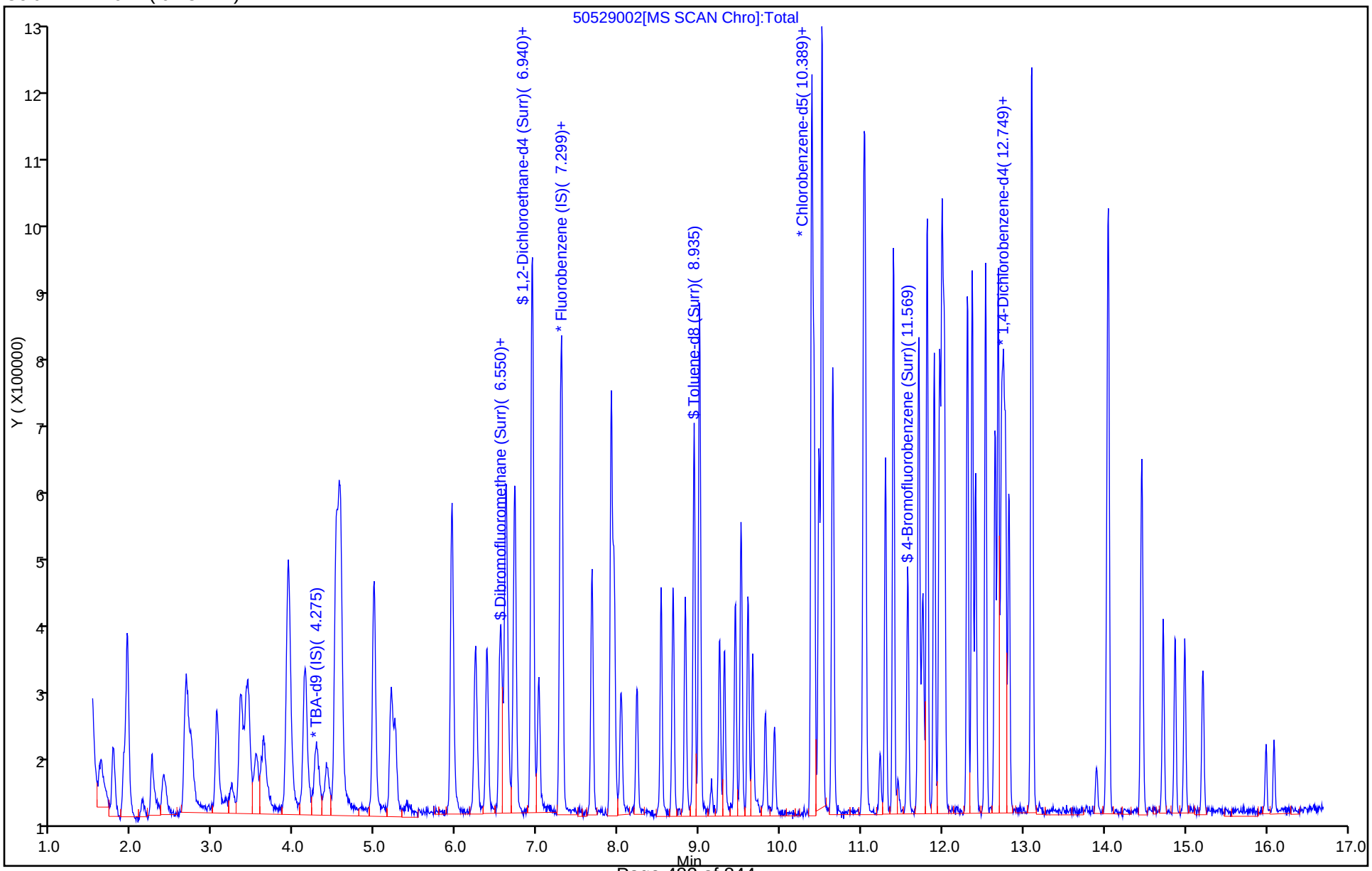
Report Date: 29-May-2015 17:25:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529002.D

Injection Date:	29-May-2015 13:25:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143223/2 Calibration Date: 05/29/2015 13:25

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50529002.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	0.3455	0.3218	0.1000	9.31	10.0	-6.9	20.0
Chloromethane	Ave	0.4398	0.3615	0.1000	8.22	10.0	-17.8	20.0
Vinyl chloride	Ave	0.3965	0.3432	0.1000	8.66	10.0	-13.4	20.0
Bromomethane	Ave	0.1818	0.1773	0.0500	9.76	10.0	-2.4	20.0
Chloroethane	Ave	0.2101	0.2210	0.0500	10.5	10.0	5.2	20.0
Dichlorofluoromethane	Ave	0.4754	0.5316	0.0100	11.2	10.0	11.8	20.0
Trichlorofluoromethane	Ave	0.4478	0.4207	0.1000	9.39	10.0	-6.1	20.0
Ethyl ether	Ave	0.2528	0.2654	0.0100	10.5	10.0	5.0	20.0
Acrolein	Ave	0.0422	0.0334	0.0100	23.7	30.0	-20.9*	20.0
1,1-Dichloroethene	Ave	0.2396	0.2805	0.1000	11.7	10.0	17.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.3009	0.1000	12.0	10.0	20.0	20.0
Acetone	Ave	0.0986	0.0927	0.0500	18.8	20.0	-6.0	20.0
Iodomethane	Ave	0.3672	0.4145	0.0100	11.3	10.0	12.9	20.0
Carbon disulfide	Ave	0.6384	0.5889	0.1000	9.22	10.0	-7.8	20.0
Allyl chloride	Ave	0.1594	0.1486	0.0100	9.32	10.0	-6.8	20.0
Methyl acetate	Ave	0.2342	0.2425	0.1000	51.8	50.0	3.6	20.0
Methylene Chloride	Lin2		0.3861	0.1000	14.1	10.0	40.6*	20.0
tert-Butyl alcohol	Ave	1.118	1.116	0.0100	99.9	100	-0.1	20.0
Acrylonitrile	Ave	0.1182	0.1225	0.0100	104	100	3.6	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.2996	0.1000	11.3	10.0	13.0	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6255	0.1000	8.56	10.0	-14.4	20.0
Hexane	Ave	0.4177	0.4493	0.0100	10.8	10.0	7.5	20.0
1,1-Dichloroethane	Ave	0.5003	0.5291	0.2000	10.6	10.0	5.8	20.0
Vinyl acetate	Ave	0.5628	0.4965	0.0100	8.82	10.0	-11.8	20.0
2,2-Dichloropropane	Ave	0.2538	0.2081	0.0100	8.20	10.0	-18.0	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.3098	0.1000	10.6	10.0	5.7	20.0
2-Butanone (MEK)	Ave	0.1498	0.1279	0.0500	17.1	20.0	-14.6	20.0
Bromochloromethane	Ave	0.1305	0.1260	0.0100	9.65	10.0	-3.5	20.0
Tetrahydrofuran	Ave	0.1018	0.0861	0.0100	16.9	20.0	-15.5	20.0
Chloroform	Ave	0.4487	0.4741	0.2000	10.6	10.0	5.6	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3562	0.1000	10.3	10.0	2.5	20.0
Cyclohexane	Ave	0.5261	0.5541	0.1000	10.5	10.0	5.3	20.0
Carbon tetrachloride	Ave	0.3131	0.2931	0.1000	9.36	10.0	-6.4	20.0
1,1-Dichloropropene	Ave	0.3659	0.3865	0.0100	10.6	10.0	5.6	20.0
Isobutyl alcohol	Ave	0.0093	0.0085*	0.0100	229	250	-8.5	20.0
Benzene	Ave	1.114	1.252	0.5000	11.2	10.0	12.3	20.0
1,2-Dichloroethane	Ave	0.3324	0.3532	0.1000	10.6	10.0	6.2	20.0
n-Heptane	Ave	0.3714	0.3822	0.0100	10.3	10.0	2.9	20.0
Trichloroethene	Ave	0.2856	0.2766	0.2000	9.69	10.0	-3.1	20.0
Methylcyclohexane	Ave	0.4706	0.4680	0.1000	9.94	10.0	-0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143223/2 Calibration Date: 05/29/2015 13:25

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50529002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2895	0.2914	0.1000	10.1	10.0	0.7	20.0
1,4-Dioxane	Ave	0.0022	0.0021*	0.0100	186	200	-7.1	20.0
Dibromomethane	Ave	0.1479	0.1530	0.0100	10.3	10.0	3.4	20.0
Bromodichloromethane	Ave	0.3223	0.2784	0.2000	8.64	10.0	-13.6	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3332	0.2000	8.13	10.0	-18.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.139	0.1000	17.6	20.0	-11.8	20.0
Toluene	Ave	4.768	5.627	0.4000	11.8	10.0	18.0	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.228	0.1000	8.50	10.0	-15.0	20.0
Ethyl methacrylate	Ave	1.438	1.223	0.0100	8.50	10.0	-15.0	20.0
1,1,2-Trichloroethane	Ave	0.9001	1.018	0.1000	11.3	10.0	13.1	20.0
Tetrachloroethene	Ave	0.8966	1.065	0.2000	11.9	10.0	18.8	20.0
1,3-Dichloropropane	Ave	1.703	1.824	0.0100	10.7	10.0	7.1	20.0
2-Hexanone	Ave	0.9180	0.8587	0.1000	18.7	20.0	-6.5	20.0
Dibromochloromethane	Ave	0.8836	0.7718	0.1000	8.73	10.0	-12.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.9097	0.1000	9.83	10.0	-1.7	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.764	0.0100	10.9	10.0	8.7	20.0
Chlorobenzene	Ave	3.086	3.398	0.5000	11.0	10.0	10.1	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.668	0.0100	11.1	10.0	11.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.005	0.0100	9.70	10.0	-3.0	20.0
Ethylbenzene	Ave	1.796	1.884	0.1000	10.5	10.0	4.9	20.0
m-Xylene & p-Xylene	Ave	2.175	2.291	0.1000	10.5	10.0	5.3	20.0
o-Xylene	Ave	2.146	2.188	0.3000	10.2	10.0	2.0	20.0
Styrene	Ave	3.386	3.616	0.3000	10.7	10.0	6.8	20.0
Bromoform	Ave	0.5687	0.4196	0.1000	7.38	10.0	-26.2*	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.811	0.0100	11.3	10.0	12.7	20.0
Isopropylbenzene	Ave	5.240	5.430	0.1000	10.4	10.0	3.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.359	0.3000	10.7	10.0	6.8	20.0
Bromobenzene	Ave	0.9239	0.8648	0.0100	9.36	10.0	-6.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2315	0.0100	7.54	10.0	-24.6*	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2873	0.0100	9.47	10.0	-5.3	20.0
N-Propylbenzene	Ave	1.100	1.063	0.0100	9.66	10.0	-3.4	20.0
2-Chlorotoluene	Ave	0.9430	0.9066	0.0100	9.61	10.0	-3.9	20.0
3-Chlorotoluene	Ave	0.9581	0.9553	0.0100	9.97	10.0	-0.3	20.0
1,3,5-Trimethylbenzene	Ave	3.096	3.097	0.0100	10.0	10.0	0.0	20.0
4-Chlorotoluene	Ave	0.995	0.9643	0.0100	9.69	10.0	-3.1	20.0
tert-Butylbenzene	Ave	2.647	2.429	0.0100	9.17	10.0	-8.3	20.0
1,2,4-Trimethylbenzene	Ave	3.087	3.062	0.0100	9.92	10.0	-0.8	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.8878	0.0100	10.7	10.0	6.9	20.0
sec-Butylbenzene	Ave	3.737	3.688	0.0100	9.87	10.0	-1.3	20.0
1,3-Dichlorobenzene	Ave	1.614	1.629	0.6000	10.1	10.0	0.9	20.0
4-Isopropyltoluene	Ave	3.057	2.984	0.0100	9.76	10.0	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCVIS 180-143223/2 Calibration Date: 05/29/2015 13:25

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50529002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dichlorobenzene	Ave	1.655	1.674	0.5000	10.1	10.0	1.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.8354	0.0100	10.8	10.0	8.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9566	0.0100	11.3	10.0	12.9	20.0
n-Butylbenzene	Ave	2.626	2.714	0.0100	10.3	10.0	3.3	20.0
1,2-Dichlorobenzene	Ave	1.495	1.545	0.4000	10.3	10.0	3.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1001	0.0500	6.72	10.0	-32.8*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.9392	0.0100	29.6	30.0	-1.3	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.8506	0.0100	19.0	20.0	-4.8	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.6417	0.2000	10.3	10.0	3.2	20.0
Hexachlorobutadiene	Ave	0.2899	0.3597	0.0100	12.4	10.0	24.1*	20.0
Naphthalene	Ave	1.722	1.437	0.0100	8.34	10.0	-16.6	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4967	0.0100	10.3	10.0	2.6	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1763	0.0100	8.04	10.0	-19.6	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1699	0.0100	8.59	10.0	-14.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.1945		9.02	10.0	-9.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2555		9.51	10.0	-4.9	20.0
Toluene-d8 (Surr)	Ave	3.713	3.848		10.4	10.0	3.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.267		9.50	10.0	-5.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-May-2015 13:25:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007177-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 17:25:52 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 13:53:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.275	0.000	0	145943	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.286	0.000	98	457192	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	87	97917	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.725	0.000	95	147116	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.562	0.000	93	88933	50.0	45.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.927	0.000	0	116797	50.0	47.5	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	94	376780	50.0	51.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.569	0.000	88	124039	50.0	47.5	
11 Dichlorodifluoromethane	85	1.617	1.617	0.000	99	147117	50.0	46.6	
12 Chloromethane	50	1.769	1.769	0.000	99	165267	50.0	41.1	
13 Vinyl chloride	62	1.903	1.903	0.000	97	156904	50.0	43.3	
14 Butadiene	39	1.939	1.939	0.000	97	188322	50.0	45.1	
15 Bromomethane	94	2.237	2.237	0.000	91	81079	50.0	48.8	
16 Chloroethane	64	2.389	2.389	0.000	99	101054	50.0	52.6	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	243062	50.0	55.9	
18 Trichlorofluoromethane	101	2.706	2.706	0.000	96	192324	50.0	47.0	
20 Ethyl ether	59	3.046	3.046	0.000	93	121357	50.0	52.5	
21 Acrolein	56	3.229	3.229	0.000	98	45747	150.0	118.6	
22 1,1-Dichloroethene	96	3.344	3.344	0.000	98	128242	50.0	58.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.423	0.000	93	137560	50.0	60.0	
24 Acetone	43	3.442	3.442	0.000	82	84790	100.0	94.0	
25 Iodomethane	142	3.527	3.527	0.000	96	189490	50.0	56.4	
26 Carbon disulfide	76	3.624	3.624	0.000	100	269218	50.0	46.1	
28 3-Chloro-1-propene	76	3.904	3.904	0.000	88	67942	50.0	46.6	
30 Methyl acetate	43	3.934	3.934	0.000	99	554393	250.0	258.9	
31 Methylene Chloride	84	4.141	4.141	0.000	86	176523	50.0	70.3	
32 2-Methyl-2-propanol	59	4.403	4.403	0.000	84	81440	500.0	499.3	
33 Acrylonitrile	53	4.518	4.518	0.000	98	560026	500.0	518.0	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	99	136984	50.0	56.5	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	96	285964	50.0	42.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	205395	50.0	53.8	
37 1,1-Dichloroethane	63	5.200	5.200	0.000	96	241911	50.0	52.9	
38 Vinyl acetate	43	5.242	5.242	0.000	98	226972	50.0	44.1	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	60	95131	50.0	41.0	
45 cis-1,2-Dichloroethene	96	5.948	5.948	0.000	82	141632	50.0	52.8	
46 2-Butanone (MEK)	43	5.954	5.954	0.000	67	116940	100.0	85.4	
49 Chlorobromomethane	128	6.234	6.234	0.000	96	57619	50.0	48.3	
51 Tetrahydrofuran	42	6.246	6.246	0.000	87	78708	100.0	84.5	
52 Chloroform	83	6.380	6.380	0.000	95	216732	50.0	52.8	
53 1,1,1-Trichloroethane	97	6.538	6.538	0.000	98	162869	50.0	51.3	
54 Cyclohexane	56	6.617	6.617	0.000	93	253349	50.0	52.7	
56 Carbon tetrachloride	117	6.708	6.708	0.000	97	134015	50.0	46.8	
55 1,1-Dichloropropene	75	6.727	6.727	0.000	92	176693	50.0	52.8	
57 Isobutyl alcohol	41	6.927	6.927	0.000	89	97537	1250.0	1143.7	
58 Benzene	78	6.940	6.940	0.000	98	572290	50.0	56.2	
59 1,2-Dichloroethane	62	7.019	7.019	0.000	97	161457	50.0	53.1	
62 n-Heptane	43	7.305	7.305	0.000	93	174717	50.0	51.4	
64 Trichloroethene	130	7.676	7.676	0.000	97	126457	50.0	48.4	
66 Methylcyclohexane	83	7.913	7.913	0.000	94	213948	50.0	49.7	
67 1,2-Dichloropropane	63	7.950	7.950	0.000	93	133225	50.0	50.3	
68 Dibromomethane	93	8.035	8.035	0.000	94	69934	50.0	51.7	
70 1,4-Dioxane	88	8.035	8.035	0.000	38	18760	1000.0	929.1	
71 Dichlorobromomethane	83	8.229	8.229	0.000	98	127291	50.0	43.2	
73 2-Chloroethyl vinyl ether	63	8.527	8.527	0.000	91	131777	100.0	87.2	
74 cis-1,3-Dichloropropene	75	8.673	8.673	0.000	92	152315	50.0	40.7	
75 4-Methyl-2-pentanone (MIBK	43	8.826	8.826	0.000	99	222979	100.0	88.2	
76 Toluene	91	9.002	9.002	0.000	98	550963	50.0	59.0	
77 trans-1,3-Dichloropropene	75	9.251	9.251	0.000	99	120224	50.0	42.5	
78 Ethyl methacrylate	69	9.312	9.312	0.000	90	119715	50.0	42.5	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	92	99682	50.0	56.6	
80 Tetrachloroethene	164	9.519	9.519	0.000	97	104281	50.0	59.4	
81 1,3-Dichloropropane	76	9.598	9.598	0.000	95	178555	50.0	53.5	
82 2-Hexanone	43	9.659	9.659	0.000	98	168158	100.0	93.5	
84 Chlorodibromomethane	129	9.817	9.817	0.000	89	75569	50.0	43.7	
85 Ethylene Dibromide	107	9.927	9.927	0.000	99	89075	50.0	49.2	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	87	172730	50.0	54.3	
87 Chlorobenzene	112	10.413	10.413	0.000	94	332701	50.0	55.1	
88 4-Chlorobenzotrifluoride	180	10.480	10.480	0.000	95	163313	50.0	55.6	
89 1,1,1,2-Tetrachloroethane	131	10.511	10.511	0.000	93	98374	50.0	48.5	
90 Ethylbenzene	106	10.517	10.517	0.000	99	184517	50.0	52.5	
91 m-Xylene & p-Xylene	106	10.644	10.644	0.000	0	224290	50.0	52.7	
92 o-Xylene	106	11.028	11.028	0.000	97	214287	50.0	51.0	
93 Styrene	104	11.046	11.046	0.000	95	354079	50.0	53.4	
94 Bromoform	173	11.228	11.228	0.000	93	41081	50.0	36.9	
96 2-Chlorobenzotrifluoride	180	11.295	11.295	0.000	97	177353	50.0	56.4	
97 Isopropylbenzene	105	11.393	11.393	0.000	97	531679	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.703	0.000	77	133083	50.0	53.4	
100 Bromobenzene	156	11.709	11.709	0.000	94	127223	50.0	46.8	
102 trans-1,4-Dichloro-2-buten	53	11.746	11.746	0.000	73	34058	50.0	37.7	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	87	42272	50.0	47.3	
103 N-Propylbenzene	120	11.813	11.813	0.000	99	156317	50.0	48.3	
104 2-Chlorotoluene	126	11.898	11.898	0.000	96	133378	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.965	11.965	0.000	96	140538	50.0	49.9	
106 1,3,5-Trimethylbenzene	105	11.995	11.995	0.000	95	455669	50.0	50.0	
107 4-Chlorotoluene	126	12.025	12.025	0.000	97	141867	50.0	48.4	
108 tert-Butylbenzene	119	12.305	12.305	0.000	94	357317	50.0	45.9	
110 1,2,4-Trimethylbenzene	105	12.366	12.366	0.000	98	450413	50.0	49.6	
111 1,2-dichloro-4-(trifluorom	214	12.409	12.409	0.000	97	130609	50.0	53.4	
112 sec-Butylbenzene	105	12.530	12.530	0.000	95	542635	50.0	49.4	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	239703	50.0	50.5	
114 4-Isopropyltoluene	119	12.689	12.689	0.000	96	438946	50.0	48.8	
115 1,4-Dichlorobenzene	146	12.755	12.755	0.000	95	246248	50.0	50.6	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	96	122898	50.0	54.0	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.822	0.000	0	140732	50.0	56.5	
120 n-Butylbenzene	91	13.096	13.096	0.000	98	399280	50.0	51.7	
121 1,2-Dichlorobenzene	146	13.108	13.108	0.000	96	227231	50.0	51.7	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.899	0.000	74	14720	50.0	33.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.045	0.000	0	414491	150.0	148.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.459	0.000	0	250282	100.0	95.2	
126 1,2,4-Trichlorobenzene	180	14.720	14.720	0.000	92	94400	50.0	51.6	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	52917	50.0	62.0	
128 Naphthalene	128	14.988	14.988	0.000	97	211463	50.0	41.7	
129 1,2,3-Trichlorobenzene	180	15.213	15.213	0.000	94	73079	50.0	51.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	25942	50.0	40.2	
130 2,3,6-Trichlorotoluene	159	16.089	16.089	0.000	93	24997	50.0	42.9	
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	109.4	
S 133 Xylenes, Total	106				0		100.0	103.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	83.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL		
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL		
VOAACROPRI_00005	Amount Added:	6.00	Units: uL		
VOACEVE2ND_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

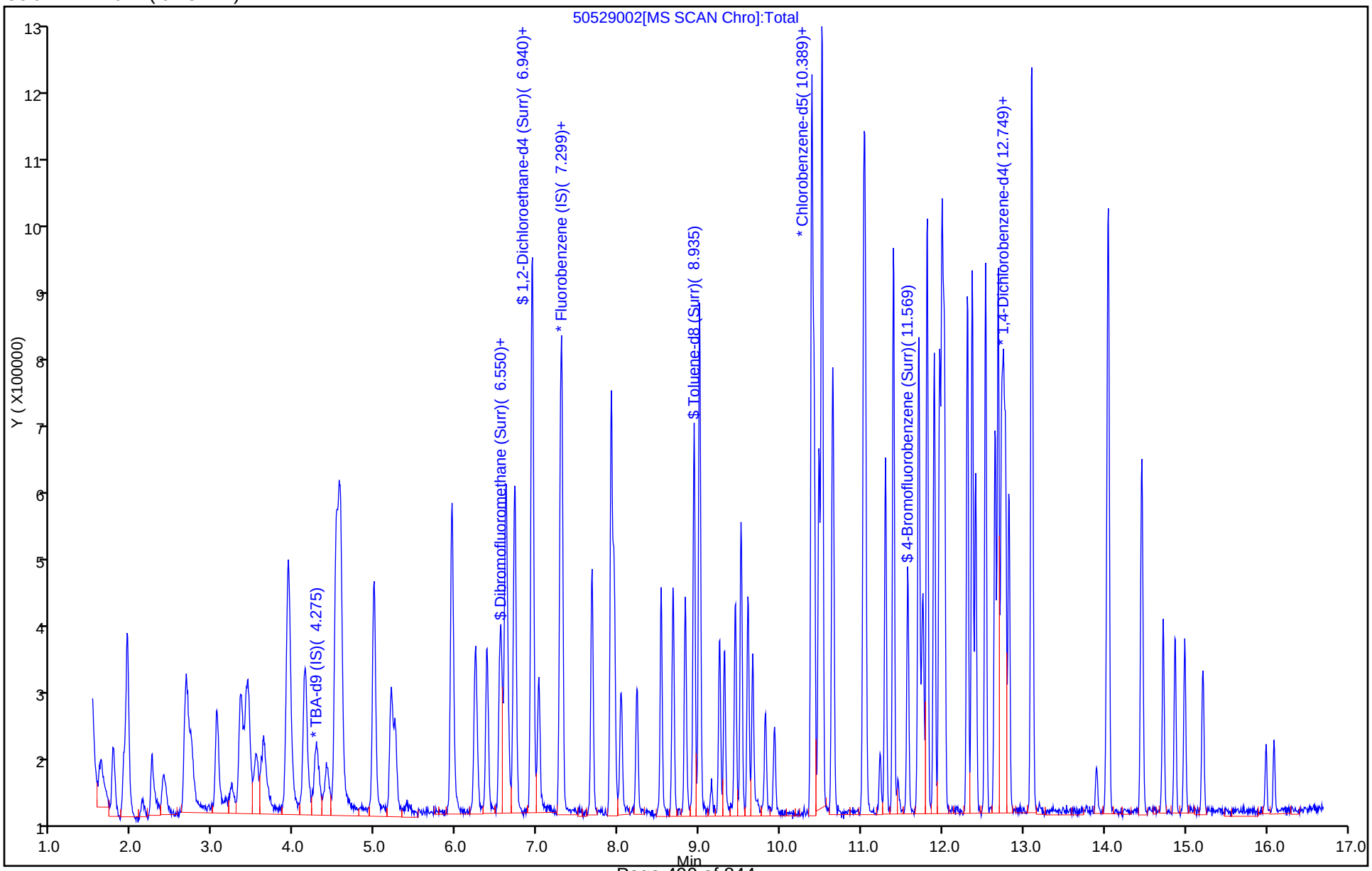
Report Date: 29-May-2015 17:25:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529002.D

Injection Date:	29-May-2015 13:25:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	16-May-2015 10:39:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006955-003				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	17-May-2015 10:46:07	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: fergusond		Date:	16-May-2015 10:55:00		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.371	8.371	0.000	0	75032	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

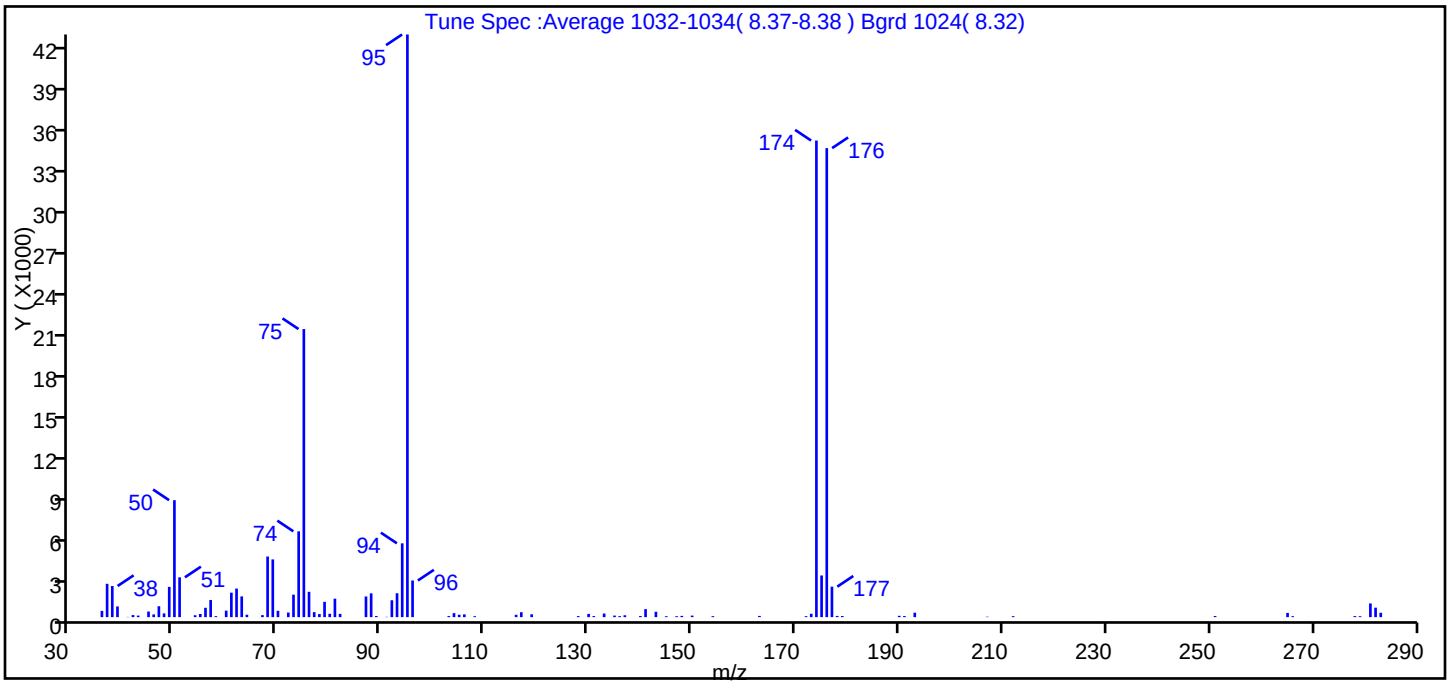
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D
Injection Date: 16-May-2015 10:39:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.1
75	30 to 60% of m/z 95	49.4
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	81.8
175	5 to 9% of m/z 174	7.2 (8.7)
176	Greater than 95% but less than 101% of m/z 174	80.5 (98.4)
177	5 to 9% of m/z 176	5.2 (6.5)

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 16-May-2015 10:39:30
Spectrum: Tune Spec :Average 1032-1034(8.37-8.38) Bgrd 1024(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 93

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	454	67.00	146	103.00	78	172.00	70
37.00	2422	68.00	4404	104.00	291	173.00	247
38.00	2262	69.00	4194	105.00	174	174.00	34624
39.00	777	70.00	459	106.00	199	175.00	3027
41.00	17	72.00	334	108.00	69	176.00	34072
42.00	151	73.00	1634	116.00	172	177.00	2214
43.00	114	74.00	6234	117.00	358	178.00	89
45.00	407	75.00	20928	119.00	207	179.00	81
46.00	198	76.00	1842	128.00	75	190.00	96
47.00	793	77.00	365	130.00	236	191.00	80
48.00	272	78.00	224	131.00	77	193.00	324
49.00	2198	79.00	1112	133.00	263	207.00	32
50.00	8497	80.00	242	135.00	114	212.00	71
51.00	2894	81.00	1342	136.00	72	251.00	81
54.00	138	82.00	238	137.00	137	265.00	306
55.00	229	87.00	1502	140.00	81	266.00	70
56.00	680	88.00	1729	141.00	583	278.00	78
57.00	1243	89.00	80	143.00	392	279.00	67
58.00	72	91.00	22	145.00	67	281.00	996
60.00	470	92.00	1226	147.00	67	282.00	689
61.00	1777	93.00	1738	148.00	93	283.00	318
62.00	2076	94.00	5363	150.00	113		
63.00	1506	95.00	42328	154.00	72		
64.00	175	96.00	2662	163.00	89		

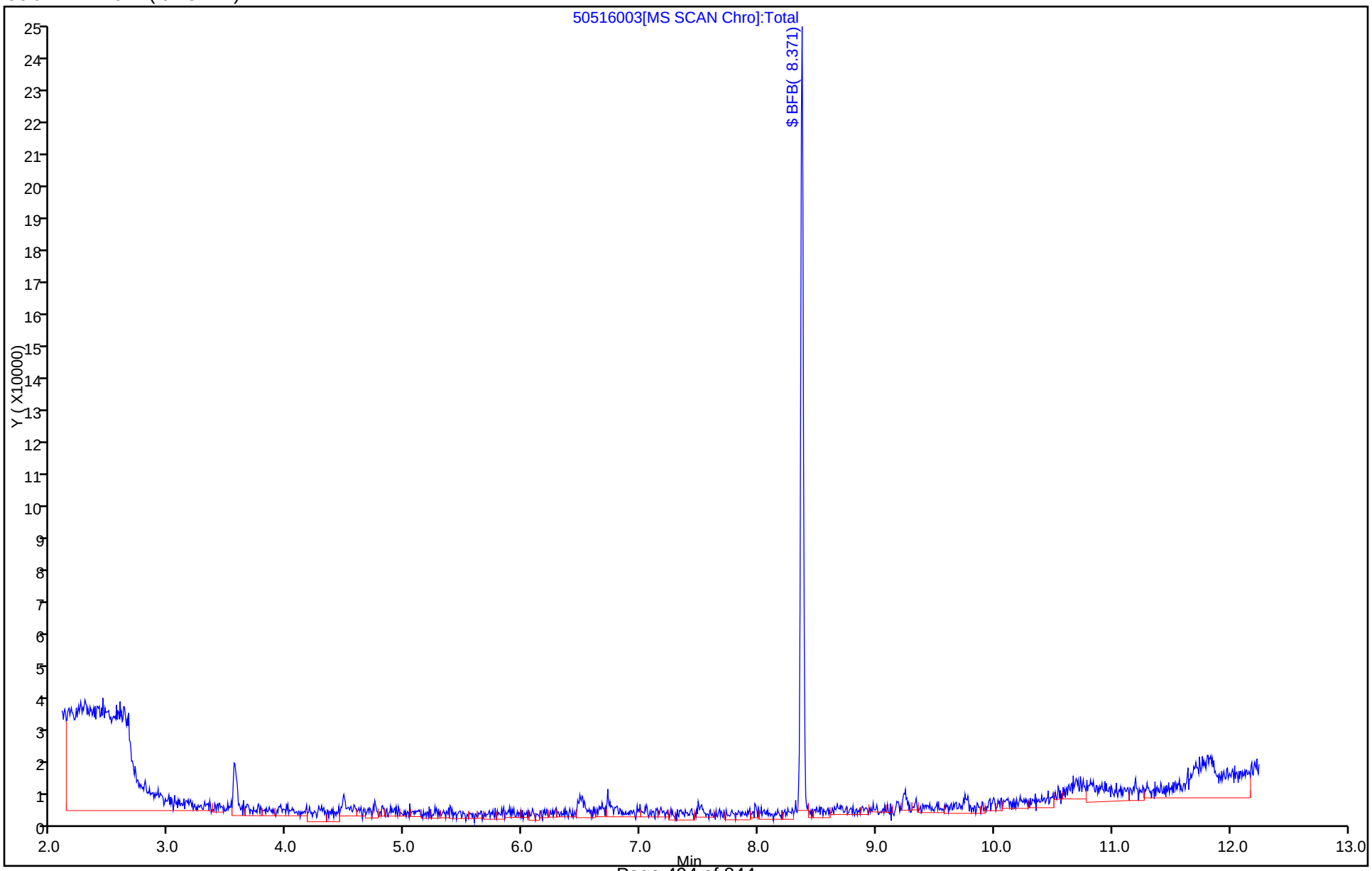
Report Date: 17-May-2015 10:46:08 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D

Injection Date:	16-May-2015 10:39:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	26-May-2015 10:08:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007112-001				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	26-May-2015 12:20:28	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.372	8.372	0.000	0	55782	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

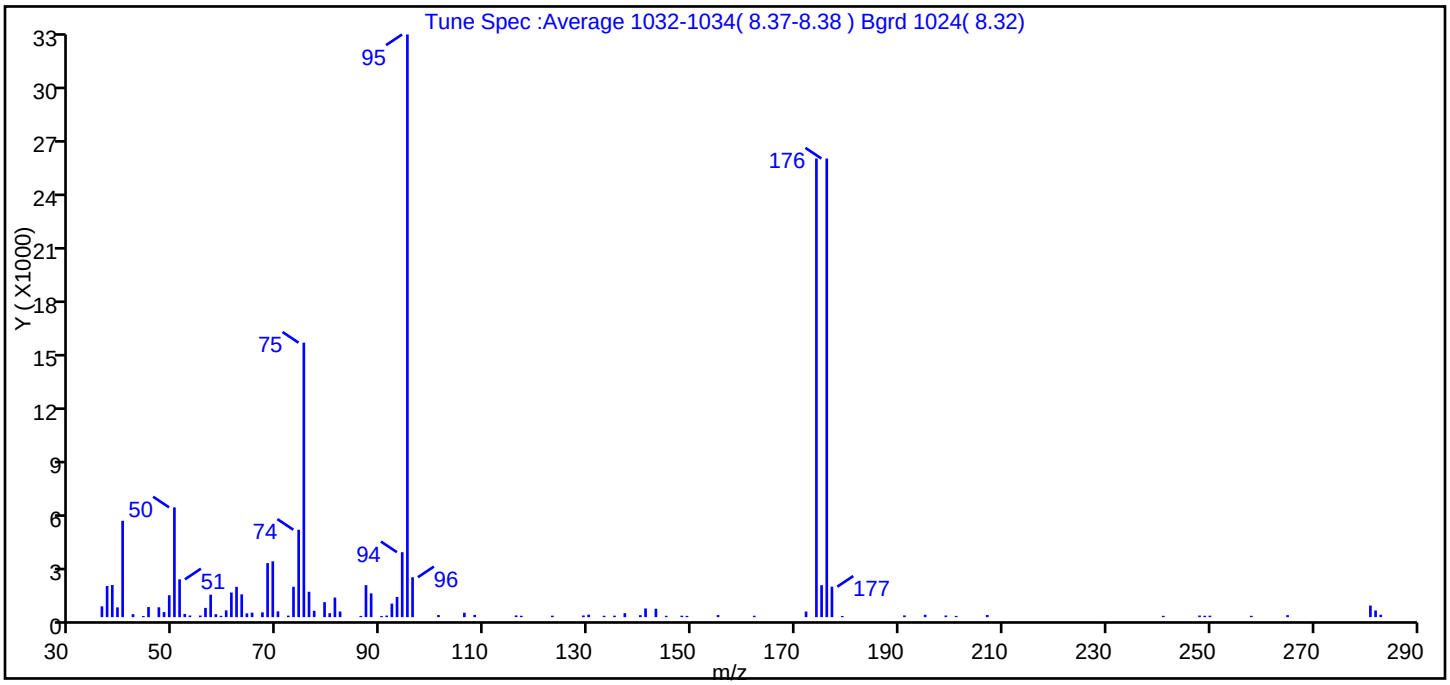
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D				
Injection Date:	26-May-2015 10:08:30	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	18.8
75	30 to 60% of m/z 95	47.1
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	78.7
175	5 to 9% of m/z 174	5.5 (7.0)
176	Greater than 95% but less than 101% of m/z 174	78.7 (100.0)
177	5 to 9% of m/z 176	5.2 (6.6)

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 26-May-2015 10:08:30
Spectrum: Tune Spec :Average 1032-1034(8.37-8.38) Bgrd 1024(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	602	63.00	1270	93.00	1129	172.00	313
37.00	1740	64.00	212	94.00	3627	174.00	25608
38.00	1794	65.00	251	95.00	32536	175.00	1785
39.00	547	67.00	268	96.00	2228	176.00	25608
40.00	5381	68.00	3017	101.00	116	177.00	1700
42.00	167	69.00	3117	106.00	244	179.00	66
44.00	62	70.00	322	108.00	125	191.00	97
45.00	562	72.00	86	116.00	96	195.00	134
47.00	550	73.00	1696	117.00	79	199.00	93
48.00	281	74.00	4880	123.00	83	201.00	71
49.00	1224	75.00	15327	129.00	93	207.00	119
50.00	6129	76.00	1417	130.00	138	241.00	75
51.00	2111	77.00	355	133.00	78	248.00	90
52.00	179	79.00	836	135.00	82	249.00	77
53.00	92	80.00	218	137.00	223	250.00	82
55.00	90	81.00	1094	140.00	111	258.00	76
56.00	516	82.00	313	141.00	484	265.00	112
57.00	1254	86.00	70	143.00	469	281.00	646
58.00	164	87.00	1787	145.00	76	282.00	372
59.00	75	88.00	1327	148.00	83	283.00	135
60.00	379	90.00	67	149.00	72		
61.00	1373	91.00	90	155.00	116		
62.00	1693	92.00	757	162.00	79		

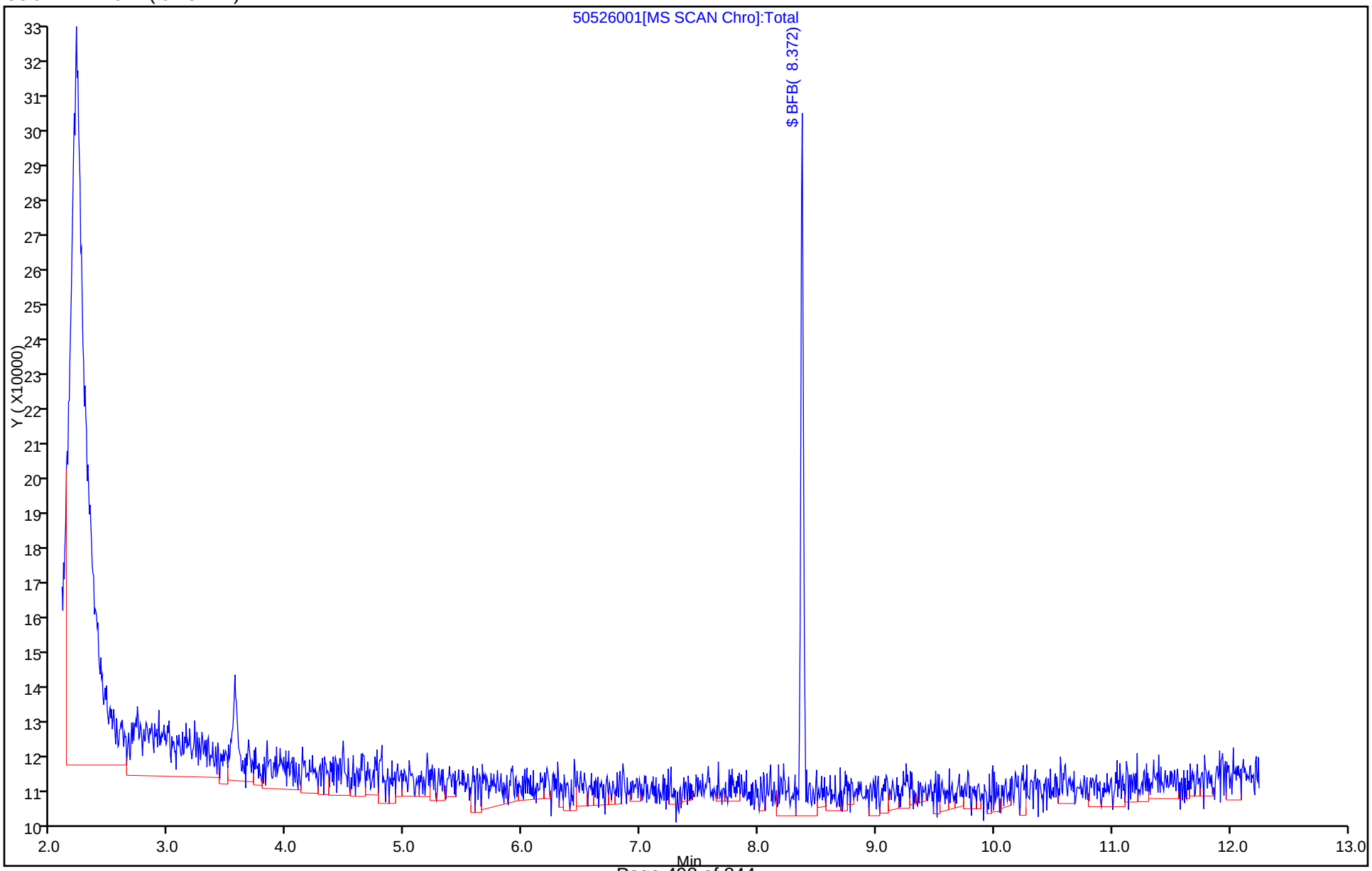
Report Date: 26-May-2015 12:20:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D

Injection Date:	26-May-2015 10:08:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-May-2015 11:07:30	ALS Bottle#:	1	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007136-006				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	27-May-2015 16:32:01	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: fergusond		Date:	27-May-2015 11:17:45		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.365	8.365	0.000	0	167641	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

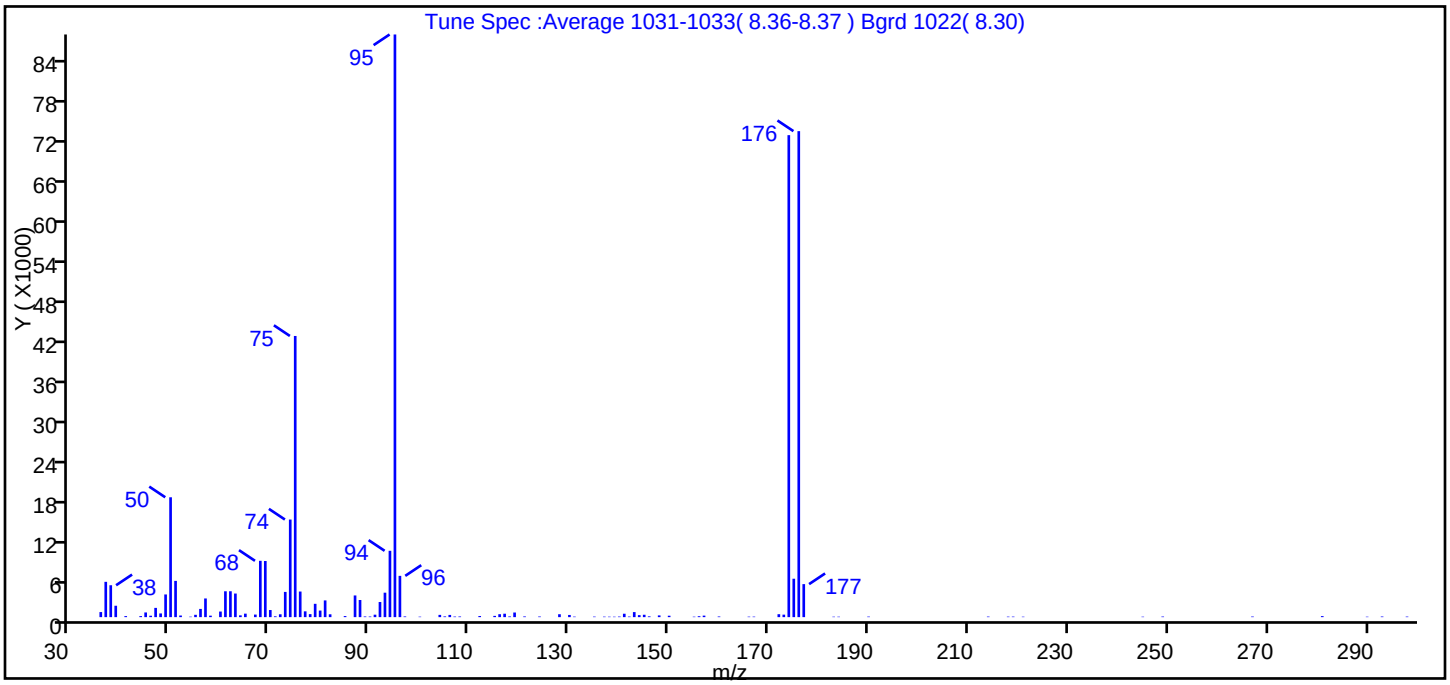
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D
Injection Date: 27-May-2015 11:07:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	48.3
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	82.7
175	5 to 9% of m/z 174	6.6 (8.0)
176	Greater than 95% but less than 101% of m/z 174	83.4 (100.8)
177	5 to 9% of m/z 176	5.7 (6.8)

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 27-May-2015 11:07:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1022(8.30)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	760	70.00	1064	106.00	332	156.00	138
37.00	5284	71.00	123	107.00	86	157.00	226
38.00	4773	72.00	427	108.00	98	160.00	98
39.00	1705	73.00	3775	112.00	165	166.00	73
41.00	156	74.00	14605	115.00	188	167.00	77
44.00	155	75.00	42072	116.00	439	172.00	440
45.00	702	76.00	3831	117.00	513	173.00	374
46.00	211	77.00	869	118.00	104	174.00	72120
47.00	1385	78.00	450	119.00	693	175.00	5748
48.00	556	79.00	1994	121.00	105	176.00	72720
49.00	3395	80.00	984	124.00	96	177.00	4941
50.00	17936	81.00	2503	128.00	435	183.00	67
51.00	5425	82.00	427	130.00	329	184.00	67
52.00	243	85.00	160	131.00	77	190.00	81
54.00	70	87.00	3245	135.00	79	214.00	83
55.00	350	88.00	2565	137.00	74	218.00	76
56.00	1230	89.00	100	138.00	69	219.00	79
57.00	2795	90.00	91	139.00	66	221.00	67
58.00	221	91.00	368	140.00	87	245.00	67
60.00	838	92.00	2263	141.00	510	249.00	89
61.00	3870	93.00	3660	142.00	87	267.00	90
62.00	3873	94.00	9927	143.00	756	281.00	152
63.00	3531	95.00	87184	144.00	299	290.00	67
64.00	267	96.00	6178	145.00	357	293.00	93
65.00	522	97.00	104	146.00	116	298.00	83
67.00	385	100.00	71	148.00	258		
68.00	8428	104.00	340	150.00	213		
69.00	8398	105.00	110	155.00	69		

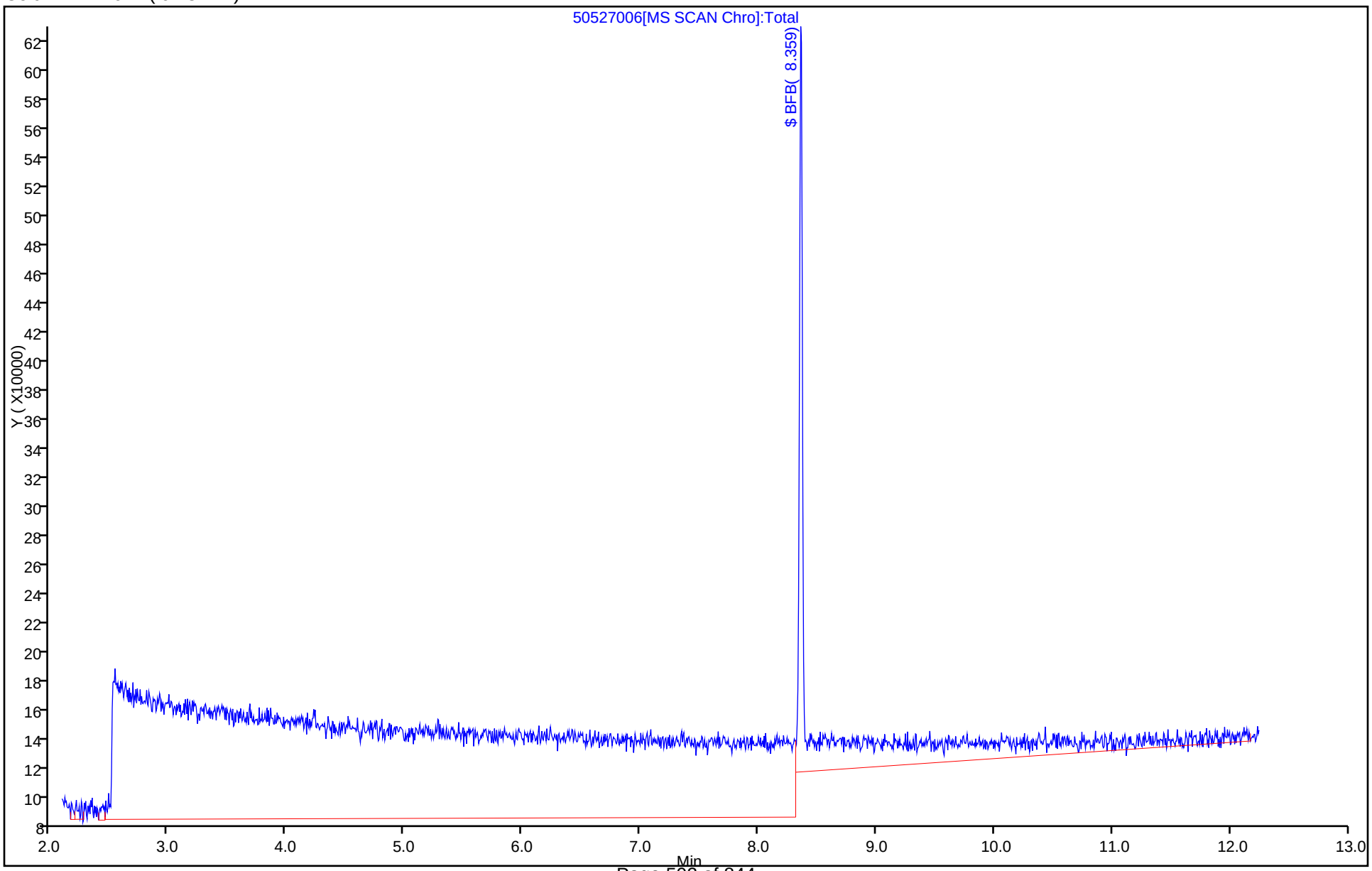
Report Date: 27-May-2015 16:32:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D

Injection Date:	27-May-2015 11:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528004.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	28-May-2015 11:26:30	ALS Bottle#:	1	Worklist Smp#:	4
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007155-004				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	28-May-2015 16:32:09	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK029				
First Level Reviewer: fergusond		Date:	28-May-2015 11:39:54		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.358	8.358	0.000	0	174425	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

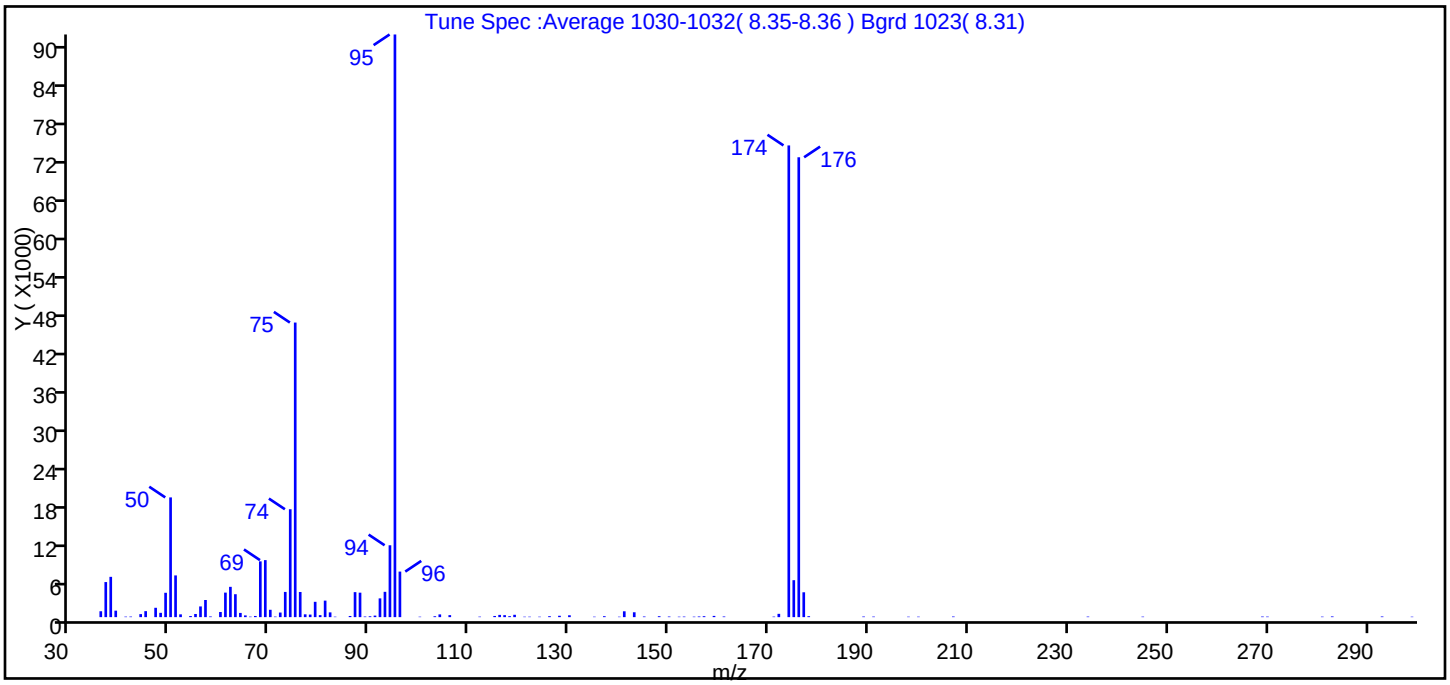
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528004.D
Injection Date: 28-May-2015 11:26:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	50.6
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	81.0
175	5 to 9% of m/z 174	6.3 (7.8)
176	Greater than 95% but less than 101% of m/z 174	78.9 (97.5)
177	5 to 9% of m/z 176	4.3 (5.4)

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528004.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 28-May-2015 11:26:30
Spectrum: Tune Spec :Average 1030-1032(8.35-8.36) Bgrd 1023(8.31)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	928	68.00	8779	100.00	70	156.00	105
37.00	5522	69.00	8975	103.00	141	157.00	146
38.00	6343	70.00	1159	104.00	431	159.00	195
39.00	1020	71.00	85	106.00	316	161.00	102
41.00	81	72.00	724	112.00	78	171.00	84
42.00	90	73.00	3969	115.00	184	172.00	521
44.00	475	74.00	16984	116.00	355	174.00	74248
45.00	944	75.00	46368	117.00	313	175.00	5818
47.00	1472	76.00	3959	118.00	152	176.00	72384
48.00	678	77.00	445	119.00	371	177.00	3913
49.00	3835	78.00	403	121.00	69	178.00	147
50.00	18848	79.00	2413	122.00	73	189.00	96
51.00	6568	80.00	314	124.00	72	191.00	86
52.00	440	81.00	2600	126.00	149	198.00	72
54.00	172	82.00	750	128.00	219	200.00	75
55.00	497	83.00	72	130.00	293	207.00	98
56.00	1686	86.00	182	135.00	72	234.00	86
57.00	2699	87.00	3936	137.00	146	245.00	79
58.00	107	88.00	3851	140.00	70	269.00	94
60.00	809	89.00	96	141.00	921	270.00	84
61.00	3861	90.00	136	143.00	768	281.00	78
62.00	4770	91.00	243	145.00	99	283.00	111
63.00	3609	92.00	2954	148.00	146	293.00	105
64.00	665	93.00	3985	150.00	97	299.00	70
65.00	273	94.00	11313	152.00	73		
66.00	81	95.00	91712	153.00	88		
67.00	184	96.00	7171	155.00	75		

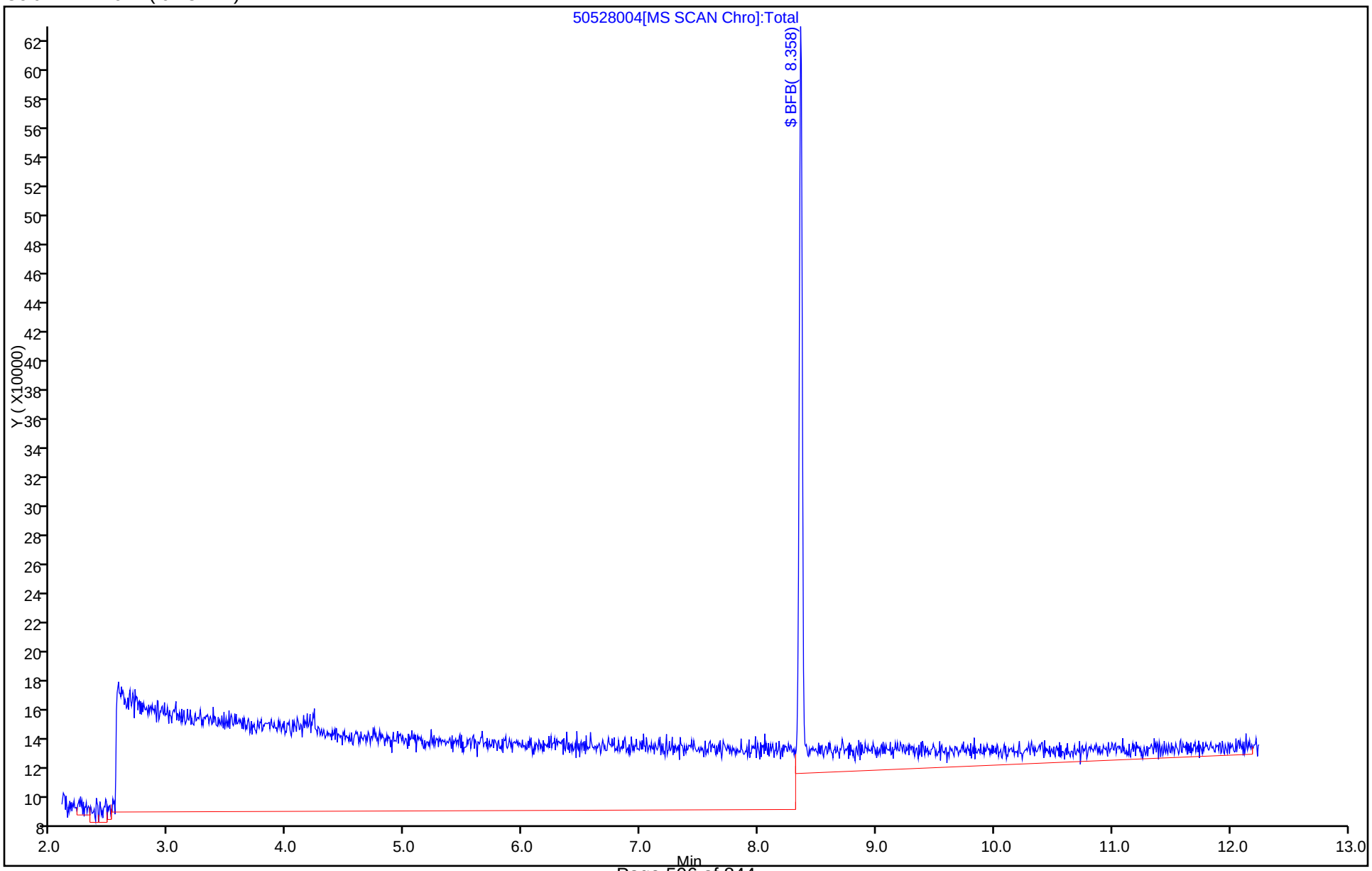
Report Date: 28-May-2015 16:32:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528004.D

Injection Date:	28-May-2015 11:26:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529005.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-May-2015 12:45:30	ALS Bottle#:	1	Worklist Smp#:	5
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007177-005				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	29-May-2015 17:25:51	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK030				
First Level Reviewer: fergusond		Date:	29-May-2015 12:57:44		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.362	8.362	0.000	0	65017	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

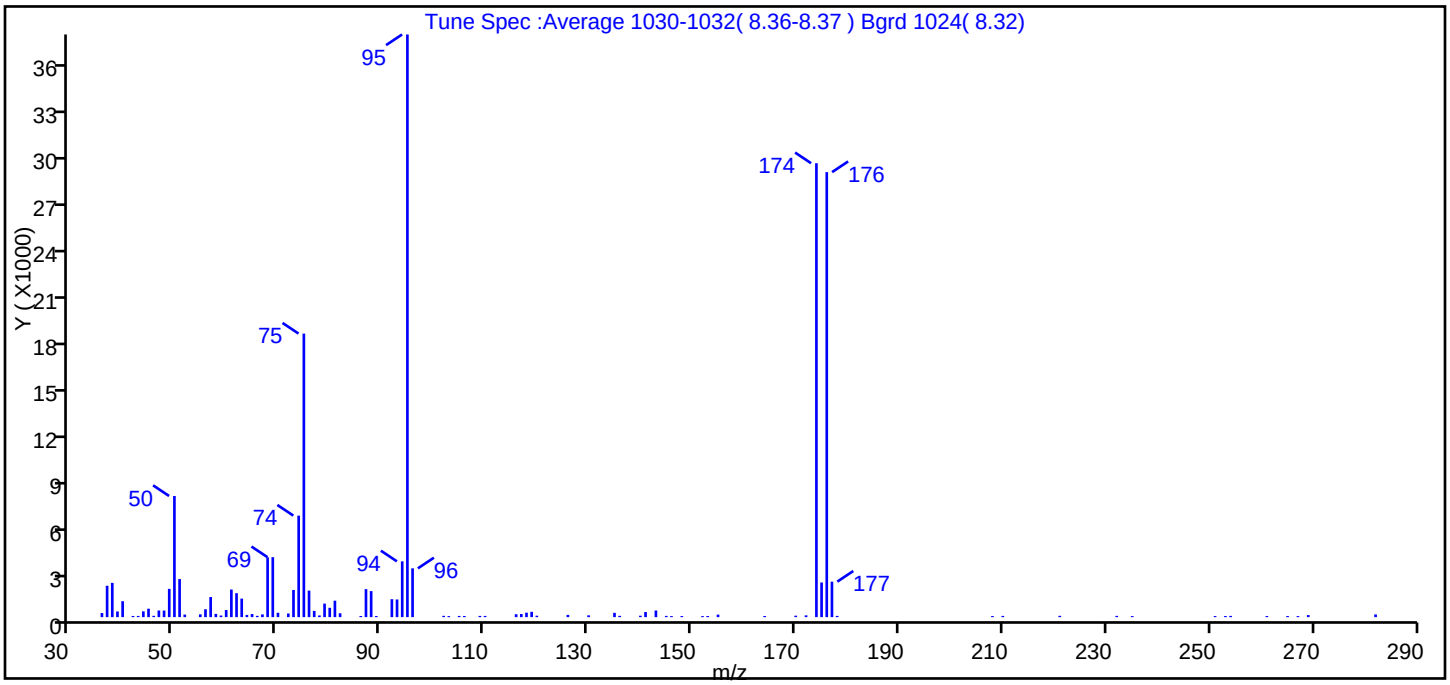
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529005.D				
Injection Date:	29-May-2015 12:45:30	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	20.8
75	30 to 60% of m/z 95	48.7
96	5 to 9% of m/z 95	8.4
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	77.9
175	5 to 9% of m/z 174	5.9 (7.6)
176	Greater than 95% but less than 101% of m/z 174	76.4 (98.0)
177	5 to 9% of m/z 176	6.1 (8.0)

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529005.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 29-May-2015 12:45:30
Spectrum: Tune Spec :Average 1030-1032(8.36-8.37) Bgrd 1024(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	262	64.00	141	95.00	37152	155.00	161
37.00	2002	65.00	199	96.00	3111	164.00	72
38.00	2186	66.00	83	102.00	83	170.00	94
39.00	361	67.00	174	103.00	67	172.00	114
40.00	1016	68.00	3812	105.00	77	174.00	28944
42.00	75	69.00	3823	106.00	74	175.00	2210
43.00	78	70.00	278	109.00	79	176.00	28376
44.00	370	72.00	232	110.00	79	177.00	2262
45.00	538	73.00	1731	116.00	186	178.00	80
46.00	84	74.00	6473	117.00	198	208.00	70
47.00	425	75.00	18080	118.00	286	210.00	79
48.00	420	76.00	1693	119.00	340	221.00	84
49.00	1805	77.00	397	120.00	92	232.00	81
50.00	7725	78.00	107	126.00	143	235.00	68
51.00	2430	79.00	863	130.00	116	251.00	69
52.00	163	80.00	596	135.00	275	253.00	72
55.00	179	81.00	1049	136.00	83	254.00	80
56.00	503	82.00	247	140.00	91	261.00	71
57.00	1281	86.00	74	141.00	328	265.00	71
58.00	207	87.00	1786	143.00	423	267.00	67
59.00	104	88.00	1661	145.00	80	269.00	133
60.00	456	89.00	69	146.00	67	282.00	172
61.00	1760	92.00	1145	148.00	69		
62.00	1529	93.00	1126	152.00	66		
63.00	1182	94.00	3558	153.00	72		

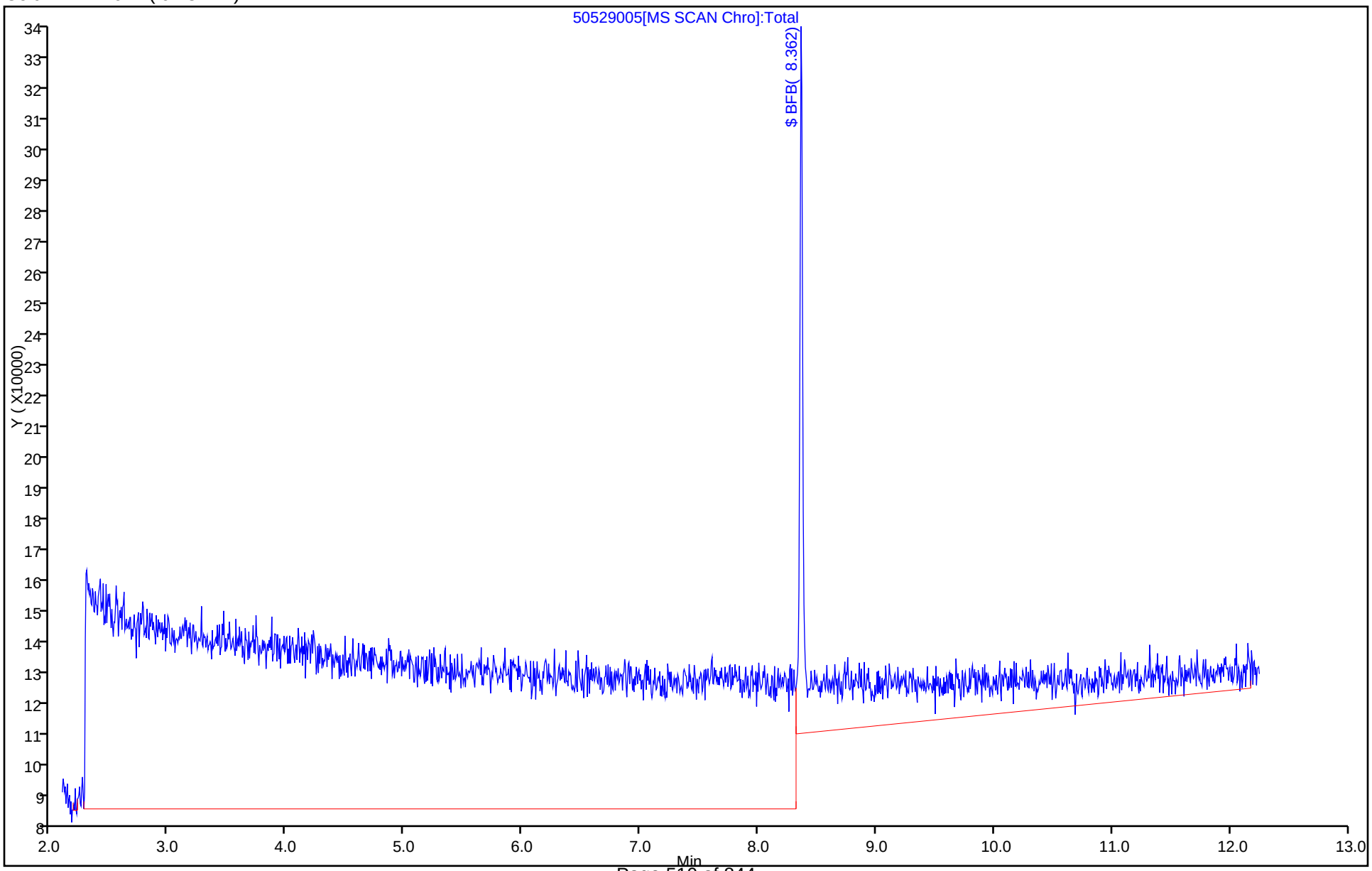
Report Date: 29-May-2015 17:25:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529005.D

Injection Date:	29-May-2015 12:45:30	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)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-142745/5

Matrix: Water | Lab File ID: 50526005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 12:00

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.: 142745 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142745/5

Matrix: Water Lab File ID: 50526005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2015 12:00

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.: 142745 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 26-May-2015 12:00:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007112-005
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:31:15 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:31:15

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	4.259	0.013	0	152497	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.295	0.000	98	392612	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.391	0.001	87	88527	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.733	0.001	96	125788	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	94540	50.0	55.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	121329	50.0	57.5	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	351733	50.0	53.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	88	113255	50.0	48.0	
11 Dichlorodifluoromethane	85		1.608					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.937					ND	
15 Bromomethane	94		2.247					ND	
16 Chloroethane	64		2.399					ND	
17 Dichlorofluoromethane	67		2.667					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.957					ND	
20 Ethyl ether	59		3.050					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.348					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.421					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.537					ND	
26 Carbon disulfide	76		3.628					ND	
27 Isopropyl alcohol	45		3.712					ND	
29 Acetonitrile	40		3.876					ND	
28 3-Chloro-1-propene	76		3.920					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.139					ND	
32 2-Methyl-2-propanol	59		4.413					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		4.565					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.991					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.246					ND	
41 Isopropyl ether	45		5.299					ND	
39 2-Chloro-1,3-butadiene	53		5.299					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.774					ND	
44 2,2-Dichloropropane	77		5.946					ND	
45 cis-1,2-Dichloroethene	96		5.946					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.964					ND	
47 Propionitrile	54		6.036					ND	
48 Ethyl acetate	43		6.042					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.238					ND	
51 Tetrahydrofuran	42		6.256					ND	
52 Chloroform	83		6.384					ND	
53 1,1,1-Trichloroethane	97		6.542					ND	
54 Cyclohexane	56		6.615					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.731					ND	
57 Isobutyl alcohol	41		6.931					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.023					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.680					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.917					ND	
67 1,2-Dichloropropane	63		7.947					ND	
70 1,4-Dioxane	88		8.032					ND	
68 Dibromomethane	93		8.032					ND	
69 Methyl methacrylate	69		8.037					ND	
71 Dichlorobromomethane	83		8.233					ND	
72 2-Nitropropane	41		8.451					ND	
73 2-Chloroethyl vinyl ether	63		8.531					ND	
74 cis-1,3-Dichloropropene	75		8.677					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829					ND	
76 Toluene	91		9.006					ND	
77 trans-1,3-Dichloropropene	75		9.255					ND	
78 Ethyl methacrylate	69		9.310					ND	
79 1,1,2-Trichloroethane	97		9.450					ND	
80 Tetrachloroethene	164		9.517					ND	
81 1,3-Dichloropropane	76		9.608					ND	
82 2-Hexanone	43		9.657					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.815					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		10.393					ND	
87 Chlorobenzene	112		10.423					ND	
88 4-Chlorobenzotrifluoride	180		10.478					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
90 Ethylbenzene	106		10.521					ND	
91 m-Xylene & p-Xylene	106		10.654					ND	
92 o-Xylene	106		11.032					ND	
93 Styrene	104		11.050					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.232					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.403					ND	
98 Cyclohexanone	55		11.486					ND	
99 1,1,2,2-Tetrachloroethane	83		11.713					ND	
100 Bromobenzene	156		11.713					ND	
102 trans-1,4-Dichloro-2-buten	53		11.743					ND	
101 1,2,3-Trichloropropane	110		11.768					ND	
103 N-Propylbenzene	120		11.816					ND	
104 2-Chlorotoluene	126		11.901					ND	
105 3-Chlorotoluene	126		11.968					ND	
106 1,3,5-Trimethylbenzene	105		11.999					ND	
107 4-Chlorotoluene	126		12.023					ND	
108 tert-Butylbenzene	119		12.315					ND	
109 Pentachloroethane	167		12.344					ND	
110 1,2,4-Trimethylbenzene	105		12.370					ND	
111 1,2-dichloro-4-(trifluorom	214		12.412					ND	
112 sec-Butylbenzene	105		12.534					ND	
113 1,3-Dichlorobenzene	146		12.656					ND	
114 4-Isopropyltoluene	119		12.692					ND	
115 1,4-Dichlorobenzene	146		12.759					ND	
117 1,2,3-Trimethylbenzene	105		12.782					ND	
116 2,4-Dichloro-1-(triflourom	214		12.784					ND	
118 2,5-Dichlorobenzotrifluori	214		12.826					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.100					ND	
121 1,2-Dichlorobenzene	146		13.112					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.909					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.049					ND	
124 1,3,5-Trichlorobenzene	180		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.463					ND	
126 1,2,4-Trichlorobenzene	180		14.724					ND	
127 Hexachlorobutadiene	225		14.876					ND	
128 Naphthalene	128		14.992					ND	
129 1,2,3-Trichlorobenzene	180		15.217					ND	
131 2,4,5-Trichlorotoluene	159		15.990					ND	
130 2,3,6-Trichlorotoluene	159		16.093					ND	
132 2-Methylnaphthalene	142		16.134					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

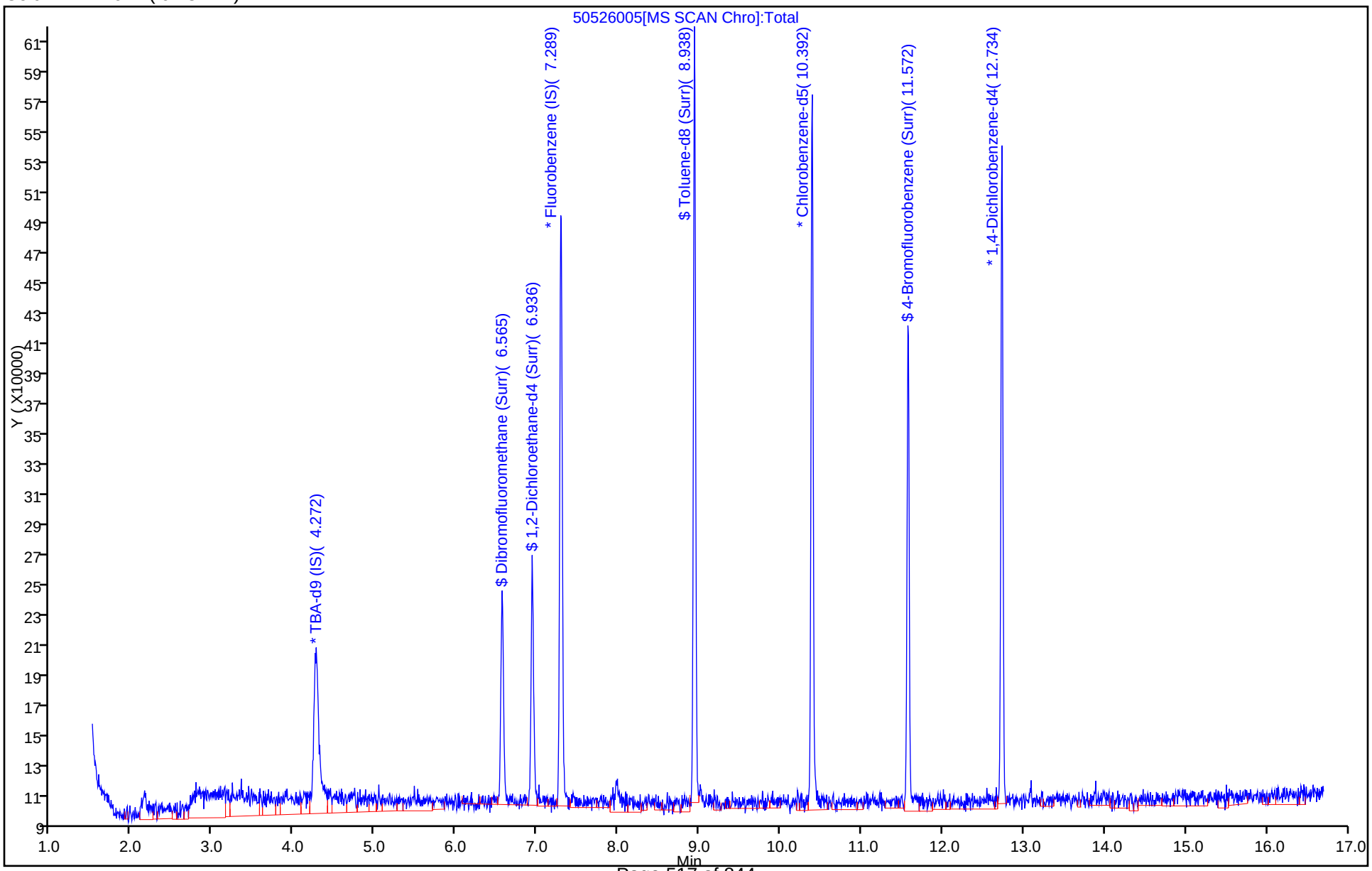
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 27-May-2015 07:31:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526005.D				
Injection Date:	26-May-2015 12:00:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-142864/9

Matrix: Water | Lab File ID: 50527009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 13:22

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142864/9

Matrix: Water Lab File ID: 50527009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2015 13:22

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 142864 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527009.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 27-May-2015 13:22:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007136-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:35:43 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 16:35:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.274	-0.008	0	149220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	412288	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.388	0.004	88	90639	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	97	111995	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.561	0.004	93	93633	50.0	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	122851	50.0	55.4	
$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	353067	50.0	52.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	89	112857	50.0	46.7	
11 Dichlorodifluoromethane	85		1.622					ND	
12 Chloromethane	50		1.768					ND	
13 Vinyl chloride	62		1.908					ND	
14 Butadiene	39		1.938					ND	
15 Bromomethane	94		2.273					ND	
16 Chloroethane	64		2.413					ND	
17 Dichlorofluoromethane	67		2.674					ND	
18 Trichlorofluoromethane	101		2.723					ND	
19 Ethanol	45		2.951					ND	
20 Ethyl ether	59		3.051					ND	
21 Acrolein	56		3.228					ND	
22 1,1-Dichloroethene	96		3.343					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.416					ND	
24 Acetone	43		3.441					ND	
25 Iodomethane	142		3.532					ND	
26 Carbon disulfide	76		3.629					ND	
27 Isopropyl alcohol	45		3.718					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.915					ND	
30 Methyl acetate	43		3.946					ND	
31 Methylene Chloride	84		4.140					ND	
32 2-Methyl-2-propanol	59		4.414					ND	
33 Acrylonitrile	53		4.524					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		4.584					ND	
36 Hexane	57		4.992					ND	
37 1,1-Dichloroethane	63		5.205					ND	
38 Vinyl acetate	43		5.254					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
41 Isopropyl ether	45		5.306					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.780					ND	
44 2,2-Dichloropropane	77		5.947					ND	
45 cis-1,2-Dichloroethene	96		5.953					ND	
46 2-Butanone (MEK)	43		5.959					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
48 Ethyl acetate	43		6.036					ND	
47 Propionitrile	54		6.036					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.233					ND	
51 Tetrahydrofuran	42		6.251					ND	
52 Chloroform	83		6.379					ND	
53 1,1,1-Trichloroethane	97		6.543					ND	
54 Cyclohexane	56		6.616					ND	
56 Carbon tetrachloride	117		6.714					ND	
55 1,1-Dichloropropene	75		6.726					ND	
57 Isobutyl alcohol	41		6.926					ND	
58 Benzene	78		6.945					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		7.310					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.681					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.918					ND	
67 1,2-Dichloropropane	63		7.949					ND	
70 1,4-Dioxane	88		8.034					ND	
69 Methyl methacrylate	69		8.037					ND	
68 Dibromomethane	93		8.040					ND	
71 Dichlorobromomethane	83		8.234					ND	
72 2-Nitropropane	41		8.457					ND	
73 2-Chloroethyl vinyl ether	63		8.533					ND	
74 cis-1,3-Dichloropropene	75		8.672					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825					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		9.783					ND	
84 Chlorodibromomethane	129		9.822					ND	
85 Ethylene Dibromide	107		9.932					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		10.479					ND	
89 1,1,1,2-Tetrachloroethane	131		10.510					ND	
90 Ethylbenzene	106		10.516					ND	
91 m-Xylene & p-Xylene	106		10.650					ND	
92 o-Xylene	106		11.027					ND	
93 Styrene	104		11.051					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.234					ND	
96 2-Chlorobenzotrifluoride	180		11.301					ND	
97 Isopropylbenzene	105		11.398					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.708					ND	
100 Bromobenzene	156		11.714					ND	
102 trans-1,4-Dichloro-2-buten	53		11.745					ND	
101 1,2,3-Trichloropropane	110		11.769					ND	
103 N-Propylbenzene	120		11.812					ND	
104 2-Chlorotoluene	126		11.903					ND	
105 3-Chlorotoluene	126		11.970					ND	
106 1,3,5-Trimethylbenzene	105		12.000					ND	
107 4-Chlorotoluene	126		12.024					ND	
108 tert-Butylbenzene	119		12.310					ND	
109 Pentachloroethane	167		12.344					ND	
110 1,2,4-Trimethylbenzene	105		12.371					ND	
111 1,2-dichloro-4-(trifluorom	214		12.414					ND	
112 sec-Butylbenzene	105		12.535					ND	
113 1,3-Dichlorobenzene	146		12.651					ND	
114 4-Isopropyltoluene	119		12.688					ND	
115 1,4-Dichlorobenzene	146		12.754					ND	
117 1,2,3-Trimethylbenzene	105		12.782					ND	
116 2,4-Dichloro-1-(triflourom	214		12.785					ND	
118 2,5-Dichlorobenzotrifluori	214		12.821					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.101					ND	
121 1,2-Dichlorobenzene	146		13.113					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		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.464					ND	
126 1,2,4-Trichlorobenzene	180		14.726					ND	
127 Hexachlorobutadiene	225		14.872					ND	
128 Naphthalene	128		14.993					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		16.134					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:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

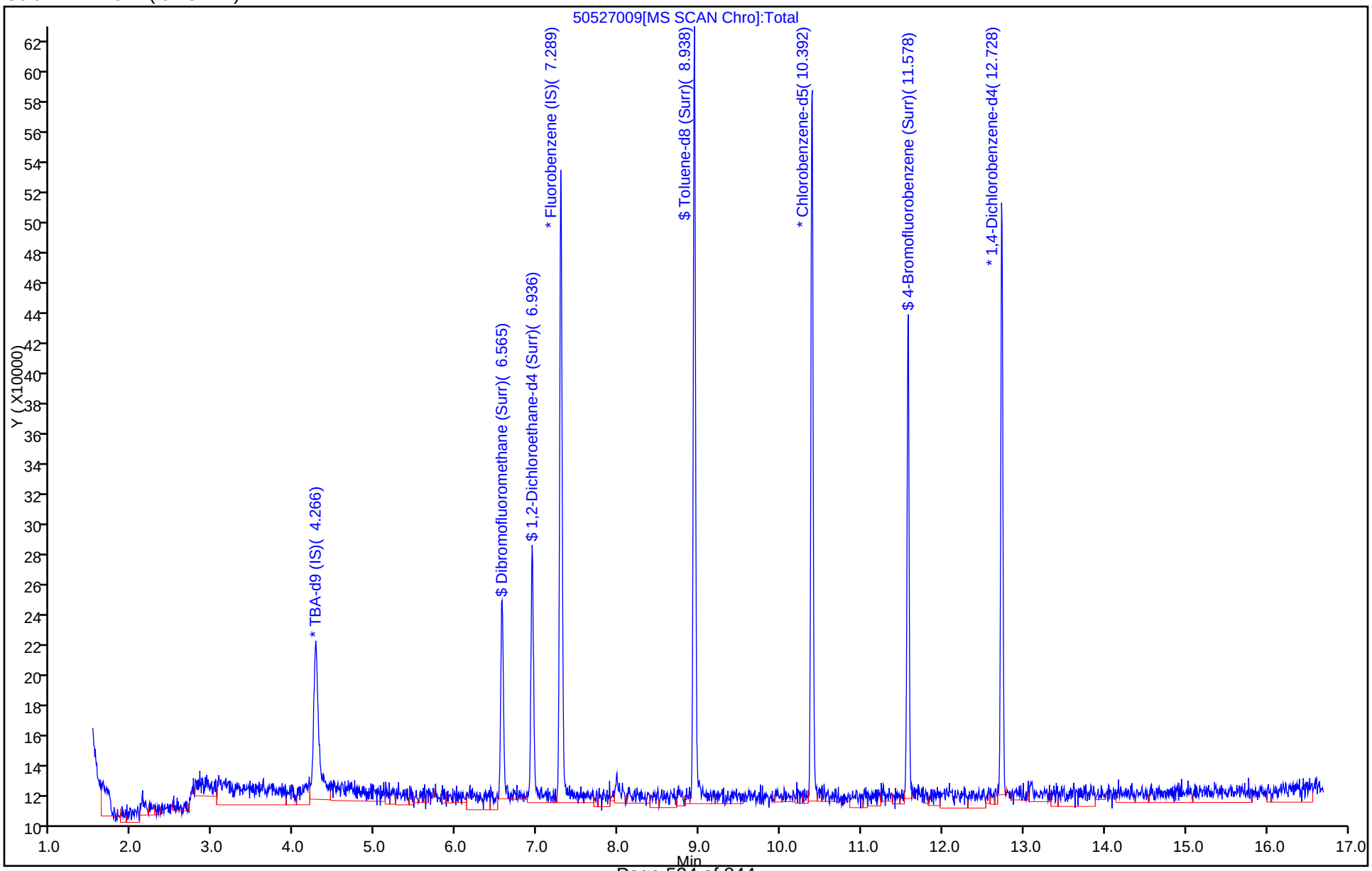
Report Date: 27-May-2015 16:35:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527009.D

Injection Date:	27-May-2015 13:22:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	9
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.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143033/6

Matrix: Water | Lab File ID: 50528006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 13:18

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143033 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143033/6

Matrix: Water Lab File ID: 50528006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/28/2015 13:18

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143033 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	87		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528006.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 28-May-2015 13:18:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007155-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 06:25:09 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 06:28:01

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.268	4.277	-0.009	0	164605	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	451280	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.388	10.385	0.003	87	99515	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.731	12.727	0.004	96	120304	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.568	6.559	0.009	93	108177	50.0	55.6	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.936	0.003	0	140844	50.0	58.1	
$	7 Toluene-d8 (Surr)	98	8.934	8.937	-0.003	94	388770	50.0	52.6	
$	8 4-Bromofluorobenzene (Surr	95	11.575	11.571	0.004	89	115380	50.0	43.5	
	11 Dichlorodifluoromethane	85		1.613					ND	
	12 Chloromethane	50		1.765					ND	
	13 Vinyl chloride	62		1.905					ND	
	14 Butadiene	39		1.935					ND	
	15 Bromomethane	94		2.233					ND	
	16 Chloroethane	64		2.397					ND	
	17 Dichlorofluoromethane	67		2.665					ND	
	18 Trichlorofluoromethane	101		2.714					ND	
	19 Ethanol	45		2.934					ND	
	20 Ethyl ether	59		3.048					ND	
	21 Acrolein	56		3.231					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		3.444					ND	
	25 Iodomethane	142		3.541					ND	
	26 Carbon disulfide	76		3.626					ND	
	27 Isopropyl alcohol	45		3.725					ND	
	29 Acetonitrile	40		3.871					ND	
	28 3-Chloro-1-propene	76		3.912					ND	
	30 Methyl acetate	43		3.943					ND	
	31 Methylene Chloride	84		4.143					ND	
	32 2-Methyl-2-propanol	59		4.399					ND	
	33 Acrylonitrile	53		4.521					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		4.563					ND	
35 Methyl tert-butyl ether	73		4.575					ND	
36 Hexane	57		4.983					ND	
37 1,1-Dichloroethane	63		5.196					ND	
38 Vinyl acetate	43		5.251					ND	
39 2-Chloro-1,3-butadiene	53		5.295					ND	
41 Isopropyl ether	45		5.301					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.775					ND	
44 2,2-Dichloropropane	77		5.938					ND	
45 cis-1,2-Dichloroethene	96		5.944					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.962					ND	
47 Propionitrile	54		6.031					ND	
48 Ethyl acetate	43		6.037					ND	
50 Methacrylonitrile	41		6.213					ND	
49 Chlorobromomethane	128		6.236					ND	
51 Tetrahydrofuran	42		6.248					ND	
52 Chloroform	83		6.382					ND	
53 1,1,1-Trichloroethane	97		6.540					ND	
54 Cyclohexane	56		6.613					ND	
56 Carbon tetrachloride	117		6.717					ND	
55 1,1-Dichloropropene	75		6.729					ND	
57 Isobutyl alcohol	41		6.930					ND	
58 Benzene	78		6.942					ND	
59 1,2-Dichloroethane	62		7.021					ND	
61 Tert-amyl methyl ether	73		7.120					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.307					ND	
63 n-Butanol	56		7.631					ND	
64 Trichloroethene	130		7.678					ND	
65 Ethyl acrylate	55		7.801					ND	
66 Methylcyclohexane	83		7.915					ND	
67 1,2-Dichloropropane	63		7.946					ND	
70 1,4-Dioxane	88		8.025					ND	
69 Methyl methacrylate	69		8.032					ND	
68 Dibromomethane	93		8.037					ND	
71 Dichlorobromomethane	83		8.232					ND	
72 2-Nitropropane	41		8.446					ND	
73 2-Chloroethyl vinyl ether	63		8.530					ND	
74 cis-1,3-Dichloropropene	75		8.676					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.828					ND	
76 Toluene	91		9.004					ND	
77 trans-1,3-Dichloropropene	75		9.254					ND	
78 Ethyl methacrylate	69		9.314					ND	
79 1,1,2-Trichloroethane	97		9.448					ND	
80 Tetrachloroethene	164		9.515					ND	
81 1,3-Dichloropropane	76		9.600					ND	
82 2-Hexanone	43		9.661					ND	
83 n-Butyl acetate	43		9.784					ND	
84 Chlorodibromomethane	129		9.819					ND	
85 Ethylene Dibromide	107		9.929					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.391					ND	
87 Chlorobenzene	112		10.416					ND	
88 4-Chlorobenzotrifluoride	180		10.476					ND	
89 1,1,1,2-Tetrachloroethane	131		10.513					ND	
90 Ethylbenzene	106		10.513					ND	
91 m-Xylene & p-Xylene	106		10.653					ND	
92 o-Xylene	106		11.030					ND	
93 Styrene	104		11.048					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.237					ND	
96 2-Chlorobenzotrifluoride	180		11.298					ND	
97 Isopropylbenzene	105		11.395					ND	
98 Cyclohexanone	55		11.481					ND	
99 1,1,2,2-Tetrachloroethane	83		11.711					ND	
100 Bromobenzene	156		11.711					ND	
102 trans-1,4-Dichloro-2-buten	53		11.748					ND	
101 1,2,3-Trichloropropane	110		11.760					ND	
103 N-Propylbenzene	120		11.815					ND	
104 2-Chlorotoluene	126		11.900					ND	
105 3-Chlorotoluene	126		11.967					ND	
106 1,3,5-Trimethylbenzene	105		11.997					ND	
107 4-Chlorotoluene	126		12.022					ND	
108 tert-Butylbenzene	119		12.307					ND	
109 Pentachloroethane	167		12.345					ND	
110 1,2,4-Trimethylbenzene	105		12.368					ND	
111 1,2-dichloro-4-(trifluorom	214		12.411					ND	
112 sec-Butylbenzene	105		12.533					ND	
113 1,3-Dichlorobenzene	146		12.654					ND	
114 4-Isopropyltoluene	119		12.691					ND	
115 1,4-Dichlorobenzene	146		12.752					ND	
117 1,2,3-Trimethylbenzene	105		12.777					ND	
116 2,4-Dichloro-1-(triflourom	214		12.782					ND	
118 2,5-Dichlorobenzotrifluori	214		12.818					ND	
119 Benzyl chloride	91		12.868					ND	
120 n-Butylbenzene	91		13.098					ND	
121 1,2-Dichlorobenzene	146		13.110					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.901					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.047					ND	
124 1,3,5-Trichlorobenzene	180		14.091					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.461					ND	
126 1,2,4-Trichlorobenzene	180		14.723					ND	
127 Hexachlorobutadiene	225		14.875					ND	
128 Naphthalene	128		14.990					ND	
129 1,2,3-Trichlorobenzene	180		15.215					ND	
131 2,4,5-Trichlorotoluene	159		15.988					ND	
130 2,3,6-Trichlorotoluene	159		16.091					ND	
132 2-Methylnaphthalene	142		16.129					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
151 Isooctane	57		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Reagents:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

