Date Reported:
09-Dec-13

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

J.M.Waller Associates Inc.
100 Harstfield Centre Parkway, Suite 610
Atlanta, GA 30354

Project # 3510993
Project: Smokey Mountain Smelters 073-01-019-01-014

Attn: Austin Janice

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
351099301	SMSMW03B	W	13-Nov-13 16:20	14-Nov-13 8:58
351099302	SMSMW04A	W	13-Nov-13 15:15	14-Nov-13 8:58
351099303	SMSSW03	W	13-Nov-13 15:00	14-Nov-13 8:58
351099304	SMSSW13	W	13-Nov-13 13:55	14-Nov-13 8:58

Soil samples are reported on dry weight basis, unless otherwise noted.

Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis.

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirements have been meet unless noted in the case narrative.

Please contact the laboratory at 813-888-9507 with any questions regarding the data contained in the laboratory report.

Florida	E84207
Texas	T104704408-13-5
South Carolina	96011001
North Dakota	R-178
California	07253CA
Louisiana	02025
Kansas	E-10385
Arkansas	11-036-1

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2259 Testing