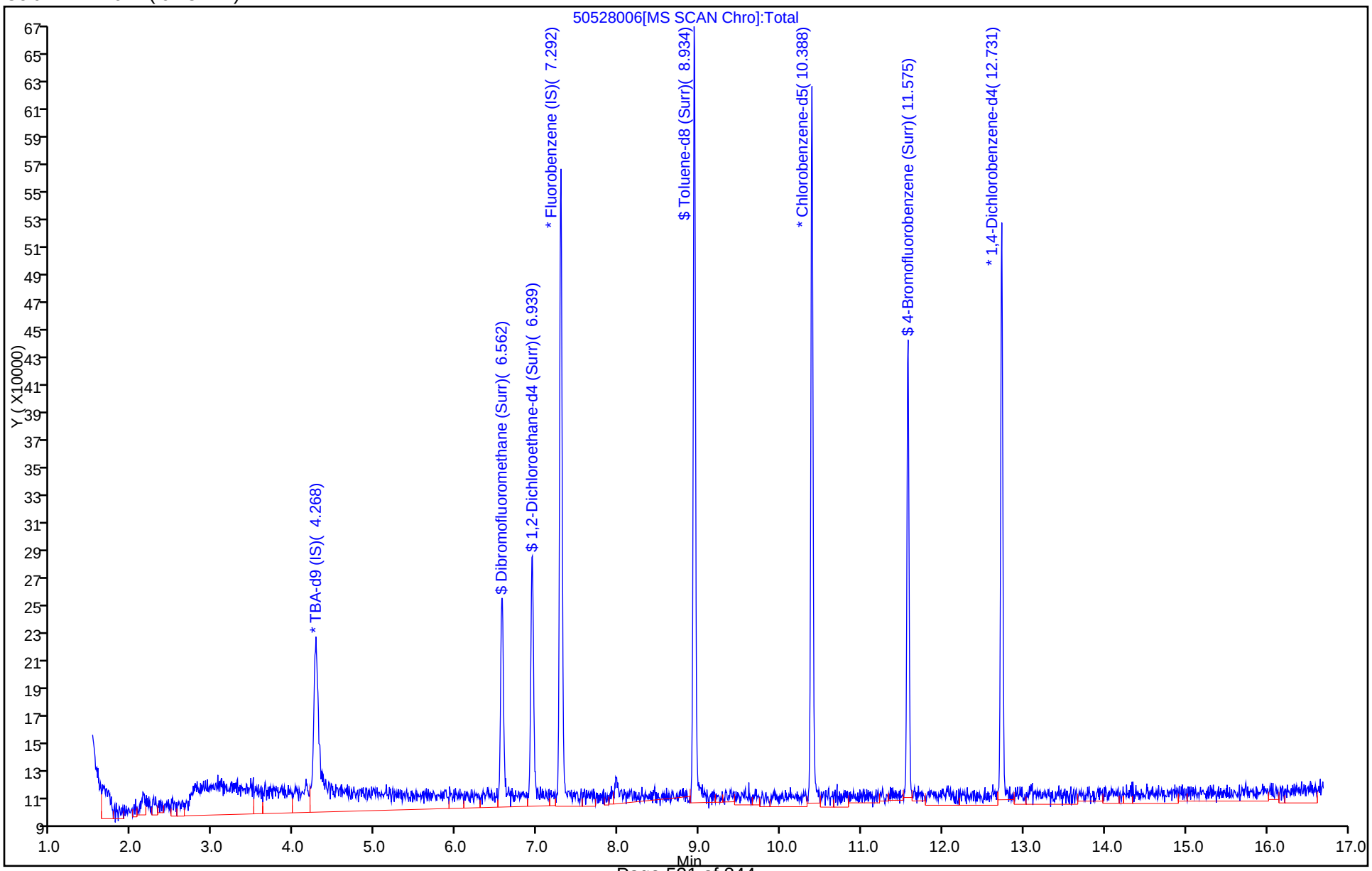
Report Date: 29-May-2015 06:28:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528006.D

Injection Date:	28-May-2015 13:18:30	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#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-143223/7

Matrix: Water | Lab File ID: 50529007.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/29/2015 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.: 143223 | Units: ug/L

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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143223/7

Matrix: Water Lab File ID: 50529007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/29/2015 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.: 143223 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529007.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-May-2015 14:38:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007177-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 17:32:03 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 17:32:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.269	4.272	-0.003	0	144627	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.289	0.003	98	408595	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.392	-0.003	88	86147	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.728	0.003	97	103760	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.562	0.006	93	97668	50.0	55.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.927	0.006	0	129655	50.0	59.0	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	95	353758	50.0	55.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.569	0.006	88	105068	50.0	45.7	
11 Dichlorodifluoromethane	85		1.617					ND	
12 Chloromethane	50		1.769					ND	
13 Vinyl chloride	62		1.903					ND	
14 Butadiene	39		1.939					ND	
15 Bromomethane	94		2.237					ND	
16 Chloroethane	64		2.389					ND	
17 Dichlorofluoromethane	67		2.663					ND	
18 Trichlorofluoromethane	101		2.706					ND	
19 Ethanol	45		2.958					ND	
20 Ethyl ether	59		3.046					ND	
21 Acrolein	56		3.229					ND	
22 1,1-Dichloroethene	96		3.344					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.423					ND	
24 Acetone	43		3.442					ND	
25 Iodomethane	142		3.527					ND	
26 Carbon disulfide	76		3.624					ND	
27 Isopropyl alcohol	45		3.706					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.904					ND	
30 Methyl acetate	43		3.934					ND	
31 Methylene Chloride	84		4.141					ND	
32 2-Methyl-2-propanol	59		4.403					ND	
33 Acrylonitrile	53		4.518					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		4.561					ND	
35 Methyl tert-butyl ether	73		4.573					ND	
36 Hexane	57		4.987					ND	
37 1,1-Dichloroethane	63		5.200					ND	
38 Vinyl acetate	43		5.242					ND	
41 Isopropyl ether	45		5.294					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		5.774					ND	
44 2,2-Dichloropropane	77		5.942					ND	
45 cis-1,2-Dichloroethene	96		5.948					ND	
46 2-Butanone (MEK)	43		5.954					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.030					ND	
48 Ethyl acetate	43		6.042					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.234					ND	
51 Tetrahydrofuran	42		6.246					ND	
52 Chloroform	83	6.380	6.380	0.000	25	1349		0.3679	
53 1,1,1-Trichloroethane	97		6.538					ND	
54 Cyclohexane	56		6.617					ND	
56 Carbon tetrachloride	117		6.708					ND	
55 1,1-Dichloropropene	75		6.727					ND	
57 Isobutyl alcohol	41		6.927					ND	
58 Benzene	78		6.940					ND	
59 1,2-Dichloroethane	62		7.019					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.305					ND	
63 n-Butanol	56		7.630					ND	
64 Trichloroethene	130		7.676					ND	
65 Ethyl acrylate	55		7.794					ND	
66 Methylcyclohexane	83		7.913					ND	
67 1,2-Dichloropropane	63		7.950					ND	
69 Methyl methacrylate	69		8.031					ND	
68 Dibromomethane	93		8.035					ND	
70 1,4-Dioxane	88		8.035					ND	
71 Dichlorobromomethane	83		8.229					ND	
72 2-Nitropropane	41		8.451					ND	
73 2-Chloroethyl vinyl ether	63		8.527					ND	
74 cis-1,3-Dichloropropene	75		8.673					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.826					ND	
76 Toluene	91		9.002					ND	
77 trans-1,3-Dichloropropene	75		9.251					ND	
78 Ethyl methacrylate	69		9.312					ND	
79 1,1,2-Trichloroethane	97		9.446					ND	
80 Tetrachloroethene	164		9.519					ND	
81 1,3-Dichloropropane	76		9.598					ND	
82 2-Hexanone	43		9.659					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.817					ND	
85 Ethylene Dibromide	107		9.927					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.389					ND	
87 Chlorobenzene	112		10.413					ND	
88 4-Chlorobenzotrifluoride	180		10.480					ND	
89 1,1,1,2-Tetrachloroethane	131		10.511					ND	
90 Ethylbenzene	106		10.517					ND	
91 m-Xylene & p-Xylene	106		10.644					ND	
92 o-Xylene	106		11.028					ND	
93 Styrene	104		11.046					ND	
94 Bromoform	173		11.228					ND	
95 Cyclohexanol	57		11.231					ND	
96 2-Chlorobenzotrifluoride	180		11.295					ND	
97 Isopropylbenzene	105		11.393					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.703					ND	
100 Bromobenzene	156		11.709					ND	
102 trans-1,4-Dichloro-2-buten	53		11.746					ND	
101 1,2,3-Trichloropropane	110		11.764					ND	
103 N-Propylbenzene	120		11.813					ND	
104 2-Chlorotoluene	126		11.898					ND	
105 3-Chlorotoluene	126		11.965					ND	
106 1,3,5-Trimethylbenzene	105		11.995					ND	
107 4-Chlorotoluene	126		12.025					ND	
108 tert-Butylbenzene	119		12.305					ND	
109 Pentachloroethane	167		12.338					ND	
110 1,2,4-Trimethylbenzene	105		12.366					ND	
111 1,2-dichloro-4-(trifluorom	214		12.409					ND	
112 sec-Butylbenzene	105		12.530					ND	
113 1,3-Dichlorobenzene	146		12.652					ND	
114 4-Isopropyltoluene	119		12.689					ND	
115 1,4-Dichlorobenzene	146		12.755					ND	
116 2,4-Dichloro-1-(triflourom	214		12.780					ND	
117 1,2,3-Trimethylbenzene	105		12.782					ND	
118 2,5-Dichlorobenzotrifluori	214		12.822					ND	
119 Benzyl chloride	91		12.868					ND	
120 n-Butylbenzene	91		13.096					ND	
121 1,2-Dichlorobenzene	146		13.108					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.899					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.045					ND	
124 1,3,5-Trichlorobenzene	180		14.084					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.459					ND	
126 1,2,4-Trichlorobenzene	180		14.720					ND	
127 Hexachlorobutadiene	225		14.872					ND	
128 Naphthalene	128		14.988					ND	
129 1,2,3-Trichlorobenzene	180		15.213					ND	
131 2,4,5-Trichlorotoluene	159		15.992					ND	
130 2,3,6-Trichlorotoluene	159		16.089					ND	
132 2-Methylnaphthalene	142		16.128					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

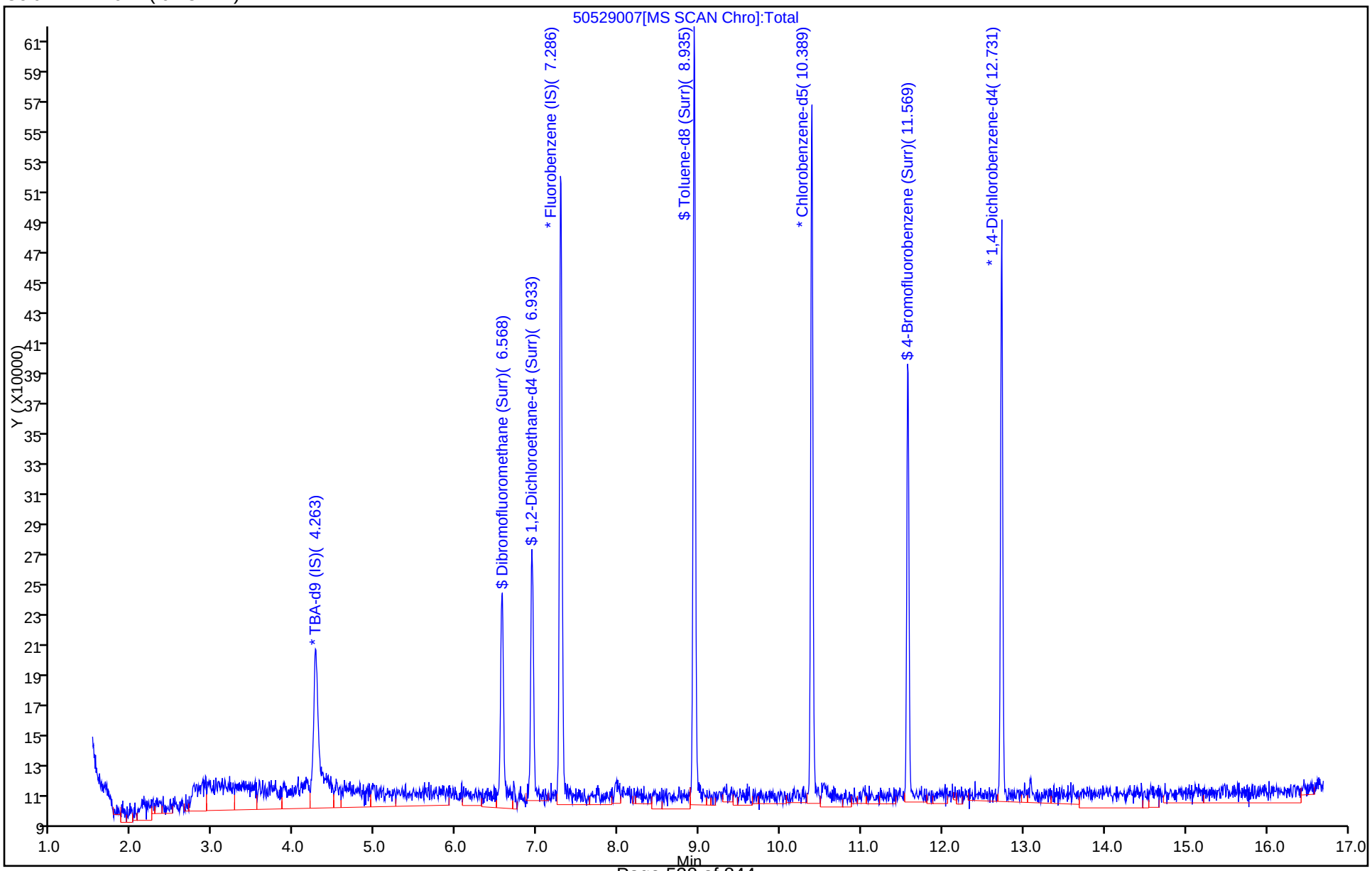
Report Date: 29-May-2015 17:32:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529007.D

Injection Date:	29-May-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#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142745/8

Matrix: Water | Lab File ID: 50526008.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 13:29

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.57		1.0	0.28
75-01-4	Vinyl chloride	7.37		1.0	0.23
74-83-9	Bromomethane	9.67		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	9.82		1.0	0.30
67-64-1	Acetone	17.6		5.0	2.5
75-15-0	Carbon disulfide	8.10		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	7.89		1.0	0.18
75-34-3	1,1-Dichloroethane	9.52		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.41		1.0	0.24
74-97-5	Bromochloromethane	9.06		1.0	0.18
78-93-3	2-Butanone (MEK)	16.9		5.0	0.55
67-66-3	Chloroform	9.59		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.28		1.0	0.29
56-23-5	Carbon tetrachloride	9.49		1.0	0.14
71-43-2	Benzene	9.87		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	9.15		1.0	0.14
78-87-5	1,2-Dichloropropane	9.55		1.0	0.095
75-27-4	Bromodichloromethane	8.40		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.06		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.0		5.0	0.53
108-88-3	Toluene	10.7		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.80		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	10.6		1.0	0.15
591-78-6	2-Hexanone	15.6		5.0	0.16
124-48-1	Dibromochloromethane	8.30		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.35		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.31		1.0	0.28
100-41-4	Ethylbenzene	9.58		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	9.85		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-142745/8

Matrix: Water Lab File ID: 50526008.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2015 13:29

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 142745 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.85		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	93.9		20	0.55
123-91-1	1,4-Dioxane	144	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 26-May-2015 13:29:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007112-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:45:15 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

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

First Level Reviewer: fergusond Date: 26-May-2015 14:58:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.259	0.025	0	107920	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.295	-0.006	98	440272	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.391	-0.005	88	94474	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.733	-0.005	95	137994	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	91420	50.0	48.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	107477	50.0	45.4	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	358453	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	88	124872	50.0	49.6	
11 Dichlorodifluoromethane	85	1.613	1.608	0.005	99	99199	50.0	32.6	
12 Chloromethane	50	1.765	1.766	-0.001	99	127239	50.0	32.9	
13 Vinyl chloride	62	1.893	1.900	-0.007	98	128626	50.0	36.8	
14 Butadiene	39	1.936	1.937	-0.001	98	161909	50.0	40.2	
15 Bromomethane	94	2.252	2.247	0.005	93	77416	50.0	48.4	
16 Chloroethane	64	2.392	2.399	-0.007	98	93133	50.0	50.3	
17 Dichlorofluoromethane	67	2.666	2.667	-0.001	97	219894	50.0	52.5	
18 Trichlorofluoromethane	101	2.714	2.703	0.011	92	182534	50.0	46.3	
20 Ethyl ether	59	3.055	3.050	0.005	94	104228	50.0	46.8	
21 Acrolein	56	3.237	3.226	0.011	99	59657	150.0	160.6	
22 1,1-Dichloroethene	96	3.353	3.348	0.005	98	103573	50.0	49.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.421	-0.001	93	113806	50.0	51.6	
24 Acetone	43	3.444	3.439	0.005	95	76520	100.0	88.1	
25 Iodomethane	142	3.548	3.537	0.011	97	160401	50.0	49.6	
26 Carbon disulfide	76	3.639	3.628	0.011	100	227646	50.0	40.5	
28 3-Chloro-1-propene	76	3.913	3.920	-0.007	88	60298	50.0	43.0	
30 Methyl acetate	43	3.943	3.938	0.005	98	484538	250.0	235.0	
31 Methylene Chloride	84	4.150	4.139	0.011	96	129559	50.0	52.6	
32 2-Methyl-2-propanol	59	4.412	4.413	-0.001	86	54535	500.0	452.1	
33 Acrylonitrile	53	4.521	4.522	-0.001	100	488635	500.0	469.3	
34 trans-1,2-Dichloroethene	96	4.570	4.565	0.005	88	119886	50.0	51.4	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	97	253895	50.0	39.5	
36 Hexane	57	4.996	4.991	0.005	95	167509	50.0	45.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.197	0.005	97	209748	50.0	47.6	
38 Vinyl acetate	43	5.251	5.246	0.005	97	178640	50.0	36.0	
44 2,2-Dichloropropane	77	5.945	5.946	-0.001	63	94784	50.0	42.4	
45 cis-1,2-Dichloroethene	96	5.951	5.946	0.005	84	121392	50.0	47.0	
46 2-Butanone (MEK)	43	5.969	5.964	0.005	99	111656	100.0	84.7	
49 Chlorobromomethane	128	6.231	6.238	-0.007	95	52076	50.0	45.3	
51 Tetrahydrofuran	42	6.255	6.256	-0.001	87	63252	100.0	70.5	
52 Chloroform	83	6.383	6.384	-0.001	95	189467	50.0	48.0	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	96	141951	50.0	46.4	
54 Cyclohexane	56	6.620	6.615	0.005	94	212501	50.0	45.9	
56 Carbon tetrachloride	117	6.717	6.712	0.005	96	130850	50.0	47.5	
55 1,1-Dichloropropene	75	6.729	6.731	-0.001	92	153361	50.0	47.6	
57 Isobutyl alcohol	41	6.930	6.931	-0.001	45	74410	1250.0	906.0	
58 Benzene	78	6.948	6.943	0.005	98	484225	50.0	49.4	
59 1,2-Dichloroethane	62	7.027	7.023	0.004	97	148154	50.0	50.6	
62 n-Heptane	43	7.313	7.308	0.005	92	146607	50.0	44.8	
64 Trichloroethene	130	7.684	7.680	0.004	97	115091	50.0	45.8	
66 Methylcyclohexane	83	7.922	7.917	0.005	92	181576	50.0	43.8	
67 1,2-Dichloropropane	63	7.952	7.947	0.005	94	121700	50.0	47.7	
68 Dibromomethane	93	8.037	8.032	0.005	96	63553	50.0	48.8	
70 1,4-Dioxane	88	8.037	8.032	0.005	34	14039	1000.0	722.0	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	98	119141	50.0	42.0	
73 2-Chloroethyl vinyl ether	63	8.530	8.531	-0.001	93	102699	100.0	70.6	
74 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	93	145482	50.0	40.3	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.829	-0.001	98	207036	100.0	84.9	
76 Toluene	91	9.005	9.006	-0.001	97	483291	50.0	53.6	
77 trans-1,3-Dichloropropene	75	9.254	9.255	-0.001	98	106473	50.0	39.0	
78 Ethyl methacrylate	69	9.315	9.310	0.005	91	107624	50.0	39.6	
79 1,1,2-Trichloroethane	97	9.443	9.450	-0.007	90	92833	50.0	54.6	
80 Tetrachloroethene	164	9.516	9.517	-0.001	98	89709	50.0	53.0	
81 1,3-Dichloropropane	76	9.601	9.608	-0.007	94	158183	50.0	49.2	
82 2-Hexanone	43	9.662	9.657	0.005	99	135596	100.0	78.2	
84 Chlorodibromomethane	129	9.820	9.815	0.005	90	69265	50.0	41.5	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	99	81724	50.0	46.8	
86 3-Chlorobenzotrifluoride	180	10.392	10.393	-0.001	88	162800	50.0	53.1	
87 Chlorobenzene	112	10.416	10.423	-0.007	94	298391	50.0	51.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	155054	50.0	54.8	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.514	-0.001	92	91047	50.0	46.5	
90 Ethylbenzene	106	10.519	10.521	-0.001	99	162599	50.0	47.9	
91 m-Xylene & p-Xylene	106	10.653	10.654	-0.001	0	199820	50.0	48.6	
92 o-Xylene	106	11.030	11.032	-0.002	97	188081	50.0	46.4	
93 Styrene	104	11.049	11.050	-0.001	95	315240	50.0	49.3	
94 Bromoform	173	11.237	11.232	0.005	95	42161	50.0	39.2	
96 2-Chlorobenzotrifluoride	180	11.298	11.299	-0.001	97	162649	50.0	53.6	
97 Isopropylbenzene	105	11.395	11.403	-0.008	96	478318	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.713	-0.007	78	122779	50.0	51.1	
100 Bromobenzene	156	11.712	11.713	-0.001	94	115597	50.0	45.3	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.743	0.005	73	33037	50.0	39.0	
101 1,2,3-Trichloropropane	110	11.760	11.768	-0.008	88	37001	50.0	44.2	
103 N-Propylbenzene	120	11.815	11.816	-0.001	99	140594	50.0	46.3	
104 2-Chlorotoluene	126	11.900	11.901	-0.001	96	120246	50.0	46.2	
105 3-Chlorotoluene	126	11.967	11.968	-0.001	96	122986	50.0	46.5	

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	11.998	11.999	-0.001	95	398014	50.0	46.6	
107 4-Chlorotoluene	126	12.028	12.023	0.005	98	130856	50.0	47.6	
108 tert-Butylbenzene	119	12.308	12.315	-0.007	94	310608	50.0	42.5	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	395014	50.0	46.4	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	98	123020	50.0	53.7	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	95	477407	50.0	46.3	
113 1,3-Dichlorobenzene	146	12.655	12.656	-0.001	97	210917	50.0	47.3	
114 4-Isopropyltoluene	119	12.691	12.692	-0.001	97	386175	50.0	45.8	
115 1,4-Dichlorobenzene	146	12.758	12.759	-0.001	95	214926	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.784	-0.002	96	112224	50.0	52.6	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.826	-0.001	0	128903	50.0	55.1	
120 n-Butylbenzene	91	13.099	13.100	-0.001	99	325361	50.0	44.9	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	95	198684	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.909	-0.007	77	14279	50.0	34.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.049	-0.001	0	330682	150.0	125.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.463	-0.002	0	197352	100.0	80.1	
126 1,2,4-Trichlorobenzene	180	14.729	14.724	0.005	94	74328	50.0	43.3	
127 Hexachlorobutadiene	225	14.869	14.876	-0.007	95	43836	50.0	54.8	
128 Naphthalene	128	14.991	14.992	-0.001	97	166391	50.0	35.0	
129 1,2,3-Trichlorobenzene	180	15.216	15.217	-0.001	94	55317	50.0	41.4	
131 2,4,5-Trichlorotoluene	159	15.995	15.990	0.004	0	16813	50.0	27.8	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	89	17559	50.0	32.2	
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	95.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL	
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

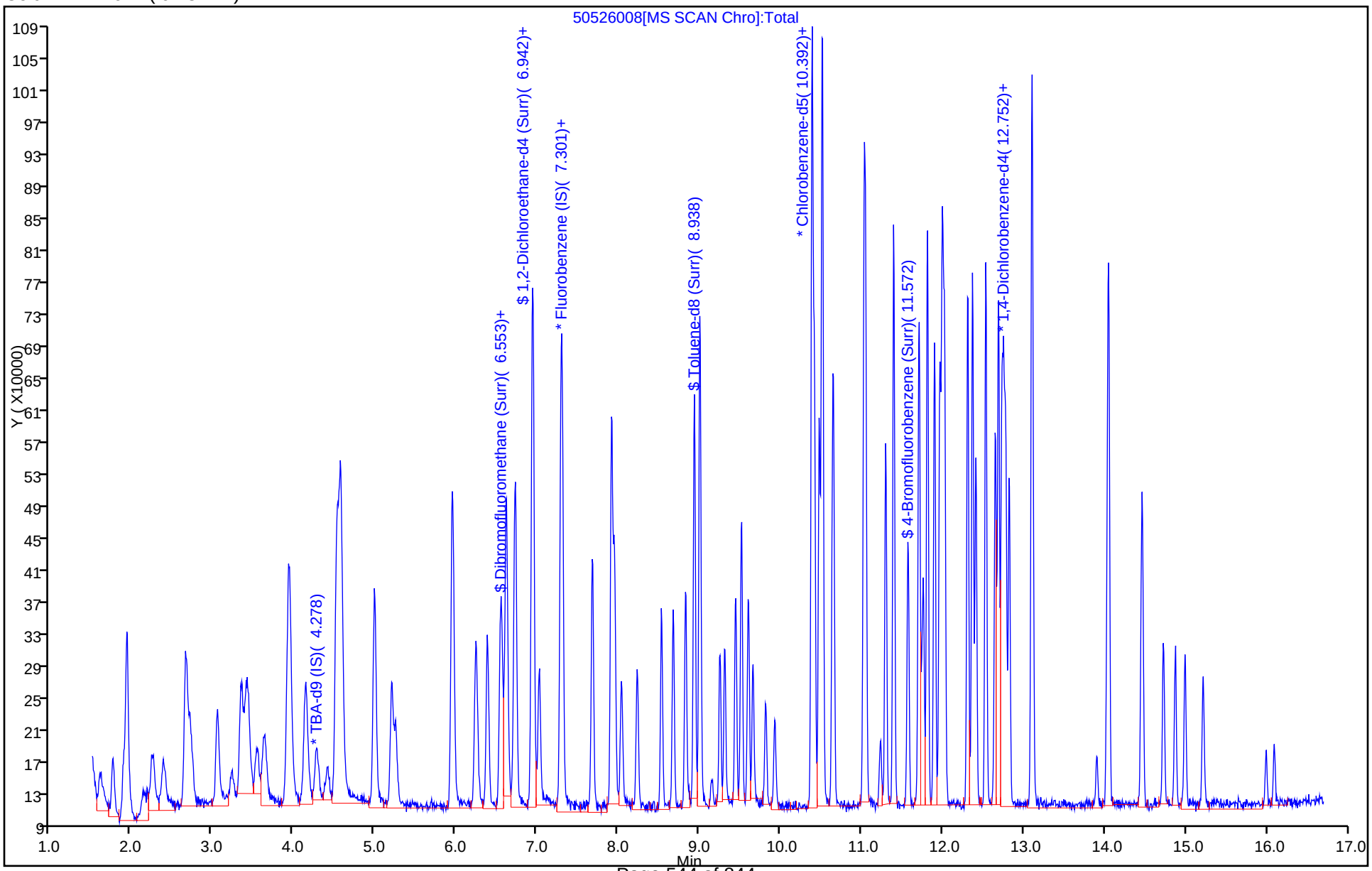
Report Date: 26-May-2015 14:58:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526008.D

Injection Date:	26-May-2015 13:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142864/12

Matrix: Water | Lab File ID: 50527012.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.14		1.0	0.28
75-01-4	Vinyl chloride	7.78		1.0	0.23
74-83-9	Bromomethane	9.36		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	11.3		1.0	0.30
67-64-1	Acetone	18.7		5.0	2.5
75-15-0	Carbon disulfide	8.26		1.0	0.21
75-09-2	Methylene Chloride	11.8		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.8		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.31		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	9.62		1.0	0.18
78-93-3	2-Butanone (MEK)	17.8		5.0	0.55
67-66-3	Chloroform	10.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.92		1.0	0.29
56-23-5	Carbon tetrachloride	9.16		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	10.2		1.0	0.21
79-01-6	Trichloroethene	9.05		1.0	0.14
78-87-5	1,2-Dichloropropane	9.65		1.0	0.095
75-27-4	Bromodichloromethane	8.44		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.99		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		5.0	0.53
108-88-3	Toluene	11.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.12		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.8		1.0	0.20
127-18-4	Tetrachloroethene	11.6		1.0	0.15
591-78-6	2-Hexanone	16.5		5.0	0.16
124-48-1	Dibromochloromethane	7.98		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.96		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.46		1.0	0.28
100-41-4	Ethylbenzene	9.93		1.0	0.23
1330-20-7	Xylenes, Total	19.4		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.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142864/12

Matrix: Water | Lab File ID: 50527012.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.67		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.20
107-13-1	Acrylonitrile	99.9		20	0.55
123-91-1	1,4-Dioxane	167	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 27-May-2015 14:50:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007136-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 15:09:03 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 15:09:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.274	0.001	0	124287	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	98	449752	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.388	0.001	87	97252	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.730	0.001	94	138873	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.561	0.001	94	87647	50.0	45.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	112911	50.0	46.7	
$ 7 Toluene-d8 (Surr)	98	8.935	8.934	0.001	93	364996	50.0	50.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.574	-0.005	88	120345	50.0	46.4	
11 Dichlorodifluoromethane	85	1.610	1.622	-0.012	99	127533	50.0	41.0	
12 Chloromethane	50	1.768	1.768	0.000	99	141295	50.0	35.7	
13 Vinyl chloride	62	1.902	1.908	-0.006	98	138786	50.0	38.9	
14 Butadiene	39	1.945	1.938	0.007	99	164538	50.0	40.0	
15 Bromomethane	94	2.261	2.273	-0.012	93	76548	50.0	46.8	
16 Chloroethane	64	2.395	2.413	-0.018	99	95423	50.0	50.5	
17 Dichlorofluoromethane	67	2.675	2.674	0.001	98	229501	50.0	53.7	
18 Trichlorofluoromethane	101	2.699	2.723	-0.024	97	184562	50.0	45.8	
20 Ethyl ether	59	3.052	3.051	0.001	93	117900	50.0	51.8	
21 Acrolein	56	3.222	3.228	-0.006	98	63551	150.0	167.5	
22 1,1-Dichloroethene	96	3.344	3.343	0.001	99	121325	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.416	0.013	92	128815	50.0	57.1	
24 Acetone	43	3.441	3.441	0.000	84	83123	100.0	93.7	
25 Iodomethane	142	3.533	3.532	0.001	97	173559	50.0	52.6	
26 Carbon disulfide	76	3.630	3.629	0.001	100	237032	50.0	41.3	
28 3-Chloro-1-propene	76	3.922	3.915	0.007	90	62755	50.0	43.8	
30 Methyl acetate	43	3.946	3.946	0.000	98	546836	250.0	259.6	
31 Methylene Chloride	84	4.135	4.140	-0.005	96	147357	50.0	59.1	
32 2-Methyl-2-propanol	59	4.409	4.414	-0.005	89	61574	500.0	443.2	
33 Acrylonitrile	53	4.524	4.524	0.000	99	531174	500.0	499.4	
34 trans-1,2-Dichloroethene	96	4.567	4.566	0.001	99	128649	50.0	54.0	
35 Methyl tert-butyl ether	73	4.579	4.584	-0.005	95	273020	50.0	41.5	
36 Hexane	57	4.987	4.992	-0.005	95	191558	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	5.206	5.205	0.001	97	231013	50.0	51.3	
38 Vinyl acetate	43	5.248	5.254	-0.006	97	168579	50.0	33.3	
44 2,2-Dichloropropane	77	5.948	5.947	0.001	58	92465	50.0	40.5	
45 cis-1,2-Dichloroethene	96	5.954	5.953	0.001	82	133080	50.0	50.5	
46 2-Butanone (MEK)	43	5.960	5.959	0.001	75	120129	100.0	89.2	
49 Chlorobromomethane	128	6.240	6.233	0.007	95	56456	50.0	48.1	
51 Tetrahydrofuran	42	6.252	6.251	0.001	94	77390	100.0	84.5	
52 Chloroform	83	6.380	6.379	0.001	95	204647	50.0	50.7	
53 1,1,1-Trichloroethane	97	6.544	6.543	0.001	97	154925	50.0	49.6	
54 Cyclohexane	56	6.611	6.616	-0.005	94	234410	50.0	49.5	
56 Carbon tetrachloride	117	6.720	6.714	0.006	96	129042	50.0	45.8	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	93	175522	50.0	53.3	
57 Isobutyl alcohol	41	6.927	6.926	0.001	45	85027	1250.0	1013.5	
58 Benzene	78	6.945	6.945	0.000	97	536675	50.0	53.5	
59 1,2-Dichloroethane	62	7.018	7.024	-0.006	95	152843	50.0	51.1	
62 n-Heptane	43	7.304	7.310	-0.006	93	165782	50.0	49.6	
64 Trichloroethene	130	7.676	7.681	-0.005	96	116251	50.0	45.3	
66 Methylcyclohexane	83	7.919	7.918	0.001	94	202020	50.0	47.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	95	125643	50.0	48.3	
70 1,4-Dioxane	88	8.034	8.034	0.000	35	16616	1000.0	836.5	M
68 Dibromomethane	93	8.034	8.040	-0.006	96	65125	50.0	49.0	
71 Dichlorobromomethane	83	8.229	8.234	-0.005	98	122375	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	118916	100.0	80.0	
74 cis-1,3-Dichloropropene	75	8.679	8.672	0.007	92	147186	50.0	39.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	209854	100.0	83.6	
76 Toluene	91	9.008	9.007	0.001	97	533253	50.0	57.5	
77 trans-1,3-Dichloropropene	75	9.251	9.250	0.001	97	114047	50.0	40.6	
78 Ethyl methacrylate	69	9.312	9.311	0.001	91	114753	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.446	9.445	0.001	93	94919	50.0	54.2	
80 Tetrachloroethene	164	9.519	9.518	0.001	95	101035	50.0	57.9	
81 1,3-Dichloropropane	76	9.604	9.603	0.001	96	169157	50.0	51.1	
82 2-Hexanone	43	9.659	9.658	0.001	99	147055	100.0	82.4	
84 Chlorodibromomethane	129	9.817	9.822	-0.005	90	68607	50.0	39.9	
85 Ethylene Dibromide	107	9.926	9.932	-0.006	96	89623	50.0	49.8	
86 3-Chlorobenzotrifluoride	180	10.389	10.388	0.001	82	145615	50.0	46.1	
87 Chlorobenzene	112	10.419	10.418	0.001	94	317391	50.0	52.9	
88 4-Chlorobenzotrifluoride	180	10.480	10.479	0.001	96	143759	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	92	95303	50.0	47.3	
90 Ethylbenzene	106	10.516	10.516	0.000	99	173518	50.0	49.7	
91 m-Xylene & p-Xylene	106	10.644	10.650	-0.006	0	208977	50.0	49.4	
92 o-Xylene	106	11.027	11.027	0.000	98	197958	50.0	47.4	
93 Styrene	104	11.052	11.051	0.001	96	334938	50.0	50.9	
94 Bromoform	173	11.228	11.234	-0.006	94	36887	50.0	33.3	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.001	97	146375	50.0	46.8	
97 Isopropylbenzene	105	11.399	11.398	0.001	97	497998	50.0	48.9	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.708	-0.005	90	128346	50.0	51.9	
100 Bromobenzene	156	11.709	11.714	-0.005	94	118071	50.0	46.0	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	81	33228	50.0	39.0	
101 1,2,3-Trichloropropane	110	11.764	11.769	-0.005	87	43137	50.0	51.2	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	148450	50.0	48.6	
104 2-Chlorotoluene	126	11.904	11.903	0.001	95	120251	50.0	45.9	
105 3-Chlorotoluene	126	11.964	11.970	-0.006	95	114482	50.0	43.0	

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	11.995	12.000	-0.005	94	411504	50.0	47.9	
107 4-Chlorotoluene	126	12.019	12.024	-0.005	98	134287	50.0	48.6	
108 tert-Butylbenzene	119	12.311	12.310	0.001	95	322921	50.0	43.9	
110 1,2,4-Trimethylbenzene	105	12.366	12.371	-0.005	98	402375	50.0	46.9	
111 1,2-dichloro-4-(trifluorom	214	12.415	12.414	0.001	98	106265	50.0	46.1	
112 sec-Butylbenzene	105	12.530	12.535	-0.005	95	480039	50.0	46.3	
113 1,3-Dichlorobenzene	146	12.652	12.651	0.001	98	213299	50.0	47.6	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	384310	50.0	45.3	
115 1,4-Dichlorobenzene	146	12.755	12.754	0.001	96	214470	50.0	46.7	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.785	-0.005	95	100744	50.0	46.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.821	0.001	0	105775	50.0	44.9	
120 n-Butylbenzene	91	13.102	13.101	0.001	98	332475	50.0	45.6	
121 1,2-Dichlorobenzene	146	13.108	13.113	-0.005	95	199548	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.898	0.001	74	14806	50.0	35.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.044	0.001	0	295991	150.0	112.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.465	14.464	0.001	0	180993	100.0	73.0	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	94	72788	50.0	42.1	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	95	42331	50.0	52.6	
128 Naphthalene	128	14.994	14.993	0.001	98	170535	50.0	35.6	
129 1,2,3-Trichlorobenzene	180	15.213	15.212	0.001	94	57996	50.0	43.1	
131 2,4,5-Trichlorotoluene	159	15.992	15.991	0.001	0	15294	50.0	25.1	
130 2,3,6-Trichlorotoluene	159	16.095	16.094	0.001	92	15001	50.0	27.3	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	104.4	
S 133 Xylenes, Total	106				0		100.0	96.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	80.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

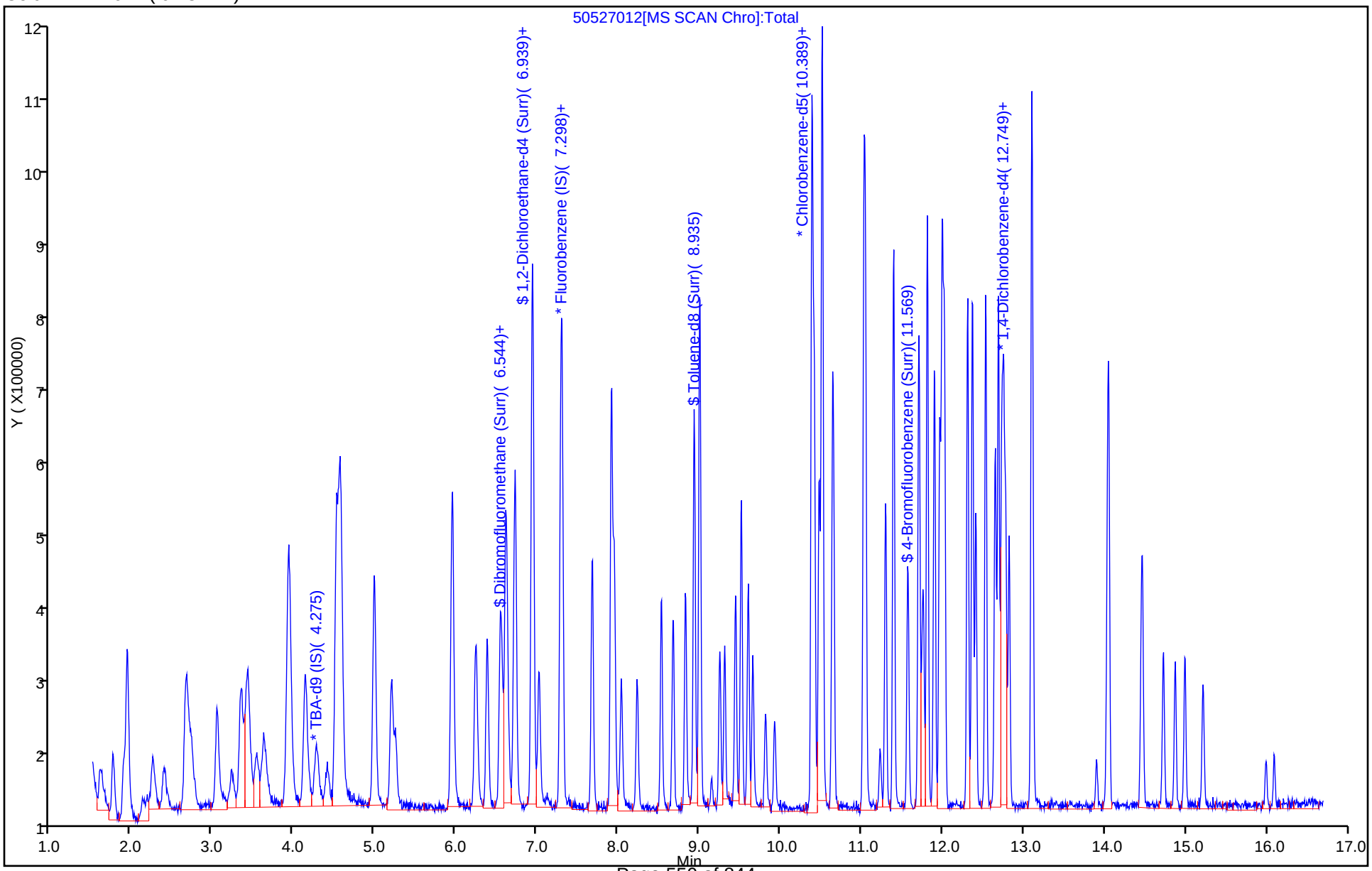
Report Date: 27-May-2015 15:09:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D

Injection Date:	27-May-2015 14:50:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

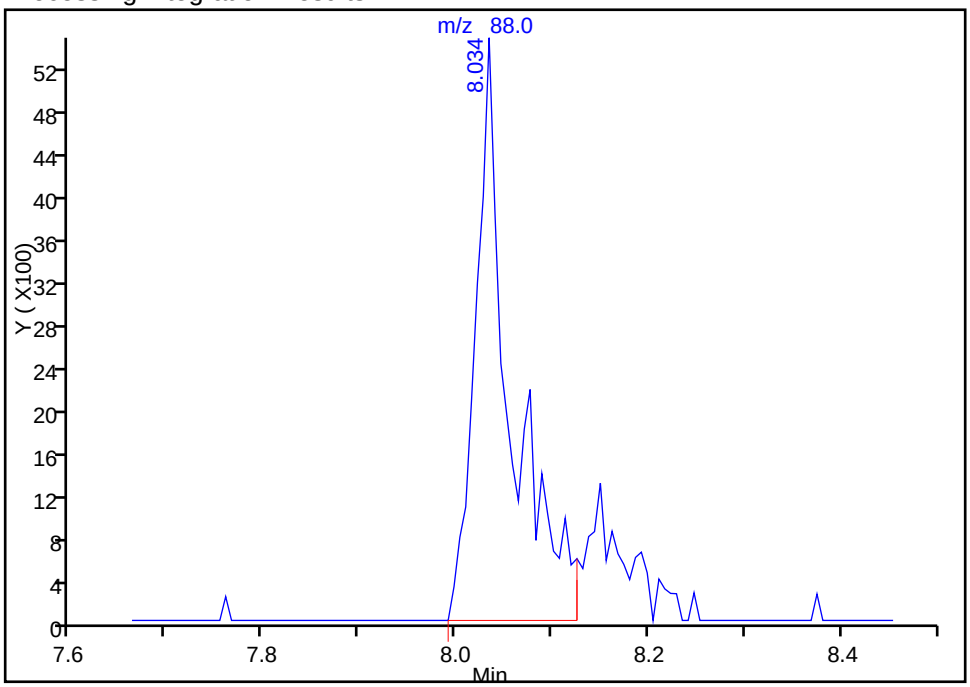
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D
Injection Date: 27-May-2015 14:50:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 9 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

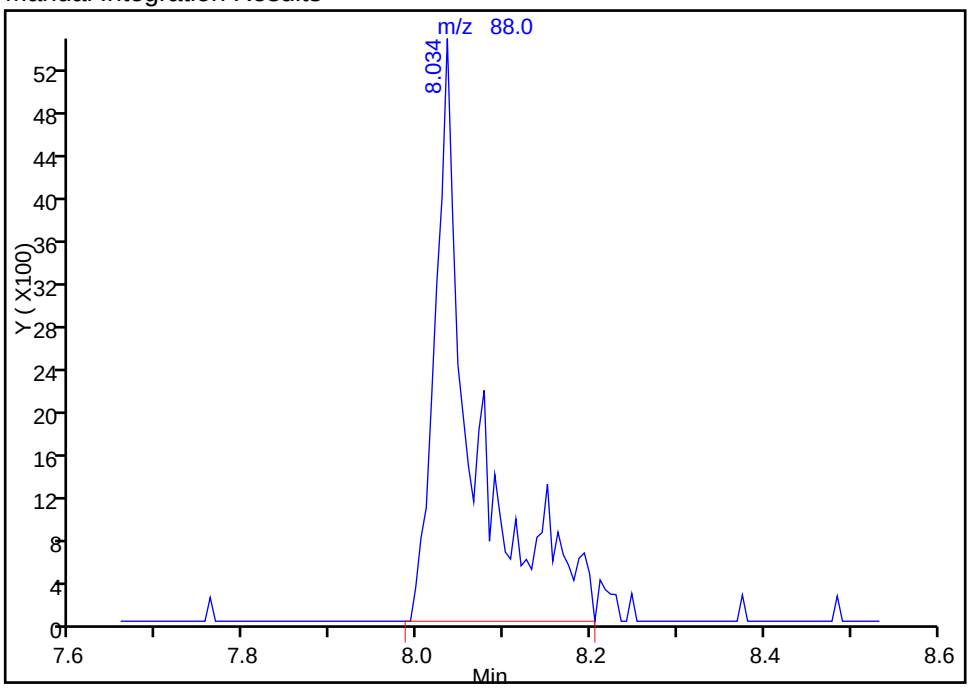
Processing Integration Results

RT: 8.03
Area: 13722
Amount: 690.8403
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 16616
Amount: 836.5400
Amount Units: ng



Reviewer: fergusond, 27-May-2015 15:09:09
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143033/13

Matrix: Water | Lab File ID: 50528013.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/28/2015 16:26

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.: 143033 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.30		1.0	0.28
75-01-4	Vinyl chloride	6.84		1.0	0.23
74-83-9	Bromomethane	8.69		1.0	0.31
75-00-3	Chloroethane	8.54		1.0	0.21
75-35-4	1,1-Dichloroethene	9.89		1.0	0.30
67-64-1	Acetone	26.4		5.0	2.5
75-15-0	Carbon disulfide	9.04		1.0	0.21
75-09-2	Methylene Chloride	11.0		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.46		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.08		1.0	0.18
75-34-3	1,1-Dichloroethane	9.48		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.21		1.0	0.24
74-97-5	Bromochloromethane	8.65		1.0	0.18
78-93-3	2-Butanone (MEK)	23.1		5.0	0.55
67-66-3	Chloroform	9.25		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.71		1.0	0.29
56-23-5	Carbon tetrachloride	8.12		1.0	0.14
71-43-2	Benzene	9.78		1.0	0.11
107-06-2	1,2-Dichloroethane	9.46		1.0	0.21
79-01-6	Trichloroethene	8.40		1.0	0.14
78-87-5	1,2-Dichloropropane	8.71		1.0	0.095
75-27-4	Bromodichloromethane	8.14		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.17		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.2		5.0	0.53
108-88-3	Toluene	10.1		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.40		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.99		1.0	0.20
127-18-4	Tetrachloroethene	9.57		1.0	0.15
591-78-6	2-Hexanone	20.9		5.0	0.16
124-48-1	Dibromochloromethane	7.75		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	8.90		1.0	0.18
108-90-7	Chlorobenzene	9.41		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	8.80		1.0	0.28
100-41-4	Ethylbenzene	8.69		1.0	0.23
1330-20-7	Xylenes, Total	17.1		3.0	0.49
100-42-5	Styrene	9.03		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143033/13

Matrix: Water Lab File ID: 50528013.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/28/2015 16:26

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.: 143033 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.42		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	8.80		1.0	0.20
107-13-1	Acrylonitrile	90.0		20	0.55
123-91-1	1,4-Dioxane	140	J	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)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	88		70-118
1868-53-7	Dibromofluoromethane (Surr)	93		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528013.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 28-May-2015 16:26:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007155-013
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 17:09:47 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 17:09:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.277	0.007	0	108155	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	468193	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.385	0.007	87	102897	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.727	0.001	93	138235	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.559	0.006	93	93527	50.0	46.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.936	0.000	0	117839	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.938	8.937	0.001	94	375844	50.0	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.571	0.001	90	120436	50.0	43.9	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	99	115287	50.0	35.6	
12 Chloromethane	50	1.759	1.765	-0.006	99	129666	50.0	31.5	
13 Vinyl chloride	62	1.893	1.905	-0.012	98	126915	50.0	34.2	
14 Butadiene	39	1.936	1.935	0.001	100	170442	50.0	39.8	
15 Bromomethane	94	2.246	2.233	0.013	92	73962	50.0	43.4	
16 Chloroethane	64	2.392	2.397	-0.005	98	83975	50.0	42.7	
17 Dichlorofluoromethane	67	2.660	2.665	-0.005	97	207052	50.0	46.5	
18 Trichlorofluoromethane	101	2.702	2.714	-0.012	97	166352	50.0	39.7	M
20 Ethyl ether	59	3.055	3.048	0.007	95	109305	50.0	46.2	
21 Acrolein	56	3.231	3.231	0.000	95	58353	150.0	147.8	
22 1,1-Dichloroethene	96	3.353	3.347	0.006	97	110902	50.0	49.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.420	-0.012	94	112909	50.0	48.1	
24 Acetone	43	3.444	3.444	0.000	100	121815	100.0	131.9	
25 Iodomethane	142	3.536	3.541	-0.005	97	162592	50.0	47.3	
26 Carbon disulfide	76	3.639	3.626	0.013	100	270353	50.0	45.2	
28 3-Chloro-1-propene	76	3.919	3.912	0.007	88	57355	50.0	38.4	
30 Methyl acetate	43	3.943	3.943	0.000	98	539212	250.0	245.9	
31 Methylene Chloride	84	4.138	4.143	-0.005	98	144107	50.0	55.2	
32 2-Methyl-2-propanol	59	4.406	4.399	0.007	87	54717	500.0	452.6	
33 Acrylonitrile	53	4.521	4.521	0.000	99	498505	500.0	450.2	
34 trans-1,2-Dichloroethene	96	4.570	4.563	0.007	97	117458	50.0	47.3	
35 Methyl tert-butyl ether	73	4.582	4.575	0.007	95	276406	50.0	40.4	
36 Hexane	57	4.983	4.983	0.000	95	175743	50.0	44.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.196	0.006	96	221993	50.0	47.4	
38 Vinyl acetate	43	5.251	5.251	0.000	98	164743	50.0	31.3	
44 2,2-Dichloropropane	77	5.945	5.938	0.007	58	91120	50.0	38.3	
45 cis-1,2-Dichloroethene	96	5.951	5.944	0.007	82	126450	50.0	46.1	
46 2-Butanone (MEK)	43	5.963	5.962	0.001	97	161654	100.0	115.3	
49 Chlorobromomethane	128	6.231	6.236	-0.005	93	52836	50.0	43.2	
51 Tetrahydrofuran	42	6.249	6.248	0.001	86	73460	100.0	77.0	
52 Chloroform	83	6.383	6.382	0.001	95	194421	50.0	46.3	
53 1,1,1-Trichloroethane	97	6.541	6.540	0.001	97	141729	50.0	43.6	
54 Cyclohexane	56	6.614	6.613	0.001	96	219268	50.0	44.5	
56 Carbon tetrachloride	117	6.717	6.717	0.000	95	119075	50.0	40.6	
55 1,1-Dichloropropene	75	6.736	6.729	0.007	94	160054	50.0	46.7	
57 Isobutyl alcohol	41	6.930	6.930	0.000	69	63523	1250.0	727.3	
58 Benzene	78	6.942	6.942	0.000	97	510026	50.0	48.9	
59 1,2-Dichloroethane	62	7.021	7.021	0.000	96	147254	50.0	47.3	
62 n-Heptane	43	7.307	7.307	0.000	93	155029	50.0	44.6	
64 Trichloroethene	130	7.678	7.678	0.000	97	112247	50.0	42.0	
66 Methylcyclohexane	83	7.916	7.915	0.001	94	183386	50.0	41.6	
67 1,2-Dichloropropane	63	7.952	7.946	0.006	94	118049	50.0	43.6	
70 1,4-Dioxane	88	8.031	8.025	0.006	34	14465	1000.0	699.6	M
68 Dibromomethane	93	8.031	8.037	-0.006	96	62616	50.0	45.2	
71 Dichlorobromomethane	83	8.232	8.232	0.000	97	122817	50.0	40.7	
73 2-Chloroethyl vinyl ether	63	8.530	8.530	0.000	92	141240	100.0	91.3	
74 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	137483	50.0	35.8	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.828	0.000	99	228034	100.0	85.8	
76 Toluene	91	9.005	9.004	0.001	98	496301	50.0	50.6	
77 trans-1,3-Dichloropropene	75	9.248	9.254	-0.006	97	110075	50.0	37.0	
78 Ethyl methacrylate	69	9.309	9.314	-0.005	90	112992	50.0	38.2	
79 1,1,2-Trichloroethane	97	9.443	9.448	-0.005	92	92517	50.0	49.9	
80 Tetrachloroethene	164	9.516	9.515	0.001	97	88318	50.0	47.9	
81 1,3-Dichloropropane	76	9.601	9.600	0.001	94	167236	50.0	47.7	
82 2-Hexanone	43	9.662	9.661	0.001	99	197052	100.0	104.3	
84 Chlorodibromomethane	129	9.820	9.819	0.001	90	70484	50.0	38.8	
85 Ethylene Dibromide	107	9.929	9.929	0.000	100	84691	50.0	44.5	
86 3-Chlorobenzotrifluoride	180	10.386	10.391	-0.005	82	157451	50.0	47.1	
87 Chlorobenzene	112	10.416	10.416	0.000	94	298825	50.0	47.1	
88 4-Chlorobenzotrifluoride	180	10.477	10.476	0.001	95	152069	50.0	49.3	
90 Ethylbenzene	106	10.513	10.513	0.000	99	160603	50.0	43.5	
89 1,1,1,2-Tetrachloroethane	131	10.507	10.513	-0.006	91	93727	50.0	44.0	
91 m-Xylene & p-Xylene	106	10.647	10.653	-0.006	0	193019	50.0	43.1	
92 o-Xylene	106	11.030	11.030	0.000	97	187116	50.0	42.4	
93 Styrene	104	11.049	11.048	0.001	95	314571	50.0	45.1	
94 Bromoform	173	11.231	11.237	-0.006	94	37569	50.0	32.1	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	97	154925	50.0	46.9	
97 Isopropylbenzene	105	11.395	11.395	0.000	97	450780	50.0	41.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.711	-0.005	78	115157	50.0	44.0	
100 Bromobenzene	156	11.706	11.711	-0.005	96	109130	50.0	42.7	
102 trans-1,4-Dichloro-2-buten	53	11.742	11.748	-0.006	70	8563	50.0	10.1	
101 1,2,3-Trichloropropane	110	11.767	11.760	0.007	87	35672	50.0	42.5	
103 N-Propylbenzene	120	11.815	11.815	0.000	99	128061	50.0	42.1	
104 2-Chlorotoluene	126	11.900	11.900	0.000	95	112543	50.0	43.2	
105 3-Chlorotoluene	126	11.961	11.967	-0.006	96	117967	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	11.997	-0.005	94	373192	50.0	43.6	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	119007	50.0	43.2	
108 tert-Butylbenzene	119	12.308	12.307	0.001	94	295236	50.0	40.3	
110 1,2,4-Trimethylbenzene	105	12.369	12.368	0.001	98	371714	50.0	43.6	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.411	0.000	98	112179	50.0	48.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	439514	50.0	42.5	
113 1,3-Dichlorobenzene	146	12.649	12.654	-0.005	96	198528	50.0	44.5	
114 4-Isopropyltoluene	119	12.691	12.691	0.000	97	352330	50.0	41.7	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	95	203976	50.0	44.6	
116 2,4-Dichloro-1-(triflourom	214	12.776	12.782	-0.006	96	103607	50.0	48.5	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.818	0.001	0	109268	50.0	46.6	
120 n-Butylbenzene	91	13.099	13.098	0.001	98	305299	50.0	42.0	
121 1,2-Dichlorobenzene	146	13.111	13.110	0.001	95	180880	50.0	43.8	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.901	0.001	75	12634	50.0	30.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.047	0.001	0	307986	150.0	117.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.461	0.001	0	184669	100.0	74.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	93	62989	50.0	36.6	
127 Hexachlorobutadiene	225	14.875	14.875	0.000	96	37036	50.0	46.2	
128 Naphthalene	128	14.985	14.990	-0.005	97	151768	50.0	31.9	
129 1,2,3-Trichlorobenzene	180	15.216	15.215	0.001	95	51809	50.0	38.7	
131 2,4,5-Trichlorotoluene	159	15.988	15.988	0.000	0	16860	50.0	27.8	
130 2,3,6-Trichlorotoluene	159	16.092	16.091	0.001	95	16796	50.0	30.7	
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	93.4	
S 133 Xylenes, Total	106				0		100.0	85.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	72.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

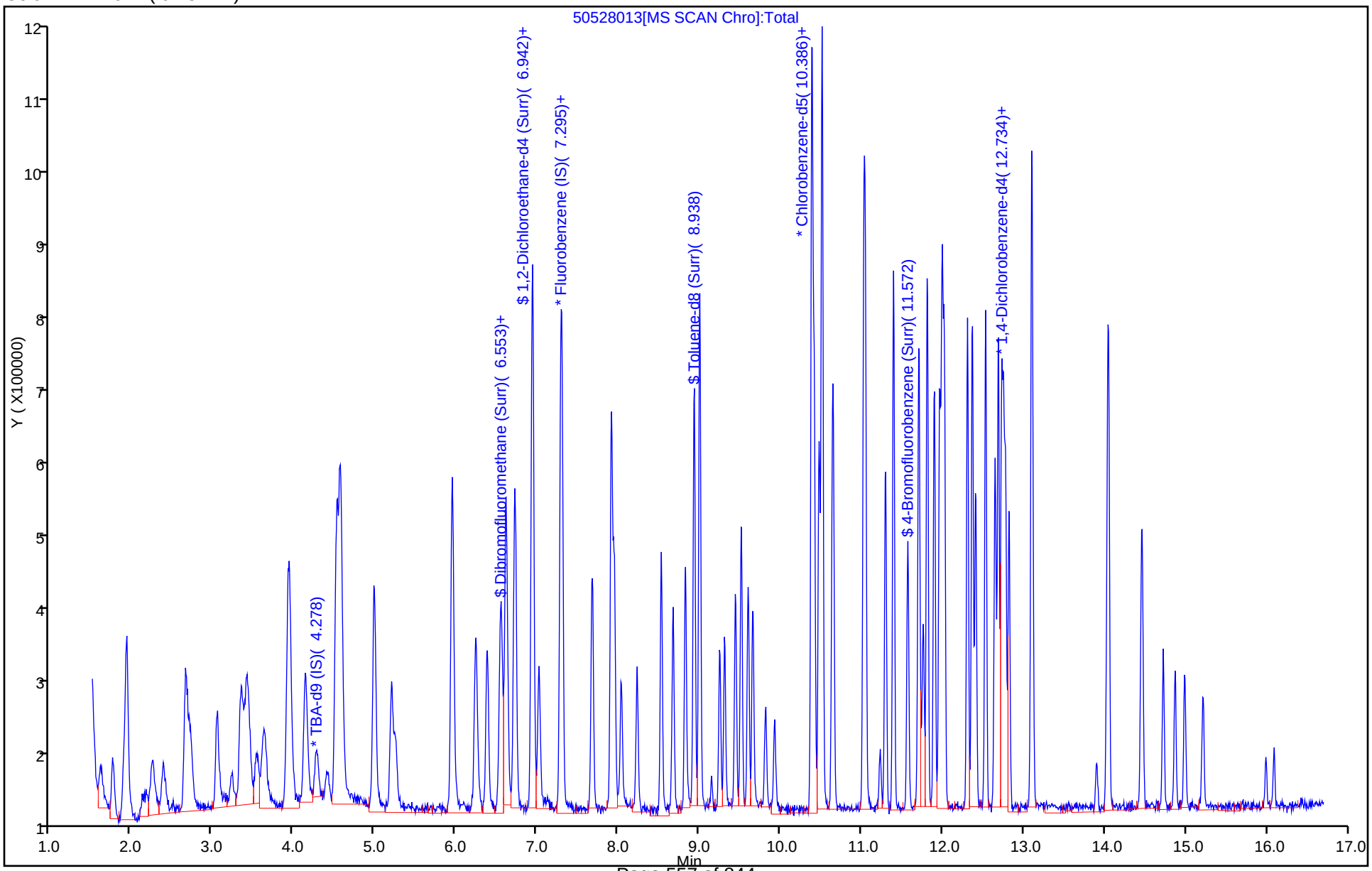
Report Date: 28-May-2015 17:09:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528013.D

Injection Date:	28-May-2015 16:26:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	13
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

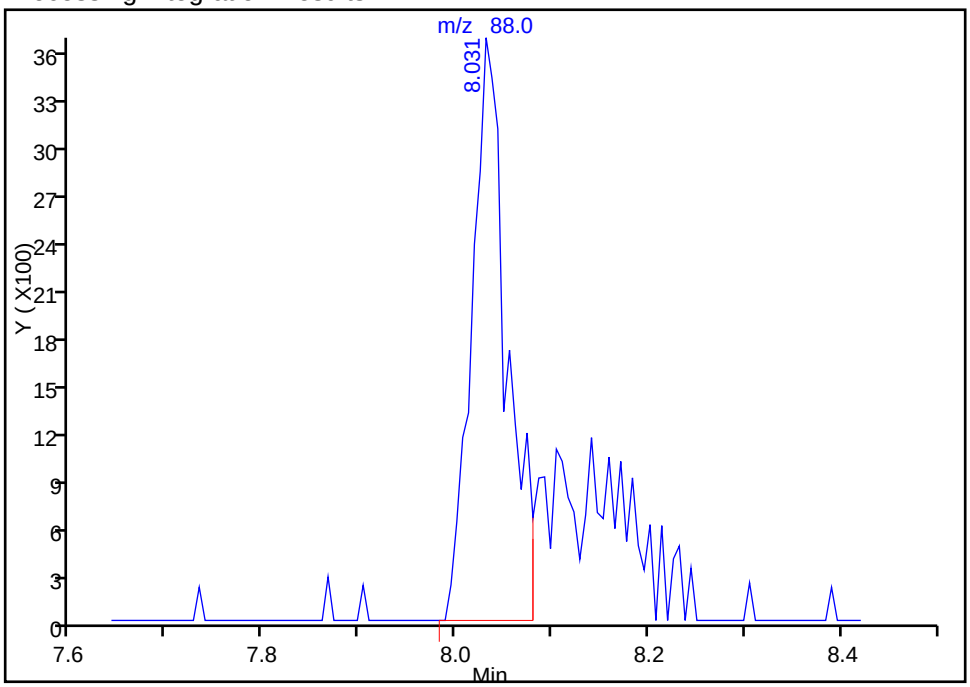
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150528-7155.b\50528013.D
Injection Date: 28-May-2015 16:26:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

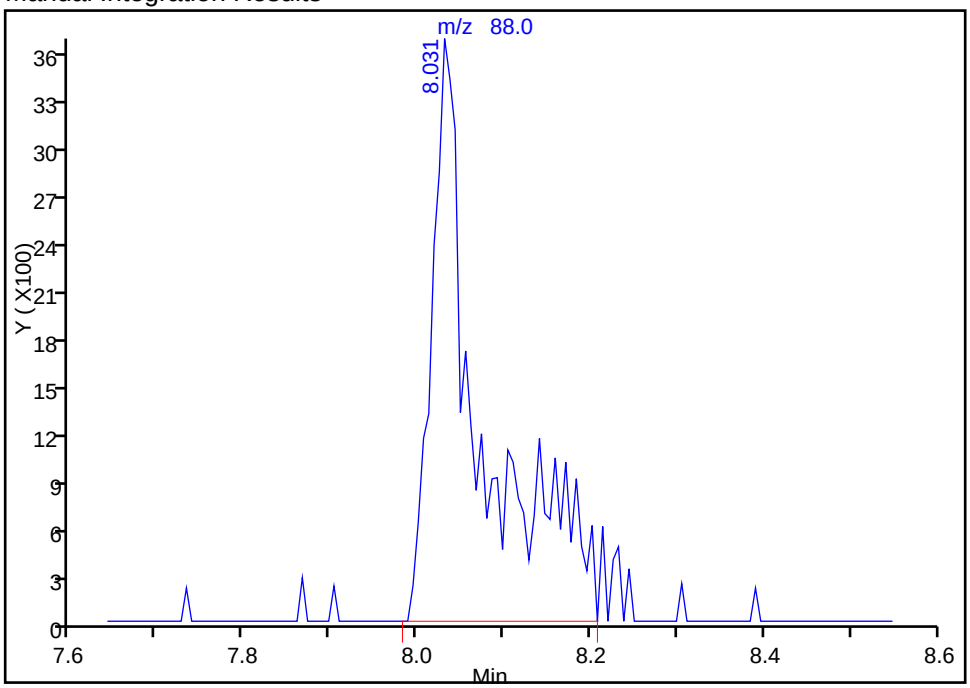
Processing Integration Results

RT: 8.03
Area: 9185
Amount: 444.2092
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 14465
Amount: 699.5630
Amount Units: ng



Reviewer: fergusond, 28-May-2015 16:43:45
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143223/10

Matrix: Water | Lab File ID: 50529010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/29/2015 16:02

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.: 143223 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.96		1.0	0.28
75-01-4	Vinyl chloride	7.77		1.0	0.23
74-83-9	Bromomethane	9.50		1.0	0.31
75-00-3	Chloroethane	9.95		1.0	0.21
75-35-4	1,1-Dichloroethene	11.0		1.0	0.30
67-64-1	Acetone	18.2		5.0	2.5
75-15-0	Carbon disulfide	9.33		1.0	0.21
75-09-2	Methylene Chloride	12.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.6		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.25		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.61		1.0	0.24
74-97-5	Bromochloromethane	8.74		1.0	0.18
78-93-3	2-Butanone (MEK)	17.0		5.0	0.55
67-66-3	Chloroform	10.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.97		1.0	0.29
56-23-5	Carbon tetrachloride	9.15		1.0	0.14
71-43-2	Benzene	10.8		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	8.99		1.0	0.14
78-87-5	1,2-Dichloropropane	9.59		1.0	0.095
75-27-4	Bromodichloromethane	8.59		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.76		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.9		5.0	0.53
108-88-3	Toluene	11.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.68		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	11.3		1.0	0.15
591-78-6	2-Hexanone	16.3		5.0	0.16
124-48-1	Dibromochloromethane	8.39		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.40		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.69		1.0	0.28
100-41-4	Ethylbenzene	9.97		1.0	0.23
1330-20-7	Xylenes, Total	19.3		3.0	0.49
100-42-5	Styrene	9.80		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143223/10

Matrix: Water | Lab File ID: 50529010.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/29/2015 16:02

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.: 143223 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.05		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.88		1.0	0.20
107-13-1	Acrylonitrile	97.2		20	0.55
123-91-1	1,4-Dioxane	151	J	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)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	92		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529010.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-May-2015 16:02:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007177-010
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 17:36:16 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK030

First Level Reviewer: fergusond Date: 29-May-2015 17:36:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.272	0.003	0	120748	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.289	-0.003	98	452170	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.383	10.392	-0.009	87	97813	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.725	12.728	-0.003	95	140638	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.562	0.000	93	89308	50.0	45.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.927	0.006	0	113705	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	94	359304	50.0	49.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.569	0.000	88	121400	50.0	46.6	
11 Dichlorodifluoromethane	85	1.616	1.617	-0.001	99	128500	50.0	41.1	
12 Chloromethane	50	1.768	1.769	-0.001	99	138381	50.0	34.8	
13 Vinyl chloride	62	1.902	1.903	-0.001	98	139322	50.0	38.9	
14 Butadiene	39	1.939	1.939	0.000	99	175788	50.0	42.5	
15 Bromomethane	94	2.267	2.237	0.030	92	78052	50.0	47.5	
16 Chloroethane	64	2.395	2.389	0.006	98	94500	50.0	49.7	
17 Dichlorofluoromethane	67	2.669	2.663	0.006	97	223421	50.0	52.0	
18 Trichlorofluoromethane	101	2.711	2.706	0.005	97	182149	50.0	45.0	
20 Ethyl ether	59	3.046	3.046	0.000	95	117254	50.0	51.3	
21 Acrolein	56	3.222	3.229	-0.007	96	38531	150.0	101.0	
22 1,1-Dichloroethene	96	3.344	3.344	0.000	98	118686	50.0	54.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.417	3.423	-0.006	93	129157	50.0	57.0	
24 Acetone	43	3.441	3.442	-0.001	75	81175	100.0	91.0	
25 Iodomethane	142	3.527	3.527	0.000	97	168685	50.0	50.8	
26 Carbon disulfide	76	3.624	3.624	0.000	100	269288	50.0	46.6	
28 3-Chloro-1-propene	76	3.916	3.904	0.012	89	60973	50.0	42.3	
30 Methyl acetate	43	3.940	3.934	0.006	99	524507	250.0	247.7	
31 Methylene Chloride	84	4.141	4.141	0.000	96	160396	50.0	64.3	
32 2-Methyl-2-propanol	59	4.403	4.403	0.000	88	63603	500.0	471.3	
33 Acrylonitrile	53	4.518	4.518	0.000	99	519796	500.0	486.1	
34 trans-1,2-Dichloroethene	96	4.567	4.561	0.006	99	126811	50.0	52.9	
35 Methyl tert-butyl ether	73	4.573	4.573	0.000	95	272734	50.0	41.3	
36 Hexane	57	4.987	4.987	0.000	96	189047	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.200	5.200	0.000	96	234101	50.0	51.7	
38 Vinyl acetate	43	5.248	5.242	0.006	98	206216	50.0	40.5	
44 2,2-Dichloropropane	77	5.948	5.942	0.006	60	100710	50.0	43.9	
45 cis-1,2-Dichloroethene	96	5.954	5.948	0.006	83	127347	50.0	48.0	
46 2-Butanone (MEK)	43	5.954	5.954	0.000	66	114850	100.0	84.8	
49 Chlorobromomethane	128	6.240	6.234	0.006	94	51602	50.0	43.7	
51 Tetrahydrofuran	42	6.246	6.246	0.000	88	75462	100.0	81.9	
52 Chloroform	83	6.380	6.380	0.000	94	203260	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.538	6.538	0.000	97	156612	50.0	49.8	
54 Cyclohexane	56	6.611	6.617	-0.006	94	240234	50.0	50.5	
56 Carbon tetrachloride	117	6.714	6.708	0.006	97	129469	50.0	45.7	
55 1,1-Dichloropropene	75	6.727	6.727	-0.001	94	177942	50.0	53.8	
57 Isobutyl alcohol	41	6.927	6.927	0.000	79	86790	1250.0	1029.0	
58 Benzene	78	6.939	6.940	-0.001	98	542358	50.0	53.8	
59 1,2-Dichloroethane	62	7.025	7.019	0.006	96	157338	50.0	52.3	
62 n-Heptane	43	7.311	7.305	0.006	93	166509	50.0	49.6	
64 Trichloroethene	130	7.676	7.676	0.000	97	116085	50.0	45.0	
66 Methylcyclohexane	83	7.913	7.913	0.000	92	204686	50.0	48.1	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	92	125472	50.0	47.9	
68 Dibromomethane	93	8.041	8.035	0.006	94	67962	50.0	50.8	
70 1,4-Dioxane	88	8.034	8.035	-0.001	35	15120	1000.0	757.2	M
71 Dichlorobromomethane	83	8.229	8.229	0.000	98	125193	50.0	42.9	
73 2-Chloroethyl vinyl ether	63	8.527	8.527	0.000	92	126695	100.0	84.8	
74 cis-1,3-Dichloropropene	75	8.673	8.673	0.000	92	143792	50.0	38.8	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.826	-0.001	98	213714	100.0	84.6	
76 Toluene	91	9.002	9.002	0.000	97	527786	50.0	56.6	
77 trans-1,3-Dichloropropene	75	9.251	9.251	0.000	98	108543	50.0	38.4	
78 Ethyl methacrylate	69	9.312	9.312	0.000	91	112655	50.0	40.0	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	91	96148	50.0	54.6	
80 Tetrachloroethene	164	9.513	9.519	-0.006	94	98904	50.0	56.4	
81 1,3-Dichloropropane	76	9.598	9.598	0.000	95	167154	50.0	50.2	
82 2-Hexanone	43	9.659	9.659	0.000	99	146458	100.0	81.6	
84 Chlorodibromomethane	129	9.817	9.817	0.000	91	72526	50.0	42.0	
85 Ethylene Dibromide	107	9.926	9.927	-0.001	97	85063	50.0	47.0	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	90	158956	50.0	50.1	
87 Chlorobenzene	112	10.413	10.413	0.000	94	311469	50.0	51.6	
88 4-Chlorobenzotrifluoride	180	10.474	10.480	-0.006	96	148586	50.0	50.7	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.511	-0.001	92	98099	50.0	48.4	
90 Ethylbenzene	106	10.517	10.517	-0.001	99	175177	50.0	49.9	
91 m-Xylene & p-Xylene	106	10.644	10.644	0.000	0	210622	50.0	49.5	
92 o-Xylene	106	11.028	11.028	0.000	97	197660	50.0	47.1	
93 Styrene	104	11.046	11.046	0.000	95	324544	50.0	49.0	
94 Bromoform	173	11.228	11.228	0.000	95	39238	50.0	35.3	
96 2-Chlorobenzotrifluoride	180	11.295	11.295	0.000	96	153649	50.0	48.9	
97 Isopropylbenzene	105	11.393	11.393	0.000	97	486243	50.0	47.4	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.703	0.006	78	122952	50.0	49.4	
100 Bromobenzene	156	11.709	11.709	0.000	95	112081	50.0	43.1	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.746	-0.007	75	24421	50.0	28.3	
101 1,2,3-Trichloropropane	110	11.758	11.764	-0.006	86	39372	50.0	46.1	
103 N-Propylbenzene	120	11.812	11.813	0.000	99	145804	50.0	47.1	
104 2-Chlorotoluene	126	11.897	11.898	-0.001	95	121308	50.0	45.7	
105 3-Chlorotoluene	126	11.958	11.965	-0.007	97	119787	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	11.995	11.995	0.000	94	411919	50.0	47.3	
107 4-Chlorotoluene	126	12.019	12.025	-0.006	98	131910	50.0	47.1	
108 tert-Butylbenzene	119	12.311	12.305	0.006	94	310959	50.0	41.8	
110 1,2,4-Trimethylbenzene	105	12.366	12.366	0.000	97	398081	50.0	45.8	
111 1,2-dichloro-4-(trifluorom	214	12.408	12.409	-0.001	98	116906	50.0	50.0	
112 sec-Butylbenzene	105	12.530	12.530	0.000	95	475684	50.0	45.3	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	214151	50.0	47.2	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	97	386005	50.0	44.9	
115 1,4-Dichlorobenzene	146	12.755	12.755	0.000	95	216997	50.0	46.6	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	96	102884	50.0	47.3	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.822	0.000	0	119242	50.0	50.0	
120 n-Butylbenzene	91	13.096	13.096	0.000	99	336406	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.108	13.108	0.000	95	195682	50.0	46.5	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.899	0.006	73	14384	50.0	34.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.045	0.000	0	323873	150.0	121.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.459	0.000	0	194491	100.0	77.4	
126 1,2,4-Trichlorobenzene	180	14.720	14.720	0.000	92	68446	50.0	39.1	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	93	42407	50.0	52.0	
128 Naphthalene	128	14.988	14.988	0.000	98	158609	50.0	32.7	
129 1,2,3-Trichlorobenzene	180	15.213	15.213	0.000	94	58362	50.0	42.8	
131 2,4,5-Trichlorotoluene	159	15.986	15.992	-0.006	0	15170	50.0	24.6	
130 2,3,6-Trichlorotoluene	159	16.089	16.089	0.000	95	16199	50.0	29.1	
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	100.9	
S 133 Xylenes, Total	106				0		100.0	96.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	77.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
VOACEVE2ND_00001	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

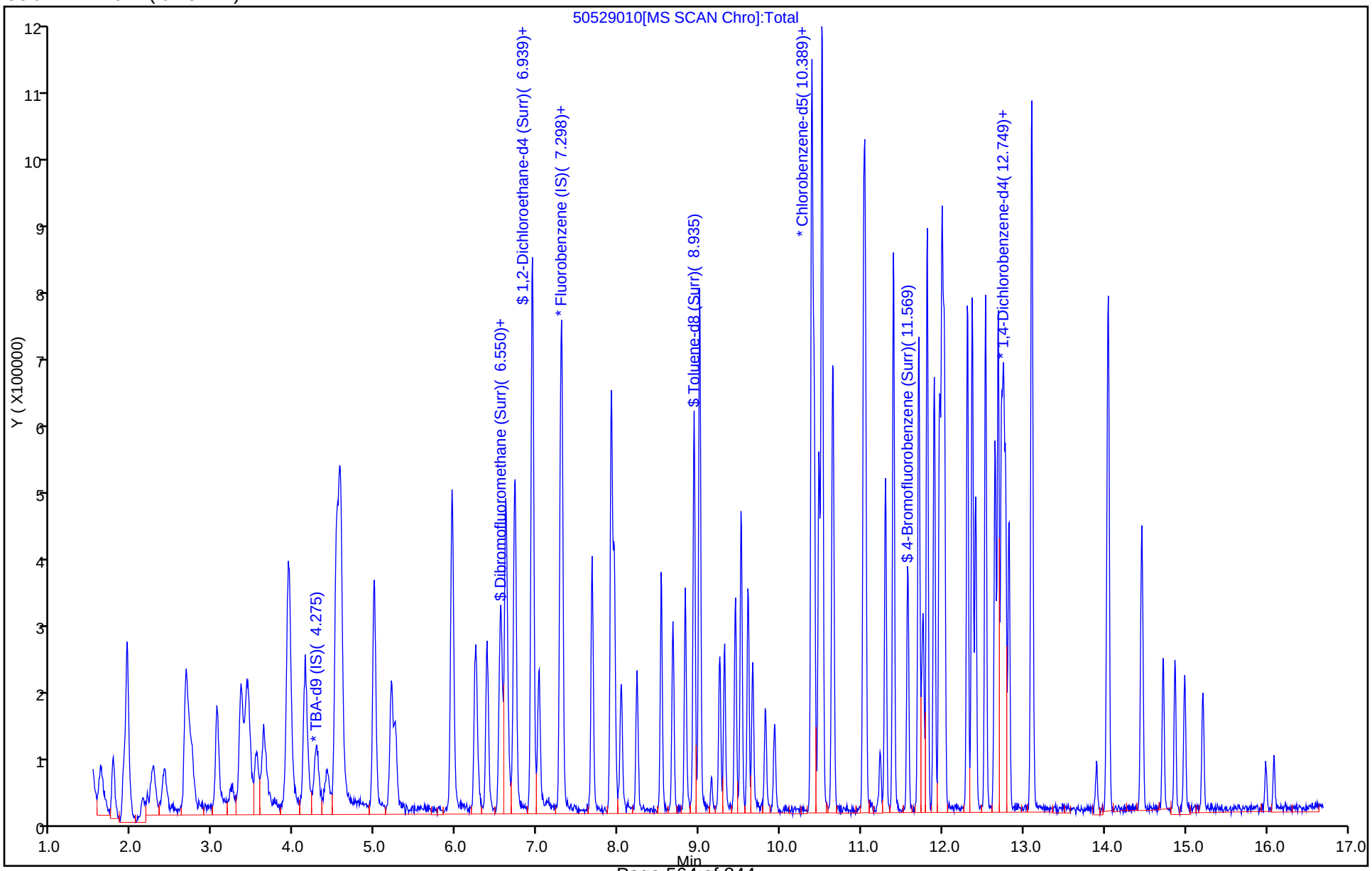
Report Date: 29-May-2015 17:36:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529010.D

Injection Date:	29-May-2015 16:02:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

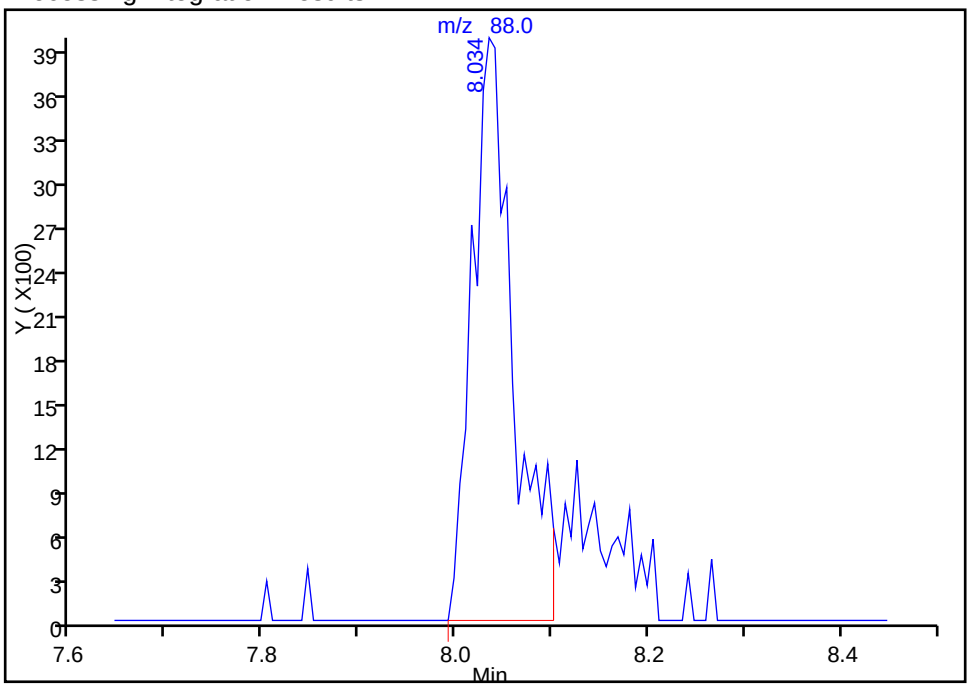
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150529-7177.b\50529010.D
Injection Date: 29-May-2015 16:02:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

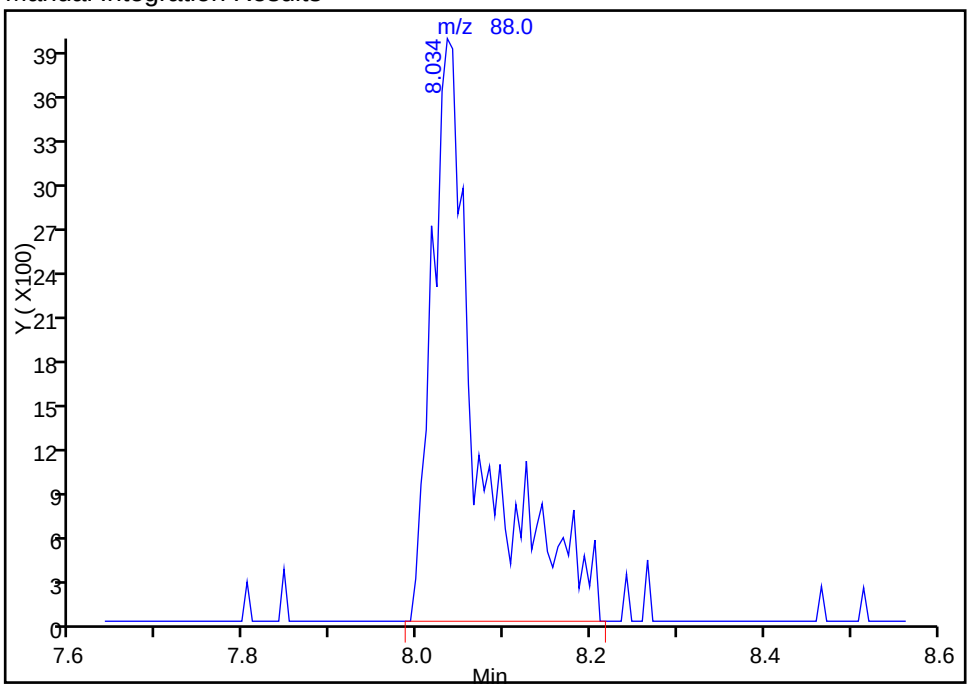
Processing Integration Results

RT: 8.03
Area: 11744
Amount: 588.0952
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 15120
Amount: 757.1525
Amount Units: ng



Reviewer: fergusond, 29-May-2015 16:22:33
Audit Action: Manually Integrated
Audit Reason: Peak Tail

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/16/2015 10:39

Analysis Batch Number: 141828 End Date: 05/16/2015 19:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-141828/3		05/16/2015 10:39	1	50516003.D	DB-624 0.18(mm)
IC 180-141828/6		05/16/2015 14:25	1	50516006.D	DB-624 0.18(mm)
ICIS 180-141828/7		05/16/2015 14:49	1	50516007.D	DB-624 0.18(mm)
IC 180-141828/8		05/16/2015 15:13	1	50516008.D	DB-624 0.18(mm)
IC 180-141828/9		05/16/2015 15:37	1	50516009.D	DB-624 0.18(mm)
IC 180-141828/10		05/16/2015 16:01	1	50516010.D	DB-624 0.18(mm)
IC 180-141828/11		05/16/2015 16:25	1	50516011.D	DB-624 0.18(mm)
IC 180-141828/12		05/16/2015 16:49	1	50516012.D	DB-624 0.18(mm)
IC 180-141828/16		05/16/2015 18:25	1	50516016.D	DB-624 0.18(mm)
LODV 180-141828/17		05/16/2015 18:49	1		DB-624 0.18(mm)
ICV 180-141828/18		05/16/2015 19:13	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/26/2015 10:08

Analysis Batch Number: 142745 End Date: 05/26/2015 22:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-142745/1		05/26/2015 10:08	1	50526001.D	DB-624 0.18(mm)
CCVIS 180-142745/2		05/26/2015 10:48	1	50526002.D	DB-624 0.18(mm)
CCV 180-142745/3		05/26/2015 11:12	1	50526003.D	DB-624 0.18(mm)
LODV 180-142745/4		05/26/2015 11:36	1		DB-624 0.18(mm)
MB 180-142745/5		05/26/2015 12:00	1	50526005.D	DB-624 0.18(mm)
ZZZZZ		05/26/2015 13:05	1		DB-624 0.18(mm)
LCS 180-142745/8		05/26/2015 13:29	1	50526008.D	DB-624 0.18(mm)
ZZZZZ		05/26/2015 14:07	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 14:31	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 14:55	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 15:42	2		DB-624 0.18(mm)
ZZZZZ		05/26/2015 16:06	2		DB-624 0.18(mm)
ZZZZZ		05/26/2015 16:30	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 17:18	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 18:05	5		DB-624 0.18(mm)
ZZZZZ		05/26/2015 18:30	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 19:18	10		DB-624 0.18(mm)
ZZZZZ		05/26/2015 19:42	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:06	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:30	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:54	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 21:18	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 21:42	1		DB-624 0.18(mm)
180-44248-1	HD-MW-99D-0/1-0	05/26/2015 22:06	5	50526029.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/27/2015 11:07

Analysis Batch Number: 142864 End Date: 05/28/2015 00:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-142864/6		05/27/2015 11:07	1	50527006.D	DB-624 0.18(mm)
CCVIS 180-142864/7		05/27/2015 12:33	1	50527007.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 12:33	1		DB-624 0.18(mm)
MB 180-142864/9		05/27/2015 13:22	1	50527009.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 14:02	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 14:27	1		DB-624 0.18(mm)
LCS 180-142864/12		05/27/2015 14:50	1	50527012.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 15:15	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 15:38	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 16:26	1		DB-624 0.18(mm)
180-44248-2	HD-MW-100S-0/1-0	05/27/2015 16:50	2	50527017.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 17:14	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 17:37	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 18:02	1		DB-624 0.18(mm)
180-44248-3	HD-MW-100I-0/1-0	05/27/2015 18:50	1	50527022.D	DB-624 0.18(mm)
180-44248-5	HD-MW-147A-0/1-0	05/27/2015 20:02	1	50527025.D	DB-624 0.18(mm)
180-44248-6 DL	HD-MW-37S-0/1-0 DL	05/27/2015 20:26	10	50527026.D	DB-624 0.18(mm)
180-44248-11	HD-QC2-0/1-0	05/27/2015 20:50	1	50527027.D	DB-624 0.18(mm)
180-44248-7	HD-MW-37D-0/1-0	05/27/2015 21:14	12.5	50527028.D	DB-624 0.18(mm)
180-44248-8	HD-MW-75S-0/1-0	05/27/2015 21:38	50	50527029.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 22:50	100		DB-624 0.18(mm)
ZZZZZ		05/28/2015 00:01	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/28/2015 11:26

Analysis Batch Number: 143033 End Date: 05/28/2015 23:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143033/4		05/28/2015 11:26	1	50528004.D	DB-624 0.18(mm)
CCVIS 180-143033/2		05/28/2015 12:06	1	50528002.D	DB-624 0.18(mm)
ZZZZZ		05/28/2015 12:06	1		DB-624 0.18(mm)
MB 180-143033/6		05/28/2015 13:18	1	50528006.D	DB-624 0.18(mm)
ZZZZZ		05/28/2015 14:00	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 14:24	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 15:14	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 15:38	1		DB-624 0.18(mm)
LCS 180-143033/13		05/28/2015 16:26	1	50528013.D	DB-624 0.18(mm)
180-44248-4	HD-MW-100D-0/1-0	05/28/2015 16:49	1	50528014.D	DB-624 0.18(mm)
ZZZZZ		05/28/2015 17:13	250		DB-624 0.18(mm)
180-44248-7 DL	HD-MW-37D-0/1-0 DL	05/28/2015 17:36	25	50528016.D	DB-624 0.18(mm)
180-44248-8 DL	HD-MW-75S-0/1-0 DL	05/28/2015 18:01	500	50528017.D	DB-624 0.18(mm)
180-44248-9 DL	HD-MW-75D-0/1-0 DL	05/28/2015 18:49	400	50528019.D	DB-624 0.18(mm)
180-44248-10	HD-MW-7-0/1-0	05/28/2015 19:13	10	50528020.D	DB-624 0.18(mm)
ZZZZZ		05/28/2015 19:37	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 20:01	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 20:25	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 20:49	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 21:13	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 21:37	1		DB-624 0.18(mm)
ZZZZZ		05/28/2015 22:01	3		DB-624 0.18(mm)
ZZZZZ		05/28/2015 22:25	1		DB-624 0.18(mm)
180-44248-6	HD-MW-37S-0/1-0	05/28/2015 23:13	1	50528030.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/29/2015 12:45

Analysis Batch Number: 143223 End Date: 05/30/2015 00:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143223/5		05/29/2015 12:45	1	50529005.D	DB-624 0.18(mm)
CCVIS 180-143223/2		05/29/2015 13:25	1	50529002.D	DB-624 0.18(mm)
ZZZZZ		05/29/2015 13:25	1		DB-624 0.18(mm)
CCV 180-143223/3		05/29/2015 13:49	1	50529003.D	DB-624 0.18(mm)
LODV 180-143223/6		05/29/2015 14:14	1		DB-624 0.18(mm)
MB 180-143223/7		05/29/2015 14:38	1	50529007.D	DB-624 0.18(mm)
ZZZZZ		05/29/2015 15:14	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 15:38	1		DB-624 0.18(mm)
LCS 180-143223/10		05/29/2015 16:02	1	50529010.D	DB-624 0.18(mm)
ZZZZZ		05/29/2015 16:27	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 16:50	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 17:38	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 18:02	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 21:38	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 22:02	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 22:26	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 22:50	1		DB-624 0.18(mm)
ZZZZZ		05/29/2015 23:15	2		DB-624 0.18(mm)
ZZZZZ		05/29/2015 23:39	1		DB-624 0.18(mm)
ZZZZZ		05/30/2015 00:03	1		DB-624 0.18(mm)
180-44248-9	HD-MW-75D-0/1-0	05/30/2015 00:27	40	50529031.D	DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-20-2015-5.d

Lab ID: LCS 180-142275/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.58	103	90-110	
Chloride	50.0	51.6	103	90-110	
Sulfate	50.0	51.0	102	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-20-2015-13.d

Lab ID: 180-44248-10 MS Client ID: HD-MW-7-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	1.4	2.73	108	80-120	
Chloride	25.0	56	85.1	115	80-120	
Sulfate	25.0	13	38.9	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-20-2015-14.d

Lab ID: 180-44248-10 MSD Client ID: HD-MW-7-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	2.67	103	3	20	80-120	
Chloride	25.0	83.4	108	2	20	80-120	
Sulfate	25.0	38.7	104	0	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: A-ICS2100 A 05-20-2015-6.d Lab Sample ID: MB 180-142275/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/20/2015 12:49

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-142275/4	A-ICS2100 A 05-20-2015-4.d	05/20/2015 12:19
	LCS 180-142275/5	A-ICS2100 A 05-20-2015-5.d	05/20/2015 12:34
HD-MW-100S-0/1-0	180-44248-2	A-ICS2100 A 05-20-2015-7.d	05/20/2015 13:05
HD-MW-147A-0/1-0	180-44248-5	A-ICS2100 A 05-20-2015-8.d	05/20/2015 13:20
HD-MW-37D-0/1-0	180-44248-7	A-ICS2100 A 05-20-2015-10.d	05/20/2015 14:11
HD-MW-75S-0/1-0	180-44248-8	A-ICS2100 A 05-20-2015-11.d	05/20/2015 14:28
HD-MW-7-0/1-0	180-44248-10	A-ICS2100 A 05-20-2015-12.d	05/20/2015 14:45
HD-MW-7-0/1-0 MS	180-44248-10 MS	A-ICS2100 A 05-20-2015-13.d	05/20/2015 15:00
HD-MW-7-0/1-0 MSD	180-44248-10 MSD	A-ICS2100 A 05-20-2015-14.d	05/20/2015 15:16
	CCB 180-142275/16	A-ICS2100 A 05-20-2015-16.d	05/20/2015 17:04
HD-MW-37S-0/1-0	180-44248-6	A-ICS2100 A 05-20-2015-17.d	05/20/2015 17:27
HD-MW-99D-0/1-0	180-44248-1	A-ICS2100 A 05-20-2015-18.d	05/20/2015 17:42
HD-MW-100I-0/1-0	180-44248-3	A-ICS2100 A 05-20-2015-19.d	05/20/2015 17:58
HD-MW-100D-0/1-0	180-44248-4	A-ICS2100 A 05-20-2015-20.d	05/20/2015 18:13
HD-MW-75D-0/1-0	180-44248-9	A-ICS2100 A 05-20-2015-21.d	05/20/2015 18:28

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab File ID: A-ICS2100 A 05-20-2015-6.d Lab Sample ID: MB 180-142275/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/20/2015 12:49

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-142275/29	A-ICS2100 A 05-20-2015-28.d	05/20/2015 20:26

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-99D-0/1-0 | Lab Sample ID: 180-44248-1

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-18.d

Analysis Method: 300.0 | Date Collected: 05/19/2015 09:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 17:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5	B	0.10	0.0062
16887-00-6	Chloride	77		1.0	0.20
14808-79-8	Sulfate	30		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

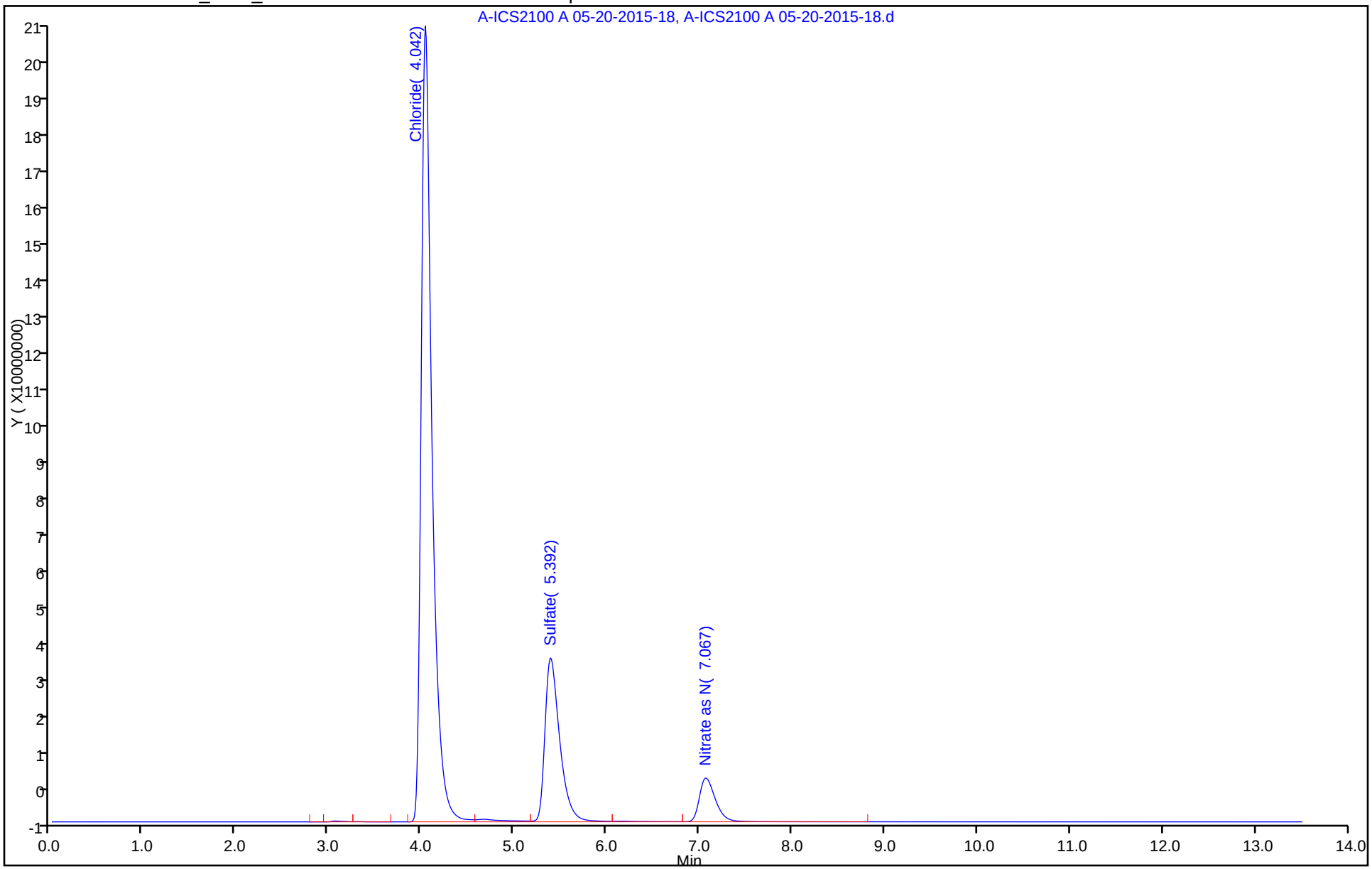
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-18.d				
Lims ID:	180-44248-A-1	Lab Sample ID:	180-44248-1		
Client ID:	HD-MW-99D-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 17:42:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-017				
Misc. Info.:	28 180-44248-a-1				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	21-May-2015 09:41:46	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK013				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	1663837149	77.4	
3 Sulfate	5.392	5.367	0.025	469281701	29.8	
5 Nitrate as N	7.067	7.067	0.000	136294849	2.55	

Report Date: 21-May-2015 09:41:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-18.d				
Injection Date:	20-May-2015 17:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-1	Lab Sample ID:	180-44248-1	Worklist Smp#:	18
Client ID:	HD-MW-99D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-44248-2

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-7.d

Analysis Method: 300.0 Date Collected: 05/19/2015 10:20

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 13:05

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.7	B	0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-7.d				
Lims ID:	180-44248-A-2	Lab Sample ID:	180-44248-2		
Client ID:	HD-MW-100S-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 13:05:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-007				
Misc. Info.:	18 180-44248-a-2				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:27:26	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK002				

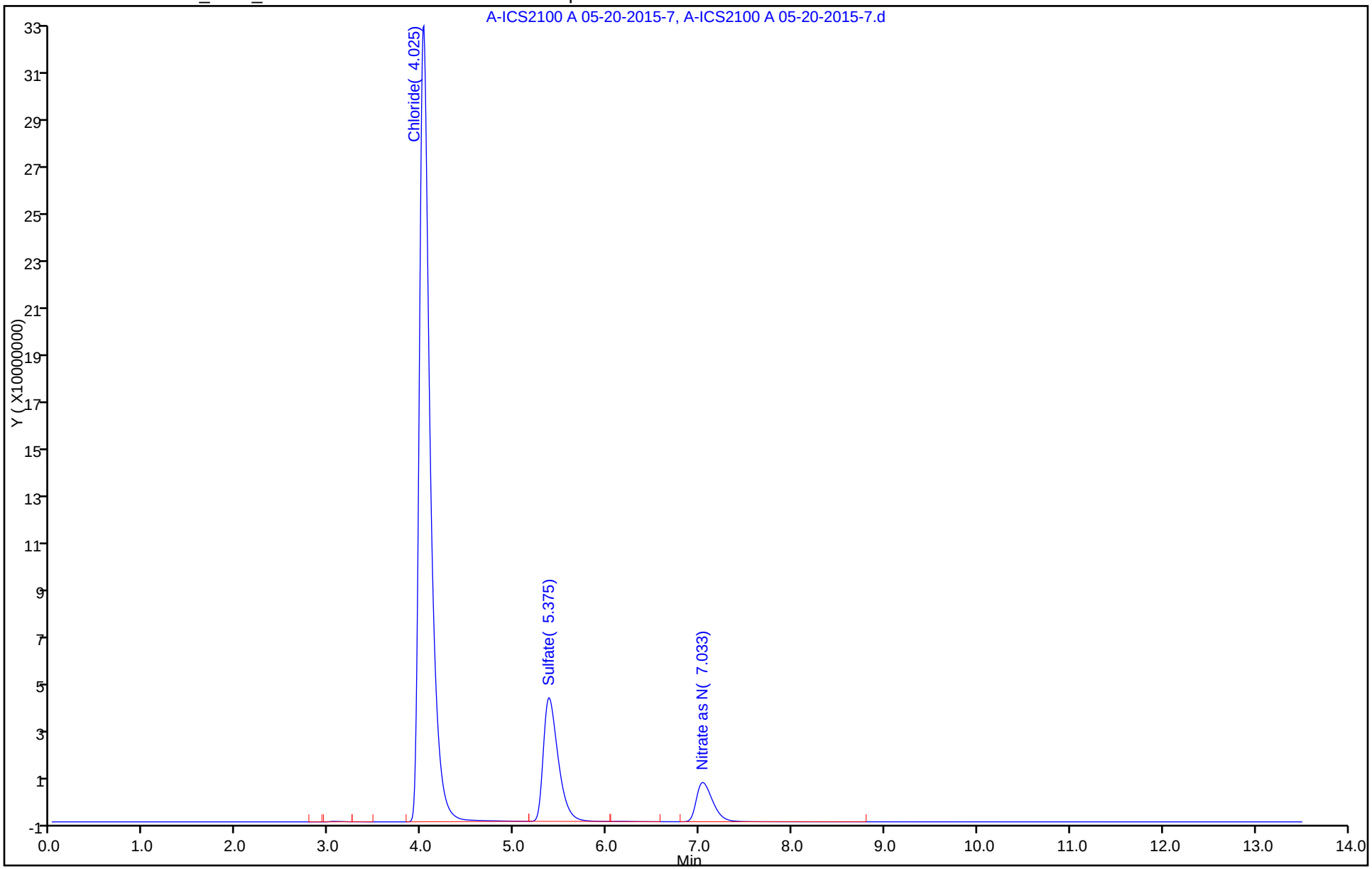
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	2694228032	125.3	
3 Sulfate	5.375	5.367	0.008	570049436	36.3	
5 Nitrate as N	7.033	7.058	-0.025	200249476	3.74	

Report Date: 20-May-2015 17:27:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-7.d

Injection Date:	20-May-2015 13:05:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-2	Lab Sample ID:	180-44248-2	Worklist Smp#:	7
Client ID:	HD-MW-100S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100I-0/1-0 | Lab Sample ID: 180-44248-3

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-19.d

Analysis Method: 300.0 | Date Collected: 05/19/2015 10:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 17:58

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.9	B	0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	37		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-19.d
Lims ID: 180-44248-A-3 Lab Sample ID: 180-44248-3
Client ID: HD-MW-100I-0/1-0
Sample Type: Client
Inject. Date: 20-May-2015 17:58:00 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-019
Misc. Info.: 29 180-44248-a-3
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:46 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK013

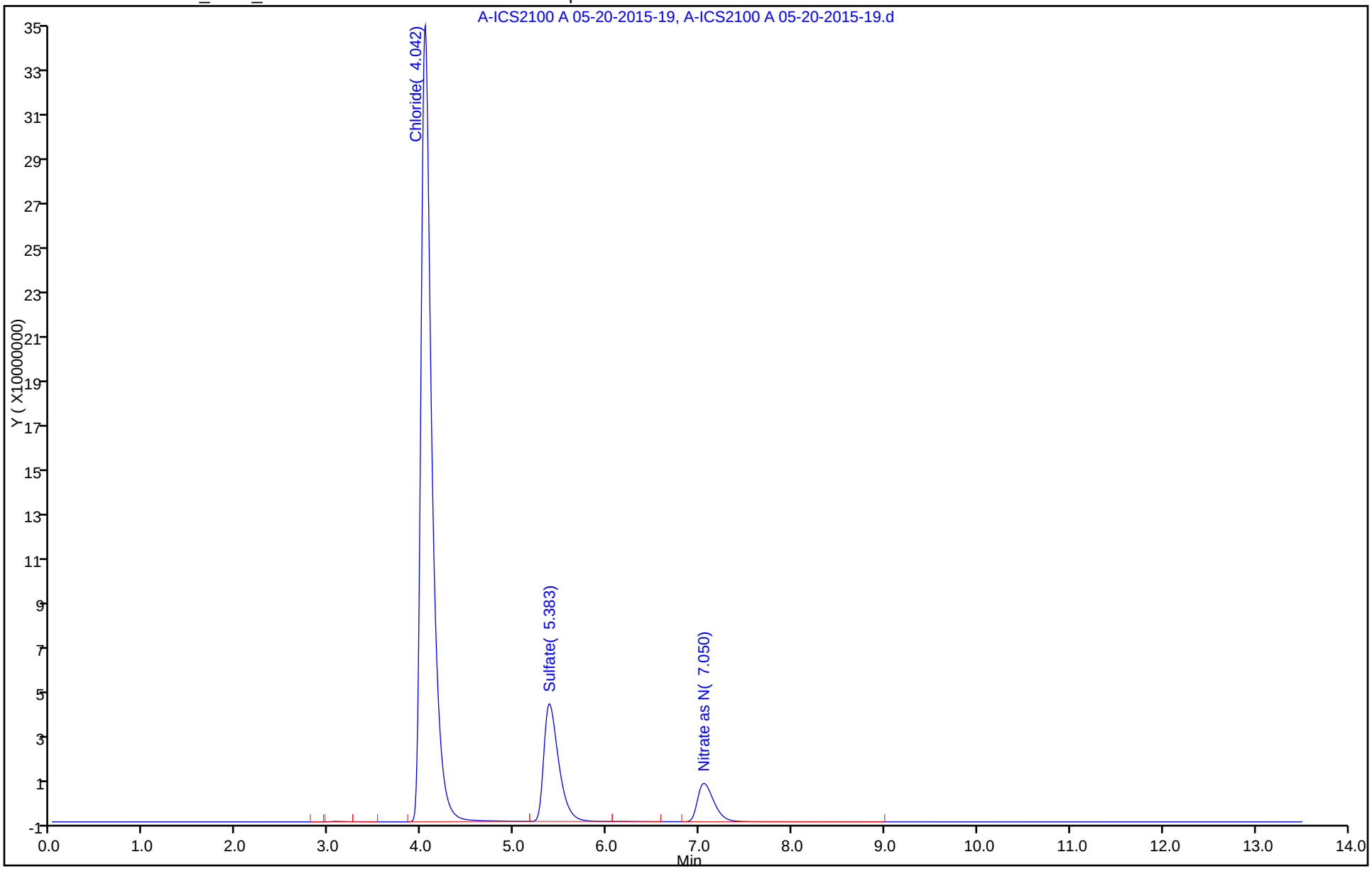
First Level Reviewer: hartmanm Date: 20-May-2015 18:32:33

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	2863224707	133.1	
3 Sulfate	5.383	5.367	0.016	573824188	36.5	
5 Nitrate as N	7.050	7.067	-0.017	207711507	3.88	

Report Date: 21-May-2015 09:41:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-19.d				
Injection Date:	20-May-2015 17:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-3	Lab Sample ID:	180-44248-3	Worklist Smp#:	19
Client ID:	HD-MW-100I-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-44248-4

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-20.d

Analysis Method: 300.0 Date Collected: 05/19/2015 11:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 18:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.6	B	0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

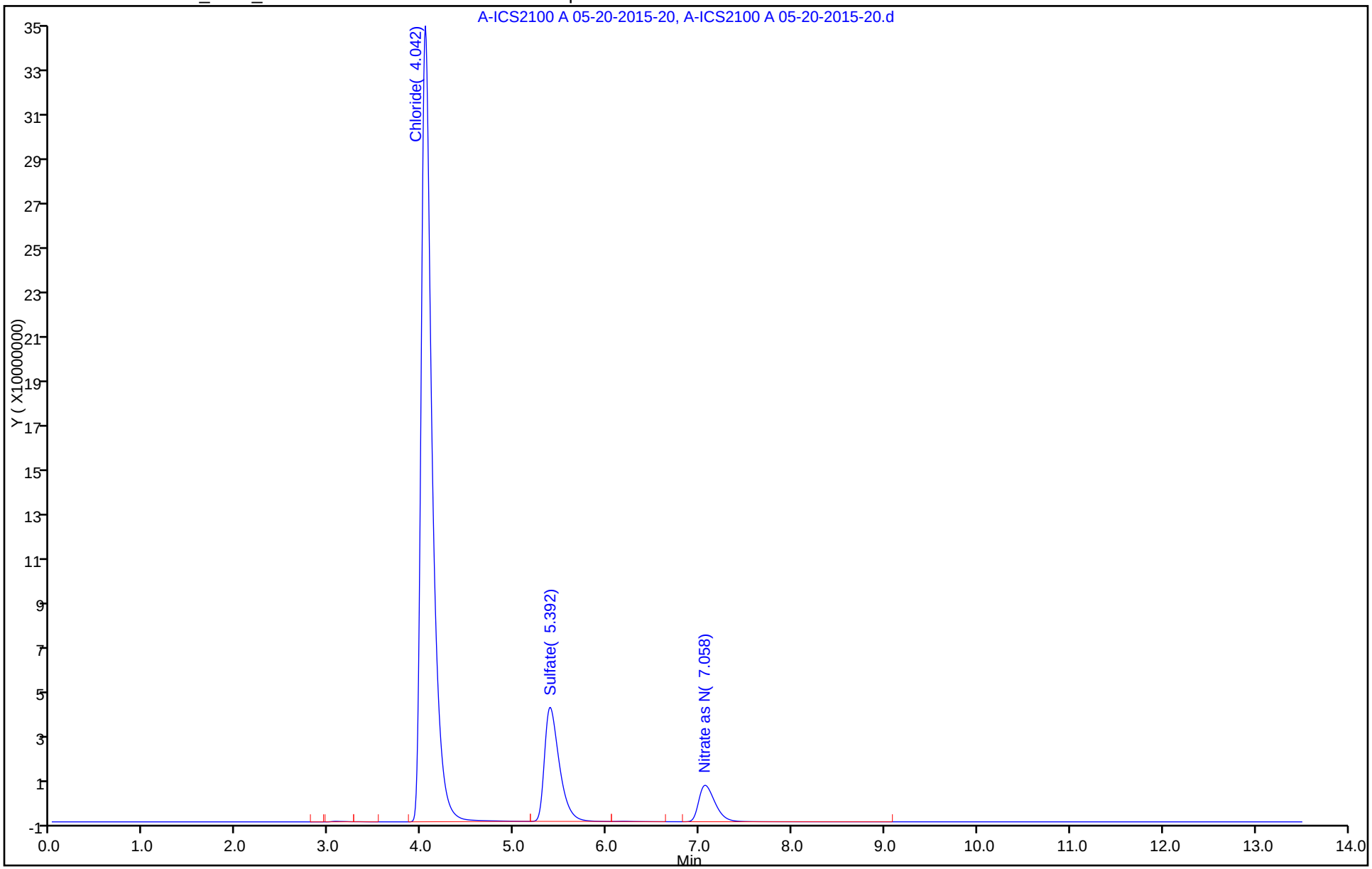
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-20.d				
Lims ID:	180-44248-A-4	Lab Sample ID:	180-44248-4		
Client ID:	HD-MW-100D-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 18:13:00	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-020				
Misc. Info.:	30 180-44248-a-4				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	21-May-2015 09:41:46	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK013				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	2813321147	130.8	
3 Sulfate	5.392	5.367	0.025	545918287	34.7	
5 Nitrate as N	7.058	7.067	-0.009	193085487	3.60	

Report Date: 21-May-2015 09:41:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-20.d				
Injection Date:	20-May-2015 18:13:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-4	Lab Sample ID:	180-44248-4	Worklist Smp#:	20
Client ID:	HD-MW-100D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-147A-0/1-0 | Lab Sample ID: 180-44248-5

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-8.d

Analysis Method: 300.0 | Date Collected: 05/19/2015 12:30

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 13:20

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.6	B	0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

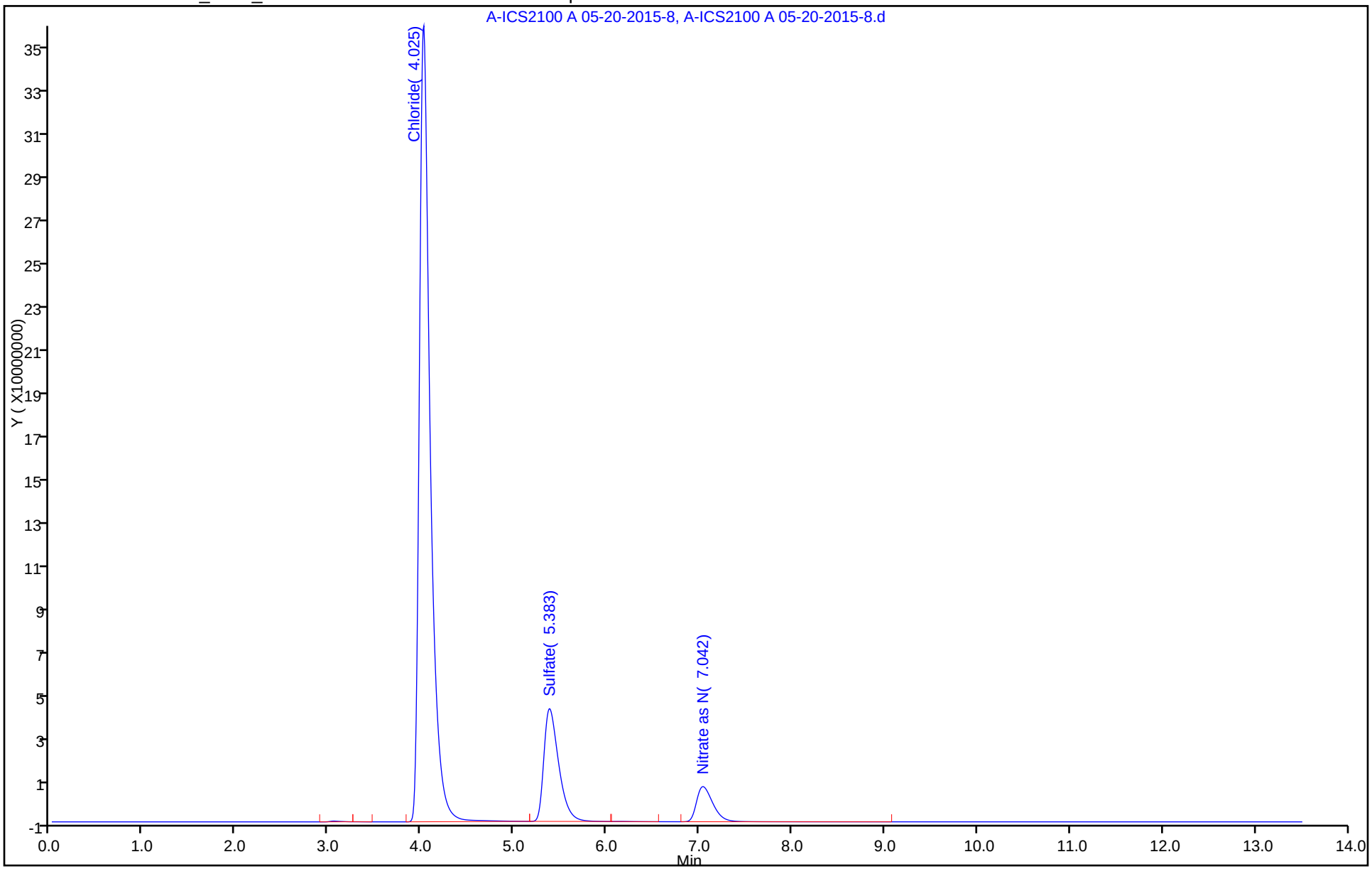
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-8.d				
Lims ID:	180-44248-A-5	Lab Sample ID:	180-44248-5		
Client ID:	HD-MW-147A-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 13:20:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-008				
Misc. Info.:	19 180-44248-a-5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:27:26	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	2947448906	137.0	
3 Sulfate	5.383	5.367	0.016	567036118	36.1	
5 Nitrate as N	7.042	7.058	-0.016	195089586	3.64	

Report Date: 20-May-2015 17:27:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-8.d				
Injection Date:	20-May-2015 13:20:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-5	Lab Sample ID:	180-44248-5	Worklist Smp#:	8
Client ID:	HD-MW-147A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-44248-6

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-17.d

Analysis Method: 300.0 Date Collected: 05/19/2015 09:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 17:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.4	B	0.10	0.0062
16887-00-6	Chloride	130		1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

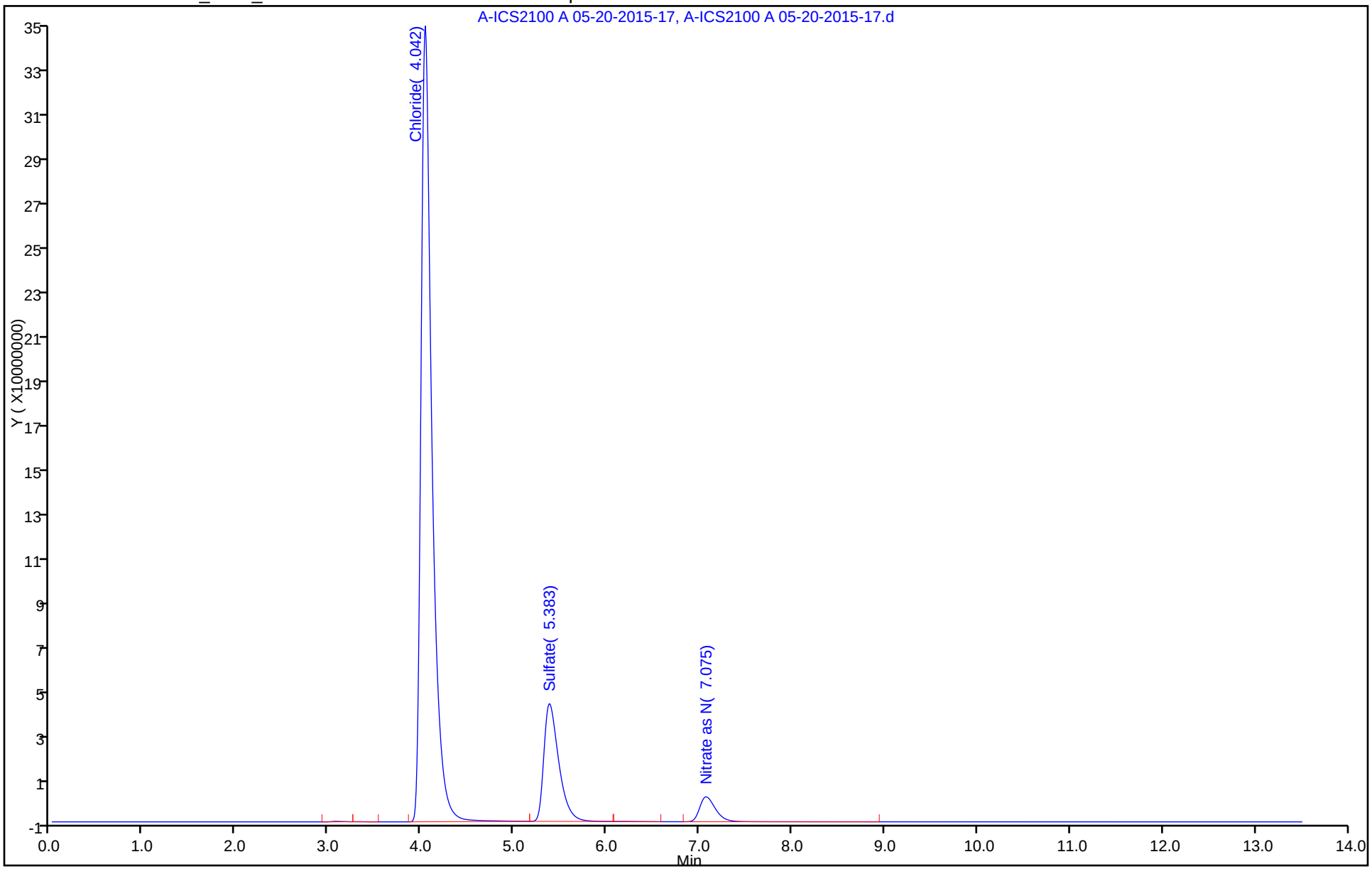
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-17.d				
Lims ID:	180-44248-A-6	Lab Sample ID:	180-44248-6		
Client ID:	HD-MW-37S-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 17:27:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-017				
Misc. Info.:	3546 180-44248-a-6				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	21-May-2015 09:41:46	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK013				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	2810152180	130.7	
3 Sulfate	5.383	5.367	0.016	563596905	35.9	
5 Nitrate as N	7.075	7.067	0.008	127043476	2.38	

Report Date: 21-May-2015 09:41:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-17.d				
Injection Date:	20-May-2015 17:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-6	Lab Sample ID:	180-44248-6	Worklist Smp#:	17
Client ID:	HD-MW-37S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-37D-0/1-0 | Lab Sample ID: 180-44248-7

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-10.d

Analysis Method: 300.0 | Date Collected: 05/19/2015 10:17

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 14:11

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9	B	0.10	0.0062
16887-00-6	Chloride	140		1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

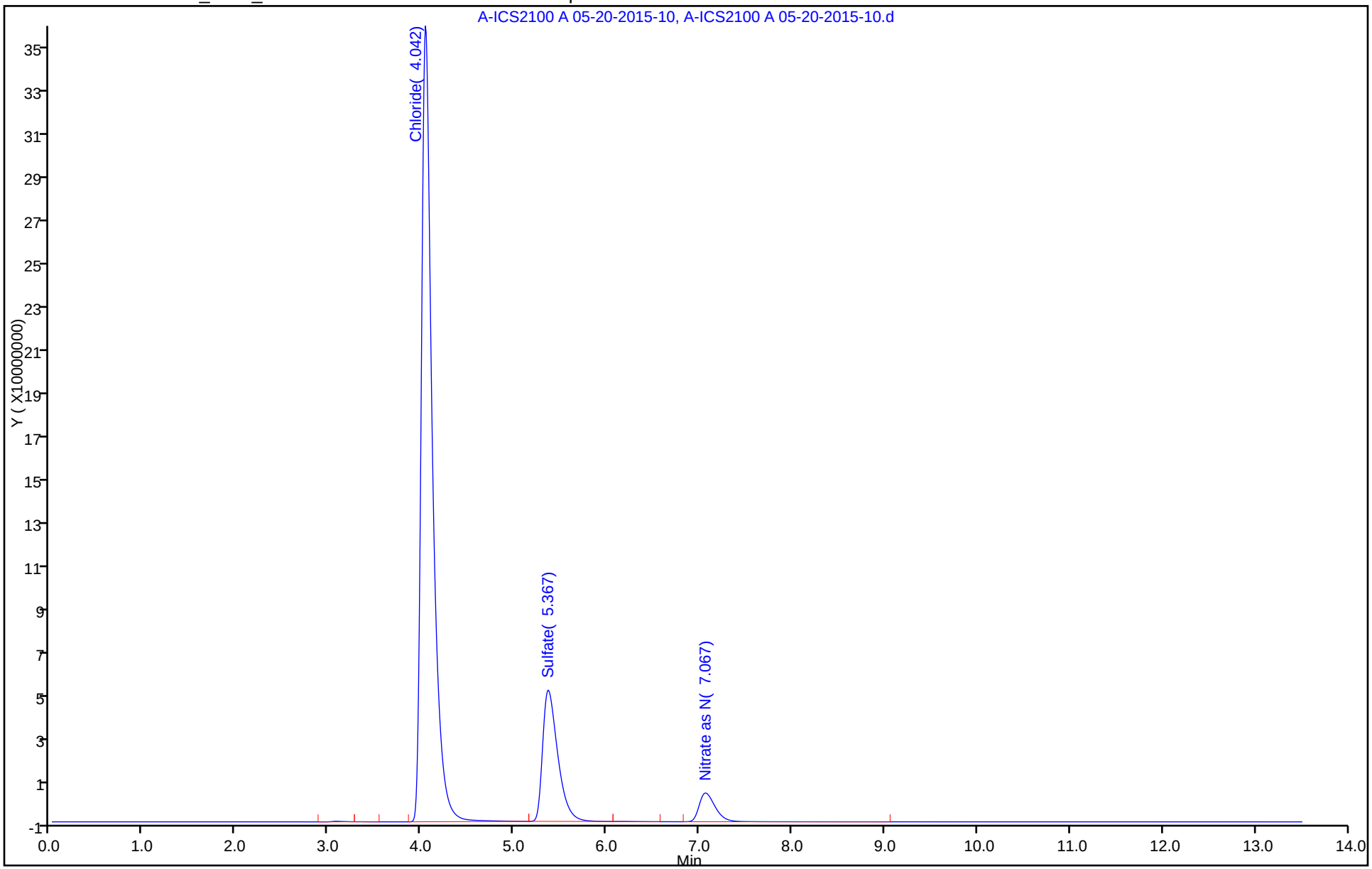
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-10.d				
Lims ID:	180-44248-A-7	Lab Sample ID:	180-44248-7		
Client ID:	HD-MW-37D-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 14:11:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-010				
Misc. Info.:	21 180-44248-a-7				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:27:36	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.033	0.009	2952592138	137.3	
3 Sulfate	5.367	5.367	0.000	667766551	42.5	
5 Nitrate as N	7.067	7.058	0.009	155633941	2.91	

Report Date: 20-May-2015 17:41:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-10.d				
Injection Date:	20-May-2015 14:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-7	Lab Sample ID:	180-44248-7	Worklist Smp#:	10
Client ID:	HD-MW-37D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75S-0/1-0 | Lab Sample ID: 180-44248-8

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-11.d

Analysis Method: 300.0 | Date Collected: 05/19/2015 12:36

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 14:28

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3	B	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

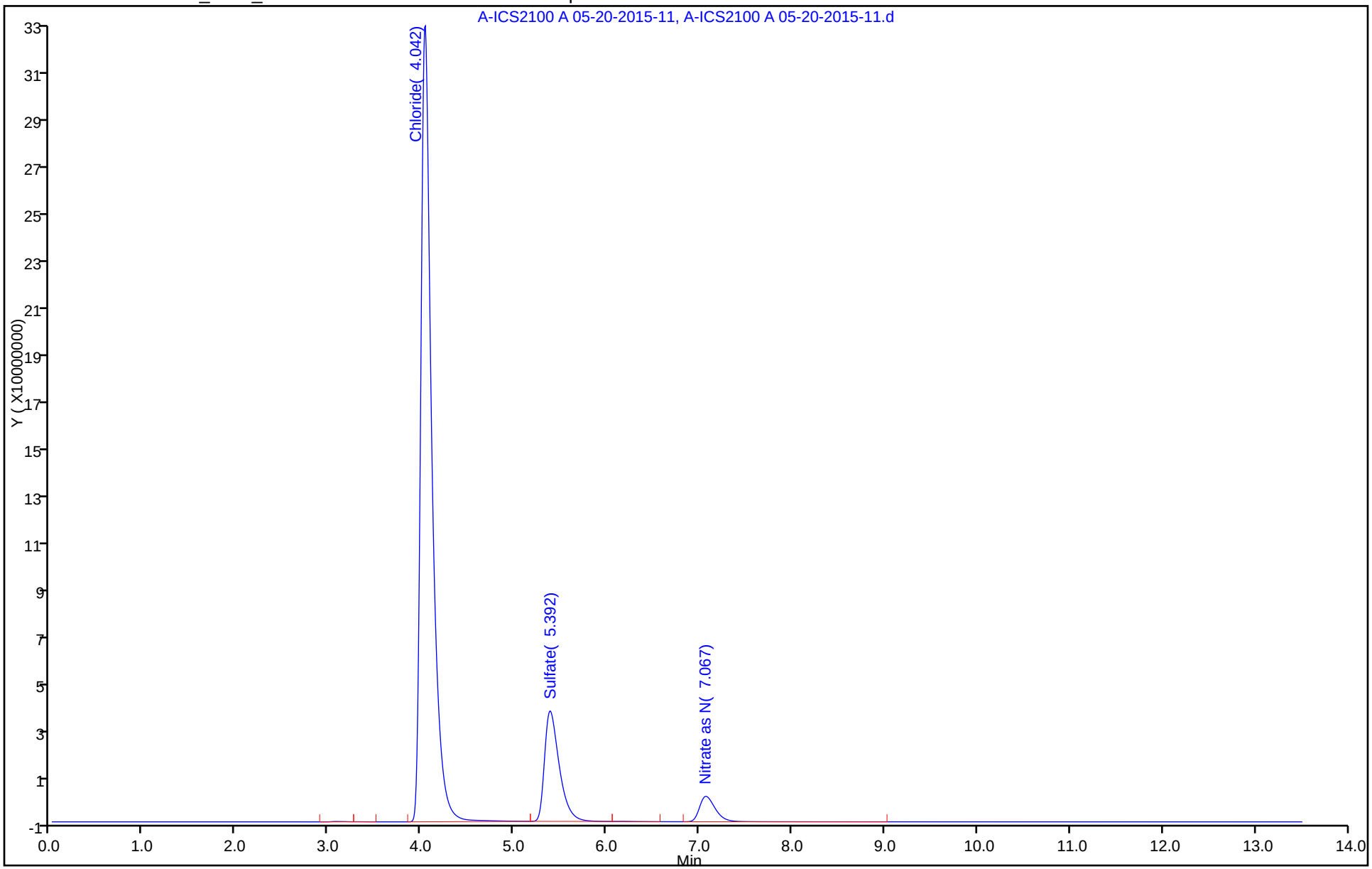
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-11.d				
Lims ID:	180-44248-A-8	Lab Sample ID:	180-44248-8		
Client ID:	HD-MW-75S-0/1-0				
Sample Type:	Client				
Inject. Date:	20-May-2015 14:28:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007032-011				
Misc. Info.:	22 180-44248-a-8				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:27:36	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.033	0.009	2719659148	126.5	
3 Sulfate	5.392	5.367	0.025	505636148	32.2	
5 Nitrate as N	7.067	7.058	0.009	124936217	2.34	

Report Date: 20-May-2015 17:41:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-11.d				
Injection Date:	20-May-2015 14:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-8	Lab Sample ID:	180-44248-8	Worklist Smp#:	11
Client ID:	HD-MW-75S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-75D-0/1-0 Lab Sample ID: 180-44248-9

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-21.d

Analysis Method: 300.0 Date Collected: 05/19/2015 11:48

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 18:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3	B	0.10	0.0062
16887-00-6	Chloride	170		1.0	0.20
14808-79-8	Sulfate	32		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-21.d
Lims ID: 180-44248-A-9 Lab Sample ID: 180-44248-9
Client ID: HD-MW-75D-0/1-0
Sample Type: Client
Inject. Date: 20-May-2015 18:28:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-021
Misc. Info.: 31 180-44248-a-9
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:46 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

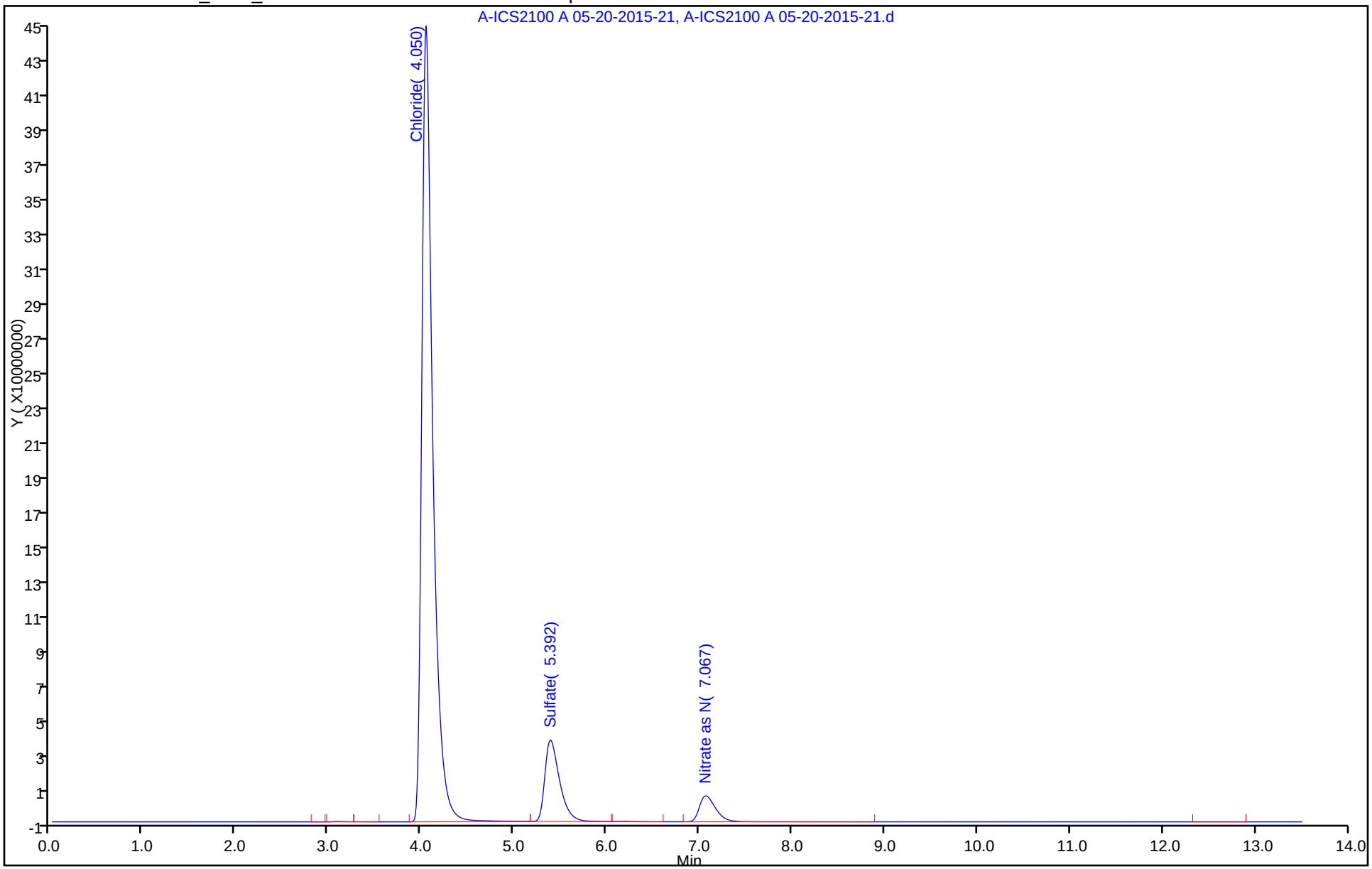
Column 1 : Det: 0008
Process Host: XAWRK013

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.050	4.050	0.000	3658493710	170.1	
3 Sulfate	5.392	5.367	0.025	499094367	31.7	
5 Nitrate as N	7.067	7.067	0.000	175712867	3.28	

Report Date: 21-May-2015 09:41:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-21.d				
Injection Date:	20-May-2015 18:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-9	Lab Sample ID:	180-44248-9	Worklist Smp#:	21
Client ID:	HD-MW-75D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-44248-10

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-12.d

Analysis Method: 300.0 Date Collected: 05/19/2015 15:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 14:45

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.4	B	0.10	0.0062
16887-00-6	Chloride	56		1.0	0.20
14808-79-8	Sulfate	13		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-12.d
Lims ID: 180-44248-A-10 Lab Sample ID: 180-44248-10
Client ID: HD-MW-7-0/1-0
Sample Type: Client
Inject. Date: 20-May-2015 14:45:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-012
Misc. Info.: 23 180-44248-a-10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

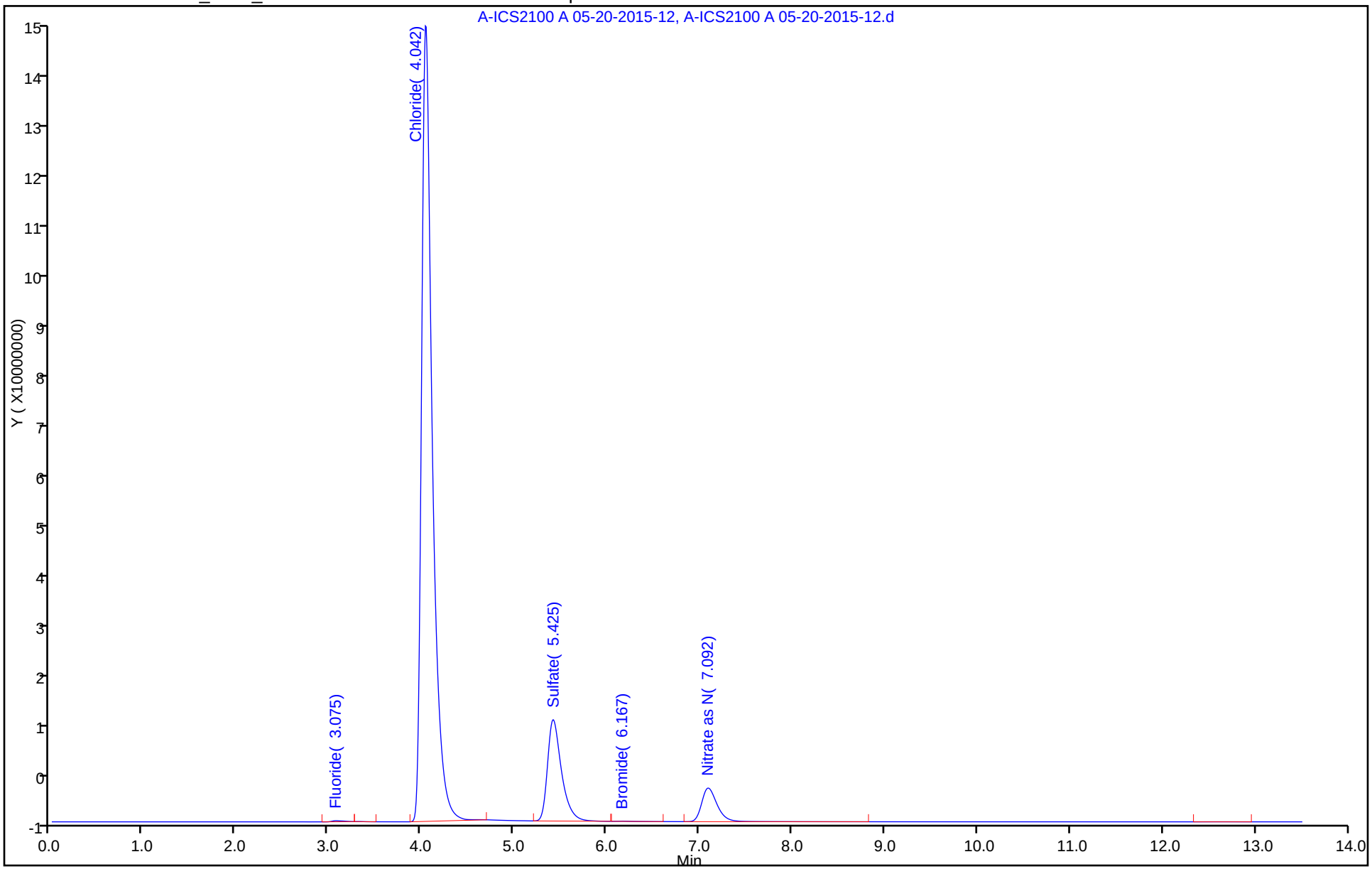
Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.067	0.008	198620H	0.0563	
2 Chloride	4.042	4.033	0.009	1211336333	56.4	
7 Nitrite as N		4.683			ND	
3 Sulfate	5.425	5.367	0.058	199876946	12.7	
4 Bromide	6.167	6.150	0.017	424764	0.0602	
5 Nitrate as N	7.092	7.058	0.034	73458227	1.38	
6 Orthophosphate as P		9.408			ND	

Report Date: 20-May-2015 17:41:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-12.d				
Injection Date:	20-May-2015 14:45:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-10	Lab Sample ID:	180-44248-10	Worklist Smp#:	12
Client ID:	HD-MW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.083	3.092	3.092	3.092	3.092	3.083	3.083	3.083			2.733 - 3.433	3.088
Chloride	4.067	4.067	4.067	4.058	4.058	4.050	4.042	4.033			3.700 - 4.400	4.055
Nitrite as N	4.708	4.708	4.708	4.708	4.708	+++++	+++++	+++++			4.450 - 4.950	4.708
Sulfate	5.433	5.433	5.425	5.408	5.367	5.325	5.275	5.258			5.025 - 5.725	5.366
Bromide	6.192	6.200	6.200	6.192	6.183	6.158	6.133	6.117			5.817 - 6.517	6.172
Nitrate as N	7.125	7.133	7.125	7.108	7.083	7.042	7.000	6.975			6.825 - 7.325	7.074
Orthophosphate as P	+++++	9.467	9.442	9.400	9.308	9.233	9.150	9.092			9.117 - 9.617	9.299

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	3455360 4386234	3874176 4081731	4200910 4084534	4193692 3739261	Lin2	-32984.443	4116745.50							0.9970		0.9950
Chloride	19689183 21359131	22242308 20493892	22712075 21671984	21258789 20612105	Lin2	-1514627.6	21518415.5							0.9980		0.9950
Nitrite as N	71586720 45200728	55889756 +++++	54188364 +++++	47372184 +++++	Lin2	1204022.56	48249506.8							0.9950		0.9950
Sulfate	16543334 15539008	17164970 14900977	17026632 15700707	15569128 14708371	Lin2	1203615.18	15684762.0							0.9970		0.9950
Bromide	8559145 9078427	10040729 9121705	10072858 9728017	8753657 9279629	Lin2	-144748.46	9455171.83							0.9970		0.9950
Nitrate as N	40718480 53252602	52290872 51583541	55641962 54966225	51654104 52320137	Lin2	-629659.24	53744179.8							0.9990		0.9950
Orthophosphate as P	+++++ 20034764	14182088 19801129	17226090 21353245	17663285 20080471	Lin	-1838363.9	20663065.4							0.9980		0.9950

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Fluoride	Lin2	172768 20408654	968544 30634003	2100455 37392605	4193692	10965585	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	19689183 2049389234	111211541 3250797562	227120751 4122421026	425175787	1067956527	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3579336 +++++	13972439 +++++	27094182 +++++	47372184	113001820	0.0500 +++++	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	16543334 1490097661	85824852 2355106108	170266320 2941674111	311382557	776950423	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	1711829 182434104	10040729 291840519	20145715 371185166	35014627	90784267	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2035924 257917705	13072718 412246685	27820981 523201370	51654104	133131506	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin	+++++ 99005645	3545522 160149338	8613045 200804708	17663285	50086909	+++++ 5.00	0.250 7.50	0.500 10.0	1.00	2.50

Curve Type Legend:

Lin = Linear
Lin2 = Linear 1/conc^2

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-May-2015 12:31:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	172768H	0.0500	0.0500	
2 Chloride	4.067	4.050	0.017	19689183	1.00	0.9854	
7 Nitrite as N	4.708	4.700	0.008	3579336	0.0500	0.0492	
3 Sulfate	5.433	5.375	0.058	16543334	1.00	0.9780	
4 Bromide	6.192	6.167	0.025	1711829	0.2000	0.1964	
5 Nitrate as N	7.125	7.075	0.050	2035924	0.0500	0.0496	
6 Orthophosphate as P	9.467	9.367	0.100	427235	0.0500	0.1096	

Reagents:

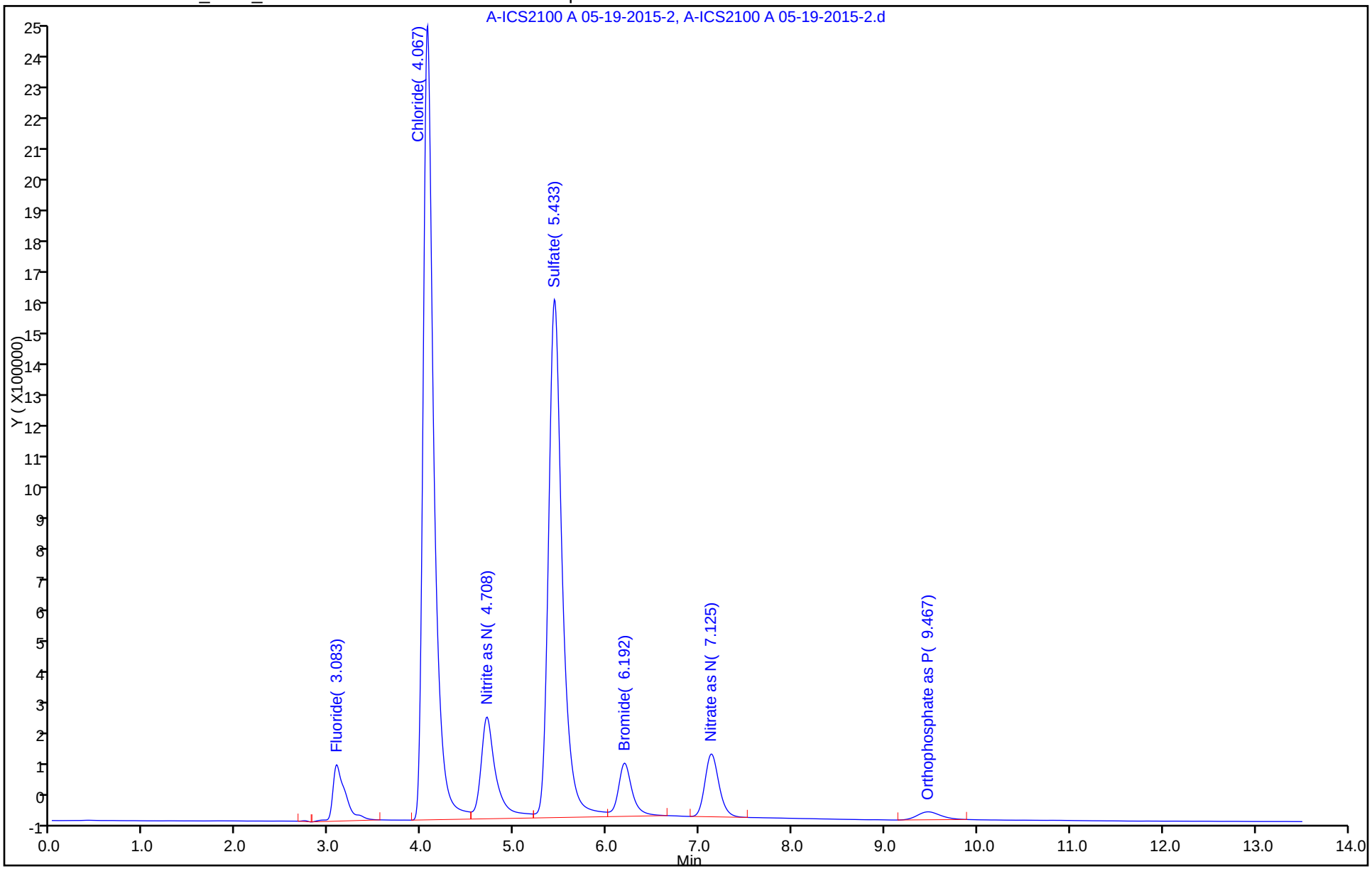
ICSTDL2_00179 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d

Injection Date:	19-May-2015 12:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-May-2015 12:46:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.083	0.009	968544H	0.2500	0.2433	
2 Chloride	4.067	4.050	0.017	111211541	5.00	5.24	
7 Nitrite as N	4.708	4.700	0.008	13972439	0.2500	0.2646	
3 Sulfate	5.433	5.375	0.058	85824852	5.00	5.40	
4 Bromide	6.200	6.167	0.033	10040729	1.00	1.08	
5 Nitrate as N	7.133	7.075	0.058	13072718	0.2500	0.2550	
6 Orthophosphate as P	9.467	9.367	0.100	3545522	0.2500	0.2606	

Reagents:

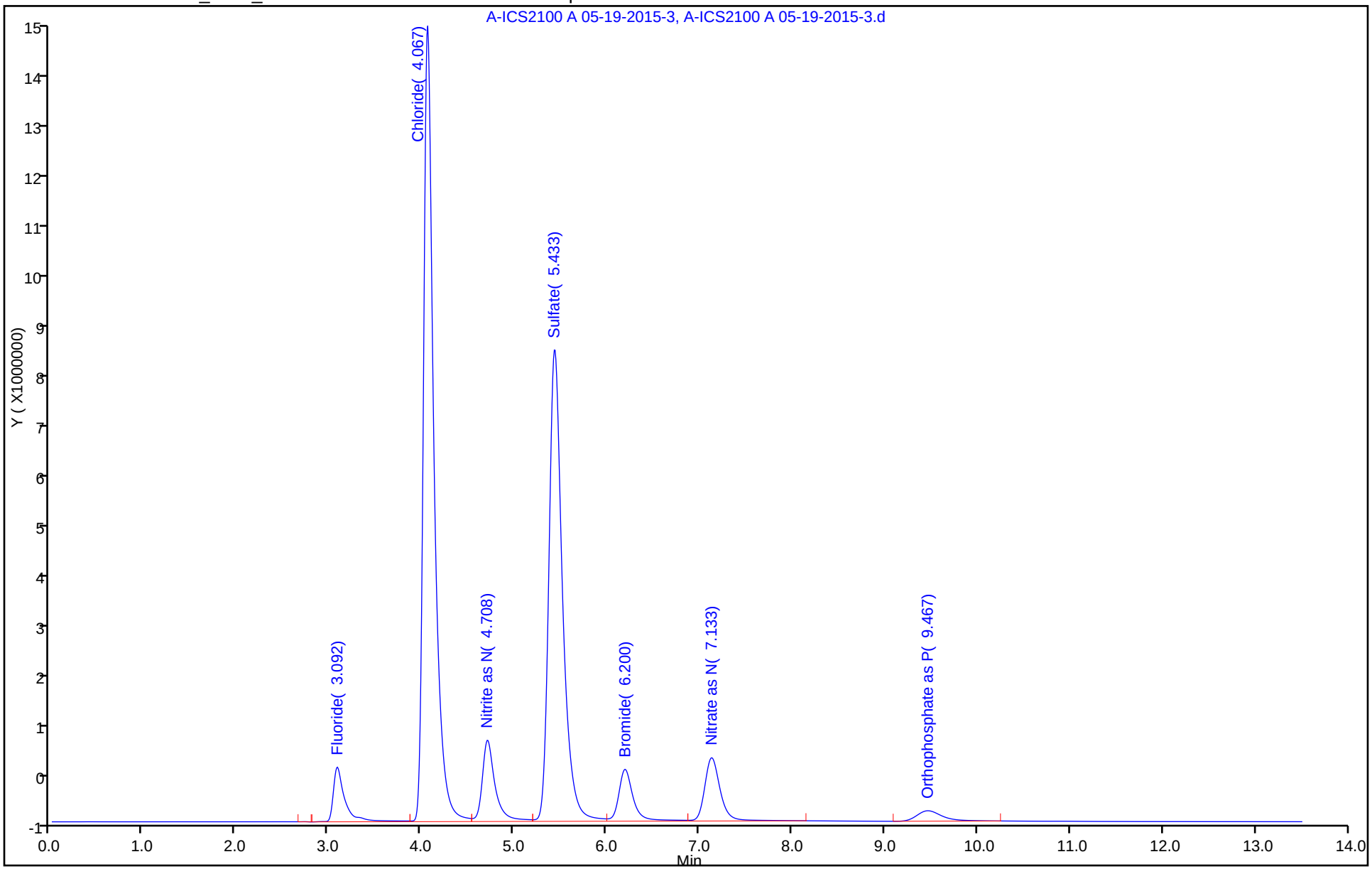
ICSTDL3_00225 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d

Injection Date:	19-May-2015 12:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 19-May-2015 13:01:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	2100455H	0.5000	0.5182	
2 Chloride	4.067	4.067	0.000	227120751	10.0	10.6	
7 Nitrite as N	4.708	4.708	0.000	27094182	0.5000	0.5366	
3 Sulfate	5.425	5.425	0.000	170266320	10.0	10.8	
4 Bromide	6.200	6.200	0.000	20145715	2.00	2.15	
5 Nitrate as N	7.125	7.125	0.000	27820981	0.5000	0.5294	
6 Orthophosphate as P	9.442	9.442	0.000	8613045	0.5000	0.5058	

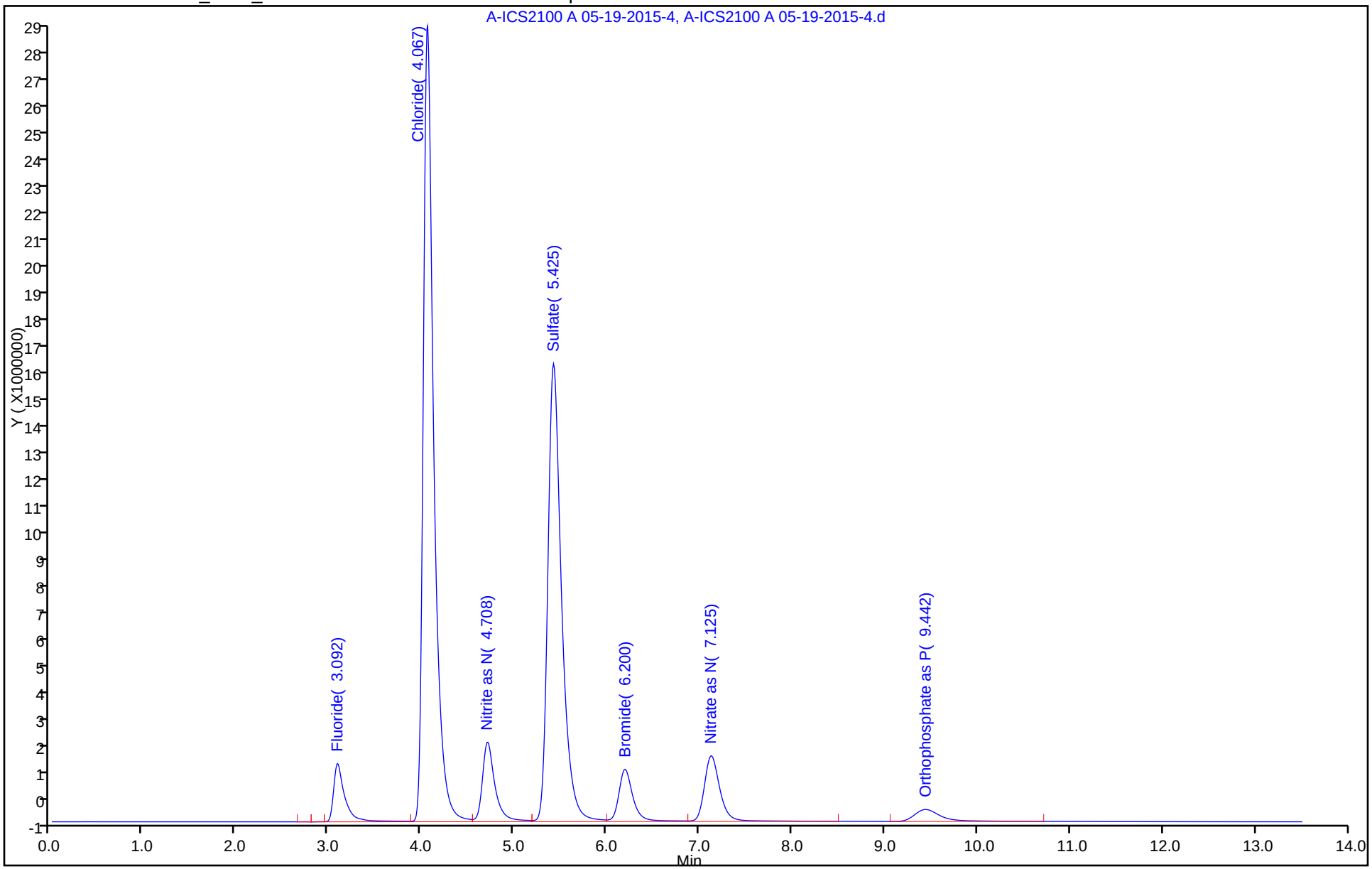
Reagents:

ICSTDL4_00150 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d				
Injection Date:	19-May-2015 13:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-May-2015 13:17:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	4193692H	1.00	1.03	
2 Chloride	4.058	4.067	-0.009	425175787	20.0	19.8	
7 Nitrite as N	4.708	4.708	0.000	47372184	1.00	0.9569	
3 Sulfate	5.408	5.425	-0.017	311382557	20.0	19.8	
4 Bromide	6.192	6.200	-0.008	35014627	4.00	3.72	
5 Nitrate as N	7.108	7.125	-0.017	51654104	1.00	0.9728	
6 Orthophosphate as P	9.400	9.442	-0.042	17663285	1.00	0.9438	

Reagents:

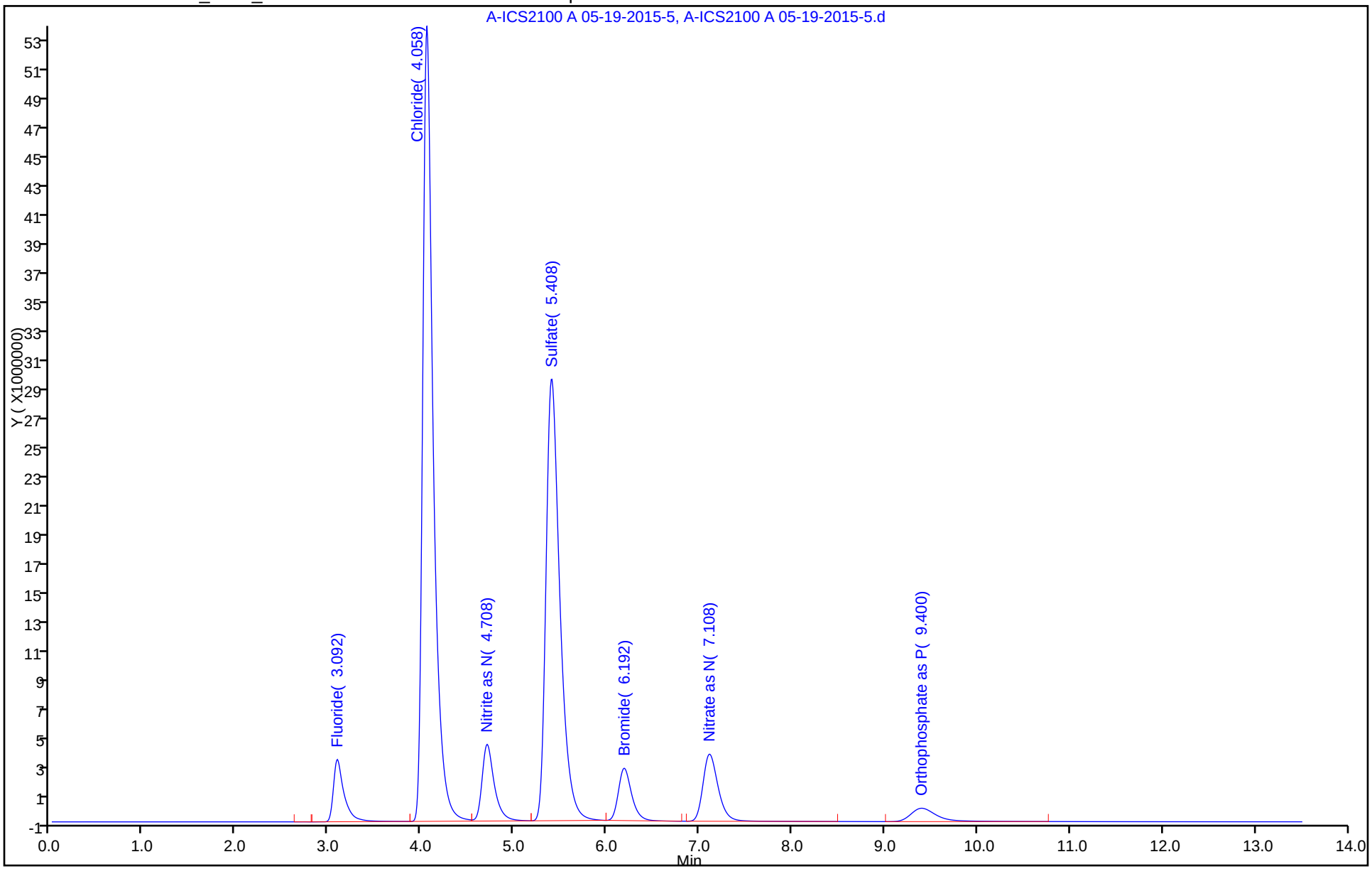
ICSTDL5_00156 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d

Injection Date:	19-May-2015 13:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-May-2015 13:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:39 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	10965585H	2.50	2.67	
2 Chloride	4.058	4.067	-0.009	1067956527	50.0	49.7	
7 Nitrite as N	4.708	4.708	0.000	113001820	2.50	2.32	
3 Sulfate	5.367	5.425	-0.058	776950423	50.0	49.5	
4 Bromide	6.183	6.200	-0.017	90784267	10.0	9.62	
5 Nitrate as N	7.083	7.125	-0.042	133131506	2.50	2.49	
6 Orthophosphate as P	9.308	9.442	-0.134	50086909	2.50	2.51	

Reagents:

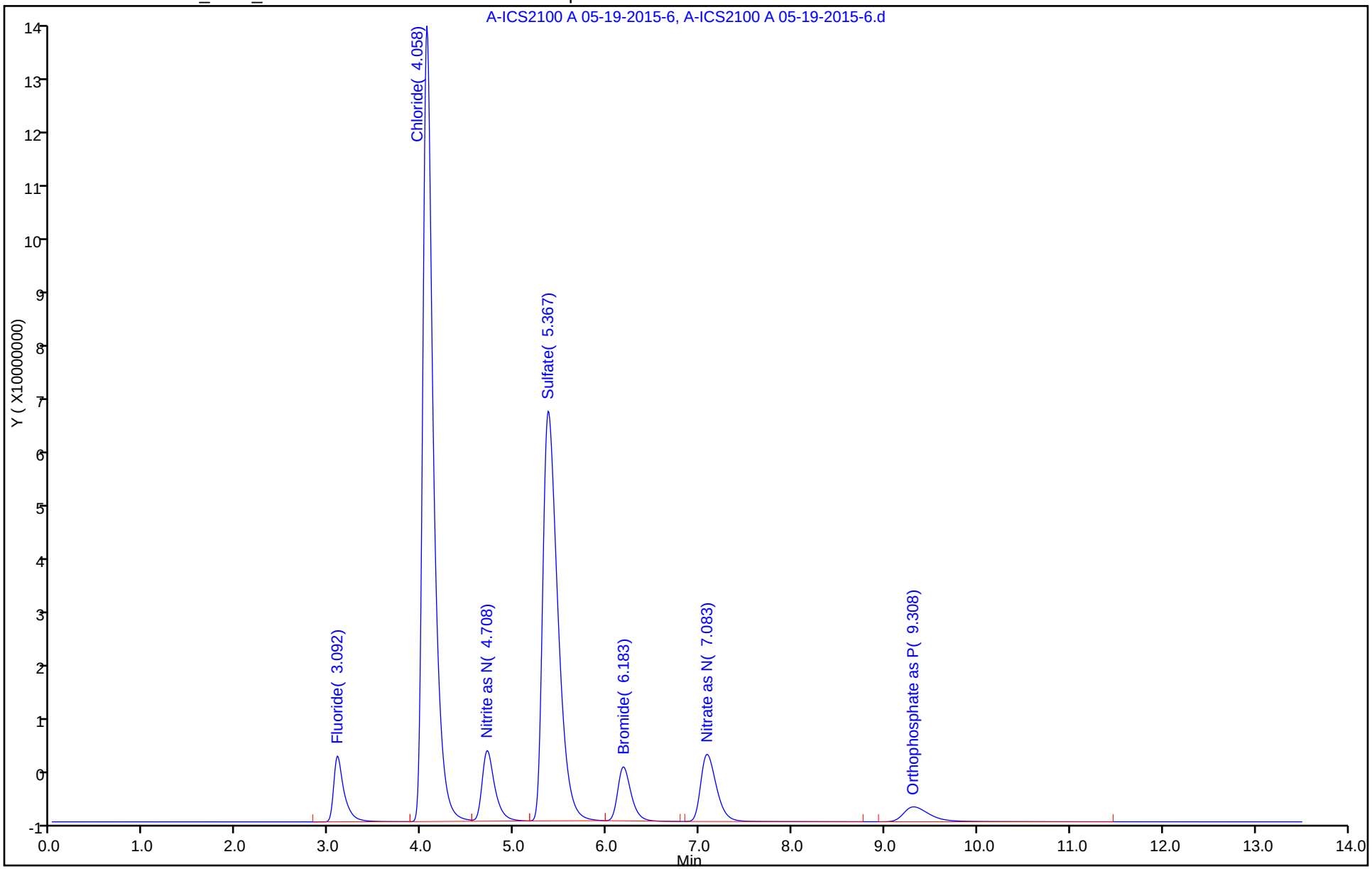
ICSTDL6_00228 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d

Injection Date:	19-May-2015 13:32:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d
Lims ID: ic L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-May-2015 13:47:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-007
Misc. Info.: 7 IC L7
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:39 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	20408654H	5.00	4.97	
2 Chloride	4.050	4.067	-0.017	2049389234	100.0	95.3	
7 Nitrite as N	4.700	4.708	-0.008	209281469	5.00	4.31	
3 Sulfate	5.325	5.425	-0.100	1490097661	100.0	94.9	
4 Bromide	6.158	6.200	-0.042	182434104	20.0	19.3	
5 Nitrate as N	7.042	7.125	-0.083	257917705	5.00	4.81	
6 Orthophosphate as P	9.233	9.442	-0.209	99005645	5.00	4.88	

Reagents:

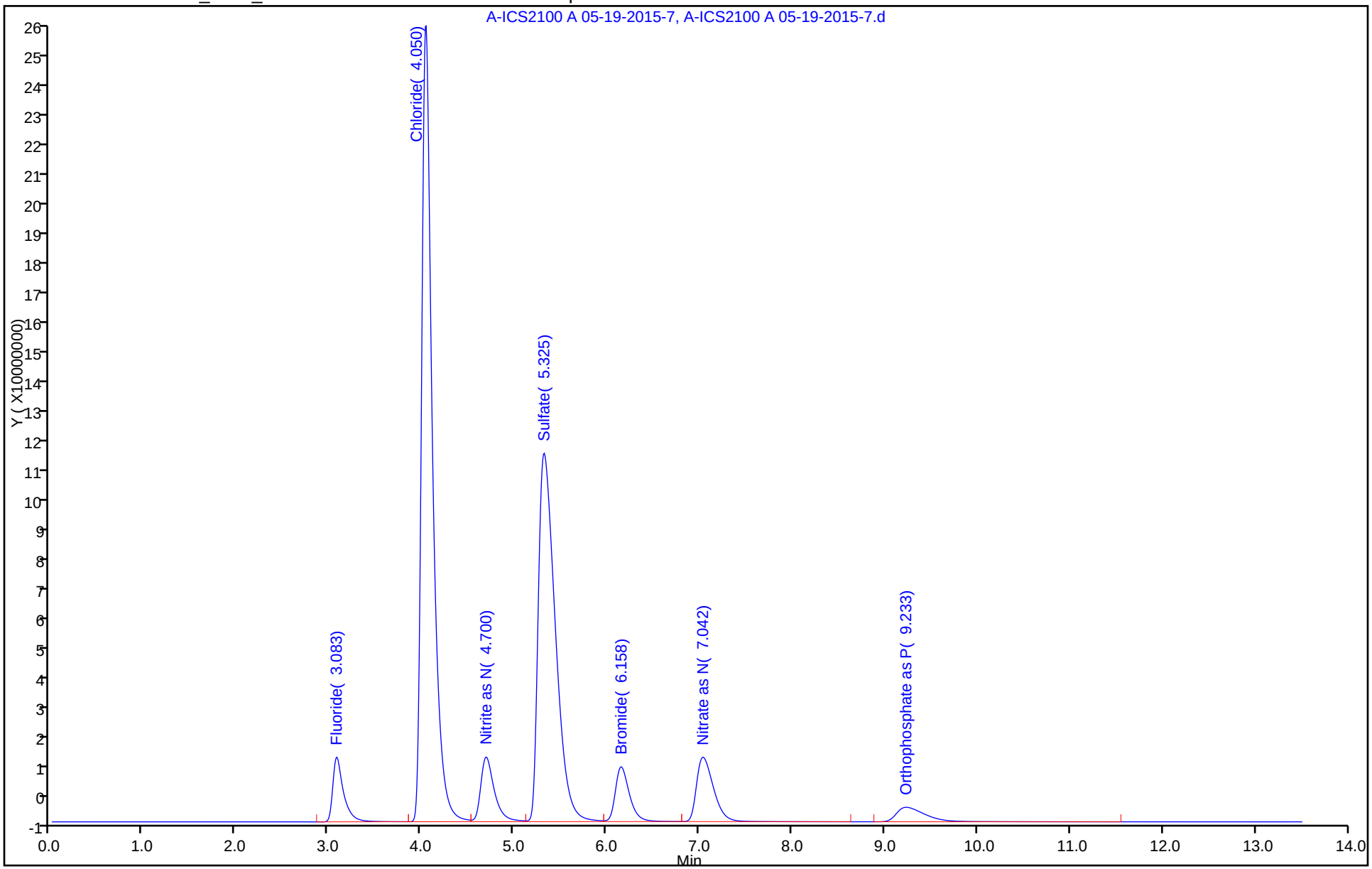
ICSTDL7_00149 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d

Injection Date:	19-May-2015 13:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 19-May-2015 14:03:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:35:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	30634003H	7.50	7.45	
2 Chloride	4.042	4.067	-0.025	3250797562	150.0	151.1	
7 Nitrite as N	4.683	4.708	-0.025	312548798	7.50	6.45	
3 Sulfate	5.275	5.425	-0.150	2355106108	150.0	150.1	
4 Bromide	6.133	6.200	-0.067	291840519	30.0	30.9	
5 Nitrate as N	7.000	7.125	-0.125	412246685	7.50	7.68	
6 Orthophosphate as P	9.150	9.442	-0.292	160149338	7.50	7.84	

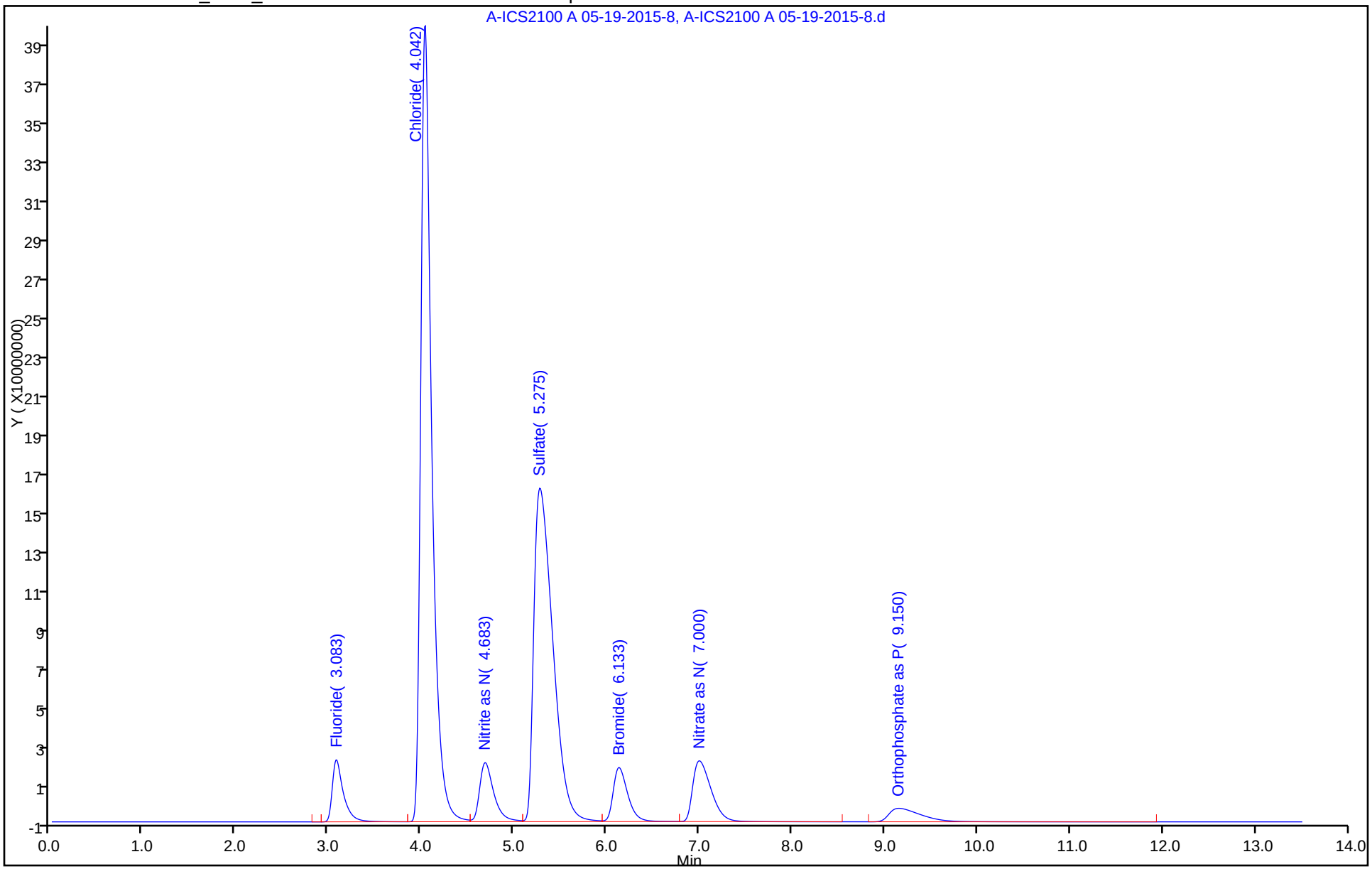
Reagents:

ICSTDL8_00118 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d				
Injection Date:	19-May-2015 14:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-May-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:38:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	37392605H	10.0	9.09	
2 Chloride	4.033	4.067	-0.034	4122421026	200.0	191.6	
7 Nitrite as N	4.683	4.708	-0.025	385383668	10.0	7.96	
3 Sulfate	5.258	5.425	-0.167	2941674111	200.0	187.5	
4 Bromide	6.117	6.200	-0.083	371185166	40.0	39.3	
5 Nitrate as N	6.975	7.125	-0.150	523201370	10.0	9.75	
6 Orthophosphate as P	9.092	9.442	-0.350	200804708	10.0	9.81	

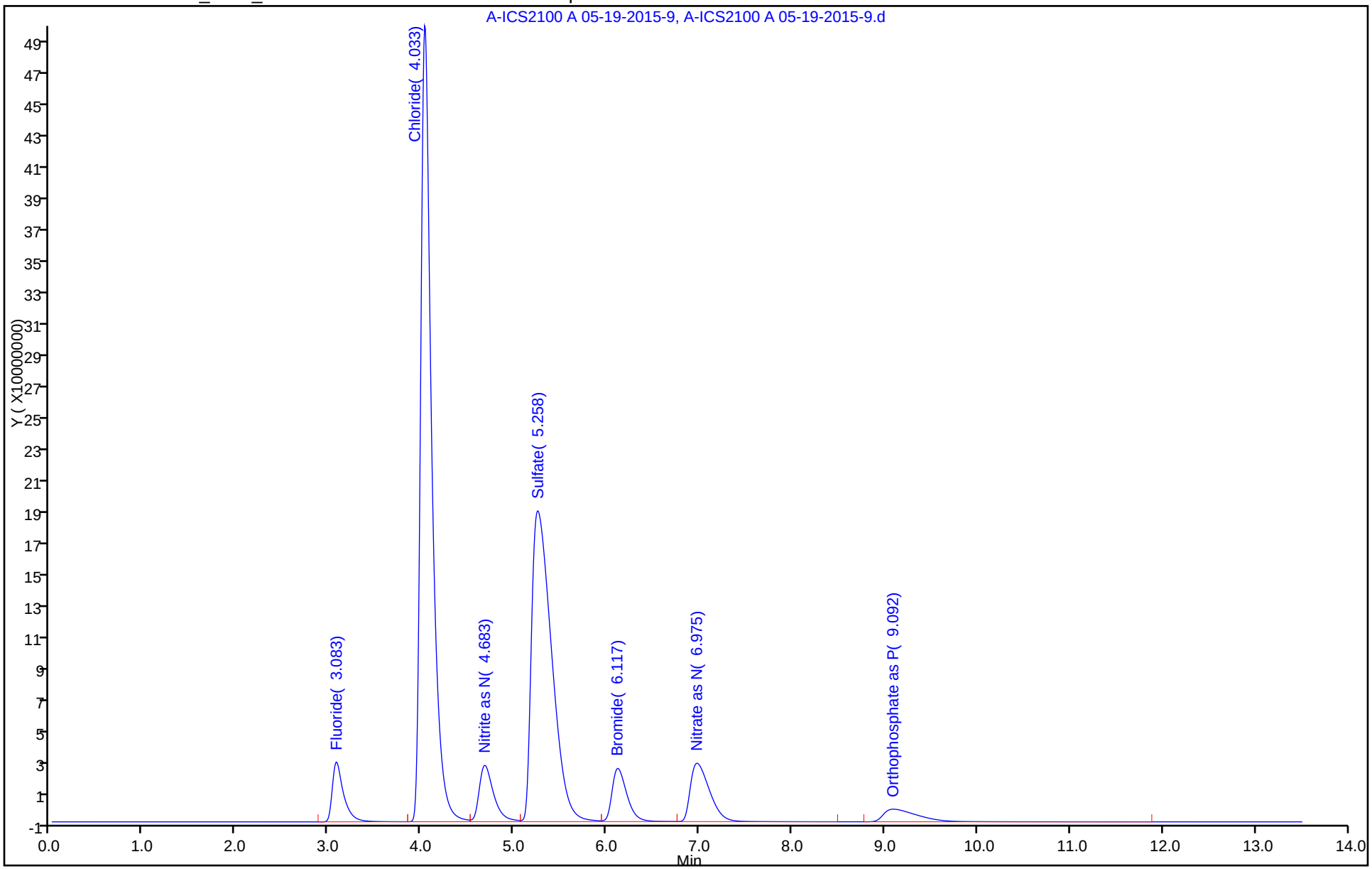
Reagents:

ICSTDL9_00119 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Injection Date:	19-May-2015 14:18:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: ICV 180-142275/2 Calibration Date: 05/20/2015 11:48

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4617523		3.37	3.00	12.4*	10.0
Chloride	Lin2		22249229		62.1	60.0	3.5	10.0
Nitrite as N	Lin2	54847550	48668738		3.00	3.00	0.0	10.0
Sulfate	Lin2		16379147		62.6	60.0	4.3	10.0
Bromide	Lin2		9947506		12.6	12.0	5.3	10.0
Nitrate as N	Lin2		54755141		3.07	3.00	2.3	10.0
Orthophosphate as P	Lin		20571295		3.08	3.00	2.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: ICV 180-142275/2 Calibration Date: 05/20/2015 11:48

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.07	2.74	3.44
Chloride	4.03	3.70	4.40
Nitrite as N	4.68	4.45	4.95
Sulfate	5.35	5.03	5.73
Bromide	6.14	5.83	6.53
Nitrate as N	7.04	6.83	7.33
Orthophosphate as P	9.38	9.12	9.62

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 20-May-2015 11:48:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-002
Misc. Info.: 13 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 07:39:06 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: oravecj Date: 21-May-2015 09:40:02

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.092	-0.025	13852568H	3.00	3.37	
2 Chloride	4.025	4.050	-0.025	1334953756	60.0	62.1	
7 Nitrite as N	4.675	4.700	-0.025	146064616	3.00	3.00	E
3 Sulfate	5.350	5.375	-0.025	982748810	60.0	62.6	
4 Bromide	6.142	6.175	-0.033	119370070	12.0	12.6	
5 Nitrate as N	7.042	7.075	-0.033	164265424	3.00	3.07	
6 Orthophosphate as P	9.383	9.367	0.016	61713885	3.00	3.08	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

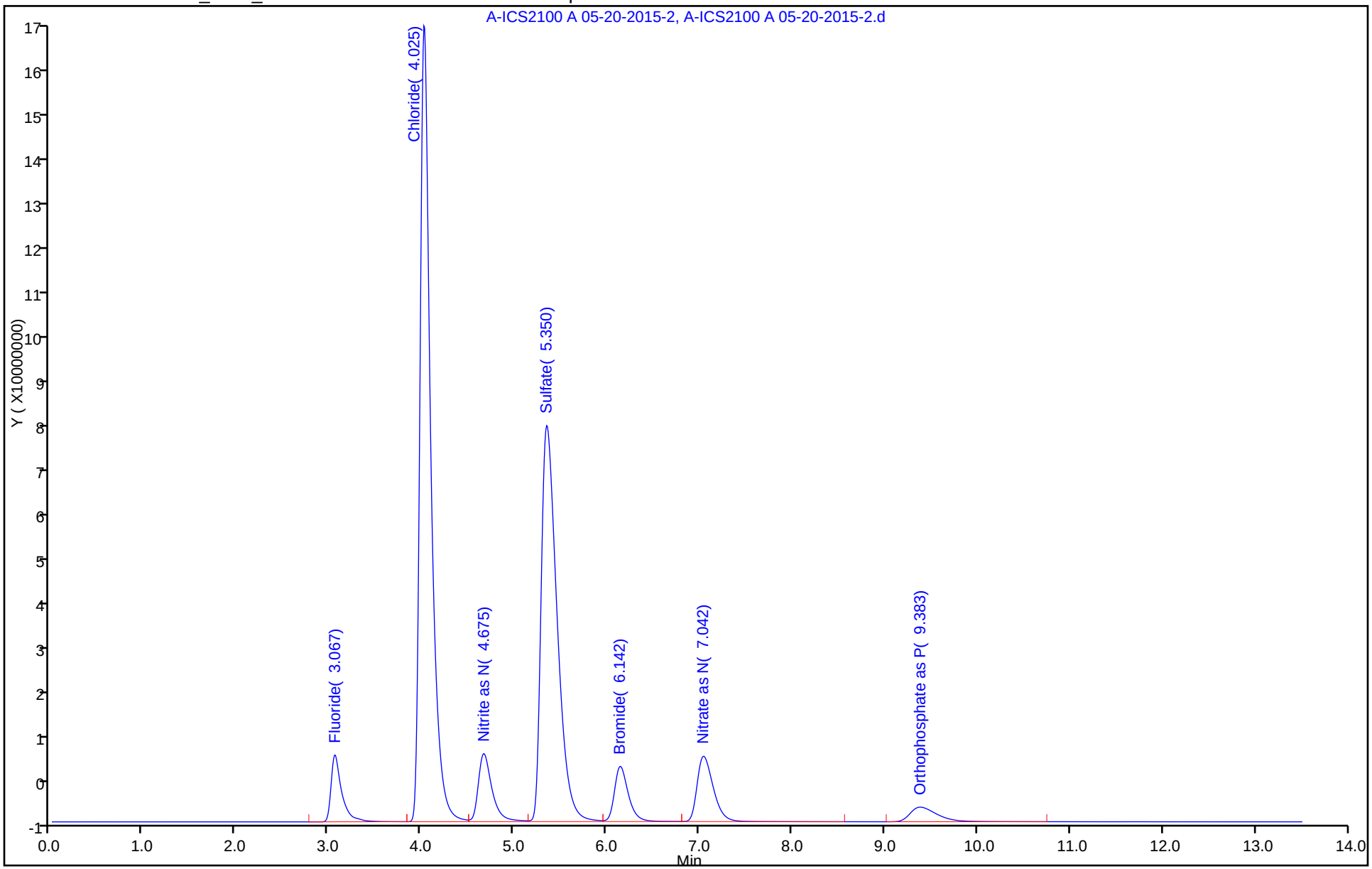
Reagents:

icicv_01275 Amount Added: 1.00 Units: mL

Report Date: 21-May-2015 09:40:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-2.d				
Injection Date:	20-May-2015 11:48:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/3 Calibration Date: 05/20/2015 12:03

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4638022		2.82	2.50	13.0*	10.0
Chloride	Lin2		22444445		52.2	50.0	4.4	10.0
Nitrite as N	Lin2	54847550	47803894		2.45	2.50	-1.9	10.0
Sulfate	Lin2		16288962		51.8	50.0	3.7	10.0
Bromide	Lin2		9555593		10.1	10.0	1.2	10.0
Nitrate as N	Lin2		56110292		2.62	2.50	4.9	10.0
Orthophosphate as P	Lin		20807452		2.61	2.50	4.3	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/3 Calibration Date: 05/20/2015 12:03

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.07	2.72	3.42
Chloride	4.03	3.68	4.38
Nitrite as N	4.68	4.43	4.93
Sulfate	5.37	5.02	5.72
Bromide	6.15	5.80	6.50
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.41	9.16	9.66

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2015 12:03:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-003
Misc. Info.: 14 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:30 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	11595054H	2.50	2.82	
2 Chloride	4.033	4.033	0.000	1122222236	50.0	52.2	
7 Nitrite as N	4.683	4.683	0.000	119509736	2.50	2.45	
3 Sulfate	5.367	5.367	0.000	814448075	50.0	51.8	
4 Bromide	6.150	6.150	0.000	95555926	10.0	10.1	
5 Nitrate as N	7.058	7.058	0.000	140275731	2.50	2.62	
6 Orthophosphate as P	9.408	9.408	0.000	52018630	2.50	2.61	

Reagents:

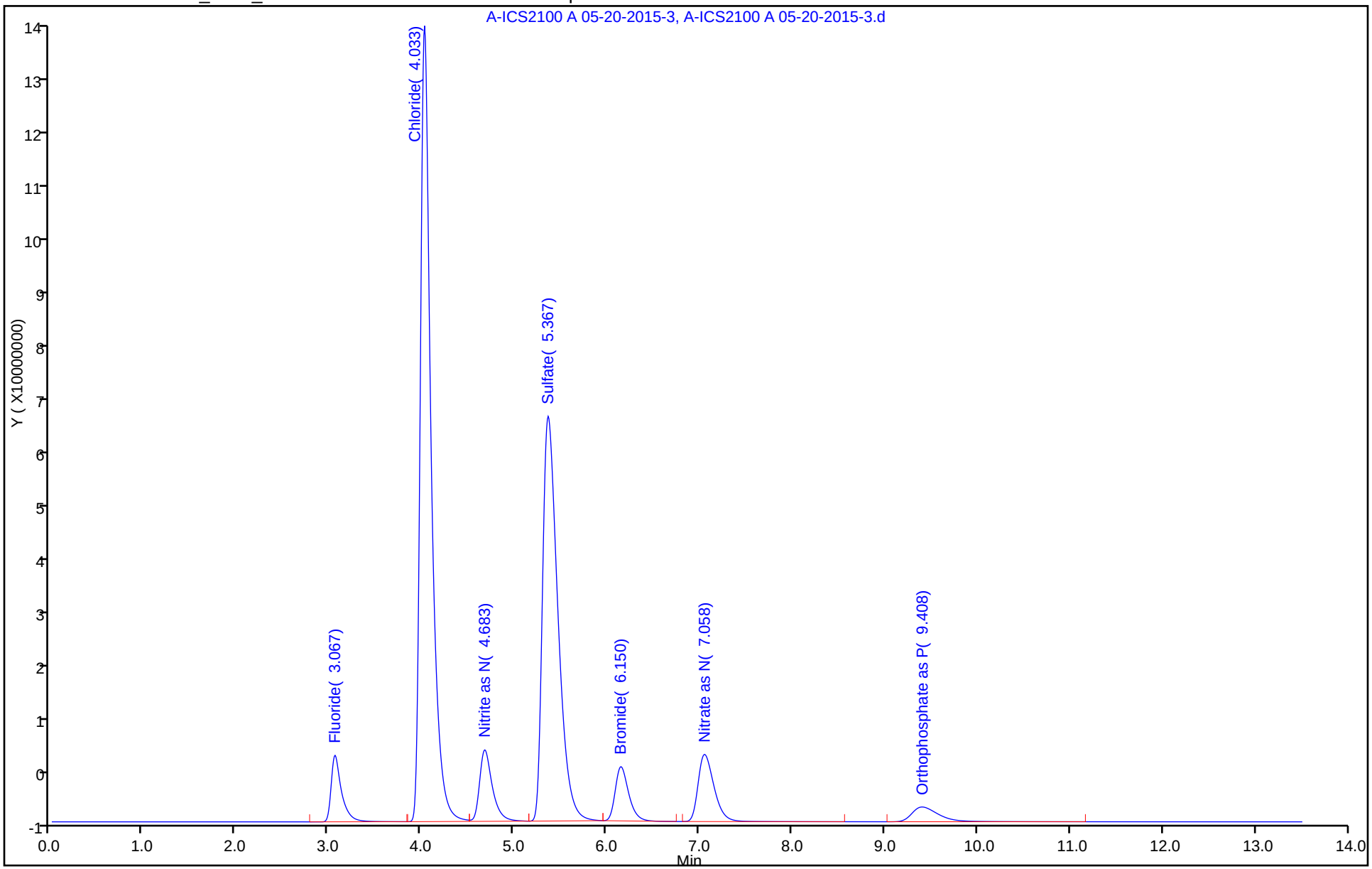
icccv_01243 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 17:27:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-3.d

Injection Date:	20-May-2015 12:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/15 Calibration Date: 05/20/2015 15:31

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4525242		2.76	2.50	10.2*	10.0
Chloride	Lin2		22491557		52.3	50.0	4.7	10.0
Nitrite as N	Lin2	54847550	47273436		2.42	2.50	-3.0	10.0
Sulfate	Lin2		16332728		52.0	50.0	4.0	10.0
Bromide	Lin2		9535846		10.1	10.0	1.0	10.0
Nitrate as N	Lin2		56024869		2.62	2.50	4.7	10.0
Orthophosphate as P	Lin		19686981		2.47	2.50	-1.2	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/15 Calibration Date: 05/20/2015 15:31

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.04	3.69	4.39
Nitrite as N	4.69	4.44	4.94
Sulfate	5.37	5.02	5.72
Bromide	6.16	5.81	6.51
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.37	9.12	9.62

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2015 15:31:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-015
Misc. Info.: 26 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:42 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: oravecj Date: 21-May-2015 09:41:42

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	11313105H	2.50	2.76	
2 Chloride	4.042	4.042	0.000	1124577874	50.0	52.3	
7 Nitrite as N	4.692	4.692	0.000	118183591	2.50	2.42	
3 Sulfate	5.367	5.367	0.000	816636402	50.0	52.0	
4 Bromide	6.158	6.158	0.000	95358456	10.0	10.1	
5 Nitrate as N	7.058	7.058	0.000	140062173	2.50	2.62	
6 Orthophosphate as P	9.367	9.367	0.000	49217452	2.50	2.47	

Reagents:

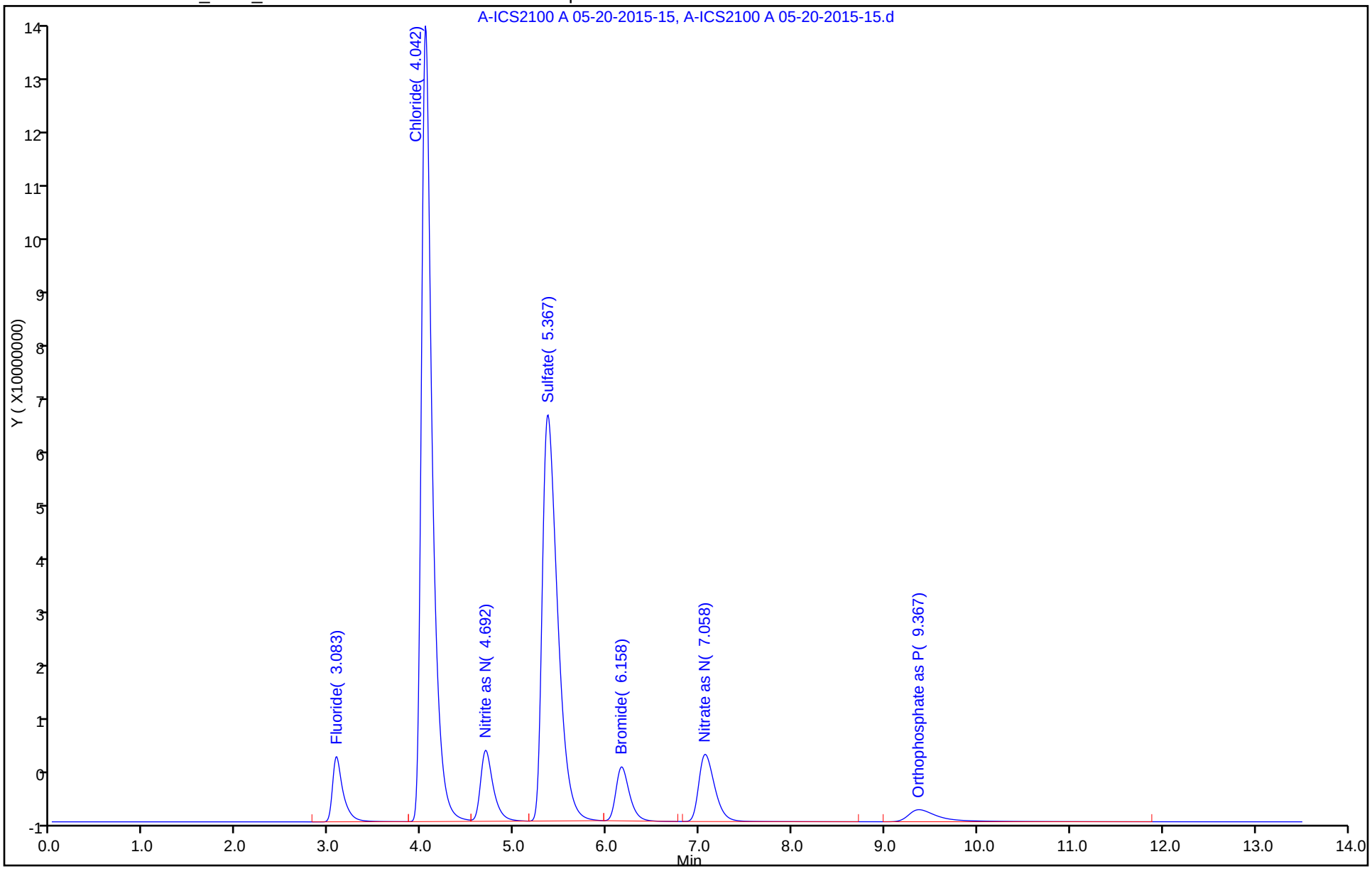
icccv_01243 Amount Added: 1.00 Units: mL

Report Date: 21-May-2015 09:41:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-15.d

Injection Date:	20-May-2015 15:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/28 Calibration Date: 05/20/2015 20:08

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4241078		2.58	2.50	3.3	10.0
Chloride	Lin2		21481677		50.0	50.0	-0.0	10.0
Nitrite as N	Lin2	54847550	45051601		2.31	2.50	-7.6	10.0
Sulfate	Lin2		15245907		48.5	50.0	-3.0	10.0
Bromide	Lin2		9053403		9.59	10.0	-4.1	10.0
Nitrate as N	Lin2		53144386		2.48	2.50	-0.6	10.0
Orthophosphate as P	Lin		17710360		2.23	2.50	-10.7*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: CCV 180-142275/28 Calibration Date: 05/20/2015 20:08

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-20-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.05	3.70	4.40
Nitrite as N	4.69	4.44	4.94
Sulfate	5.37	5.02	5.72
Bromide	6.17	5.82	6.52
Nitrate as N	7.07	6.82	7.32
Orthophosphate as P	9.35	9.10	9.60

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 20-May-2015 20:08:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-028
Misc. Info.: 24484 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:46 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK013

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	10602694H	2.50	2.58	
2 Chloride	4.050	4.050	0.000	1074083834	50.0	50.0	
7 Nitrite as N	4.692	4.692	0.000	112629002	2.50	2.31	
3 Sulfate	5.367	5.367	0.000	762295359	50.0	48.5	
4 Bromide	6.167	6.167	0.000	90534026	10.0	9.59	
5 Nitrate as N	7.067	7.067	0.000	132860964	2.50	2.48	
6 Orthophosphate as P	9.350	9.350	0.000	44275899	2.50	2.23	

Reagents:

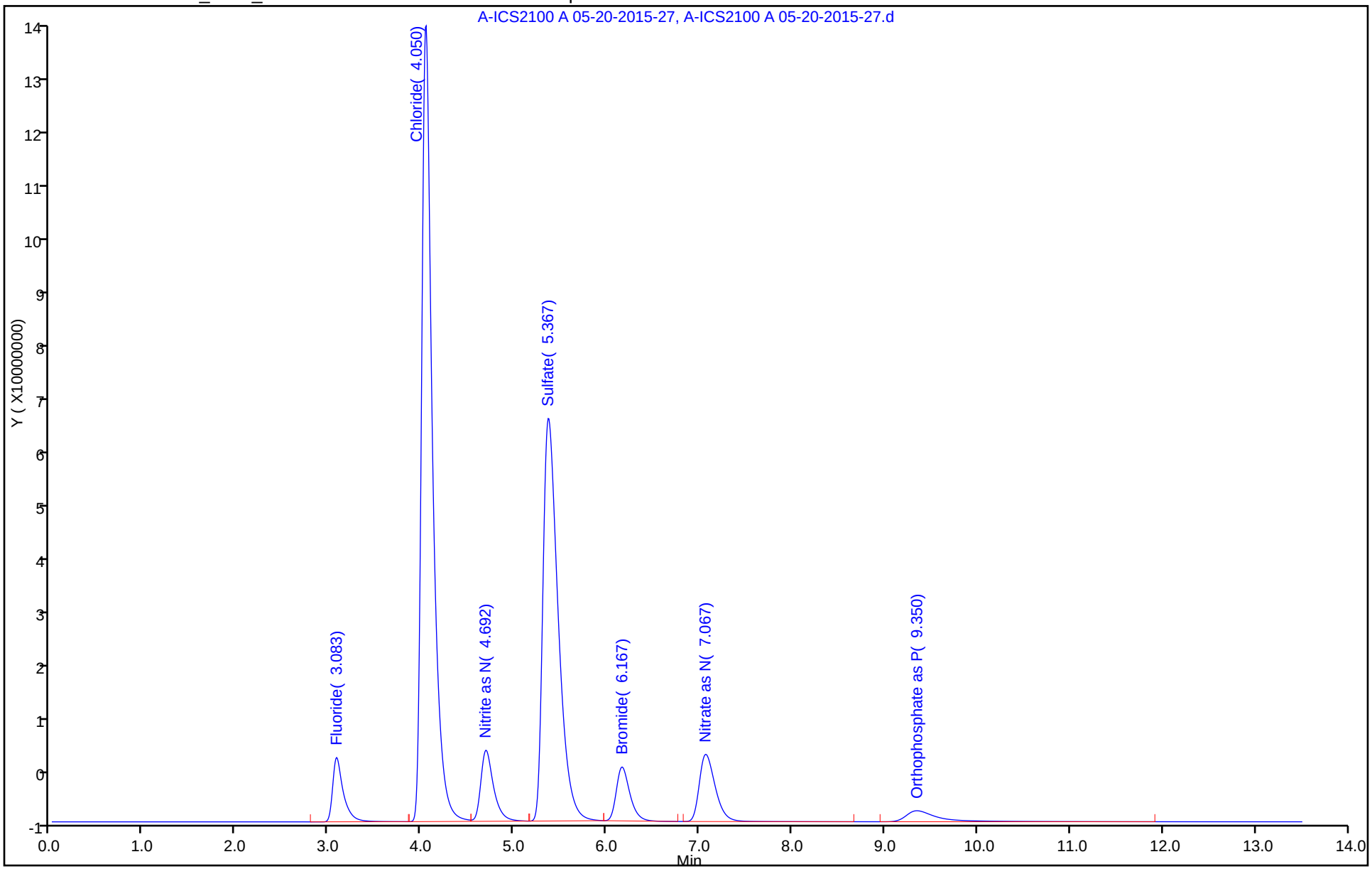
icccv_01243 Amount Added: 1.00 Units: mL

Report Date: 21-May-2015 09:41:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-27.d

Injection Date:	20-May-2015 20:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142275/6

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 12:49

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0145	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 20-May-2015 12:49:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-006
Misc. Info.: 17 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:26 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

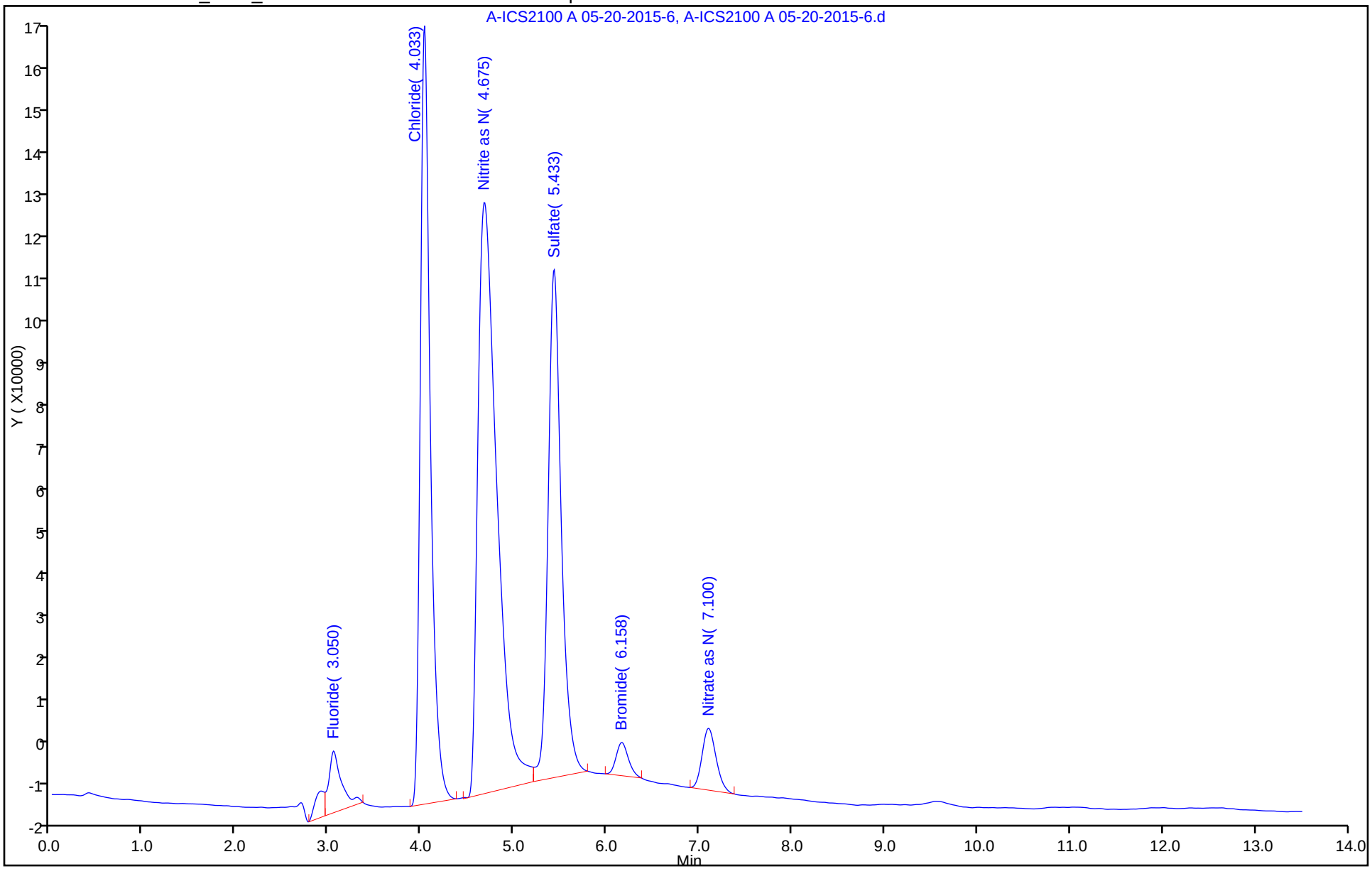
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.050	3.083	-0.033	13966H		0.0114	
2 Chloride	4.033	4.042	-0.009	1330439		0.1322	
7 Nitrite as N	4.675	4.692	-0.017	1912988		0.0147	
3 Sulfate	5.433	5.367	0.066	1146534		-0.003639	
4 Bromide	6.158	6.158	0.000	69324		0.0226	
5 Nitrate as N	7.100	7.058	0.042	147605		0.0145	
6 Orthophosphate as P		9.367				ND	

Report Date: 20-May-2015 17:27:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-6.d

Injection Date:	20-May-2015 12:49:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142275/4

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 12:19

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0148	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 20-May-2015 12:19:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-004
Misc. Info.: 15 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:26 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

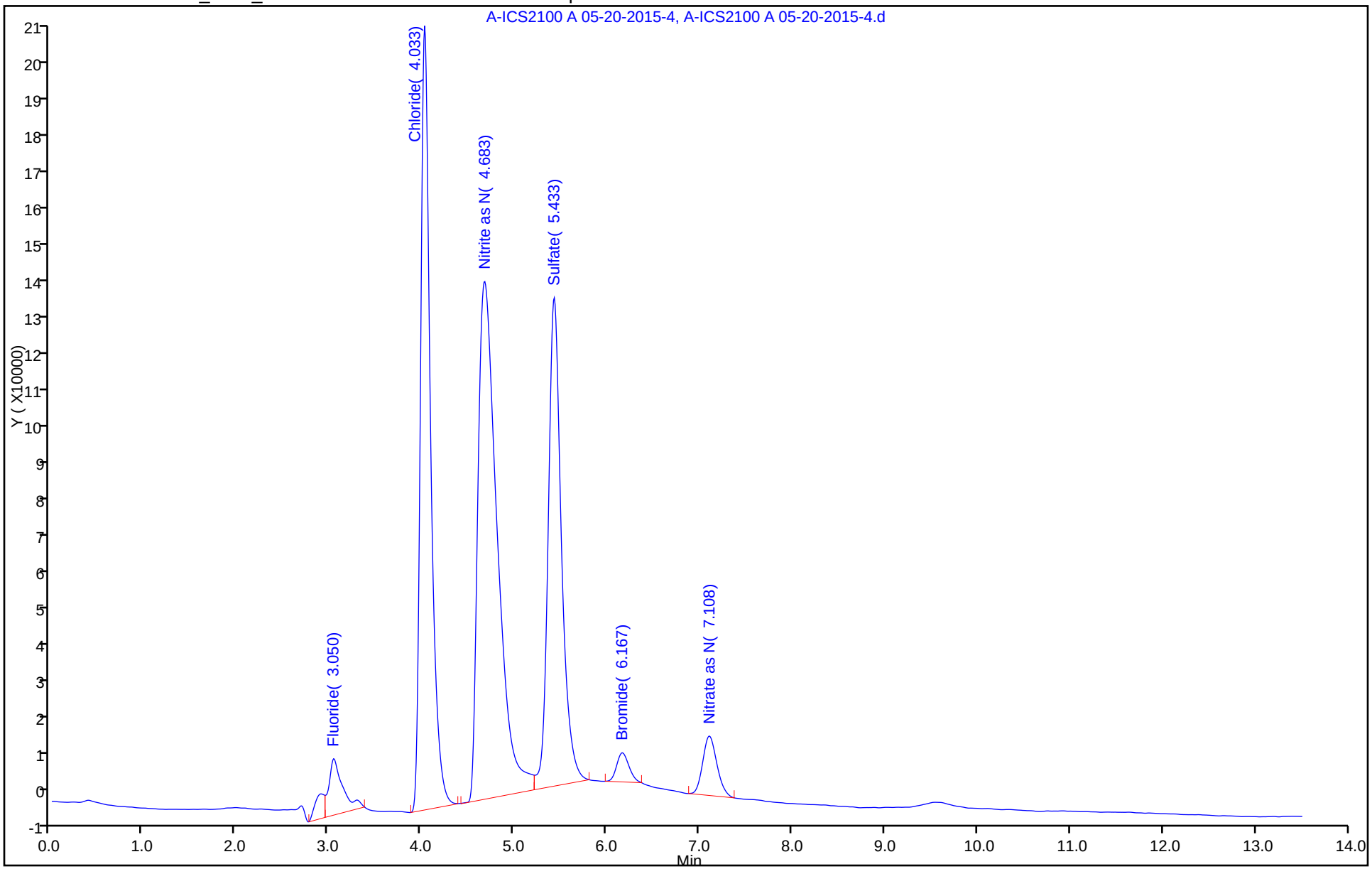
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.050	3.083	-0.033	14819H		0.0116	
2 Chloride	4.033	4.042	-0.009	1552543		0.1425	
7 Nitrite as N	4.683	4.692	-0.009	1977391		0.0160	
3 Sulfate	5.433	5.367	0.066	1282914		0.005056	
4 Bromide	6.167	6.158	0.009	70623		0.0228	
5 Nitrate as N	7.108	7.058	0.050	166816		0.0148	
6 Orthophosphate as P		9.367				ND	

Report Date: 20-May-2015 17:27:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-4.d

Injection Date:	20-May-2015 12:19:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142275/16

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 17:04

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0155	J	0.10	0.0062
16887-00-6	Chloride	0.205	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 20-May-2015 17:04:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-016
Misc. Info.: 27 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:46 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK013

First Level Reviewer: hartmanm Date: 20-May-2015 17:27:26

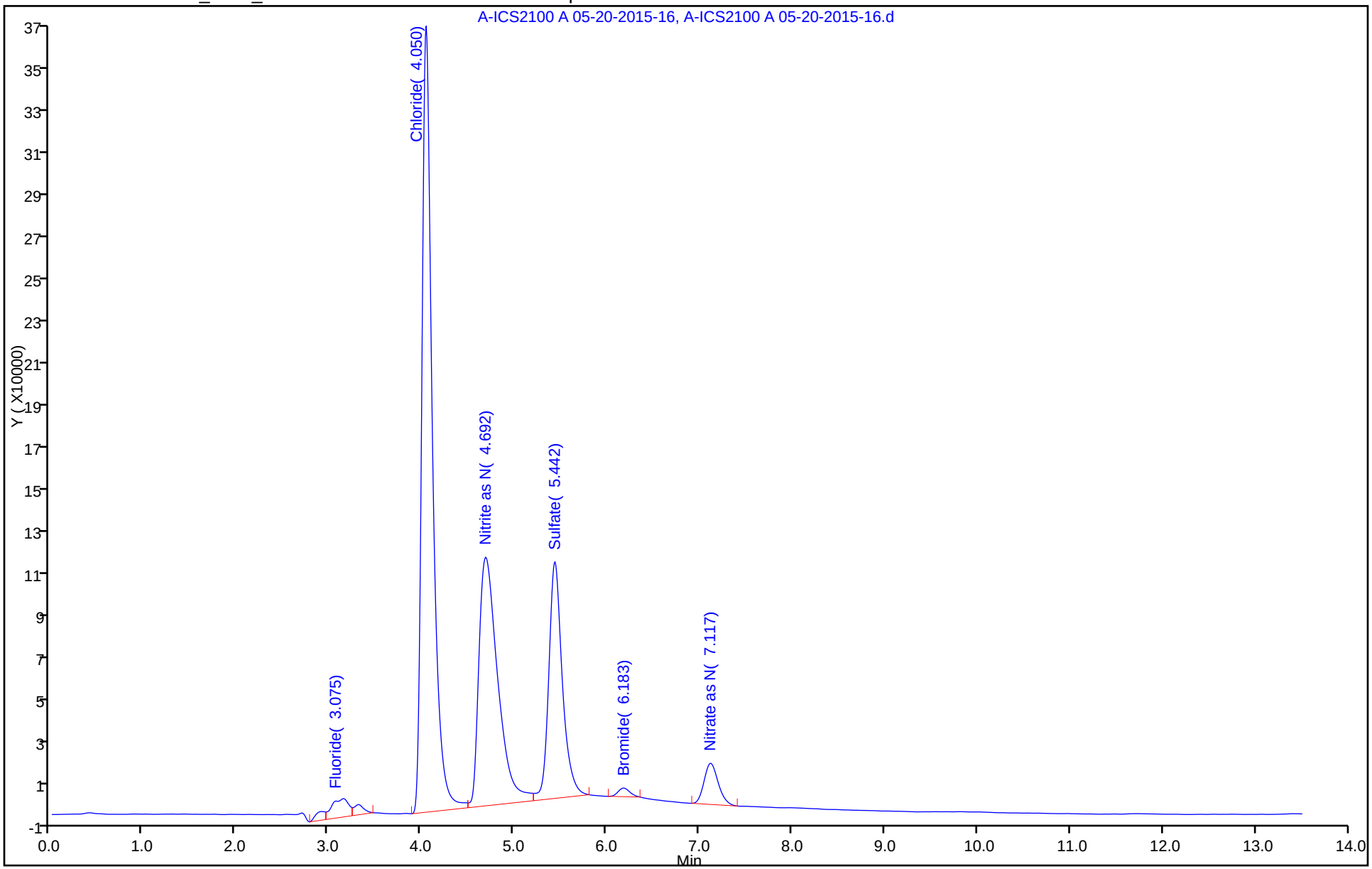
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.083	-0.008	7835H		0.0099	
2 Chloride	4.050	4.050	0.000	2892310		0.2048	
7 Nitrite as N	4.692	4.692	0.000	1635618		0.008945	
3 Sulfate	5.442	5.367	0.075	1116786		-0.005536	
4 Bromide	6.183	6.167	0.016	34854		0.0190	
5 Nitrate as N	7.117	7.067	0.050	202668		0.0155	
6 Orthophosphate as P		9.350				ND	

Report Date: 21-May-2015 09:41:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-16.d

Injection Date:	20-May-2015 17:04:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142275/29

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 20:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0169	J	0.10	0.0062
16887-00-6	Chloride	0.423	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 20-May-2015 20:26:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-029
Misc. Info.: 32595 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 21-May-2015 09:41:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

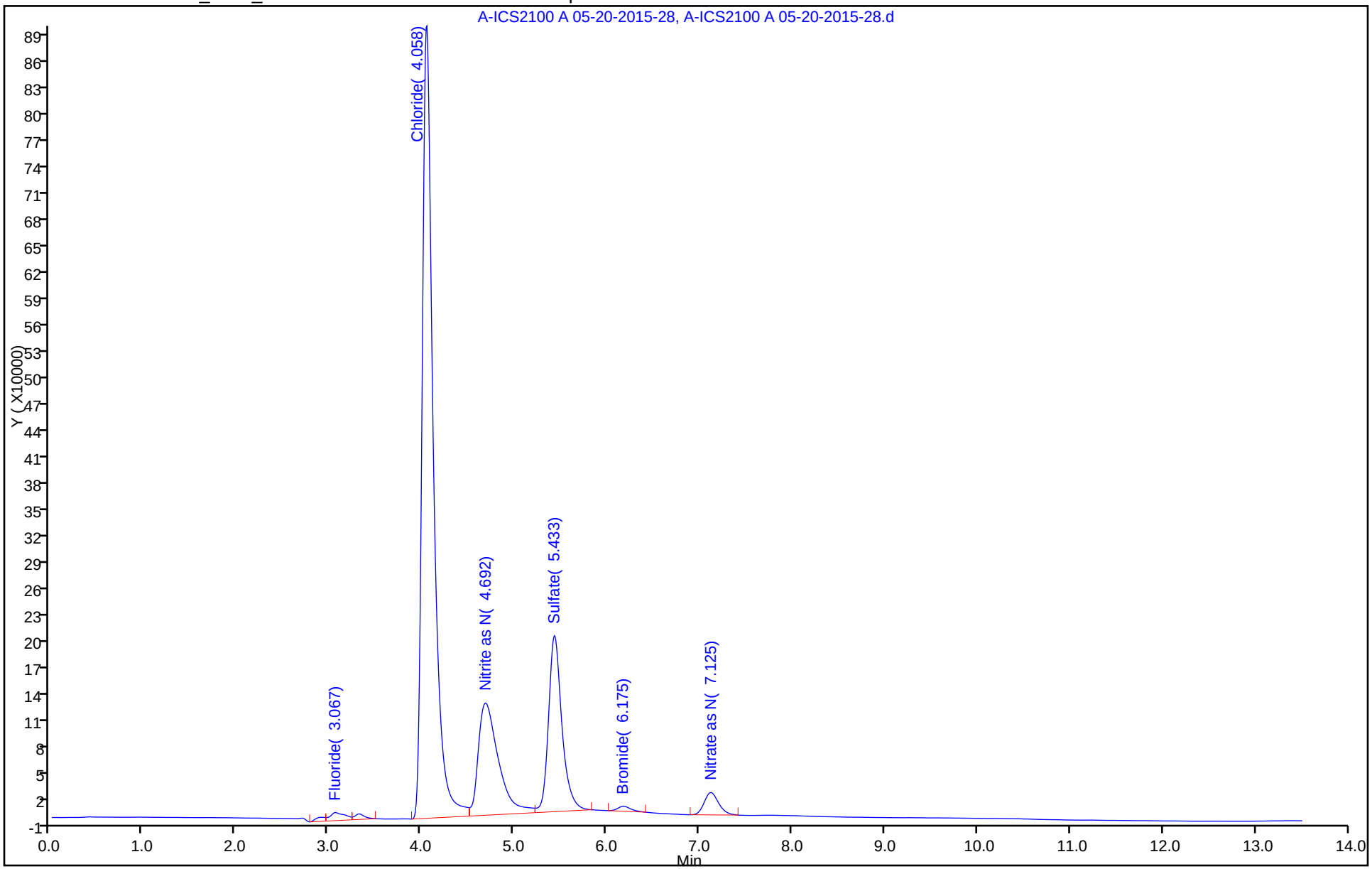
Column 1 : Det: 0008
Process Host: XAWRK013

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.092	-0.025	9242H		0.0103	
2 Chloride	4.058	4.050	0.008	7586792		0.4230	
7 Nitrite as N	4.692	4.700	-0.008	1942537		0.0153	
3 Sulfate	5.433	5.375	0.058	2023189		0.0523	
4 Bromide	6.175	6.175	0.000	55394		0.0212	
5 Nitrate as N	7.125	7.075	0.050	277529		0.0169	
6 Orthophosphate as P		9.367				ND	

Report Date: 21-May-2015 09:41:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-28.d				
Injection Date:	20-May-2015 20:26:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	29
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44248-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142275/5

Matrix: Water | Lab File ID: A-ICS2100 A 05-20-2015-5.d

Analysis Method: 300.0 | Date Collected:

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/20/2015 12:34

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.58		0.10	0.0062
16887-00-6	Chloride	51.6		1.0	0.20
14808-79-8	Sulfate	51.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 20-May-2015 12:34:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-005
Misc. Info.: 16 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:26 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.083	-0.016	11467896H	2.50	2.79	
2 Chloride	4.033	4.042	-0.009	1108247561	50.0	51.6	
7 Nitrite as N	4.683	4.692	-0.009	118055556	2.50	2.42	
3 Sulfate	5.367	5.367	0.000	800362899	50.0	51.0	
4 Bromide	6.158	6.158	0.000	94249671	10.0	9.98	
5 Nitrate as N	7.058	7.058	0.000	138222922	2.50	2.58	
6 Orthophosphate as P	9.400	9.367	0.033	51429864	2.50	2.58	

Reagents:

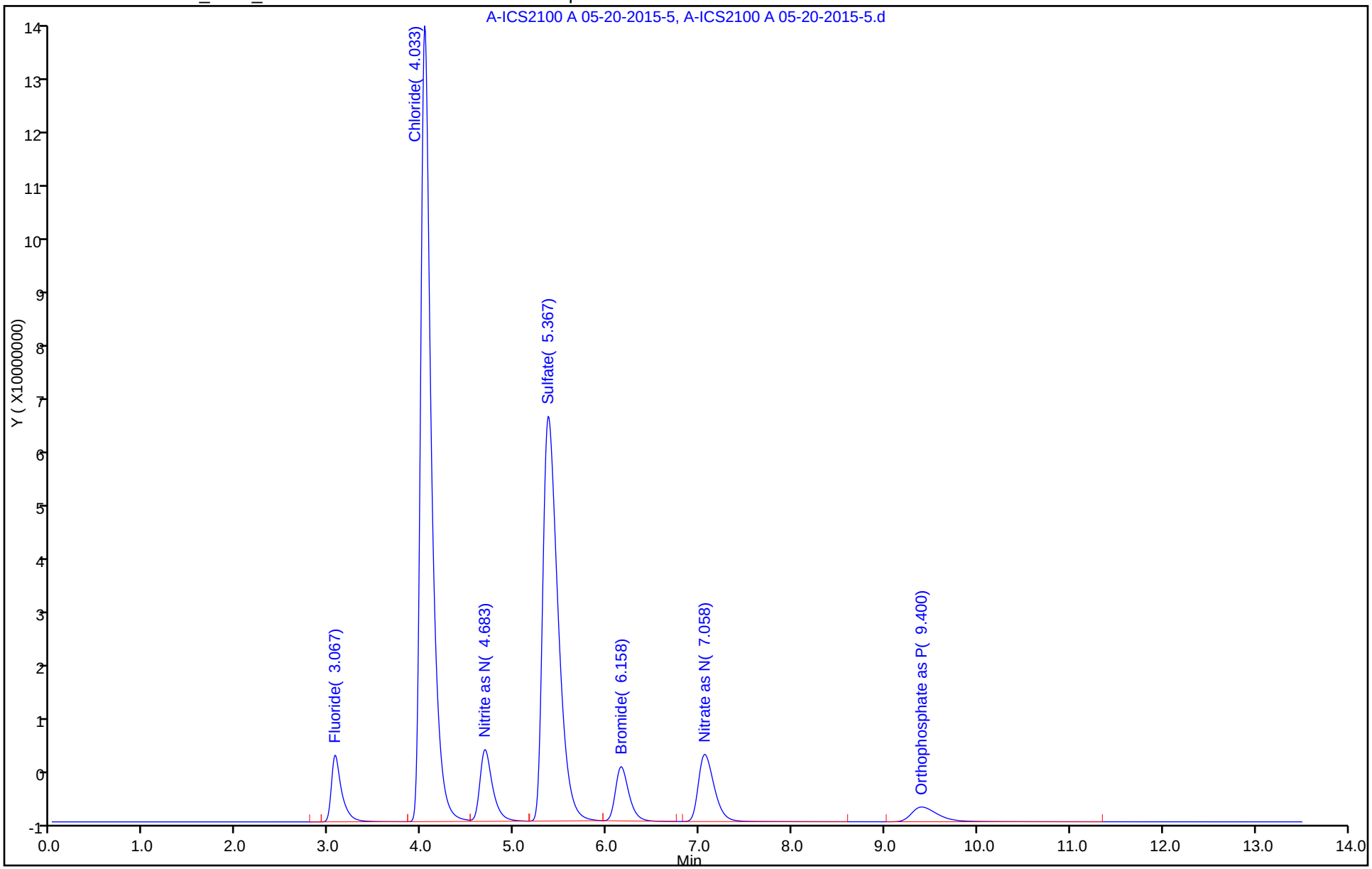
icccv_01243 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 17:27:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-5.d

Injection Date:	20-May-2015 12:34:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 MS Lab Sample ID: 180-44248-10 MS

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-13.d

Analysis Method: 300.0 Date Collected: 05/19/2015 15:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 15:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.73		0.10	0.0062
16887-00-6	Chloride	85.1		1.0	0.20
14808-79-8	Sulfate	38.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-13.d
Lims ID: 180-44248-A-10 MS
Client ID:
Sample Type: MS
Inject. Date: 20-May-2015 15:00:00 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-013
Misc. Info.: 24 180-44248-a-10 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.067	0.025	5496512H	1.25	1.34	
2 Chloride	4.050	4.033	0.017	1829912321	25.0	85.1	
7 Nitrite as N		4.683				ND	
3 Sulfate	5.392	5.367	0.025	610764228	25.0	38.9	
4 Bromide	6.183	6.150	0.033	45560805	5.00	4.83	
5 Nitrate as N	7.075	7.058	0.017	146328894	1.25	2.73	
6 Orthophosphate as P	9.592	9.408	0.184	18647607	1.25	0.99	

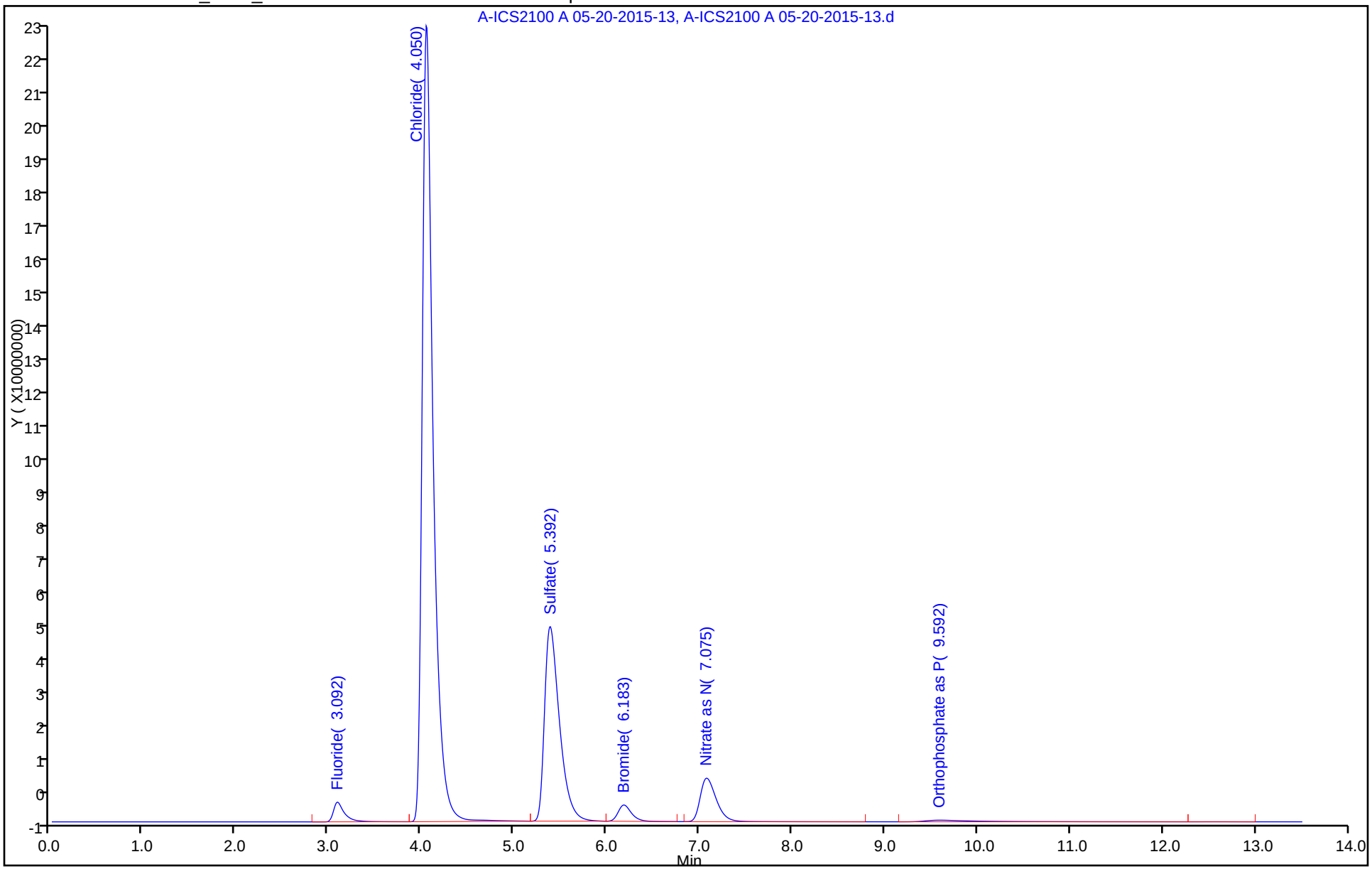
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 20-May-2015 17:41:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-13.d				
Injection Date:	20-May-2015 15:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-10 MS			Worklist Smp#:	13
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Client Sample ID: HD-MW-7-0/1-0 MSD Lab Sample ID: 180-44248-10 MSD

Matrix: Water Lab File ID: A-ICS2100 A 05-20-2015-14.d

Analysis Method: 300.0 Date Collected: 05/19/2015 15:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/20/2015 15:16

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142275 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.67		0.10	0.0062
16887-00-6	Chloride	83.4		1.0	0.20
14808-79-8	Sulfate	38.7		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-14.d
Lims ID: 180-44248-A-10 MSD
Client ID:
Sample Type: MSD
Inject. Date: 20-May-2015 15:16:00 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007032-014
Misc. Info.: 25 180-44248-a-10 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:27:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.067	0.016	5406190H	1.25	1.32	
2 Chloride	4.050	4.033	0.017	1792789838	25.0	83.4	
7 Nitrite as N		4.683				ND	
3 Sulfate	5.375	5.367	0.008	608533384	25.0	38.7	
4 Bromide	6.175	6.150	0.025	44419468	5.00	4.71	
5 Nitrate as N	7.075	7.058	0.017	142639957	1.25	2.67	
6 Orthophosphate as P	9.575	9.408	0.167	18907790	1.25	1.00	

Reagents:

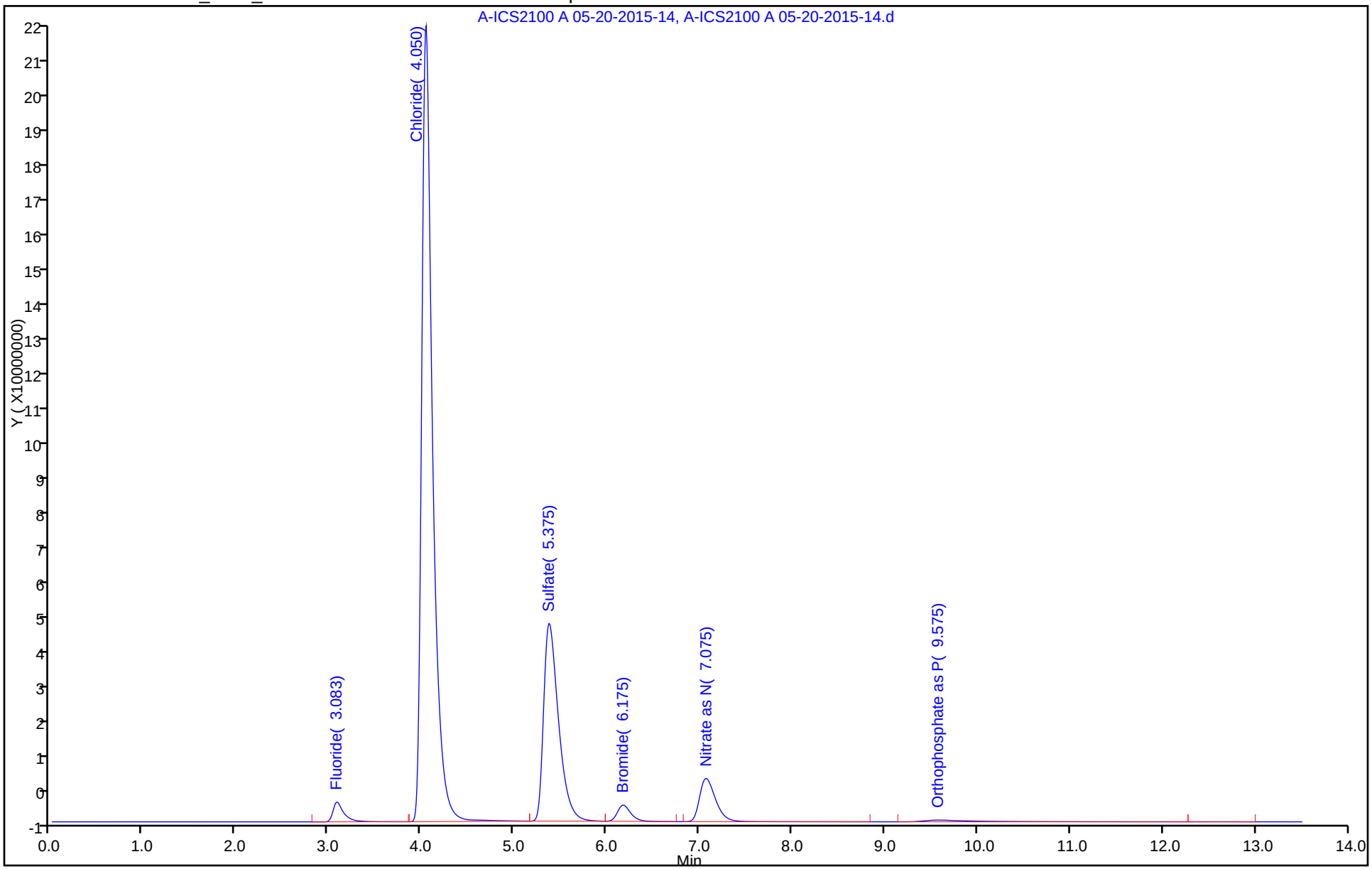
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 20-May-2015 17:41:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150520-7032.b\A-ICS2100 A 05-20-2015-14.d

Injection Date:	20-May-2015 15:16:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44248-A-10 MSD			Worklist Smp#:	14
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/19/2015 12:31

Analysis Batch Number: 142103 End Date: 05/20/2015 00:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-142103/2		05/19/2015 12:31	1	A-ICS2100 A 05-19-2015-2.d	AS-18
IC 180-142103/3		05/19/2015 12:46	1	A-ICS2100 A 05-19-2015-3.d	AS-18
ICRT 180-142103/4		05/19/2015 13:01	1	A-ICS2100 A 05-19-2015-4.d	AS-18
IC 180-142103/5		05/19/2015 13:17	1	A-ICS2100 A 05-19-2015-5.d	AS-18
IC 180-142103/6		05/19/2015 13:32	1	A-ICS2100 A 05-19-2015-6.d	AS-18
IC 180-142103/7		05/19/2015 13:47	1	A-ICS2100 A 05-19-2015-7.d	AS-18
IC 180-142103/8		05/19/2015 14:03	1	A-ICS2100 A 05-19-2015-8.d	AS-18
IC 180-142103/9		05/19/2015 14:18	1	A-ICS2100 A 05-19-2015-9.d	AS-18
ZZZZZ		05/19/2015 14:33	1		AS-18
ZZZZZ		05/19/2015 14:52	1		AS-18
ZZZZZ		05/19/2015 15:08	1		AS-18
ICV 180-142103/13		05/19/2015 15:23	1		AS-18
CCV 180-142103/14		05/19/2015 15:38	1		AS-18
CCB 180-142103/15		05/19/2015 15:54	1		AS-18
ZZZZZ		05/19/2015 16:12	1		AS-18
ZZZZZ		05/19/2015 16:29	1		AS-18
ZZZZZ		05/19/2015 19:45	1		AS-18
ZZZZZ		05/19/2015 20:08	1		AS-18
ZZZZZ		05/19/2015 20:23	1		AS-18
ZZZZZ		05/19/2015 20:38	1		AS-18
ZZZZZ		05/19/2015 20:54	1		AS-18
ZZZZZ		05/19/2015 21:09	1		AS-18
ZZZZZ		05/19/2015 21:24	1		AS-18
ZZZZZ		05/19/2015 21:41	1		AS-18
CCV 180-142103/26		05/19/2015 21:58	1		AS-18
CCB 180-142103/27		05/19/2015 22:15	1		AS-18
ZZZZZ		05/19/2015 22:33	1		AS-18
ZZZZZ		05/19/2015 22:50	1		AS-18
ZZZZZ		05/19/2015 23:07	1		AS-18
ZZZZZ		05/19/2015 23:25	1		AS-18
ZZZZZ		05/19/2015 23:42	1		AS-18
CCV 180-142103/38		05/19/2015 23:59	1		AS-18
CCB 180-142103/39		05/20/2015 00:16	1		AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/20/2015 11:33

Analysis Batch Number: 142275 End Date: 05/20/2015 23:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/20/2015 11:33	1		AS-18
ICV 180-142275/2		05/20/2015 11:48	1	A-ICS2100 A 05-20-2015-2.d	AS-18
CCV 180-142275/3		05/20/2015 12:03	1	A-ICS2100 A 05-20-2015-3.d	AS-18
CCB 180-142275/4		05/20/2015 12:19	1	A-ICS2100 A 05-20-2015-4.d	AS-18
LCS 180-142275/5		05/20/2015 12:34	1	A-ICS2100 A 05-20-2015-5.d	AS-18
MB 180-142275/6		05/20/2015 12:49	1	A-ICS2100 A 05-20-2015-6.d	AS-18
180-44248-2	HD-MW-100S-0/1-0	05/20/2015 13:05	1	A-ICS2100 A 05-20-2015-7.d	AS-18
180-44248-5	HD-MW-147A-0/1-0	05/20/2015 13:20	1	A-ICS2100 A 05-20-2015-8.d	AS-18
ZZZZZ		05/20/2015 13:53	1		AS-18
180-44248-7	HD-MW-37D-0/1-0	05/20/2015 14:11	1	A-ICS2100 A 05-20-2015-10.d	AS-18
180-44248-8	HD-MW-75S-0/1-0	05/20/2015 14:28	1	A-ICS2100 A 05-20-2015-11.d	AS-18
180-44248-10	HD-MW-7-0/1-0	05/20/2015 14:45	1	A-ICS2100 A 05-20-2015-12.d	AS-18
180-44248-10 MS	HD-MW-7-0/1-0 MS	05/20/2015 15:00	1	A-ICS2100 A 05-20-2015-13.d	AS-18
180-44248-10 MSD	HD-MW-7-0/1-0 MSD	05/20/2015 15:16	1	A-ICS2100 A 05-20-2015-14.d	AS-18
CCV 180-142275/15		05/20/2015 15:31	1	A-ICS2100 A 05-20-2015-15.d	AS-18
CCB 180-142275/16		05/20/2015 17:04	1	A-ICS2100 A 05-20-2015-16.d	AS-18
180-44248-6	HD-MW-37S-0/1-0	05/20/2015 17:27	1	A-ICS2100 A 05-20-2015-17.d	AS-18
180-44248-1	HD-MW-99D-0/1-0	05/20/2015 17:42	1	A-ICS2100 A 05-20-2015-18.d	AS-18
180-44248-3	HD-MW-100I-0/1-0	05/20/2015 17:58	1	A-ICS2100 A 05-20-2015-19.d	AS-18
180-44248-4	HD-MW-100D-0/1-0	05/20/2015 18:13	1	A-ICS2100 A 05-20-2015-20.d	AS-18
180-44248-9	HD-MW-75D-0/1-0	05/20/2015 18:28	1	A-ICS2100 A 05-20-2015-21.d	AS-18
ZZZZZ		05/20/2015 18:43	1		AS-18
ZZZZZ		05/20/2015 18:59	1		AS-18
ZZZZZ		05/20/2015 19:16	1		AS-18
ZZZZZ		05/20/2015 19:34	1		AS-18
ZZZZZ		05/20/2015 19:51	1		AS-18
CCV 180-142275/28		05/20/2015 20:08	1	A-ICS2100 A 05-20-2015-27.d	AS-18
CCB 180-142275/29		05/20/2015 20:26	1	A-ICS2100 A 05-20-2015-28.d	AS-18
ZZZZZ		05/20/2015 20:43	1		AS-18
ZZZZZ		05/20/2015 21:00	1		AS-18
ZZZZZ		05/20/2015 21:18	1		AS-18
ZZZZZ		05/20/2015 21:35	1		AS-18
ZZZZZ		05/20/2015 21:52	1		AS-18
ZZZZZ		05/20/2015 22:09	1		AS-18
ZZZZZ		05/20/2015 22:27	5		AS-18
ZZZZZ		05/20/2015 22:44	5		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/20/2015 11:33

Analysis Batch Number: 142275 End Date: 05/20/2015 23:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/20/2015 23:01	5		AS-18
CCV 180-142275/39		05/20/2015 23:19	1		AS-18
CCB 180-142275/40		05/20/2015 23:36	1		AS-18

300.0

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44248-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-99D-0/1-0	180-44248-1
HD-MW-100S-0/1-0	180-44248-2
HD-MW-100I-0/1-0	180-44248-3
HD-MW-100D-0/1-0	180-44248-4
HD-MW-147A-0/1-0	180-44248-5
HD-MW-37S-0/1-0	180-44248-6
HD-MW-37D-0/1-0	180-44248-7
HD-MW-75S-0/1-0	180-44248-8
HD-MW-75D-0/1-0	180-44248-9
HD-MW-7-0/1-0	180-44248-10

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-99D-0/1-0 Lab Sample ID: 180-44248-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 09:30

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	88000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	27000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-44248-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:20

Reporting Basis: WET Date Received: 05/20/2015 09:00

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	4100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-44248-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:55

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	90000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	50000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-44248-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 11:45

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	93000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4600	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-44248-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 12:30

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	88000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	54000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-44248-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 09:00

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	78000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	14000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	20000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	62000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-44248-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:17

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	89000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	58000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-44248-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 12:36

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	82000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5400	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-75D-0/1-0 Lab Sample ID: 180-44248-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 11:48

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	89000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6300	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	18000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	56000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-44248-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 15:00

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	55000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	5200	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	16000	500	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	ICV 180-143685/5 06/02/2015 10:21				CCV 180-143685/10 06/02/2015 10:42				CCV 180-143685/22 06/02/2015 11:30			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	41400		40000	104	49400		50000	99	48700		50000	97
Magnesium	38300		40000	96	46300		50000	93	46100		50000	92
Potassium	41300		40000	103	48600		50000	97	48400		50000	97
Sodium	38800		40000	97	47300		50000	95	46900		50000	94

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.: 180-44248-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-143685/34 06/02/2015 12:21				CCV 180-143685/46 06/02/2015 13:10				CCV 180-143685/58 06/02/2015 14:01			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	50000		50000	100	47900		50000	96	48600		50000	97
Magnesium	47600		50000	95	45500		50000	91	45900		50000	92
Potassium	49600		50000	99	46800		50000	94	49000		50000	98
Sodium	48600		50000	97	45500		50000	91	46700		50000	93

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.: 180-44248-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-143685/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	482	J	96	70-130
Potassium	500	507		101	70-130
Magnesium	500	469	J	94	70-130
Sodium	500	468	J	94	70-130

Lab Sample ID: CRI 180-143685/99 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	482	J	96	70-130
Potassium	500	522		104	70-130
Magnesium	500	463	J	93	70-130
Sodium	500	461	J	92	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-143685/6 06/02/2015 10:24		CCB1 180-143685/11 06/02/2015 10:48		CCB2 180-143685/23 06/02/2015 11:37		CCB3 180-143685/35 06/02/2015 12:28	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U	500	U	500	U
Magnesium	500	500	U	500	U	500	U	500	U
Potassium	500	5.98	J	500	U	500	U	6.97	J
Sodium	500	500	U	500	U	500	U	500	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB4 180-143685/47 06/02/2015 13:16		CCB5 180-143685/59 06/02/2015 14:08					
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U				
Magnesium	500	500	U	500	U				
Potassium	500	7.86	J	11.3	J				
Sodium	500	500	U	500	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-142252/1-A

Instrument Code: M Batch No.: 143685

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	14.9	J		6020A
7440-09-7	Potassium	500	U		6020A
7439-95-4	Magnesium	500	U		6020A
7440-23-5	Sodium	500	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: ICSA 180-143685/8 Instrument ID: M

Lab File ID: M50602A.xml ICS Source: MICSAX_00067

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**103000**	**103**
Magnesium	**100000**	**98360**	**98**
Potassium	**100000**	**99470**	**99**
Sodium	**100000**	**98340**	**98**
Aluminum	*100000*	*95720*	*96*
Antimony		*0.0030*	
Arsenic		*0.131*	
Barium		*0.152*	
Beryllium		*0.0040*	
Boron		*1.15*	
Cadmium		*0.405*	
Chromium		*-0.935*	
Cobalt		*0.193*	
Copper		*1.94*	
Iron	*100000*	*103300*	*103*
Lead		*0.255*	
Manganese		*0.513*	
Molybdenum	*2000*	*2369*	*118*
Nickel		*0.581*	
Selenium		*1.40*	
Silicon		*21.8*	
Silver		*0.155*	
Strontium		*0.688*	
Thallium		*0.0160*	
Tin		*-0.0530*	
Titanium	*2000*	*2116*	*106*
Vanadium		*-0.701*	
Zinc		*4.22*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Lab Sample ID: ICSAB 180-143685/9 Instrument ID: M

Lab File ID: M50602A.xml ICS Source: MICSABX_00071

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**107107**	**107**
Magnesium	**100000**	**101800**	**102**
Potassium	**100000**	**103890**	**104**
Sodium	**100000**	**98953**	**99**
Aluminum	*100000*	*99207*	*99*
Antimony	*20.0*	*22.0*	*110*
Arsenic	*20.0*	*22.2*	*111*
Barium	*20.0*	*20.7*	*104*
Beryllium	*20.0*	*19.9*	*100*
Boron	*50.0*	*52.2*	*104*
Cadmium	*20.0*	*21.6*	*108*
Chromium	*20.0*	*20.5*	*102*
Cobalt	*20.0*	*21.9*	*109*
Copper	*20.0*	*23.2*	*116*
Iron	*100000*	*106950*	*107*
Lead	*20.0*	*22.1*	*110*
Manganese	*22.5*	*21.5*	*96*
Molybdenum	*2000*	*2394*	*120*
Nickel	*20.0*	*22.3*	*112*
Selenium	*50.0*	*57.3*	*115*
Silicon	*500*	*521*	*104*
Silver	*20.0*	*20.7*	*104*
Strontium	*25.0*	*21.3*	*85*
Thallium	*20.0*	*21.2*	*106*
Tin	*100*	*107*	*107*
Titanium	*2000*	*2207*	*110*
Vanadium	*20.0*	*20.4*	*102*
Zinc	*25.0*	*26.7*	*107*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-100S-0/1-0 MS Lab ID: 180-44248-2 MS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

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	143000		91000		50000	104	75-125		6020A
Potassium	50400		4100		50000	93	75-125		6020A
Magnesium	61800		17000		50000	90	75-125		6020A
Sodium	92100		48000		50000	89	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-MW-100S-0/1-0 MSD Lab ID: 180-44248-2 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

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	107	75-125	1	20		6020A
Potassium	50700		50000	93	75-125	1	20		6020A
Magnesium	60300		50000	87	75-125	2	20		6020A
Sodium	90000		50000	85	75-125	2	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-100S-0/1-0 PDS Lab ID: 180-44248-2 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

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	138000		91000		50000	93	75-125		6020A
Potassium	49400		4100		50000	91	75-125		6020A
Magnesium	57000		17000		50000	80	75-125		6020A
Sodium	85400		48000		50000	76	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-142252/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	49300		99	80	120		6020A
Potassium	50000	46400		93	80	120		6020A
Magnesium	50000	42100		84	80	120		6020A
Sodium	50000	42200		84	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: 180-44248-2

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-44248-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	91000		85000		6.6		6020A
Potassium	4100		3890		5.3		6020A
Magnesium	17000		16400		3.6		6020A
Sodium	48000		46700		2.1		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: 180-44248-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A MDL Date: 01/23/2010 18:33

Prep Method: 3005A

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44248-1

SDG Number:

Matrix: Water Instrument ID: M

Method: 6020A XMDL Date: 01/23/2010 18:33

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Calcium	44	500	2.8374
Magnesium	26	500	1.1665
Potassium	39	500	5.823
Sodium	23	500	3.8135

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Pittsburgh Job No: 180-44248-1

SDG No.:

Instrument ID: M Date: 03/14/2011 22:35

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Calcium		1500000	6020A
Potassium		450000	6020A
Magnesium		1500000	6020A
Sodium		450000	6020A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-142252/1-A	05/20/2015 12:14	142252		50	50
LCS 180-142252/2-A	05/20/2015 12:14	142252		50	50
180-44248-1	05/20/2015 12:14	142252		50	50
180-44248-2	05/20/2015 12:14	142252		50	50
180-44248-2 MS	05/20/2015 12:14	142252		50	50
180-44248-2 MSD	05/20/2015 12:14	142252		50	50
180-44248-3	05/20/2015 12:14	142252		50	50
180-44248-4	05/20/2015 12:14	142252		50	50
180-44248-5	05/20/2015 12:14	142252		50	50
180-44248-6	05/20/2015 12:14	142252		50	50
180-44248-7	05/20/2015 12:14	142252		50	50
180-44248-8	05/20/2015 12:14	142252		50	50
180-44248-9	05/20/2015 12:14	142252		50	50
180-44248-10	05/20/2015 12:14	142252		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-143685/1			07:51																										
STD1 180-143685/2 IC	1		10:10	X	X	X	X																						
STD2 180-143685/3 IC	1		10:13	X	X	X	X																						
STD3 180-143685/4 IC	1		10:17	X	X	X	X																						
ICV 180-143685/5	1		10:21	X	X	X	X																						
ICB 180-143685/6	1		10:24	X	X	X	X																						
CRI 180-143685/7	1		10:28	X	X	X	X																						
ICSA 180-143685/8	1		10:32	X	X	X	X																						
ICSAB 180-143685/9	1		10:35	X	X	X	X																						
CCV 180-143685/10	1		10:42	X	X	X	X																						
CCB1 180-143685/11	1		10:48	X	X	X	X																						
ZZZZZZ			10:52																										
ZZZZZZ			10:56																										
ZZZZZZ			11:00																										
ZZZZZZ			11:03																										
ZZZZZZ			11:07																										
ZZZZZZ			11:11																										
ZZZZZZ			11:15																										
ZZZZZZ			11:19																										
ZZZZZZ			11:22																										
ZZZZZZ			11:26																										
CCV 180-143685/22	1		11:30	X	X	X	X																						
CCB2 180-143685/23	1		11:37	X	X	X	X																						
ZZZZZZ			11:40																										
ZZZZZZ			11:44																										
ZZZZZZ			11:48																										
ZZZZZZ			11:52																										
ZZZZZZ			11:56																										
ZZZZZZ			11:59																										
MB 180-142252/1-A	1	R	12:06	X	X	X	X																						
LCS 180-142252/2-A	1	R	12:10	X	X	X	X																						
180-44248-2	1	T	12:14	X	X	X	X																						
180-44248-2 SD	5	T	12:18	X	X	X	X																						
CCV 180-143685/34	1		12:21	X	X	X	X																						
CCB3 180-143685/35	1		12:28	X	X	X	X																						
180-44248-2 MS	1	T	12:32	X	X	X	X																						
180-44248-2 MSD	1	T	12:36	X	X	X	X																						
180-44248-2 PDS	1	T	12:39	X	X	X	X																						
180-44248-1	1	T	12:43	X	X	X	X																						
180-44248-3	1	T	12:47	X	X	X	X																						
180-44248-4	1	T	12:51	X	X	X	X																						
180-44248-5	1	T	12:55	X	X	X	X																						

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
180-44248-6	1	T	12:58	X	X	X	X																						
180-44248-7	1	T	13:02	X	X	X	X																						
180-44248-8	1	T	13:06	X	X	X	X																						
CCV 180-143685/46	1		13:10	X	X	X	X																						
CCB4 180-143685/47	1		13:16	X	X	X	X																						
180-44248-9	1	T	13:20	X	X	X	X																						
180-44248-10	1	T	13:24	X	X	X	X																						
ZZZZZZ			13:31																										
ZZZZZZ			13:34																										
ZZZZZZ			13:38																										
ZZZZZZ			13:42																										
ZZZZZZ			13:46																										
ZZZZZZ			13:50																										
ZZZZZZ			13:53																										
ZZZZZZ			13:57																										
CCV 180-143685/58	1		14:01	X	X	X	X																						
CCB5 180-143685/59	1		14:08	X	X	X	X																						
ZZZZZZ			14:11																										
ZZZZZZ			14:15																										
ZZZZZZ			14:19																										
ZZZZZZ			14:23																										
ZZZZZZ			14:27																										
ZZZZZZ			14:31																										
ZZZZZZ			14:34																										
ZZZZZZ			14:38																										
ZZZZZZ			14:42																										
ZZZZZZ			14:46																										
CCV 180-143685/70			14:50																										
CCB6 180-143685/71			14:56																										
ZZZZZZ			15:00																										
ZZZZZZ			15:04																										
ZZZZZZ			15:08																										
ZZZZZZ			15:11																										
ZZZZZZ			15:15																										
ZZZZZZ			15:19																										
ZZZZZZ			15:23																										
ZZZZZZ			15:27																										
ZZZZZZ			15:33																										
ZZZZZZ			15:37																										
CCV 180-143685/82			15:41																										
CCB7 180-143685/83			15:48																										
ZZZZZZ			15:51																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			15:55																										
ZZZZZZ			15:59																										
ZZZZZZ			16:03																										
ZZZZZZ			16:07																										
ZZZZZZ			16:10																										
ZZZZZZ			16:14																										
ZZZZZZ			16:18																										
ZZZZZZ			16:22																										
ZZZZZZ			16:26																										
CCV 180-143685/94			16:30																										
CCB8 180-143685/95			16:36																										
ZZZZZZ			16:40																										
ZZZZZZ			16:44																										
ZZZZZZ			16:47																										
CRI 180-143685/99	1		16:58	X	X	X	X																						
ZZZZZZ			17:02																										
ZZZZZZ			17:06																										
ZZZZZZ			17:09																										
ZZZZZZ			17:13																										
CCV 180-143685/104			17:17																										
CCB9 180-143685/105			17:24																										

Prep Types:
R = Total Recoverable
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

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 180-143685/2 I	10:10	100		100		100		100		100	
STD2 180-143685/3 I	10:13	93		106		101		95		97	
STD3 180-143685/4 I	10:17	109		108		106		106		107	
ICV 180-143685/5	10:21	106		109		113		109		112	
ICB 180-143685/6	10:24	107		112		112		112		112	
CRI 180-143685/7	10:28	106		110		113		107		110	
ICSA 180-143685/8	10:32	80		92		95		89		95	
ICSAB 180-143685/9	10:35	80		86		94		88		95	
CCV 180-143685/10	10:42	88		94		99		100		99	
CCB1 180-143685/11	10:48	94		100		104		104		107	
CCV 180-143685/22	11:30	91		98		98		94		94	
CCB2 180-143685/23	11:37	102		102		103		101		103	
MB 180-142252/1-A	12:06	109		104		104		103		104	
LCS 180-142252/2-A	12:10	100		80		90		86		89	
180-44248-2	12:14	98		80		90		87		90	
180-44248-2 SD	12:18	101		95		99		98		101	
CCV 180-143685/34	12:21	96		100		102		98		97	
CCB3 180-143685/35	12:28	110		107		105		104		104	
180-44248-2 MS	12:32	91		83		92		86		92	
180-44248-2 MSD	12:36	93		80		91		85		90	
180-44248-2 PDS	12:39	100		79		90		84		87	
180-44248-1	12:43	97		87		91		88		92	
180-44248-3	12:47	95		83		91		87		91	
180-44248-4	12:51	94		84		89		87		91	
180-44248-5	12:55	97		86		91		88		93	
180-44248-6	12:58	99		83		90		86		90	
180-44248-7	13:02	94		82		91		87		92	
180-44248-8	13:06	99		83		90		87		90	
CCV 180-143685/46	13:10	98		98		96		91		90	
CCB4 180-143685/47	13:16	111		101		102		101		102	
180-44248-9	13:20	101		89		92		89		92	
180-44248-10	13:24	103		89		93		91		95	
CCV 180-143685/58	14:01	99		98		97		93		95	
CCB5 180-143685/59	14:08	111		103		100		99		98	
CRI 180-143685/99	16:58	118		112		106		101		101	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-143685/2 I	10:10	100		100		100					
STD2 180-143685/3 I	10:13	99		99		98					
STD3 180-143685/4 I	10:17	106		106		110					
ICV 180-143685/5	10:21	114		108		110					
ICB 180-143685/6	10:24	110		110		113					
CRI 180-143685/7	10:28	108		107		105					
ICSA 180-143685/8	10:32	104		104		112					
ICSAB 180-143685/9	10:35	104		105		103					
CCV 180-143685/10	10:42	105		105		104					
CCB1 180-143685/11	10:48	109		110		112					
CCV 180-143685/22	11:30	103		104		97					
CCB2 180-143685/23	11:37	104		104		104					
MB 180-142252/1-A	12:06	105		105		108					
LCS 180-142252/2-A	12:10	99		99		85					
180-44248-2	12:14	98		100		87					
180-44248-2 SD	12:18	107		108		101					
CCV 180-143685/34	12:21	104		106		98					
CCB3 180-143685/35	12:28	103		103		103					
180-44248-2 MS	12:32	103		104		89					
180-44248-2 MSD	12:36	101		102		85					
180-44248-2 PDS	12:39	99		100		84					
180-44248-1	12:43	100		101		91					
180-44248-3	12:47	101		102		92					
180-44248-4	12:51	101		102		93					
180-44248-5	12:55	101		102		91					
180-44248-6	12:58	99		100		89					
180-44248-7	13:02	101		103		92					
180-44248-8	13:06	99		100		87					
CCV 180-143685/46	13:10	100		100		92					
CCB4 180-143685/47	13:16	102		102		104					
180-44248-9	13:20	100		101		88					
180-44248-10	13:24	101		101		90					
CCV 180-143685/58	14:01	98		98		92					
CCB5 180-143685/59	14:08	97		96		98					
CRI 180-143685/99	16:58	97		96		94					

Dilution Corrected Concentrations

STD1 1565410 INT STD 6/2/2015 10:10:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	101.747%	-0.001	-0.087	-0.034	0.000	0.193	0.575	0.168
2	10:11:17	101.441%	-0.001	-0.082	-0.015	0.000	-0.072	-0.249	0.022
3	10:11:36	96.812%	0.002	0.169	0.049	0.000	-0.121	-0.326	-0.191
x		100.000%	-0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ		2.765%	0.002	0.147	0.043	0.000	0.169	0.500	0.181
%RSD		2.765	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	10:10:58	-0.076	-5.420	0.000	0.091	3.462	-0.099	101.760%	-0.044
2	10:11:17	0.030	1.198	0.000	0.637	-2.317	0.638	98.366%	-0.000
3	10:11:36	0.045	4.222	0.000	-0.728	-1.144	-0.538	99.874%	0.044
x		-0.000	0.000	0.000	-0.000	0.000	-0.000	100.000%	-0.000
σ		0.066	4.931	0.000	0.687	3.055	0.594	1.700%	0.044
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.700	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	0.008	0.038	0.018	0.422	-0.726	0.000	-0.041	-0.010
2	10:11:17	-0.004	-0.009	-0.008	-0.035	0.648	-0.003	0.022	0.012
3	10:11:36	-0.004	-0.029	-0.009	-0.387	0.079	0.003	0.020	-0.002
x		-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
σ		0.007	0.035	0.015	0.406	0.690	0.003	0.036	0.011
%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	10:10:58	-0.016	-0.033	-0.015	-0.066	0.213	0.086	0.000	0.004
2	10:11:17	-0.005	0.001	0.110	0.000	-0.210	-0.076	0.000	-0.002
3	10:11:36	0.022	0.032	-0.095	0.066	-0.003	-0.011	0.000	-0.001
x		-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
σ		0.019	0.032	0.103	0.066	0.211	0.082	0.000	0.003
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	98.645%	-0.044	-0.036	99.249%	0.001	-0.007	-0.022	-0.012
2	10:11:17	100.214%	0.013	-0.007	100.203%	0.002	-0.001	0.017	0.007
3	10:11:36	101.141%	0.030	0.043	100.547%	-0.004	0.008	0.005	0.005
x		100.000%	-0.000	0.000	100.000%	-0.000	0.000	0.000	-0.000
σ		1.262%	0.039	0.040	0.672%	0.003	0.007	0.020	0.011
%RSD		1.262	0.000	0.000	0.672	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	10:10:58	98.788%	-0.096	-0.064	-0.075	0.015	-0.006	98.064%	97.649%
2	10:11:17	100.965%	0.018	0.061	0.014	-0.011	0.005	100.563%	100.924%
3	10:11:36	100.246%	0.078	0.003	0.060	-0.004	0.001	101.374%	101.427%
x		100.000%	-0.000	-0.000	-0.000	-0.000	0.000	100.000%	100.000%
σ		1.109%	0.088	0.063	0.069	0.014	0.006	1.725%	2.052%
%RSD		1.109	0.000	0.000	0.000	0.000	0.000	1.725	2.052

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	-0.001	-0.001	-0.004	0.002	-0.002	99.975%
2	10:11:17	0.004	-0.001	-0.007	-0.005	-0.005	100.140%
3	10:11:36	-0.003	0.001	0.010	0.003	0.007	99.885%
x		-0.000	-0.000	0.000	-0.000	0.000	100.000%
σ		0.004	0.001	0.009	0.004	0.006	0.129%
%RSD		0.000	0.000	0.000	0.000	0.000	0.129

STD2 1594024 6/2/2015 10:13:54 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	10:13:54	100.975%	197.200	0.714	0.978	0.000	95760.000	94860.000	95820.000
2	10:14:13	88.339%	201.700	0.694	1.182	0.000	102700.000	103100.000	103400.000
3	10:14:32	90.512%	201.100	1.085	0.934	0.000	101600.000	102000.000	100700.000
x		93.275%	200.000	0.831	1.031	0.000	100000.000	100000.000	100000.000
σ		6.756%	2.444	0.220	0.133	0.000	3712.000	4486.000	3862.000
%RSD		7.243	1.222	26.520	12.850	0.000	3.712	4.486	3.862
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	967.700	23.900	0.000	96550.000	96090.000	97710.000	107.891%	0.235
2	10:14:13	1037.000	47.080	0.000	102900.000	103100.000	101300.000	105.245%	0.041
3	10:14:32	995.500	49.810	0.000	100500.000	100800.000	101000.000	105.137%	0.213
x		1000.000	40.260	0.000	100000.000	100000.000	100000.000	106.091%	0.163
σ		34.760	14.240	0.000	3223.000	3575.000	1993.000	1.559%	0.106
%RSD		3.476	35.360	0.000	3.223	3.575	1.993	1.470	65.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	194.800	196.300	974.800	48910.000	49000.000	196.000	196.800	197.600
2	10:14:13	202.900	200.600	1011.000	50580.000	50290.000	202.000	201.900	199.600
3	10:14:32	202.300	203.100	1015.000	50510.000	50710.000	202.000	201.300	202.800
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		4.521	3.477	21.930	943.600	890.400	3.443	2.761	2.603
%RSD		2.261	1.738	2.193	1.887	1.781	1.722	1.381	1.302
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	200.400	196.500	197.500	198.300	198.100	199.100	0.000	198.400
2	10:14:13	200.000	202.000	202.100	199.800	201.100	200.100	0.000	200.700
3	10:14:32	199.600	201.500	200.400	201.900	200.900	200.700	0.000	200.800
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		0.376	3.024	2.322	1.813	1.679	0.798	0.000	1.359
%RSD		0.188	1.512	1.161	0.906	0.839	0.399	0.000	0.680
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	99.810%	0.072	0.062	93.890%	198.000	198.200	198.100	198.200
2	10:14:13	100.589%	0.211	0.207	95.016%	200.900	200.600	200.600	200.200
3	10:14:32	101.358%	0.266	0.342	95.503%	201.100	201.200	201.300	201.600
x		100.586%	0.183	0.204	94.803%	200.000	200.000	200.000	200.000
σ		0.774%	0.100	0.140	0.827%	1.728	1.587	1.644	1.685
%RSD		0.769	54.560	68.690	0.873	0.864	0.793	0.822	0.843
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	94.702%	-0.066	0.235	0.224	199.200	199.000	95.515%	96.471%
2	10:14:13	97.237%	0.163	0.308	0.313	199.500	199.300	100.223%	99.420%
3	10:14:32	97.771%	0.275	0.321	0.343	201.300	201.700	100.375%	99.956%
x		96.570%	0.124	0.288	0.293	200.000	200.000	98.704%	98.616%
σ		1.639%	0.174	0.047	0.062	1.123	1.449	2.763%	1.876%
%RSD		1.697	139.900	16.150	21.100	0.562	0.725	2.799	1.903
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:13:54	193.200	193.300	192.400	193.200	192.600	98.492%		
2	10:14:13	200.000	198.800	199.000	199.200	199.800	98.736%		
3	10:14:32	206.800	207.900	208.700	207.600	207.600	96.429%		
x		200.000	200.000	200.000	200.000	200.000	97.886%		
σ		6.816	7.352	8.186	7.260	7.509	1.267%		
%RSD		3.408	3.676	4.093	3.630	3.754	1.294		

STD3 1594025 6/2/2015 10:17:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	116.286%	0.045	195.900	199.600	0.000	24.430	16.070	15.730
2	10:17:49	107.117%	0.069	199.500	197.700	0.000	24.460	14.350	14.470
3	10:18:08	103.048%	0.098	204.600	202.700	0.000	25.090	15.580	14.820
x		108.817%	0.071	200.000	200.000	0.000	24.660	15.330	15.010
σ		6.781%	0.026	4.398	2.488	0.000	0.373	0.882	0.648
%RSD		6.231	37.260	2.199	1.244	0.000	1.512	5.752	4.316
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	19.380	9502.000	0.000	17.260	33.070	133.900	109.692%	198.100
2	10:17:49	20.320	10030.000	0.000	16.370	45.950	133.200	107.730%	202.200
3	10:18:08	21.270	10470.000	0.000	15.030	31.930	133.500	107.108%	199.700
x		20.320	10000.000	0.000	16.220	36.980	133.600	108.177%	200.000
σ		0.946	482.600	0.000	1.123	7.788	0.362	1.348%	2.075
%RSD		4.652	4.826	0.000	6.923	21.060	0.271	1.246	1.038
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	0.074	0.082	0.277	37.480	30.920	0.032	0.130	0.197
2	10:17:49	0.116	0.067	0.251	33.670	29.290	0.044	0.178	0.213
3	10:18:08	0.094	0.050	0.241	26.610	26.690	0.040	0.132	0.229
x		0.095	0.066	0.256	32.590	28.970	0.039	0.147	0.213
σ		0.021	0.016	0.019	5.511	2.132	0.006	0.027	0.016
%RSD		22.020	23.930	7.318	16.910	7.359	15.300	18.390	7.536
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	0.245	2.982	2.878	0.660	2.763	2.227	0.000	0.072
2	10:17:49	0.260	3.077	2.849	1.144	3.226	3.415	0.000	0.061
3	10:18:08	0.287	2.991	3.333	1.146	3.178	2.887	0.000	0.072
x		0.264	3.017	3.020	0.983	3.056	2.843	0.000	0.068
σ		0.021	0.052	0.272	0.280	0.254	0.595	0.000	0.006
%RSD		8.091	1.734	8.993	28.520	8.322	20.940	0.000	9.082
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	104.836%	199.400	198.300	105.327%	0.055	0.087	0.085	-0.141
2	10:17:49	106.786%	200.100	200.700	106.305%	0.079	0.083	0.104	-0.316
3	10:18:08	107.238%	200.400	201.100	106.976%	0.073	0.073	0.071	-0.502
x		106.287%	200.000	200.000	106.202%	0.069	0.081	0.087	-0.320
σ		1.276%	0.534	1.520	0.830%	0.012	0.007	0.017	0.180
%RSD		1.201	0.267	0.760	0.781	17.720	8.893	19.160	56.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	105.646%	196.900	199.000	198.500	0.079	0.380	103.213%	102.325%
2	10:17:49	107.167%	201.100	200.600	200.400	0.095	0.323	106.581%	106.766%
3	10:18:08	108.590%	202.000	200.400	201.100	0.215	0.403	108.639%	109.296%
x		107.134%	200.000	200.000	200.000	0.130	0.369	106.144%	106.129%
σ		1.472%	2.742	0.884	1.313	0.074	0.041	2.739%	3.529%
%RSD		1.374	1.371	0.442	0.656	57.220	11.070	2.581	3.325
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:17:30	0.062	0.063	0.050	0.069	0.064	108.229%		
2	10:17:49	0.073	0.062	0.067	0.063	0.066	109.524%		
3	10:18:08	0.074	0.060	0.069	0.088	0.071	110.749%		
x		0.070	0.062	0.062	0.073	0.067	109.501%		
σ		0.007	0.002	0.010	0.013	0.004	1.260%		
%RSD		10.270	2.447	16.330	17.960	5.356	1.151		

ICV 1578172 6/2/2015 10:21:06 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	107.008%	80.830	94.130	86.210	0.000	39350.000	39490.000	39270.000
2	10:21:26	106.072%	73.620	86.060	86.410	0.000	38610.000	38790.000	38780.000
3	10:21:45	106.102%	77.000	85.530	84.280	0.000	38520.000	37960.000	36990.000
x		106.394%	96.438%	110.713%	107.043%	0.000	97.067%	96.867%	95.860%
σ		0.532%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.500	4.679	5.440	1.373	0.000	1.178	1.983	3.127

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	390.300	4906.000	0.000	41680.000	40720.000	40610.000	112.584%	82.100
2	10:21:26	392.900	5052.000	0.000	41820.000	42270.000	42070.000	106.549%	86.380
3	10:21:45	388.300	5224.000	0.000	40480.000	41800.000	41650.000	106.455%	86.520
x		97.624%	126.522%	0.000	103.326%	103.992%	103.614%	108.529%	106.247%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.512%	n/a
%RSD		0.586	3.141	0.000	1.780	1.911	1.822	3.236	2.958

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	80.330	82.280	398.600	20030.000	19690.000	80.680	83.220	81.230
2	10:21:26	85.890	87.030	419.600	21160.000	20660.000	84.910	85.590	83.140
3	10:21:45	84.440	85.840	424.000	20920.000	20760.000	87.220	85.090	85.390
x		104.442%	106.314%	103.512%	103.521%	101.856%	105.342%	105.791%	104.067%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.450	2.903	3.275	2.879	2.911	3.934	1.474	2.499

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	80.110	83.460	82.820	80.450	86.030	81.830	0.000	77.200
2	10:21:26	83.650	86.300	86.150	82.310	83.890	82.140	0.000	78.940
3	10:21:45	85.580	85.330	87.040	83.130	84.800	85.510	0.000	78.610
x		103.889%	106.285%	106.672%	102.456%	106.134%	103.952%	0.000	97.815%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.341	1.699	2.607	1.677	1.266	2.455	0.000	1.185

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	111.615%	83.120	85.370	107.770%	79.280	79.540	79.800	78.870
2	10:21:26	112.849%	86.530	86.870	108.336%	80.540	80.150	81.130	79.500
3	10:21:45	114.420%	85.960	87.020	109.486%	80.800	80.300	80.030	79.240
x		112.961%	106.507%	108.024%	108.531%	100.258%	99.994%	100.399%	99.008%
σ		1.406%	n/a	n/a	0.874%	n/a	n/a	n/a	n/a
%RSD		1.245	2.145	1.058	0.806	1.014	0.503	0.887	0.402

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	109.655%	79.520	86.470	86.730	77.370	77.690	111.454%	105.576%
2	10:21:26	111.718%	80.970	88.370	87.680	78.550	79.010	114.322%	109.166%
3	10:21:45	114.100%	80.640	88.080	88.060	77.790	78.760	115.572%	110.573%
x		111.824%	100.470%	109.550%	109.364%	97.380%	98.106%	113.782%	108.438%
σ		2.224%	n/a	n/a	n/a	n/a	n/a	2.111%	2.577%
%RSD		1.989	0.940	1.166	0.785	0.771	0.896	1.856	2.376

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	83.940	83.220	81.690	79.960	81.180	110.005%
2	10:21:26	86.100	86.140	84.930	82.930	84.230	110.137%
3	10:21:45	88.510	89.280	88.040	85.980	87.300	109.147%
x		107.727%	107.766%	106.105%	103.696%	105.300%	109.763%
σ		n/a	n/a	n/a	n/a	n/a	0.537%
%RSD		2.654	3.520	3.742	3.628	3.632	0.489

ICB 6/2/2015 10:24:45 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.835%	0.001	0.381	0.405	0.000	3.881	2.030	1.579
2	10:25:04	107.226%	0.050	0.317	0.524	0.000	3.302	1.202	0.916
3	10:25:23	104.190%	-0.027	0.580	0.363	0.000	2.861	0.787	0.877
x		107.417%	0.008	0.426	0.431	0.000	3.348	1.340	1.124
σ		3.327%	0.039	0.137	0.083	0.000	0.512	0.633	0.395
%RSD		3.097	478.000	32.200	19.290	0.000	15.280	47.220	35.110

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.368	-25.470	0.000	5.394	1.531	1.558	117.585%	-0.062
2	10:25:04	-0.368	-7.960	0.000	8.065	-3.519	1.616	109.839%	-0.049
3	10:25:23	-0.386	-0.242	0.000	4.475	-2.436	0.518	109.564%	-0.005
x		-0.129	-11.220	0.000	5.978	-1.475	1.231	112.329%	-0.038
σ		0.430	12.930	0.000	1.865	2.659	0.618	4.554%	0.030
%RSD		333.800	115.200	0.000	31.190	180.300	50.220	4.054	78.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.034	0.025	0.000	15.300	10.200	-0.000	0.030	-0.025
2	10:25:04	0.030	0.036	-0.007	15.620	11.130	0.001	0.018	-0.014
3	10:25:23	0.036	0.045	-0.016	15.280	9.655	-0.002	0.015	0.007
x		0.033	0.036	-0.008	15.400	10.330	-0.000	0.021	-0.011
σ		0.003	0.010	0.008	0.188	0.746	0.001	0.008	0.016
%RSD		9.261	28.490	107.400	1.221	7.222	329.000	39.550	156.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	-0.048	-0.001	-0.047	0.235	1.800	1.142	0.000	-0.000
2	10:25:04	0.003	-0.010	0.069	0.416	2.159	1.474	0.000	-0.005
3	10:25:23	0.017	0.014	-0.026	0.446	2.323	1.533	0.000	-0.004
x		-0.009	0.001	-0.001	0.365	2.094	1.383	0.000	-0.003
σ		0.034	0.012	0.062	0.114	0.268	0.211	0.000	0.003
%RSD		363.200	1463.000	4903.000	31.220	12.780	15.230	0.000	79.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.570%	1.324	1.467	111.590%	0.000	0.008	-0.020	-0.022
2	10:25:04	112.740%	1.974	1.852	111.261%	0.013	0.021	0.032	0.026
3	10:25:23	112.317%	2.165	2.146	111.800%	0.012	0.038	-0.053	-0.031
x		111.876%	1.821	1.822	111.550%	0.008	0.022	-0.014	-0.009
σ		1.150%	0.441	0.341	0.272%	0.007	0.015	0.043	0.031
%RSD		1.028	24.220	18.700	0.244	86.190	68.600	309.300	347.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.842%	-0.225	-0.147	-0.136	0.006	0.011	105.662%	106.336%
2	10:25:04	112.876%	-0.148	-0.111	-0.056	-0.001	0.007	111.400%	110.950%
3	10:25:23	113.531%	-0.041	-0.035	-0.013	-0.007	0.013	112.393%	111.584%
x		112.416%	-0.138	-0.098	-0.068	-0.000	0.010	109.818%	109.623%
σ		1.402%	0.093	0.057	0.062	0.006	0.003	3.633%	2.865%
%RSD		1.247	67.250	58.650	91.260	1306.000	31.970	3.309	2.613

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.025	0.023	-0.001	0.002	0.003	113.107%
2	10:25:04	0.024	0.041	0.002	0.011	0.007	113.155%
3	10:25:23	0.030	0.028	0.006	-0.008	0.004	114.032%
x		0.026	0.031	0.002	0.002	0.004	113.431%
σ		0.003	0.009	0.004	0.009	0.002	0.521%
%RSD		13.290	29.230	152.700	607.800	47.730	0.459

CRI 1554040 6/2/2015 10:28:24 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	10:28:24	110.675%	0.922	21.150	19.690	0.000	449.500	456.300	453.000
2	10:28:43	101.265%	0.893	22.400	20.810	0.000	469.900	474.900	470.400
3	10:29:02	105.973%	1.018	21.340	21.280	0.000	483.600	485.000	483.400
x		105.971%	94.407%	108.144%	102.962%	0.000	93.532%	94.412%	93.788%
σ		4.705%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.440	6.968	3.135	3.974	0.000	3.673	3.088	3.247
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	27.930	456.700	0.000	497.600	518.500	464.800	113.100%	4.679
2	10:28:43	29.160	474.100	0.000	500.600	528.600	493.400	109.966%	4.887
3	10:29:02	30.590	501.200	0.000	523.500	541.500	489.000	106.728%	5.483
x		97.412%	95.470%	0.000	101.446%	105.907%	96.480%	109.931%	100.323%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.186%	n/a
%RSD		4.552	4.699	0.000	2.799	2.174	3.189	2.898	8.324
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	1.011	2.068	4.900	60.520	57.240	0.565	1.036	2.120
2	10:28:43	0.982	2.166	5.083	63.150	58.650	0.512	1.146	2.224
3	10:29:02	1.010	2.121	5.096	61.390	56.310	0.541	1.167	2.269
x		100.092%	105.914%	100.532%	123.374%	114.798%	107.884%	111.640%	110.225%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.643	2.312	2.182	2.170	2.054	4.907	6.314	3.457
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	2.212	6.176	6.255	1.043	6.388	5.224	0.000	4.651
2	10:28:43	2.199	5.972	6.404	1.078	5.597	5.307	0.000	4.919
3	10:29:02	1.997	6.716	6.491	1.221	6.542	5.402	0.000	4.852
x		106.807%	125.761%	127.667%	111.390%	123.515%	106.222%	0.000	96.146%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.642	6.119	1.866	8.462	8.204	1.671	0.000	2.908
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	112.144%	4.224	4.372	106.170%	1.015	1.018	1.020	1.067
2	10:28:43	113.449%	4.461	4.700	106.589%	1.062	1.015	0.931	1.081
3	10:29:02	113.989%	4.640	4.592	107.768%	1.074	1.056	1.031	1.087
x		113.194%	88.837%	91.096%	106.842%	105.038%	102.969%	99.428%	107.851%
σ		0.949%	n/a	n/a	0.829%	n/a	n/a	n/a	n/a
%RSD		0.838	4.695	3.677	0.776	2.950	2.216	5.510	0.947
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	108.935%	3.984	1.833	1.758	9.661	9.790	104.158%	104.428%
2	10:28:43	109.653%	4.266	1.948	1.941	9.998	9.916	107.915%	107.090%
3	10:29:02	110.696%	4.000	1.962	1.930	10.140	9.787	110.837%	109.558%
x		109.761%	81.667%	95.714%	93.820%	99.343%	98.311%	107.637%	107.025%
σ		0.885%	n/a	n/a	n/a	n/a	n/a	3.348%	2.566%
%RSD		0.807	3.873	3.683	5.464	2.498	0.745	3.111	2.397
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:28:24	1.030	1.063	1.039	1.007	1.068	103.793%		
2	10:28:43	1.028	1.077	1.060	1.093	1.091	105.478%		
3	10:29:02	1.101	1.110	1.123	1.062	1.101	106.173%		
x		105.295%	108.334%	107.403%	105.398%	108.648%	105.148%		
σ		n/a	n/a	n/a	n/a	n/a	1.224%		
%RSD		3.931	2.198	4.091	4.156	1.558	1.164		

ICSA 1578047 6/2/2015 10:32:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	80.882%	0.017	1.249	1.081	0.000	99670.000	99690.000	98990.000
2	10:32:21	85.274%	-0.016	1.685	1.084	0.000	94350.000	96730.000	94440.000
3	10:32:40	74.199%	0.011	0.955	1.271	0.000	101000.000	101700.000	101600.000
x		80.118%	0.004	1.297	1.146	0.000	98340.000	99380.000	98360.000
σ		5.577%	0.018	0.367	0.109	0.000	3519.000	2507.000	3642.000
%RSD		6.961	473.100	28.340	9.521	0.000	3.578	2.523	3.703

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	95630.000	13.200	0.000	98460.000	100300.000	100400.000	94.429%	2093.000
2	10:32:21	92480.000	18.950	0.000	97620.000	101600.000	103000.000	89.653%	2103.000
3	10:32:40	99060.000	33.220	0.000	102300.000	103700.000	105600.000	91.538%	2151.000
x		95720.000	21.790	0.000	99470.000	101900.000	103000.000	91.873%	2116.000
σ		3291.000	10.310	0.000	2512.000	1702.000	2614.000	2.406%	30.980
%RSD		3.438	47.320	0.000	2.526	1.671	2.538	2.618	1.464

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	-0.769	-1.012	0.483	102100.000	100600.000	0.182	0.629	1.472
2	10:32:21	-0.711	-0.994	0.556	104700.000	103300.000	0.219	0.702	1.563
3	10:32:40	-0.624	-0.800	0.500	103000.000	102100.000	0.179	0.411	1.567
x		-0.701	-0.935	0.513	103300.000	102000.000	0.193	0.581	1.534
σ		0.073	0.118	0.039	1333.000	1351.000	0.023	0.151	0.054
%RSD		10.420	12.600	7.546	1.291	1.325	11.640	26.060	3.494

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	2.002	4.019	2.750	0.327	1.387	0.483	0.000	0.705
2	10:32:21	2.033	4.392	3.175	0.017	1.480	0.353	0.000	0.673
3	10:32:40	1.799	4.244	3.091	0.050	1.324	0.368	0.000	0.684
x		1.944	4.219	3.006	0.131	1.397	0.401	0.000	0.688
σ		0.127	0.188	0.225	0.170	0.078	0.072	0.000	0.016
%RSD		6.542	4.451	7.487	129.500	5.613	17.830	0.000	2.397

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	92.867%	2298.000	2351.000	87.764%	0.140	0.137	0.517	0.218
2	10:32:21	94.780%	2338.000	2388.000	88.640%	0.170	0.166	0.481	0.417
3	10:32:40	96.152%	2315.000	2368.000	89.130%	0.154	0.166	0.218	0.299
x		94.600%	2317.000	2369.000	88.511%	0.155	0.156	0.405	0.311
σ		1.650%	20.120	18.420	0.692%	0.015	0.016	0.163	0.100
%RSD		1.744	0.868	0.777	0.782	9.522	10.490	40.250	32.050

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	93.679%	-0.128	-0.028	0.006	0.147	0.158	99.574%	99.350%
2	10:32:21	94.750%	-0.019	0.017	0.109	0.117	0.175	104.902%	105.005%
3	10:32:40	97.474%	-0.012	0.022	0.030	0.101	0.123	107.330%	107.409%
x		95.301%	-0.053	0.003	0.048	0.122	0.152	103.936%	103.921%
σ		1.957%	0.065	0.027	0.054	0.024	0.026	3.967%	4.137%
%RSD		2.053	122.200	790.200	112.600	19.360	17.250	3.817	3.981

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	0.014	0.012	0.194	0.206	0.217	119.620%
2	10:32:21	0.017	0.018	0.275	0.292	0.269	108.997%
3	10:32:40	0.014	0.018	0.315	0.255	0.280	107.433%
x		0.015	0.016	0.261	0.251	0.255	112.017%
σ		0.002	0.003	0.062	0.043	0.033	6.631%
%RSD		10.320	20.650	23.580	17.120	13.110	5.920

ICSAB 1578158 6/2/2015 10:35:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	80.055%	20.040	56.580	53.860	0.000	98870.000	99810.000	99700.000
2	10:36:00	80.968%	20.360	55.440	51.910	0.000	99150.000	99670.000	101500.000
3	10:36:19	78.527%	19.430	51.790	50.830	0.000	98840.000	102900.000	104200.000
x		79.850%	99.703%	109.208%	104.398%	0.000	98.952%	100.799%	101.819%
σ		1.233%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.544	2.374	4.577	2.941	0.000	0.177	1.827	2.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	96500.000	509.300	0.000	97970.000	99240.000	99120.000	94.322%	2081.000
2	10:36:00	98920.000	513.600	0.000	106100.000	108500.000	109500.000	82.628%	2242.000
3	10:36:19	102200.000	540.200	0.000	107600.000	113900.000	112700.000	80.679%	2298.000
x		99.197%	104.205%	0.000	103.910%	107.225%	107.107%	85.876%	110.351%
σ		n/a	n/a	0.000	n/a	n/a	n/a	7.379%	n/a
%RSD		2.871	3.209	0.000	4.999	6.915	6.636	8.593	5.099

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	19.160	18.750	19.630	98850.000	98660.000	20.360	20.420	21.110
2	10:36:00	20.490	21.200	22.270	112000.000	111300.000	23.050	23.600	23.570
3	10:36:19	21.450	21.480	22.580	110000.000	109400.000	22.270	23.020	23.760
x		101.848%	102.391%	93.446%	106.944%	106.447%	109.475%	111.746%	114.078%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.646	7.339	7.561	6.627	6.397	6.308	7.568	6.479

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	21.780	25.020	23.510	21.910	56.980	55.330	0.000	20.900
2	10:36:00	23.690	27.400	25.050	22.300	57.570	55.030	0.000	21.280
3	10:36:19	24.190	27.590	25.840	22.290	57.240	55.780	0.000	21.590
x		116.096%	106.673%	99.200%	110.843%	114.534%	110.762%	0.000	106.294%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.457	5.372	4.771	1.008	0.516	0.684	0.000	1.639

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	93.593%	2315.000	2379.000	87.565%	20.710	20.600	21.420	20.840
2	10:36:00	94.151%	2348.000	2404.000	87.923%	20.670	20.380	21.730	21.270
3	10:36:19	94.021%	2346.000	2399.000	88.063%	20.810	20.560	21.580	20.850
x		93.922%	116.820%	119.691%	87.851%	103.638%	102.563%	107.892%	104.930%
σ		0.292%	n/a	n/a	0.257%	n/a	n/a	n/a	n/a
%RSD		0.311	0.777	0.544	0.292	0.341	0.568	0.712	1.159

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	93.496%	105.700	21.380	21.390	20.210	20.300	101.219%	102.493%
2	10:36:00	95.409%	106.900	22.340	22.100	21.640	20.780	104.229%	105.271%
3	10:36:19	96.267%	108.000	22.180	22.240	20.250	21.090	106.820%	107.820%
x		95.057%	106.844%	109.837%	109.549%	103.507%	103.623%	104.089%	105.195%
σ		1.418%	n/a	n/a	n/a	n/a	n/a	2.803%	2.664%
%RSD		1.492	1.074	2.349	2.081	3.929	1.930	2.693	2.532

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	19.950	19.810	20.770	20.560	20.630	107.352%
2	10:36:00	21.870	21.410	22.390	22.660	22.400	101.714%
3	10:36:19	22.520	22.340	23.070	22.970	23.210	100.021%
x		107.231%	105.929%	110.379%	110.318%	110.409%	103.029%
σ		n/a	n/a	n/a	n/a	n/a	3.838%
%RSD		6.241	6.046	5.357	5.955	5.963	3.725

CCV 1594026 6/2/2015 10:42:17 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	10:42:17	93.333%	95.210	105.700	103.000	0.000	47560.000	45990.000	45160.000
2	10:42:36	82.841%	101.300	108.600	98.920	0.000	48610.000	48370.000	47200.000
3	10:42:55	88.820%	95.780	107.900	100.900	0.000	45810.000	46420.000	46480.000
x		88.331%	97.448%	107.427%	100.914%	0.000	94.659%	93.855%	92.563%
σ		5.263%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.959	3.478	1.414	2.007	0.000	2.992	2.701	2.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	449.500	4968.000	0.000	47850.000	48630.000	47840.000	96.202%	97.160
2	10:42:36	471.300	5185.000	0.000	48870.000	51130.000	50080.000	93.552%	101.200
3	10:42:55	462.200	4963.000	0.000	49150.000	51430.000	50210.000	91.131%	103.300
x		92.197%	100.778%	0.000	97.244%	100.792%	98.756%	93.628%	100.561%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.536%	n/a
%RSD		2.374	2.518	0.000	1.404	3.043	2.700	2.709	3.111

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	96.890	98.950	486.700	24830.000	24720.000	101.800	100.800	101.200
2	10:42:36	101.000	103.100	499.900	25470.000	24750.000	102.100	103.900	101.400
3	10:42:55	99.240	102.600	501.600	25540.000	25570.000	103.500	104.100	104.200
x		99.034%	101.534%	99.217%	101.122%	100.044%	102.480%	102.954%	102.294%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.072	2.214	1.646	1.536	1.930	0.883	1.776	1.630

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	100.800	95.440	96.490	97.030	101.100	98.120	0.000	95.170
2	10:42:36	102.700	99.440	98.700	99.950	101.100	101.400	0.000	95.870
3	10:42:55	103.500	98.560	101.500	99.280	98.310	97.510	0.000	95.840
x		102.318%	97.812%	98.904%	98.754%	100.168%	99.001%	0.000	95.626%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.359	2.149	2.551	1.547	1.602	2.098	0.000	0.411

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	98.402%	106.400	105.600	99.513%	93.740	94.400	95.180	95.480
2	10:42:36	98.571%	110.300	110.300	98.594%	95.900	95.930	98.540	97.360
3	10:42:55	101.110%	111.100	111.400	100.557%	95.160	95.650	97.090	97.740
x		99.361%	109.246%	109.125%	99.554%	94.932%	95.328%	96.940%	96.863%
σ		1.517%	n/a	n/a	0.982%	n/a	n/a	n/a	n/a
%RSD		1.527	2.322	2.845	0.987	1.159	0.857	1.739	1.249

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	97.307%	94.880	91.630	91.160	94.630	94.410	101.223%	102.107%
2	10:42:36	98.257%	96.310	93.360	92.570	95.110	95.490	105.101%	104.953%
3	10:42:55	101.119%	96.120	92.900	92.170	93.590	95.030	107.792%	108.139%
x		98.894%	95.770%	92.631%	91.967%	94.445%	94.976%	104.705%	105.066%
σ		1.985%	n/a	n/a	n/a	n/a	n/a	3.302%	3.018%
%RSD		2.007	0.809	0.966	0.792	0.825	0.571	3.154	2.872

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	94.680	95.660	95.300	95.040	94.770	104.874%
2	10:42:36	99.250	100.300	99.700	100.400	100.400	104.401%
3	10:42:55	103.800	105.400	105.000	103.800	104.900	102.215%
x		99.230%	100.464%	99.991%	99.763%	100.030%	103.830%
σ		n/a	n/a	n/a	n/a	n/a	1.418%
%RSD		4.575	4.868	4.842	4.437	5.096	1.366

CCB1 6/2/2015 10:48:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	94.895%	-0.028	0.343	0.512	0.000	2.922	0.651	0.890
2	10:49:19	94.425%	-0.027	0.448	0.288	0.000	2.892	0.913	0.780
3	10:49:38	91.524%	-0.031	0.294	0.491	0.000	2.567	0.637	0.848
x		93.615%	-0.029	0.362	0.430	0.000	2.794	0.734	0.839
σ		1.826%	0.002	0.079	0.124	0.000	0.197	0.155	0.056
%RSD		1.950	7.593	21.820	28.730	0.000	7.060	21.160	6.618

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.290	-10.660	0.000	6.173	-1.216	0.429	103.270%	-0.001
2	10:49:19	-0.299	-3.048	0.000	5.466	-1.141	0.353	99.873%	0.008
3	10:49:38	-0.382	-0.850	0.000	5.175	1.336	-0.432	97.886%	0.000
x		-0.324	-4.852	0.000	5.605	-0.340	0.117	100.343%	0.002
σ		0.050	5.147	0.000	0.513	1.452	0.477	2.723%	0.004
%RSD		15.580	106.100	0.000	9.153	426.800	408.700	2.713	185.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.010	0.004	-0.028	8.239	6.971	-0.004	-0.002	-0.027
2	10:49:19	-0.006	0.055	-0.043	10.260	4.542	-0.001	0.022	-0.012
3	10:49:38	0.001	0.028	-0.020	8.994	3.661	-0.002	0.037	-0.031
x		-0.005	0.029	-0.030	9.164	5.058	-0.002	0.019	-0.024
σ		0.005	0.026	0.011	1.021	1.714	0.002	0.020	0.010
%RSD		108.000	89.640	37.490	11.140	33.890	73.820	105.200	41.790

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.031	0.036	-0.031	-0.015	0.872	0.402	0.000	-0.007
2	10:49:19	-0.045	0.150	0.041	0.159	1.198	0.511	0.000	-0.008
3	10:49:38	-0.005	0.042	-0.036	0.098	1.453	0.622	0.000	-0.006
x		-0.027	0.076	-0.009	0.081	1.174	0.512	0.000	-0.007
σ		0.021	0.064	0.043	0.088	0.291	0.110	0.000	0.001
%RSD		76.360	84.290	491.300	109.100	24.800	21.550	0.000	15.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	103.396%	2.352	2.413	102.971%	-0.042	-0.022	-0.091	-0.067
2	10:49:19	104.110%	2.992	3.031	103.898%	-0.024	-0.027	-0.053	-0.029
3	10:49:38	105.843%	3.396	3.198	104.597%	-0.036	-0.025	-0.102	-0.075
x		104.450%	2.913	2.881	103.822%	-0.034	-0.025	-0.082	-0.057
σ		1.258%	0.526	0.414	0.816%	0.009	0.002	0.026	0.024
%RSD		1.205	18.070	14.370	0.786	25.860	8.865	31.580	42.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	106.096%	-0.339	0.316	0.458	-0.011	-0.003	105.581%	105.780%
2	10:49:19	107.212%	-0.289	0.415	0.504	-0.017	0.021	110.362%	110.855%
3	10:49:38	108.878%	-0.216	0.545	0.521	0.005	0.010	112.328%	113.027%
x		107.395%	-0.281	0.425	0.494	-0.008	0.009	109.424%	109.887%
σ		1.400%	0.062	0.115	0.033	0.012	0.012	3.470%	3.719%
%RSD		1.304	21.950	26.950	6.647	150.700	125.800	3.171	3.385

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	0.004	0.010	-0.001	-0.004	-0.000	111.483%
2	10:49:19	0.015	0.014	0.005	-0.005	-0.000	112.212%
3	10:49:38	0.016	0.013	-0.008	0.003	-0.000	113.152%
x		0.012	0.013	-0.001	-0.002	-0.000	112.282%
σ		0.006	0.002	0.007	0.004	0.000	0.837%
%RSD		54.150	15.250	631.900	223.700	69.150	0.746

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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	10:52:49	95.305%	-0.012	0.278	0.278	0.000	3.157	0.716	1.060
2	10:53:08	94.878%	-0.028	0.790	0.215	0.000	2.749	0.484	0.860
3	10:53:27	91.100%	-0.015	0.198	0.273	0.000	2.956	0.602	0.934
x		93.761%	-0.018	0.422	0.255	0.000	2.954	0.601	0.951
σ		2.315%	0.008	0.321	0.035	0.000	0.204	0.116	0.101
%RSD		2.469	44.780	76.080	13.640	0.000	6.898	19.360	10.610

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.277	-30.450	0.000	5.586	20.030	20.330	100.843%	-0.114
2	10:53:08	0.398	-27.040	0.000	4.510	32.280	19.520	99.475%	-0.040
3	10:53:27	0.152	-24.770	0.000	3.758	15.600	23.300	99.546%	0.008
x		0.276	-27.420	0.000	4.618	22.640	21.050	99.955%	-0.048
σ		0.123	2.860	0.000	0.919	8.637	1.992	0.770%	0.061
%RSD		44.730	10.430	0.000	19.900	38.160	9.464	0.770	126.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.008	-0.021	-0.004	7.985	3.340	0.000	0.076	-0.001
2	10:53:08	-0.005	-0.035	-0.002	8.885	4.720	-0.002	0.024	0.012
3	10:53:27	-0.051	-0.059	-0.009	8.576	3.912	0.002	0.031	0.013
x		-0.016	-0.038	-0.005	8.482	3.991	0.000	0.044	0.008
σ		0.031	0.019	0.004	0.457	0.694	0.002	0.028	0.008
%RSD		194.200	50.460	71.320	5.392	17.380	1737.000	64.780	100.700

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	-0.009	1.831	1.625	-0.013	1.113	0.250	0.000	0.012
2	10:53:08	0.019	1.750	1.837	0.005	0.964	0.154	0.000	0.010
3	10:53:27	0.037	1.769	1.799	0.056	1.072	0.249	0.000	0.008
x		0.016	1.783	1.754	0.016	1.050	0.218	0.000	0.010
σ		0.023	0.043	0.113	0.036	0.077	0.055	0.000	0.002
%RSD		146.400	2.388	6.428	223.400	7.334	25.300	0.000	20.530

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	103.849%	1.245	1.259	103.453%	-0.024	-0.037	-0.009	-0.015
2	10:53:08	106.331%	1.720	1.729	104.572%	-0.031	-0.029	-0.075	-0.046
3	10:53:27	106.305%	1.806	1.856	104.417%	-0.029	-0.028	-0.029	-0.016
x		105.495%	1.591	1.615	104.148%	-0.028	-0.031	-0.038	-0.025
σ		1.426%	0.302	0.314	0.606%	0.003	0.005	0.034	0.018
%RSD		1.351	19.010	19.470	0.582	11.660	15.080	89.370	69.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	106.758%	-0.403	0.189	0.194	0.018	0.052	108.391%	108.870%
2	10:53:08	110.216%	-0.351	0.202	0.139	0.039	0.030	111.747%	112.083%
3	10:53:27	110.092%	-0.327	0.217	0.230	0.033	0.053	113.121%	112.964%
x		109.022%	-0.360	0.203	0.188	0.030	0.045	111.087%	111.306%
σ		1.962%	0.039	0.014	0.046	0.011	0.013	2.433%	2.155%
%RSD		1.800	10.920	6.955	24.510	36.770	28.730	2.190	1.936

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.006	0.008	-0.002	-0.002	-0.002	119.009%
2	10:53:08	0.001	0.006	0.005	0.003	0.002	119.366%
3	10:53:27	0.003	0.008	0.001	0.006	0.002	117.770%
x		0.003	0.008	0.001	0.002	0.001	118.715%
σ		0.002	0.001	0.004	0.004	0.002	0.837%
%RSD		73.390	14.100	260.400	176.500	260.700	0.705

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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	10:56:36	98.332%	40.370	898.300	914.900	0.000	39590.000	40170.000	40530.000
2	10:56:55	98.706%	41.100	871.600	865.200	0.000	40050.000	39370.000	40100.000
3	10:57:14	90.776%	41.670	929.700	896.600	0.000	41170.000	41470.000	40490.000
x		95.938%	41.040	899.900	892.200	0.000	40270.000	40340.000	40380.000
σ		4.475%	0.653	29.060	25.170	0.000	814.400	1058.000	237.900
%RSD		4.664	1.590	3.229	2.822	0.000	2.022	2.624	0.589

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	1593.000	8749.000	0.000	45080.000	46850.000	45570.000	87.255%	930.600
2	10:56:55	1661.000	9231.000	0.000	44800.000	49210.000	49040.000	82.223%	978.800
3	10:57:14	1614.000	8970.000	0.000	44110.000	46080.000	45700.000	88.788%	915.700
x		1623.000	8983.000	0.000	44660.000	47380.000	46770.000	86.089%	941.700
σ		35.180	241.400	0.000	499.900	1634.000	1966.000	3.434%	32.970
%RSD		2.168	2.687	0.000	1.119	3.449	4.204	3.989	3.501

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	489.500	191.200	470.700	989.500	1277.000	492.900	496.700	251.700
2	10:56:55	497.500	200.700	492.600	1008.000	1303.000	515.100	517.000	253.000
3	10:57:14	484.500	190.100	456.600	958.800	1190.000	472.800	482.500	238.700
x		490.500	194.000	473.300	985.400	1256.000	493.600	498.800	247.800
σ		6.594	5.848	18.160	24.780	59.430	21.130	17.340	7.911
%RSD		1.344	3.014	3.838	2.515	4.730	4.281	3.476	3.192

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	243.500	465.400	463.300	37.680	10.070	10.510	0.000	905.900
2	10:56:55	255.600	489.800	484.900	38.220	9.797	10.320	0.000	916.800
3	10:57:14	237.100	466.100	466.600	36.550	9.868	10.700	0.000	911.100
x		245.400	473.800	471.600	37.480	9.913	10.510	0.000	911.300
σ		9.373	13.870	11.620	0.854	0.144	0.191	0.000	5.434
%RSD		3.820	2.927	2.463	2.279	1.456	1.814	0.000	0.596

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	93.005%	1008.000	1030.000	88.922%	48.290	47.650	47.830	42.910
2	10:56:55	94.576%	1025.000	1046.000	89.971%	47.880	47.470	48.810	42.610
3	10:57:14	94.638%	1019.000	1042.000	90.468%	48.220	48.460	48.920	42.880
x		94.073%	1017.000	1039.000	89.787%	48.130	47.860	48.520	42.800
σ		0.926%	8.797	8.222	0.789%	0.221	0.529	0.598	0.165
%RSD		0.984	0.865	0.791	0.879	0.458	1.105	1.233	0.385

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	92.336%	1886.000	494.000	491.900	1790.000	1807.000	103.413%	103.690%
2	10:56:55	95.517%	1878.000	493.300	491.500	1803.000	1817.000	104.760%	107.062%
3	10:57:14	97.014%	1856.000	489.500	486.200	1786.000	1808.000	107.717%	108.254%
x		94.955%	1874.000	492.200	489.900	1793.000	1811.000	105.297%	106.335%
σ		2.389%	15.490	2.423	3.166	8.791	5.439	2.202%	2.367%
%RSD		2.516	0.827	0.492	0.646	0.490	0.300	2.091	2.226

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	49.890	49.270	19.920	20.070	20.290	95.686%
2	10:56:55	51.790	51.590	20.920	21.010	21.290	95.158%
3	10:57:14	52.280	52.920	21.610	21.490	21.730	95.619%
x		51.320	51.260	20.820	20.860	21.110	95.488%
σ		1.262	1.845	0.849	0.726	0.737	0.288%
%RSD		2.459	3.599	4.080	3.481	3.494	0.301

LCSD 180-142536/3-A 6/2/2015 11:00:04 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	11:00:23	90.618%	43.150	952.200	969.200	0.000	42090.000	41930.000	43520.000
2	11:00:42	92.024%	40.570	910.400	927.100	0.000	43870.000	44020.000	44040.000
3	11:01:01	86.953%	42.480	947.800	899.300	0.000	40910.000	41250.000	42180.000
x		89.865%	42.070	936.800	931.900	0.000	42290.000	42400.000	43250.000
σ		2.618%	1.342	22.980	35.200	0.000	1492.000	1443.000	958.100
%RSD		2.913	3.191	2.453	3.777	0.000	3.527	3.403	2.215
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	1700.000	9583.000	0.000	43980.000	46760.000	45990.000	91.370%	927.000
2	11:00:42	1717.000	9589.000	0.000	48090.000	50480.000	49340.000	84.402%	1003.000
3	11:01:01	1686.000	9182.000	0.000	44920.000	47400.000	47060.000	87.771%	939.100
x		1701.000	9451.000	0.000	45660.000	48210.000	47460.000	87.848%	956.200
σ		15.650	233.600	0.000	2154.000	1990.000	1710.000	3.485%	40.610
%RSD		0.920	2.472	0.000	4.717	4.128	3.602	3.967	4.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	484.200	189.600	457.000	949.900	1224.000	478.500	475.100	234.700
2	11:00:42	506.100	195.200	483.700	999.700	1277.000	493.400	504.700	247.900
3	11:01:01	491.300	195.200	466.400	973.100	1229.000	489.200	486.600	242.800
x		493.800	193.300	469.000	974.200	1243.000	487.000	488.800	241.800
σ		11.170	3.225	13.590	24.910	29.440	7.678	14.940	6.674
%RSD		2.261	1.668	2.897	2.557	2.367	1.577	3.057	2.760
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	237.600	457.600	460.000	37.470	9.996	10.320	0.000	906.300
2	11:00:42	249.000	482.400	478.700	38.020	10.200	10.340	0.000	905.400
3	11:01:01	240.700	465.900	470.200	37.540	10.040	9.972	0.000	900.000
x		242.400	468.600	469.600	37.680	10.080	10.210	0.000	903.900
σ		5.859	12.600	9.326	0.299	0.110	0.208	0.000	3.407
%RSD		2.417	2.690	1.986	0.793	1.090	2.040	0.000	0.377
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	94.410%	1011.000	1029.000	90.166%	47.530	47.680	48.030	42.960
2	11:00:42	95.250%	1009.000	1042.000	91.411%	47.600	48.130	46.730	41.560
3	11:01:01	95.515%	1014.000	1032.000	91.053%	47.210	47.400	46.940	41.570
x		95.058%	1011.000	1034.000	90.877%	47.450	47.740	47.230	42.030
σ		0.577%	2.417	6.773	0.641%	0.208	0.367	0.697	0.807
%RSD		0.607	0.239	0.655	0.706	0.439	0.768	1.476	1.919
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	94.084%	1847.000	477.200	474.300	1764.000	1790.000	102.838%	103.451%
2	11:00:42	95.947%	1839.000	481.400	480.800	1774.000	1799.000	104.308%	105.151%
3	11:01:01	96.869%	1841.000	483.900	481.800	1779.000	1806.000	105.530%	107.844%
x		95.634%	1842.000	480.800	479.000	1772.000	1798.000	104.225%	105.482%
σ		1.419%	4.499	3.360	4.059	7.430	8.100	1.348%	2.215%
%RSD		1.484	0.244	0.699	0.847	0.419	0.450	1.294	2.100
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:00:23	51.710	52.240	21.220	20.970	21.270	90.118%		
2	11:00:42	52.700	53.400	21.620	21.730	21.650	90.195%		
3	11:01:01	52.570	53.270	21.580	21.900	21.790	92.152%		
x		52.330	52.970	21.470	21.530	21.570	90.822%		
σ		0.537	0.636	0.223	0.492	0.272	1.152%		
%RSD		1.027	1.201	1.039	2.286	1.262	1.269		

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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	11:04:10	105.688%	-0.003	111.000	106.500	0.000	7522.000	17670.000	17960.000
2	11:04:29	102.161%	-0.015	110.900	105.900	0.000	7239.000	17430.000	17790.000
3	11:04:49	97.286%	-0.018	108.500	110.000	0.000	7830.000	17880.000	17950.000
x		101.711%	-0.012	110.200	107.500	0.000	7531.000	17660.000	17900.000
σ		4.219%	0.008	1.389	2.223	0.000	295.700	225.600	97.670
%RSD		4.148	65.890	1.261	2.068	0.000	3.926	1.278	0.545

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	3.902	8087.000	0.000	2323.000	67080.000	65090.000	87.963%	1.145
2	11:04:29	3.157	8216.000	0.000	2286.000	67410.000	66010.000	86.504%	1.554
3	11:04:49	3.264	8511.000	0.000	2324.000	68800.000	68700.000	82.133%	1.211
x		3.441	8271.000	0.000	2311.000	67760.000	66600.000	85.533%	1.303
σ		0.403	217.300	0.000	21.790	911.200	1876.000	3.034%	0.220
%RSD		11.700	2.627	0.000	0.943	1.345	2.817	3.547	16.870

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.662	1.135	30.340	421.100	807.000	0.193	0.375	0.259
2	11:04:29	-0.347	1.096	31.010	429.500	832.700	0.167	0.422	0.252
3	11:04:49	-1.665	1.289	32.560	446.200	852.700	0.179	0.298	0.277
x		-0.450	1.173	31.310	432.300	830.800	0.180	0.365	0.263
σ		1.167	0.102	1.136	12.790	22.890	0.013	0.063	0.013
%RSD		259.300	8.711	3.628	2.959	2.755	7.356	17.220	4.887

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.396	1.346	0.992	0.454	-0.519	0.456	0.000	3246.000
2	11:04:29	0.320	1.601	1.675	0.726	-0.201	0.642	0.000	3280.000
3	11:04:49	0.406	1.589	2.102	-0.075	-0.023	0.515	0.000	3293.000
x		0.374	1.512	1.589	0.368	-0.248	0.537	0.000	3273.000
σ		0.047	0.144	0.560	0.407	0.252	0.095	0.000	24.460
%RSD		12.600	9.497	35.220	110.600	101.600	17.670	0.000	0.747

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	93.825%	7.875	7.924	91.068%	-0.020	-0.032	-0.048	-0.002
2	11:04:29	93.970%	8.483	8.391	91.393%	-0.012	-0.028	-0.095	-0.082
3	11:04:49	93.870%	8.230	8.308	91.751%	-0.030	-0.027	-0.095	-0.078
x		93.888%	8.196	8.208	91.404%	-0.021	-0.029	-0.080	-0.054
σ		0.074%	0.305	0.249	0.342%	0.009	0.003	0.027	0.045
%RSD		0.079	3.723	3.036	0.374	42.940	9.677	33.920	83.180

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	92.596%	2.164	0.249	0.482	119.800	121.600	100.985%	100.355%
2	11:04:29	94.596%	2.141	0.312	0.525	118.400	120.700	103.670%	103.777%
3	11:04:49	96.150%	1.871	0.277	0.612	118.500	118.800	104.229%	104.173%
x		94.448%	2.059	0.279	0.540	118.900	120.300	102.961%	102.768%
σ		1.782%	0.163	0.031	0.066	0.780	1.411	1.734%	2.099%
%RSD		1.886	7.903	11.230	12.280	0.656	1.172	1.685	2.042

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.250	0.254	0.006	0.004	0.007	90.568%
2	11:04:29	0.212	0.197	0.021	0.003	0.011	92.679%
3	11:04:49	0.139	0.131	0.026	0.015	0.018	95.162%
x		0.201	0.194	0.018	0.007	0.012	92.803%
σ		0.056	0.061	0.011	0.007	0.005	2.300%
%RSD		28.000	31.660	60.440	91.960	44.740	2.478

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	103.969%	0.003	116.000	119.500	0.000	7938.000	18930.000	19250.000
2	11:08:17	97.305%	-0.038	112.000	112.800	0.000	7881.000	18450.000	18280.000
3	11:08:37	91.748%	-0.004	117.800	120.700	0.000	8181.000	19060.000	19200.000
x		97.674%	-0.013	115.300	117.700	0.000	8000.000	18810.000	18910.000
σ		6.119%	0.022	2.966	4.278	0.000	159.500	323.600	546.800
%RSD		6.265	173.800	2.573	3.635	0.000	1.994	1.720	2.891

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	3.834	8447.000	0.000	2412.000	71050.000	70220.000	83.635%	1.100
2	11:08:17	3.376	8668.000	0.000	2293.000	65610.000	64360.000	90.140%	0.993
3	11:08:37	3.630	8997.000	0.000	2480.000	73300.000	70800.000	82.344%	1.005
x		3.614	8704.000	0.000	2395.000	69980.000	68460.000	85.373%	1.033
σ		0.229	276.400	0.000	94.650	3955.000	3563.000	4.178%	0.059
%RSD		6.350	3.175	0.000	3.952	5.652	5.205	4.894	5.685

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	-0.699	1.126	30.690	431.600	856.500	0.173	0.390	0.316
2	11:08:17	0.296	1.001	30.040	404.000	780.700	0.165	0.405	0.340
3	11:08:37	0.568	1.157	31.680	420.300	795.300	0.185	0.324	0.353
x		0.055	1.094	30.810	418.600	810.800	0.174	0.373	0.336
σ		0.667	0.083	0.826	13.870	40.220	0.010	0.043	0.019
%RSD		1218.000	7.539	2.680	3.312	4.961	5.760	11.540	5.562

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	0.502	1.945	2.523	-0.309	-0.153	0.299	0.000	3295.000
2	11:08:17	0.416	2.057	1.842	0.435	-0.230	0.215	0.000	3295.000
3	11:08:37	0.515	2.119	2.481	0.925	-0.395	0.176	0.000	3311.000
x		0.478	2.041	2.282	0.350	-0.259	0.230	0.000	3301.000
σ		0.054	0.088	0.382	0.622	0.124	0.063	0.000	9.385
%RSD		11.280	4.327	16.730	177.400	47.730	27.270	0.000	0.284

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	93.374%	2.709	2.788	91.724%	-0.029	-0.036	-0.075	-0.059
2	11:08:17	92.843%	3.400	3.507	90.953%	-0.035	-0.026	-0.071	-0.051
3	11:08:37	93.455%	3.419	3.472	91.228%	-0.031	-0.028	-0.135	-0.102
x		93.224%	3.176	3.256	91.302%	-0.032	-0.030	-0.093	-0.071
σ		0.332%	0.405	0.405	0.391%	0.003	0.005	0.036	0.027
%RSD		0.357	12.750	12.450	0.428	9.174	18.050	38.600	38.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	92.589%	0.464	-0.055	0.200	122.100	121.800	100.458%	100.730%
2	11:08:17	94.718%	0.514	-0.025	0.252	120.900	119.900	101.159%	101.921%
3	11:08:37	95.524%	0.655	-0.058	0.199	119.500	119.400	103.089%	103.603%
x		94.277%	0.544	-0.046	0.217	120.800	120.400	101.569%	102.085%
σ		1.517%	0.100	0.018	0.030	1.260	1.283	1.363%	1.444%
%RSD		1.609	18.290	39.620	13.990	1.043	1.065	1.342	1.414

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	0.037	0.039	0.023	0.026	0.024	89.422%
2	11:08:17	0.029	0.036	0.036	0.025	0.024	91.095%
3	11:08:37	0.032	0.033	0.020	0.045	0.022	92.914%
x		0.032	0.036	0.026	0.032	0.023	91.144%
σ		0.004	0.003	0.008	0.011	0.001	1.746%
%RSD		12.250	8.412	32.310	35.530	5.175	1.916

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	93.882%	-0.005	6.831	6.331	0.000	133200.000	11000.000	11100.000
2	11:12:05	85.627%	-0.039	5.400	6.115	0.000	129300.000	10850.000	10910.000
3	11:12:25	84.847%	-0.027	5.932	5.751	0.000	129800.000	10500.000	10680.000
x		88.119%	-0.024	6.054	6.066	0.000	130800.000	10780.000	10900.000
σ		5.007%	0.018	0.723	0.293	0.000	2144.000	259.700	214.200
%RSD		5.682	73.670	11.950	4.832	0.000	1.639	2.409	1.965
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	11.190	3477.000	0.000	2787.000	466900.000	426600.000	79.631%	0.524
2	11:12:05	10.220	3465.000	0.000	2719.000	468100.000	428500.000	79.219%	0.618
3	11:12:25	10.650	3455.000	0.000	2735.000	467200.000	439000.000	77.658%	0.774
x		10.690	3466.000	0.000	2747.000	467400.000	431400.000	78.836%	0.639
σ		0.486	11.040	0.000	35.330	627.300	6648.000	1.041%	0.126
%RSD		4.546	0.319	0.000	1.286	0.134	1.541	1.320	19.760
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	0.647	2.932	103.800	117.900	2960.000	0.977	4.119	1.120
2	11:12:05	-2.211	2.777	104.300	106.500	2814.000	0.883	3.352	1.071
3	11:12:25	1.312	2.960	106.100	102.400	2750.000	0.885	3.219	0.960
x		-0.084	2.890	104.700	109.000	2842.000	0.915	3.563	1.050
σ		1.872	0.098	1.191	8.020	107.500	0.054	0.486	0.082
%RSD		2229.000	3.408	1.138	7.361	3.785	5.861	13.640	7.781
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	1.260	2.560	2.836	0.262	0.064	7.856	0.000	938.100
2	11:12:05	1.067	2.403	1.712	0.310	-0.209	7.845	0.000	934.500
3	11:12:25	1.115	2.802	2.821	1.439	0.047	7.935	0.000	929.800
x		1.147	2.588	2.456	0.670	-0.032	7.879	0.000	934.100
σ		0.100	0.201	0.645	0.666	0.153	0.049	0.000	4.154
%RSD		8.747	7.763	26.240	99.390	472.500	0.624	0.000	0.445
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	88.328%	1.588	1.628	82.740%	-0.034	-0.020	-0.111	-0.076
2	11:12:05	88.143%	2.181	2.067	82.640%	-0.036	-0.034	0.004	0.007
3	11:12:25	87.595%	2.418	2.332	82.296%	-0.031	-0.015	-0.064	-0.048
x		88.022%	2.062	2.009	82.559%	-0.034	-0.023	-0.057	-0.039
σ		0.381%	0.428	0.356	0.233%	0.002	0.010	0.058	0.042
%RSD		0.433	20.740	17.710	0.282	7.276	42.700	101.000	108.700
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	85.300%	0.389	-0.013	0.028	502.000	505.600	93.075%	94.863%
2	11:12:05	87.462%	0.589	-0.004	0.059	499.900	505.400	95.617%	95.844%
3	11:12:25	87.311%	0.608	-0.042	0.073	502.000	502.400	97.003%	96.904%
x		86.691%	0.529	-0.020	0.053	501.300	504.500	95.232%	95.871%
σ		1.207%	0.122	0.020	0.023	1.191	1.813	1.992%	1.021%
%RSD		1.393	23.030	102.000	43.140	0.238	0.359	2.092	1.065
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:11:46	0.045	0.052	0.086	0.114	0.111	76.479%		
2	11:12:05	0.051	0.039	0.135	0.121	0.130	79.070%		
3	11:12:25	0.056	0.050	0.121	0.138	0.138	82.162%		
x		0.050	0.047	0.114	0.124	0.126	79.237%		
σ		0.006	0.007	0.025	0.012	0.014	2.845%		
%RSD		11.080	14.740	22.070	9.825	10.790	3.591		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	82.742%	-0.033	5.980	6.151	0.000	130100.000	10710.000	10850.000
2	11:15:53	89.354%	-0.013	6.624	5.698	0.000	130100.000	10890.000	10980.000
3	11:16:13	87.268%	-0.023	4.989	6.359	0.000	132600.000	10730.000	10560.000
x		86.454%	-0.023	5.864	6.069	0.000	130900.000	10770.000	10800.000
σ		3.380%	0.010	0.824	0.338	0.000	1436.000	99.420	213.400
%RSD		3.910	43.990	14.050	5.568	0.000	1.097	0.923	1.976

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.745	3416.000	0.000	2654.000	449000.000	418200.000	85.524%	0.627
2	11:15:53	1.601	3458.000	0.000	2822.000	476700.000	445100.000	77.116%	0.532
3	11:16:13	1.491	3447.000	0.000	2665.000	456300.000	431000.000	78.195%	0.461
x		1.612	3440.000	0.000	2714.000	460700.000	431400.000	80.278%	0.540
σ		0.127	21.820	0.000	93.770	14360.000	13470.000	4.575%	0.083
%RSD		7.889	0.634	0.000	3.456	3.116	3.122	5.699	15.390

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.584	2.067	105.100	88.620	2776.000	0.906	4.324	1.702
2	11:15:53	0.516	2.139	112.500	95.960	3005.000	0.919	5.478	1.782
3	11:16:13	1.362	2.058	111.100	86.640	2775.000	0.944	4.728	1.838
x		1.154	2.088	109.600	90.410	2852.000	0.923	4.843	1.774
σ		0.564	0.044	3.910	4.912	132.300	0.019	0.586	0.068
%RSD		48.850	2.130	3.568	5.433	4.637	2.102	12.090	3.860

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.803	3.686	4.002	1.065	-0.629	9.431	0.000	955.900
2	11:15:53	1.975	4.085	3.985	2.198	-0.107	9.544	0.000	955.500
3	11:16:13	1.965	3.488	3.182	1.030	-0.068	9.058	0.000	957.900
x		1.914	3.753	3.723	1.431	-0.268	9.345	0.000	956.500
σ		0.096	0.304	0.469	0.664	0.313	0.254	0.000	1.296
%RSD		5.036	8.107	12.580	46.430	117.000	2.720	0.000	0.136

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	87.564%	1.167	1.070	82.530%	-0.044	-0.028	-0.016	-0.004
2	11:15:53	88.932%	1.394	1.460	82.570%	-0.042	-0.038	-0.028	-0.028
3	11:16:13	88.967%	1.312	1.450	82.664%	-0.045	-0.043	0.033	0.008
x		88.488%	1.291	1.327	82.588%	-0.044	-0.037	-0.004	-0.008
σ		0.800%	0.115	0.223	0.069%	0.001	0.008	0.032	0.018
%RSD		0.904	8.912	16.780	0.083	2.886	21.230	902.700	225.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	88.045%	0.142	-0.126	-0.026	514.700	514.800	95.733%	97.509%
2	11:15:53	88.363%	0.309	-0.098	0.066	521.200	527.600	99.886%	101.619%
3	11:16:13	90.325%	0.217	-0.089	0.006	510.900	515.600	102.353%	103.416%
x		88.911%	0.222	-0.104	0.015	515.600	519.300	99.324%	100.848%
σ		1.234%	0.084	0.019	0.047	5.242	7.168	3.346%	3.028%
%RSD		1.388	37.730	18.520	303.200	1.017	1.380	3.368	3.003

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	0.030	0.050	0.097	0.076	0.074	82.086%
2	11:15:53	0.045	0.032	0.115	0.063	0.084	83.570%
3	11:16:13	0.039	0.045	0.087	0.084	0.083	84.231%
x		0.038	0.042	0.100	0.074	0.081	83.296%
σ		0.008	0.009	0.014	0.010	0.006	1.099%
%RSD		20.940	22.330	13.830	14.020	6.921	1.319

180-44316-F-3-A 6/2/2015 11:19:03 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	11:19:23	97.504%	0.009	12.240	10.920	0.000	29180.000	13920.000	13980.000
2	11:19:42	90.447%	-0.019	12.080	11.800	0.000	28320.000	13230.000	14080.000
3	11:20:01	89.314%	-0.013	11.840	11.940	0.000	30090.000	14050.000	13910.000
x		92.422%	-0.008	12.050	11.550	0.000	29200.000	13730.000	13990.000
σ		4.438%	0.014	0.201	0.552	0.000	885.800	436.100	89.900
%RSD		4.802	187.300	1.664	4.778	0.000	3.034	3.176	0.643

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	14.260	4143.000	0.000	1396.000	396200.000	371400.000	78.034%	0.447
2	11:19:42	14.630	4372.000	0.000	1389.000	394900.000	371600.000	78.311%	0.581
3	11:20:01	14.330	4387.000	0.000	1399.000	390600.000	371800.000	77.047%	0.687
x		14.410	4301.000	0.000	1394.000	393900.000	371600.000	77.797%	0.572
σ		0.197	136.800	0.000	4.798	2934.000	242.700	0.664%	0.120
%RSD		1.368	3.180	0.000	0.344	0.745	0.065	0.854	21.060

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	-0.144	3.205	4.781	246.700	2784.000	0.683	3.761	0.558
2	11:19:42	-0.154	2.887	4.735	238.000	2565.000	0.654	3.458	0.570
3	11:20:01	-1.694	2.734	4.852	238.600	2508.000	0.620	3.516	0.524
x		-0.664	2.942	4.789	241.100	2619.000	0.652	3.578	0.551
σ		0.892	0.240	0.059	4.866	145.900	0.031	0.161	0.024
%RSD		134.400	8.163	1.232	2.018	5.572	4.798	4.498	4.305

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	1.095	3.704	4.172	1.923	-0.483	6.625	0.000	1016.000
2	11:19:42	1.098	3.613	3.492	1.734	0.220	7.209	0.000	1013.000
3	11:20:01	1.235	3.677	3.745	1.117	-0.332	6.957	0.000	1016.000
x		1.143	3.665	3.803	1.591	-0.198	6.930	0.000	1015.000
σ		0.080	0.047	0.344	0.421	0.370	0.293	0.000	1.479
%RSD		7.008	1.278	9.035	26.480	186.500	4.226	0.000	0.146

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	90.449%	0.464	0.593	85.036%	-0.040	-0.035	-0.044	-0.035
2	11:19:42	90.106%	0.760	0.793	84.872%	-0.040	-0.036	-0.019	-0.023
3	11:20:01	91.508%	0.824	0.818	85.318%	-0.037	-0.036	0.018	0.003
x		90.688%	0.683	0.735	85.075%	-0.039	-0.036	-0.015	-0.018
σ		0.731%	0.192	0.123	0.226%	0.001	0.001	0.031	0.019
%RSD		0.806	28.090	16.790	0.265	3.328	2.097	207.500	105.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	91.743%	-0.076	-0.259	-0.230	414.600	417.700	100.461%	101.480%
2	11:19:42	92.689%	-0.014	-0.273	-0.151	414.200	417.100	102.754%	104.231%
3	11:20:01	92.644%	0.033	-0.257	-0.181	417.000	419.200	104.584%	105.352%
x		92.359%	-0.019	-0.263	-0.187	415.300	418.000	102.600%	103.688%
σ		0.534%	0.055	0.009	0.040	1.515	1.090	2.066%	1.993%
%RSD		0.578	291.300	3.292	21.420	0.365	0.261	2.014	1.922

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	0.008	0.013	0.134	0.085	0.130	87.794%
2	11:19:42	0.010	0.012	0.152	0.139	0.149	90.207%
3	11:20:01	0.010	0.012	0.118	0.100	0.115	90.471%
x		0.009	0.012	0.135	0.108	0.131	89.490%
σ		0.001	0.001	0.017	0.028	0.017	1.475%
%RSD		12.350	6.100	12.670	25.720	12.970	1.648

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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	11:23:12	92.413%	0.023	12.720	11.550	0.000	28620.000	14120.000	14240.000
2	11:23:31	90.519%	-0.036	11.910	11.730	0.000	30400.000	14640.000	14690.000
3	11:23:50	84.030%	0.003	13.110	11.730	0.000	30000.000	15080.000	14720.000
x		88.987%	-0.003	12.580	11.670	0.000	29670.000	14610.000	14550.000
σ		4.396%	0.030	0.616	0.107	0.000	930.800	479.500	270.500
%RSD		4.940	859.100	4.896	0.912	0.000	3.137	3.281	1.859
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	0.951	4128.000	0.000	1332.000	375900.000	346100.000	86.298%	0.410
2	11:23:31	0.749	4452.000	0.000	1399.000	397000.000	377200.000	79.957%	0.475
3	11:23:50	0.871	4361.000	0.000	1405.000	392500.000	373400.000	79.547%	0.494
x		0.857	4314.000	0.000	1379.000	388500.000	365500.000	81.934%	0.460
σ		0.102	167.100	0.000	40.450	11120.000	16950.000	3.785%	0.044
%RSD		11.910	3.873	0.000	2.934	2.862	4.636	4.619	9.557
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	1.290	1.420	3.235	54.520	2411.000	0.609	3.643	0.642
2	11:23:31	-0.641	1.369	3.358	53.880	2268.000	0.640	3.441	0.647
3	11:23:50	0.122	1.489	3.404	60.480	2324.000	0.679	4.367	0.586
x		0.257	1.426	3.332	56.290	2335.000	0.643	3.817	0.625
σ		0.973	0.060	0.087	3.644	72.120	0.035	0.487	0.034
%RSD		378.500	4.221	2.620	6.473	3.089	5.510	12.750	5.384
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	1.253	2.838	3.444	0.321	-0.163	6.665	0.000	1021.000
2	11:23:31	1.265	3.346	2.848	1.506	0.013	5.996	0.000	1010.000
3	11:23:50	1.095	3.092	2.799	0.284	-0.116	6.247	0.000	1018.000
x		1.204	3.092	3.031	0.704	-0.088	6.303	0.000	1016.000
σ		0.095	0.254	0.359	0.695	0.091	0.338	0.000	6.084
%RSD		7.873	8.214	11.840	98.780	103.400	5.358	0.000	0.599
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	89.417%	0.511	0.412	85.517%	-0.042	-0.035	-0.019	0.001
2	11:23:31	90.501%	0.705	0.643	85.326%	-0.048	-0.045	-0.009	-0.001
3	11:23:50	90.693%	0.732	0.765	84.703%	-0.035	-0.030	-0.026	-0.040
x		90.204%	0.649	0.607	85.182%	-0.041	-0.037	-0.018	-0.013
σ		0.688%	0.121	0.180	0.425%	0.006	0.007	0.009	0.023
%RSD		0.763	18.560	29.590	0.499	15.560	20.260	47.730	175.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	91.361%	-0.176	-0.272	-0.242	411.200	413.600	98.362%	101.323%
2	11:23:31	92.021%	-0.054	-0.284	-0.195	408.700	412.300	102.524%	103.164%
3	11:23:50	92.370%	-0.000	-0.238	-0.179	413.800	415.300	102.876%	103.920%
x		91.917%	-0.077	-0.264	-0.205	411.200	413.700	101.254%	102.802%
σ		0.512%	0.090	0.024	0.033	2.516	1.505	2.511%	1.336%
%RSD		0.557	117.600	8.978	15.950	0.612	0.364	2.479	1.299
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:23:12	0.007	0.012	0.035	0.044	0.043	88.154%		
2	11:23:31	0.009	0.016	0.019	0.035	0.031	90.345%		
3	11:23:50	0.006	0.015	0.027	0.035	0.026	91.311%		
x		0.007	0.014	0.027	0.038	0.033	89.936%		
σ		0.001	0.002	0.008	0.005	0.009	1.618%		
%RSD		18.420	13.300	28.130	12.970	27.210	1.799		

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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	11:27:01	91.394%	-0.004	5.619	5.656	0.000	8824.000	13830.000	14200.000
2	11:27:20	89.637%	-0.030	5.881	5.457	0.000	9136.000	14440.000	14710.000
3	11:27:39	91.949%	-0.058	4.718	5.608	0.000	8951.000	14360.000	14210.000
x		90.993%	-0.030	5.406	5.573	0.000	8970.000	14210.000	14370.000
σ		1.207%	0.027	0.610	0.103	0.000	157.100	328.100	292.700
%RSD		1.327	89.470	11.280	1.856	0.000	1.751	2.309	2.036
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	34.860	4557.000	0.000	528.100	196400.000	184500.000	86.256%	0.841
2	11:27:20	32.330	4749.000	0.000	560.800	206300.000	197100.000	81.024%	0.775
3	11:27:39	35.120	4600.000	0.000	551.700	199600.000	190500.000	82.795%	1.000
x		34.100	4635.000	0.000	546.900	200800.000	190700.000	83.358%	0.872
σ		1.542	100.900	0.000	16.850	5047.000	6299.000	2.661%	0.116
%RSD		4.522	2.176	0.000	3.081	2.514	3.303	3.193	13.250
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	1.126	1.154	756.800	345.300	1567.000	0.770	0.813	0.202
2	11:27:20	0.979	1.264	783.600	368.100	1610.000	0.833	0.888	0.189
3	11:27:39	0.811	1.104	764.000	367.300	1488.000	0.766	0.655	0.181
x		0.972	1.174	768.100	360.300	1555.000	0.790	0.785	0.191
σ		0.158	0.082	13.900	12.920	61.550	0.038	0.119	0.010
%RSD		16.200	6.988	1.810	3.586	3.958	4.774	15.170	5.487
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	0.613	2.086	1.518	3.392	-0.625	2.833	0.000	487.200
2	11:27:20	0.589	2.084	2.645	3.538	-0.470	2.522	0.000	483.400
3	11:27:39	0.609	2.262	1.775	3.531	-0.687	2.450	0.000	487.200
x		0.603	2.144	1.979	3.487	-0.594	2.602	0.000	485.900
σ		0.013	0.102	0.591	0.083	0.112	0.204	0.000	2.175
%RSD		2.074	4.756	29.850	2.368	18.800	7.832	0.000	0.448
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	90.125%	1.782	1.779	86.485%	-0.051	-0.047	-0.039	-0.037
2	11:27:20	90.487%	1.953	2.003	86.512%	-0.049	-0.041	-0.062	-0.049
3	11:27:39	89.810%	2.003	1.972	86.415%	-0.040	-0.038	-0.042	-0.030
x		90.141%	1.913	1.918	86.471%	-0.047	-0.042	-0.048	-0.039
σ		0.339%	0.116	0.121	0.050%	0.006	0.005	0.012	0.010
%RSD		0.376	6.053	6.319	0.058	12.950	11.370	25.590	25.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	90.549%	-0.152	-0.273	-0.266	397.000	400.200	99.350%	100.449%
2	11:27:20	93.266%	-0.084	-0.294	-0.239	402.500	400.200	101.459%	104.404%
3	11:27:39	93.338%	-0.076	-0.274	-0.278	396.400	399.500	103.745%	104.228%
x		92.385%	-0.104	-0.280	-0.261	398.600	400.000	101.518%	103.027%
σ		1.590%	0.042	0.012	0.020	3.339	0.411	2.198%	2.234%
%RSD		1.721	40.470	4.206	7.772	0.838	0.103	2.166	2.168
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:27:01	0.007	0.007	0.089	0.051	0.065	89.919%		
2	11:27:20	0.013	0.011	0.055	0.051	0.050	91.347%		
3	11:27:39	0.008	0.012	0.054	0.065	0.061	92.740%		
x		0.009	0.010	0.066	0.056	0.058	91.335%		
σ		0.004	0.003	0.020	0.008	0.008	1.410%		
%RSD		37.280	27.880	29.850	14.320	13.400	1.544		

CCV 1594026 6/2/2015 11:30:38 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	11:30:38	89.224%	105.100	108.500	105.100	0.000	49150.000	48570.000	47690.000
2	11:30:57	91.317%	95.580	105.300	100.800	0.000	47050.000	47370.000	46960.000
3	11:31:16	92.730%	93.330	102.400	97.500	0.000	44560.000	44640.000	43520.000
x		91.090%	98.016%	105.434%	101.114%	0.000	93.841%	93.718%	92.117%
σ		1.764%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.936	6.392	2.894	3.767	0.000	4.898	4.305	4.838

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	478.600	5173.000	0.000	49560.000	49820.000	48600.000	99.413%	97.290
2	11:30:57	472.200	5091.000	0.000	48360.000	49150.000	48310.000	97.181%	99.920
3	11:31:16	446.000	5012.000	0.000	47200.000	49560.000	49300.000	96.490%	101.800
x		93.121%	101.839%	0.000	96.741%	99.022%	97.477%	97.695%	99.667%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.528%	n/a
%RSD		3.704	1.579	0.000	2.441	0.678	1.036	1.564	2.263

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	97.890	98.360	479.900	24320.000	23520.000	95.340	97.110	95.240
2	11:30:57	98.700	100.800	487.700	24470.000	24180.000	100.100	99.730	97.450
3	11:31:16	99.420	103.600	496.400	25200.000	24740.000	100.600	103.700	98.980
x		98.671%	100.908%	97.598%	98.656%	96.593%	98.692%	100.164%	97.224%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.776	2.600	1.690	1.921	2.523	2.953	3.288	1.934

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	95.890	93.560	94.330	95.030	99.830	98.070	0.000	95.150
2	11:30:57	99.990	97.350	96.690	97.750	100.000	98.470	0.000	96.040
3	11:31:16	98.650	97.470	97.710	95.850	97.470	97.940	0.000	96.500
x		98.177%	96.124%	96.245%	96.208%	99.102%	98.163%	0.000	95.896%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.133	2.314	1.801	1.452	1.428	0.283	0.000	0.717

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	96.942%	99.410	100.400	92.968%	98.560	101.000	100.400	100.900
2	11:30:57	98.048%	100.600	102.000	93.993%	100.500	100.200	102.200	101.900
3	11:31:16	99.909%	101.800	101.500	94.506%	99.540	99.620	102.000	101.000
x		98.300%	100.603%	101.282%	93.822%	99.550%	100.273%	101.540%	101.272%
σ		1.500%	n/a	n/a	0.783%	n/a	n/a	n/a	n/a
%RSD		1.526	1.180	0.789	0.835	0.997	0.680	0.954	0.550

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	92.016%	98.630	93.630	93.090	97.110	95.170	99.486%	101.200%
2	11:30:57	93.814%	99.940	93.950	94.430	95.080	95.820	103.140%	104.341%
3	11:31:16	95.558%	99.380	94.080	93.470	96.420	96.590	105.190%	106.398%
x		93.796%	99.317%	93.886%	93.665%	96.199%	95.861%	102.605%	103.980%
σ		1.771%	n/a	n/a	n/a	n/a	n/a	2.889%	2.618%
%RSD		1.889	0.664	0.244	0.739	1.073	0.745	2.816	2.518

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	101.700	101.700	102.200	103.400	103.400	96.854%
2	11:30:57	105.200	106.000	106.000	106.400	107.000	97.348%
3	11:31:16	108.200	109.700	107.900	108.700	109.000	95.890%
x		105.047%	105.793%	105.369%	106.159%	106.455%	96.697%
σ		n/a	n/a	n/a	n/a	n/a	0.742%
%RSD		3.103	3.773	2.788	2.529	2.653	0.767

CCB2 6/2/2015 11:37:06 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	102.249%	-0.026	0.320	0.623	0.000	2.328	0.778	0.495
2	11:37:44	100.706%	-0.035	-0.081	0.277	0.000	1.625	0.246	0.457
3	11:38:03	101.521%	-0.060	0.183	0.106	0.000	1.636	-0.018	0.432
x		101.492%	-0.040	0.141	0.335	0.000	1.863	0.336	0.461
σ		0.772%	0.017	0.204	0.263	0.000	0.403	0.405	0.032
%RSD		0.761	43.420	144.700	78.600	0.000	21.610	120.800	6.860
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	-0.292	-95.740	0.000	4.270	1.086	2.493	102.877%	-0.210
2	11:37:44	-0.344	-97.890	0.000	2.059	-2.371	1.545	103.221%	-0.117
3	11:38:03	-0.306	-96.010	0.000	3.350	0.027	1.760	100.077%	-0.136
x		-0.314	-96.550	0.000	3.226	-0.419	1.933	102.058%	-0.154
σ		0.027	1.168	0.000	1.111	1.771	0.497	1.725%	0.049
%RSD		8.560	1.210	0.000	34.430	422.500	25.710	1.690	31.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	0.011	-0.028	-0.038	0.559	1.656	0.001	-0.012	-0.038
2	11:37:44	-0.028	-0.008	-0.037	0.095	2.646	-0.004	-0.023	-0.050
3	11:38:03	-0.036	0.016	-0.028	-0.702	-0.277	-0.003	-0.041	-0.053
x		-0.018	-0.007	-0.034	-0.016	1.342	-0.002	-0.025	-0.047
σ		0.025	0.022	0.005	0.638	1.487	0.003	0.015	0.008
%RSD		144.100	319.200	15.120	4015.000	110.800	124.900	59.710	17.050
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	-0.021	0.000	-0.004	0.010	0.055	0.390	0.000	0.006
2	11:37:44	-0.025	0.016	0.015	0.050	-0.135	0.305	0.000	-0.002
3	11:38:03	-0.045	0.039	-0.006	0.146	0.045	0.511	0.000	0.000
x		-0.030	0.018	0.002	0.069	-0.012	0.402	0.000	0.002
σ		0.013	0.019	0.011	0.070	0.107	0.103	0.000	0.004
%RSD		42.150	104.200	687.900	101.800	919.700	25.720	0.000	258.600
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	101.558%	0.502	0.619	101.217%	-0.041	-0.037	-0.006	-0.004
2	11:37:44	103.415%	0.786	0.738	101.149%	-0.034	-0.027	0.008	0.003
3	11:38:03	102.597%	0.843	0.918	100.584%	-0.034	-0.031	-0.027	-0.030
x		102.523%	0.710	0.758	100.983%	-0.037	-0.032	-0.008	-0.010
σ		0.930%	0.183	0.150	0.347%	0.004	0.005	0.018	0.017
%RSD		0.907	25.730	19.820	0.344	10.850	16.330	212.200	169.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	101.240%	-0.430	0.309	0.304	0.008	0.023	102.294%	101.983%
2	11:37:44	103.205%	-0.359	0.416	0.346	0.001	0.004	105.073%	103.901%
3	11:38:03	104.241%	-0.391	0.422	0.429	0.013	0.004	105.053%	105.005%
x		102.895%	-0.394	0.383	0.360	0.007	0.010	104.140%	103.630%
σ		1.524%	0.036	0.064	0.064	0.006	0.011	1.599%	1.529%
%RSD		1.482	9.034	16.620	17.680	82.710	101.600	1.535	1.476
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:37:25	0.005	0.016	-0.011	-0.005	-0.005	105.022%		
2	11:37:44	0.008	0.021	0.002	-0.001	0.002	103.326%		
3	11:38:03	0.009	0.015	-0.008	-0.001	-0.002	103.366%		
x		0.008	0.017	-0.006	-0.002	-0.002	103.905%		
σ		0.002	0.003	0.007	0.003	0.003	0.968%		
%RSD		30.000	19.760	125.900	119.100	189.900	0.932		

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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	11:41:15	98.762%	-0.024	4.732	4.819	0.000	8556.000	13520.000	13800.000
2	11:41:35	90.028%	-0.008	4.866	5.203	0.000	9453.000	15060.000	14880.000
3	11:41:54	95.038%	-0.038	6.177	4.641	0.000	8524.000	13640.000	13730.000
x		94.609%	-0.023	5.258	4.887	0.000	8845.000	14070.000	14140.000
σ		4.383%	0.015	0.798	0.288	0.000	527.400	852.100	641.700
%RSD		4.633	64.730	15.190	5.885	0.000	5.963	6.054	4.539
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	2.762	4324.000	0.000	539.900	199000.000	185100.000	88.691%	0.500
2	11:41:35	2.595	4614.000	0.000	585.100	217900.000	202700.000	81.888%	0.662
3	11:41:54	2.820	4348.000	0.000	536.900	199200.000	186300.000	88.373%	0.407
x		2.725	4429.000	0.000	554.000	205400.000	191400.000	86.317%	0.523
σ		0.117	161.100	0.000	27.000	10870.000	9848.000	3.839%	0.129
%RSD		4.294	3.639	0.000	4.874	5.291	5.146	4.448	24.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	-0.751	0.985	762.500	340.500	1643.000	0.804	0.806	0.339
2	11:41:35	1.119	1.092	813.400	364.400	1608.000	0.803	0.705	0.273
3	11:41:54	-2.105	0.974	755.400	313.800	1476.000	0.815	0.623	0.287
x		-0.579	1.017	777.100	339.600	1576.000	0.808	0.711	0.300
σ		1.619	0.065	31.630	25.290	88.340	0.007	0.091	0.035
%RSD		279.500	6.413	4.070	7.446	5.607	0.838	12.860	11.570
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	0.871	3.163	2.909	2.926	-0.403	2.844	0.000	497.200
2	11:41:35	0.727	3.536	3.586	3.368	-0.286	2.531	0.000	501.400
3	11:41:54	0.761	3.403	3.484	3.704	-0.332	2.370	0.000	490.300
x		0.786	3.367	3.326	3.333	-0.340	2.582	0.000	496.300
σ		0.075	0.189	0.365	0.391	0.059	0.241	0.000	5.612
%RSD		9.524	5.609	10.980	11.720	17.280	9.328	0.000	1.131
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	92.267%	1.985	1.890	87.420%	-0.038	-0.025	-0.000	-0.003
2	11:41:35	92.756%	2.166	2.173	88.460%	-0.036	-0.027	0.136	0.076
3	11:41:54	93.784%	2.168	2.136	87.678%	-0.032	-0.038	-0.048	-0.036
x		92.936%	2.106	2.066	87.853%	-0.035	-0.030	0.029	0.012
σ		0.775%	0.105	0.154	0.541%	0.003	0.007	0.095	0.058
%RSD		0.833	4.980	7.429	0.616	7.737	23.650	329.200	464.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	92.071%	0.177	2.032	2.045	401.900	405.500	99.248%	99.104%
2	11:41:35	93.956%	0.145	1.971	1.947	406.600	404.000	101.474%	102.001%
3	11:41:54	95.214%	0.202	1.732	1.704	398.300	403.400	103.007%	103.184%
x		93.747%	0.175	1.912	1.898	402.300	404.300	101.243%	101.430%
σ		1.582%	0.029	0.159	0.176	4.189	1.079	1.890%	2.099%
%RSD		1.687	16.630	8.294	9.254	1.041	0.267	1.867	2.069
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:41:15	0.019	0.023	0.036	0.035	0.031	93.711%		
2	11:41:35	0.013	0.021	0.015	0.026	0.024	92.834%		
3	11:41:54	0.021	0.022	0.030	0.006	0.031	94.004%		
x		0.018	0.022	0.027	0.022	0.029	93.516%		
σ		0.004	0.001	0.010	0.015	0.004	0.609%		
%RSD		22.900	5.262	38.830	66.460	14.010	0.651		

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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	11:45:04	93.882%	-0.011	9.959	8.871	0.000	2372.000	2714.000	2734.000
2	11:45:23	94.088%	-0.011	8.834	9.221	0.000	2348.000	2684.000	2604.000
3	11:45:42	90.157%	-0.019	8.861	9.215	0.000	2442.000	2793.000	2826.000
x		92.709%	-0.014	9.218	9.102	0.000	2388.000	2730.000	2721.000
σ		2.213%	0.005	0.642	0.200	0.000	48.800	56.300	111.600
%RSD		2.387	34.810	6.965	2.200	0.000	2.044	2.062	4.103

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	77.750	4515.000	0.000	626.000	75770.000	74410.000	89.194%	2.120
2	11:45:23	75.940	4627.000	0.000	616.400	74010.000	73360.000	89.942%	1.955
3	11:45:42	84.290	4869.000	0.000	651.500	80410.000	80110.000	83.145%	2.341
x		79.330	4670.000	0.000	631.300	76730.000	75960.000	87.427%	2.138
σ		4.393	180.900	0.000	18.170	3306.000	3629.000	3.727%	0.194
%RSD		5.537	3.874	0.000	2.878	4.309	4.777	4.263	9.072

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	-0.664	1.638	133.900	320.000	819.400	0.309	1.385	0.585
2	11:45:23	0.964	1.498	134.300	309.900	766.600	0.325	1.037	0.541
3	11:45:42	0.131	1.509	140.100	323.700	780.200	0.353	1.101	0.617
x		0.144	1.548	136.100	317.900	788.700	0.329	1.174	0.581
σ		0.814	0.078	3.492	7.124	27.420	0.022	0.185	0.038
%RSD		565.800	5.043	2.566	2.241	3.477	6.710	15.780	6.624

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	0.826	4.465	4.893	0.061	-0.749	0.868	0.000	167.000
2	11:45:23	0.755	4.335	4.169	0.196	-0.644	0.873	0.000	169.600
3	11:45:42	0.774	4.670	4.174	1.037	-0.201	0.767	0.000	168.100
x		0.785	4.490	4.412	0.431	-0.531	0.836	0.000	168.200
σ		0.037	0.169	0.417	0.529	0.291	0.060	0.000	1.299
%RSD		4.697	3.770	9.442	122.700	54.750	7.190	0.000	0.772

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	93.669%	0.693	0.712	90.909%	-0.032	-0.032	-0.049	-0.026
2	11:45:23	93.158%	0.954	0.928	91.006%	-0.034	-0.028	-0.108	-0.069
3	11:45:42	94.581%	0.960	1.027	91.649%	-0.033	-0.023	-0.016	-0.012
x		93.803%	0.869	0.889	91.188%	-0.033	-0.028	-0.058	-0.036
σ		0.721%	0.153	0.161	0.402%	0.001	0.005	0.046	0.029
%RSD		0.768	17.560	18.130	0.441	3.658	17.760	80.560	81.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	94.764%	-0.040	0.425	0.534	201.000	201.500	100.425%	102.131%
2	11:45:23	96.714%	0.046	0.503	0.514	200.200	201.900	103.214%	103.817%
3	11:45:42	97.661%	0.122	0.470	0.469	196.400	200.300	106.042%	106.496%
x		96.379%	0.043	0.466	0.506	199.200	201.200	103.227%	104.148%
σ		1.477%	0.081	0.039	0.033	2.445	0.804	2.809%	2.201%
%RSD		1.533	189.900	8.440	6.584	1.227	0.400	2.721	2.114

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	0.011	0.011	0.208	0.221	0.211	97.980%
2	11:45:23	0.009	0.011	0.221	0.174	0.202	98.338%
3	11:45:42	0.017	0.015	0.214	0.203	0.214	100.403%
x		0.012	0.012	0.214	0.199	0.209	98.907%
σ		0.004	0.002	0.007	0.024	0.006	1.307%
%RSD		34.650	19.110	3.052	11.930	3.076	1.322

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	93.857%	-0.058	9.910	9.691	0.000	2248.000	2712.000	2762.000
2	11:49:09	100.103%	-0.024	10.310	9.600	0.000	2274.000	2798.000	2796.000
3	11:49:28	99.041%	-0.034	9.772	8.860	0.000	2307.000	2786.000	2802.000
x		97.667%	-0.039	9.998	9.384	0.000	2276.000	2765.000	2787.000
σ		3.342%	0.018	0.281	0.456	0.000	29.590	46.700	21.410
%RSD		3.422	45.650	2.808	4.857	0.000	1.300	1.689	0.768
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	1.324	4447.000	0.000	592.000	76190.000	76420.000	88.198%	0.328
2	11:49:09	1.223	4487.000	0.000	594.500	79290.000	77620.000	84.382%	0.551
3	11:49:28	1.235	4469.000	0.000	608.800	80520.000	81070.000	82.098%	0.412
x		1.261	4468.000	0.000	598.400	78670.000	78370.000	84.893%	0.430
σ		0.055	20.230	0.000	9.089	2235.000	2413.000	3.082%	0.113
%RSD		4.374	0.453	0.000	1.519	2.841	3.079	3.630	26.210
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	1.016	1.163	185.600	57.130	579.700	0.308	1.253	0.552
2	11:49:09	-1.393	1.066	187.300	54.580	546.400	0.324	1.081	0.539
3	11:49:28	-0.430	1.088	191.000	59.790	553.300	0.301	1.210	0.523
x		-0.269	1.106	188.000	57.170	559.800	0.311	1.182	0.538
σ		1.213	0.051	2.790	2.609	17.580	0.012	0.089	0.015
%RSD		450.800	4.610	1.485	4.563	3.141	3.726	7.564	2.735
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	0.757	2.648	2.548	-0.326	-0.860	0.392	0.000	174.300
2	11:49:09	0.757	3.058	2.814	0.022	-0.646	0.484	0.000	175.200
3	11:49:28	0.713	2.780	3.198	0.500	-0.731	0.347	0.000	174.400
x		0.742	2.829	2.853	0.065	-0.746	0.407	0.000	174.700
σ		0.026	0.209	0.327	0.415	0.108	0.070	0.000	0.498
%RSD		3.471	7.399	11.440	635.000	14.460	17.100	0.000	0.285
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	92.392%	0.451	0.542	89.812%	-0.037	-0.043	0.085	0.059
2	11:49:09	93.354%	0.698	0.706	91.032%	-0.042	-0.043	-0.019	0.011
3	11:49:28	95.404%	0.735	0.740	92.065%	-0.037	-0.041	-0.048	-0.030
x		93.717%	0.628	0.663	90.969%	-0.038	-0.042	0.006	0.013
σ		1.538%	0.154	0.106	1.128%	0.003	0.001	0.070	0.044
%RSD		1.641	24.520	16.000	1.240	7.463	2.733	1147.000	332.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	93.475%	-0.102	0.083	0.109	206.000	208.000	100.973%	101.936%
2	11:49:09	95.723%	-0.056	0.045	0.101	206.200	207.700	105.786%	105.731%
3	11:49:28	97.975%	0.003	0.028	0.013	205.800	206.100	107.144%	107.977%
x		95.724%	-0.052	0.052	0.074	206.000	207.200	104.634%	105.215%
σ		2.250%	0.053	0.028	0.054	0.185	0.989	3.243%	3.053%
%RSD		2.350	101.900	54.200	71.940	0.090	0.477	3.099	2.902
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:48:50	0.001	0.009	0.036	0.012	0.018	96.525%		
2	11:49:09	0.007	0.011	0.023	0.010	0.011	97.784%		
3	11:49:28	0.003	0.008	0.004	0.020	0.015	100.014%		
x		0.004	0.009	0.021	0.014	0.015	98.107%		
σ		0.003	0.001	0.016	0.005	0.003	1.767%		
%RSD		73.800	13.800	74.000	38.340	23.200	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	11:52:36	94.459%	-0.011	4.608	4.920	0.000	9347.000	14800.000	14460.000
2	11:52:56	95.808%	-0.017	4.802	5.472	0.000	9100.000	14510.000	14830.000
3	11:53:15	94.635%	-0.043	6.014	5.441	0.000	9286.000	15270.000	15000.000
x		94.968%	-0.024	5.141	5.277	0.000	9244.000	14860.000	14760.000
σ		0.733%	0.017	0.762	0.310	0.000	129.000	385.000	273.500
%RSD		0.772	71.070	14.820	5.877	0.000	1.395	2.591	1.852

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	47.600	4687.000	0.000	578.700	203900.000	193100.000	88.578%	0.948
2	11:52:56	46.470	4551.000	0.000	568.300	205900.000	189700.000	87.315%	0.703
3	11:53:15	51.530	4766.000	0.000	584.500	211100.000	201200.000	84.486%	0.917
x		48.530	4668.000	0.000	577.200	207000.000	194700.000	86.793%	0.856
σ		2.658	108.800	0.000	8.212	3727.000	5877.000	2.095%	0.133
%RSD		5.476	2.331	0.000	1.423	1.801	3.019	2.414	15.580

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	1.436	1.171	770.400	356.300	1494.000	0.790	0.876	1.166
2	11:52:56	0.339	1.098	788.300	360.500	1582.000	0.815	0.479	1.192
3	11:53:15	0.292	1.129	810.500	375.400	1604.000	0.826	0.678	1.268
x		0.689	1.133	789.700	364.100	1560.000	0.810	0.678	1.209
σ		0.647	0.037	20.100	10.070	58.070	0.018	0.198	0.053
%RSD		93.960	3.252	2.545	2.767	3.722	2.280	29.230	4.367

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	1.639	3.446	3.533	2.246	-0.647	2.022	0.000	510.600
2	11:52:56	1.563	3.243	3.258	2.873	-0.679	1.657	0.000	498.700
3	11:53:15	1.628	3.631	2.910	3.587	-0.773	2.308	0.000	499.100
x		1.610	3.440	3.234	2.902	-0.700	1.996	0.000	502.800
σ		0.041	0.194	0.312	0.671	0.065	0.326	0.000	6.785
%RSD		2.557	5.649	9.652	23.120	9.324	16.340	0.000	1.350

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	90.975%	1.489	1.564	88.427%	-0.053	-0.044	-0.079	-0.066
2	11:52:56	92.904%	1.549	1.638	89.124%	-0.046	-0.049	-0.093	-0.077
3	11:53:15	94.100%	1.637	1.772	90.201%	-0.049	-0.038	-0.013	-0.017
x		92.659%	1.558	1.658	89.251%	-0.049	-0.044	-0.062	-0.053
σ		1.577%	0.074	0.105	0.894%	0.003	0.005	0.043	0.032
%RSD		1.702	4.756	6.350	1.001	6.708	11.820	69.560	59.340

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	93.651%	-0.168	-0.208	-0.165	408.100	407.500	101.440%	102.704%
2	11:52:56	95.582%	-0.123	-0.217	-0.145	407.000	410.500	105.419%	105.593%
3	11:53:15	96.660%	-0.137	-0.168	-0.145	406.700	408.500	106.138%	107.129%
x		95.298%	-0.143	-0.198	-0.152	407.300	408.800	104.332%	105.142%
σ		1.525%	0.023	0.026	0.011	0.730	1.547	2.531%	2.247%
%RSD		1.600	16.050	13.110	7.446	0.179	0.378	2.426	2.137

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	0.005	0.006	0.070	0.043	0.066	96.297%
2	11:52:56	0.008	0.007	0.081	0.080	0.077	96.757%
3	11:53:15	0.007	0.009	0.078	0.065	0.076	98.189%
x		0.006	0.007	0.077	0.063	0.073	97.081%
σ		0.002	0.001	0.006	0.019	0.006	0.987%
%RSD		25.680	19.630	7.348	29.700	8.023	1.017

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	99.615%	-0.024	4.619	4.931	0.000	9138.000	14520.000	14530.000
2	11:56:43	95.333%	-0.043	5.448	4.980	0.000	9350.000	14800.000	14800.000
3	11:57:02	90.481%	-0.041	5.098	5.603	0.000	10160.000	15880.000	15510.000
x		95.143%	-0.036	5.055	5.171	0.000	9549.000	15070.000	14950.000
σ		4.570%	0.011	0.416	0.375	0.000	538.600	721.400	507.400
%RSD		4.803	29.310	8.230	7.248	0.000	5.640	4.789	3.395

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	1.669	4495.000	0.000	584.900	215800.000	203100.000	81.861%	0.633
2	11:56:43	1.495	4672.000	0.000	583.100	215200.000	204700.000	81.898%	0.472
3	11:57:02	1.838	4825.000	0.000	593.100	221900.000	204800.000	79.296%	0.615
x		1.667	4664.000	0.000	587.000	217600.000	204200.000	81.018%	0.573
σ		0.172	164.800	0.000	5.355	3695.000	942.200	1.492%	0.088
%RSD		10.280	3.532	0.000	0.912	1.698	0.461	1.841	15.410

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	-0.518	1.171	854.500	347.300	1713.000	0.928	0.904	0.185
2	11:56:43	-1.619	1.055	840.800	345.000	1654.000	0.878	0.880	0.191
3	11:57:02	1.792	0.891	842.700	345.600	1551.000	0.823	0.961	0.256
x		-0.115	1.039	846.000	346.000	1639.000	0.876	0.915	0.211
σ		1.741	0.141	7.389	1.209	81.860	0.053	0.042	0.039
%RSD		1514.000	13.550	0.873	0.350	4.993	6.023	4.548	18.710

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	0.678	3.242	3.977	3.625	-0.308	2.323	0.000	516.200
2	11:56:43	0.580	3.387	4.039	4.738	-0.673	2.428	0.000	510.600
3	11:57:02	0.568	3.471	3.287	2.830	-0.357	2.794	0.000	512.200
x		0.609	3.367	3.768	3.731	-0.446	2.515	0.000	513.000
σ		0.060	0.116	0.418	0.958	0.198	0.248	0.000	2.903
%RSD		9.896	3.434	11.090	25.680	44.400	9.843	0.000	0.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	92.354%	1.548	1.577	88.422%	-0.045	-0.050	-0.070	-0.038
2	11:56:43	94.274%	1.642	1.863	90.103%	-0.042	-0.044	-0.020	-0.020
3	11:57:02	94.048%	1.564	1.697	90.335%	-0.043	-0.045	-0.053	-0.042
x		93.559%	1.585	1.712	89.620%	-0.043	-0.046	-0.048	-0.034
σ		1.049%	0.051	0.144	1.044%	0.002	0.003	0.025	0.012
%RSD		1.122	3.195	8.382	1.165	3.545	6.497	53.190	34.480

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	93.455%	-0.100	-0.216	-0.185	417.000	417.500	100.881%	102.372%
2	11:56:43	95.650%	-0.170	-0.221	-0.139	414.400	418.100	104.563%	106.409%
3	11:57:02	96.523%	-0.061	-0.230	-0.162	415.200	416.800	107.482%	108.189%
x		95.209%	-0.110	-0.222	-0.162	415.600	417.400	104.309%	105.657%
σ		1.581%	0.055	0.007	0.023	1.346	0.648	3.308%	2.980%
%RSD		1.661	49.900	3.222	14.130	0.324	0.155	3.171	2.821

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	0.005	0.008	0.035	0.025	0.023	95.559%
2	11:56:43	0.002	0.007	0.023	0.028	0.022	98.070%
3	11:57:02	0.000	0.006	0.026	0.021	0.020	97.359%
x		0.002	0.007	0.028	0.024	0.022	96.996%
σ		0.002	0.001	0.006	0.004	0.002	1.294%
%RSD		99.010	14.970	20.860	15.240	8.794	1.334

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	102.031%	-0.035	1.336	1.201	0.000	1912.000	2945.000	3052.000
2	12:00:30	102.234%	-0.050	0.750	0.848	0.000	1929.000	2994.000	3027.000
3	12:00:49	99.056%	-0.049	0.883	1.245	0.000	1931.000	3164.000	3131.000
x		101.107%	-0.045	0.990	1.098	0.000	1924.000	3034.000	3070.000
σ		1.779%	0.008	0.308	0.218	0.000	10.510	115.000	54.180
%RSD		1.760	18.310	31.070	19.820	0.000	0.546	3.791	1.765

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.614	848.900	0.000	109.300	38740.000	38140.000	98.568%	-0.013
2	12:00:30	0.733	828.300	0.000	113.900	39770.000	39040.000	93.680%	-0.065
3	12:00:49	0.640	883.900	0.000	111.600	40510.000	39050.000	96.628%	-0.070
x		0.662	853.700	0.000	111.600	39670.000	38740.000	96.292%	-0.049
σ		0.063	28.120	0.000	2.274	887.200	524.100	2.461%	0.032
%RSD		9.456	3.294	0.000	2.038	2.236	1.353	2.556	64.190

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.092	0.214	150.600	64.920	322.700	0.149	2.055	0.277
2	12:00:30	0.109	0.234	156.800	70.080	331.300	0.190	1.807	0.301
3	12:00:49	-0.053	0.228	149.800	65.400	311.400	0.162	1.741	0.248
x		0.049	0.225	152.400	66.800	321.800	0.167	1.867	0.275
σ		0.089	0.010	3.838	2.850	9.992	0.021	0.166	0.027
%RSD		181.700	4.482	2.518	4.266	3.105	12.460	8.860	9.702

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.403	1.630	1.814	0.639	-0.605	0.482	0.000	99.020
2	12:00:30	0.341	1.654	1.990	0.808	-0.387	0.472	0.000	99.750
3	12:00:49	0.371	1.732	1.756	0.727	-0.508	0.617	0.000	100.900
x		0.371	1.672	1.853	0.725	-0.500	0.524	0.000	99.870
σ		0.031	0.053	0.122	0.085	0.109	0.081	0.000	0.924
%RSD		8.288	3.194	6.585	11.680	21.840	15.520	0.000	0.925

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	99.926%	0.297	0.321	98.995%	-0.045	-0.045	0.002	0.003
2	12:00:30	102.085%	0.388	0.339	98.875%	-0.038	-0.041	0.060	0.033
3	12:00:49	101.033%	0.404	0.407	100.045%	-0.044	-0.045	-0.064	-0.047
x		101.015%	0.363	0.356	99.305%	-0.042	-0.043	-0.001	-0.004
σ		1.079%	0.058	0.045	0.644%	0.004	0.002	0.062	0.041
%RSD		1.068	15.950	12.780	0.648	9.080	5.680	9469.000	1103.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	101.524%	-0.533	-0.461	-0.447	84.090	82.920	104.525%	104.274%
2	12:00:30	103.198%	-0.510	-0.447	-0.436	81.990	84.140	108.332%	108.857%
3	12:00:49	104.177%	-0.503	-0.447	-0.439	83.380	83.910	109.724%	110.350%
x		102.966%	-0.515	-0.452	-0.441	83.150	83.660	107.527%	107.827%
σ		1.342%	0.016	0.008	0.006	1.071	0.645	2.691%	3.166%
%RSD		1.303	3.051	1.775	1.262	1.288	0.770	2.503	2.936

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.001	0.004	-0.004	-0.004	-0.000	103.715%
2	12:00:30	-0.001	0.005	0.017	0.007	0.005	103.081%
3	12:00:49	-0.005	0.004	0.006	-0.008	0.003	104.778%
x		-0.002	0.004	0.006	-0.002	0.003	103.858%
σ		0.003	0.001	0.011	0.008	0.003	0.858%
%RSD		164.800	16.250	171.900	433.300	96.280	0.826

MB 180-142252/1-A 6/2/2015 12:06:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	111.295%	-0.047	0.065	-0.014	0.000	0.734	-0.410	-0.152
2	12:07:14	106.370%	-0.046	-0.234	-0.069	0.000	0.542	-0.346	-0.239
3	12:07:34	107.843%	-0.010	-0.216	0.013	0.000	0.489	-0.506	-0.420
x		108.503%	-0.035	-0.128	-0.024	0.000	0.588	-0.420	-0.270
σ		2.528%	0.021	0.168	0.042	0.000	0.129	0.081	0.137
%RSD		2.330	61.880	130.800	176.500	0.000	21.950	19.170	50.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	0.111	-112.500	0.000	2.101	7.821	15.340	104.059%	-0.152
2	12:07:14	0.095	-110.600	0.000	1.622	25.200	15.260	102.885%	-0.210
3	12:07:34	0.144	-111.700	0.000	0.361	15.710	14.090	104.528%	-0.176
x		0.117	-111.600	0.000	1.361	16.240	14.890	103.824%	-0.179
σ		0.025	0.946	0.000	0.899	8.703	0.700	0.846%	0.029
%RSD		21.480	0.847	0.000	66.010	53.580	4.699	0.815	16.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.070	-0.078	-0.023	-0.596	0.858	-0.003	-0.013	-0.022
2	12:07:14	-0.021	-0.060	-0.006	-0.120	-1.574	-0.001	-0.019	-0.020
3	12:07:34	-0.002	-0.057	-0.021	-3.163	-1.499	-0.004	-0.032	-0.015
x		-0.031	-0.065	-0.016	-1.293	-0.738	-0.003	-0.021	-0.019
σ		0.035	0.011	0.009	1.637	1.383	0.002	0.009	0.004
%RSD		113.300	17.620	55.240	126.600	187.300	63.700	43.750	19.720

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.019	1.245	0.945	-0.164	-0.057	-0.052	0.000	0.018
2	12:07:14	-0.022	1.246	1.217	-0.104	-0.435	0.060	0.000	0.010
3	12:07:34	-0.039	1.167	1.199	-0.081	-0.192	0.113	0.000	0.012
x		-0.027	1.220	1.120	-0.116	-0.228	0.040	0.000	0.013
σ		0.011	0.045	0.152	0.043	0.192	0.084	0.000	0.004
%RSD		39.550	3.714	13.590	36.530	84.050	209.700	0.000	33.200

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	103.187%	-0.128	-0.107	102.625%	-0.052	-0.046	0.032	0.032
2	12:07:14	102.982%	-0.047	-0.008	102.679%	-0.042	-0.043	-0.014	-0.012
3	12:07:34	105.488%	-0.068	0.008	102.288%	-0.047	-0.047	-0.068	-0.049
x		103.886%	-0.081	-0.036	102.531%	-0.047	-0.045	-0.017	-0.010
σ		1.391%	0.042	0.063	0.212%	0.005	0.002	0.050	0.041
%RSD		1.339	51.450	175.900	0.207	11.540	4.751	295.700	408.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	102.238%	-0.569	-0.478	-0.477	0.026	0.048	102.669%	103.023%
2	12:07:14	104.271%	-0.564	-0.483	-0.473	0.049	0.036	106.009%	106.145%
3	12:07:34	105.035%	-0.579	-0.480	-0.486	0.019	0.029	105.669%	106.434%
x		103.848%	-0.571	-0.480	-0.479	0.031	0.037	104.782%	105.200%
σ		1.446%	0.007	0.003	0.006	0.016	0.010	1.838%	1.891%
%RSD		1.392	1.293	0.540	1.321	50.410	25.760	1.755	1.798

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.003	0.001	-0.013	-0.000	-0.007	108.714%
2	12:07:14	-0.003	0.003	-0.010	-0.014	-0.012	108.048%
3	12:07:34	-0.002	0.002	-0.010	-0.006	-0.006	106.083%
x		-0.003	0.002	-0.011	-0.007	-0.008	107.615%
σ		0.001	0.001	0.002	0.007	0.003	1.368%
%RSD		19.920	52.030	14.250	105.800	36.210	1.271

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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	12:10:43	105.201%	42.600	935.200	910.300	0.000	41400.000	41550.000	41800.000
2	12:11:02	99.712%	43.120	959.900	933.800	0.000	42990.000	42230.000	42240.000
3	12:11:21	95.561%	44.230	942.200	951.800	0.000	42080.000	42110.000	42310.000
x		100.158%	43.320	945.800	932.000	0.000	42160.000	41960.000	42120.000
σ		4.835%	0.835	12.750	20.820	0.000	795.700	362.000	278.100
%RSD		4.828	1.929	1.348	2.234	0.000	1.887	0.863	0.660

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	1652.000	8986.000	0.000	46390.000	49000.000	49030.000	80.409%	1001.000
2	12:11:02	1711.000	9215.000	0.000	46110.000	50320.000	49580.000	79.354%	992.900
3	12:11:21	1703.000	9349.000	0.000	46630.000	50390.000	49260.000	81.248%	976.500
x		1689.000	9183.000	0.000	46380.000	49900.000	49290.000	80.337%	990.100
σ		32.110	183.800	0.000	257.900	781.600	274.700	0.949%	12.460
%RSD		1.901	2.001	0.000	0.556	1.566	0.557	1.182	1.258

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	519.700	202.000	501.800	1043.000	1357.000	533.500	521.400	258.000
2	12:11:02	519.700	201.000	502.500	1025.000	1320.000	526.000	523.800	253.000
3	12:11:21	512.400	195.500	486.500	981.700	1244.000	495.500	481.600	244.100
x		517.200	199.500	496.900	1017.000	1307.000	518.300	508.900	251.700
σ		4.239	3.494	9.046	31.640	57.740	20.110	23.700	7.043
%RSD		0.820	1.751	1.820	3.112	4.418	3.881	4.658	2.799

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	254.300	487.300	483.800	37.130	9.102	10.430	0.000	923.500
2	12:11:02	249.600	494.300	493.700	37.680	8.607	10.220	0.000	922.600
3	12:11:21	246.100	482.000	483.200	36.750	9.271	10.770	0.000	915.000
x		250.000	487.800	486.900	37.190	8.993	10.480	0.000	920.400
σ		4.085	6.185	5.906	0.468	0.346	0.279	0.000	4.626
%RSD		1.634	1.268	1.213	1.259	3.841	2.663	0.000	0.503

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	89.678%	1010.000	1020.000	85.655%	47.300	46.880	47.110	40.990
2	12:11:02	90.308%	1016.000	1032.000	86.582%	47.840	47.330	47.100	42.200
3	12:11:21	89.954%	1021.000	1040.000	86.570%	47.100	47.850	47.990	42.110
x		89.980%	1016.000	1030.000	86.269%	47.410	47.350	47.400	41.770
σ		0.315%	5.433	10.250	0.532%	0.383	0.486	0.514	0.675
%RSD		0.351	0.535	0.995	0.617	0.808	1.026	1.085	1.617

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	87.800%	1917.000	488.700	487.400	1783.000	1788.000	97.095%	96.503%
2	12:11:02	88.945%	1902.000	487.800	489.600	1772.000	1793.000	99.537%	99.864%
3	12:11:21	88.795%	1915.000	491.200	489.700	1774.000	1791.000	100.559%	101.664%
x		88.513%	1912.000	489.200	488.900	1776.000	1791.000	99.064%	99.344%
σ		0.622%	7.941	1.795	1.299	5.901	2.306	1.780%	2.620%
%RSD		0.703	0.415	0.367	0.266	0.332	0.129	1.797	2.637

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	51.320	51.410	20.890	20.550	20.980	84.527%
2	12:11:02	52.830	53.400	21.290	21.840	21.770	83.981%
3	12:11:21	53.230	54.140	21.770	21.400	21.830	85.515%
x		52.460	52.980	21.320	21.260	21.530	84.675%
σ		1.008	1.414	0.441	0.653	0.472	0.778%
%RSD		1.922	2.669	2.067	3.071	2.193	0.918

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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	12:14:31	100.807%	0.001	43.380	43.650	0.000	47500.000	17060.000	16640.000
2	12:14:50	99.547%	-0.018	45.140	43.580	0.000	47200.000	17190.000	17170.000
3	12:15:09	93.203%	-0.021	44.400	45.150	0.000	48250.000	17120.000	17160.000
x		97.852%	-0.013	44.310	44.130	0.000	47650.000	17120.000	16990.000
σ		4.076%	0.012	0.886	0.888	0.000	539.100	65.760	299.700
%RSD		4.165	93.850	1.999	2.013	0.000	1.131	0.384	1.764

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	1.119	4463.000	0.000	4136.000	91640.000	93680.000	78.362%	0.886
2	12:14:50	0.984	4315.000	0.000	4272.000	93210.000	91710.000	77.159%	0.841
3	12:15:09	1.057	4473.000	0.000	3922.000	86120.000	87630.000	85.761%	0.679
x		1.053	4417.000	0.000	4110.000	90320.000	91010.000	80.427%	0.802
σ		0.068	88.430	0.000	176.500	3726.000	3085.000	4.658%	0.109
%RSD		6.411	2.002	0.000	4.296	4.125	3.390	5.792	13.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	-0.073	3.350	35.760	20.910	675.100	0.289	1.047	0.642
2	12:14:50	1.921	3.142	35.830	18.250	627.700	0.277	0.989	0.577
3	12:15:09	0.121	2.964	32.990	10.580	548.400	0.253	0.665	0.520
x		0.657	3.152	34.860	16.580	617.100	0.273	0.900	0.580
σ		1.099	0.193	1.621	5.364	64.000	0.018	0.206	0.061
%RSD		167.500	6.126	4.649	32.340	10.370	6.603	22.890	10.570

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	0.572	4.899	5.222	0.147	-0.103	0.620	0.000	195.500
2	12:14:50	0.469	5.261	5.311	0.305	-0.298	1.103	0.000	196.000
3	12:15:09	0.523	4.806	4.247	-0.272	-0.133	0.665	0.000	192.800
x		0.522	4.989	4.926	0.060	-0.178	0.796	0.000	194.800
σ		0.052	0.241	0.591	0.298	0.105	0.267	0.000	1.735
%RSD		9.889	4.823	11.990	498.100	59.240	33.520	0.000	0.891

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	89.367%	7.305	7.327	86.394%	-0.047	-0.042	0.002	-0.005
2	12:14:50	89.997%	7.637	7.629	87.227%	-0.039	-0.031	-0.024	-0.026
3	12:15:09	90.718%	7.070	7.370	87.142%	-0.038	-0.039	-0.024	-0.037
x		90.027%	7.337	7.442	86.921%	-0.041	-0.038	-0.015	-0.022
σ		0.676%	0.285	0.163	0.458%	0.005	0.006	0.015	0.016
%RSD		0.751	3.887	2.192	0.527	12.010	14.780	99.010	72.670

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	88.820%	1.025	-0.112	-0.064	37.790	37.990	96.056%	97.501%
2	12:14:50	89.534%	1.070	-0.136	-0.091	37.840	37.570	98.959%	100.607%
3	12:15:09	92.116%	0.896	-0.103	-0.092	37.440	37.820	99.929%	101.346%
x		90.156%	0.997	-0.117	-0.083	37.690	37.790	98.315%	99.818%
σ		1.734%	0.091	0.017	0.016	0.214	0.211	2.015%	2.040%
%RSD		1.924	9.085	14.950	19.540	0.567	0.557	2.050	2.044

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	0.206	0.193	0.031	0.027	0.034	84.104%
2	12:14:50	0.153	0.160	0.032	0.020	0.029	86.836%
3	12:15:09	0.136	0.139	0.025	0.036	0.036	88.806%
x		0.165	0.164	0.029	0.028	0.033	86.582%
σ		0.036	0.027	0.004	0.008	0.004	2.361%
%RSD		22.040	16.610	13.310	28.820	10.780	2.727

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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	12:18:19	102.759%	-0.031	9.248	8.506	0.000	9442.000	3212.000	3234.000
2	12:18:38	99.162%	-0.034	7.925	8.718	0.000	9088.000	3173.000	3278.000
3	12:18:57	101.842%	-0.035	9.224	8.465	0.000	9470.000	3354.000	3317.000
x		101.254%	-0.033	8.799	8.563	0.000	9333.000	3246.000	3276.000
σ		1.869%	0.002	0.757	0.136	0.000	213.000	94.950	41.330
%RSD		1.846	7.007	8.602	1.589	0.000	2.282	2.925	1.261
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	0.268	711.800	0.000	781.500	16960.000	16630.000	95.701%	0.057
2	12:18:38	0.151	755.900	0.000	762.100	16840.000	16970.000	96.091%	-0.044
3	12:18:57	0.292	761.000	0.000	792.400	17590.000	17380.000	92.038%	-0.048
x		0.237	742.900	0.000	778.700	17130.000	17000.000	94.610%	-0.012
σ		0.075	27.060	0.000	15.330	405.200	375.700	2.236%	0.060
%RSD		31.780	3.642	0.000	1.968	2.366	2.211	2.364	502.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	-0.369	0.644	6.655	0.439	127.200	0.050	0.122	0.135
2	12:18:38	0.575	0.627	6.483	-2.078	116.100	0.045	0.114	0.074
3	12:18:57	-0.119	0.578	6.925	-0.115	115.400	0.049	0.165	0.100
x		0.029	0.616	6.688	-0.585	119.600	0.048	0.134	0.103
σ		0.489	0.034	0.223	1.322	6.602	0.003	0.028	0.031
%RSD		1688.000	5.488	3.329	226.100	5.521	5.762	20.680	29.810
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	0.086	1.739	1.652	-0.162	-0.608	0.409	0.000	38.620
2	12:18:38	0.071	1.904	1.912	0.116	-0.827	0.089	0.000	38.520
3	12:18:57	0.105	1.645	1.681	-0.264	-0.717	0.166	0.000	39.000
x		0.088	1.763	1.748	-0.103	-0.717	0.221	0.000	38.720
σ		0.017	0.131	0.142	0.197	0.110	0.167	0.000	0.251
%RSD		19.650	7.435	8.137	190.400	15.280	75.690	0.000	0.649
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	97.309%	1.000	1.193	96.700%	-0.046	-0.040	0.036	0.024
2	12:18:38	99.343%	1.400	1.299	97.921%	-0.048	-0.046	0.016	-0.001
3	12:18:57	99.462%	1.313	1.431	98.596%	-0.047	-0.049	-0.039	-0.027
x		98.705%	1.238	1.308	97.739%	-0.047	-0.045	0.004	-0.001
σ		1.210%	0.210	0.119	0.961%	0.001	0.004	0.039	0.025
%RSD		1.226	17.000	9.124	0.983	2.398	9.939	884.900	2487.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	99.800%	-0.358	-0.468	-0.429	7.252	7.674	104.436%	105.274%
2	12:18:38	101.586%	-0.318	-0.452	-0.437	7.710	7.597	107.605%	107.887%
3	12:18:57	102.416%	-0.323	-0.444	-0.441	7.504	7.485	108.846%	109.653%
x		101.267%	-0.333	-0.455	-0.436	7.489	7.585	106.963%	107.605%
σ		1.336%	0.022	0.012	0.006	0.229	0.095	2.274%	2.203%
%RSD		1.320	6.471	2.728	1.340	3.061	1.258	2.126	2.047
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:19	0.020	0.024	0.000	-0.012	-0.004	100.246%		
2	12:18:38	0.030	0.017	-0.004	0.007	0.002	101.013%		
3	12:18:57	0.031	0.019	-0.003	0.010	0.002	102.054%		
x		0.027	0.020	-0.002	0.002	0.000	101.104%		
σ		0.006	0.004	0.002	0.012	0.003	0.908%		
%RSD		20.840	18.080	103.700	736.800	1880.000	0.898		

CCV 1594026 6/2/2015 12:21:55 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	12:21:55	97.571%	98.190	108.300	103.000	0.000	49070.000	49210.000	47220.000
2	12:22:14	99.597%	96.710	108.100	95.550	0.000	46580.000	46220.000	46250.000
3	12:22:34	90.014%	105.600	109.000	107.700	0.000	50120.000	49320.000	49340.000
x		95.727%	100.179%	108.475%	102.084%	0.000	97.181%	96.500%	95.204%
σ		5.051%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.276	4.778	0.403	6.016	0.000	3.741	3.654	3.321
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	469.100	5098.000	0.000	49690.000	49160.000	49050.000	101.577%	98.410
2	12:22:14	455.300	4795.000	0.000	48310.000	49910.000	49740.000	99.678%	101.100
3	12:22:34	493.300	5260.000	0.000	50700.000	51990.000	51230.000	99.934%	101.100
x		94.514%	101.022%	0.000	99.139%	100.710%	100.012%	100.397%	100.182%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.031%	n/a
%RSD		4.077	4.676	0.000	2.424	2.918	2.226	1.027	1.536
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	98.190	99.590	488.900	24770.000	24070.000	97.960	99.830	97.390
2	12:22:14	101.800	102.900	496.000	25850.000	25070.000	101.500	104.900	100.600
3	12:22:34	101.800	104.000	500.800	25400.000	24410.000	99.890	99.940	101.500
x		100.606%	102.148%	99.047%	101.357%	98.060%	99.774%	101.548%	99.821%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.077	2.230	1.210	2.148	2.076	1.766	2.840	2.148
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	98.110	94.540	94.790	95.580	98.310	98.260	0.000	95.270
2	12:22:14	100.500	97.580	96.320	96.540	96.880	98.450	0.000	95.300
3	12:22:34	99.310	97.410	96.360	96.830	98.430	99.030	0.000	95.940
x		99.316%	96.512%	95.823%	96.320%	97.874%	98.580%	0.000	95.503%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.220	1.768	0.934	0.677	0.882	0.404	0.000	0.393
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	100.653%	99.570	99.890	98.093%	97.810	98.380	100.300	100.000
2	12:22:14	102.792%	100.300	101.400	98.176%	98.120	98.920	100.000	100.900
3	12:22:34	103.133%	102.500	103.700	98.551%	99.650	100.700	102.700	101.100
x		102.192%	100.807%	101.669%	98.273%	98.526%	99.328%	101.017%	100.679%
σ		1.344%	n/a	n/a	0.244%	n/a	n/a	n/a	n/a
%RSD		1.315	1.540	1.914	0.248	0.996	1.215	1.418	0.570
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	95.525%	98.220	92.610	92.360	95.330	96.210	102.299%	103.095%
2	12:22:14	97.040%	100.600	93.900	93.490	96.910	96.310	104.737%	105.954%
3	12:22:34	97.893%	100.500	94.230	93.260	94.230	97.970	106.212%	107.423%
x		96.819%	99.766%	93.582%	93.036%	95.492%	96.832%	104.416%	105.490%
σ		1.199%	n/a	n/a	n/a	n/a	n/a	1.976%	2.201%
%RSD		1.239	1.343	0.914	0.640	1.412	1.018	1.893	2.087
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:21:55	101.200	101.700	103.100	103.300	103.200	99.318%		
2	12:22:14	105.600	107.200	107.600	107.300	108.100	97.583%		
3	12:22:34	107.300	108.300	108.400	109.400	109.600	98.150%		
x		104.728%	105.735%	106.358%	106.653%	106.956%	98.350%		
σ		n/a	n/a	n/a	n/a	n/a	0.885%		
%RSD		3.008	3.354	2.679	2.911	3.103	0.899		

CCB3 6/2/2015 12:28:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	111.240%	-0.048	0.497	0.380	0.000	2.118	-0.188	0.479
2	12:29:03	108.091%	-0.038	0.535	0.259	0.000	1.871	0.079	0.090
3	12:29:22	109.048%	-0.052	0.442	0.312	0.000	1.650	0.211	-0.051
x		109.460%	-0.046	0.492	0.317	0.000	1.880	0.034	0.173
σ		1.614%	0.007	0.047	0.061	0.000	0.234	0.203	0.275
%RSD		1.475	15.740	9.583	19.160	0.000	12.430	600.800	159.100
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	-0.378	-126.500	0.000	7.404	4.176	3.280	107.514%	-0.178
2	12:29:03	-0.344	-124.100	0.000	7.254	3.152	2.288	106.392%	-0.132
3	12:29:22	-0.371	-124.600	0.000	6.263	2.070	1.624	105.760%	-0.086
x		-0.364	-125.100	0.000	6.974	3.133	2.397	106.555%	-0.132
σ		0.018	1.289	0.000	0.620	1.053	0.834	0.888%	0.046
%RSD		4.915	1.031	0.000	8.892	33.630	34.770	0.834	34.820
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	0.017	0.012	-0.024	2.237	5.137	-0.000	-0.060	-0.059
2	12:29:03	-0.000	0.007	-0.029	3.621	4.423	-0.002	-0.026	-0.045
3	12:29:22	-0.021	-0.006	-0.025	0.647	3.014	-0.004	-0.090	-0.026
x		-0.002	0.004	-0.026	2.168	4.191	-0.002	-0.058	-0.043
σ		0.019	0.009	0.003	1.488	1.080	0.002	0.032	0.017
%RSD		1242.000	215.700	10.620	68.650	25.770	95.460	55.070	39.320
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	-0.012	-0.054	-0.068	-0.026	-0.070	0.353	0.000	0.002
2	12:29:03	-0.006	0.038	-0.074	0.108	-0.158	0.458	0.000	-0.002
3	12:29:22	-0.021	0.008	0.046	0.033	0.127	0.434	0.000	-0.003
x		-0.013	-0.003	-0.032	0.038	-0.034	0.415	0.000	-0.001
σ		0.008	0.046	0.068	0.067	0.146	0.055	0.000	0.003
%RSD		58.220	1706.000	212.900	174.700	435.200	13.210	0.000	247.400
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	103.550%	0.524	0.726	103.001%	-0.042	-0.041	0.067	0.046
2	12:29:03	104.281%	0.927	0.939	103.943%	-0.049	-0.034	0.058	0.043
3	12:29:22	105.639%	0.930	0.877	104.012%	-0.047	-0.029	0.038	0.035
x		104.490%	0.793	0.847	103.652%	-0.046	-0.034	0.054	0.041
σ		1.060%	0.233	0.110	0.565%	0.003	0.006	0.015	0.006
%RSD		1.015	29.400	12.960	0.545	6.816	17.560	27.260	13.690
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	101.789%	-0.410	0.327	0.454	0.014	0.027	100.526%	100.830%
2	12:29:03	104.853%	-0.420	0.494	0.375	0.013	0.004	103.721%	102.872%
3	12:29:22	105.423%	-0.362	0.409	0.417	0.001	0.011	103.931%	104.587%
x		104.022%	-0.397	0.410	0.415	0.009	0.014	102.726%	102.763%
σ		1.955%	0.031	0.084	0.040	0.007	0.011	1.908%	1.881%
%RSD		1.879	7.804	20.440	9.576	79.010	80.780	1.857	1.830
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:28:43	0.012	0.012	0.005	-0.002	0.000	102.451%		
2	12:29:03	0.021	0.018	-0.011	-0.001	-0.005	103.349%		
3	12:29:22	0.017	0.018	-0.003	-0.010	-0.005	103.811%		
x		0.016	0.016	-0.003	-0.004	-0.004	103.204%		
σ		0.005	0.004	0.008	0.005	0.003	0.692%		
%RSD		28.490	23.690	283.700	117.600	88.190	0.670		

180-44248-B-2-B MS 6/2/2015 12:32:15 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	91.885%	40.820	968.900	970.400	0.000	91770.000	60380.000	62400.000
2	12:32:53	90.960%	41.820	995.200	999.500	0.000	92590.000	59950.000	61450.000
3	12:33:12	89.657%	41.290	1027.000	1006.000	0.000	91850.000	60810.000	61550.000
x		90.834%	41.310	997.000	991.900	0.000	92070.000	60380.000	61800.000
σ		1.119%	0.498	29.070	18.950	0.000	452.100	429.200	523.800
%RSD		1.232	1.205	2.915	1.911	0.000	0.491	0.711	0.848
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	1745.000	13660.000	0.000	50180.000	147700.000	144700.000	83.282%	971.100
2	12:32:53	1691.000	13630.000	0.000	48850.000	143800.000	138700.000	86.009%	928.200
3	12:33:12	1746.000	14420.000	0.000	52080.000	148500.000	145800.000	80.242%	1022.000
x		1727.000	13900.000	0.000	50370.000	146700.000	143100.000	83.178%	973.700
σ		31.790	445.000	0.000	1622.000	2546.000	3808.000	2.885%	46.830
%RSD		1.841	3.201	0.000	3.219	1.736	2.662	3.468	4.809
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	506.900	202.900	520.200	1002.000	1973.000	491.300	479.500	236.000
2	12:32:53	477.800	188.000	486.300	944.400	1746.000	465.800	468.300	233.900
3	12:33:12	520.900	200.000	523.700	997.600	1862.000	493.900	495.600	236.900
x		501.900	197.000	510.100	981.500	1861.000	483.600	481.200	235.600
σ		22.010	7.914	20.670	32.210	113.500	15.540	13.710	1.532
%RSD		4.385	4.018	4.052	3.282	6.103	3.213	2.849	0.650
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	234.900	453.800	457.800	37.040	9.581	10.500	0.000	1123.000
2	12:32:53	235.200	452.600	451.300	37.060	9.238	10.360	0.000	1116.000
3	12:33:12	238.900	469.200	467.800	38.070	9.580	10.830	0.000	1121.000
x		236.400	458.500	459.000	37.390	9.466	10.560	0.000	1120.000
σ		2.228	9.268	8.339	0.590	0.198	0.240	0.000	3.703
%RSD		0.943	2.021	1.817	1.579	2.090	2.272	0.000	0.331
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	90.722%	1029.000	1052.000	86.407%	46.760	46.970	48.000	41.560
2	12:32:53	92.351%	1035.000	1065.000	86.688%	47.480	47.570	47.960	41.820
3	12:33:12	92.619%	1043.000	1074.000	86.242%	47.820	48.040	48.180	41.990
x		91.897%	1036.000	1064.000	86.446%	47.350	47.530	48.050	41.790
σ		1.026%	7.233	11.480	0.226%	0.541	0.535	0.120	0.221
%RSD		1.117	0.698	1.080	0.261	1.143	1.125	0.250	0.528
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	90.327%	1921.000	493.500	486.800	1830.000	1850.000	99.617%	100.632%
2	12:32:53	92.044%	1912.000	496.800	493.300	1840.000	1853.000	103.078%	103.899%
3	12:33:12	92.549%	1913.000	495.600	493.100	1834.000	1857.000	104.780%	106.166%
x		91.640%	1915.000	495.300	491.100	1834.000	1854.000	102.492%	103.566%
σ		1.165%	4.683	1.673	3.664	5.218	3.474	2.631%	2.782%
%RSD		1.271	0.245	0.338	0.746	0.285	0.187	2.567	2.686
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:32:34	52.510	52.950	21.580	21.440	21.710	86.493%		
2	12:32:53	53.130	54.040	22.070	21.980	22.160	89.174%		
3	12:33:12	53.310	54.290	22.230	22.270	22.310	90.627%		
x		52.990	53.760	21.960	21.900	22.060	88.765%		
σ		0.419	0.712	0.341	0.422	0.312	2.097%		
%RSD		0.790	1.324	1.554	1.929	1.415	2.363		

180-44248-B-2-C MSD 6/2/2015 12:36:02 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	12:36:22	96.209%	45.050	985.200	1008.000	0.000	90250.000	58040.000	59150.000
2	12:36:41	90.326%	44.890	1031.000	979.800	0.000	92980.000	61770.000	62170.000
3	12:37:01	91.387%	40.830	935.700	901.100	0.000	86850.000	57830.000	59550.000
x		92.641%	43.590	984.100	962.900	0.000	90030.000	59210.000	60290.000
σ		3.136%	2.390	47.820	55.340	0.000	3072.000	2217.000	1638.000
%RSD		3.385	5.483	4.859	5.747	0.000	3.412	3.745	2.717

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	1674.000	13520.000	0.000	51270.000	146700.000	144800.000	78.296%	1011.000
2	12:36:41	1808.000	14440.000	0.000	50720.000	144200.000	145400.000	80.754%	981.900
3	12:37:01	1678.000	13560.000	0.000	50150.000	144700.000	143000.000	80.357%	990.900
x		1720.000	13840.000	0.000	50720.000	145200.000	144400.000	79.802%	994.700
σ		76.410	523.900	0.000	557.500	1325.000	1239.000	1.319%	15.070
%RSD		4.443	3.785	0.000	1.099	0.913	0.858	1.653	1.515

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	519.600	204.000	544.300	1059.000	2016.000	519.300	514.700	252.800
2	12:36:41	511.600	199.200	515.500	1022.000	1832.000	487.100	488.400	241.300
3	12:37:01	521.400	202.700	522.500	1020.000	1883.000	495.100	492.400	241.700
x		517.500	201.900	527.400	1034.000	1911.000	500.500	498.500	245.300
σ		5.206	2.494	15.040	21.860	94.820	16.800	14.180	6.521
%RSD		1.006	1.235	2.851	2.115	4.963	3.356	2.845	2.659

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	255.000	478.900	477.600	37.770	10.360	10.610	0.000	1130.000
2	12:36:41	241.000	465.100	465.800	37.930	9.626	10.370	0.000	1110.000
3	12:37:01	241.700	461.100	462.400	37.220	9.689	11.010	0.000	1102.000
x		245.900	468.400	468.600	37.640	9.892	10.660	0.000	1114.000
σ		7.870	9.332	7.968	0.371	0.407	0.321	0.000	14.080
%RSD		3.201	1.993	1.700	0.985	4.116	3.013	0.000	1.264

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	89.919%	1054.000	1067.000	84.510%	47.800	47.490	47.990	41.310
2	12:36:41	91.342%	1037.000	1053.000	85.728%	47.020	47.590	47.850	42.110
3	12:37:01	91.596%	1033.000	1055.000	85.489%	47.030	47.230	47.700	40.980
x		90.952%	1041.000	1059.000	85.242%	47.290	47.440	47.850	41.470
σ		0.904%	11.360	7.802	0.646%	0.446	0.186	0.146	0.581
%RSD		0.993	1.091	0.737	0.757	0.943	0.392	0.305	1.402

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	87.789%	1953.000	505.500	499.000	1859.000	1886.000	98.956%	99.753%
2	12:36:41	90.583%	1913.000	491.700	490.500	1837.000	1851.000	101.461%	102.293%
3	12:37:01	90.372%	1914.000	490.000	489.200	1828.000	1848.000	101.734%	102.752%
x		89.581%	1927.000	495.800	492.900	1841.000	1862.000	100.717%	101.599%
σ		1.556%	23.000	8.513	5.369	15.960	20.820	1.531%	1.615%
%RSD		1.737	1.194	1.717	1.089	0.867	1.118	1.520	1.590

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	54.090	54.460	21.920	21.860	22.270	84.072%
2	12:36:41	54.470	54.380	21.960	22.410	22.520	85.569%
3	12:37:01	53.400	53.960	22.100	22.410	22.300	86.688%
x		53.990	54.270	21.990	22.230	22.360	85.443%
σ		0.540	0.268	0.093	0.316	0.139	1.313%
%RSD		1.000	0.495	0.424	1.423	0.622	1.536

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	102.176%	42.900	995.500	935.700	0.000	86350.000	58280.000	57160.000
2	12:40:31	97.368%	39.900	951.400	950.600	0.000	84580.000	57120.000	56920.000
3	12:40:51	99.405%	41.980	940.600	951.100	0.000	85270.000	56360.000	56950.000
x		99.649%	41.600	962.500	945.800	0.000	85400.000	57260.000	57010.000
σ		2.413%	1.538	29.080	8.764	0.000	890.800	966.800	129.200
%RSD		2.422	3.698	3.022	0.927	0.000	1.043	1.689	0.227
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	1642.000	13330.000	0.000	49400.000	137900.000	139100.000	79.906%	1018.000
2	12:40:31	1626.000	13380.000	0.000	49170.000	137000.000	136800.000	78.229%	1018.000
3	12:40:51	1673.000	13250.000	0.000	49540.000	136900.000	136600.000	79.274%	983.400
x		1647.000	13320.000	0.000	49370.000	137200.000	137500.000	79.136%	1006.000
σ		23.900	66.550	0.000	187.700	536.400	1376.000	0.847%	19.780
%RSD		1.451	0.500	0.000	0.380	0.391	1.001	1.070	1.965
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	514.100	203.500	539.100	1050.000	1964.000	528.700	520.300	254.500
2	12:40:31	519.900	203.400	545.200	1067.000	1961.000	523.100	520.000	256.100
3	12:40:51	503.800	205.400	529.100	1026.000	1886.000	514.800	507.100	245.600
x		512.600	204.100	537.800	1048.000	1937.000	522.200	515.800	252.100
σ		8.115	1.131	8.098	20.680	44.080	7.027	7.524	5.655
%RSD		1.583	0.554	1.506	1.974	2.275	1.346	1.459	2.243
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	253.800	479.700	477.700	38.520	10.130	10.440	0.000	1135.000
2	12:40:31	250.400	489.800	480.000	40.590	9.498	10.020	0.000	1128.000
3	12:40:51	253.100	481.400	486.000	38.420	9.461	10.590	0.000	1116.000
x		252.400	483.600	481.200	39.180	9.697	10.350	0.000	1127.000
σ		1.818	5.409	4.274	1.226	0.378	0.298	0.000	9.617
%RSD		0.720	1.118	0.888	3.130	3.894	2.877	0.000	0.854
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	88.937%	1057.000	1082.000	83.313%	43.930	43.630	48.700	40.950
2	12:40:31	89.530%	1066.000	1084.000	83.834%	43.800	43.140	47.700	40.790
3	12:40:51	91.124%	1061.000	1105.000	84.465%	43.550	43.370	48.650	42.440
x		89.864%	1061.000	1090.000	83.871%	43.760	43.380	48.350	41.390
σ		1.131%	4.066	12.810	0.577%	0.191	0.246	0.566	0.910
%RSD		1.259	0.383	1.175	0.688	0.437	0.566	1.171	2.197
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	86.145%	1988.000	499.000	497.000	1847.000	1867.000	96.234%	96.886%
2	12:40:31	87.711%	1974.000	499.300	495.400	1856.000	1881.000	99.826%	99.721%
3	12:40:51	88.226%	1971.000	503.000	502.600	1871.000	1876.000	101.320%	101.795%
x		87.361%	1977.000	500.400	498.300	1858.000	1874.000	99.127%	99.467%
σ		1.084%	8.895	2.192	3.804	12.210	6.886	2.614%	2.464%
%RSD		1.240	0.450	0.438	0.763	0.657	0.367	2.637	2.477
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:40:11	52.900	53.120	21.630	21.590	21.630	83.306%		
2	12:40:31	54.660	55.180	21.730	21.840	22.010	83.251%		
3	12:40:51	54.220	55.130	22.070	22.030	22.210	85.766%		
x		53.930	54.480	21.810	21.820	21.950	84.107%		
σ		0.916	1.175	0.228	0.222	0.294	1.436%		
%RSD		1.698	2.158	1.046	1.017	1.341	1.708		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	98.644%	-0.054	28.500	29.900	0.000	26770.000	12760.000	12810.000
2	12:44:19	94.937%	-0.032	32.840	30.340	0.000	26520.000	13090.000	13360.000
3	12:44:38	96.703%	-0.022	31.810	31.260	0.000	27090.000	13360.000	13660.000
x		96.761%	-0.036	31.050	30.500	0.000	26790.000	13070.000	13280.000
σ		1.854%	0.016	2.266	0.695	0.000	289.600	300.500	432.700
%RSD		1.917	44.680	7.299	2.279	0.000	1.081	2.299	3.259

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	3.864	4600.000	0.000	2888.000	83120.000	84680.000	90.457%	1.057
2	12:44:19	3.728	4618.000	0.000	2995.000	89190.000	87660.000	88.159%	1.089
3	12:44:38	3.974	4644.000	0.000	3102.000	92410.000	92150.000	82.027%	0.909
x		3.855	4621.000	0.000	2995.000	88240.000	88160.000	86.881%	1.018
σ		0.123	21.760	0.000	107.200	4718.000	3760.000	4.358%	0.097
%RSD		3.197	0.471	0.000	3.578	5.347	4.265	5.016	9.482

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	1.462	2.557	5.783	12.420	600.100	0.272	0.816	0.696
2	12:44:19	1.369	2.468	5.695	10.250	571.400	0.280	0.482	0.734
3	12:44:38	1.357	2.652	5.823	13.330	575.600	0.258	0.551	0.805
x		1.396	2.559	5.767	12.000	582.400	0.270	0.616	0.745
σ		0.057	0.092	0.065	1.581	15.500	0.011	0.176	0.055
%RSD		4.112	3.602	1.133	13.170	2.662	4.213	28.590	7.381

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	0.883	3.704	3.577	-1.124	-0.290	0.715	0.000	185.600
2	12:44:19	0.801	3.689	3.698	-0.623	-0.263	0.582	0.000	185.100
3	12:44:38	0.725	4.118	4.097	-0.439	-0.175	0.636	0.000	185.100
x		0.803	3.837	3.791	-0.729	-0.243	0.644	0.000	185.300
σ		0.079	0.244	0.272	0.355	0.060	0.066	0.000	0.291
%RSD		9.867	6.350	7.179	48.670	24.820	10.300	0.000	0.157

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	89.646%	8.881	9.003	86.717%	-0.043	-0.035	-0.069	-0.053
2	12:44:19	90.554%	10.020	9.603	87.810%	-0.047	-0.040	-0.017	0.017
3	12:44:38	91.322%	9.105	9.418	88.500%	-0.041	-0.039	-0.102	-0.063
x		90.507%	9.336	9.341	87.676%	-0.044	-0.038	-0.063	-0.033
σ		0.839%	0.605	0.308	0.899%	0.003	0.003	0.043	0.044
%RSD		0.927	6.478	3.292	1.025	6.443	7.050	68.600	130.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	90.078%	1.570	4.843	4.815	25.130	25.390	98.101%	98.558%
2	12:44:19	92.133%	1.599	4.331	4.592	25.210	24.250	98.802%	101.109%
3	12:44:38	93.206%	1.328	3.678	3.756	24.760	24.390	101.831%	102.404%
x		91.806%	1.499	4.284	4.388	25.030	24.680	99.578%	100.690%
σ		1.589%	0.149	0.584	0.558	0.238	0.622	1.982%	1.957%
%RSD		1.731	9.926	13.630	12.720	0.952	2.521	1.990	1.944

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	0.068	0.077	0.058	0.047	0.061	90.467%
2	12:44:19	0.079	0.079	0.059	0.070	0.072	90.799%
3	12:44:38	0.069	0.083	0.073	0.061	0.066	92.017%
x		0.072	0.080	0.063	0.059	0.066	91.094%
σ		0.006	0.003	0.008	0.012	0.005	0.817%
%RSD		7.817	3.797	13.300	19.430	8.237	0.896

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	102.205%	-0.025	43.840	43.800	0.000	48530.000	16290.000	16490.000
2	12:48:05	93.902%	-0.032	47.830	42.730	0.000	50160.000	17360.000	16850.000
3	12:48:24	89.620%	0.004	44.990	46.260	0.000	51310.000	18040.000	17500.000
x		95.243%	-0.018	45.560	44.260	0.000	50000.000	17230.000	16950.000
σ		6.398%	0.019	2.055	1.808	0.000	1397.000	882.300	514.100
%RSD		6.718	106.900	4.511	4.085	0.000	2.795	5.120	3.034
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	0.835	4004.000	0.000	4133.000	87910.000	87590.000	86.085%	0.537
2	12:48:05	0.879	4092.000	0.000	4160.000	89800.000	88800.000	83.726%	0.543
3	12:48:24	0.960	4462.000	0.000	4395.000	94180.000	93390.000	79.273%	0.752
x		0.891	4186.000	0.000	4229.000	90630.000	89930.000	83.028%	0.611
σ		0.064	243.400	0.000	143.900	3218.000	3058.000	3.459%	0.122
%RSD		7.157	5.815	0.000	3.403	3.550	3.400	4.166	20.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	-0.801	5.554	2.314	15.000	621.300	0.226	0.751	0.457
2	12:48:05	-0.353	5.841	2.362	20.090	628.800	0.264	0.699	0.491
3	12:48:24	0.913	5.997	2.411	18.120	577.300	0.208	0.521	0.509
x		-0.081	5.797	2.362	17.730	609.100	0.233	0.657	0.486
σ		0.889	0.224	0.049	2.566	27.840	0.029	0.121	0.027
%RSD		1103.000	3.869	2.057	14.470	4.570	12.270	18.340	5.453
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	0.327	6.626	6.634	-0.185	0.090	0.791	0.000	197.600
2	12:48:05	0.404	6.638	5.923	0.190	0.091	0.813	0.000	197.200
3	12:48:24	0.381	6.468	6.539	0.168	-0.087	0.850	0.000	196.800
x		0.371	6.578	6.365	0.057	0.031	0.818	0.000	197.200
σ		0.040	0.095	0.386	0.210	0.103	0.030	0.000	0.417
%RSD		10.680	1.442	6.064	366.900	327.700	3.663	0.000	0.212
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	89.500%	5.324	5.059	86.646%	-0.048	-0.046	0.043	0.050
2	12:48:05	90.791%	5.470	5.625	86.950%	-0.044	-0.040	0.014	0.008
3	12:48:24	91.401%	5.589	5.807	87.119%	-0.052	-0.046	-0.063	-0.054
x		90.564%	5.461	5.497	86.905%	-0.048	-0.044	-0.002	0.001
σ		0.971%	0.133	0.390	0.240%	0.004	0.003	0.055	0.053
%RSD		1.072	2.435	7.089	0.276	8.400	7.825	2701.000	3629.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	89.740%	0.092	0.550	0.690	43.340	43.120	97.308%	98.437%
2	12:48:05	91.832%	0.172	0.683	0.685	42.600	43.760	101.753%	102.918%
3	12:48:24	92.037%	0.170	0.547	0.579	43.720	43.530	103.145%	104.674%
x		91.203%	0.145	0.593	0.651	43.220	43.470	100.735%	102.010%
σ		1.271%	0.045	0.078	0.063	0.569	0.324	3.049%	3.216%
%RSD		1.394	31.340	13.100	9.609	1.316	0.745	3.027	3.152
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:47:46	0.025	0.028	0.027	0.021	0.027	89.816%		
2	12:48:05	0.025	0.041	0.031	0.030	0.035	91.717%		
3	12:48:24	0.030	0.036	0.039	0.027	0.030	93.507%		
x		0.027	0.035	0.032	0.026	0.030	91.680%		
σ		0.003	0.006	0.006	0.005	0.004	1.846%		
%RSD		11.770	18.650	17.870	17.790	13.780	2.013		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	96.365%	-0.017	45.840	42.790	0.000	51350.000	16690.000	16670.000
2	12:51:52	93.380%	-0.037	48.710	50.790	0.000	56660.000	18370.000	18230.000
3	12:52:11	91.656%	-0.053	44.640	44.970	0.000	51440.000	17010.000	17410.000
x		93.800%	-0.036	46.400	46.190	0.000	53150.000	17360.000	17430.000
σ		2.383%	0.018	2.092	4.135	0.000	3038.000	894.700	781.800
%RSD		2.540	49.730	4.508	8.954	0.000	5.716	5.155	4.485
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	1.921	4137.000	0.000	4449.000	89990.000	90250.000	86.680%	0.380
2	12:51:52	2.110	4465.000	0.000	4813.000	97640.000	98300.000	79.748%	0.702
3	12:52:11	1.759	4037.000	0.000	4548.000	92890.000	91030.000	85.385%	0.711
x		1.930	4213.000	0.000	4603.000	93510.000	93190.000	83.937%	0.598
σ		0.176	224.200	0.000	188.100	3861.000	4444.000	3.686%	0.189
%RSD		9.107	5.322	0.000	4.087	4.129	4.768	4.391	31.550
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	1.879	5.616	22.280	10.820	587.300	0.580	0.865	0.545
2	12:51:52	1.797	5.901	23.700	13.430	581.700	0.568	0.962	0.520
3	12:52:11	0.967	5.740	22.510	10.670	588.900	0.517	0.724	0.571
x		1.547	5.752	22.830	11.640	586.000	0.555	0.851	0.545
σ		0.505	0.143	0.762	1.553	3.819	0.033	0.120	0.025
%RSD		32.620	2.489	3.336	13.340	0.652	5.997	14.070	4.627
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	0.426	5.137	5.187	0.019	0.020	1.631	0.000	199.700
2	12:51:52	0.506	5.608	5.156	-0.110	-0.001	1.547	0.000	199.800
3	12:52:11	0.493	5.093	4.995	-0.991	0.099	1.514	0.000	198.400
x		0.475	5.280	5.113	-0.360	0.039	1.564	0.000	199.300
σ		0.043	0.286	0.103	0.550	0.053	0.060	0.000	0.807
%RSD		9.077	5.410	2.019	152.500	133.800	3.860	0.000	0.405
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	88.224%	5.359	5.744	85.360%	-0.050	-0.045	-0.085	-0.088
2	12:51:52	89.098%	5.644	5.813	87.288%	-0.050	-0.042	0.008	-0.016
3	12:52:11	90.278%	5.846	6.257	87.098%	-0.050	-0.046	-0.077	-0.058
x		89.200%	5.616	5.938	86.582%	-0.050	-0.044	-0.051	-0.054
σ		1.031%	0.245	0.278	1.063%	0.000	0.002	0.051	0.036
%RSD		1.156	4.353	4.686	1.228	0.250	4.102	100.200	66.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	89.593%	-0.036	0.155	0.166	41.790	42.540	99.502%	99.711%
2	12:51:52	91.784%	-0.030	0.117	0.233	42.730	43.570	100.653%	102.362%
3	12:52:11	92.450%	-0.018	0.182	0.227	42.550	42.360	103.186%	104.229%
x		91.276%	-0.028	0.151	0.208	42.360	42.820	101.114%	102.101%
σ		1.494%	0.009	0.032	0.037	0.499	0.654	1.885%	2.270%
%RSD		1.637	32.530	21.470	17.810	1.177	1.526	1.864	2.224
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:51:32	0.015	0.013	0.049	0.038	0.041	91.557%		
2	12:51:52	0.029	0.023	0.023	0.027	0.026	92.893%		
3	12:52:11	0.016	0.026	0.037	0.020	0.035	94.011%		
x		0.020	0.021	0.036	0.029	0.034	92.820%		
σ		0.008	0.007	0.013	0.009	0.007	1.229%		
%RSD		40.200	34.700	36.300	30.920	21.820	1.324		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	100.051%	-0.014	47.150	43.800	0.000	54200.000	16480.000	16570.000
2	12:55:38	98.405%	-0.049	45.620	45.640	0.000	52920.000	16440.000	16680.000
3	12:55:57	92.433%	-0.064	45.710	45.550	0.000	54890.000	17020.000	16860.000
x		96.963%	-0.042	46.160	45.000	0.000	54000.000	16650.000	16710.000
σ		4.008%	0.025	0.859	1.037	0.000	999.300	323.300	145.000
%RSD		4.134	60.400	1.862	2.305	0.000	1.850	1.942	0.868
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	3.862	3696.000	0.000	5160.000	91980.000	92250.000	83.251%	0.792
2	12:55:38	3.977	3681.000	0.000	5055.000	87640.000	86120.000	86.985%	0.335
3	12:55:57	3.791	3848.000	0.000	4915.000	83880.000	86610.000	88.958%	0.673
x		3.877	3742.000	0.000	5043.000	87830.000	88320.000	86.398%	0.600
σ		0.094	92.350	0.000	122.800	4049.000	3404.000	2.898%	0.237
%RSD		2.426	2.468	0.000	2.435	4.610	3.854	3.354	39.470
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	2.371	6.936	0.639	39.500	678.000	0.249	0.847	0.784
2	12:55:38	1.846	6.736	0.634	28.420	575.400	0.220	0.768	0.635
3	12:55:57	1.784	6.607	0.683	26.380	557.100	0.226	0.353	0.711
x		2.000	6.760	0.652	31.430	603.500	0.232	0.656	0.710
σ		0.323	0.166	0.027	7.059	65.160	0.015	0.265	0.075
%RSD		16.120	2.453	4.114	22.460	10.800	6.614	40.430	10.530
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	0.637	4.277	3.810	-0.317	-0.437	0.978	0.000	188.400
2	12:55:38	0.517	4.518	4.576	0.431	-0.030	1.052	0.000	189.700
3	12:55:57	0.515	4.262	4.142	0.386	-0.329	0.945	0.000	189.700
x		0.556	4.352	4.176	0.167	-0.266	0.992	0.000	189.300
σ		0.070	0.144	0.384	0.420	0.211	0.055	0.000	0.753
%RSD		12.580	3.300	9.200	251.700	79.450	5.511	0.000	0.398
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	90.412%	10.350	10.850	87.545%	-0.042	-0.034	-0.056	-0.033
2	12:55:38	92.082%	10.970	11.090	89.421%	-0.047	-0.049	0.080	0.041
3	12:55:57	91.511%	10.860	11.500	88.084%	-0.042	-0.044	0.002	-0.017
x		91.335%	10.720	11.150	88.350%	-0.044	-0.042	0.009	-0.003
σ		0.849%	0.329	0.328	0.966%	0.003	0.007	0.069	0.039
%RSD		0.929	3.069	2.946	1.093	6.300	17.710	781.300	1402.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	90.223%	-0.178	-0.036	-0.045	37.820	38.040	97.537%	99.178%
2	12:55:38	93.417%	-0.089	-0.023	-0.018	38.090	38.260	101.257%	102.661%
3	12:55:57	93.919%	-0.085	-0.040	-0.019	38.700	38.240	102.600%	103.766%
x		92.519%	-0.117	-0.033	-0.027	38.200	38.180	100.465%	101.868%
σ		2.005%	0.053	0.009	0.015	0.450	0.123	2.623%	2.394%
%RSD		2.167	44.980	26.210	56.520	1.177	0.322	2.610	2.351
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:55:19	0.018	0.038	0.026	0.033	0.033	88.811%		
2	12:55:38	0.028	0.044	0.031	0.025	0.030	91.890%		
3	12:55:57	0.044	0.031	0.043	0.023	0.036	93.095%		
x		0.030	0.038	0.034	0.027	0.033	91.265%		
σ		0.013	0.006	0.009	0.006	0.003	2.210%		
%RSD		44.570	17.170	26.410	20.870	9.568	2.421		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	106.563%	-0.036	45.140	44.560	0.000	60970.000	19400.000	18810.000
2	12:59:25	95.122%	-0.022	45.930	46.500	0.000	61280.000	19980.000	20860.000
3	12:59:44	95.020%	-0.053	45.860	47.850	0.000	64320.000	20700.000	20350.000
x		98.902%	-0.037	45.640	46.300	0.000	62190.000	20030.000	20010.000
σ		6.635%	0.016	0.437	1.651	0.000	1850.000	652.800	1069.000
%RSD		6.709	42.610	0.956	3.566	0.000	2.975	3.259	5.343

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	58.980	2808.000	0.000	13320.000	73190.000	73210.000	86.772%	1.511
2	12:59:25	66.280	3018.000	0.000	14520.000	81050.000	79770.000	81.830%	1.204
3	12:59:44	64.320	3044.000	0.000	14550.000	80380.000	80990.000	81.482%	1.678
x		63.190	2957.000	0.000	14130.000	78210.000	77990.000	83.362%	1.465
σ		3.777	129.600	0.000	700.700	4359.000	4184.000	2.959%	0.241
%RSD		5.977	4.382	0.000	4.959	5.573	5.365	3.549	16.420

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	-2.353	4.199	11.980	119.500	629.200	0.306	1.485	1.110
2	12:59:25	0.050	4.759	12.870	125.000	637.800	0.285	1.388	1.099
3	12:59:44	0.640	4.569	12.580	125.200	611.500	0.294	1.283	1.185
x		-0.554	4.509	12.480	123.300	626.200	0.295	1.385	1.131
σ		1.585	0.285	0.454	3.214	13.450	0.011	0.101	0.047
%RSD		286.000	6.316	3.637	2.608	2.148	3.578	7.280	4.147

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	0.955	150.900	150.600	0.929	-0.449	0.905	0.000	153.900
2	12:59:25	0.979	153.300	152.800	-0.775	-0.031	0.740	0.000	153.800
3	12:59:44	0.982	155.400	154.900	-0.587	-0.229	0.582	0.000	153.600
x		0.972	153.200	152.700	-0.145	-0.236	0.742	0.000	153.800
σ		0.015	2.279	2.162	0.935	0.209	0.162	0.000	0.171
%RSD		1.525	1.487	1.415	646.800	88.410	21.790	0.000	0.111

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	89.215%	0.914	0.996	85.596%	-0.044	-0.042	-0.023	0.012
2	12:59:25	89.366%	1.227	1.234	85.352%	-0.046	-0.042	-0.060	-0.043
3	12:59:44	90.639%	1.098	1.212	86.625%	-0.042	-0.036	-0.064	-0.024
x		89.740%	1.080	1.147	85.858%	-0.044	-0.040	-0.049	-0.019
σ		0.782%	0.157	0.132	0.676%	0.002	0.003	0.022	0.028
%RSD		0.871	14.550	11.480	0.787	5.026	8.334	45.570	151.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	88.131%	-0.112	0.164	0.105	46.620	46.410	96.875%	97.601%
2	12:59:25	90.585%	-0.015	0.143	0.204	45.960	45.560	98.511%	98.766%
3	12:59:44	91.655%	0.009	0.163	0.172	46.450	45.710	101.210%	102.618%
x		90.124%	-0.039	0.157	0.160	46.340	45.890	98.865%	99.662%
σ		1.807%	0.064	0.012	0.051	0.341	0.451	2.189%	2.626%
%RSD		2.005	163.400	7.507	31.480	0.737	0.982	2.214	2.635

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	0.017	0.019	0.302	0.225	0.276	86.366%
2	12:59:25	0.020	0.023	0.307	0.269	0.285	88.297%
3	12:59:44	0.013	0.019	0.291	0.282	0.284	90.789%
x		0.017	0.020	0.300	0.259	0.281	88.484%
σ		0.003	0.002	0.008	0.030	0.005	2.217%
%RSD		19.740	10.730	2.640	11.670	1.752	2.506

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	97.264%	-0.022	55.830	49.840	0.000	61060.000	19420.000	18780.000
2	13:03:12	92.515%	-0.026	49.130	50.990	0.000	56330.000	17890.000	18340.000
3	13:03:32	90.690%	-0.008	51.160	52.530	0.000	57550.000	17910.000	18270.000
x		93.490%	-0.019	52.040	51.120	0.000	58310.000	18410.000	18460.000
σ		3.394%	0.009	3.436	1.348	0.000	2455.000	876.800	277.200
%RSD		3.630	49.250	6.602	2.638	0.000	4.210	4.764	1.501

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	126.800	3844.000	0.000	6387.000	94200.000	92490.000	76.720%	3.177
2	13:03:12	125.000	3759.000	0.000	5997.000	85980.000	86330.000	86.410%	2.569
3	13:03:32	123.200	3709.000	0.000	5915.000	89970.000	86920.000	83.027%	3.011
x		125.000	3771.000	0.000	6100.000	90050.000	88580.000	82.052%	2.919
σ		1.789	68.010	0.000	252.100	4110.000	3401.000	4.918%	0.314
%RSD		1.431	1.804	0.000	4.133	4.564	3.839	5.994	10.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	1.113	5.528	20.650	413.100	1030.000	0.510	1.958	1.182
2	13:03:12	0.563	4.963	18.290	373.500	889.300	0.441	1.682	0.989
3	13:03:32	1.054	5.013	19.300	353.700	882.000	0.485	1.492	1.048
x		0.910	5.168	19.410	380.100	933.600	0.478	1.710	1.073
σ		0.302	0.313	1.181	30.240	83.190	0.035	0.234	0.099
%RSD		33.220	6.053	6.086	7.956	8.910	7.278	13.700	9.203

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	0.988	7.700	8.012	0.217	-0.044	1.093	0.000	191.000
2	13:03:12	0.793	6.980	7.504	-0.154	-0.534	0.624	0.000	186.700
3	13:03:32	0.883	7.196	7.507	0.716	-0.605	0.848	0.000	186.600
x		0.888	7.292	7.674	0.260	-0.395	0.855	0.000	188.100
σ		0.098	0.369	0.292	0.437	0.306	0.235	0.000	2.474
%RSD		11.000	5.065	3.811	168.300	77.450	27.440	0.000	1.315

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	89.708%	3.907	3.835	86.570%	-0.045	-0.042	0.036	0.022
2	13:03:12	91.400%	3.784	3.729	87.639%	-0.041	-0.041	0.012	0.023
3	13:03:32	90.695%	3.518	3.925	86.481%	-0.044	-0.047	0.001	-0.008
x		90.601%	3.736	3.830	86.897%	-0.044	-0.044	0.016	0.012
σ		0.850%	0.199	0.098	0.645%	0.002	0.003	0.018	0.018
%RSD		0.938	5.322	2.563	0.742	5.066	7.235	110.800	142.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	89.581%	-0.246	-0.116	-0.075	51.550	51.240	97.865%	99.879%
2	13:03:12	93.637%	-0.265	-0.113	-0.039	50.020	50.430	102.453%	104.532%
3	13:03:32	92.805%	-0.250	-0.080	-0.033	50.160	50.520	102.425%	104.263%
x		92.008%	-0.253	-0.103	-0.049	50.580	50.730	100.915%	102.891%
σ		2.142%	0.010	0.020	0.022	0.847	0.445	2.641%	2.612%
%RSD		2.328	3.983	19.520	45.900	1.674	0.876	2.617	2.539

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	0.019	0.023	0.393	0.375	0.379	91.626%
2	13:03:12	0.011	0.018	0.373	0.322	0.354	92.009%
3	13:03:32	0.025	0.024	0.384	0.327	0.355	92.960%
x		0.018	0.022	0.383	0.342	0.363	92.198%
σ		0.007	0.003	0.010	0.029	0.014	0.687%
%RSD		37.930	13.890	2.713	8.589	3.912	0.745

180-44248-B-8-A 6/2/2015 1:06:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	99.040%	-0.059	52.880	54.390	0.000	52770.000	17350.000	17160.000
2	13:06:59	99.088%	-0.018	51.030	50.020	0.000	54650.000	17970.000	17480.000
3	13:07:19	98.483%	-0.008	50.500	49.520	0.000	51840.000	16650.000	16500.000
x		98.870%	-0.029	51.470	51.310	0.000	53080.000	17320.000	17040.000
σ		0.336%	0.027	1.249	2.679	0.000	1430.000	657.000	499.600
%RSD		0.340	94.080	2.426	5.222	0.000	2.694	3.792	2.931

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	19.700	4033.000	0.000	5482.000	83820.000	83760.000	81.406%	0.992
2	13:06:59	19.020	4063.000	0.000	5560.000	84990.000	83860.000	80.904%	0.939
3	13:07:19	17.660	3786.000	0.000	5109.000	79530.000	79410.000	86.812%	0.806
x		18.790	3961.000	0.000	5383.000	82780.000	82340.000	83.041%	0.912
σ		1.037	151.900	0.000	241.100	2875.000	2539.000	3.276%	0.096
%RSD		5.519	3.835	0.000	4.478	3.473	3.084	3.945	10.510

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	-0.657	2.608	28.230	88.200	647.400	0.383	1.225	0.669
2	13:06:59	0.813	2.603	28.760	87.070	595.700	0.333	1.112	0.571
3	13:07:19	-1.147	2.410	26.690	73.550	591.700	0.318	1.081	0.620
x		-0.330	2.540	27.890	82.940	611.600	0.345	1.139	0.620
σ		1.020	0.113	1.076	8.150	31.090	0.034	0.076	0.049
%RSD		309.000	4.446	3.856	9.827	5.084	9.756	6.643	7.909

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	0.532	11.690	11.260	-0.557	-0.302	0.421	0.000	195.100
2	13:06:59	0.481	11.870	12.230	0.506	-0.611	0.692	0.000	192.800
3	13:07:19	0.560	11.360	11.240	0.272	-0.520	0.423	0.000	193.400
x		0.524	11.640	11.580	0.074	-0.478	0.512	0.000	193.800
σ		0.040	0.259	0.566	0.558	0.158	0.156	0.000	1.180
%RSD		7.686	2.227	4.887	759.500	33.160	30.540	0.000	0.609

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	89.084%	1.011	0.902	86.986%	-0.049	-0.043	0.018	0.016
2	13:06:59	90.863%	0.832	0.984	87.143%	-0.054	-0.045	-0.053	-0.036
3	13:07:19	91.056%	0.923	1.032	87.213%	-0.048	-0.041	-0.007	-0.009
x		90.334%	0.922	0.973	87.114%	-0.050	-0.043	-0.014	-0.009
σ		1.087%	0.090	0.066	0.116%	0.003	0.002	0.036	0.026
%RSD		1.204	9.730	6.738	0.133	6.113	4.227	255.000	279.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	88.612%	-0.153	-0.213	-0.191	34.740	34.060	96.565%	97.161%
2	13:06:59	91.326%	-0.200	-0.225	-0.187	33.940	34.230	99.725%	100.484%
3	13:07:19	91.184%	-0.127	-0.217	-0.229	34.270	33.960	100.270%	101.047%
x		90.374%	-0.160	-0.218	-0.202	34.320	34.080	98.854%	99.564%
σ		1.527%	0.037	0.006	0.023	0.400	0.135	2.000%	2.100%
%RSD		1.690	23.050	2.607	11.250	1.166	0.395	2.024	2.109

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	0.012	0.013	0.192	0.198	0.191	85.063%
2	13:06:59	0.015	0.018	0.206	0.178	0.195	87.007%
3	13:07:19	0.013	0.018	0.202	0.191	0.194	88.075%
x		0.013	0.016	0.200	0.189	0.193	86.715%
σ		0.002	0.003	0.007	0.010	0.002	1.527%
%RSD		12.920	19.610	3.611	5.507	1.060	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	13:10:17	99.798%	95.770	102.700	98.550	0.000	45020.000	45330.000	44630.000
2	13:10:36	100.925%	88.880	99.710	96.390	0.000	44740.000	44050.000	43960.000
3	13:10:55	92.332%	93.610	103.200	102.800	0.000	46630.000	46280.000	47760.000
x		97.685%	92.752%	101.873%	99.237%	0.000	90.927%	90.436%	90.907%
σ		4.670%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.781	3.802	1.852	3.275	0.000	2.248	2.479	4.465

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	450.000	4638.000	0.000	46030.000	47840.000	47530.000	97.999%	93.470
2	13:10:36	431.200	4664.000	0.000	46470.000	47700.000	48210.000	97.231%	94.710
3	13:10:55	482.700	5057.000	0.000	47830.000	48990.000	47940.000	97.299%	96.740
x		90.931%	95.731%	0.000	93.551%	96.354%	95.789%	97.510%	94.973%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.425%	n/a
%RSD		5.733	4.907	0.000	2.008	1.474	0.713	0.436	1.741

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	91.970	95.090	475.900	24210.000	23700.000	95.560	98.380	96.760
2	13:10:36	90.910	95.860	473.000	23800.000	23810.000	98.690	98.680	98.940
3	13:10:55	94.380	96.150	470.100	23970.000	23880.000	94.970	95.710	96.330
x		92.421%	95.698%	94.597%	95.977%	95.187%	96.406%	97.592%	97.345%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.927	0.573	0.614	0.872	0.376	2.073	1.676	1.441

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	98.550	95.040	93.150	95.630	96.720	98.010	0.000	93.620
2	13:10:36	98.490	95.140	95.610	94.950	97.920	96.450	0.000	94.230
3	13:10:55	98.240	97.030	96.980	96.920	98.820	96.740	0.000	95.100
x		98.427%	95.735%	95.250%	95.834%	97.822%	97.066%	0.000	94.317%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.166	1.168	2.039	1.043	1.075	0.852	0.000	0.793

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	94.705%	98.270	98.820	90.799%	96.550	98.420	99.500	99.650
2	13:10:36	97.083%	98.760	99.770	91.495%	98.630	98.930	101.700	101.700
3	13:10:55	96.671%	100.500	100.300	92.051%	99.240	100.300	100.800	101.300
x		96.153%	99.163%	99.620%	91.448%	98.140%	99.223%	100.671%	100.906%
σ		1.271%	n/a	n/a	0.628%	n/a	n/a	n/a	n/a
%RSD		1.322	1.155	0.738	0.686	1.440	0.989	1.099	1.094

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	88.758%	98.870	93.460	92.710	94.370	95.000	96.893%	96.876%
2	13:10:36	90.661%	99.340	94.180	93.370	96.340	96.020	100.786%	100.938%
3	13:10:55	91.370%	99.990	94.390	94.360	96.690	97.420	101.522%	102.195%
x		90.263%	99.401%	94.008%	93.479%	95.798%	96.146%	99.734%	100.003%
σ		1.351%	n/a	n/a	n/a	n/a	n/a	2.487%	2.780%
%RSD		1.496	0.565	0.520	0.886	1.304	1.263	2.494	2.780

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	101.700	102.400	101.700	102.200	103.000	91.619%
2	13:10:36	106.600	106.900	107.700	105.900	107.600	91.225%
3	13:10:55	106.200	106.800	106.800	108.100	108.700	93.133%
x		104.850%	105.343%	105.397%	105.402%	106.441%	91.992%
σ		n/a	n/a	n/a	n/a	n/a	1.007%
%RSD		2.625	2.445	3.056	2.842	2.830	1.095

CCB4 6/2/2015 1:16:45 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	13:17:04	110.689%	-0.034	0.512	0.681	0.000	2.773	0.469	0.891
2	13:17:23	110.562%	-0.047	0.651	0.610	0.000	2.147	0.119	0.379
3	13:17:42	110.802%	-0.061	0.597	0.877	0.000	2.152	0.302	0.323
x		110.685%	-0.047	0.586	0.722	0.000	2.357	0.297	0.531
σ		0.120%	0.014	0.070	0.138	0.000	0.360	0.175	0.313
%RSD		0.109	28.560	11.950	19.120	0.000	15.270	58.970	59.010

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	-0.414	-147.200	0.000	8.171	3.423	3.086	101.907%	-0.127
2	13:17:23	-0.347	-145.700	0.000	7.362	1.110	3.154	101.895%	-0.174
3	13:17:42	-0.350	-145.600	0.000	8.053	-1.149	1.591	99.360%	-0.160
x		-0.370	-146.200	0.000	7.862	1.128	2.610	101.054%	-0.153
σ		0.038	0.896	0.000	0.437	2.286	0.884	1.467%	0.024
%RSD		10.240	0.613	0.000	5.563	202.600	33.850	1.452	15.770

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	0.019	-0.031	-0.015	2.667	4.532	-0.003	-0.039	-0.046
2	13:17:23	0.044	-0.055	-0.026	-1.146	4.740	-0.004	-0.060	-0.028
3	13:17:42	-0.020	0.003	-0.028	2.342	5.225	-0.002	-0.059	-0.048
x		0.014	-0.028	-0.023	1.288	4.832	-0.003	-0.053	-0.041
σ		0.032	0.029	0.007	2.114	0.355	0.001	0.012	0.011
%RSD		223.900	104.300	30.040	164.100	7.352	27.850	22.710	28.040

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	-0.064	0.061	0.021	0.011	-0.500	0.336	0.000	-0.002
2	13:17:23	-0.030	0.074	0.075	0.032	0.105	0.064	0.000	-0.001
3	13:17:42	-0.042	0.020	-0.069	-0.046	-0.248	0.217	0.000	-0.006
x		-0.045	0.052	0.009	-0.001	-0.214	0.206	0.000	-0.003
σ		0.017	0.029	0.073	0.040	0.303	0.136	0.000	0.003
%RSD		37.860	55.280	784.600	3610.000	141.700	66.250	0.000	91.230

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	101.496%	0.465	0.495	101.133%	-0.040	-0.034	-0.014	-0.014
2	13:17:23	102.496%	0.740	0.635	100.697%	-0.043	-0.038	0.040	0.027
3	13:17:42	102.919%	0.562	0.717	101.928%	-0.044	-0.031	-0.103	-0.070
x		102.304%	0.589	0.616	101.253%	-0.043	-0.035	-0.025	-0.019
σ		0.731%	0.140	0.112	0.624%	0.002	0.004	0.072	0.049
%RSD		0.714	23.720	18.230	0.616	5.071	10.400	283.300	253.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	100.760%	-0.439	0.344	0.297	0.039	0.005	100.907%	99.834%
2	13:17:23	101.129%	-0.431	0.390	0.431	-0.011	0.012	101.477%	101.781%
3	13:17:42	102.555%	-0.385	0.380	0.397	0.013	0.001	104.375%	103.494%
x		101.481%	-0.419	0.371	0.375	0.014	0.006	102.253%	101.703%
σ		0.948%	0.029	0.025	0.069	0.025	0.006	1.860%	1.831%
%RSD		0.934	7.038	6.615	18.530	179.500	95.270	1.819	1.800

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	0.019	0.010	-0.004	-0.011	-0.003	104.177%
2	13:17:23	0.008	0.012	-0.010	0.004	-0.003	103.464%
3	13:17:42	0.008	0.014	-0.010	-0.004	-0.003	104.006%
x		0.012	0.012	-0.008	-0.004	-0.003	103.882%
σ		0.006	0.002	0.003	0.007	0.000	0.372%
%RSD		51.760	20.410	38.770	199.800	7.475	0.358

180-44248-B-9-A 6/2/2015 1:20:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	100.234%	-0.039	43.730	45.120	0.000	54770.000	17450.000	17670.000
2	13:21:14	101.999%	-0.025	44.840	46.700	0.000	57790.000	17950.000	18270.000
3	13:21:34	100.956%	0.010	44.180	42.680	0.000	56910.000	17630.000	17310.000
x		101.063%	-0.018	44.250	44.830	0.000	56490.000	17680.000	17750.000
σ		0.887%	0.026	0.556	2.026	0.000	1554.000	252.000	481.200
%RSD		0.878	140.500	1.257	4.519	0.000	2.751	1.426	2.711
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	41.890	3914.000	0.000	6276.000	88790.000	89240.000	90.730%	1.621
2	13:21:14	46.140	4083.000	0.000	6423.000	90040.000	88990.000	89.265%	1.126
3	13:21:34	44.060	3924.000	0.000	6238.000	89230.000	89890.000	86.518%	1.306
x		44.030	3974.000	0.000	6312.000	89360.000	89370.000	88.838%	1.351
σ		2.123	94.840	0.000	97.880	632.100	463.800	2.138%	0.251
%RSD		4.821	2.387	0.000	1.551	0.707	0.519	2.407	18.550
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	-1.040	15.280	9.044	215.900	821.000	0.379	1.021	0.783
2	13:21:14	-0.395	15.450	8.655	210.500	790.500	0.343	0.855	0.821
3	13:21:34	0.256	15.680	9.249	224.900	795.900	0.371	1.121	0.847
x		-0.393	15.470	8.983	217.100	802.500	0.364	0.999	0.817
σ		0.648	0.201	0.302	7.259	16.270	0.019	0.134	0.032
%RSD		164.900	1.299	3.362	3.343	2.027	5.253	13.420	3.945
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	0.709	7.012	7.663	0.310	-0.300	0.752	0.000	242.000
2	13:21:14	0.791	7.105	7.522	-0.009	-0.088	0.756	0.000	242.100
3	13:21:34	0.691	7.317	7.529	0.830	-0.035	0.796	0.000	247.000
x		0.730	7.145	7.571	0.377	-0.141	0.768	0.000	243.700
σ		0.053	0.156	0.079	0.423	0.141	0.024	0.000	2.867
%RSD		7.316	2.188	1.046	112.200	99.780	3.180	0.000	1.177
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	91.581%	0.998	1.104	88.614%	-0.031	-0.038	-0.059	-0.044
2	13:21:14	92.841%	1.296	1.406	89.021%	-0.033	-0.033	-0.018	-0.023
3	13:21:34	92.657%	1.467	1.440	88.833%	-0.035	-0.033	-0.069	-0.051
x		92.360%	1.254	1.317	88.823%	-0.033	-0.035	-0.049	-0.039
σ		0.681%	0.237	0.185	0.203%	0.002	0.003	0.027	0.014
%RSD		0.737	18.920	14.040	0.229	5.701	7.511	55.310	36.860
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	90.746%	-0.022	2.130	2.148	58.190	59.050	97.723%	98.010%
2	13:21:14	92.801%	-0.058	2.028	2.160	59.390	58.620	100.618%	101.437%
3	13:21:34	93.068%	-0.009	1.749	1.877	58.110	58.570	102.074%	103.589%
x		92.205%	-0.029	1.969	2.062	58.570	58.750	100.138%	101.012%
σ		1.271%	0.025	0.197	0.160	0.718	0.265	2.215%	2.814%
%RSD		1.378	86.720	10.020	7.763	1.226	0.452	2.212	2.785
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:20:54	0.048	0.045	0.159	0.174	0.168	87.838%		
2	13:21:14	0.042	0.051	0.215	0.163	0.183	87.467%		
3	13:21:34	0.040	0.046	0.191	0.198	0.189	89.869%		
x		0.043	0.047	0.188	0.178	0.180	88.391%		
σ		0.004	0.003	0.028	0.018	0.011	1.293%		
%RSD		10.160	7.241	14.800	10.090	6.126	1.463		

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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	13:24:44	101.793%	-0.050	30.270	31.060	0.000	15980.000	5184.000	5260.000
2	13:25:03	106.975%	-0.046	30.210	30.680	0.000	15400.000	5206.000	5011.000
3	13:25:22	101.466%	-0.030	29.050	29.940	0.000	15710.000	5208.000	5272.000
x		103.411%	-0.042	29.840	30.560	0.000	15690.000	5199.000	5181.000
σ		3.090%	0.011	0.689	0.572	0.000	291.700	13.240	147.400
%RSD		2.988	25.400	2.309	1.873	0.000	1.859	0.255	2.845

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	43.130	1683.000	0.000	6934.000	54550.000	53890.000	92.912%	0.907
2	13:25:03	40.260	1578.000	0.000	6936.000	54350.000	53960.000	88.741%	0.863
3	13:25:22	43.520	1701.000	0.000	7122.000	56750.000	57510.000	86.381%	0.865
x		42.300	1654.000	0.000	6997.000	55220.000	55120.000	89.345%	0.878
σ		1.779	66.200	0.000	108.000	1330.000	2071.000	3.308%	0.025
%RSD		4.206	4.002	0.000	1.543	2.408	3.756	3.702	2.806

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	1.377	22.920	348.600	121.100	498.800	1.109	1.921	1.199
2	13:25:03	-0.549	23.230	353.900	124.800	501.700	1.100	2.083	1.368
3	13:25:22	-1.272	23.830	360.200	125.400	491.700	1.140	1.898	1.263
x		-0.148	23.330	354.300	123.700	497.400	1.116	1.968	1.277
σ		1.369	0.465	5.824	2.335	5.119	0.021	0.101	0.085
%RSD		925.700	1.993	1.644	1.887	1.029	1.872	5.132	6.684

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	1.293	3.920	4.245	0.119	-0.728	0.483	0.000	136.300
2	13:25:03	1.452	4.116	4.444	0.246	-0.260	0.650	0.000	137.200
3	13:25:22	1.290	4.240	4.325	-0.035	-0.208	0.525	0.000	136.900
x		1.345	4.092	4.338	0.110	-0.399	0.553	0.000	136.800
σ		0.093	0.161	0.100	0.141	0.286	0.087	0.000	0.461
%RSD		6.880	3.943	2.303	128.100	71.770	15.800	0.000	0.337

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	91.690%	2.945	2.798	90.586%	-0.040	-0.038	-0.053	-0.045
2	13:25:03	94.079%	3.088	3.049	91.165%	-0.038	-0.032	-0.031	-0.009
3	13:25:22	93.430%	3.160	3.108	90.109%	-0.034	-0.036	-0.013	-0.015
x		93.066%	3.064	2.985	90.620%	-0.038	-0.036	-0.032	-0.023
σ		1.235%	0.110	0.165	0.529%	0.003	0.003	0.020	0.019
%RSD		1.327	3.574	5.520	0.583	8.965	8.089	62.340	83.660

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	94.101%	-0.200	0.407	0.430	29.580	29.760	98.864%	98.961%
2	13:25:03	94.520%	-0.140	0.406	0.459	28.800	29.870	101.395%	101.987%
3	13:25:22	95.814%	-0.229	0.367	0.395	28.920	29.360	101.510%	102.874%
x		94.812%	-0.190	0.394	0.428	29.100	29.670	100.590%	101.274%
σ		0.893%	0.045	0.023	0.032	0.421	0.270	1.496%	2.052%
%RSD		0.942	23.810	5.771	7.482	1.448	0.911	1.487	2.026

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	0.021	0.024	0.355	0.307	0.343	88.636%
2	13:25:03	0.023	0.030	0.334	0.350	0.346	90.450%
3	13:25:22	0.031	0.026	0.392	0.319	0.360	91.088%
x		0.025	0.027	0.360	0.325	0.350	90.058%
σ		0.005	0.003	0.029	0.022	0.009	1.272%
%RSD		20.880	10.800	8.150	6.838	2.668	1.412

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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	13:31:29	111.666%	-0.039	0.196	0.289	0.000	1.409	-0.048	-0.165
2	13:31:49	113.632%	-0.048	0.074	0.369	0.000	0.898	-0.694	-0.267
3	13:32:08	109.518%	-0.033	0.496	0.305	0.000	0.974	-0.255	-0.380
x		111.606%	-0.040	0.255	0.321	0.000	1.094	-0.332	-0.271
σ		2.058%	0.007	0.217	0.042	0.000	0.276	0.330	0.107
%RSD		1.844	18.410	85.150	13.190	0.000	25.260	99.190	39.690

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	-0.028	-146.200	0.000	2.887	15.370	13.500	106.280%	-0.200
2	13:31:49	-0.072	-144.900	0.000	2.635	15.700	12.870	104.287%	-0.095
3	13:32:08	-0.085	-143.500	0.000	2.644	20.490	13.590	103.245%	-0.210
x		-0.061	-144.900	0.000	2.722	17.190	13.320	104.604%	-0.168
σ		0.030	1.330	0.000	0.143	2.866	0.394	1.542%	0.063
%RSD		48.620	0.918	0.000	5.263	16.670	2.961	1.474	37.750

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	0.011	-0.014	-0.015	-1.167	0.770	-0.003	-0.024	-0.005
2	13:31:49	-0.048	-0.032	-0.025	-2.388	-0.341	-0.003	-0.017	-0.004
3	13:32:08	0.011	-0.112	-0.023	-5.350	-0.295	-0.002	-0.030	-0.017
x		-0.008	-0.053	-0.021	-2.968	0.045	-0.003	-0.024	-0.009
σ		0.034	0.052	0.005	2.151	0.629	0.000	0.006	0.007
%RSD		410.100	98.560	24.680	72.470	1401.000	16.680	27.330	86.850

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	0.002	1.097	0.908	-0.149	-0.264	-0.084	0.000	0.002
2	13:31:49	0.014	0.952	0.848	-0.111	-0.393	-0.026	0.000	0.005
3	13:32:08	-0.022	1.044	0.946	-0.185	-0.441	-0.148	0.000	0.007
x		-0.002	1.031	0.900	-0.148	-0.366	-0.086	0.000	0.005
σ		0.018	0.073	0.049	0.037	0.091	0.061	0.000	0.002
%RSD		909.600	7.115	5.496	25.020	24.980	70.840	0.000	47.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	100.635%	-0.092	-0.094	100.760%	-0.054	-0.040	0.064	0.034
2	13:31:49	103.387%	-0.095	0.009	100.716%	-0.052	-0.041	-0.021	-0.011
3	13:32:08	103.030%	-0.062	0.027	101.786%	-0.049	-0.043	-0.011	-0.013
x		102.351%	-0.083	-0.020	101.087%	-0.052	-0.041	0.011	0.003
σ		1.496%	0.019	0.065	0.605%	0.002	0.001	0.047	0.027
%RSD		1.462	22.330	333.200	0.599	4.720	3.241	434.900	791.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	100.476%	-0.586	-0.447	-0.446	0.021	0.071	100.566%	99.804%
2	13:31:49	101.557%	-0.549	-0.459	-0.445	0.032	0.037	102.535%	103.222%
3	13:32:08	103.628%	-0.550	-0.466	-0.466	0.062	0.022	102.969%	103.933%
x		101.887%	-0.562	-0.458	-0.452	0.038	0.043	102.024%	102.320%
σ		1.601%	0.021	0.010	0.012	0.021	0.025	1.281%	2.207%
%RSD		1.572	3.812	2.086	2.603	55.710	57.240	1.255	2.157

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	-0.002	0.004	-0.007	-0.012	-0.008	104.545%
2	13:31:49	-0.001	0.001	-0.011	-0.005	-0.005	103.860%
3	13:32:08	-0.003	-0.001	-0.008	-0.008	-0.008	103.861%
x		-0.002	0.001	-0.009	-0.009	-0.007	104.089%
σ		0.001	0.003	0.002	0.004	0.002	0.395%
%RSD		45.770	195.200	22.810	43.030	26.490	0.379

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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	13:35:18	100.825%	42.000	912.500	860.600	0.000	42040.000	42090.000	40400.000
2	13:35:38	94.735%	43.420	991.200	936.200	0.000	41690.000	43500.000	43620.000
3	13:35:57	95.034%	42.890	929.600	911.300	0.000	41580.000	40700.000	40390.000
x		96.865%	42.770	944.400	902.700	0.000	41770.000	42090.000	41470.000
σ		3.433%	0.716	41.390	38.530	0.000	239.100	1396.000	1862.000
%RSD		3.544	1.674	4.383	4.268	0.000	0.573	3.315	4.491
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	1560.000	8812.000	0.000	44190.000	45910.000	45700.000	84.126%	947.500
2	13:35:38	1704.000	9191.000	0.000	47580.000	50240.000	49940.000	78.522%	1022.000
3	13:35:57	1677.000	9014.000	0.000	43810.000	47160.000	46250.000	83.644%	935.400
x		1647.000	9006.000	0.000	45190.000	47770.000	47300.000	82.097%	968.300
σ		76.310	190.000	0.000	2073.000	2230.000	2305.000	3.106%	46.950
%RSD		4.633	2.109	0.000	4.587	4.668	4.874	3.783	4.849
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	493.200	189.700	484.300	979.900	1284.000	504.100	495.400	243.300
2	13:35:38	531.600	206.400	501.600	1034.000	1369.000	517.500	506.500	254.500
3	13:35:57	488.900	188.600	477.000	961.400	1230.000	500.500	492.700	239.400
x		504.600	194.900	487.700	991.800	1294.000	507.400	498.200	245.700
σ		23.510	9.988	12.660	37.850	70.510	8.992	7.325	7.855
%RSD		4.660	5.124	2.595	3.816	5.448	1.772	1.470	3.197
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	242.800	477.200	474.400	37.580	9.114	10.130	0.000	915.100
2	13:35:38	251.000	490.700	482.900	37.050	9.102	10.090	0.000	899.800
3	13:35:57	242.100	472.600	476.800	35.760	9.199	10.770	0.000	903.600
x		245.300	480.200	478.000	36.800	9.138	10.330	0.000	906.200
σ		4.927	9.402	4.346	0.935	0.053	0.382	0.000	7.955
%RSD		2.009	1.958	0.909	2.539	0.583	3.695	0.000	0.878
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	89.459%	993.000	1018.000	85.899%	46.840	46.280	46.820	39.780
2	13:35:38	91.014%	996.200	1007.000	86.182%	46.590	46.730	46.030	39.120
3	13:35:57	90.044%	1003.000	1028.000	85.188%	46.900	46.680	47.400	41.330
x		90.172%	997.400	1018.000	85.756%	46.780	46.560	46.750	40.080
σ		0.786%	5.205	10.490	0.512%	0.161	0.246	0.687	1.138
%RSD		0.871	0.522	1.031	0.597	0.345	0.529	1.470	2.839
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	87.542%	1898.000	484.600	481.900	1745.000	1752.000	95.869%	95.947%
2	13:35:38	89.394%	1889.000	485.300	484.000	1757.000	1768.000	97.936%	98.289%
3	13:35:57	90.137%	1874.000	485.600	484.200	1739.000	1753.000	100.288%	99.861%
x		89.024%	1887.000	485.200	483.400	1747.000	1758.000	98.031%	98.032%
σ		1.336%	12.220	0.539	1.260	9.065	9.129	2.211%	1.970%
%RSD		1.501	0.648	0.111	0.261	0.519	0.519	2.256	2.009
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:35:18	50.810	51.060	20.670	20.650	21.080	82.249%		
2	13:35:38	51.520	51.660	21.070	21.220	21.350	83.616%		
3	13:35:57	51.510	51.790	20.960	21.070	21.260	85.086%		
x		51.280	51.500	20.900	20.980	21.230	83.650%		
σ		0.408	0.393	0.207	0.297	0.139	1.419%		
%RSD		0.796	0.763	0.990	1.416	0.657	1.696		

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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	13:39:08	109.486%	-0.010	20.270	19.730	0.000	39700.000	8217.000	8319.000
2	13:39:27	103.835%	-0.031	19.050	18.580	0.000	39460.000	8159.000	8207.000
3	13:39:46	93.411%	-0.016	20.930	19.150	0.000	42200.000	8785.000	8695.000
x		102.244%	-0.019	20.090	19.160	0.000	40450.000	8387.000	8407.000
σ		8.154%	0.011	0.952	0.575	0.000	1520.000	346.200	255.800
%RSD		7.975	57.260	4.740	3.001	0.000	3.758	4.127	3.042

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	53.010	2643.000	0.000	3012.000	47240.000	46780.000	89.896%	1.425
2	13:39:27	51.670	2650.000	0.000	2991.000	48590.000	48690.000	88.471%	1.572
3	13:39:46	54.200	2759.000	0.000	3165.000	49380.000	48740.000	88.151%	1.429
x		52.960	2684.000	0.000	3056.000	48400.000	48070.000	88.839%	1.475
σ		1.265	65.390	0.000	94.810	1081.000	1116.000	0.929%	0.084
%RSD		2.388	2.436	0.000	3.103	2.233	2.322	1.045	5.694

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	-0.835	1.317	36.800	177.200	521.700	0.380	1.029	2.856
2	13:39:27	-0.526	1.285	37.990	183.200	502.500	0.367	0.891	2.937
3	13:39:46	2.278	1.268	37.440	182.400	493.200	0.348	0.788	2.862
x		0.306	1.290	37.410	180.900	505.800	0.365	0.903	2.885
σ		1.715	0.025	0.594	3.267	14.500	0.016	0.121	0.045
%RSD		561.000	1.926	1.588	1.806	2.867	4.402	13.440	1.563

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	2.647	6.579	6.240	0.106	-0.194	0.512	0.000	146.900
2	13:39:27	2.667	6.543	6.265	0.192	-0.127	0.527	0.000	147.600
3	13:39:46	2.824	5.923	6.373	-0.202	-0.306	0.228	0.000	147.300
x		2.713	6.348	6.293	0.032	-0.209	0.422	0.000	147.300
σ		0.097	0.368	0.071	0.207	0.090	0.169	0.000	0.335
%RSD		3.562	5.804	1.122	647.900	43.290	39.980	0.000	0.227

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	90.924%	7.093	6.948	89.151%	-0.041	-0.042	0.098	0.056
2	13:39:27	91.222%	7.790	7.552	88.020%	-0.039	-0.038	-0.008	-0.003
3	13:39:46	91.552%	6.982	7.317	89.190%	-0.045	-0.043	-0.044	-0.038
x		91.232%	7.289	7.272	88.787%	-0.042	-0.041	0.015	0.005
σ		0.314%	0.438	0.304	0.664%	0.003	0.003	0.074	0.048
%RSD		0.345	6.009	4.184	0.748	7.044	6.689	475.600	1020.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	89.568%	1.294	0.039	0.097	40.790	41.190	96.706%	96.985%
2	13:39:27	92.372%	1.130	0.094	0.033	39.660	41.200	98.195%	98.596%
3	13:39:46	92.105%	1.061	0.047	0.069	41.630	41.660	100.134%	100.284%
x		91.348%	1.162	0.060	0.066	40.690	41.350	98.345%	98.622%
σ		1.547%	0.120	0.030	0.032	0.992	0.266	1.719%	1.649%
%RSD		1.694	10.300	49.260	48.580	2.438	0.643	1.748	1.673

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	0.248	0.265	0.956	0.803	0.900	85.833%
2	13:39:27	0.189	0.199	0.956	0.869	0.893	87.813%
3	13:39:46	0.148	0.154	0.940	0.804	0.883	90.222%
x		0.195	0.206	0.950	0.825	0.892	87.956%
σ		0.050	0.056	0.009	0.038	0.008	2.198%
%RSD		25.770	27.090	0.981	4.576	0.933	2.499

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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	13:42:56	111.816%	-0.052	4.375	4.554	0.000	8356.000	1690.000	1703.000
2	13:43:15	105.595%	-0.041	4.307	4.340	0.000	8543.000	1712.000	1690.000
3	13:43:34	104.506%	-0.050	4.357	4.426	0.000	8473.000	1704.000	1687.000
x		107.306%	-0.048	4.346	4.440	0.000	8457.000	1702.000	1693.000
σ		3.944%	0.006	0.035	0.108	0.000	94.400	10.870	8.426
%RSD		3.675	12.160	0.809	2.426	0.000	1.116	0.639	0.498

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	11.420	431.200	0.000	599.500	9279.000	8758.000	100.102%	0.200
2	13:43:15	10.700	439.800	0.000	620.300	9801.000	9026.000	95.184%	0.210
3	13:43:34	11.010	433.800	0.000	595.500	9762.000	9044.000	94.893%	0.224
x		11.040	434.900	0.000	605.100	9614.000	8943.000	96.727%	0.211
σ		0.363	4.396	0.000	13.310	290.400	160.100	2.927%	0.012
%RSD		3.282	1.011	0.000	2.200	3.021	1.790	3.026	5.599

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	-0.085	0.221	6.914	30.070	102.200	0.065	0.252	0.492
2	13:43:15	0.408	0.241	7.591	34.510	100.800	0.062	0.137	0.554
3	13:43:34	0.341	0.291	7.475	31.340	103.100	0.068	0.130	0.574
x		0.221	0.251	7.327	31.980	102.100	0.065	0.173	0.540
σ		0.268	0.036	0.362	2.286	1.163	0.003	0.069	0.043
%RSD		120.900	14.330	4.941	7.148	1.139	4.402	39.730	7.996

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	0.509	2.109	2.148	-0.053	-0.550	0.078	0.000	29.120
2	13:43:15	0.586	2.235	2.287	0.020	-0.638	0.240	0.000	29.430
3	13:43:34	0.539	2.322	2.428	-0.075	-0.371	0.119	0.000	29.410
x		0.545	2.222	2.288	-0.036	-0.520	0.146	0.000	29.320
σ		0.039	0.107	0.140	0.050	0.136	0.084	0.000	0.177
%RSD		7.112	4.818	6.122	139.300	26.230	57.730	0.000	0.603

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	95.517%	1.411	1.365	96.330%	-0.041	-0.044	0.112	0.085
2	13:43:15	96.525%	1.672	1.717	96.893%	-0.042	-0.044	0.009	0.005
3	13:43:34	97.004%	1.557	1.680	96.724%	-0.047	-0.046	-0.018	-0.020
x		96.349%	1.547	1.587	96.649%	-0.043	-0.045	0.034	0.024
σ		0.759%	0.131	0.194	0.289%	0.003	0.001	0.069	0.055
%RSD		0.788	8.484	12.210	0.299	7.130	1.526	199.200	232.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	96.211%	-0.233	-0.384	-0.391	8.231	8.538	98.236%	98.799%
2	13:43:15	97.996%	-0.255	-0.398	-0.385	8.158	8.072	100.208%	101.428%
3	13:43:34	98.835%	-0.234	-0.385	-0.401	8.218	8.203	103.264%	103.414%
x		97.681%	-0.241	-0.389	-0.392	8.202	8.271	100.569%	101.213%
σ		1.340%	0.012	0.008	0.008	0.039	0.240	2.533%	2.315%
%RSD		1.372	5.039	2.005	2.098	0.474	2.905	2.519	2.287

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	0.023	0.028	0.188	0.155	0.170	98.788%
2	13:43:15	0.032	0.026	0.212	0.166	0.187	97.878%
3	13:43:34	0.014	0.029	0.175	0.166	0.172	98.556%
x		0.023	0.028	0.192	0.162	0.176	98.407%
σ		0.009	0.002	0.019	0.006	0.009	0.473%
%RSD		38.470	6.559	9.788	3.808	5.206	0.481

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	93.993%	40.050	900.100	937.500	0.000	82850.000	49650.000	48970.000
2	13:47:01	95.412%	42.250	924.900	960.200	0.000	87440.000	52130.000	50270.000
3	13:47:21	89.611%	40.940	885.400	910.300	0.000	83280.000	50180.000	51520.000
x		93.006%	41.080	903.400	936.000	0.000	84520.000	50650.000	50250.000
σ		3.024%	1.106	19.970	24.990	0.000	2536.000	1305.000	1274.000
%RSD		3.251	2.691	2.211	2.670	0.000	3.000	2.576	2.535
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	1767.000	11990.000	0.000	46610.000	93580.000	93960.000	88.491%	940.300
2	13:47:01	1800.000	12570.000	0.000	49190.000	99800.000	98200.000	81.754%	960.300
3	13:47:21	1804.000	12300.000	0.000	50280.000	101900.000	99600.000	80.717%	991.100
x		1790.000	12290.000	0.000	48690.000	98430.000	97250.000	83.654%	963.900
σ		20.040	288.700	0.000	1882.000	4330.000	2934.000	4.221%	25.620
%RSD		1.119	2.349	0.000	3.865	4.399	3.017	5.045	2.658
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	475.700	182.100	490.200	1126.000	1727.000	467.500	451.000	225.300
2	13:47:01	481.600	190.500	513.000	1186.000	1768.000	479.100	476.900	234.400
3	13:47:21	495.600	194.700	520.100	1194.000	1819.000	486.600	484.300	237.700
x		484.300	189.100	507.800	1169.000	1771.000	477.700	470.700	232.500
σ		10.210	6.440	15.600	37.050	46.180	9.606	17.470	6.426
%RSD		2.108	3.405	3.072	3.170	2.607	2.011	3.712	2.764
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	228.300	440.500	440.100	36.260	9.261	10.100	0.000	1057.000
2	13:47:01	240.000	470.000	462.900	37.770	9.299	10.840	0.000	1062.000
3	13:47:21	238.200	469.800	465.900	37.690	8.494	10.570	0.000	1061.000
x		235.500	460.100	456.300	37.240	9.018	10.500	0.000	1060.000
σ		6.303	16.980	14.070	0.847	0.454	0.375	0.000	2.921
%RSD		2.676	3.691	3.083	2.275	5.039	3.567	0.000	0.276
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	89.199%	1011.000	1031.000	84.618%	46.860	46.740	46.400	40.180
2	13:47:01	90.412%	1015.000	1044.000	85.616%	47.480	47.280	47.650	40.600
3	13:47:21	91.139%	1028.000	1049.000	85.584%	47.080	46.860	47.720	41.150
x		90.250%	1018.000	1041.000	85.272%	47.140	46.960	47.260	40.640
σ		0.980%	8.686	9.377	0.567%	0.316	0.282	0.741	0.487
%RSD		1.086	0.853	0.901	0.665	0.670	0.601	1.567	1.199
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	89.656%	1886.000	482.900	482.300	1821.000	1825.000	98.311%	100.117%
2	13:47:01	90.672%	1891.000	487.000	487.000	1815.000	1840.000	101.704%	103.803%
3	13:47:21	92.298%	1861.000	484.000	481.500	1805.000	1834.000	102.955%	104.080%
x		90.875%	1879.000	484.600	483.600	1813.000	1833.000	100.990%	102.667%
σ		1.333%	15.780	2.142	2.980	8.456	7.668	2.403%	2.212%
%RSD		1.467	0.840	0.442	0.616	0.466	0.418	2.379	2.155
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:46:42	49.030	49.730	21.590	21.280	21.410	91.024%		
2	13:47:01	51.410	52.120	22.030	21.600	22.120	91.118%		
3	13:47:21	51.520	52.580	22.240	22.110	22.410	91.151%		
x		50.650	51.480	21.950	21.660	21.980	91.098%		
σ		1.404	1.530	0.333	0.422	0.517	0.066%		
%RSD		2.773	2.972	1.518	1.949	2.354	0.072		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	96.265%	38.730	921.900	929.600	0.000	80210.000	47440.000	48170.000
2	13:50:48	98.864%	40.810	914.100	864.300	0.000	78600.000	47150.000	46660.000
3	13:51:07	93.728%	40.400	906.200	948.900	0.000	81000.000	47430.000	48970.000
x		96.286%	39.980	914.100	914.200	0.000	79940.000	47340.000	47930.000
σ		2.568%	1.106	7.832	44.320	0.000	1225.000	162.700	1170.000
%RSD		2.667	2.765	0.857	4.848	0.000	1.533	0.344	2.441

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	1785.000	11900.000	0.000	45870.000	93780.000	93730.000	88.358%	882.000
2	13:50:48	1740.000	11490.000	0.000	45810.000	92090.000	93220.000	84.048%	912.600
3	13:51:07	1822.000	12240.000	0.000	46510.000	96860.000	94800.000	85.677%	905.100
x		1782.000	11880.000	0.000	46060.000	94240.000	93920.000	86.028%	899.900
σ		40.760	379.300	0.000	386.800	2422.000	807.900	2.176%	15.970
%RSD		2.287	3.193	0.000	0.840	2.570	0.860	2.530	1.775

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	477.700	188.400	482.200	1153.000	1752.000	461.900	454.700	228.400
2	13:50:48	473.600	185.900	496.000	1210.000	1752.000	484.400	478.500	236.300
3	13:51:07	467.100	183.800	491.200	1144.000	1687.000	456.400	448.000	223.900
x		472.800	186.000	489.800	1169.000	1730.000	467.600	460.400	229.500
σ		5.337	2.275	7.028	35.990	37.800	14.820	16.010	6.234
%RSD		1.129	1.223	1.435	3.078	2.184	3.169	3.477	2.716

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	226.700	438.700	441.500	35.200	9.145	9.059	0.000	1057.000
2	13:50:48	237.400	451.900	455.400	36.100	8.529	9.733	0.000	1046.000
3	13:51:07	228.800	448.700	446.700	37.560	9.088	9.558	0.000	1054.000
x		231.000	446.400	447.900	36.290	8.921	9.450	0.000	1052.000
σ		5.704	6.898	7.046	1.193	0.341	0.350	0.000	5.595
%RSD		2.470	1.545	1.573	3.288	3.817	3.698	0.000	0.532

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	89.431%	1014.000	1037.000	84.695%	46.470	46.690	48.030	40.400
2	13:50:48	90.947%	1025.000	1048.000	85.772%	46.290	46.260	46.280	41.800
3	13:51:07	90.425%	1034.000	1049.000	85.222%	46.940	47.410	47.200	40.800
x		90.268%	1024.000	1045.000	85.230%	46.570	46.790	47.170	41.000
σ		0.770%	9.814	6.712	0.538%	0.336	0.583	0.876	0.721
%RSD		0.853	0.958	0.643	0.632	0.722	1.247	1.856	1.759

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	88.766%	1899.000	484.400	481.500	1800.000	1821.000	97.529%	99.441%
2	13:50:48	89.657%	1894.000	490.900	488.600	1799.000	1822.000	100.586%	102.105%
3	13:51:07	90.999%	1866.000	481.500	482.500	1794.000	1816.000	102.595%	103.635%
x		89.807%	1886.000	485.600	484.200	1798.000	1820.000	100.236%	101.727%
σ		1.124%	17.790	4.821	3.853	3.443	3.568	2.551%	2.122%
%RSD		1.251	0.943	0.993	0.796	0.192	0.196	2.545	2.086

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	50.360	50.680	21.210	21.230	21.500	88.718%
2	13:50:48	51.740	52.130	21.820	22.500	22.260	88.539%
3	13:51:07	51.640	52.820	22.210	22.210	22.420	90.266%
x		51.250	51.880	21.750	21.980	22.060	89.174%
σ		0.768	1.089	0.502	0.667	0.488	0.950%
%RSD		1.499	2.100	2.308	3.035	2.214	1.065

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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	13:54:16	98.298%	44.900	990.700	980.200	0.000	82610.000	52350.000	50500.000
2	13:54:35	97.892%	43.380	980.800	962.100	0.000	83270.000	49990.000	51060.000
3	13:54:54	94.269%	43.820	959.500	923.500	0.000	82530.000	49630.000	50390.000
x		96.820%	44.030	977.000	955.300	0.000	82800.000	50650.000	50650.000
σ		2.218%	0.786	15.970	29.000	0.000	408.900	1477.000	355.200
%RSD		2.291	1.785	1.635	3.036	0.000	0.494	2.916	0.701
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	1770.000	12330.000	0.000	50690.000	100100.000	98170.000	79.713%	1020.000
2	13:54:35	1776.000	12080.000	0.000	49950.000	99700.000	100700.000	78.368%	1039.000
3	13:54:54	1788.000	12310.000	0.000	49840.000	98740.000	99470.000	78.978%	1060.000
x		1778.000	12240.000	0.000	50160.000	99520.000	99440.000	79.020%	1040.000
σ		8.759	141.400	0.000	460.700	700.900	1255.000	0.673%	20.020
%RSD		0.493	1.156	0.000	0.919	0.704	1.262	0.852	1.926
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	516.400	206.700	547.800	1202.000	1845.000	528.500	520.700	255.600
2	13:54:35	531.700	207.100	546.000	1207.000	1852.000	531.800	522.100	259.200
3	13:54:54	527.000	204.600	554.400	1214.000	1833.000	529.100	522.500	258.900
x		525.000	206.200	549.400	1208.000	1843.000	529.800	521.800	257.900
σ		7.827	1.356	4.441	6.138	9.952	1.796	0.949	2.006
%RSD		1.491	0.658	0.808	0.508	0.540	0.339	0.182	0.778
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	254.700	494.200	488.800	39.960	9.904	11.510	0.000	1097.000
2	13:54:35	261.000	496.300	493.400	39.660	9.584	10.090	0.000	1097.000
3	13:54:54	257.300	494.200	494.600	40.170	9.614	11.260	0.000	1094.000
x		257.700	494.900	492.300	39.930	9.701	10.950	0.000	1096.000
σ		3.189	1.201	3.044	0.259	0.177	0.757	0.000	1.701
%RSD		1.238	0.243	0.618	0.649	1.822	6.908	0.000	0.155
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	89.469%	1071.000	1085.000	84.207%	44.210	43.970	49.240	42.250
2	13:54:35	89.879%	1067.000	1089.000	84.820%	44.150	44.110	48.600	42.510
3	13:54:54	90.485%	1083.000	1099.000	84.011%	44.680	44.290	50.070	43.160
x		89.944%	1074.000	1091.000	84.346%	44.350	44.120	49.310	42.640
σ		0.511%	8.402	6.877	0.422%	0.291	0.160	0.737	0.465
%RSD		0.568	0.782	0.630	0.500	0.655	0.362	1.495	1.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	87.591%	1974.000	500.400	497.000	1880.000	1899.000	97.504%	97.861%
2	13:54:35	88.843%	1969.000	503.600	496.000	1881.000	1908.000	99.361%	100.172%
3	13:54:54	89.730%	1964.000	506.900	502.800	1889.000	1913.000	100.633%	102.194%
x		88.722%	1969.000	503.600	498.600	1883.000	1907.000	99.166%	100.076%
σ		1.075%	4.855	3.249	3.688	4.727	7.436	1.573%	2.168%
%RSD		1.211	0.247	0.645	0.740	0.251	0.390	1.587	2.167
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:54:16	53.690	54.000	22.780	22.440	22.790	86.828%		
2	13:54:35	54.600	55.330	23.460	23.400	23.440	86.309%		
3	13:54:54	54.900	55.910	23.350	23.260	23.370	87.900%		
x		54.390	55.080	23.200	23.040	23.200	87.013%		
σ		0.631	0.976	0.363	0.517	0.359	0.811%		
%RSD		1.160	1.771	1.564	2.244	1.545	0.932		

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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	13:58:03	102.192%	-0.020	26.800	23.180	0.000	37990.000	9361.000	9331.000
2	13:58:22	95.176%	-0.048	25.800	24.820	0.000	39410.000	9880.000	9932.000
3	13:58:41	97.248%	0.009	25.080	22.050	0.000	38480.000	9504.000	9480.000
x		98.206%	-0.020	25.890	23.350	0.000	38630.000	9582.000	9581.000
σ		3.605%	0.028	0.863	1.392	0.000	721.300	267.900	312.800
%RSD		3.671	142.200	3.335	5.961	0.000	1.867	2.796	3.264

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	204.000	2253.000	0.000	5312.000	36320.000	36760.000	88.552%	3.678
2	13:58:22	225.000	2497.000	0.000	5686.000	39280.000	38880.000	82.015%	4.008
3	13:58:41	209.000	2295.000	0.000	5698.000	40300.000	40160.000	78.790%	4.113
x		212.600	2349.000	0.000	5565.000	38630.000	38600.000	83.119%	3.933
σ		10.950	130.300	0.000	219.800	2069.000	1715.000	4.974%	0.227
%RSD		5.148	5.550	0.000	3.950	5.355	4.443	5.984	5.769

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	2.658	1.462	111.300	461.200	705.200	0.842	1.348	4.079
2	13:58:22	2.567	1.385	116.600	467.000	701.200	0.784	1.265	3.825
3	13:58:41	2.894	1.375	120.100	484.900	742.100	0.814	1.412	4.074
x		2.706	1.407	116.000	471.000	716.200	0.813	1.342	3.993
σ		0.169	0.048	4.400	12.380	22.520	0.029	0.074	0.146
%RSD		6.244	3.391	3.793	2.628	3.145	3.539	5.523	3.646

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	3.799	11.360	11.570	1.154	-0.421	0.774	0.000	108.700
2	13:58:22	4.022	12.100	11.540	0.413	-0.291	0.921	0.000	109.000
3	13:58:41	4.028	12.230	12.170	1.054	-0.063	1.108	0.000	109.500
x		3.950	11.890	11.760	0.874	-0.258	0.935	0.000	109.100
σ		0.131	0.469	0.358	0.402	0.182	0.168	0.000	0.384
%RSD		3.304	3.945	3.040	46.050	70.310	17.940	0.000	0.352

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	92.771%	7.726	7.948	90.380%	-0.041	-0.026	0.018	0.036
2	13:58:22	92.503%	8.337	8.640	89.458%	-0.043	-0.027	-0.051	0.027
3	13:58:41	93.384%	8.141	8.203	89.988%	-0.045	-0.038	-0.016	-0.005
x		92.886%	8.068	8.263	89.942%	-0.043	-0.031	-0.016	0.020
σ		0.452%	0.312	0.350	0.463%	0.002	0.007	0.035	0.022
%RSD		0.486	3.867	4.235	0.515	4.082	21.370	210.300	110.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	92.279%	1.627	5.539	5.380	39.020	40.120	99.640%	99.632%
2	13:58:22	93.863%	1.576	4.866	5.082	39.300	39.760	101.781%	102.636%
3	13:58:41	94.707%	1.369	4.285	4.120	40.400	39.740	103.265%	104.381%
x		93.616%	1.524	4.897	4.861	39.570	39.870	101.562%	102.216%
σ		1.232%	0.136	0.628	0.658	0.731	0.213	1.822%	2.402%
%RSD		1.317	8.951	12.820	13.540	1.847	0.534	1.794	2.350

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	0.084	0.076	3.799	3.504	3.659	92.871%
2	13:58:22	0.082	0.084	3.940	3.525	3.714	93.875%
3	13:58:41	0.078	0.078	3.838	3.458	3.661	96.041%
x		0.081	0.079	3.859	3.496	3.678	94.262%
σ		0.003	0.004	0.073	0.034	0.031	1.620%
%RSD		4.036	5.127	1.897	0.974	0.847	1.718

CCV 1594026 6/2/2015 2:01:39 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	101.064%	95.540	102.800	98.820	0.000	45290.000	44470.000	45330.000
2	14:01:58	95.391%	102.600	115.900	105.800	0.000	49170.000	49790.000	47650.000
3	14:02:17	99.509%	93.640	104.600	103.300	0.000	45620.000	44940.000	44630.000
x		98.655%	97.253%	107.777%	102.641%	0.000	93.389%	92.802%	91.738%
σ		2.932%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.972	4.843	6.615	3.447	0.000	4.611	6.343	3.442

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	453.200	4881.000	0.000	47390.000	47740.000	47860.000	100.997%	96.500
2	14:01:58	471.700	5047.000	0.000	50640.000	50150.000	48560.000	97.016%	96.090
3	14:02:17	456.500	4707.000	0.000	48920.000	49640.000	49440.000	95.123%	98.280
x		92.091%	97.564%	0.000	97.963%	98.358%	97.237%	97.712%	96.956%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.998%	n/a
%RSD		2.140	3.486	0.000	3.318	2.577	1.631	3.068	1.198

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	96.200	96.200	482.400	23710.000	23660.000	95.260	96.500	96.620
2	14:01:58	97.290	98.030	488.700	24720.000	23760.000	96.660	100.000	97.550
3	14:02:17	99.890	100.400	504.800	24850.000	24800.000	100.900	102.000	100.300
x		97.793%	98.222%	98.396%	97.703%	96.296%	97.621%	99.488%	98.140%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.937	2.166	2.345	2.539	2.604	3.038	2.777	1.923

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	94.050	91.680	93.030	95.710	99.640	100.100	0.000	94.600
2	14:01:58	97.760	95.400	95.890	97.150	97.990	96.780	0.000	95.650
3	14:02:17	99.890	96.690	97.700	97.020	98.800	98.210	0.000	95.450
x		97.233%	94.589%	95.538%	96.626%	98.810%	98.378%	0.000	95.235%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.040	2.749	2.463	0.826	0.834	1.718	0.000	0.588

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	95.492%	100.400	100.700	91.198%	96.150	97.480	97.020	94.670
2	14:01:58	97.029%	101.700	102.900	93.157%	96.700	97.380	96.620	96.450
3	14:02:17	98.425%	103.500	104.500	93.038%	96.510	95.650	96.970	95.940
x		96.982%	101.850%	102.697%	92.464%	96.454%	96.838%	96.870%	95.688%
σ		1.467%	n/a	n/a	1.098%	n/a	n/a	n/a	n/a
%RSD		1.513	1.560	1.846	1.187	0.291	1.060	0.223	0.960

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	93.420%	94.880	90.790	89.320	91.850	95.440	96.306%	96.530%
2	14:01:58	94.444%	97.030	92.320	91.120	94.490	95.270	98.608%	99.055%
3	14:02:17	97.449%	94.960	90.800	90.610	93.990	92.500	100.375%	99.653%
x		95.105%	95.624%	91.303%	90.350%	93.442%	94.403%	98.430%	98.413%
σ		2.094%	n/a	n/a	n/a	n/a	n/a	2.040%	1.658%
%RSD		2.202	1.278	0.964	1.025	1.498	1.746	2.073	1.685

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	97.850	98.450	98.780	98.120	98.950	93.456%
2	14:01:58	103.200	103.500	103.900	104.700	104.800	92.664%
3	14:02:17	105.800	107.600	106.100	106.300	106.700	90.882%
x		102.280%	103.199%	102.918%	103.011%	103.484%	92.334%
σ		n/a	n/a	n/a	n/a	n/a	1.319%
%RSD		3.962	4.450	3.645	4.188	3.900	1.428

CCB5 6/2/2015 2:08:07 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	113.801%	-0.048	1.487	1.771	0.000	3.311	1.236	0.839
2	14:08:45	107.238%	-0.037	1.508	1.503	0.000	2.960	0.602	0.755
3	14:09:05	111.821%	-0.034	1.181	1.234	0.000	2.638	0.505	0.434
x		110.954%	-0.040	1.392	1.503	0.000	2.969	0.781	0.676
σ		3.366%	0.007	0.183	0.268	0.000	0.337	0.397	0.214
%RSD		3.034	18.300	13.160	17.860	0.000	11.350	50.850	31.650

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.420	-148.800	0.000	11.470	3.226	2.063	104.896%	-0.142
2	14:08:45	-0.414	-147.300	0.000	11.770	10.140	1.490	103.887%	-0.094
3	14:09:05	-0.347	-147.700	0.000	10.540	2.304	3.145	101.171%	-0.102
x		-0.394	-147.900	0.000	11.260	5.221	2.232	103.318%	-0.113
σ		0.040	0.803	0.000	0.641	4.280	0.840	1.927%	0.025
%RSD		10.220	0.543	0.000	5.693	81.970	37.650	1.865	22.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.012	-0.040	-0.006	0.849	7.093	0.005	-0.064	-0.045
2	14:08:45	0.030	-0.013	-0.008	2.779	6.438	0.000	-0.061	-0.050
3	14:09:05	-0.025	-0.029	-0.023	2.104	5.186	-0.003	-0.063	-0.043
x		-0.002	-0.027	-0.012	1.911	6.239	0.001	-0.063	-0.046
σ		0.029	0.014	0.009	0.980	0.969	0.004	0.002	0.004
%RSD		1217.000	49.150	71.480	51.270	15.530	511.000	2.759	7.705

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.058	0.006	0.028	-0.116	0.092	0.281	0.000	-0.001
2	14:08:45	-0.049	0.103	0.028	0.035	-0.057	0.480	0.000	-0.004
3	14:09:05	-0.036	0.064	-0.062	0.173	0.098	0.522	0.000	-0.000
x		-0.048	0.058	-0.002	0.031	0.044	0.427	0.000	-0.002
σ		0.011	0.049	0.052	0.144	0.088	0.129	0.000	0.002
%RSD		23.650	84.480	3168.000	467.000	199.600	30.130	0.000	137.400

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	98.971%	1.032	1.293	99.115%	-0.039	-0.041	0.014	0.015
2	14:08:45	100.716%	1.410	1.538	98.647%	-0.040	-0.028	0.066	0.045
3	14:09:05	101.228%	1.553	1.648	99.636%	-0.046	-0.039	-0.091	-0.060
x		100.305%	1.331	1.493	99.133%	-0.041	-0.036	-0.004	-0.000
σ		1.183%	0.269	0.182	0.495%	0.004	0.007	0.080	0.054
%RSD		1.180	20.220	12.170	0.499	9.660	19.440	2152.000	19780.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	96.659%	-0.284	0.649	0.580	-0.003	0.037	93.777%	93.057%
2	14:08:45	97.919%	-0.257	0.685	0.645	0.003	0.017	96.847%	95.888%
3	14:09:05	99.167%	-0.216	0.729	0.702	-0.004	0.024	99.051%	97.707%
x		97.915%	-0.252	0.688	0.642	-0.002	0.026	96.558%	95.550%
σ		1.254%	0.034	0.040	0.061	0.004	0.010	2.649%	2.343%
%RSD		1.281	13.620	5.885	9.540	228.400	39.440	2.743	2.453

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	0.025	0.023	-0.005	-0.010	-0.002	98.225%
2	14:08:45	0.027	0.031	-0.008	-0.004	-0.005	97.596%
3	14:09:05	0.020	0.026	-0.005	-0.006	-0.003	96.891%
x		0.024	0.026	-0.006	-0.007	-0.003	97.571%
σ		0.003	0.004	0.002	0.003	0.001	0.667%
%RSD		13.990	15.610	29.530	48.930	39.180	0.684

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	105.803%	-0.022	22.670	22.350	0.000	35680.000	6985.000	7070.000
2	14:12:35	99.584%	-0.039	21.410	22.380	0.000	34680.000	6990.000	6943.000
3	14:12:55	101.528%	-0.015	22.350	22.780	0.000	34020.000	6778.000	6854.000
x		102.305%	-0.025	22.140	22.510	0.000	34800.000	6918.000	6956.000
σ		3.181%	0.012	0.656	0.242	0.000	836.100	120.800	108.800
%RSD		3.110	48.680	2.963	1.075	0.000	2.403	1.746	1.564

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	245.200	2489.000	0.000	5969.000	34970.000	34760.000	85.335%	4.645
2	14:12:35	231.100	2422.000	0.000	5872.000	35170.000	34490.000	87.176%	4.382
3	14:12:55	236.900	2413.000	0.000	5582.000	33710.000	33570.000	89.236%	3.996
x		237.700	2441.000	0.000	5808.000	34620.000	34280.000	87.249%	4.341
σ		7.132	41.240	0.000	201.300	795.000	623.000	1.951%	0.326
%RSD		3.000	1.689	0.000	3.465	2.297	1.818	2.237	7.515

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	-0.277	1.693	119.800	504.900	741.900	0.685	1.326	6.114
2	14:12:35	1.942	1.643	118.300	507.300	710.500	0.730	1.282	6.008
3	14:12:55	3.976	1.486	113.000	469.800	649.700	0.634	1.409	5.927
x		1.880	1.607	117.000	494.000	700.700	0.683	1.339	6.016
σ		2.127	0.108	3.573	21.020	46.890	0.048	0.064	0.093
%RSD		113.100	6.698	3.053	4.254	6.691	7.019	4.798	1.553

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	6.283	13.010	12.860	0.834	-0.426	0.493	0.000	96.050
2	14:12:35	6.090	12.650	12.690	0.495	-0.167	0.527	0.000	97.160
3	14:12:55	5.591	12.750	13.110	0.567	-0.508	0.833	0.000	97.150
x		5.988	12.800	12.880	0.632	-0.367	0.618	0.000	96.790
σ		0.357	0.191	0.212	0.179	0.178	0.188	0.000	0.635
%RSD		5.964	1.491	1.646	28.270	48.490	30.370	0.000	0.656

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	93.791%	1.972	1.971	90.713%	-0.040	-0.035	0.075	0.040
2	14:12:35	93.064%	2.102	2.283	89.675%	-0.040	-0.037	0.034	0.018
3	14:12:55	94.015%	2.431	2.367	91.165%	-0.040	-0.031	0.088	0.101
x		93.623%	2.168	2.207	90.518%	-0.040	-0.034	0.066	0.053
σ		0.497%	0.236	0.209	0.764%	0.000	0.003	0.028	0.043
%RSD		0.531	10.900	9.449	0.844	1.155	7.976	43.070	81.460

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	92.699%	0.209	2.444	2.383	39.060	38.970	97.231%	98.572%
2	14:12:35	94.098%	0.254	2.412	2.414	39.160	38.960	100.334%	100.718%
3	14:12:55	95.876%	0.279	2.014	2.077	37.540	38.440	101.819%	102.672%
x		94.224%	0.247	2.290	2.291	38.580	38.790	99.795%	100.654%
σ		1.592%	0.035	0.240	0.186	0.909	0.304	2.341%	2.051%
%RSD		1.690	14.280	10.470	8.119	2.355	0.785	2.346	2.037

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	0.018	0.036	2.625	2.486	2.567	92.033%
2	14:12:35	0.035	0.030	2.717	2.381	2.575	95.354%
3	14:12:55	0.027	0.026	2.799	2.526	2.681	94.993%
x		0.027	0.031	2.714	2.465	2.608	94.127%
σ		0.009	0.005	0.087	0.075	0.064	1.822%
%RSD		32.260	17.180	3.208	3.038	2.452	1.936

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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	14:16:04	105.734%	-0.041	65.890	63.790	0.000	47930.000	10570.000	10530.000
2	14:16:24	108.804%	-0.032	63.320	59.570	0.000	48580.000	10610.000	10520.000
3	14:16:43	99.894%	-0.029	68.090	63.360	0.000	47010.000	9980.000	10410.000
x		104.811%	-0.034	65.770	62.240	0.000	47840.000	10380.000	10490.000
σ		4.527%	0.006	2.390	2.322	0.000	791.700	350.200	63.580
%RSD		4.319	17.860	3.634	3.730	0.000	1.655	3.373	0.606
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	214.600	3040.000	0.000	9750.000	54200.000	52360.000	90.418%	5.215
2	14:16:24	220.000	3135.000	0.000	10050.000	56130.000	56560.000	83.701%	7.586
3	14:16:43	217.200	3047.000	0.000	9409.000	53010.000	52860.000	89.262%	6.005
x		217.300	3074.000	0.000	9737.000	54440.000	53930.000	87.793%	6.269
σ		2.715	52.920	0.000	321.600	1576.000	2293.000	3.591%	1.207
%RSD		1.250	1.722	0.000	3.302	2.894	4.252	4.091	19.260
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	2.993	1.672	77.880	413.500	761.200	0.757	1.363	3.811
2	14:16:24	2.479	1.814	81.860	440.300	792.300	0.731	1.472	3.960
3	14:16:43	0.186	1.596	76.530	408.700	734.200	0.702	1.483	3.741
x		1.886	1.694	78.750	420.800	762.600	0.730	1.439	3.837
σ		1.494	0.111	2.769	17.040	29.090	0.027	0.066	0.112
%RSD		79.220	6.545	3.516	4.048	3.815	3.717	4.594	2.910
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	3.814	16.920	16.920	0.407	-0.066	0.832	0.000	123.700
2	14:16:24	3.678	18.300	18.230	0.183	-0.058	0.901	0.000	125.000
3	14:16:43	3.740	16.940	16.220	0.497	-0.393	0.781	0.000	124.900
x		3.744	17.390	17.120	0.362	-0.172	0.838	0.000	124.500
σ		0.068	0.789	1.023	0.162	0.191	0.060	0.000	0.734
%RSD		1.817	4.539	5.973	44.640	111.000	7.131	0.000	0.589
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	93.833%	9.907	10.150	90.828%	-0.026	-0.030	-0.014	0.018
2	14:16:24	94.785%	9.885	9.958	91.503%	-0.037	-0.024	0.009	0.031
3	14:16:43	94.485%	10.400	10.190	91.472%	-0.033	-0.030	0.012	0.035
x		94.368%	10.060	10.100	91.268%	-0.032	-0.028	0.002	0.028
σ		0.486%	0.289	0.123	0.381%	0.006	0.003	0.014	0.009
%RSD		0.515	2.873	1.218	0.418	17.840	11.750	591.900	30.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	92.573%	0.071	0.891	0.870	30.570	31.580	98.569%	100.000%
2	14:16:24	93.855%	0.098	0.891	0.845	31.500	31.680	101.725%	102.106%
3	14:16:43	94.668%	0.144	0.910	0.882	31.810	32.210	102.133%	103.600%
x		93.699%	0.104	0.897	0.866	31.290	31.820	100.809%	101.902%
σ		1.056%	0.037	0.011	0.019	0.644	0.340	1.951%	1.809%
%RSD		1.127	35.240	1.252	2.172	2.058	1.069	1.935	1.775
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:16:04	0.012	0.019	2.629	2.468	2.563	90.361%		
2	14:16:24	0.017	0.019	2.662	2.441	2.558	91.298%		
3	14:16:43	0.019	0.022	2.626	2.485	2.536	93.626%		
x		0.016	0.020	2.639	2.465	2.552	91.762%		
σ		0.003	0.002	0.020	0.022	0.014	1.681%		
%RSD		20.210	8.752	0.752	0.908	0.567	1.832		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	104.292%	-0.041	44.390	40.520	0.000	46660.000	13460.000	13530.000
2	14:20:11	98.463%	-0.024	36.800	35.680	0.000	43830.000	12580.000	12950.000
3	14:20:30	105.645%	-0.060	34.430	37.320	0.000	45850.000	13120.000	13050.000
x		102.800%	-0.041	38.540	37.840	0.000	45450.000	13050.000	13180.000
σ		3.817%	0.018	5.206	2.461	0.000	1460.000	443.100	311.200
%RSD		3.713	43.810	13.510	6.503	0.000	3.213	3.394	2.362
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	97.460	3846.000	0.000	7781.000	82620.000	82220.000	89.755%	2.762
2	14:20:11	93.500	3834.000	0.000	7507.000	82080.000	80940.000	89.839%	3.399
3	14:20:30	93.700	3811.000	0.000	7885.000	86320.000	86480.000	80.337%	3.246
x		94.890	3830.000	0.000	7724.000	83670.000	83210.000	86.644%	3.136
σ		2.230	17.740	0.000	195.000	2308.000	2901.000	5.462%	0.333
%RSD		2.351	0.463	0.000	2.525	2.758	3.486	6.304	10.610
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	-0.928	7.513	17.170	198.900	729.700	0.405	2.134	1.306
2	14:20:11	0.723	7.860	17.970	213.100	751.300	0.372	2.445	1.244
3	14:20:30	0.522	8.269	19.440	235.100	807.700	0.460	2.597	1.466
x		0.105	7.881	18.190	215.700	762.900	0.412	2.392	1.338
σ		0.901	0.379	1.151	18.230	40.310	0.044	0.236	0.115
%RSD		854.800	4.805	6.325	8.453	5.284	10.770	9.869	8.557
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	1.363	5.629	6.061	0.053	-0.508	0.817	0.000	193.300
2	14:20:11	1.157	5.924	6.145	0.555	0.006	0.734	0.000	195.000
3	14:20:30	1.461	6.186	6.594	-0.260	-0.348	0.728	0.000	197.000
x		1.327	5.913	6.267	0.116	-0.284	0.759	0.000	195.100
σ		0.155	0.279	0.287	0.411	0.263	0.050	0.000	1.861
%RSD		11.670	4.712	4.579	353.900	92.670	6.541	0.000	0.954
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	91.616%	1.611	1.626	89.712%	-0.038	-0.031	0.509	0.531
2	14:20:11	91.993%	1.676	1.806	88.000%	-0.038	-0.028	0.461	0.412
3	14:20:30	93.353%	1.853	1.862	89.506%	-0.040	-0.034	0.475	0.505
x		92.321%	1.713	1.764	89.073%	-0.039	-0.031	0.482	0.483
σ		0.913%	0.125	0.123	0.935%	0.001	0.003	0.025	0.063
%RSD		0.989	7.314	6.989	1.049	3.688	10.030	5.114	12.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	90.923%	-0.056	0.363	0.319	49.550	50.130	97.950%	98.120%
2	14:20:11	92.321%	-0.037	0.336	0.287	49.750	50.160	99.435%	99.689%
3	14:20:30	93.118%	-0.024	0.322	0.390	50.050	50.300	101.793%	101.369%
x		92.120%	-0.039	0.340	0.332	49.780	50.200	99.726%	99.726%
σ		1.111%	0.016	0.021	0.053	0.251	0.092	1.938%	1.625%
%RSD		1.206	41.460	6.087	15.830	0.504	0.183	1.943	1.629
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:19:52	0.012	0.030	0.335	0.271	0.299	86.715%		
2	14:20:11	0.019	0.019	0.309	0.272	0.290	89.446%		
3	14:20:30	0.022	0.020	0.325	0.296	0.316	89.861%		
x		0.017	0.023	0.323	0.279	0.301	88.674%		
σ		0.005	0.007	0.013	0.014	0.013	1.709%		
%RSD		29.510	28.650	4.080	5.035	4.377	1.927		

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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	14:23:42	104.522%	-0.016	13.360	12.480	0.000	31640.000	15460.000	14950.000
2	14:24:01	95.217%	-0.043	12.720	13.080	0.000	31270.000	14720.000	15520.000
3	14:24:21	99.941%	-0.029	11.790	13.280	0.000	30390.000	14460.000	14500.000
x		99.893%	-0.029	12.620	12.950	0.000	31100.000	14880.000	14990.000
σ		4.653%	0.013	0.789	0.415	0.000	640.700	517.800	510.700
%RSD		4.658	45.210	6.253	3.205	0.000	2.060	3.479	3.406

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	110.200	3391.000	0.000	2251.000	72150.000	72380.000	82.551%	2.797
2	14:24:01	114.200	3388.000	0.000	2157.000	66630.000	65780.000	89.438%	3.628
3	14:24:21	103.300	3161.000	0.000	2172.000	67820.000	68210.000	86.869%	3.256
x		109.200	3313.000	0.000	2193.000	68870.000	68790.000	86.286%	3.227
σ		5.522	131.900	0.000	50.520	2902.000	3336.000	3.480%	0.417
%RSD		5.056	3.980	0.000	2.303	4.214	4.850	4.034	12.910

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	0.347	2.306	16.140	182.500	695.400	0.317	0.675	2.046
2	14:24:01	-0.957	2.000	14.840	157.500	593.100	0.259	0.671	2.021
3	14:24:21	1.384	2.098	15.240	165.600	603.900	0.278	0.557	1.983
x		0.258	2.135	15.410	168.500	630.800	0.285	0.634	2.017
σ		1.173	0.157	0.666	12.790	56.190	0.029	0.067	0.032
%RSD		455.100	7.331	4.323	7.590	8.908	10.330	10.620	1.582

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	2.044	5.353	5.130	-0.048	-0.549	0.378	0.000	116.500
2	14:24:01	2.021	5.543	5.356	0.136	-0.589	0.513	0.000	115.300
3	14:24:21	1.875	5.503	6.021	-0.440	-0.134	0.564	0.000	117.500
x		1.980	5.466	5.502	-0.118	-0.424	0.485	0.000	116.400
σ		0.092	0.100	0.463	0.294	0.252	0.096	0.000	1.121
%RSD		4.649	1.826	8.417	250.300	59.430	19.720	0.000	0.963

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	91.638%	0.562	0.579	88.435%	-0.046	-0.041	0.044	0.025
2	14:24:01	92.451%	0.653	0.621	88.359%	-0.045	-0.043	0.035	0.021
3	14:24:21	92.566%	0.730	0.789	88.972%	-0.051	-0.032	0.029	0.014
x		92.218%	0.648	0.663	88.589%	-0.047	-0.039	0.036	0.020
σ		0.506%	0.084	0.111	0.334%	0.004	0.006	0.007	0.006
%RSD		0.549	12.940	16.790	0.377	7.848	14.910	20.890	28.530

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	90.007%	-0.216	-0.021	-0.036	32.750	33.090	97.436%	97.433%
2	14:24:01	91.827%	-0.189	-0.033	-0.019	33.490	33.560	100.119%	100.318%
3	14:24:21	92.634%	-0.184	-0.029	-0.057	33.020	32.920	101.134%	102.051%
x		91.489%	-0.196	-0.028	-0.037	33.090	33.190	99.563%	99.934%
σ		1.346%	0.017	0.006	0.019	0.372	0.332	1.911%	2.333%
%RSD		1.471	8.872	22.090	50.210	1.125	1.001	1.919	2.334

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	0.002	0.009	0.910	0.854	0.851	86.347%
2	14:24:01	0.016	0.011	0.916	0.813	0.880	89.349%
3	14:24:21	0.015	0.010	0.923	0.805	0.856	91.518%
x		0.011	0.010	0.916	0.824	0.862	89.071%
σ		0.008	0.001	0.006	0.026	0.016	2.597%
%RSD		71.050	11.250	0.704	3.193	1.846	2.915

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	99.580%	-0.029	118.300	115.800	0.000	65270.000	10250.000	10360.000
2	14:27:51	97.647%	-0.038	115.800	108.400	0.000	62440.000	9688.000	10020.000
3	14:28:11	99.923%	-0.039	113.100	111.900	0.000	64140.000	9807.000	9800.000
x		99.050%	-0.035	115.700	112.000	0.000	63950.000	9916.000	10060.000
σ		1.227%	0.006	2.598	3.664	0.000	1424.000	297.400	284.400
%RSD		1.239	16.120	2.245	3.271	0.000	2.226	3.000	2.827

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	5.803	3126.000	0.000	17130.000	66970.000	66020.000	80.455%	3.985
2	14:27:51	5.952	3083.000	0.000	16440.000	63600.000	63440.000	81.586%	4.337
3	14:28:11	6.022	3248.000	0.000	16770.000	65040.000	65670.000	78.444%	3.800
x		5.926	3152.000	0.000	16780.000	65200.000	65040.000	80.161%	4.041
σ		0.112	85.700	0.000	348.300	1691.000	1400.000	1.592%	0.273
%RSD		1.886	2.719	0.000	2.075	2.594	2.152	1.985	6.761

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	1.607	1.419	38.650	86.870	534.500	0.683	1.557	2.356
2	14:27:51	-0.351	1.639	39.010	88.810	533.400	0.739	1.682	2.254
3	14:28:11	-0.032	1.308	38.990	79.080	465.000	0.715	1.526	2.349
x		0.408	1.455	38.880	84.920	511.000	0.712	1.588	2.320
σ		1.051	0.169	0.202	5.151	39.860	0.028	0.083	0.057
%RSD		257.600	11.600	0.519	6.066	7.800	3.960	5.195	2.453

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	1.900	26.330	25.700	0.706	-0.256	0.698	0.000	144.900
2	14:27:51	2.020	25.950	25.210	0.642	-0.523	0.753	0.000	144.900
3	14:28:11	2.011	26.170	25.390	0.732	-0.448	0.983	0.000	145.900
x		1.977	26.150	25.430	0.693	-0.409	0.811	0.000	145.300
σ		0.067	0.191	0.247	0.046	0.138	0.151	0.000	0.564
%RSD		3.387	0.730	0.973	6.665	33.650	18.610	0.000	0.388

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	91.863%	21.720	22.700	89.079%	-0.036	-0.032	-0.070	-0.023
2	14:27:51	92.218%	22.340	22.250	89.008%	-0.033	-0.024	-0.013	0.006
3	14:28:11	92.394%	22.150	22.110	88.385%	-0.033	-0.034	-0.029	-0.006
x		92.158%	22.070	22.350	88.824%	-0.034	-0.030	-0.037	-0.008
σ		0.270%	0.318	0.313	0.382%	0.001	0.005	0.029	0.014
%RSD		0.293	1.438	1.401	0.430	3.754	18.240	78.980	188.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	91.337%	-0.001	0.349	0.328	18.810	18.920	98.889%	99.007%
2	14:27:51	93.251%	0.088	0.295	0.378	18.650	19.180	101.091%	101.417%
3	14:28:11	92.289%	0.087	0.309	0.345	19.370	19.360	102.208%	102.941%
x		92.292%	0.058	0.318	0.351	18.940	19.150	100.729%	101.122%
σ		0.957%	0.051	0.028	0.025	0.376	0.223	1.689%	1.984%
%RSD		1.037	88.100	8.853	7.200	1.986	1.166	1.677	1.962

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	0.008	0.011	1.030	0.978	0.998	91.150%
2	14:27:51	-0.001	0.010	1.039	0.966	1.013	91.950%
3	14:28:11	0.013	0.006	1.092	1.016	1.047	92.394%
x		0.007	0.009	1.054	0.987	1.019	91.831%
σ		0.007	0.003	0.033	0.026	0.025	0.630%
%RSD		105.300	31.710	3.168	2.653	2.453	0.686

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	100.259%	-0.020	22.950	21.620	0.000	35860.000	7319.000	7284.000
2	14:31:41	104.993%	-0.012	21.540	20.810	0.000	32710.000	6882.000	6841.000
3	14:32:00	104.580%	-0.016	21.190	22.070	0.000	34940.000	6905.000	7167.000
x		103.277%	-0.016	21.900	21.500	0.000	34510.000	7035.000	7097.000
σ		2.622%	0.004	0.934	0.637	0.000	1621.000	246.000	229.700
%RSD		2.539	22.770	4.263	2.960	0.000	4.697	3.497	3.236
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	475.900	2820.000	0.000	5734.000	34850.000	34620.000	91.094%	7.491
2	14:31:41	446.200	2606.000	0.000	5411.000	34520.000	34390.000	90.870%	8.031
3	14:32:00	473.200	2751.000	0.000	5781.000	37200.000	37450.000	82.764%	8.404
x		465.100	2726.000	0.000	5642.000	35520.000	35490.000	88.243%	7.975
σ		16.440	109.400	0.000	201.400	1458.000	1701.000	4.746%	0.459
%RSD		3.534	4.013	0.000	3.569	4.103	4.795	5.378	5.755
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	1.543	2.011	118.200	821.700	1035.000	0.914	1.707	3.842
2	14:31:41	1.531	2.189	120.100	840.600	1039.000	0.804	1.747	4.149
3	14:32:00	2.762	2.147	126.600	881.900	1091.000	0.847	1.703	4.139
x		1.945	2.116	121.600	848.100	1055.000	0.855	1.719	4.043
σ		0.707	0.093	4.379	30.820	31.090	0.055	0.024	0.174
%RSD		36.360	4.390	3.601	3.634	2.948	6.468	1.412	4.309
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	3.613	10.890	11.030	-0.145	-0.679	0.482	0.000	101.300
2	14:31:41	4.352	11.030	10.860	0.505	-0.451	0.467	0.000	101.800
3	14:32:00	3.917	12.390	11.880	0.826	0.033	0.709	0.000	102.100
x		3.961	11.440	11.260	0.395	-0.366	0.553	0.000	101.700
σ		0.371	0.830	0.545	0.495	0.364	0.135	0.000	0.428
%RSD		9.378	7.252	4.842	125.200	99.430	24.480	0.000	0.420
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	90.576%	1.598	1.647	88.272%	-0.043	-0.040	0.168	0.118
2	14:31:41	92.049%	1.818	1.818	88.177%	-0.046	-0.042	0.020	0.018
3	14:32:00	91.727%	1.760	1.785	88.040%	-0.051	-0.039	0.159	0.099
x		91.451%	1.725	1.750	88.163%	-0.047	-0.040	0.116	0.078
σ		0.775%	0.114	0.091	0.117%	0.004	0.002	0.083	0.053
%RSD		0.847	6.597	5.198	0.133	8.904	4.508	71.540	68.150
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	89.169%	-0.233	-0.076	-0.033	41.910	42.270	96.133%	96.763%
2	14:31:41	90.837%	-0.188	-0.143	-0.111	42.010	41.290	97.000%	97.632%
3	14:32:00	91.650%	-0.152	-0.089	-0.068	41.660	41.380	98.542%	99.387%
x		90.552%	-0.191	-0.103	-0.071	41.860	41.650	97.225%	97.927%
σ		1.265%	0.041	0.036	0.039	0.180	0.544	1.221%	1.337%
%RSD		1.397	21.170	34.930	54.980	0.430	1.307	1.255	1.365
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:31:21	0.005	0.016	2.888	2.584	2.754	89.468%		
2	14:31:41	0.020	0.015	2.920	2.797	2.877	88.267%		
3	14:32:00	0.018	0.020	3.040	2.783	2.942	87.985%		
x		0.014	0.017	2.950	2.721	2.857	88.573%		
σ		0.008	0.003	0.080	0.119	0.095	0.788%		
%RSD		54.800	15.570	2.724	4.365	3.338	0.889		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	109.246%	-0.056	42.940	41.680	0.000	53330.000	15280.000	15600.000
2	14:35:30	103.107%	-0.050	40.280	38.710	0.000	55450.000	15690.000	16360.000
3	14:35:50	103.298%	-0.030	40.250	39.100	0.000	54300.000	15950.000	16260.000
x		105.217%	-0.045	41.150	39.830	0.000	54360.000	15640.000	16080.000
σ		3.490%	0.013	1.546	1.616	0.000	1058.000	337.800	415.500
%RSD		3.317	29.540	3.757	4.057	0.000	1.946	2.160	2.584
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	23.140	3579.000	0.000	4954.000	81700.000	82180.000	88.924%	0.607
2	14:35:30	24.840	3730.000	0.000	5336.000	89060.000	89320.000	81.631%	1.119
3	14:35:50	23.470	3548.000	0.000	5345.000	89170.000	89380.000	81.030%	1.202
x		23.820	3619.000	0.000	5212.000	86650.000	86960.000	83.862%	0.976
σ		0.906	97.260	0.000	223.500	4280.000	4142.000	4.394%	0.323
%RSD		3.806	2.688	0.000	4.289	4.940	4.763	5.240	33.040
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	0.229	6.479	13.030	54.470	664.300	0.248	0.770	0.763
2	14:35:30	-1.933	6.944	13.710	64.730	687.800	0.249	0.534	0.831
3	14:35:50	-2.441	6.962	14.180	66.260	696.300	0.254	0.829	0.828
x		-1.382	6.795	13.640	61.820	682.800	0.250	0.711	0.808
σ		1.418	0.274	0.576	6.412	16.600	0.003	0.156	0.039
%RSD		102.600	4.029	4.224	10.370	2.431	1.092	21.940	4.776
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	0.689	2.502	2.847	-0.260	0.036	0.887	0.000	182.500
2	14:35:30	0.710	2.818	3.338	-1.034	0.234	0.715	0.000	183.500
3	14:35:50	0.791	2.838	2.849	0.314	0.472	0.736	0.000	184.900
x		0.730	2.719	3.011	-0.327	0.247	0.779	0.000	183.700
σ		0.054	0.188	0.283	0.676	0.219	0.094	0.000	1.216
%RSD		7.372	6.925	9.402	207.000	88.360	12.000	0.000	0.662
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	90.087%	10.190	10.580	87.144%	-0.047	-0.043	0.156	0.090
2	14:35:30	90.132%	10.580	10.680	86.170%	-0.038	-0.035	0.035	0.050
3	14:35:50	91.152%	10.200	10.860	86.752%	-0.048	-0.042	0.037	0.026
x		90.457%	10.320	10.710	86.689%	-0.044	-0.040	0.076	0.056
σ		0.603%	0.224	0.145	0.490%	0.005	0.005	0.069	0.032
%RSD		0.666	2.172	1.351	0.565	11.610	11.570	90.970	58.290
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	88.420%	-0.294	-0.220	-0.255	39.510	39.610	95.039%	95.120%
2	14:35:30	89.366%	-0.300	-0.197	-0.192	40.050	40.640	97.355%	97.651%
3	14:35:50	90.773%	-0.218	-0.236	-0.225	39.680	40.470	98.661%	98.742%
x		89.520%	-0.271	-0.218	-0.224	39.750	40.240	97.018%	97.171%
σ		1.184%	0.046	0.020	0.031	0.276	0.555	1.834%	1.858%
%RSD		1.323	16.870	8.968	14.030	0.695	1.378	1.891	1.912
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:35:11	0.012	0.013	0.105	0.103	0.099	85.162%		
2	14:35:30	0.008	0.013	0.119	0.102	0.112	85.420%		
3	14:35:50	0.004	0.013	0.085	0.093	0.101	88.275%		
x		0.008	0.013	0.103	0.099	0.104	86.286%		
σ		0.004	0.000	0.017	0.005	0.007	1.728%		
%RSD		47.850	2.381	16.690	5.383	6.460	2.002		

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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	14:38:59	101.284%	0.029	22.180	22.650	0.000	35110.000	7452.000	7443.000
2	14:39:18	103.254%	0.028	22.370	22.010	0.000	36120.000	7588.000	7490.000
3	14:39:37	101.299%	0.005	21.910	22.120	0.000	36200.000	7494.000	7635.000
x		101.946%	0.021	22.160	22.260	0.000	35810.000	7511.000	7523.000
σ		1.133%	0.013	0.229	0.341	0.000	609.500	69.680	100.200
%RSD		1.111	64.020	1.035	1.534	0.000	1.702	0.928	1.332

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	467.100	2580.000	0.000	5711.000	36810.000	37040.000	89.643%	6.213
2	14:39:18	490.700	2581.000	0.000	5649.000	38630.000	38450.000	83.588%	5.857
3	14:39:37	492.000	2707.000	0.000	5802.000	39490.000	39970.000	80.031%	6.117
x		483.300	2622.000	0.000	5721.000	38310.000	38490.000	84.421%	6.062
σ		14.060	73.010	0.000	77.100	1370.000	1464.000	4.860%	0.185
%RSD		2.908	2.784	0.000	1.348	3.577	3.804	5.757	3.043

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	4.261	2.243	256.900	882.500	1111.000	2.048	2.311	9.014
2	14:39:18	2.910	2.220	269.300	933.300	1170.000	2.225	2.609	9.182
3	14:39:37	1.317	2.415	283.300	973.900	1181.000	2.297	2.628	9.269
x		2.829	2.293	269.800	929.900	1154.000	2.190	2.516	9.155
σ		1.474	0.106	13.200	45.780	37.320	0.129	0.178	0.130
%RSD		52.100	4.628	4.892	4.923	3.234	5.866	7.068	1.415

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	8.702	27.250	27.680	1.131	-0.493	0.590	0.000	101.900
2	14:39:18	9.078	27.600	26.980	1.059	-0.077	0.465	0.000	104.000
3	14:39:37	9.719	29.030	27.870	0.838	-0.174	0.736	0.000	104.400
x		9.166	27.960	27.510	1.009	-0.248	0.597	0.000	103.500
σ		0.514	0.940	0.471	0.153	0.218	0.136	0.000	1.347
%RSD		5.608	3.361	1.713	15.110	87.760	22.730	0.000	1.302

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	92.384%	1.273	1.261	88.514%	-0.045	-0.038	0.113	0.120
2	14:39:18	93.899%	1.450	1.542	88.893%	-0.042	-0.045	0.161	0.221
3	14:39:37	94.065%	1.541	1.465	88.589%	-0.049	-0.037	0.247	0.184
x		93.449%	1.422	1.423	88.665%	-0.045	-0.040	0.174	0.175
σ		0.926%	0.136	0.145	0.200%	0.003	0.005	0.068	0.051
%RSD		0.991	9.593	10.210	0.226	7.648	11.330	39.170	29.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	90.846%	-0.204	-0.077	-0.073	52.970	53.590	96.523%	96.922%
2	14:39:18	92.190%	-0.163	-0.060	-0.075	53.240	54.020	99.835%	101.401%
3	14:39:37	92.957%	-0.137	-0.026	0.033	52.590	53.790	101.182%	102.572%
x		91.997%	-0.168	-0.054	-0.038	52.930	53.800	99.180%	100.298%
σ		1.069%	0.034	0.026	0.062	0.322	0.213	2.398%	2.982%
%RSD		1.161	19.950	48.240	160.300	0.609	0.396	2.417	2.973

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	0.007	0.017	21.350	19.880	20.560	89.252%
2	14:39:18	0.023	0.015	21.760	20.380	21.180	90.024%
3	14:39:37	0.010	0.015	21.860	20.840	21.370	91.970%
x		0.013	0.016	21.660	20.370	21.040	90.415%
σ		0.009	0.001	0.273	0.480	0.422	1.401%
%RSD		66.660	5.402	1.259	2.359	2.008	1.549

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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	14:42:46	104.582%	-0.026	42.170	41.590	0.000	50270.000	15570.000	15550.000
2	14:43:05	94.586%	-0.043	43.290	43.870	0.000	54610.000	16640.000	17220.000
3	14:43:24	101.004%	-0.039	40.750	41.170	0.000	53920.000	16700.000	16660.000
x		100.057%	-0.036	42.070	42.210	0.000	52930.000	16310.000	16480.000
σ		5.065%	0.009	1.270	1.455	0.000	2335.000	635.400	850.700
%RSD		5.062	24.020	3.019	3.448	0.000	4.412	3.897	5.162

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	27.370	3606.000	0.000	4902.000	83600.000	84470.000	86.785%	0.861
2	14:43:05	28.120	3877.000	0.000	5314.000	93040.000	91460.000	82.743%	1.057
3	14:43:24	27.940	3826.000	0.000	5264.000	90070.000	90950.000	81.111%	0.980
x		27.810	3770.000	0.000	5160.000	88900.000	88960.000	83.546%	0.966
σ		0.393	144.400	0.000	225.000	4825.000	3895.000	2.921%	0.099
%RSD		1.413	3.830	0.000	4.361	5.427	4.379	3.496	10.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	-0.679	5.280	19.900	67.530	669.300	0.293	0.862	0.951
2	14:43:05	0.602	5.599	20.080	69.570	628.700	0.304	0.521	1.002
3	14:43:24	-0.509	5.635	20.500	69.330	654.500	0.297	0.824	1.010
x		-0.195	5.505	20.160	68.810	650.800	0.298	0.736	0.988
σ		0.696	0.196	0.308	1.113	20.540	0.005	0.187	0.032
%RSD		355.900	3.553	1.527	1.617	3.157	1.806	25.370	3.228

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	0.840	4.015	4.623	0.530	0.267	0.789	0.000	190.200
2	14:43:05	0.830	4.154	3.829	-0.195	-0.006	1.316	0.000	188.600
3	14:43:24	0.912	4.161	4.284	-0.425	0.026	0.694	0.000	190.600
x		0.861	4.110	4.246	-0.030	0.096	0.933	0.000	189.800
σ		0.045	0.082	0.398	0.498	0.149	0.335	0.000	1.087
%RSD		5.185	2.006	9.382	1645.000	155.800	35.900	0.000	0.573

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	90.691%	9.399	9.450	87.945%	-0.026	-0.035	-0.005	0.027
2	14:43:05	92.164%	9.650	9.411	88.786%	-0.039	-0.032	-0.039	-0.056
3	14:43:24	91.981%	9.376	9.903	88.736%	-0.036	-0.039	0.004	-0.010
x		91.612%	9.475	9.588	88.489%	-0.034	-0.035	-0.013	-0.013
σ		0.803%	0.152	0.273	0.472%	0.007	0.004	0.023	0.042
%RSD		0.877	1.608	2.851	0.533	19.960	10.210	170.500	319.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	89.935%	-0.263	-0.272	-0.290	39.700	40.640	97.703%	98.772%
2	14:43:05	91.732%	-0.301	-0.250	-0.217	39.580	40.060	100.786%	101.289%
3	14:43:24	92.789%	-0.251	-0.262	-0.226	40.400	40.560	101.449%	101.955%
x		91.486%	-0.272	-0.262	-0.244	39.900	40.420	99.979%	100.672%
σ		1.443%	0.026	0.011	0.040	0.441	0.311	1.999%	1.679%
%RSD		1.577	9.482	4.192	16.310	1.106	0.769	2.000	1.667

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	0.010	0.011	0.298	0.261	0.271	88.470%
2	14:43:05	0.013	0.010	0.260	0.273	0.243	91.578%
3	14:43:24	0.012	0.010	0.250	0.270	0.254	91.522%
x		0.012	0.010	0.269	0.268	0.256	90.523%
σ		0.002	0.000	0.025	0.006	0.014	1.778%
%RSD		12.670	2.519	9.438	2.297	5.431	1.964

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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	14:46:34	97.631%	-0.023	20.650	19.310	0.000	43870.000	8874.000	8708.000
2	14:46:53	93.217%	-0.048	22.240	19.860	0.000	43540.000	9347.000	9627.000
3	14:47:12	94.054%	-0.043	21.380	20.330	0.000	43450.000	9163.000	9186.000
x		94.967%	-0.038	21.420	19.830	0.000	43620.000	9128.000	9173.000
σ		2.345%	0.013	0.797	0.510	0.000	221.800	238.400	459.500
%RSD		2.469	33.930	3.721	2.570	0.000	0.509	2.612	5.009

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	67.830	2876.000	0.000	2615.000	50440.000	50010.000	90.552%	1.492
2	14:46:53	76.200	3109.000	0.000	2757.000	53710.000	54420.000	85.866%	1.832
3	14:47:12	69.370	2952.000	0.000	2677.000	51630.000	49890.000	90.300%	1.269
x		71.130	2979.000	0.000	2683.000	51930.000	51440.000	88.906%	1.531
σ		4.452	119.000	0.000	71.090	1655.000	2580.000	2.635%	0.283
%RSD		6.259	3.993	0.000	2.650	3.187	5.016	2.964	18.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	1.363	1.374	30.630	214.100	537.000	0.325	0.946	2.566
2	14:46:53	2.427	1.372	31.440	215.500	549.800	0.321	0.994	2.726
3	14:47:12	1.418	1.199	29.350	206.300	486.900	0.329	0.620	2.498
x		1.736	1.315	30.470	212.000	524.600	0.325	0.853	2.597
σ		0.599	0.100	1.054	4.985	33.260	0.004	0.204	0.117
%RSD		34.500	7.635	3.459	2.352	6.340	1.240	23.870	4.496

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	2.623	6.241	6.202	0.107	-0.105	0.270	0.000	156.400
2	14:46:53	2.601	6.465	5.981	-0.224	-0.504	0.521	0.000	156.100
3	14:47:12	2.518	6.354	6.595	0.161	-0.144	0.267	0.000	155.600
x		2.581	6.353	6.259	0.015	-0.251	0.353	0.000	156.000
σ		0.055	0.112	0.311	0.208	0.220	0.146	0.000	0.379
%RSD		2.148	1.767	4.966	1427.000	87.580	41.280	0.000	0.243

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	91.612%	0.659	0.825	89.705%	-0.051	-0.045	-0.037	-0.031
2	14:46:53	93.918%	0.838	0.924	89.872%	-0.043	-0.046	-0.054	-0.040
3	14:47:12	93.921%	0.821	0.890	91.098%	-0.051	-0.047	0.026	0.014
x		93.150%	0.772	0.880	90.225%	-0.048	-0.046	-0.022	-0.019
σ		1.332%	0.099	0.051	0.761%	0.005	0.001	0.042	0.029
%RSD		1.430	12.810	5.753	0.843	10.090	2.679	195.500	152.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	92.531%	-0.305	-0.117	-0.108	40.850	41.900	97.927%	98.553%
2	14:46:53	94.234%	-0.314	-0.127	-0.162	42.130	42.930	99.781%	101.378%
3	14:47:12	95.062%	-0.207	-0.087	-0.109	43.320	42.830	101.619%	103.232%
x		93.942%	-0.275	-0.110	-0.126	42.100	42.550	99.776%	101.054%
σ		1.290%	0.059	0.021	0.031	1.236	0.571	1.846%	2.357%
%RSD		1.373	21.550	18.850	24.380	2.935	1.342	1.850	2.332

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	0.007	0.010	0.824	0.787	0.821	92.001%
2	14:46:53	0.007	0.011	0.831	0.785	0.827	93.134%
3	14:47:12	0.006	0.018	0.859	0.774	0.837	94.481%
x		0.007	0.013	0.838	0.782	0.828	93.205%
σ		0.001	0.004	0.019	0.007	0.008	1.242%
%RSD		11.950	33.500	2.239	0.954	1.000	1.332

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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	14:50:10	99.896%	97.400	100.700	100.800	0.000	47230.000	46770.000	45920.000
2	14:50:29	96.845%	96.150	102.300	91.830	0.000	45190.000	45440.000	44390.000
3	14:50:49	91.638%	91.150	107.400	102.300	0.000	46950.000	46650.000	46990.000
x		96.126%	94.901%	103.436%	98.329%	0.000	92.912%	92.573%	91.536%
σ		4.176%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.344	3.485	3.374	5.769	0.000	2.384	1.598	2.852

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	449.000	4867.000	0.000	49860.000	50180.000	49160.000	91.467%	97.490
2	14:50:29	453.400	4928.000	0.000	48770.000	50200.000	49860.000	92.406%	105.100
3	14:50:49	470.000	5170.000	0.000	50200.000	50890.000	51480.000	93.704%	100.200
x		91.488%	99.763%	0.000	99.221%	100.844%	100.329%	92.526%	100.930%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.124%	n/a
%RSD		2.421	3.208	0.000	1.503	0.799	2.377	1.214	3.834

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	98.550	100.300	498.200	25370.000	24770.000	101.200	102.200	99.840
2	14:50:29	104.300	104.400	512.900	25820.000	24800.000	101.400	103.900	99.090
3	14:50:49	97.830	102.000	498.300	24950.000	24310.000	99.930	99.520	95.990
x		100.228%	102.256%	100.625%	101.523%	98.499%	100.839%	101.854%	98.305%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.536	2.005	1.678	1.725	1.112	0.783	2.158	2.078

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	100.600	95.860	93.430	95.370	97.650	96.550	0.000	91.500
2	14:50:29	99.780	94.530	95.530	95.480	96.610	95.760	0.000	91.940
3	14:50:49	97.880	95.200	95.150	96.230	95.840	98.300	0.000	92.070
x		99.420%	95.196%	94.707%	95.695%	96.702%	96.869%	0.000	91.836%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.401	0.698	1.184	0.492	0.935	1.343	0.000	0.324

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	97.149%	94.170	94.960	93.547%	93.940	94.680	93.870	95.730
2	14:50:29	98.468%	95.450	96.820	93.016%	96.200	95.190	97.070	97.070
3	14:50:49	99.288%	95.490	97.140	94.335%	96.080	96.370	96.820	97.480
x		98.302%	95.034%	96.308%	93.632%	95.408%	95.414%	95.919%	96.757%
σ		1.079%	n/a	n/a	0.664%	n/a	n/a	n/a	n/a
%RSD		1.098	0.788	1.225	0.709	1.330	0.908	1.855	0.946

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	91.488%	95.170	89.770	89.600	91.570	92.230	97.186%	97.741%
2	14:50:29	92.631%	96.380	90.280	90.190	93.100	94.240	101.037%	100.276%
3	14:50:49	93.511%	95.760	91.420	91.650	95.040	94.710	101.964%	103.247%
x		92.543%	95.771%	90.490%	90.479%	93.237%	93.726%	100.062%	100.421%
σ		1.014%	n/a	n/a	n/a	n/a	n/a	2.533%	2.756%
%RSD		1.096	0.633	0.933	1.164	1.861	1.406	2.532	2.745

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	94.550	95.520	95.600	95.090	95.290	96.148%
2	14:50:29	98.470	99.740	99.310	99.690	100.300	95.132%
3	14:50:49	102.200	103.000	103.000	103.200	103.800	94.278%
x		98.418%	99.419%	99.306%	99.327%	99.791%	95.186%
σ		n/a	n/a	n/a	n/a	n/a	0.936%
%RSD		3.905	3.772	3.737	4.101	4.271	0.984

CCB6 6/2/2015 2:56:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	110.790%	-0.025	0.335	0.202	0.000	2.562	0.410	0.475
2	14:57:17	113.862%	-0.052	0.040	0.151	0.000	2.302	0.183	-0.026
3	14:57:36	115.224%	-0.044	0.242	0.161	0.000	2.178	0.132	0.232
x		113.292%	-0.041	0.206	0.171	0.000	2.347	0.242	0.227
σ		2.271%	0.014	0.151	0.027	0.000	0.196	0.148	0.251
%RSD		2.005	34.540	73.320	15.840	0.000	8.345	61.230	110.500
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.387	-147.600	0.000	6.784	12.550	3.297	110.485%	-0.180
2	14:57:17	-0.473	-148.100	0.000	7.812	9.416	2.178	109.627%	-0.201
3	14:57:36	-0.392	-147.300	0.000	6.526	0.861	1.548	107.761%	-0.189
x		-0.417	-147.600	0.000	7.041	7.610	2.341	109.291%	-0.190
σ		0.049	0.396	0.000	0.680	6.052	0.886	1.393%	0.011
%RSD		11.670	0.268	0.000	9.661	79.520	37.840	1.274	5.651
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.012	-0.044	-0.022	0.159	5.892	-0.002	-0.037	-0.031
2	14:57:17	0.010	-0.019	-0.025	2.657	5.593	-0.005	-0.031	-0.018
3	14:57:36	-0.045	-0.015	-0.020	2.322	5.199	-0.003	-0.043	-0.000
x		-0.016	-0.026	-0.022	1.712	5.561	-0.003	-0.037	-0.016
σ		0.028	0.016	0.003	1.356	0.348	0.001	0.006	0.015
%RSD		175.900	61.000	12.790	79.180	6.257	45.250	16.610	94.090
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.013	0.026	0.026	-0.072	0.116	0.241	0.000	-0.007
2	14:57:17	0.017	0.049	0.005	0.051	-0.024	0.425	0.000	-0.001
3	14:57:36	-0.030	0.023	0.069	-0.009	0.213	0.165	0.000	-0.001
x		-0.009	0.032	0.033	-0.010	0.102	0.277	0.000	-0.003
σ		0.024	0.014	0.033	0.061	0.119	0.133	0.000	0.004
%RSD		272.300	42.950	97.340	614.600	117.300	48.140	0.000	116.600
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	101.480%	0.358	0.489	101.245%	-0.048	-0.038	0.013	0.012
2	14:57:17	102.764%	0.648	0.649	101.443%	-0.043	-0.042	0.063	0.039
3	14:57:36	102.930%	0.644	0.681	101.493%	-0.043	-0.033	0.002	0.017
x		102.391%	0.550	0.606	101.393%	-0.045	-0.038	0.026	0.023
σ		0.794%	0.166	0.103	0.131%	0.003	0.004	0.033	0.015
%RSD		0.775	30.260	17.000	0.130	6.307	11.310	125.300	64.120
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	99.295%	-0.450	0.319	0.384	-0.010	0.013	96.310%	96.056%
2	14:57:17	101.666%	-0.357	0.387	0.346	0.002	0.016	98.843%	97.779%
3	14:57:36	101.498%	-0.418	0.403	0.429	0.014	0.023	98.894%	99.387%
x		100.820%	-0.408	0.370	0.386	0.002	0.017	98.015%	97.741%
σ		1.323%	0.047	0.045	0.041	0.012	0.005	1.477%	1.666%
%RSD		1.313	11.580	12.070	10.650	619.300	31.020	1.507	1.704
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:56:58	0.014	0.010	-0.009	-0.009	-0.009	99.240%		
2	14:57:17	0.018	0.017	-0.004	-0.006	-0.003	99.207%		
3	14:57:36	0.019	0.022	-0.001	-0.007	-0.001	98.249%		
x		0.017	0.016	-0.004	-0.007	-0.005	98.899%		
σ		0.002	0.006	0.004	0.002	0.004	0.563%		
%RSD		13.690	39.040	98.410	20.570	83.700	0.570		

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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	15:00:48	104.110%	0.074	17.380	19.430	0.000	89100.000	15760.000	15240.000
2	15:01:07	101.060%	0.040	17.730	18.450	0.000	91150.000	16040.000	15640.000
3	15:01:27	106.411%	0.068	19.920	19.840	0.000	93070.000	16140.000	16130.000
x		103.861%	0.061	18.340	19.240	0.000	91110.000	15980.000	15670.000
σ		2.684%	0.018	1.378	0.716	0.000	1988.000	195.000	444.100
%RSD		2.585	30.090	7.511	3.722	0.000	2.182	1.221	2.834
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	355.900	4029.000	0.000	2923.000	103000.000	102800.000	95.362%	4.039
2	15:01:07	392.200	4285.000	0.000	3076.000	110400.000	111300.000	85.759%	4.953
3	15:01:27	378.700	4096.000	0.000	3207.000	113200.000	113200.000	83.972%	4.687
x		375.600	4137.000	0.000	3069.000	108900.000	109100.000	88.364%	4.560
σ		18.350	133.100	0.000	141.900	5291.000	5506.000	6.126%	0.471
%RSD		4.886	3.219	0.000	4.624	4.860	5.047	6.932	10.320
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	2.861	1.976	455.200	1390.000	2029.000	2.916	2.134	8.799
2	15:01:07	2.985	2.130	493.500	1482.000	2118.000	3.177	2.137	9.201
3	15:01:27	3.225	1.921	489.800	1480.000	2120.000	3.271	2.519	9.845
x		3.024	2.009	479.500	1451.000	2089.000	3.121	2.263	9.282
σ		0.185	0.108	21.120	53.070	51.940	0.184	0.221	0.527
%RSD		6.119	5.389	4.405	3.658	2.486	5.885	9.772	5.681
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	8.568	35.280	35.320	0.486	0.561	1.223	0.000	147.500
2	15:01:07	9.300	37.120	36.500	0.738	0.433	1.335	0.000	148.200
3	15:01:27	9.458	38.590	38.490	2.089	0.542	1.377	0.000	148.900
x		9.109	36.990	36.770	1.104	0.512	1.312	0.000	148.200
σ		0.475	1.657	1.602	0.862	0.069	0.079	0.000	0.710
%RSD		5.214	4.479	4.356	78.050	13.470	6.060	0.000	0.479
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	93.242%	0.468	0.484	87.239%	-0.036	-0.031	0.090	0.120
2	15:01:07	94.865%	0.648	0.604	87.365%	-0.050	-0.038	0.202	0.205
3	15:01:27	96.440%	0.626	0.679	89.342%	-0.037	-0.044	0.144	0.191
x		94.849%	0.581	0.589	87.982%	-0.041	-0.038	0.146	0.172
σ		1.599%	0.098	0.098	1.179%	0.008	0.006	0.056	0.046
%RSD		1.686	16.930	16.700	1.341	19.240	16.570	38.460	26.650
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	88.995%	-0.102	2.248	2.165	70.510	71.070	94.050%	94.750%
2	15:01:07	91.147%	-0.046	2.059	2.299	70.630	71.830	98.049%	98.325%
3	15:01:27	92.128%	-0.049	1.965	1.939	70.650	71.280	99.937%	101.067%
x		90.757%	-0.066	2.091	2.134	70.600	71.390	97.345%	98.047%
σ		1.603%	0.031	0.145	0.182	0.074	0.394	3.006%	3.168%
%RSD		1.766	47.530	6.919	8.520	0.105	0.552	3.088	3.231
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:00:48	0.028	0.038	16.060	14.830	15.390	86.716%		
2	15:01:07	0.027	0.033	16.580	15.280	15.920	86.875%		
3	15:01:27	0.026	0.029	16.820	15.150	15.980	88.771%		
x		0.027	0.033	16.490	15.090	15.760	87.454%		
σ		0.001	0.005	0.392	0.230	0.327	1.143%		
%RSD		4.074	14.840	2.376	1.526	2.073	1.307		

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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	15:04:35	103.574%	-0.055	37.840	36.430	0.000	41190.000	10980.000	10780.000
2	15:04:56	108.474%	-0.023	33.850	34.220	0.000	43600.000	11110.000	11270.000
3	15:05:15	103.821%	-0.016	33.610	34.410	0.000	43500.000	11160.000	11520.000
x		105.290%	-0.031	35.100	35.020	0.000	42770.000	11080.000	11190.000
σ		2.760%	0.021	2.372	1.223	0.000	1362.000	93.070	377.000
%RSD		2.622	66.180	6.758	3.493	0.000	3.184	0.840	3.369
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	139.700	2666.000	0.000	6165.000	50130.000	50250.000	93.467%	2.799
2	15:04:56	147.200	2769.000	0.000	6628.000	54010.000	52880.000	84.588%	3.061
3	15:05:15	149.900	2801.000	0.000	6546.000	53110.000	53050.000	85.032%	3.058
x		145.600	2746.000	0.000	6446.000	52420.000	52060.000	87.696%	2.973
σ		5.271	70.280	0.000	246.900	2033.000	1570.000	5.003%	0.150
%RSD		3.620	2.560	0.000	3.831	3.878	3.017	5.705	5.057
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	0.962	2.011	125.500	309.900	641.000	0.822	1.516	3.049
2	15:04:56	3.410	1.923	136.800	344.400	660.300	0.886	1.534	3.343
3	15:05:15	1.787	1.997	133.300	335.500	644.700	0.843	1.565	3.410
x		2.053	1.977	131.900	330.000	648.700	0.850	1.538	3.267
σ		1.245	0.047	5.809	17.910	10.230	0.032	0.025	0.192
%RSD		60.650	2.391	4.404	5.427	1.576	3.806	1.603	5.877
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	2.917	9.424	9.523	0.715	-0.016	0.863	0.000	119.200
2	15:04:56	3.261	9.898	10.130	0.512	0.439	0.674	0.000	120.800
3	15:05:15	3.263	10.250	10.880	0.521	0.143	0.816	0.000	119.700
x		3.147	9.857	10.180	0.582	0.189	0.785	0.000	119.900
σ		0.199	0.414	0.682	0.115	0.231	0.098	0.000	0.824
%RSD		6.327	4.200	6.697	19.680	122.300	12.530	0.000	0.687
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	93.225%	4.048	4.219	91.399%	-0.047	-0.037	0.106	0.076
2	15:04:56	94.256%	4.413	4.508	91.135%	-0.037	-0.028	0.030	0.034
3	15:05:15	95.077%	4.290	4.367	90.909%	-0.042	-0.039	0.011	0.011
x		94.186%	4.250	4.365	91.148%	-0.042	-0.035	0.049	0.040
σ		0.928%	0.186	0.144	0.245%	0.005	0.006	0.050	0.033
%RSD		0.985	4.374	3.308	0.269	11.770	17.760	102.600	80.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	90.980%	-0.228	0.448	0.522	38.470	38.310	97.088%	97.802%
2	15:04:56	93.507%	-0.165	0.453	0.456	37.890	38.840	100.563%	100.844%
3	15:05:15	95.070%	-0.201	0.426	0.472	37.970	37.790	101.022%	101.761%
x		93.186%	-0.198	0.442	0.483	38.110	38.310	99.558%	100.136%
σ		2.064%	0.032	0.015	0.035	0.317	0.522	2.151%	2.072%
%RSD		2.215	16.050	3.349	7.150	0.832	1.363	2.161	2.069
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:04:35	0.016	0.014	1.941	1.778	1.843	89.866%		
2	15:04:56	0.018	0.018	1.964	1.867	1.918	89.848%		
3	15:05:15	0.016	0.013	1.998	1.862	1.938	90.721%		
x		0.017	0.015	1.967	1.835	1.899	90.145%		
σ		0.001	0.003	0.029	0.050	0.050	0.499%		
%RSD		8.464	17.020	1.459	2.715	2.611	0.553		

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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	15:08:24	104.256%	1.646	80.790	72.550	0.000	51220.000	24380.000	24210.000
2	15:08:43	101.911%	1.729	70.890	72.050	0.000	52840.000	24980.000	24930.000
3	15:09:03	100.600%	1.717	69.830	67.460	0.000	48530.000	23450.000	23280.000
x		102.255%	1.697	73.840	70.690	0.000	50870.000	24270.000	24140.000
σ		1.852%	0.045	6.042	2.808	0.000	2176.000	772.800	830.000
%RSD		1.811	2.639	8.182	3.972	0.000	4.278	3.184	3.439

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	5362.000	6466.000	0.000	10960.000	127200.000	126800.000	87.326%	14.600
2	15:08:43	5486.000	6688.000	0.000	10970.000	127900.000	130500.000	85.933%	14.060
3	15:09:03	5200.000	6176.000	0.000	10250.000	122100.000	121700.000	87.834%	14.000
x		5349.000	6444.000	0.000	10730.000	125800.000	126300.000	87.031%	14.220
σ		143.200	257.000	0.000	409.200	3186.000	4441.000	0.984%	0.332
%RSD		2.677	3.988	0.000	3.815	2.534	3.516	1.131	2.331

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	22.300	15.650	3232.000	4326.000	4906.000	37.390	24.060	179.700
2	15:08:43	23.100	15.750	3198.000	4252.000	4947.000	37.590	23.450	181.000
3	15:09:03	23.650	14.920	3129.000	4215.000	4827.000	37.810	23.430	177.900
x		23.020	15.440	3186.000	4264.000	4893.000	37.600	23.650	179.500
σ		0.675	0.453	52.170	56.610	60.830	0.211	0.358	1.530
%RSD		2.934	2.931	1.637	1.328	1.243	0.561	1.512	0.852

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	178.500	412.600	399.800	2.447	-0.797	1.213	0.000	158.100
2	15:08:43	177.900	416.100	412.600	2.657	-1.132	1.521	0.000	157.300
3	15:09:03	177.000	410.900	405.000	3.001	-0.945	1.229	0.000	158.300
x		177.800	413.200	405.800	2.702	-0.958	1.321	0.000	157.900
σ		0.757	2.646	6.427	0.279	0.168	0.173	0.000	0.517
%RSD		0.426	0.640	1.584	10.330	17.530	13.120	0.000	0.327

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	135.254%	2.376	2.440	89.742%	0.049	0.031	10.380	9.859
2	15:08:43	136.960%	2.353	2.640	90.024%	0.035	0.033	10.530	10.110
3	15:09:03	137.906%	2.538	2.713	90.468%	0.021	0.035	10.130	10.300
x		136.706%	2.422	2.598	90.078%	0.035	0.033	10.340	10.090
σ		1.344%	0.101	0.141	0.366%	0.014	0.002	0.202	0.222
%RSD		0.983	4.167	5.436	0.406	40.090	6.222	1.948	2.202

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	92.958%	-0.049	0.538	0.576	518.400	523.700	104.157%	104.922%
2	15:08:43	94.858%	-0.054	0.525	0.548	520.300	524.700	107.380%	108.435%
3	15:09:03	96.105%	-0.059	0.545	0.597	518.800	519.900	110.082%	109.643%
x		94.640%	-0.054	0.536	0.574	519.200	522.700	107.206%	107.667%
σ		1.584%	0.005	0.010	0.024	0.997	2.544	2.966%	2.452%
%RSD		1.674	9.863	1.836	4.269	0.192	0.487	2.767	2.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	0.097	0.105	367.200	341.100	357.300	91.652%
2	15:08:43	0.108	0.120	379.200	350.100	367.400	92.464%
3	15:09:03	0.104	0.121	383.100	354.500	370.700	92.983%
x		0.103	0.115	376.500	348.600	365.200	92.367%
σ		0.005	0.009	8.270	6.844	6.971	0.671%
%RSD		5.063	7.418	2.196	1.964	1.909	0.726

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	109.512%	0.004	22.150	22.040	0.000	33840.000	6830.000	6736.000
2	15:12:31	105.592%	-0.031	23.360	21.930	0.000	35910.000	7202.000	6997.000
3	15:12:50	100.621%	-0.040	23.080	21.780	0.000	34610.000	7022.000	6940.000
x		105.241%	-0.022	22.860	21.920	0.000	34790.000	7018.000	6891.000
σ		4.456%	0.023	0.637	0.131	0.000	1047.000	186.100	137.300
%RSD		4.234	102.400	2.787	0.596	0.000	3.011	2.652	1.992

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	237.000	2318.000	0.000	5815.000	33560.000	33250.000	92.030%	4.221
2	15:12:31	247.400	2498.000	0.000	6151.000	35820.000	35160.000	86.675%	4.855
3	15:12:50	246.300	2425.000	0.000	5883.000	33820.000	34240.000	91.289%	3.888
x		243.500	2414.000	0.000	5949.000	34400.000	34220.000	89.998%	4.321
σ		5.734	90.520	0.000	177.700	1235.000	956.800	2.901%	0.492
%RSD		2.354	3.750	0.000	2.987	3.591	2.796	3.224	11.370

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	2.271	1.410	122.200	509.000	730.600	0.775	1.399	3.657
2	15:12:31	1.765	1.632	128.200	532.200	745.500	0.732	1.466	3.863
3	15:12:50	1.573	1.421	121.600	498.500	688.700	0.714	1.170	3.521
x		1.870	1.488	124.000	513.200	721.600	0.740	1.345	3.681
σ		0.361	0.125	3.647	17.220	29.450	0.031	0.156	0.172
%RSD		19.290	8.399	2.941	3.356	4.081	4.240	11.570	4.675

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	3.454	10.490	11.510	0.176	-0.253	0.475	0.000	96.620
2	15:12:31	3.929	11.500	11.280	0.596	-0.265	0.582	0.000	97.470
3	15:12:50	3.558	11.350	10.930	0.185	-0.395	0.639	0.000	98.660
x		3.647	11.110	11.240	0.319	-0.304	0.565	0.000	97.580
σ		0.250	0.548	0.294	0.240	0.078	0.083	0.000	1.023
%RSD		6.846	4.929	2.613	75.340	25.800	14.710	0.000	1.048

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	95.731%	1.426	1.529	93.651%	-0.046	-0.040	0.034	0.066
2	15:12:31	96.710%	1.468	1.706	93.019%	-0.049	-0.044	-0.082	-0.041
3	15:12:50	95.952%	1.487	1.690	92.136%	-0.048	-0.045	0.079	0.085
x		96.131%	1.460	1.642	92.935%	-0.048	-0.043	0.010	0.037
σ		0.514%	0.031	0.098	0.761%	0.001	0.003	0.083	0.068
%RSD		0.534	2.128	5.973	0.819	2.568	6.976	809.300	185.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	95.233%	-0.312	-0.013	-0.061	39.250	39.990	102.345%	103.232%
2	15:12:31	97.157%	-0.234	-0.029	-0.049	39.970	39.530	103.648%	105.031%
3	15:12:50	95.877%	-0.266	-0.050	-0.028	40.300	39.550	105.507%	105.333%
x		96.089%	-0.271	-0.031	-0.046	39.840	39.690	103.834%	104.532%
σ		0.979%	0.040	0.019	0.016	0.535	0.259	1.589%	1.136%
%RSD		1.019	14.640	60.050	35.640	1.342	0.652	1.531	1.087

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	0.007	0.010	2.616	2.414	2.514	93.718%
2	15:12:31	0.007	0.004	2.646	2.465	2.557	95.251%
3	15:12:50	0.008	0.016	2.498	2.372	2.477	98.195%
x		0.007	0.010	2.586	2.417	2.516	95.721%
σ		0.000	0.006	0.078	0.047	0.040	2.275%
%RSD		5.453	57.760	3.012	1.932	1.591	2.377

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	109.619%	-0.015	40.280	40.850	0.000	52850.000	15550.000	15670.000
2	15:16:19	103.331%	-0.031	43.290	42.660	0.000	50850.000	15970.000	16120.000
3	15:16:39	92.692%	-0.048	45.180	42.400	0.000	54240.000	16300.000	16060.000
x		101.881%	-0.031	42.920	41.970	0.000	52650.000	15940.000	15950.000
σ		8.556%	0.016	2.475	0.978	0.000	1702.000	378.700	249.000
%RSD		8.398	52.670	5.766	2.330	0.000	3.232	2.375	1.561

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	18.600	3637.000	0.000	5034.000	84510.000	84360.000	94.020%	0.969
2	15:16:19	19.760	3605.000	0.000	4834.000	81960.000	81770.000	93.398%	0.809
3	15:16:39	20.200	3786.000	0.000	5080.000	85300.000	85090.000	91.630%	0.790
x		19.520	3676.000	0.000	4983.000	83920.000	83740.000	93.016%	0.856
σ		0.828	96.640	0.000	130.900	1746.000	1741.000	1.240%	0.098
%RSD		4.241	2.629	0.000	2.627	2.080	2.080	1.333	11.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	1.604	4.951	18.290	49.930	614.700	0.281	0.557	0.978
2	15:16:19	-2.407	5.205	18.480	45.810	588.200	0.263	0.626	0.955
3	15:16:39	1.132	5.061	19.220	48.300	579.700	0.246	0.502	1.034
x		0.110	5.072	18.660	48.010	594.200	0.264	0.562	0.989
σ		2.192	0.127	0.490	2.076	18.250	0.017	0.062	0.041
%RSD		1995.000	2.510	2.626	4.324	3.071	6.638	11.070	4.115

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	0.851	3.773	4.118	-0.555	0.099	0.785	0.000	185.500
2	15:16:19	1.018	4.370	3.837	-0.072	0.007	1.110	0.000	184.600
3	15:16:39	0.813	4.054	3.860	0.018	-0.207	1.234	0.000	187.400
x		0.894	4.066	3.938	-0.203	-0.034	1.043	0.000	185.800
σ		0.109	0.299	0.156	0.308	0.157	0.232	0.000	1.427
%RSD		12.190	7.348	3.969	151.700	467.600	22.270	0.000	0.768

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	93.294%	8.893	9.050	90.398%	-0.047	-0.042	0.045	0.011
2	15:16:19	95.007%	8.936	9.318	90.644%	-0.048	-0.047	0.028	0.045
3	15:16:39	94.184%	9.421	9.382	91.229%	-0.045	-0.039	-0.069	-0.061
x		94.162%	9.083	9.250	90.757%	-0.047	-0.043	0.001	-0.002
σ		0.857%	0.293	0.176	0.427%	0.002	0.004	0.061	0.054
%RSD		0.910	3.227	1.903	0.471	3.399	9.603	4595.000	3146.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	93.316%	-0.344	-0.215	-0.183	38.620	40.130	98.047%	100.105%
2	15:16:19	92.960%	-0.363	-0.183	-0.141	40.100	40.050	101.157%	102.706%
3	15:16:39	95.746%	-0.322	-0.179	-0.145	40.350	40.090	101.842%	103.802%
x		94.007%	-0.343	-0.192	-0.156	39.690	40.090	100.349%	102.204%
σ		1.516%	0.021	0.019	0.023	0.934	0.041	2.022%	1.899%
%RSD		1.613	6.011	10.050	14.700	2.352	0.102	2.015	1.858

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	0.010	0.013	0.279	0.257	0.276	88.203%
2	15:16:19	0.009	0.010	0.282	0.265	0.279	90.016%
3	15:16:39	0.011	0.012	0.282	0.272	0.284	92.351%
x		0.010	0.012	0.281	0.265	0.280	90.190%
σ		0.001	0.002	0.002	0.008	0.004	2.079%
%RSD		10.390	15.110	0.636	2.897	1.458	2.305

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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	15:19:48	103.053%	-0.040	51.630	48.820	0.000	72270.000	19560.000	19380.000
2	15:20:08	102.328%	-0.055	49.330	46.530	0.000	73250.000	19580.000	20010.000
3	15:20:27	97.345%	-0.054	45.600	47.910	0.000	71540.000	19150.000	19010.000
x		100.909%	-0.050	48.850	47.760	0.000	72350.000	19430.000	19470.000
σ		3.107%	0.008	3.043	1.149	0.000	855.600	243.400	504.700
%RSD		3.079	16.210	6.228	2.407	0.000	1.182	1.253	2.592

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	6.101	3326.000	0.000	12170.000	83040.000	84370.000	91.823%	0.580
2	15:20:08	6.438	3277.000	0.000	12380.000	87210.000	86210.000	88.099%	0.287
3	15:20:27	6.084	3314.000	0.000	12340.000	86830.000	87470.000	89.605%	0.318
x		6.208	3306.000	0.000	12300.000	85690.000	86020.000	89.842%	0.395
σ		0.200	25.980	0.000	113.700	2305.000	1555.000	1.873%	0.161
%RSD		3.214	0.786	0.000	0.925	2.690	1.808	2.085	40.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	0.002	6.001	1.795	21.200	607.000	0.274	1.034	4.843
2	15:20:08	1.052	5.975	1.805	20.210	592.400	0.283	0.854	4.995
3	15:20:27	1.315	6.312	1.841	19.790	576.900	0.275	0.747	4.813
x		0.790	6.096	1.813	20.400	592.100	0.277	0.879	4.883
σ		0.695	0.188	0.024	0.719	15.060	0.005	0.145	0.097
%RSD		88.010	3.077	1.331	3.524	2.543	1.748	16.520	1.993

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	4.570	52.570	53.330	-0.050	0.039	0.794	0.000	180.500
2	15:20:08	4.699	56.120	55.830	-0.130	-0.219	0.909	0.000	182.600
3	15:20:27	4.510	53.970	53.850	-0.239	-0.241	0.904	0.000	181.900
x		4.593	54.220	54.340	-0.140	-0.140	0.869	0.000	181.700
σ		0.096	1.788	1.319	0.095	0.156	0.065	0.000	1.044
%RSD		2.097	3.298	2.428	67.750	110.900	7.482	0.000	0.575

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	92.984%	0.705	0.716	89.162%	-0.054	-0.037	-0.046	-0.032
2	15:20:08	93.189%	0.858	0.862	90.178%	-0.047	-0.044	0.082	0.065
3	15:20:27	94.346%	0.817	0.909	88.680%	-0.041	-0.031	-0.036	-0.024
x		93.506%	0.794	0.829	89.340%	-0.047	-0.037	-0.000	0.003
σ		0.734%	0.079	0.100	0.765%	0.006	0.006	0.072	0.054
%RSD		0.785	9.979	12.100	0.856	13.030	17.450	172500.000	1649.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	91.139%	-0.259	-0.168	-0.076	60.390	61.020	98.810%	98.892%
2	15:20:08	92.681%	-0.279	-0.135	-0.114	60.670	61.390	100.049%	101.262%
3	15:20:27	94.175%	-0.235	-0.182	-0.131	59.840	60.540	102.514%	102.561%
x		92.665%	-0.258	-0.162	-0.107	60.300	60.980	100.458%	100.905%
σ		1.518%	0.022	0.024	0.028	0.425	0.428	1.886%	1.860%
%RSD		1.638	8.589	14.870	26.290	0.705	0.702	1.877	1.844

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	-0.002	0.006	2.145	1.917	2.056	86.044%
2	15:20:08	0.003	0.007	2.189	2.020	2.112	88.001%
3	15:20:27	0.012	0.004	1.980	2.006	1.989	89.854%
x		0.005	0.006	2.104	1.981	2.052	87.966%
σ		0.007	0.002	0.110	0.056	0.061	1.905%
%RSD		156.600	28.520	5.230	2.839	2.994	2.166

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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	15:23:37	98.577%	-0.034	51.380	52.040	0.000	45430.000	16640.000	16290.000
2	15:23:56	103.687%	-0.050	51.370	45.480	0.000	43810.000	15990.000	16120.000
3	15:24:15	98.541%	-0.054	51.110	50.470	0.000	44230.000	16170.000	16510.000
x		100.268%	-0.046	51.290	49.330	0.000	44490.000	16270.000	16300.000
σ		2.961%	0.011	0.153	3.426	0.000	842.900	332.700	199.100
%RSD		2.953	23.420	0.298	6.945	0.000	1.895	2.045	1.221
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	1.488	4751.000	0.000	11750.000	116500.000	118000.000	85.133%	0.614
2	15:23:56	1.858	4646.000	0.000	11600.000	120300.000	121400.000	80.529%	0.528
3	15:24:15	1.709	4618.000	0.000	11720.000	121400.000	119700.000	81.451%	0.666
x		1.685	4672.000	0.000	11690.000	119400.000	119700.000	82.371%	0.603
σ		0.186	69.790	0.000	77.750	2547.000	1729.000	2.436%	0.070
%RSD		11.030	1.494	0.000	0.665	2.132	1.445	2.957	11.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	-1.886	15.240	38.610	28.930	837.100	0.466	19.290	19.590
2	15:23:56	0.154	15.190	40.040	26.830	839.300	0.490	19.650	20.520
3	15:24:15	-0.911	15.260	38.930	24.390	791.500	0.454	18.460	20.030
x		-0.881	15.230	39.190	26.720	822.600	0.470	19.130	20.050
σ		1.021	0.036	0.752	2.270	27.010	0.018	0.610	0.467
%RSD		115.800	0.240	1.920	8.496	3.284	3.932	3.189	2.332
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	19.520	73.190	72.960	-0.056	0.055	0.709	0.000	281.100
2	15:23:56	20.030	76.110	74.410	-0.596	-0.035	0.456	0.000	283.700
3	15:24:15	20.230	74.740	75.120	-0.794	-0.525	0.666	0.000	283.300
x		19.920	74.680	74.160	-0.482	-0.168	0.610	0.000	282.700
σ		0.368	1.462	1.101	0.382	0.312	0.136	0.000	1.407
%RSD		1.845	1.958	1.485	79.310	185.600	22.190	0.000	0.498
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	92.492%	0.122	0.179	88.912%	-0.022	-0.013	0.003	0.011
2	15:23:56	93.944%	0.149	0.180	89.375%	-0.010	-0.017	-0.076	-0.027
3	15:24:15	94.330%	0.138	0.182	89.159%	-0.028	-0.023	-0.033	-0.041
x		93.589%	0.136	0.180	89.149%	-0.020	-0.018	-0.035	-0.019
σ		0.969%	0.013	0.001	0.232%	0.009	0.005	0.040	0.027
%RSD		1.036	9.796	0.804	0.260	45.400	27.980	112.200	142.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	92.708%	-0.012	-0.352	-0.290	59.700	61.210	98.953%	100.745%
2	15:23:56	94.214%	0.039	-0.337	-0.296	59.550	60.540	101.689%	103.061%
3	15:24:15	94.667%	0.066	-0.296	-0.268	59.720	60.830	103.642%	103.640%
x		93.863%	0.031	-0.328	-0.285	59.650	60.860	101.428%	102.482%
σ		1.026%	0.040	0.029	0.015	0.094	0.341	2.356%	1.532%
%RSD		1.093	129.700	8.862	5.295	0.157	0.560	2.322	1.495
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:23:37	0.021	0.015	3.949	3.679	3.740	89.946%		
2	15:23:56	0.006	0.013	4.003	3.724	3.758	90.505%		
3	15:24:15	0.013	0.017	3.898	3.508	3.734	90.775%		
x		0.014	0.015	3.950	3.637	3.744	90.409%		
σ		0.007	0.002	0.053	0.114	0.012	0.423%		
%RSD		53.230	11.630	1.334	3.129	0.332	0.468		

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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	15:27:25	109.363%	-0.065	30.710	30.670	0.000	53170.000	15380.000	15670.000
2	15:27:44	101.405%	-0.050	33.380	31.540	0.000	56780.000	16540.000	16050.000
3	15:28:04	105.576%	-0.051	32.910	31.590	0.000	53200.000	15030.000	15410.000
x		105.448%	-0.055	32.330	31.270	0.000	54380.000	15650.000	15710.000
σ		3.981%	0.009	1.428	0.517	0.000	2072.000	787.500	320.400
%RSD		3.775	15.760	4.417	1.654	0.000	3.810	5.031	2.039
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	1.797	3959.000	0.000	9134.000	135200.000	136500.000	87.684%	0.453
2	15:27:44	1.709	3959.000	0.000	9528.000	141800.000	141300.000	85.288%	0.388
3	15:28:04	1.634	3817.000	0.000	8607.000	135700.000	127600.000	92.639%	0.339
x		1.713	3912.000	0.000	9090.000	137500.000	135100.000	88.537%	0.394
σ		0.082	82.210	0.000	462.400	3696.000	6981.000	3.749%	0.057
%RSD		4.780	2.102	0.000	5.087	2.687	5.166	4.235	14.560
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	-1.075	2.274	66.450	33.940	1027.000	7.091	9.385	7.037
2	15:27:44	-1.701	2.356	67.430	36.170	1003.000	7.144	9.362	7.149
3	15:28:04	-0.574	1.998	62.270	24.760	934.100	6.558	8.225	6.670
x		-1.117	2.209	65.380	31.630	988.100	6.931	8.990	6.952
σ		0.565	0.188	2.738	6.047	48.390	0.324	0.663	0.251
%RSD		50.570	8.500	4.188	19.120	4.897	4.676	7.378	3.609
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	7.122	28.960	30.310	0.976	-0.073	0.894	0.000	251.800
2	15:27:44	6.816	29.410	30.320	-0.383	0.251	1.007	0.000	255.700
3	15:28:04	7.163	28.750	28.660	0.021	-0.340	0.353	0.000	255.100
x		7.034	29.040	29.760	0.205	-0.054	0.751	0.000	254.200
σ		0.189	0.336	0.952	0.698	0.296	0.349	0.000	2.095
%RSD		2.690	1.156	3.197	341.100	548.800	46.510	0.000	0.824
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	93.243%	0.120	0.077	89.194%	-0.040	-0.026	0.036	0.042
2	15:27:44	93.416%	0.140	0.239	88.997%	-0.021	-0.025	0.061	0.035
3	15:28:04	94.126%	0.252	0.226	89.163%	-0.027	-0.014	0.055	0.041
x		93.595%	0.171	0.180	89.118%	-0.029	-0.022	0.051	0.040
σ		0.468%	0.071	0.090	0.106%	0.010	0.006	0.013	0.004
%RSD		0.500	41.800	49.810	0.119	33.520	29.940	26.050	9.552
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	91.480%	-0.408	-0.328	-0.295	60.760	59.780	97.486%	97.103%
2	15:27:44	92.955%	-0.381	-0.319	-0.318	59.150	59.970	99.103%	99.719%
3	15:28:04	92.283%	-0.353	-0.282	-0.262	59.670	60.750	99.524%	100.010%
x		92.240%	-0.381	-0.310	-0.292	59.860	60.170	98.705%	98.944%
σ		0.738%	0.028	0.025	0.028	0.822	0.516	1.076%	1.601%
%RSD		0.801	7.245	7.951	9.585	1.374	0.858	1.090	1.618
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:27:25	0.019	0.020	0.542	0.489	0.534	87.983%		
2	15:27:44	0.018	0.027	0.606	0.562	0.568	86.668%		
3	15:28:04	0.023	0.022	0.583	0.550	0.569	86.401%		
x		0.020	0.023	0.577	0.534	0.557	87.017%		
σ		0.003	0.003	0.033	0.039	0.020	0.847%		
%RSD		13.250	14.860	5.640	7.307	3.518	0.974		

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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	15:34:12	119.323%	-0.053	-0.147	-0.148	0.000	1.867	-0.328	-0.266
2	15:34:32	115.260%	-0.027	-0.070	-0.048	0.000	1.348	-0.509	-0.691
3	15:34:51	110.302%	-0.061	-0.228	0.005	0.000	1.287	-0.625	-0.504
x		114.962%	-0.047	-0.149	-0.064	0.000	1.501	-0.487	-0.487
σ		4.518%	0.018	0.079	0.078	0.000	0.318	0.150	0.213
%RSD		3.930	38.240	53.170	122.200	0.000	21.210	30.770	43.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.073	-150.000	0.000	8.637	19.170	12.620	103.680%	-0.187
2	15:34:32	-0.014	-148.000	0.000	7.711	8.984	13.830	103.627%	-0.152
3	15:34:51	-0.074	-146.800	0.000	8.041	20.630	15.170	102.594%	-0.221
x		-0.054	-148.300	0.000	8.129	16.260	13.870	103.300%	-0.187
σ		0.035	1.608	0.000	0.469	6.343	1.272	0.612%	0.035
%RSD		64.820	1.084	0.000	5.774	39.010	9.167	0.593	18.530

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.035	-0.005	-0.024	4.064	3.584	-0.004	0.001	0.009
2	15:34:32	0.026	-0.006	-0.016	0.954	3.532	-0.003	-0.041	-0.028
3	15:34:51	0.005	-0.015	-0.022	-1.061	1.346	-0.004	-0.058	-0.006
x		-0.001	-0.009	-0.020	1.319	2.821	-0.003	-0.032	-0.008
σ		0.031	0.005	0.004	2.582	1.277	0.000	0.030	0.018
%RSD		2774.000	61.340	21.030	195.700	45.280	12.020	93.530	229.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.019	0.949	0.850	-0.058	-0.206	0.036	0.000	0.006
2	15:34:32	0.002	0.738	1.118	-0.103	-0.226	0.057	0.000	0.005
3	15:34:51	0.024	0.920	0.962	-0.134	-0.066	-0.110	0.000	0.005
x		0.002	0.869	0.976	-0.098	-0.166	-0.006	0.000	0.005
σ		0.021	0.114	0.135	0.038	0.087	0.091	0.000	0.000
%RSD		877.700	13.160	13.810	38.890	52.380	1639.000	0.000	3.335

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	102.176%	-0.200	-0.124	99.905%	-0.050	-0.040	0.027	0.023
2	15:34:32	103.416%	-0.111	-0.127	100.505%	-0.046	-0.048	0.024	0.014
3	15:34:51	104.066%	-0.153	-0.134	101.740%	-0.042	-0.044	-0.023	-0.017
x		103.219%	-0.155	-0.128	100.717%	-0.046	-0.044	0.009	0.007
σ		0.961%	0.045	0.005	0.936%	0.004	0.004	0.028	0.021
%RSD		0.931	28.940	4.087	0.929	8.356	8.655	305.300	309.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	98.994%	-0.594	-0.497	-0.501	0.002	0.020	96.955%	96.569%
2	15:34:32	100.667%	-0.602	-0.498	-0.484	0.046	0.009	99.522%	99.911%
3	15:34:51	103.121%	-0.577	-0.507	-0.490	0.062	0.069	103.158%	101.912%
x		100.927%	-0.591	-0.501	-0.492	0.037	0.032	99.879%	99.464%
σ		2.076%	0.013	0.005	0.009	0.031	0.032	3.117%	2.700%
%RSD		2.057	2.203	1.082	1.818	83.750	97.950	3.121	2.714

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.001	-0.001	-0.008	-0.012	-0.008	103.200%
2	15:34:32	-0.002	-0.001	-0.001	-0.015	-0.007	101.897%
3	15:34:51	-0.002	0.002	-0.007	-0.003	-0.004	102.660%
x		-0.002	-0.000	-0.005	-0.010	-0.006	102.586%
σ		0.001	0.001	0.004	0.006	0.002	0.655%
%RSD		32.440	2149.000	67.360	59.060	34.780	0.638

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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	15:38:00	99.777%	41.640	898.300	877.700	0.000	39850.000	39160.000	40610.000
2	15:38:20	105.357%	41.730	946.100	865.600	0.000	40430.000	40990.000	40080.000
3	15:38:39	97.970%	42.410	920.900	900.200	0.000	41000.000	41290.000	42430.000
x		101.034%	41.930	921.800	881.200	0.000	40430.000	40480.000	41040.000
σ		3.851%	0.423	23.900	17.550	0.000	575.600	1154.000	1234.000
%RSD		3.811	1.010	2.592	1.992	0.000	1.424	2.851	3.008
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	1609.000	8950.000	0.000	45860.000	48430.000	47420.000	85.414%	969.300
2	15:38:20	1523.000	8173.000	0.000	43100.000	45440.000	45240.000	88.103%	899.800
3	15:38:39	1672.000	9007.000	0.000	46210.000	50130.000	50000.000	82.490%	969.600
x		1601.000	8710.000	0.000	45060.000	48000.000	47550.000	85.336%	946.200
σ		75.080	465.600	0.000	1707.000	2373.000	2383.000	2.807%	40.190
%RSD		4.688	5.345	0.000	3.788	4.944	5.012	3.289	4.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	488.100	191.900	467.800	934.200	1234.000	479.400	468.900	235.200
2	15:38:20	460.600	183.000	446.500	920.500	1188.000	466.200	473.600	235.600
3	15:38:39	503.900	199.400	476.500	980.200	1275.000	488.900	479.000	239.100
x		484.200	191.400	463.600	945.000	1232.000	478.200	473.800	236.600
σ		21.920	8.252	15.450	31.280	43.350	11.360	5.015	2.170
%RSD		4.527	4.310	3.333	3.310	3.519	2.375	1.058	0.917
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	235.800	458.400	460.500	35.980	9.233	9.793	0.000	891.200
2	15:38:20	233.700	455.700	457.300	36.530	9.134	9.664	0.000	895.200
3	15:38:39	241.600	466.400	462.400	35.550	9.357	10.030	0.000	887.500
x		237.000	460.100	460.000	36.020	9.241	9.830	0.000	891.300
σ		4.119	5.556	2.547	0.493	0.111	0.188	0.000	3.879
%RSD		1.738	1.208	0.554	1.369	1.205	1.912	0.000	0.435
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	91.679%	982.300	992.700	86.980%	46.100	45.930	46.240	41.290
2	15:38:20	93.489%	978.300	1002.000	89.132%	45.670	46.140	47.150	41.150
3	15:38:39	93.771%	994.200	1002.000	88.269%	46.280	46.720	46.640	40.500
x		92.980%	984.900	998.600	88.127%	46.020	46.260	46.680	40.980
σ		1.135%	8.274	5.162	1.083%	0.312	0.408	0.452	0.420
%RSD		1.221	0.840	0.517	1.229	0.677	0.881	0.969	1.025
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	90.606%	1861.000	478.200	470.900	1746.000	1774.000	97.395%	98.528%
2	15:38:20	91.343%	1854.000	479.300	479.600	1764.000	1778.000	101.067%	102.414%
3	15:38:39	93.072%	1842.000	476.200	472.900	1739.000	1761.000	102.338%	101.980%
x		91.674%	1853.000	477.900	474.500	1750.000	1771.000	100.267%	100.974%
σ		1.266%	9.560	1.583	4.568	12.870	9.017	2.567%	2.130%
%RSD		1.381	0.516	0.331	0.963	0.736	0.509	2.560	2.109
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:38:00	48.760	49.310	20.100	20.340	20.180	90.254%		
2	15:38:20	50.300	51.250	20.960	20.480	20.900	89.677%		
3	15:38:39	50.020	50.690	20.970	20.900	21.050	90.523%		
x		49.690	50.420	20.680	20.570	20.710	90.151%		
σ		0.817	0.995	0.499	0.290	0.463	0.433%		
%RSD		1.643	1.973	2.415	1.407	2.237	0.480		

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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	15:41:37	106.708%	98.730	106.500	103.200	0.000	47840.000	46160.000	45560.000
2	15:41:56	105.918%	96.840	105.700	102.100	0.000	46560.000	45690.000	45670.000
3	15:42:16	103.823%	99.370	104.600	101.300	0.000	47000.000	45990.000	45470.000
x		105.483%	98.314%	105.611%	102.169%	0.000	94.269%	91.900%	91.134%
σ		1.491%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.414	1.338	0.916	0.933	0.000	1.385	0.517	0.210

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	445.200	4773.000	0.000	49070.000	50280.000	49290.000	97.160%	99.840
2	15:41:56	455.000	4820.000	0.000	49300.000	49360.000	49880.000	96.334%	100.100
3	15:42:16	457.900	4955.000	0.000	49130.000	50550.000	49960.000	94.159%	104.000
x		90.543%	96.987%	0.000	98.336%	100.128%	99.424%	95.884%	101.333%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.550%	n/a
%RSD		1.470	1.953	0.000	0.241	1.244	0.738	1.616	2.310

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	99.890	99.850	492.800	25300.000	25050.000	100.400	102.100	98.100
2	15:41:56	97.360	99.620	489.700	24890.000	24470.000	100.300	100.700	99.650
3	15:42:16	99.810	103.100	496.300	25260.000	25090.000	102.700	103.100	100.400
x		99.019%	100.846%	98.593%	100.591%	99.485%	101.143%	101.985%	99.368%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.449	1.912	0.671	0.892	1.397	1.340	1.168	1.164

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	97.800	93.060	92.780	91.990	93.490	92.550	0.000	91.080
2	15:41:56	99.750	93.460	94.120	96.080	96.150	97.220	0.000	92.800
3	15:42:16	101.600	95.480	95.010	95.380	96.170	95.090	0.000	92.560
x		99.705%	93.999%	93.970%	94.482%	95.272%	94.957%	0.000	92.148%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.891	1.378	1.193	2.315	1.620	2.464	0.000	1.014

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	99.190%	101.700	101.200	95.015%	92.850	93.900	94.700	95.430
2	15:41:56	99.801%	104.000	105.400	94.793%	95.410	96.090	96.420	97.210
3	15:42:16	101.095%	104.700	105.300	95.393%	95.580	96.310	97.300	97.520
x		100.029%	103.469%	103.947%	95.067%	94.611%	95.431%	96.137%	96.718%
σ		0.973%	n/a	n/a	0.303%	n/a	n/a	n/a	n/a
%RSD		0.972	1.532	2.308	0.319	1.615	1.396	1.378	1.163

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	90.486%	97.050	90.010	89.450	95.140	93.490	94.715%	94.275%
2	15:41:56	92.055%	97.940	90.870	89.860	94.770	95.770	98.277%	97.735%
3	15:42:16	92.377%	99.400	91.640	91.410	96.250	94.900	98.515%	98.730%
x		91.639%	98.127%	90.839%	90.242%	95.387%	94.719%	97.169%	96.913%
σ		1.012%	n/a	n/a	n/a	n/a	n/a	2.129%	2.339%
%RSD		1.104	1.211	0.899	1.145	0.810	1.211	2.191	2.413

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	95.520	94.910	94.780	95.600	95.400	93.336%
2	15:41:56	100.800	101.600	101.000	100.700	101.500	91.297%
3	15:42:16	103.200	104.300	103.700	103.500	104.500	89.881%
x		99.857%	100.270%	99.826%	99.933%	100.477%	91.505%
σ		n/a	n/a	n/a	n/a	n/a	1.737%
%RSD		3.952	4.828	4.579	4.015	4.622	1.898

CCB7 6/2/2015 3:48:02 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	15:48:21	119.669%	-0.058	0.203	0.440	0.000	2.763	0.572	0.801
2	15:48:41	117.589%	-0.053	0.250	0.617	0.000	2.355	0.285	0.523
3	15:49:00	120.211%	-0.053	0.077	0.382	0.000	2.158	0.407	0.248
x		119.156%	-0.055	0.177	0.480	0.000	2.425	0.421	0.524
σ		1.384%	0.003	0.090	0.123	0.000	0.309	0.144	0.276
%RSD		1.162	4.622	50.770	25.540	0.000	12.730	34.250	52.680

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	-0.378	-149.400	0.000	13.040	-0.275	3.461	108.979%	-0.146
2	15:48:41	-0.305	-147.700	0.000	13.110	-0.165	1.574	105.338%	-0.085
3	15:49:00	-0.444	-147.500	0.000	13.120	7.796	2.450	103.908%	-0.071
x		-0.376	-148.200	0.000	13.090	2.452	2.495	106.075%	-0.101
σ		0.069	0.996	0.000	0.046	4.628	0.944	2.614%	0.040
%RSD		18.440	0.672	0.000	0.353	188.800	37.850	2.465	39.230

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	-0.062	-0.040	-0.006	2.784	7.416	0.004	-0.039	-0.018
2	15:48:41	0.012	-0.011	-0.016	2.763	8.517	0.001	-0.072	-0.018
3	15:49:00	0.034	-0.050	-0.016	3.011	6.494	-0.002	-0.044	-0.000
x		-0.005	-0.034	-0.013	2.852	7.476	0.001	-0.052	-0.012
σ		0.050	0.020	0.006	0.137	1.013	0.003	0.018	0.010
%RSD		930.400	59.700	44.010	4.814	13.550	264.400	34.030	83.850

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	0.003	0.111	0.023	0.026	0.116	0.247	0.000	0.003
2	15:48:41	-0.008	0.032	0.073	0.001	0.276	0.388	0.000	0.002
3	15:49:00	-0.041	0.141	0.071	0.052	0.174	0.566	0.000	0.000
x		-0.015	0.095	0.056	0.026	0.189	0.400	0.000	0.002
σ		0.023	0.056	0.028	0.026	0.081	0.160	0.000	0.001
%RSD		151.600	59.310	50.480	98.440	42.730	40.030	0.000	82.560

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	100.968%	0.787	0.930	100.675%	-0.039	-0.038	0.076	0.048
2	15:48:41	103.021%	1.201	1.187	101.341%	-0.043	-0.032	0.002	-0.002
3	15:49:00	103.319%	1.239	1.145	101.778%	-0.040	-0.039	0.001	0.001
x		102.436%	1.075	1.087	101.265%	-0.041	-0.037	0.026	0.015
σ		1.280%	0.251	0.138	0.555%	0.002	0.004	0.043	0.028
%RSD		1.250	23.290	12.710	0.548	5.367	10.950	165.400	183.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	97.926%	-0.327	0.324	0.330	0.023	0.021	93.944%	93.441%
2	15:48:41	100.397%	-0.267	0.383	0.305	0.022	0.009	96.082%	95.488%
3	15:49:00	100.934%	-0.257	0.336	0.377	-0.011	0.009	97.824%	98.415%
x		99.752%	-0.284	0.348	0.337	0.011	0.013	95.950%	95.781%
σ		1.604%	0.038	0.032	0.036	0.019	0.007	1.944%	2.500%
%RSD		1.608	13.490	9.071	10.810	168.000	54.090	2.026	2.610

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	0.021	0.025	0.007	-0.004	0.002	98.646%
2	15:48:41	0.021	0.033	0.004	-0.001	-0.001	98.257%
3	15:49:00	0.021	0.027	-0.001	-0.006	-0.000	99.398%
x		0.021	0.028	0.003	-0.004	0.000	98.767%
σ		0.000	0.004	0.004	0.002	0.001	0.580%
%RSD		1.012	13.280	116.900	64.470	3733.000	0.588

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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	15:52:12	107.312%	-0.032	46.460	44.600	0.000	36530.000	11770.000	11980.000
2	15:52:31	103.380%	-0.050	44.450	42.460	0.000	34940.000	11340.000	11150.000
3	15:52:50	105.552%	-0.041	40.670	41.480	0.000	33000.000	10520.000	10790.000
x		105.415%	-0.041	43.860	42.850	0.000	34820.000	11210.000	11310.000
σ		1.969%	0.009	2.938	1.599	0.000	1766.000	635.900	611.300
%RSD		1.868	22.110	6.699	3.731	0.000	5.073	5.672	5.405
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	2.582	4718.000	0.000	5269.000	110100.000	109000.000	86.087%	0.675
2	15:52:31	2.162	4390.000	0.000	4655.000	99450.000	100500.000	92.825%	0.480
3	15:52:50	2.330	4271.000	0.000	4664.000	98560.000	97140.000	89.472%	0.427
x		2.358	4460.000	0.000	4863.000	102700.000	102200.000	89.462%	0.527
σ		0.211	231.400	0.000	351.800	6419.000	6106.000	3.369%	0.131
%RSD		8.961	5.189	0.000	7.233	6.250	5.974	3.766	24.780
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	-1.053	6.535	4.638	24.030	813.800	0.321	11.900	27.310
2	15:52:31	0.991	5.806	4.259	13.830	689.300	0.305	11.790	26.660
3	15:52:50	-1.155	6.067	4.517	19.350	732.600	0.314	12.050	27.210
x		-0.406	6.136	4.471	19.070	745.200	0.313	11.910	27.060
σ		1.211	0.370	0.194	5.108	63.230	0.008	0.130	0.347
%RSD		298.300	6.021	4.328	26.790	8.485	2.519	1.092	1.283
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	27.220	30.670	31.760	-0.554	-0.120	0.789	0.000	181.100
2	15:52:31	27.150	30.850	30.010	-0.072	0.008	0.692	0.000	179.900
3	15:52:50	28.050	30.800	30.740	0.868	-0.186	1.044	0.000	180.000
x		27.470	30.770	30.840	0.081	-0.099	0.842	0.000	180.300
σ		0.500	0.091	0.879	0.723	0.099	0.182	0.000	0.640
%RSD		1.819	0.294	2.851	894.700	99.440	21.600	0.000	0.355
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	92.101%	1.722	1.705	89.256%	-0.038	-0.027	0.064	0.065
2	15:52:31	93.612%	1.959	1.820	89.691%	-0.042	-0.044	-0.049	-0.036
3	15:52:50	93.117%	2.013	1.915	89.170%	-0.036	-0.036	-0.015	-0.009
x		92.943%	1.898	1.813	89.372%	-0.039	-0.035	0.000	0.007
σ		0.770%	0.155	0.105	0.279%	0.003	0.008	0.058	0.052
%RSD		0.829	8.159	5.787	0.312	8.977	23.730	68890.000	784.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	90.366%	0.245	1.937	1.999	37.340	37.950	95.943%	96.568%
2	15:52:31	91.661%	0.219	1.938	1.868	38.950	39.030	97.464%	98.586%
3	15:52:50	92.534%	0.196	1.686	1.644	40.020	38.890	99.064%	100.191%
x		91.520%	0.220	1.853	1.837	38.770	38.620	97.490%	98.448%
σ		1.091%	0.025	0.145	0.179	1.348	0.587	1.561%	1.816%
%RSD		1.192	11.200	7.836	9.763	3.477	1.520	1.601	1.844
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:52:12	0.019	0.047	3.721	3.542	3.581	84.938%		
2	15:52:31	0.037	0.029	3.874	3.509	3.694	86.676%		
3	15:52:50	0.040	0.024	3.839	3.436	3.613	87.388%		
x		0.032	0.033	3.811	3.496	3.629	86.334%		
σ		0.012	0.012	0.080	0.054	0.058	1.260%		
%RSD		36.310	35.610	2.097	1.555	1.602	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	15:55:59	104.854%	-0.046	44.190	41.740	0.000	60480.000	17720.000	17850.000
2	15:56:19	100.892%	-0.045	39.810	41.000	0.000	64560.000	18110.000	18080.000
3	15:56:38	102.366%	-0.040	39.420	38.840	0.000	60220.000	17580.000	17540.000
x		102.704%	-0.044	41.140	40.520	0.000	61760.000	17800.000	17820.000
σ		2.003%	0.003	2.649	1.508	0.000	2433.000	274.800	273.600
%RSD		1.950	6.862	6.439	3.721	0.000	3.940	1.543	1.535
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	3.017	3849.000	0.000	5955.000	85180.000	87270.000	97.488%	0.496
2	15:56:19	2.311	3966.000	0.000	6034.000	87330.000	86180.000	97.210%	0.560
3	15:56:38	2.134	3843.000	0.000	6105.000	88520.000	86460.000	93.115%	0.426
x		2.487	3886.000	0.000	6031.000	87010.000	86630.000	95.938%	0.494
σ		0.467	69.350	0.000	74.700	1690.000	564.700	2.449%	0.067
%RSD		18.770	1.785	0.000	1.239	1.942	0.652	2.552	13.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	-0.357	10.860	3.015	21.740	667.900	0.279	27.320	30.490
2	15:56:19	-0.301	10.690	3.037	17.350	625.400	0.260	26.310	29.480
3	15:56:38	-1.342	10.650	3.047	17.150	642.700	0.218	26.950	30.800
x		-0.667	10.730	3.033	18.750	645.300	0.252	26.860	30.250
σ		0.585	0.111	0.017	2.596	21.410	0.031	0.512	0.690
%RSD		87.790	1.035	0.548	13.850	3.317	12.420	1.907	2.280
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	29.520	162.700	163.200	-0.609	-0.087	0.969	0.000	225.500
2	15:56:19	29.800	161.400	163.100	-0.796	-0.390	0.707	0.000	224.800
3	15:56:38	30.220	162.500	165.200	0.553	0.054	0.774	0.000	225.400
x		29.850	162.200	163.900	-0.284	-0.141	0.817	0.000	225.300
σ		0.348	0.710	1.131	0.731	0.227	0.136	0.000	0.406
%RSD		1.167	0.438	0.690	257.400	160.400	16.650	0.000	0.180
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	92.564%	1.204	1.094	89.567%	-0.029	-0.040	0.125	0.089
2	15:56:19	92.807%	1.250	1.339	89.678%	-0.035	-0.038	0.022	0.031
3	15:56:38	94.335%	1.369	1.348	89.440%	-0.034	-0.038	0.034	0.009
x		93.235%	1.274	1.260	89.562%	-0.032	-0.039	0.060	0.043
σ		0.960%	0.085	0.144	0.119%	0.003	0.001	0.057	0.041
%RSD		1.029	6.662	11.460	0.133	9.707	3.219	93.860	94.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	90.306%	0.095	0.428	0.458	57.100	57.130	95.080%	95.940%
2	15:56:19	92.881%	0.077	0.445	0.373	56.980	57.040	98.523%	97.627%
3	15:56:38	93.249%	0.041	0.429	0.347	57.460	57.590	100.208%	100.381%
x		92.145%	0.071	0.434	0.393	57.180	57.250	97.937%	97.983%
σ		1.603%	0.028	0.010	0.058	0.249	0.293	2.614%	2.242%
%RSD		1.740	39.110	2.251	14.840	0.435	0.513	2.669	2.288
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:55:59	0.022	0.021	4.119	3.716	3.872	86.944%		
2	15:56:19	0.015	0.023	4.243	3.858	4.053	88.852%		
3	15:56:38	0.007	0.020	4.173	3.776	4.003	89.804%		
x		0.014	0.021	4.178	3.783	3.976	88.533%		
σ		0.008	0.002	0.062	0.072	0.094	1.456%		
%RSD		52.850	9.081	1.487	1.895	2.361	1.645		

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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	15:59:47	116.221%	-0.027	57.940	58.460	0.000	22510.000	7786.000	7864.000
2	16:00:06	111.236%	-0.065	52.730	54.390	0.000	22360.000	7760.000	7638.000
3	16:00:25	103.282%	-0.030	60.270	59.620	0.000	23730.000	8650.000	8492.000
x		110.246%	-0.041	56.980	57.490	0.000	22870.000	8065.000	7998.000
σ		6.526%	0.021	3.859	2.745	0.000	752.400	506.400	442.300
%RSD		5.919	52.230	6.772	4.774	0.000	3.290	6.279	5.531
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	117.100	4319.000	0.000	2632.000	94290.000	94140.000	93.559%	2.461
2	16:00:06	112.100	4263.000	0.000	2581.000	93490.000	93550.000	92.406%	2.687
3	16:00:25	120.400	4551.000	0.000	2914.000	104400.000	101500.000	86.086%	2.490
x		116.500	4378.000	0.000	2709.000	97390.000	96410.000	90.684%	2.546
σ		4.178	152.600	0.000	179.200	6072.000	4440.000	4.023%	0.123
%RSD		3.585	3.485	0.000	6.616	6.234	4.606	4.437	4.833
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	-2.431	2.109	250.800	369.000	1104.000	0.948	2.213	0.985
2	16:00:06	-1.858	2.223	261.200	379.200	1055.000	0.888	2.088	0.952
3	16:00:25	1.672	2.204	269.400	398.100	1063.000	0.865	2.137	0.924
x		-0.873	2.179	260.400	382.100	1074.000	0.901	2.146	0.954
σ		2.222	0.061	9.324	14.750	26.460	0.043	0.063	0.030
%RSD		254.600	2.790	3.580	3.861	2.463	4.752	2.923	3.158
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	1.033	9.757	10.410	0.270	-0.586	0.543	0.000	165.400
2	16:00:06	1.091	10.460	10.500	0.665	-0.374	0.359	0.000	166.700
3	16:00:25	1.116	10.430	11.120	0.516	-0.418	0.527	0.000	164.700
x		1.080	10.210	10.680	0.484	-0.459	0.476	0.000	165.600
σ		0.043	0.397	0.389	0.200	0.112	0.102	0.000	1.023
%RSD		3.977	3.885	3.646	41.340	24.290	21.360	0.000	0.618
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	94.608%	0.509	0.531	90.248%	-0.036	-0.045	0.044	0.040
2	16:00:06	95.201%	0.742	0.671	90.833%	-0.041	-0.040	0.027	0.031
3	16:00:25	96.362%	0.683	0.691	91.752%	-0.036	-0.029	0.031	0.026
x		95.390%	0.645	0.631	90.944%	-0.038	-0.038	0.034	0.032
σ		0.893%	0.122	0.087	0.758%	0.003	0.008	0.009	0.007
%RSD		0.936	18.840	13.820	0.834	6.891	21.430	26.130	21.170
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	91.886%	-0.198	-0.009	0.018	35.960	36.010	97.673%	97.835%
2	16:00:06	94.170%	-0.189	-0.014	0.087	36.050	36.200	99.921%	100.448%
3	16:00:25	94.974%	-0.180	0.040	0.059	37.100	37.260	101.090%	101.043%
x		93.677%	-0.189	0.006	0.055	36.370	36.490	99.561%	99.775%
σ		1.602%	0.009	0.030	0.035	0.637	0.671	1.736%	1.706%
%RSD		1.710	4.694	528.700	63.620	1.750	1.838	1.744	1.710
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:59:47	0.007	0.014	0.542	0.441	0.500	89.473%		
2	16:00:06	0.010	0.013	0.588	0.467	0.528	90.166%		
3	16:00:25	0.005	0.015	0.526	0.514	0.518	91.571%		
x		0.007	0.014	0.552	0.474	0.515	90.403%		
σ		0.003	0.001	0.032	0.037	0.014	1.069%		
%RSD		34.810	6.309	5.805	7.831	2.791	1.182		

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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	16:03:35	112.233%	-0.052	11.700	10.960	0.000	4626.000	1551.000	1535.000
2	16:03:54	117.512%	-0.053	11.370	11.100	0.000	4549.000	1566.000	1552.000
3	16:04:13	104.351%	-0.055	11.510	10.010	0.000	4566.000	1582.000	1629.000
x		111.366%	-0.053	11.520	10.690	0.000	4580.000	1566.000	1572.000
σ		6.623%	0.002	0.163	0.594	0.000	40.680	15.330	49.750
%RSD		5.947	3.076	1.416	5.555	0.000	0.888	0.979	3.165
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	21.990	739.900	0.000	539.500	19350.000	18360.000	102.177%	0.297
2	16:03:54	22.420	721.000	0.000	520.300	18840.000	18920.000	98.817%	0.460
3	16:04:13	23.660	769.000	0.000	554.700	19920.000	19310.000	99.528%	0.395
x		22.690	743.300	0.000	538.200	19370.000	18870.000	100.174%	0.384
σ		0.866	24.180	0.000	17.230	540.700	478.200	1.770%	0.082
%RSD		3.818	3.253	0.000	3.202	2.791	2.535	1.767	21.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	0.381	0.459	50.050	79.650	216.400	0.167	0.417	0.166
2	16:03:54	-0.222	0.395	51.330	78.810	227.000	0.169	0.464	0.195
3	16:04:13	0.650	0.403	51.090	77.930	219.700	0.185	0.399	0.146
x		0.270	0.419	50.820	78.800	221.000	0.173	0.427	0.169
σ		0.447	0.035	0.677	0.863	5.433	0.010	0.033	0.025
%RSD		165.700	8.258	1.333	1.095	2.458	5.698	7.804	14.740
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	0.210	2.801	2.669	-0.042	-0.360	-0.130	0.000	32.790
2	16:03:54	0.222	2.702	2.613	0.073	-0.344	0.077	0.000	32.830
3	16:04:13	0.222	2.815	2.529	-0.452	-0.335	0.153	0.000	32.920
x		0.218	2.773	2.604	-0.140	-0.346	0.033	0.000	32.840
σ		0.007	0.062	0.070	0.276	0.013	0.147	0.000	0.068
%RSD		3.356	2.224	2.703	197.200	3.718	438.500	0.000	0.208
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	98.865%	0.051	0.085	97.799%	-0.048	-0.046	0.079	0.072
2	16:03:54	100.764%	0.124	0.185	98.182%	-0.051	-0.041	0.034	0.014
3	16:04:13	99.827%	0.163	0.204	98.928%	-0.040	-0.037	0.012	0.009
x		99.819%	0.113	0.158	98.303%	-0.046	-0.041	0.041	0.032
σ		0.950%	0.057	0.064	0.574%	0.006	0.004	0.034	0.035
%RSD		0.951	50.200	40.600	0.584	12.300	10.070	81.670	110.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	97.163%	-0.528	-0.447	-0.406	7.304	7.342	98.508%	98.723%
2	16:03:54	98.563%	-0.507	-0.437	-0.457	8.023	7.466	101.477%	101.132%
3	16:04:13	101.885%	-0.507	-0.411	-0.410	6.876	7.371	103.380%	103.160%
x		99.204%	-0.514	-0.432	-0.424	7.401	7.393	101.122%	101.005%
σ		2.426%	0.012	0.019	0.029	0.580	0.065	2.456%	2.221%
%RSD		2.445	2.341	4.323	6.788	7.831	0.874	2.428	2.199
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:03:35	0.005	0.009	0.113	0.082	0.097	98.309%		
2	16:03:54	0.000	-0.001	0.117	0.076	0.098	98.037%		
3	16:04:13	0.005	0.003	0.109	0.099	0.104	97.742%		
x		0.003	0.004	0.113	0.086	0.100	98.030%		
σ		0.003	0.005	0.004	0.012	0.004	0.284%		
%RSD		84.060	130.500	3.682	14.160	3.772	0.289		

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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	16:07:23	100.423%	43.440	934.400	898.500	0.000	60900.000	47580.000	47290.000
2	16:07:42	101.496%	42.110	972.600	941.300	0.000	61210.000	48360.000	48920.000
3	16:08:01	97.577%	41.300	956.800	946.900	0.000	65590.000	49470.000	50150.000
x		99.832%	42.280	954.600	928.900	0.000	62570.000	48470.000	48790.000
σ		2.025%	1.081	19.230	26.490	0.000	2618.000	948.200	1438.000
%RSD		2.029	2.556	2.014	2.852	0.000	4.185	1.956	2.947
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	1978.000	13380.000	0.000	45660.000	141200.000	140800.000	93.517%	922.100
2	16:07:42	1967.000	13540.000	0.000	46590.000	140100.000	140800.000	91.089%	915.800
3	16:08:01	2052.000	13990.000	0.000	49710.000	159700.000	149800.000	85.696%	970.000
x		1999.000	13640.000	0.000	47320.000	147000.000	143800.000	90.101%	936.000
σ		46.050	319.000	0.000	2124.000	11010.000	5229.000	4.003%	29.630
%RSD		2.303	2.339	0.000	4.489	7.488	3.637	4.443	3.166
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	478.700	184.600	719.500	1641.000	2568.000	461.400	451.400	217.800
2	16:07:42	467.800	183.800	722.100	1611.000	2475.000	454.900	444.200	224.000
3	16:08:01	498.800	189.300	751.800	1721.000	2587.000	468.700	468.200	230.200
x		481.800	185.900	731.100	1657.000	2543.000	461.600	454.600	224.000
σ		15.750	2.957	17.920	57.030	59.770	6.903	12.280	6.162
%RSD		3.269	1.591	2.451	3.441	2.350	1.495	2.702	2.751
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	219.400	423.300	423.000	34.700	8.683	10.530	0.000	1057.000
2	16:07:42	223.000	434.400	437.200	34.630	8.215	9.293	0.000	1054.000
3	16:08:01	228.500	442.500	448.500	33.740	8.660	9.953	0.000	1047.000
x		223.600	433.400	436.200	34.360	8.520	9.926	0.000	1053.000
σ		4.593	9.666	12.770	0.538	0.264	0.621	0.000	4.931
%RSD		2.054	2.230	2.928	1.567	3.094	6.253	0.000	0.468
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	94.605%	994.800	1021.000	87.750%	45.880	45.790	47.850	39.160
2	16:07:42	94.800%	1005.000	1021.000	88.464%	45.270	45.990	46.400	40.780
3	16:08:01	95.707%	996.600	1026.000	87.750%	46.220	46.130	46.580	39.880
x		95.037%	998.800	1023.000	87.988%	45.790	45.970	46.940	39.940
σ		0.588%	5.514	2.769	0.412%	0.484	0.171	0.792	0.813
%RSD		0.618	0.552	0.271	0.469	1.057	0.371	1.688	2.036
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	91.435%	1895.000	477.100	472.100	1792.000	1807.000	98.877%	99.941%
2	16:07:42	92.062%	1885.000	484.000	479.500	1802.000	1816.000	102.143%	103.642%
3	16:08:01	93.406%	1873.000	478.800	475.400	1784.000	1805.000	103.183%	104.627%
x		92.301%	1885.000	480.000	475.700	1792.000	1810.000	101.401%	102.737%
σ		1.007%	10.900	3.614	3.677	9.178	6.030	2.247%	2.470%
%RSD		1.091	0.578	0.753	0.773	0.512	0.333	2.216	2.405
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:07:23	49.150	49.540	21.090	20.930	21.080	89.442%		
2	16:07:42	50.160	50.880	21.340	21.450	21.660	89.742%		
3	16:08:01	51.580	52.050	22.040	21.580	21.990	89.973%		
x		50.300	50.830	21.490	21.320	21.580	89.719%		
σ		1.223	1.254	0.491	0.344	0.460	0.266%		
%RSD		2.432	2.468	2.283	1.612	2.133	0.297		

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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	16:11:10	110.791%	41.460	962.400	944.600	0.000	64750.000	49400.000	48910.000
2	16:11:30	103.955%	42.950	1038.000	960.400	0.000	62790.000	48030.000	48880.000
3	16:11:49	102.611%	41.870	985.800	949.200	0.000	60390.000	46970.000	47770.000
x		105.786%	42.090	995.400	951.400	0.000	62640.000	48130.000	48520.000
σ		4.386%	0.770	38.700	8.103	0.000	2187.000	1221.000	650.800
%RSD		4.146	1.829	3.888	0.852	0.000	3.492	2.537	1.341
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	1816.000	13620.000	0.000	48990.000	157200.000	150200.000	85.278%	959.600
2	16:11:30	1808.000	13380.000	0.000	46610.000	150200.000	141600.000	89.571%	911.600
3	16:11:49	1825.000	13330.000	0.000	45190.000	148900.000	141600.000	88.557%	915.900
x		1816.000	13450.000	0.000	46930.000	152100.000	144400.000	87.802%	929.000
σ		8.410	153.300	0.000	1918.000	4451.000	4974.000	2.244%	26.560
%RSD		0.463	1.140	0.000	4.086	2.926	3.444	2.556	2.859
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	491.700	190.300	746.900	1311.000	2359.000	493.500	474.800	237.200
2	16:11:30	474.500	183.400	711.400	1263.000	2149.000	470.500	465.400	229.700
3	16:11:49	468.100	184.100	715.900	1255.000	2247.000	467.300	457.000	226.600
x		478.100	185.900	724.700	1276.000	2252.000	477.100	465.700	231.200
σ		12.210	3.764	19.330	30.630	105.100	14.270	8.884	5.452
%RSD		2.553	2.024	2.668	2.399	4.666	2.991	1.908	2.358
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	235.900	459.000	458.900	36.780	9.589	10.550	0.000	1076.000
2	16:11:30	230.400	446.000	447.000	34.780	9.408	10.060	0.000	1065.000
3	16:11:49	231.000	446.600	450.100	36.420	9.264	10.150	0.000	1071.000
x		232.400	450.500	452.000	35.990	9.420	10.260	0.000	1071.000
σ		3.025	7.350	6.196	1.066	0.163	0.264	0.000	5.593
%RSD		1.301	1.632	1.371	2.963	1.726	2.571	0.000	0.522
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	93.027%	1020.000	1032.000	86.931%	46.600	46.450	47.410	40.240
2	16:11:30	95.180%	1013.000	1031.000	88.293%	46.080	46.480	46.430	41.210
3	16:11:49	95.008%	1016.000	1047.000	87.794%	47.130	46.270	46.970	40.770
x		94.405%	1016.000	1037.000	87.672%	46.600	46.400	46.940	40.740
σ		1.197%	3.639	8.766	0.689%	0.527	0.115	0.494	0.486
%RSD		1.268	0.358	0.846	0.786	1.131	0.247	1.051	1.193
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	89.369%	1914.000	488.900	484.900	1807.000	1832.000	98.757%	99.004%
2	16:11:30	91.161%	1917.000	490.600	490.300	1832.000	1845.000	99.469%	100.723%
3	16:11:49	91.671%	1900.000	492.400	489.800	1825.000	1850.000	101.597%	102.226%
x		90.734%	1911.000	490.600	488.300	1821.000	1842.000	99.941%	100.651%
σ		1.209%	9.196	1.748	2.947	13.090	9.457	1.478%	1.612%
%RSD		1.332	0.481	0.356	0.603	0.719	0.513	1.478	1.601
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:11:10	50.340	50.510	20.630	20.890	20.880	87.546%		
2	16:11:30	51.200	51.670	21.760	21.580	21.660	88.261%		
3	16:11:49	52.200	52.540	21.370	21.430	21.680	88.492%		
x		51.250	51.570	21.250	21.300	21.410	88.100%		
σ		0.934	1.016	0.577	0.362	0.459	0.493%		
%RSD		1.822	1.971	2.713	1.701	2.144	0.560		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	104.254%	45.550	1031.000	997.300	0.000	61440.000	48430.000	48800.000
2	16:15:17	103.176%	45.480	1081.000	967.100	0.000	64800.000	49970.000	49290.000
3	16:15:37	101.779%	44.230	1039.000	980.800	0.000	64980.000	50790.000	50660.000
x		103.069%	45.090	1051.000	981.700	0.000	63740.000	49730.000	49580.000
σ		1.241%	0.742	26.710	15.150	0.000	1995.000	1198.000	963.600
%RSD		1.204	1.646	2.542	1.543	0.000	3.130	2.410	1.944

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	1799.000	13680.000	0.000	47040.000	146000.000	140200.000	92.141%	990.000
2	16:15:17	1753.000	13270.000	0.000	47600.000	149000.000	142100.000	89.984%	964.400
3	16:15:37	1805.000	13620.000	0.000	49080.000	151700.000	143400.000	89.545%	967.800
x		1786.000	13520.000	0.000	47900.000	148900.000	141900.000	90.557%	974.100
σ		28.700	223.400	0.000	1056.000	2879.000	1615.000	1.390%	13.910
%RSD		1.607	1.652	0.000	2.204	1.934	1.138	1.535	1.428

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	513.000	194.500	728.700	1330.000	2285.000	496.000	481.300	233.700
2	16:15:17	499.800	196.600	738.100	1345.000	2293.000	490.700	488.900	243.700
3	16:15:37	502.400	196.700	730.000	1341.000	2281.000	482.900	478.000	236.900
x		505.100	195.900	732.300	1339.000	2287.000	489.900	482.800	238.100
σ		7.006	1.260	5.089	8.106	6.029	6.586	5.588	5.113
%RSD		1.387	0.643	0.695	0.606	0.264	1.345	1.158	2.147

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	236.400	460.400	464.800	37.660	9.121	11.110	0.000	1124.000
2	16:15:17	245.100	462.700	462.900	36.700	10.040	10.170	0.000	1117.000
3	16:15:37	239.200	469.300	470.900	39.180	10.040	10.220	0.000	1111.000
x		240.200	464.100	466.200	37.850	9.734	10.500	0.000	1117.000
σ		4.462	4.645	4.205	1.250	0.530	0.529	0.000	6.567
%RSD		1.857	1.001	0.902	3.302	5.450	5.038	0.000	0.588

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	92.064%	1074.000	1099.000	86.209%	45.080	44.820	48.140	42.150
2	16:15:17	94.220%	1074.000	1101.000	86.600%	45.520	45.400	49.860	42.820
3	16:15:37	93.441%	1087.000	1114.000	87.364%	45.250	45.610	48.920	41.860
x		93.241%	1078.000	1105.000	86.724%	45.280	45.280	48.970	42.280
σ		1.091%	7.561	7.883	0.588%	0.218	0.409	0.862	0.494
%RSD		1.171	0.701	0.714	0.677	0.482	0.903	1.759	1.167

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	89.437%	2010.000	498.900	493.300	1905.000	1929.000	95.923%	97.489%
2	16:15:17	91.254%	2005.000	508.600	505.700	1918.000	1932.000	99.537%	100.448%
3	16:15:37	92.182%	2000.000	509.600	503.000	1909.000	1931.000	101.114%	102.150%
x		90.958%	2005.000	505.700	500.600	1910.000	1931.000	98.858%	100.029%
σ		1.396%	4.736	5.912	6.529	6.955	1.074	2.661%	2.358%
%RSD		1.535	0.236	1.169	1.304	0.364	0.056	2.692	2.358

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	54.000	54.760	22.260	22.360	22.550	85.073%
2	16:15:17	55.070	56.450	22.960	23.220	23.120	86.034%
3	16:15:37	55.430	56.030	22.970	23.130	23.030	88.768%
x		54.830	55.750	22.730	22.900	22.900	86.625%
σ		0.742	0.882	0.409	0.472	0.309	1.917%
%RSD		1.353	1.583	1.797	2.061	1.350	2.213

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	100.798%	-0.015	56.220	53.810	0.000	58300.000	18170.000	17820.000
2	16:19:06	100.744%	-0.034	49.480	48.150	0.000	54120.000	17490.000	17210.000
3	16:19:25	100.251%	-0.044	51.720	49.820	0.000	54880.000	17230.000	17350.000
x		100.597%	-0.031	52.470	50.590	0.000	55770.000	17630.000	17460.000
σ		0.301%	0.015	3.432	2.908	0.000	2223.000	487.900	316.800
%RSD		0.299	48.670	6.540	5.748	0.000	3.986	2.767	1.815
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	33.990	5204.000	0.000	7109.000	119300.000	118400.000	85.880%	1.275
2	16:19:06	31.860	5010.000	0.000	6924.000	115000.000	117600.000	85.927%	1.538
3	16:19:25	32.420	5093.000	0.000	6978.000	117600.000	117400.000	85.835%	1.247
x		32.760	5102.000	0.000	7004.000	117300.000	117800.000	85.881%	1.353
σ		1.102	97.340	0.000	94.720	2122.000	518.700	0.046%	0.160
%RSD		3.364	1.908	0.000	1.352	1.809	0.440	0.054	11.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	2.567	5.106	60.860	75.430	837.500	0.575	1.475	0.637
2	16:19:06	2.385	5.609	62.940	82.500	829.200	0.616	1.609	0.626
3	16:19:25	0.579	5.075	61.340	76.940	833.400	0.539	1.608	0.757
x		1.844	5.263	61.710	78.290	833.400	0.577	1.564	0.673
σ		1.099	0.300	1.090	3.725	4.174	0.039	0.077	0.073
%RSD		59.610	5.696	1.766	4.758	0.501	6.686	4.924	10.850
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	0.509	82.310	83.400	-0.580	-0.055	0.781	0.000	256.200
2	16:19:06	0.633	83.320	83.670	-0.529	0.194	0.751	0.000	257.700
3	16:19:25	0.522	83.610	81.740	0.521	-0.038	0.946	0.000	255.300
x		0.555	83.080	82.940	-0.196	0.033	0.826	0.000	256.400
σ		0.068	0.683	1.044	0.621	0.139	0.105	0.000	1.200
%RSD		12.230	0.822	1.258	317.500	416.700	12.710	0.000	0.468
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	92.780%	7.458	7.800	89.850%	-0.040	-0.043	-0.004	-0.026
2	16:19:06	93.993%	8.202	8.543	89.446%	-0.048	-0.038	-0.049	-0.020
3	16:19:25	94.349%	7.508	8.043	89.422%	-0.045	-0.036	-0.010	-0.015
x		93.707%	7.722	8.129	89.573%	-0.044	-0.039	-0.021	-0.020
σ		0.823%	0.416	0.379	0.241%	0.004	0.004	0.024	0.005
%RSD		0.878	5.384	4.660	0.269	8.904	9.073	115.300	26.710
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	92.691%	1.615	4.827	4.974	50.030	49.630	98.570%	99.927%
2	16:19:06	94.578%	1.405	4.369	4.259	49.170	50.610	102.547%	102.559%
3	16:19:25	94.550%	1.209	3.746	3.790	48.920	50.660	102.003%	103.655%
x		93.940%	1.409	4.314	4.341	49.370	50.300	101.040%	102.047%
σ		1.082%	0.203	0.542	0.596	0.579	0.581	2.156%	1.916%
%RSD		1.151	14.420	12.580	13.730	1.174	1.154	2.134	1.878
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:18:47	0.112	0.100	0.131	0.095	0.130	89.436%		
2	16:19:06	0.094	0.100	0.117	0.103	0.125	90.601%		
3	16:19:25	0.095	0.114	0.112	0.126	0.119	91.923%		
x		0.100	0.105	0.120	0.108	0.125	90.653%		
σ		0.010	0.008	0.010	0.016	0.006	1.245%		
%RSD		10.250	7.892	8.328	14.920	4.471	1.373		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	104.377%	-0.031	48.790	49.100	0.000	39420.000	14600.000	14670.000
2	16:22:54	101.128%	-0.010	51.670	47.990	0.000	38800.000	14590.000	15130.000
3	16:23:14	104.144%	-0.036	48.920	48.490	0.000	42100.000	16120.000	16270.000
x		103.216%	-0.026	49.790	48.530	0.000	40110.000	15100.000	15360.000
σ		1.812%	0.014	1.628	0.554	0.000	1757.000	878.800	824.500
%RSD		1.756	52.730	3.269	1.142	0.000	4.381	5.818	5.369

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	26.550	4346.000	0.000	4363.000	103100.000	104200.000	93.551%	1.105
2	16:22:54	26.290	4326.000	0.000	4254.000	101700.000	101600.000	93.710%	1.166
3	16:23:14	28.180	4566.000	0.000	4652.000	112900.000	111500.000	85.917%	0.968
x		27.010	4413.000	0.000	4423.000	105900.000	105800.000	91.059%	1.079
σ		1.025	132.800	0.000	205.600	6143.000	5158.000	4.454%	0.101
%RSD		3.797	3.009	0.000	4.648	5.801	4.878	4.891	9.386

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	-1.831	7.338	15.890	83.800	810.700	0.415	1.462	0.535
2	16:22:54	0.729	7.475	15.640	80.450	798.300	0.473	1.246	0.584
3	16:23:14	-0.747	7.839	16.750	92.300	851.300	0.443	1.117	0.648
x		-0.616	7.551	16.090	85.510	820.100	0.444	1.275	0.589
σ		1.285	0.259	0.584	6.108	27.730	0.029	0.175	0.057
%RSD		208.400	3.429	3.628	7.143	3.382	6.465	13.700	9.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	0.580	12.090	12.800	0.402	-0.387	0.515	0.000	208.300
2	16:22:54	0.629	12.340	12.490	0.050	-0.150	0.810	0.000	209.400
3	16:23:14	0.671	13.610	12.860	-0.428	-0.185	0.551	0.000	208.400
x		0.627	12.680	12.720	0.008	-0.241	0.625	0.000	208.700
σ		0.046	0.814	0.201	0.417	0.128	0.161	0.000	0.602
%RSD		7.348	6.422	1.577	5128.000	53.180	25.740	0.000	0.289

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	91.468%	2.956	2.994	87.713%	-0.051	-0.042	-0.010	0.015
2	16:22:54	92.582%	3.584	3.656	87.575%	-0.043	-0.040	-0.036	-0.023
3	16:23:14	93.988%	3.395	3.503	89.248%	-0.048	-0.041	-0.096	-0.078
x		92.680%	3.311	3.384	88.179%	-0.048	-0.041	-0.047	-0.029
σ		1.262%	0.322	0.347	0.929%	0.004	0.001	0.044	0.046
%RSD		1.362	9.727	10.240	1.053	8.409	2.777	93.870	161.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	89.901%	0.173	0.959	1.047	54.510	55.480	95.496%	95.722%
2	16:22:54	91.951%	0.173	1.025	0.973	53.720	55.340	98.129%	98.227%
3	16:23:14	92.723%	0.294	0.877	0.940	53.640	54.780	99.446%	99.125%
x		91.525%	0.213	0.953	0.987	53.950	55.200	97.690%	97.691%
σ		1.459%	0.070	0.074	0.055	0.479	0.374	2.012%	1.764%
%RSD		1.594	32.740	7.784	5.536	0.887	0.677	2.059	1.806

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	0.035	0.041	0.182	0.149	0.168	85.984%
2	16:22:54	0.030	0.041	0.186	0.185	0.178	85.600%
3	16:23:14	0.045	0.036	0.183	0.169	0.174	87.727%
x		0.036	0.039	0.184	0.168	0.173	86.437%
σ		0.008	0.003	0.002	0.018	0.005	1.134%
%RSD		21.230	7.984	1.114	10.700	2.760	1.312

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	105.271%	-0.060	60.690	58.350	0.000	35370.000	16830.000	16530.000
2	16:26:43	108.784%	-0.001	61.910	59.400	0.000	34650.000	16370.000	16260.000
3	16:27:02	106.436%	-0.032	61.730	62.700	0.000	35810.000	16560.000	16610.000
x		106.830%	-0.031	61.440	60.150	0.000	35270.000	16590.000	16470.000
σ		1.789%	0.030	0.658	2.274	0.000	585.000	230.200	185.000
%RSD		1.675	96.290	1.071	3.780	0.000	1.658	1.388	1.123
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	80.490	3904.000	0.000	6385.000	88550.000	88900.000	95.149%	2.367
2	16:26:43	79.580	3923.000	0.000	6517.000	88650.000	87730.000	94.372%	2.426
3	16:27:02	82.470	3977.000	0.000	6446.000	90380.000	88050.000	92.513%	2.217
x		80.850	3935.000	0.000	6449.000	89190.000	88230.000	94.011%	2.337
σ		1.475	37.690	0.000	65.810	1029.000	606.600	1.354%	0.108
%RSD		1.824	0.958	0.000	1.020	1.154	0.688	1.441	4.622
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	1.794	1.953	294.000	311.100	965.300	0.717	1.579	0.908
2	16:26:43	-2.043	1.766	302.100	315.000	912.500	0.711	1.588	0.859
3	16:27:02	0.542	1.698	300.600	306.700	878.200	0.676	1.469	0.850
x		0.098	1.806	298.900	310.900	918.600	0.701	1.545	0.872
σ		1.957	0.132	4.289	4.180	43.890	0.022	0.066	0.031
%RSD		2003.000	7.310	1.435	1.344	4.777	3.123	4.298	3.607
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	0.783	71.190	71.420	0.563	-0.365	0.225	0.000	227.000
2	16:26:43	0.818	71.670	73.440	-0.266	-0.127	0.273	0.000	229.700
3	16:27:02	0.936	73.470	73.610	0.428	-0.581	0.249	0.000	227.300
x		0.846	72.110	72.820	0.242	-0.358	0.249	0.000	228.000
σ		0.080	1.202	1.219	0.445	0.227	0.024	0.000	1.494
%RSD		9.473	1.667	1.674	184.200	63.600	9.595	0.000	0.655
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	94.494%	1.259	1.311	89.978%	-0.040	-0.046	0.050	0.035
2	16:26:43	94.296%	1.757	1.751	90.329%	-0.046	-0.035	0.010	-0.000
3	16:27:02	95.819%	1.867	1.796	90.759%	-0.039	-0.038	0.016	-0.001
x		94.869%	1.628	1.619	90.355%	-0.042	-0.040	0.026	0.011
σ		0.828%	0.324	0.268	0.391%	0.004	0.006	0.022	0.021
%RSD		0.873	19.880	16.560	0.433	8.515	14.970	84.660	179.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	91.891%	-0.047	0.240	0.268	51.750	52.430	97.311%	98.045%
2	16:26:43	93.505%	-0.008	0.211	0.308	52.050	52.560	99.020%	100.415%
3	16:27:02	94.468%	0.028	0.213	0.380	52.650	52.740	101.065%	101.668%
x		93.288%	-0.009	0.221	0.318	52.150	52.580	99.132%	100.043%
σ		1.302%	0.037	0.016	0.057	0.458	0.158	1.880%	1.840%
%RSD		1.396	404.500	7.153	17.860	0.879	0.300	1.896	1.839
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:26:24	0.034	0.037	0.380	0.329	0.371	87.347%		
2	16:26:43	0.043	0.040	0.376	0.322	0.331	88.718%		
3	16:27:02	0.042	0.031	0.313	0.319	0.332	90.662%		
x		0.040	0.036	0.356	0.323	0.345	88.909%		
σ		0.005	0.005	0.037	0.005	0.023	1.666%		
%RSD		12.510	13.300	10.500	1.530	6.671	1.873		

CCV 1594026 6/2/2015 4:30:00 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	101.866%	99.620	112.900	106.600	0.000	49390.000	48450.000	47520.000
2	16:30:20	106.559%	98.190	104.400	104.700	0.000	48010.000	47010.000	46270.000
3	16:30:39	103.884%	98.510	111.200	105.300	0.000	48670.000	47670.000	47180.000
x		104.103%	98.774%	109.523%	105.558%	0.000	97.388%	95.417%	93.977%
σ		2.354%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.261	0.757	4.118	0.927	0.000	1.417	1.515	1.371

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	462.400	4984.000	0.000	51030.000	49580.000	49230.000	96.847%	100.000
2	16:30:20	459.700	4936.000	0.000	50060.000	50220.000	50200.000	95.958%	101.900
3	16:30:39	466.000	5107.000	0.000	51210.000	50700.000	50030.000	93.708%	103.100
x		92.538%	100.185%	0.000	101.538%	100.330%	99.643%	95.504%	101.673%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.618%	n/a
%RSD		0.685	1.761	0.000	1.221	1.125	1.044	1.694	1.491

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	99.300	100.800	485.100	24750.000	23940.000	95.350	100.000	98.400
2	16:30:20	95.980	98.870	490.000	24820.000	24540.000	98.560	100.700	98.410
3	16:30:39	100.500	101.200	495.000	24720.000	24830.000	101.700	101.400	100.900
x		98.608%	100.289%	98.009%	99.056%	97.734%	98.547%	100.719%	99.249%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.393	1.245	1.010	0.212	1.862	3.237	0.678	1.472

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	97.140	93.910	91.950	95.610	96.500	96.250	0.000	91.950
2	16:30:20	98.700	94.090	93.210	96.360	94.080	95.160	0.000	92.120
3	16:30:39	98.430	96.340	97.800	97.540	95.440	96.080	0.000	92.920
x		98.093%	94.779%	94.320%	96.500%	95.342%	95.829%	0.000	92.332%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.851	1.427	3.269	1.007	1.276	0.613	0.000	0.564

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	99.012%	95.800	96.870	94.792%	94.620	94.570	96.240	96.360
2	16:30:20	100.829%	97.840	99.330	94.704%	96.170	96.210	95.540	97.670
3	16:30:39	101.440%	97.130	99.330	96.516%	95.140	95.570	97.880	96.610
x		100.427%	96.923%	98.509%	95.337%	95.310%	95.451%	96.551%	96.882%
σ		1.263%	n/a	n/a	1.022%	n/a	n/a	n/a	n/a
%RSD		1.257	1.066	1.445	1.072	0.824	0.868	1.244	0.715

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	91.175%	94.930	90.320	90.560	93.300	93.150	95.733%	96.071%
2	16:30:20	92.167%	97.200	92.370	91.770	96.250	96.130	98.536%	99.281%
3	16:30:39	94.085%	96.600	91.640	90.830	97.720	96.680	99.734%	100.495%
x		92.476%	96.243%	91.447%	91.052%	95.756%	95.318%	98.001%	98.616%
σ		1.479%	n/a	n/a	n/a	n/a	n/a	2.053%	2.286%
%RSD		1.600	1.226	1.135	0.697	2.349	1.996	2.095	2.318

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	95.120	95.600	95.770	95.510	95.710	93.009%
2	16:30:20	99.340	100.400	99.880	101.000	100.800	93.029%
3	16:30:39	101.800	102.700	102.800	102.700	103.200	92.574%
x		98.769%	99.579%	99.472%	99.736%	99.907%	92.871%
σ		n/a	n/a	n/a	n/a	n/a	0.257%
%RSD		3.440	3.651	3.530	3.773	3.835	0.277

CCB8 6/2/2015 4:36:29 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	16:36:49	111.314%	-0.061	1.000	0.916	0.000	3.128	0.514	0.875
2	16:37:08	110.975%	-0.039	0.470	0.994	0.000	2.590	0.266	0.664
3	16:37:27	110.946%	-0.047	0.879	0.960	0.000	2.714	0.777	0.222
x		111.079%	-0.049	0.783	0.957	0.000	2.811	0.519	0.587
σ		0.205%	0.011	0.278	0.039	0.000	0.282	0.256	0.333
%RSD		0.184	23.010	35.500	4.101	0.000	10.030	49.320	56.770

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	-0.305	-146.600	0.000	13.060	5.823	2.537	114.219%	-0.161
2	16:37:08	-0.397	-146.800	0.000	14.420	4.028	3.105	109.758%	-0.191
3	16:37:27	-0.317	-145.500	0.000	13.880	-0.275	3.070	109.396%	-0.103
x		-0.340	-146.300	0.000	13.790	3.192	2.904	111.124%	-0.151
σ		0.050	0.706	0.000	0.685	3.133	0.318	2.686%	0.045
%RSD		14.710	0.483	0.000	4.970	98.170	10.970	2.417	29.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.011	-0.029	-0.017	2.205	7.400	0.000	-0.050	-0.030
2	16:37:08	0.007	-0.010	-0.006	5.679	5.721	0.007	-0.038	-0.027
3	16:37:27	-0.021	-0.008	-0.023	4.095	7.804	0.004	-0.065	-0.002
x		-0.001	-0.016	-0.015	3.993	6.975	0.004	-0.051	-0.020
σ		0.017	0.012	0.009	1.739	1.104	0.004	0.013	0.015
%RSD		2054.000	74.300	56.800	43.560	15.830	96.050	25.650	77.970

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.004	0.059	0.015	-0.011	0.322	0.186	0.000	0.009
2	16:37:08	0.003	0.060	0.160	0.107	0.166	0.591	0.000	-0.001
3	16:37:27	-0.009	0.013	0.030	0.068	0.164	0.310	0.000	-0.003
x		-0.001	0.044	0.068	0.055	0.217	0.363	0.000	0.002
σ		0.007	0.027	0.080	0.060	0.090	0.208	0.000	0.007
%RSD		920.700	60.740	116.700	109.300	41.640	57.260	0.000	403.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	104.916%	0.605	0.686	104.188%	-0.047	-0.031	0.090	0.074
2	16:37:08	106.680%	0.919	0.961	104.826%	-0.038	-0.036	0.048	0.043
3	16:37:27	107.101%	1.044	0.969	105.432%	-0.040	-0.041	0.126	0.077
x		106.232%	0.856	0.872	104.815%	-0.041	-0.036	0.088	0.065
σ		1.159%	0.226	0.161	0.622%	0.005	0.005	0.039	0.019
%RSD		1.091	26.420	18.510	0.594	10.910	13.290	44.530	29.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	101.690%	-0.374	0.513	0.441	-0.004	-0.002	97.300%	97.538%
2	16:37:08	103.519%	-0.335	0.532	0.588	0.032	0.008	100.384%	100.416%
3	16:37:27	103.409%	-0.325	0.627	0.480	0.007	0.008	101.880%	100.692%
x		102.873%	-0.345	0.557	0.503	0.012	0.005	99.854%	99.549%
σ		1.026%	0.026	0.061	0.076	0.019	0.006	2.336%	1.747%
%RSD		0.997	7.574	10.930	15.140	157.700	130.300	2.339	1.755

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.011	0.019	0.004	-0.011	0.000	101.947%
2	16:37:08	0.030	0.020	-0.004	-0.006	-0.004	101.198%
3	16:37:27	0.008	0.023	-0.007	-0.008	-0.005	100.457%
x		0.016	0.021	-0.002	-0.008	-0.003	101.200%
σ		0.012	0.002	0.006	0.002	0.003	0.745%
%RSD		75.800	11.730	268.500	28.350	92.690	0.736

180-44321-B-28-A 6/2/2015 4:40:21 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	101.603%	-0.020	8047.000	7232.000	0.000	151200.000	43380.000	42410.000
2	16:40:59	104.883%	-0.050	6933.000	7473.000	0.000	149300.000	43510.000	43890.000
3	16:41:19	97.735%	-0.039	7578.000	7117.000	0.000	142000.000	40630.000	41070.000
x		101.407%	-0.036	7519.000	7274.000	0.000	147500.000	42510.000	42460.000
σ		3.578%	0.015	559.300	181.800	0.000	4828.000	1626.000	1413.000
%RSD		3.529	41.370	7.439	2.500	0.000	3.273	3.826	3.328

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	15.220	3970.000	0.000	10600.000	91280.000	91570.000	94.073%	0.918
2	16:40:59	16.480	4028.000	0.000	11390.000	100200.000	100100.000	84.065%	1.164
3	16:41:19	22.160	3828.000	0.000	10790.000	94270.000	93700.000	89.394%	0.883
x		17.950	3942.000	0.000	10920.000	95250.000	95140.000	89.178%	0.988
σ		3.700	102.800	0.000	411.600	4544.000	4458.000	5.008%	0.154
%RSD		20.610	2.608	0.000	3.768	4.770	4.686	5.615	15.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	2.110	1.379	2996.000	4149.000	4494.000	1.317	160.700	1.173
2	16:40:59	2.295	1.437	3200.000	4475.000	4909.000	1.418	175.400	1.313
3	16:41:19	-0.476	1.627	3119.000	4311.000	4836.000	1.400	164.800	1.334
x		1.310	1.481	3105.000	4312.000	4746.000	1.378	166.900	1.274
σ		1.549	0.130	102.600	162.800	221.900	0.054	7.584	0.087
%RSD		118.300	8.756	3.303	3.776	4.675	3.920	4.543	6.869

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	0.795	6.460	5.921	-0.109	-0.200	1.047	0.000	132.700
2	16:40:59	0.784	7.007	6.528	-0.138	0.074	1.257	0.000	134.300
3	16:41:19	0.815	6.529	6.031	-0.390	0.274	1.109	0.000	132.700
x		0.798	6.666	6.160	-0.212	0.049	1.138	0.000	133.200
σ		0.016	0.298	0.323	0.155	0.238	0.108	0.000	0.927
%RSD		1.965	4.473	5.248	72.900	482.100	9.481	0.000	0.696

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	93.046%	0.736	0.790	89.154%	-0.041	-0.035	0.093	0.066
2	16:40:59	93.514%	1.006	1.010	89.472%	-0.039	-0.046	0.010	0.016
3	16:41:19	92.892%	1.084	1.135	87.943%	-0.043	-0.044	-0.056	0.005
x		93.151%	0.942	0.978	88.857%	-0.041	-0.042	0.016	0.029
σ		0.324%	0.182	0.175	0.807%	0.002	0.006	0.074	0.033
%RSD		0.348	19.350	17.840	0.908	5.423	13.690	477.800	112.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	89.680%	0.054	2.350	2.420	57.140	58.120	95.301%	96.637%
2	16:40:59	90.680%	0.093	2.342	2.422	57.480	57.640	99.606%	99.171%
3	16:41:19	92.851%	0.052	1.964	1.895	57.910	57.610	99.192%	100.173%
x		91.070%	0.066	2.219	2.246	57.510	57.790	98.033%	98.661%
σ		1.621%	0.023	0.221	0.303	0.381	0.286	2.375%	1.823%
%RSD		1.780	35.290	9.955	13.510	0.663	0.495	2.423	1.847

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	0.024	0.036	0.667	0.619	0.648	83.863%
2	16:40:59	0.021	0.029	0.658	0.591	0.653	86.009%
3	16:41:19	0.027	0.024	0.708	0.559	0.635	87.896%
x		0.024	0.029	0.677	0.590	0.645	85.923%
σ		0.003	0.006	0.027	0.030	0.009	2.018%
%RSD		14.140	20.690	3.947	5.084	1.439	2.348

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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	16:44:29	103.653%	-0.031	29.360	28.400	0.000	17490.000	46130.000	45390.000
2	16:44:48	112.152%	-0.029	26.890	26.370	0.000	17080.000	45130.000	44510.000
3	16:45:07	109.635%	-0.047	26.090	25.990	0.000	16930.000	44470.000	45040.000
x		108.480%	-0.036	27.450	26.920	0.000	17170.000	45240.000	44980.000
σ		4.366%	0.010	1.705	1.298	0.000	291.900	838.900	444.000
%RSD		4.025	26.990	6.213	4.823	0.000	1.700	1.854	0.987
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	34.230	5274.000	0.000	2310.000	154200.000	149700.000	94.426%	1.230
2	16:44:48	33.440	5063.000	0.000	2316.000	161200.000	152700.000	90.474%	1.489
3	16:45:07	35.840	5245.000	0.000	2275.000	159400.000	153700.000	91.632%	1.389
x		34.500	5194.000	0.000	2300.000	158200.000	152000.000	92.177%	1.369
σ		1.222	114.200	0.000	22.110	3626.000	2050.000	2.031%	0.131
%RSD		3.542	2.198	0.000	0.961	2.292	1.348	2.204	9.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	1.013	3.110	158.600	484.000	1544.000	0.982	3.321	0.502
2	16:44:48	1.771	2.919	166.600	490.500	1533.000	0.961	3.324	0.457
3	16:45:07	-0.432	3.097	163.200	481.900	1515.000	0.955	3.071	0.463
x		0.784	3.042	162.800	485.500	1531.000	0.966	3.238	0.474
σ		1.119	0.107	3.997	4.509	14.180	0.014	0.145	0.024
%RSD		142.700	3.506	2.455	0.929	0.926	1.468	4.480	5.099
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	0.991	11.940	11.930	0.537	-0.106	0.417	0.000	1070.000
2	16:44:48	1.001	12.340	12.130	0.678	-0.272	0.690	0.000	1065.000
3	16:45:07	0.979	12.890	12.740	0.998	-0.092	0.574	0.000	1068.000
x		0.990	12.390	12.270	0.738	-0.157	0.560	0.000	1068.000
σ		0.011	0.474	0.425	0.236	0.100	0.137	0.000	2.328
%RSD		1.137	3.822	3.462	31.990	63.920	24.470	0.000	0.218
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	95.105%	0.829	0.756	90.681%	-0.047	-0.043	0.043	0.022
2	16:44:48	96.920%	0.906	0.908	92.768%	-0.052	-0.044	0.026	0.014
3	16:45:07	97.818%	0.785	0.941	91.837%	-0.048	-0.036	-0.072	-0.055
x		96.615%	0.840	0.868	91.762%	-0.049	-0.041	-0.001	-0.006
σ		1.382%	0.061	0.099	1.045%	0.002	0.004	0.062	0.042
%RSD		1.430	7.302	11.400	1.139	4.905	10.450	4657.000	660.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	91.746%	-0.130	0.442	0.585	45.510	45.180	98.529%	100.104%
2	16:44:48	95.144%	-0.224	0.435	0.478	44.050	44.460	102.560%	102.370%
3	16:45:07	95.701%	-0.118	0.380	0.559	45.580	45.040	103.014%	104.402%
x		94.197%	-0.157	0.419	0.540	45.050	44.890	101.368%	102.292%
σ		2.141%	0.059	0.034	0.056	0.860	0.383	2.469%	2.150%
%RSD		2.273	37.240	8.146	10.290	1.909	0.853	2.435	2.102
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:44:29	0.004	0.011	0.403	0.405	0.421	86.535%		
2	16:44:48	0.010	0.017	0.438	0.384	0.419	88.755%		
3	16:45:07	0.005	0.013	0.438	0.393	0.435	89.223%		
x		0.007	0.014	0.426	0.394	0.425	88.171%		
σ		0.003	0.003	0.020	0.010	0.009	1.436%		
%RSD		46.730	21.800	4.686	2.640	2.020	1.629		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	109.806%	-0.024	229.200	230.200	0.000	42420.000	12870.000	12960.000
2	16:48:36	101.883%	-0.035	243.100	238.700	0.000	44200.000	13480.000	13760.000
3	16:48:55	94.093%	-0.011	241.800	233.600	0.000	46450.000	13680.000	13770.000
x		101.927%	-0.023	238.000	234.200	0.000	44360.000	13340.000	13500.000
σ		7.857%	0.012	7.697	4.288	0.000	2023.000	421.900	465.200
%RSD		7.708	51.290	3.233	1.831	0.000	4.561	3.162	3.446
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	11.160	4037.000	0.000	7501.000	111000.000	110000.000	93.312%	0.655
2	16:48:36	12.200	4242.000	0.000	7717.000	114500.000	114000.000	94.440%	0.632
3	16:48:55	12.310	4493.000	0.000	7808.000	116100.000	113800.000	93.884%	0.842
x		11.890	4257.000	0.000	7676.000	113900.000	112600.000	93.879%	0.710
σ		0.638	228.200	0.000	157.600	2634.000	2274.000	0.564%	0.115
%RSD		5.365	5.361	0.000	2.053	2.313	2.019	0.601	16.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	-2.057	52.980	17.440	53.540	860.700	2.176	15.700	0.975
2	16:48:36	-1.117	54.830	17.460	51.000	823.800	2.080	15.530	0.856
3	16:48:55	1.669	55.000	17.300	50.010	775.800	2.094	15.420	0.967
x		-0.502	54.270	17.400	51.520	820.100	2.117	15.550	0.933
σ		1.938	1.116	0.086	1.822	42.610	0.052	0.146	0.066
%RSD		386.400	2.056	0.494	3.537	5.195	2.435	0.937	7.113
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	0.952	5.080	5.082	-0.501	0.553	0.809	0.000	222.700
2	16:48:36	1.025	5.252	5.416	-0.062	0.220	0.661	0.000	222.200
3	16:48:55	1.040	5.394	4.983	-1.503	0.666	0.812	0.000	224.200
x		1.006	5.242	5.160	-0.689	0.480	0.760	0.000	223.000
σ		0.047	0.158	0.227	0.739	0.232	0.087	0.000	1.050
%RSD		4.696	3.007	4.395	107.300	48.320	11.380	0.000	0.471
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	96.290%	0.510	0.595	93.167%	-0.042	-0.038	0.302	0.242
2	16:48:36	97.383%	0.797	0.870	92.631%	-0.033	-0.033	0.118	0.108
3	16:48:55	95.933%	0.715	0.902	91.985%	-0.041	-0.040	0.121	0.105
x		96.535%	0.674	0.789	92.594%	-0.039	-0.037	0.180	0.152
σ		0.756%	0.148	0.168	0.592%	0.005	0.004	0.105	0.078
%RSD		0.783	21.960	21.340	0.639	12.140	9.816	58.200	51.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	94.151%	-0.247	0.026	0.034	61.700	62.050	99.763%	99.824%
2	16:48:36	96.074%	-0.227	-0.003	0.024	60.620	61.300	102.639%	102.506%
3	16:48:55	96.302%	-0.184	-0.057	0.013	61.610	60.980	102.979%	102.842%
x		95.509%	-0.219	-0.011	0.024	61.310	61.440	101.794%	101.724%
σ		1.182%	0.033	0.042	0.010	0.601	0.548	1.767%	1.654%
%RSD		1.238	14.840	377.100	44.320	0.980	0.892	1.736	1.626
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:48:17	0.021	0.019	0.089	0.052	0.073	90.897%		
2	16:48:36	0.021	0.023	0.073	0.046	0.062	92.221%		
3	16:48:55	0.020	0.018	0.076	0.044	0.069	91.838%		
x		0.021	0.020	0.079	0.047	0.068	91.652%		
σ		0.001	0.003	0.009	0.004	0.006	0.681%		
%RSD		2.674	14.300	11.110	8.273	8.126	0.743		

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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	16:58:52	115.442%	0.982	25.170	25.210	0.000	467.900	461.000	467.600
2	16:59:12	122.907%	0.842	23.500	22.740	0.000	444.700	442.600	455.100
3	16:59:31	116.594%	1.044	24.000	23.760	0.000	470.400	459.000	465.800
x		118.314%	95.585%	121.117%	119.526%	0.000	92.191%	90.836%	92.565%
σ		4.019%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.397	10.810	3.537	5.188	0.000	3.075	2.223	1.455

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	29.380	343.100	0.000	520.300	494.400	477.200	114.081%	4.885
2	16:59:12	28.120	335.800	0.000	511.600	498.300	485.200	113.048%	4.895
3	16:59:31	28.420	351.300	0.000	533.600	553.600	483.700	109.118%	4.729
x		95.462%	68.675%	0.000	104.369%	103.084%	96.407%	112.082%	96.725%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.619%	n/a
%RSD		2.294	2.258	0.000	2.115	6.418	0.882	2.336	1.919

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	1.000	1.962	4.973	55.830	57.790	0.524	0.972	2.106
2	16:59:12	0.969	2.040	4.948	55.550	61.010	0.514	1.118	2.037
3	16:59:31	1.069	2.111	5.098	58.670	63.300	0.532	0.981	2.145
x		101.229%	101.871%	100.127%	113.366%	121.406%	104.634%	102.351%	104.801%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.048	3.664	1.597	3.050	4.562	1.704	8.000	2.622

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	2.327	5.812	6.292	1.098	5.260	5.384	0.000	4.936
2	16:59:12	2.088	6.153	6.157	1.080	4.846	5.328	0.000	4.902
3	16:59:31	2.247	6.384	6.479	1.166	5.275	5.518	0.000	4.874
x		111.045%	122.329%	126.190%	111.463%	102.539%	108.206%	0.000	98.077%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.464	4.707	2.559	4.067	4.749	1.805	0.000	0.627

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	105.403%	4.189	4.108	100.422%	1.039	1.090	0.833	1.074
2	16:59:12	106.741%	4.207	3.978	100.401%	1.060	1.003	1.072	1.155
3	16:59:31	107.053%	4.290	4.121	102.256%	1.077	1.068	1.058	1.140
x		106.399%	84.573%	81.387%	101.026%	105.890%	105.388%	98.739%	112.312%
σ		0.876%	n/a	n/a	1.065%	n/a	n/a	n/a	n/a
%RSD		0.824	1.283	1.942	1.055	1.806	4.285	13.570	3.812

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	99.248%	3.870	1.603	1.582	9.981	9.741	94.656%	93.568%
2	16:59:12	100.661%	3.883	1.612	1.616	9.912	10.500	97.049%	96.778%
3	16:59:31	102.144%	3.883	1.661	1.688	9.990	10.590	99.110%	98.785%
x		100.684%	77.572%	81.247%	81.438%	99.610%	102.769%	96.938%	96.377%
σ		1.448%	n/a	n/a	n/a	n/a	n/a	2.229%	2.631%
%RSD		1.439	0.188	1.918	3.320	0.426	4.542	2.300	2.730

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	1.092	1.045	1.043	1.090	1.038	92.720%
2	16:59:12	1.085	1.052	1.045	1.019	1.050	94.823%
3	16:59:31	1.048	1.056	1.072	1.148	1.125	95.642%
x		107.489%	105.105%	105.314%	108.565%	107.098%	94.395%
σ		n/a	n/a	n/a	n/a	n/a	1.507%
%RSD		2.229	0.517	1.579	5.981	4.403	1.597

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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	17:02:42	111.197%	0.011	3.469	4.123	0.000	978.700	12790.000	12660.000
2	17:03:01	109.670%	-0.011	3.715	3.903	0.000	943.300	12190.000	12170.000
3	17:03:21	112.855%	0.032	4.035	4.301	0.000	907.100	12350.000	12260.000
x		111.241%	0.010	3.740	4.109	0.000	943.000	12440.000	12360.000
σ		1.593%	0.021	0.284	0.199	0.000	35.810	310.200	262.200
%RSD		1.432	204.000	7.585	4.848	0.000	3.797	2.493	2.120

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	19.960	790.000	0.000	2916.000	26450.000	25340.000	105.892%	-0.063
2	17:03:01	19.880	778.700	0.000	2819.000	25520.000	25120.000	106.248%	-0.064
3	17:03:21	18.590	740.800	0.000	2808.000	25840.000	25410.000	104.940%	-0.119
x		19.480	769.800	0.000	2848.000	25940.000	25290.000	105.693%	-0.082
σ		0.771	25.750	0.000	59.400	474.700	149.400	0.676%	0.032
%RSD		3.960	3.345	0.000	2.086	1.830	0.591	0.640	39.040

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.099	0.071	2818.000	26490.000	25750.000	20.420	4.446	11.030
2	17:03:01	0.174	0.108	2850.000	26690.000	26020.000	21.010	4.409	11.050
3	17:03:21	-0.197	0.114	2878.000	27300.000	26850.000	21.230	4.530	11.260
x		0.026	0.097	2849.000	26830.000	26210.000	20.890	4.462	11.110
σ		0.196	0.024	30.400	420.700	574.500	0.420	0.062	0.128
%RSD		766.000	24.110	1.067	1.568	2.192	2.008	1.389	1.154

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	11.200	413.400	411.600	-0.100	0.074	1.039	0.000	110.700
2	17:03:01	11.440	416.300	413.800	0.079	0.314	0.643	0.000	113.300
3	17:03:21	11.580	421.600	421.800	-0.159	0.206	0.564	0.000	113.100
x		11.410	417.100	415.700	-0.060	0.198	0.749	0.000	112.400
σ		0.193	4.164	5.381	0.124	0.120	0.255	0.000	1.441
%RSD		1.694	0.998	1.294	206.200	60.590	34.020	0.000	1.282

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.000	0.282	0.326	98.986%	-0.034	-0.033	0.440	0.318
2	17:03:01	0.000	0.442	0.510	99.207%	-0.035	-0.039	0.363	0.315
3	17:03:21	0.000	0.510	0.397	101.045%	-0.046	-0.043	0.289	0.330
x		0.000	0.411	0.411	99.746%	-0.038	-0.038	0.364	0.321
σ		0.000	0.117	0.093	1.130%	0.007	0.005	0.075	0.008
%RSD		0.000	28.510	22.640	1.133	18.340	13.330	20.650	2.534

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	98.378%	-0.306	-0.432	-0.440	3.478	3.597	97.670%	96.861%
2	17:03:01	98.491%	-0.260	-0.431	-0.415	3.375	3.689	100.036%	99.759%
3	17:03:21	100.327%	-0.237	-0.433	-0.429	3.519	3.606	100.676%	101.676%
x		99.065%	-0.268	-0.432	-0.428	3.457	3.631	99.461%	99.432%
σ		1.094%	0.035	0.001	0.013	0.075	0.051	1.583%	2.424%
%RSD		1.104	13.090	0.195	2.973	2.155	1.393	1.592	2.438

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.022	0.031	-0.001	-0.005	-0.000	106.410%
2	17:03:01	0.026	0.032	0.002	-0.009	-0.002	100.634%
3	17:03:21	0.022	0.036	0.002	-0.006	-0.002	98.669%
x		0.023	0.033	0.001	-0.007	-0.001	101.904%
σ		0.002	0.003	0.002	0.002	0.001	4.024%
%RSD		10.510	8.752	149.800	29.540	85.120	3.948

180-44258-B-1-A SD@50 6/2/2015 5:06:11 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	115.691%	-0.053	2.192	2.565	0.000	197.300	2570.000	2526.000
2	17:06:50	115.096%	-0.022	2.741	2.740	0.000	195.300	2584.000	2481.000
3	17:07:09	118.450%	-0.049	2.390	2.394	0.000	190.500	2453.000	2422.000
x		116.412%	-0.041	2.441	2.566	0.000	194.400	2536.000	2476.000
σ		1.790%	0.017	0.278	0.173	0.000	3.508	71.800	52.500
%RSD		1.537	39.910	11.380	6.745	0.000	1.805	2.831	2.120
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	4.037	39.730	0.000	582.000	5205.000	4614.000	112.367%	-0.171
2	17:06:50	3.948	46.670	0.000	588.000	5031.000	4822.000	109.748%	-0.234
3	17:07:09	4.165	35.250	0.000	562.900	5116.000	4677.000	110.371%	-0.158
x		4.050	40.550	0.000	577.600	5117.000	4705.000	110.829%	-0.188
σ		0.109	5.752	0.000	13.110	87.220	106.600	1.368%	0.041
%RSD		2.694	14.180	0.000	2.269	1.704	2.266	1.235	21.790
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	0.017	0.038	552.700	5357.000	5160.000	3.985	0.818	2.152
2	17:06:50	0.134	0.037	566.800	5392.000	5225.000	4.063	0.847	2.229
3	17:07:09	-0.013	0.005	567.900	5407.000	5233.000	4.221	0.947	2.173
x		0.046	0.026	562.500	5385.000	5206.000	4.090	0.870	2.184
σ		0.078	0.019	8.497	25.720	40.170	0.120	0.068	0.040
%RSD		168.900	71.080	1.511	0.478	0.772	2.942	7.776	1.823
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	2.244	83.140	82.330	-0.086	-0.304	0.206	0.000	21.720
2	17:06:50	2.289	84.740	84.990	-0.072	-0.045	0.156	0.000	22.270
3	17:07:09	2.342	84.540	87.240	0.003	0.004	0.439	0.000	22.450
x		2.292	84.140	84.850	-0.052	-0.115	0.267	0.000	22.150
σ		0.049	0.873	2.458	0.048	0.166	0.151	0.000	0.377
%RSD		2.134	1.037	2.896	92.460	144.100	56.600	0.000	1.700
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	0.000	0.041	0.052	102.028%	-0.049	-0.042	0.112	0.103
2	17:06:50	0.000	0.084	0.201	102.370%	-0.050	-0.046	0.049	0.052
3	17:07:09	0.000	0.222	0.256	102.373%	-0.035	-0.041	0.100	0.048
x		0.000	0.116	0.170	102.257%	-0.045	-0.043	0.087	0.068
σ		0.000	0.095	0.106	0.198%	0.009	0.003	0.033	0.031
%RSD		0.000	81.840	62.340	0.194	19.780	6.533	38.100	45.340
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	99.954%	-0.491	-0.459	-0.441	0.696	0.768	96.397%	95.347%
2	17:06:50	102.375%	-0.432	-0.444	-0.431	0.714	0.747	99.443%	98.257%
3	17:07:09	102.924%	-0.420	-0.457	-0.440	0.720	0.708	100.761%	99.824%
x		101.751%	-0.448	-0.454	-0.437	0.710	0.741	98.867%	97.810%
σ		1.580%	0.038	0.008	0.006	0.013	0.031	2.239%	2.272%
%RSD		1.553	8.416	1.779	1.318	1.761	4.152	2.264	2.323
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:06:30	0.010	0.007	-0.005	-0.002	-0.003	100.445%		
2	17:06:50	0.001	0.008	0.002	0.000	0.001	98.516%		
3	17:07:09	0.006	0.006	-0.005	-0.001	0.001	98.282%		
x		0.006	0.007	-0.003	-0.001	-0.000	99.081%		
σ		0.004	0.001	0.004	0.001	0.002	1.187%		
%RSD		77.940	20.450	161.000	122.800	438.600	1.199		

180-44258-B-1-B MS @10 6/2/2015 5:09:59 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	17:10:18	115.988%	4.503	103.700	96.270	0.000	5359.000	16920.000	16590.000
2	17:10:38	116.563%	4.536	105.200	96.890	0.000	5328.000	16930.000	16840.000
3	17:10:57	111.086%	4.341	103.800	96.740	0.000	5446.000	17470.000	16990.000
x		114.545%	4.460	104.200	96.640	0.000	5378.000	17110.000	16810.000
σ		3.010%	0.105	0.818	0.323	0.000	61.430	314.700	200.200
%RSD		2.628	2.343	0.785	0.335	0.000	1.142	1.840	1.191
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	180.000	1676.000	0.000	7302.000	30350.000	29130.000	107.548%	89.880
2	17:10:38	180.100	1694.000	0.000	7278.000	29400.000	28880.000	109.313%	88.240
3	17:10:57	183.900	1706.000	0.000	7488.000	30040.000	29600.000	107.252%	92.420
x		181.300	1692.000	0.000	7356.000	29930.000	29200.000	108.038%	90.180
σ		2.201	14.810	0.000	115.000	485.500	368.400	1.115%	2.107
%RSD		1.214	0.875	0.000	1.563	1.622	1.262	1.032	2.336
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	45.230	18.700	2834.000	26940.000	26170.000	67.320	54.340	34.840
2	17:10:38	43.350	18.160	2771.000	25880.000	25210.000	65.280	51.200	33.570
3	17:10:57	45.520	18.580	2820.000	26520.000	25700.000	66.760	52.990	35.490
x		44.700	18.480	2809.000	26450.000	25690.000	66.450	52.850	34.630
σ		1.178	0.286	33.030	536.400	480.900	1.057	1.575	0.978
%RSD		2.636	1.547	1.176	2.028	1.872	1.590	2.981	2.824
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	35.570	446.200	445.000	3.377	0.759	1.424	0.000	200.000
2	17:10:38	34.840	447.400	446.700	3.561	1.230	1.576	0.000	200.100
3	17:10:57	34.770	455.800	458.700	3.499	0.814	1.923	0.000	202.300
x		35.060	449.800	450.100	3.479	0.935	1.641	0.000	200.800
σ		0.442	5.260	7.495	0.094	0.258	0.256	0.000	1.262
%RSD		1.260	1.169	1.665	2.701	27.550	15.590	0.000	0.629
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	0.000	88.990	89.050	97.754%	4.527	4.618	4.942	4.693
2	17:10:38	0.000	91.810	91.250	99.040%	4.488	4.565	4.763	4.678
3	17:10:57	0.000	91.720	91.960	100.007%	4.421	4.457	4.987	4.393
x		0.000	90.840	90.750	98.933%	4.478	4.547	4.897	4.588
σ		0.000	1.604	1.518	1.130%	0.053	0.082	0.118	0.169
%RSD		0.000	1.766	1.673	1.142	1.187	1.809	2.416	3.679
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	95.420%	176.500	46.890	46.560	183.000	183.600	95.150%	95.290%
2	17:10:38	99.544%	175.100	46.100	45.700	181.000	181.600	97.770%	98.317%
3	17:10:57	100.435%	173.900	45.790	46.340	178.100	180.800	100.645%	100.390%
x		98.466%	175.200	46.260	46.200	180.700	182.000	97.855%	97.999%
σ		2.675%	1.296	0.564	0.448	2.424	1.413	2.748%	2.565%
%RSD		2.717	0.740	1.220	0.970	1.341	0.776	2.809	2.617
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:10:18	4.329	4.377	1.883	1.907	1.811	96.074%		
2	17:10:38	4.625	4.587	1.906	1.882	1.898	94.567%		
3	17:10:57	4.666	4.727	1.943	1.976	1.947	95.032%		
x		4.540	4.563	1.911	1.922	1.885	95.224%		
σ		0.184	0.176	0.030	0.049	0.069	0.771%		
%RSD		4.050	3.864	1.571	2.545	3.659	0.810		

180-44258-B-1-C MSD @10 6/2/2015 5:13:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	116.850%	4.712	99.980	95.650	0.000	5367.000	17010.000	16810.000
2	17:14:25	116.888%	4.519	106.600	101.900	0.000	5522.000	17380.000	17020.000
3	17:14:45	109.856%	4.934	106.100	100.500	0.000	5528.000	17740.000	17550.000
x		114.531%	4.722	104.200	99.320	0.000	5472.000	17380.000	17130.000
σ		4.049%	0.208	3.691	3.256	0.000	91.280	369.000	382.000
%RSD		3.535	4.400	3.541	3.279	0.000	1.668	2.123	2.231

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	183.400	1707.000	0.000	7378.000	29640.000	29490.000	107.501%	89.740
2	17:14:25	184.000	1735.000	0.000	7629.000	30710.000	30080.000	106.072%	90.870
3	17:14:45	185.100	1730.000	0.000	7538.000	30320.000	30480.000	108.203%	91.650
x		184.200	1724.000	0.000	7515.000	30220.000	30010.000	107.258%	90.750
σ		0.857	15.050	0.000	127.000	543.200	497.200	1.086%	0.961
%RSD		0.465	0.873	0.000	1.690	1.797	1.656	1.012	1.059

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	46.000	18.800	2869.000	26790.000	26110.000	68.810	53.790	34.800
2	17:14:25	46.540	18.590	2894.000	27190.000	26350.000	66.880	54.380	35.690
3	17:14:45	46.450	18.910	2817.000	26660.000	26100.000	67.060	53.120	34.680
x		46.330	18.770	2860.000	26880.000	26190.000	67.580	53.770	35.060
σ		0.291	0.160	39.190	279.000	138.700	1.065	0.630	0.552
%RSD		0.628	0.852	1.370	1.038	0.530	1.575	1.171	1.576

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	35.370	453.300	454.600	3.509	1.053	1.636	0.000	202.000
2	17:14:25	36.860	464.300	464.600	3.619	0.829	1.708	0.000	205.100
3	17:14:45	35.570	459.100	459.300	3.788	1.408	1.549	0.000	204.100
x		35.930	458.900	459.500	3.639	1.097	1.631	0.000	203.800
σ		0.806	5.480	4.981	0.140	0.292	0.080	0.000	1.576
%RSD		2.242	1.194	1.084	3.850	26.640	4.876	0.000	0.773

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	0.000	94.750	93.690	99.596%	4.551	4.484	4.914	4.416
2	17:14:25	0.000	94.880	95.750	101.965%	4.528	4.517	4.866	4.432
3	17:14:45	0.000	96.180	96.830	102.404%	4.505	4.778	4.803	4.425
x		0.000	95.270	95.420	101.322%	4.528	4.593	4.861	4.424
σ		0.000	0.794	1.595	1.511%	0.023	0.161	0.056	0.008
%RSD		0.000	0.834	1.672	1.491	0.508	3.506	1.144	0.178

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	97.822%	180.300	47.180	47.170	182.900	187.300	98.155%	98.246%
2	17:14:25	100.787%	180.100	46.790	47.560	183.900	183.200	101.058%	101.748%
3	17:14:45	102.073%	182.200	47.270	47.680	184.600	185.400	104.298%	103.504%
x		100.227%	180.900	47.080	47.470	183.800	185.300	101.171%	101.166%
σ		2.180%	1.200	0.252	0.265	0.845	2.073	3.073%	2.677%
%RSD		2.175	0.663	0.535	0.559	0.460	1.119	3.037	2.646

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	4.624	4.437	1.798	1.873	1.871	97.634%
2	17:14:25	4.749	4.767	1.939	1.968	1.927	96.122%
3	17:14:45	4.881	4.899	1.929	1.977	1.978	96.669%
x		4.752	4.701	1.889	1.939	1.925	96.808%
σ		0.128	0.238	0.079	0.058	0.054	0.766%
%RSD		2.700	5.061	4.161	2.972	2.794	0.791

CCV 1594026 6/2/2015 5:17:42 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	17:17:42	111.333%	100.700	105.200	106.600	0.000	47170.000	45720.000	46110.000
2	17:18:02	108.234%	101.100	111.400	102.900	0.000	49790.000	48660.000	47800.000
3	17:18:21	106.623%	101.000	110.000	104.700	0.000	48290.000	47940.000	48300.000
x		108.730%	100.961%	108.869%	104.732%	0.000	96.837%	94.877%	94.807%
σ		2.394%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.201	0.201	2.967	1.762	0.000	2.713	3.233	2.422
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	465.000	5048.000	0.000	48860.000	48320.000	48940.000	107.885%	97.800
2	17:18:02	478.900	5229.000	0.000	50790.000	49720.000	49740.000	107.625%	99.340
3	17:18:21	462.500	5125.000	0.000	52100.000	51650.000	49960.000	105.519%	98.050
x		93.759%	102.676%	0.000	101.167%	99.794%	99.097%	107.009%	98.396%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.297%	n/a
%RSD		1.885	1.767	0.000	3.226	3.352	1.082	1.212	0.841
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	96.380	97.630	503.200	24800.000	24660.000	98.980	100.600	97.390
2	17:18:02	96.820	97.880	495.500	24630.000	23930.000	97.610	100.200	96.470
3	17:18:21	100.500	101.400	497.300	25030.000	24550.000	97.730	99.810	99.120
x		97.911%	98.977%	99.735%	99.280%	97.512%	98.107%	100.201%	97.659%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.335	2.137	0.804	0.803	1.596	0.774	0.416	1.381
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	97.450	90.620	90.370	94.720	95.740	95.650	0.000	91.840
2	17:18:02	95.150	90.730	90.390	94.000	96.150	97.030	0.000	92.890
3	17:18:21	96.990	92.960	92.250	95.820	96.370	94.710	0.000	92.760
x		96.529%	91.436%	91.003%	94.844%	96.087%	95.796%	0.000	92.497%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.261	1.442	1.187	0.965	0.332	1.219	0.000	0.619
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	101.785%	96.620	97.690	96.109%	94.370	94.780	95.880	98.010
2	17:18:02	102.889%	99.400	99.790	96.860%	95.830	96.990	98.440	97.390
3	17:18:21	103.542%	98.580	99.030	97.232%	96.320	97.470	97.750	98.920
x		102.739%	98.201%	98.837%	96.734%	95.507%	96.414%	97.358%	98.103%
σ		0.888%	n/a	n/a	0.572%	n/a	n/a	n/a	n/a
%RSD		0.865	1.453	1.074	0.591	1.061	1.491	1.356	0.785
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	87.900%	99.280	91.800	90.660	96.080	96.040	92.051%	90.657%
2	17:18:02	90.562%	100.100	90.860	91.030	95.770	97.040	93.366%	92.805%
3	17:18:21	90.210%	101.200	92.240	92.330	97.070	97.900	94.224%	94.522%
x		89.557%	100.177%	91.633%	91.339%	96.308%	96.992%	93.214%	92.661%
σ		1.446%	n/a	n/a	n/a	n/a	n/a	1.094%	1.936%
%RSD		1.614	0.950	0.768	0.957	0.706	0.958	1.174	2.090
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:17:42	92.750	92.370	91.850	91.010	91.970	89.738%		
2	17:18:02	96.300	96.610	97.000	96.910	97.390	88.935%		
3	17:18:21	98.970	98.880	99.400	99.650	99.840	87.312%		
x		96.008%	95.952%	96.085%	95.858%	96.401%	88.662%		
σ		n/a	n/a	n/a	n/a	n/a	1.236%		
%RSD		3.249	3.446	4.013	4.602	4.178	1.394		

CCB9 6/2/2015 5:24:11 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

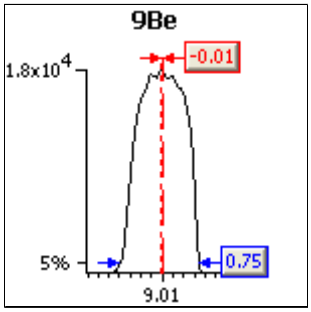
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	112.676%	-0.044	2.044	2.027	0.000	3.485	1.045	0.993
2	17:24:49	117.098%	-0.053	1.641	1.836	0.000	3.092	0.392	0.479
3	17:25:09	118.215%	-0.053	1.880	1.809	0.000	2.906	0.238	0.536
x		115.996%	-0.050	1.855	1.890	0.000	3.161	0.558	0.670
σ		2.929%	0.006	0.203	0.119	0.000	0.296	0.428	0.282
%RSD		2.525	11.060	10.930	6.275	0.000	9.357	76.730	42.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	-0.311	-149.100	0.000	17.270	7.745	2.074	115.789%	-0.194
2	17:24:49	-0.364	-148.300	0.000	16.860	6.943	2.734	112.961%	-0.107
3	17:25:09	-0.302	-148.100	0.000	16.950	1.796	2.383	111.022%	-0.202
x		-0.326	-148.500	0.000	17.030	5.495	2.397	113.257%	-0.168
σ		0.033	0.522	0.000	0.212	3.228	0.330	2.397%	0.053
%RSD		10.270	0.351	0.000	1.243	58.750	13.770	2.116	31.410
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	0.017	0.009	0.009	9.960	10.880	-0.003	-0.031	-0.035
2	17:24:49	-0.042	-0.019	0.015	10.430	10.740	0.002	-0.075	-0.015
3	17:25:09	0.002	-0.034	0.003	9.458	9.072	-0.005	-0.084	-0.026
x		-0.008	-0.015	0.009	9.948	10.230	-0.002	-0.063	-0.025
σ		0.031	0.022	0.006	0.484	1.007	0.004	0.029	0.010
%RSD		402.600	147.200	64.610	4.870	9.846	163.200	45.290	38.550
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	-0.004	0.089	0.018	-0.111	0.041	0.080	0.000	0.004
2	17:24:49	0.014	0.039	0.101	0.011	0.324	0.432	0.000	0.002
3	17:25:09	0.020	0.079	0.040	-0.030	0.453	0.336	0.000	0.002
x		0.010	0.069	0.053	-0.043	0.272	0.283	0.000	0.003
σ		0.013	0.027	0.043	0.062	0.211	0.182	0.000	0.001
%RSD		126.400	38.430	80.880	143.000	77.300	64.390	0.000	54.150
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	102.205%	0.793	0.711	100.540%	-0.044	-0.045	0.064	0.047
2	17:24:49	104.588%	0.872	1.078	102.836%	-0.043	-0.036	0.060	0.044
3	17:25:09	105.118%	0.934	1.055	102.620%	-0.048	-0.028	0.126	0.084
x		103.970%	0.866	0.948	101.999%	-0.045	-0.036	0.083	0.058
σ		1.552%	0.071	0.206	1.267%	0.003	0.008	0.037	0.022
%RSD		1.492	8.182	21.690	1.243	6.071	22.840	44.420	38.290
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	96.975%	-0.223	0.461	0.460	-0.017	0.014	90.986%	90.364%
2	17:24:49	99.603%	-0.169	0.566	0.492	0.003	0.009	92.862%	91.870%
3	17:25:09	101.187%	-0.184	0.492	0.500	0.002	0.013	95.176%	94.596%
x		99.255%	-0.192	0.506	0.484	-0.004	0.012	93.008%	92.277%
σ		2.127%	0.028	0.054	0.021	0.011	0.002	2.099%	2.145%
%RSD		2.143	14.650	10.630	4.432	296.600	19.160	2.257	2.325
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:24:30	0.022	0.024	-0.004	-0.002	-0.000	94.671%		
2	17:24:49	0.032	0.020	-0.010	0.006	-0.000	94.083%		
3	17:25:09	0.019	0.022	-0.010	-0.007	-0.004	95.150%		
x		0.024	0.022	-0.008	-0.001	-0.002	94.635%		
σ		0.007	0.002	0.003	0.007	0.002	0.534%		
%RSD		27.880	7.630	42.440	745.000	137.400	0.565		

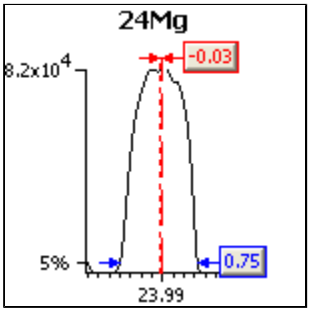
Performance Report

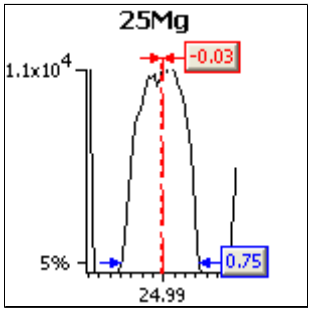
Sample details
Sample name : ITUNE
Acquired at : 6/2/2015 7:51:22 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

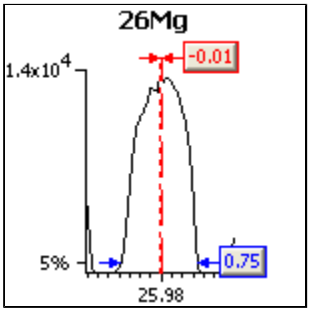
Mass Calibration verification

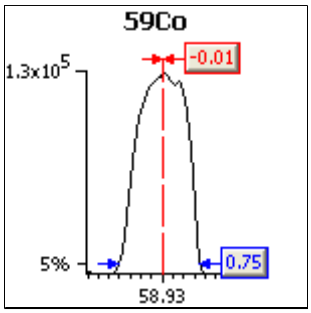
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

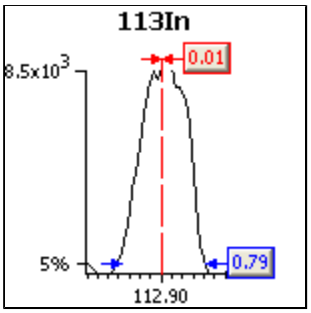


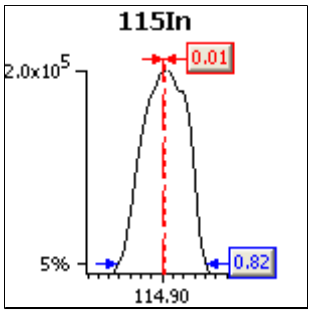


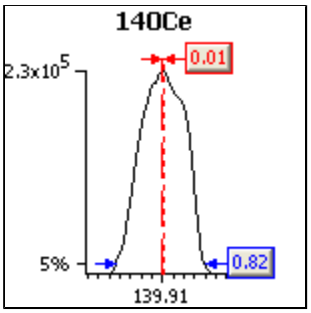


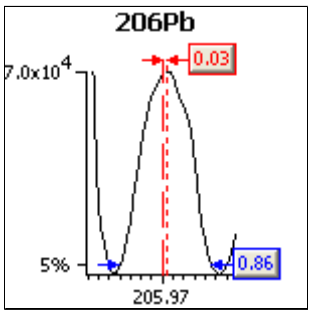


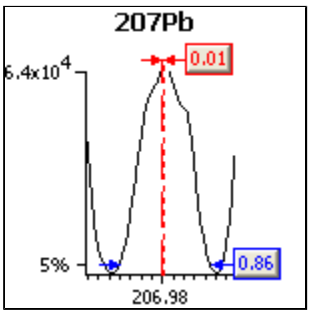


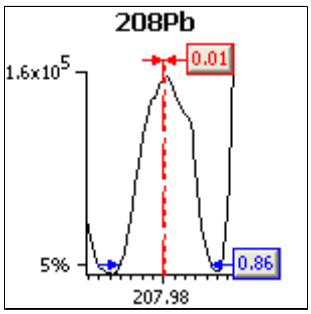












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.75	-0.01
24Mg	0.90	0.45	0.10	0.75	-0.03
25Mg	0.90	0.45	0.10	0.75	-0.03
26Mg	0.90	0.45	0.10	0.75	-0.01
59Co	0.90	0.45	0.10	0.75	-0.01
113In	0.90	0.45	0.10	0.79	0.01
115In	0.90	0.45	0.10	0.82	0.01
140Ce	0.90	0.45	0.10	0.82	0.01
206Pb	0.90	0.45	0.10	0.86	0.03
207Pb	0.90	0.45	0.10	0.86	0.01
208Pb	0.90	0.45	0.10	0.86	0.01

Sample details
Sample name : ITUNE
Acquired at : 6/2/2015 7:51:22 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-129
Lens 1	0.3
Focus	26.7
D1	-42.4
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.89
Sampling Depth	150

Minor	
Lens 2	-32.2
Lens 3	-163.9
Forward power	1404
Horizontal	74
Vertical	405
D2	-160
DA	-80.0
Cool	13.0
Auxiliary	0.90

Global	
Standard resolution	n/a
High resolution	n/a
Analogue Detector	n/a
PC Detector	n/a

Add. Gases	
He/H2	0.00
He/NH3	0.00

Sensitivity and stability results

Acquisition parameters
Sweeps : 150

Run	Time	5Bkg	9Be	24Mg	25Mg	26Mg	56Ar O	59Co	137Ba++
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	5.0%	5.0%	5.0%	5.0%	-	5.0%	-
	Countrate	-	>500	>500	>500	>500	-	>5000	-
1	7:52:09 AM	0	17076	80050	10592	12275	464139	125520	3
2	7:53:35 AM	0	16864	78627	10204	12110	455287	124140	3
3	7:55:00 AM	0	17123	79430	10346	12036	456847	123156	5
4	7:56:25 AM	0	17252	81320	10897	12570	454626	123618	19
5	7:57:50 AM	0	17139	80554	10727	12633	455508	123950	13
x		0	17091	79996	10553	12325	457282	124077	9
σ		0.06	142.26	1032.54	280.63	268.08	3917.25	889.28	7.26
%RSD		69.722	0.832	1.291	2.659	2.175	0.857	0.717	82.538

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:52:09 AM	34	0	9313	209367	1665	240122	3291	74912
2	7:53:35 AM	33	0	9182	209309	1583	239512	3246	74326
3	7:55:00 AM	55	0	9140	208557	2286	238962	3269	73757
4	7:56:25 AM	99	0	9444	208628	4232	238856	3194	75023
5	7:57:50 AM	99	0	9393	209974	3995	239080	3277	75083
x		64	0	9295	209167	2752	239307	3255	74620
σ		33.12	0.06	131.31	586.23	1275.06	519.76	37.88	568.54
%RSD		51.865	69.722	1.413	0.280	46.331	0.217	1.164	0.762

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:52:09 AM	68241	160547	0
2	7:53:35 AM	68368	161200	0
3	7:55:00 AM	67694	159605	0
4	7:56:25 AM	67958	161544	0
5	7:57:50 AM	68684	161749	0
x		68189	160929	0
σ		380.10	869.39	0.07
%RSD		0.557	0.540	136.931

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:52:09 AM	0
2	7:53:35 AM	0

3	7:55:00 AM	0
4	7:56:25 AM	0
5	7:57:50 AM	0
x		0.0136
σ		0.00
%RSD		1.0547

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Batch Number: 142252 Batch Start Date: 05/20/15 13:10 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/20/15 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-142252/1		3005A, 6020A		50 mL	50 mL				
LCS 180-142252/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44248-B-1	HD-MW-99D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-2	HD-MW-100S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-2 MS	HD-MW-100S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44248-B-2 MSD	HD-MW-100S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44248-B-3	HD-MW-100I-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-4	HD-MW-100D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-5	HD-MW-147A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-6	HD-MW-37S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-7	HD-MW-37D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-8	HD-MW-75S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-9	HD-MW-75D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44248-B-10	HD-MW-7-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals A2
First End time	17:10
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	13:10
ID number of the thermometer	IP2-14 CF=0.0 A2
Digestion Tube/Cup Lot #	1408268
Uncorrected Temperature	95 Celsius

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Batch Number: 142252 Batch Start Date: 05/20/15 13:10 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/20/15 17:10

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: 180-44248-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-99D-0/1-0	180-44248-1
HD-MW-100S-0/1-0	180-44248-2
HD-MW-100I-0/1-0	180-44248-3
HD-MW-100D-0/1-0	180-44248-4
HD-MW-147A-0/1-0	180-44248-5
HD-MW-37S-0/1-0	180-44248-6
HD-MW-37D-0/1-0	180-44248-7
HD-MW-75S-0/1-0	180-44248-8
HD-MW-75D-0/1-0	180-44248-9
HD-MW-7-0/1-0	180-44248-10

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-99D-0/1-0 Lab Sample ID: 180-44248-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 09:30

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-100S-0/1-0 Lab Sample ID: 180-44248-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:20

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-100I-0/1-0 Lab Sample ID: 180-44248-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:55

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-100D-0/1-0 Lab Sample ID: 180-44248-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 11:45

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-147A-0/1-0 Lab Sample ID: 180-44248-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 12:30

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-37S-0/1-0 Lab Sample ID: 180-44248-6

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 09:00

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	270	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	270	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-37D-0/1-0 Lab Sample ID: 180-44248-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 10:17

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-75S-0/1-0 Lab Sample ID: 180-44248-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 12:36

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	220	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	220	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-75D-0/1-0 Lab Sample ID: 180-44248-9

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 11:48

Reporting Basis: WET Date Received: 05/20/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-7-0/1-0 Lab Sample ID: 180-44248-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG ID.:

Matrix: Water Date Sampled: 05/19/2015 15:00

Reporting Basis: WET Date Received: 05/20/2015 09:00

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	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Analyst: CLL Batch Start Date: 05/27/2015

Reporting Units: mg/L Analytical Batch No.: 142826

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:19	Total Alkalinity as CaCO3 to pH 4.5	137	125	109	80-120		WALK125PPMCCV_00085
14	CCB	05:19	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
25	CCV	05:19	Total Alkalinity as CaCO3 to pH 4.5	135	125	108	80-120		WALK125PPMCCV_00085
26	CCB	05:19	Total Alkalinity as CaCO3 to pH 4.5	4.02				J	
			Bicarbonate Alkalinity as CaCO3	4.02				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Analyst: CLL Batch Start Date: 05/27/2015

Reporting Units: mg/L Analytical Batch No.: 142828

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:22	Total Alkalinity as CaCO3 to pH 4.5	135	125	108	80-120		WALK125PPMCCV_00085
14	CCB	05:22	Total Alkalinity as CaCO3 to pH 4.5	4.02				J	
			Bicarbonate Alkalinity as CaCO3	4.02				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 142826 Date: 05/27/2015 05:19							
SM 2320B	MB 180-142826/2	Total Alkalinity as CaCO3 to pH 4.5	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142826/2	Bicarbonate Alkalinity as CaCO3	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142826/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
Batch ID: 142828 Date: 05/27/2015 05:22							
SM 2320B	MB 180-142828/2	Total Alkalinity as CaCO3 to pH 4.5	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142828/2	Bicarbonate Alkalinity as CaCO3	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142828/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 142826 Date: 05/27/2015 05:19								
SM 2320B	HD-MW-100I-0/1-0	180-44248-3	Total Alkalinity as CaCO3 to pH 4.5	210	mg/L			
SM 2320B	HD-MW-100I-0/1-0	180-44248-3 DU	Total Alkalinity as CaCO3 to pH 4.5	221	mg/L	4	20	
SM 2320B	HD-MW-100I-0/1-0	180-44248-3	Bicarbonate Alkalinity as CaCO3	210	mg/L			
SM 2320B	HD-MW-100I-0/1-0	180-44248-3 DU	Bicarbonate Alkalinity as CaCO3	221	mg/L	4	20	
SM 2320B	HD-MW-100I-0/1-0	180-44248-3	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-100I-0/1-0	180-44248-3 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 142826	Date: 05/27/2015 05:19										
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-142826/1	Total Alkalinity as CaCO3 to pH 4.5	261		mg/L	250	105	80-120			
Batch ID: 142828	Date: 05/27/2015 05:22										
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-142828/1	Total Alkalinity as CaCO3 to pH 4.5	259		mg/L	250	104	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-44248-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B MDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-44248-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2320B XMDL Date: 01/27/2011 15:49

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bicarbonate Alkalinity as CaCO3		5	0.4111
Carbonate Alkalinity as CaCO3		5	0.4111
Total Alkalinity as CaCO3 to pH 4.5		5	0.4111

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh　　Job No.: 180-44248-1

SDG No.:

Instrument ID: NOEQUIP　　Analysis Method: SM 2320B

Start Date: 05/27/2015 05:19　　End Date: 05/27/2015 05:19

Lab Sample Id	D/F	Type	Time	Analytes: Alk	BALKCC	CarAlk
LCS 180-142826/1	1	T	05:19	X		
MB 180-142826/2	1	T	05:19	X	X	X
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
ZZZZZZ			05:19			
CCV 180-142826/13	1		05:19	X		
CCB 180-142826/14	1		05:19	X	X	X
180-44248-1	1	T	05:19	X	X	X
180-44248-2	1	T	05:19	X	X	X
180-44248-3	1	T	05:19	X	X	X
180-44248-3 DU	1	T	05:19	X	X	X
180-44248-4	1	T	05:19	X	X	X
180-44248-5	1	T	05:19	X	X	X
180-44248-6	1	T	05:19	X	X	X
180-44248-7	1	T	05:19	X	X	X
180-44248-8	1	T	05:19	X	X	X
180-44248-9	1	T	05:19	X	X	X
CCV 180-142826/25	1		05:19	X		
CCB 180-142826/26	1		05:19	X	X	X

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh   Job No.: 180-44248-1

SDG No.:

Instrument ID: NOEQUIP   Analysis Method: SM 2320B

Start Date: 05/27/2015 05:22   End Date: 05/27/2015 05:22

Lab Sample Id	D/F	Type	Time	Analytes		
				Alk	BALKCC	CarAlk
LCS 180-142828/1	1	T	05:22	X		
MB 180-142828/2	1	T	05:22	X	X	X
180-44248-10	1	T	05:22	X	X	X
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
ZZZZZZ			05:22			
CCV 180-142828/13	1		05:22	X		
CCB 180-142828/14	1		05:22	X	X	X

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

File# 052715ALK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-022

Analyst: CLLahuzle **Date:** 5-27-15

Reviewed By: SeeDKC **Date:** ~~[illegible]~~ 27-15

pH Meter ID: Accumet XL S/N#94102132 **AD Batch:** 142826-142828

pH 4 Start: 4.00 **pH 4 End:** 4.03

Job Number(s): 44206-44248-44249-44258-44261-44311
44387

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)(N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

CO_3^{2} = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	CO_3^{2}	HCO_3
P = 0	0	0	T
P < ½T	0	2P	T-2P
P = ½T	0	2P	0
P > ½T	2P-T	2(T-P)	0
P = T	T	0	0

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.92	50	6.8	13.0	0.0201	261.3				
MB	5.39		0	0.1		2.01				
180-44387-1	2.80		0	0		ND				
2	2.74		0	0		ND				
3	6.77		0	1.0		20.1				
4	8.63		3.6	11.3		227.13				
180-44206-1	10.13		2.3	11.8		237.18				
2	6.33		0	4.1		82.41				
3	6.19		0	3.3		66.33				
180-44311-1	8.41		0.1	3.2		64.32				
-1X	8.40		0.1	3.4		68.34				
-2	6.82		0	8.3		166.83				
CCV	10.76		3.4	6.8		136.68				
CCB	5.31		0	0.1		2.01				
180-44348-1	7.47		0	10.8		217.08				
2	7.72		0	12.6		253.26				
3	7.65		0	10.6		213.06				
3X	7.59		0	11.0		221.10				
4	7.67		0	11.7		235.17				
5	7.61		0	10.8		217.08				
6	7.54		0	13.3		267.33				
7	7.48		0	11.8		237.18				
8	7.68		0	10.7		215.07				
9	7.75		0	10.2		205.02				
CCV	10.71		3.5	6.7		134.67				
CCB	5.43		0	0.2		4.02				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-022

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.98	50	6.7	12.9	.0201	259.29				
MB	5.43		0	0.1		2.01				
180-44248-10	7.56		0	7.2		144.72				
180-44249-1	6.34		0	2.8		56.28				
2	7.89		0	10.6		213.06				
2X	7.81		0	11.0		221.1				
-3	7.46		0	16.6		333.66				
180-44258-1	4.47		0	0		ND				
2	8.39		0.1	4.3		88.44				
3	6.96		0	1.0		20.1				
180-44261-1	3.34		0	0		ND				
-2	7.35		0	1.0		20.1				
CCV	10.82		3.5	6.7		134.67				
CCB	5.63		0	0.2		4.02				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

File# 052715ALK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-022

Analyst: ChLahuyde **Date:** 5-27-15
Reviewed By: SeeDKC **Date:** ~~ou~~ 5-27-15
pH Meter ID: Accumet XL S/N#94102132 **AD Batch:** 142826-142828
pH 4 Start: 4.00 **pH 4 End:** 4.03

Job Number(s): 44206-44248-44249-44258-44261-44311
44387

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)(N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

CO_3^{2} = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	CO_3^{2}	HCO_3	Results	OH^-	CO_3^{2}	HCO_3
P = 0	0	0	T	P = ½T	0	2P	0
P < ½T	0	2P	T-2P	P > ½T	2P-T	2(T-P)	0
				P = T	T	0	0

ChLahuyde

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.92	50	6.8	13.0	0.0201	261.3				
MB	5.39		0	0.1		2.01				
180-44387-1	2.80		0	0		ND				
2	2.74		0	0		ND				
3	6.77		0	1.0		20.1				
4	8.63		3.6	11.3		227.13				
180-44206-1	10.13		2.3	11.8		237.18				
2	6.33		0	4.1		82.41				
3	6.19		0	3.3		66.33				
180-44311-1	8.41		0.1	3.2		64.32				
-1X	8.40		0.1	3.4		68.34				
-2	6.82		0	8.3		166.83				
CCV	10.76		3.4	6.8		136.68				
CCB	5.31		0	0.1		2.01				
180-44248-1	7.47		0	10.8		217.08				
2	7.72		0	12.6		253.26				
3	7.65		0	10.6		213.06				
3X	7.59		0	11.0		221.10				
4	7.67		0	11.7		235.17				
5	7.61		0	10.8		217.08				
6	7.54		0	13.3		267.33				
7	7.48		0	11.8		237.18				
8	7.68		0	10.7		215.07				
9	7.75		0	10.2		205.02				
CCV	10.71		3.5	6.7		134.67				
CCB	5.43		0	0.2		4.02				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-022

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.98	50	6.7	12.9	.0201	259.29				
MB	5.43		0	0.1		2.01				
180-44248-10	7.56		0	7.2		144.72				
180-44249-1	6.34		0	2.8		56.28				
2	7.84		0	10.6		213.06				
2X	7.81		0	11.0		221.1				
-3	7.46		0	16.6		333.66				
180-44258-1	4.47		0	0		ND				
2	8.39		0.1	4.3		88.44				
3	6.96		0	1.0		20.1				
180-44261-1	3.34		0	0		ND				
-2	7.35		0	1.0		20.1				
CCV	10.82		3.5	6.7		134.67				
CCB	5.63		0	0.2		4.02				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Batch Number: 142826 Batch Start Date: 05/27/15 05:19 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-142826/1		SM 2320B		50 mL	10.92 SU	0 mL	6.8 mL	6.8 mL	0 mL
MB 180-142826/2		SM 2320B		50 mL	5.39 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-142826/13		SM 2320B		50 mL	10.76 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-142826/14		SM 2320B		50 mL	5.31 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-1	HD-MW-99D-0/1-0	SM 2320B	T	50 mL	7.47 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-2	HD-MW-100S-0/1-0	SM 2320B	T	50 mL	7.72 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-3	HD-MW-100I-0/1-0	SM 2320B	T	50 mL	7.65 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-3 DU	HD-MW-100I-0/1-0	SM 2320B	T	50 mL	7.59 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-4	HD-MW-100D-0/1-0	SM 2320B	T	50 mL	7.67 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-5	HD-MW-147A-0/1-0	SM 2320B	T	50 mL	7.61 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-6	HD-MW-37S-0/1-0	SM 2320B	T	50 mL	7.54 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-7	HD-MW-37D-0/1-0	SM 2320B	T	50 mL	7.48 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-8	HD-MW-75S-0/1-0	SM 2320B	T	50 mL	7.68 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-9	HD-MW-75D-0/1-0	SM 2320B	T	50 mL	7.75 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-142826/25		SM 2320B		50 mL	10.71 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-142826/26		SM 2320B		50 mL	5.43 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 180-142826/1		SM 2320B		6.2 mL	6.2 mL	Case 4	249.24 mg/L	12.06 mg/L	0 mg/L
MB 180-142826/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
CCV 180-142826/13		SM 2320B		3.4 mL	3.4 mL	Case 3	136.68 mg/L	0 mg/L	0 mg/L
CCB 180-142826/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-44248-A-1	HD-MW-99D-0/1-0	SM 2320B	T	10.8 mL	10.8 mL	Case 1	0 mg/L	0 mg/L	217.08 mg/L
180-44248-A-2	HD-MW-100S-0/1-0	SM 2320B	T	12.6 mL	12.6 mL	Case 1	0 mg/L	0 mg/L	253.26 mg/L
180-44248-A-3	HD-MW-100I-0/1-0	SM 2320B	T	10.6 mL	10.6 mL	Case 1	0 mg/L	0 mg/L	213.06 mg/L
180-44248-A-3 DU	HD-MW-100I-0/1-0	SM 2320B	T	11.0 mL	11 mL	Case 1	0 mg/L	0 mg/L	221.1 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.: 180-44248-1

SDG No.:

Batch Number: 142826 Batch Start Date: 05/27/15 05:19 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
180-44248-A-4	HD-MW-100D-0/1-0	SM 2320B	T	11.7 mL	11.7 mL	Case 1	0 mg/L	0 mg/L	235.17 mg/L
180-44248-A-5	HD-MW-147A-0/1-0	SM 2320B	T	10.8 mL	10.8 mL	Case 1	0 mg/L	0 mg/L	217.08 mg/L
180-44248-A-6	HD-MW-37S-0/1-0	SM 2320B	T	13.3 mL	13.3 mL	Case 1	0 mg/L	0 mg/L	267.33 mg/L
180-44248-A-7	HD-MW-37D-0/1-0	SM 2320B	T	11.8 mL	11.8 mL	Case 1	0 mg/L	0 mg/L	237.18 mg/L
180-44248-A-8	HD-MW-75S-0/1-0	SM 2320B	T	10.7 mL	10.7 mL	Case 1	0 mg/L	0 mg/L	215.07 mg/L
180-44248-A-9	HD-MW-75D-0/1-0	SM 2320B	T	10.2 mL	10.2 mL	Case 1	0 mg/L	0 mg/L	205.02 mg/L
CCV 180-142826/25		SM 2320B		3.2 mL	3.2 mL	Case 4	128.64 mg/L	6.03 mg/L	0 mg/L
CCB 180-142826/26		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	4.02 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-142826/1		SM 2320B		136.68 mg/L	261.3 mg/L	50 mL		50 mL	
MB 180-142826/2		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
CCV 180-142826/13		SM 2320B		68.34 mg/L	136.68 mg/L	50 mL	50 mL		
CCB 180-142826/14		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-44248-A-1	HD-MW-99D-0/1-0	SM 2320B	T	0 mg/L	217.08 mg/L	50 mL			
180-44248-A-2	HD-MW-100S-0/1-0	SM 2320B	T	0 mg/L	253.26 mg/L	50 mL			
180-44248-A-3	HD-MW-100I-0/1-0	SM 2320B	T	0 mg/L	213.06 mg/L	50 mL			
180-44248-A-3 DU	HD-MW-100I-0/1-0	SM 2320B	T	0 mg/L	221.1 mg/L	50 mL			
180-44248-A-4	HD-MW-100D-0/1-0	SM 2320B	T	0 mg/L	235.17 mg/L	50 mL			
180-44248-A-5	HD-MW-147A-0/1-0	SM 2320B	T	0 mg/L	217.08 mg/L	50 mL			
180-44248-A-6	HD-MW-37S-0/1-0	SM 2320B	T	0 mg/L	267.33 mg/L	50 mL			
180-44248-A-7	HD-MW-37D-0/1-0	SM 2320B	T	0 mg/L	237.18 mg/L	50 mL			
180-44248-A-8	HD-MW-75S-0/1-0	SM 2320B	T	0 mg/L	215.07 mg/L	50 mL			
180-44248-A-9	HD-MW-75D-0/1-0	SM 2320B	T	0 mg/L	205.02 mg/L	50 mL			
CCV 180-142826/25		SM 2320B		70.35 mg/L	134.67 mg/L	50 mL	50 mL		
CCB 180-142826/26		SM 2320B		0 mg/L	4.02 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.: 180-44248-1

SDG No.:

Batch Number: 142826 Batch Start Date: 05/27/15 05:19 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.00 PH 4 END: 4.03
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1568035
pH Buffer 3 ID	1524103
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1543398
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.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44248-1

SDG No.:

Batch Number: 142828 Batch Start Date: 05/27/15 05:22 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-142828/1		SM 2320B		50 mL	10.98 SU	0 mL	6.7 mL	6.7 mL	0 mL
MB 180-142828/2		SM 2320B		50 mL	5.43 SU	0 mL	0 mL	0 mL	0 mL
180-44248-A-10	HD-MW-7-0/1-0	SM 2320B	T	50 mL	7.56 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-142828/13		SM 2320B		50 mL	10.82 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-142828/14		SM 2320B		50 mL	5.63 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 180-142828/1		SM 2320B		6.2 mL	6.2 mL	Case 4	249.24 mg/L	10.05 mg/L	0 mg/L
MB 180-142828/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-44248-A-10	HD-MW-7-0/1-0	SM 2320B	T	7.2 mL	7.2 mL	Case 1	0 mg/L	0 mg/L	144.72 mg/L
CCV 180-142828/13		SM 2320B		3.2 mL	3.2 mL	Case 4	128.64 mg/L	6.03 mg/L	0 mg/L
CCB 180-142828/14		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	4.02 mg/L

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-142828/1		SM 2320B		134.67 mg/L	259.29 mg/L	50 mL		50 mL	
MB 180-142828/2		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-44248-A-10	HD-MW-7-0/1-0	SM 2320B	T	0 mg/L	144.72 mg/L	50 mL			
CCV 180-142828/13		SM 2320B		70.35 mg/L	134.67 mg/L	50 mL	50 mL		
CCB 180-142828/14		SM 2320B		0 mg/L	4.02 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.: 180-44248-1

SDG No.:

Batch Number: 142828 Batch Start Date: 05/27/15 05:22 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.00 PH 4 END:4.03
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1568035
pH Buffer 3 ID	1524103
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1543398
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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 5/19/2015	COC No: TAP2015051901
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	1 of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 10012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			
(717) 657-1611 FAX	■ 2 weeks			
Project Name: Restart Event 4	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-44248 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, Cl, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-MW-99D-0/1-0	5/19/15	9:30	Groundwater	Water	5	X	X	X	
HD-MW-100S-0/1-0	5/19/15	10:20	Groundwater	Water	5	X	X	X	
HD-MW-100I-0/1-0	5/19/15	10:55	Groundwater	Water	5	X	X	X	
HD-MW-100D-0/1-0	5/19/15	11:45	Groundwater	Water	5	X	X	X	
HD-MW-147A-0/1-0	5/19/15	12:30	Groundwater	Water	5	X	X	X	
HD-MW-37S-0/1-0	5/19/15	9:00	Groundwater	Water	5	X	X	X	
HD-MW-37D-0/1-0	5/19/15	10:17	Groundwater	Water	5	X	X	X	
HD-MW-75S-0/1-0	5/19/15	12:36	Groundwater	Water	5	X	X	X	
HD-MW-75D-0/1-0	5/19/15	11:48	Groundwater	Water	5	X	X	X	
HD-MW-7-0/1-0	5/19/15	15:00	Groundwater	Water	5	X	X	X	
HD-QC2-0/1-0	5/19/15	12:00	Trip Blank	Water	2	X			
Number of Containers						3	1	1	
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Unpreserved, 7=Zinc Acetate & NaOH						2	1	4	
Field Filter						N	N	N	

Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign):	Company: GSC	Date/Time: 5/19/15 1510	Received by:	Company: TA	Date/Time: 5/19/15 1510
Relinquished by:	Company: TA	Date/Time: 5/19/15 1695	Received by:	Company: TA	Date/Time: 5-20-15 9:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE

KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 19MAY15
ACTWGT: 51.0 LB
CAD: 8490299/INET3610

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

537J3/C918/EE48

Uncorrected temp 2.4 °C
Thermometer ID 6
CF C2 Initials AB

PT-WI-SR-001 effective 7/26/13

FedEx
Express

J151C150223010v

TRK# 0201 7736 3941 4811

WED - 20 MAY AA
STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

180-44248 Waybill

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-44248-1

Login Number: 44248
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	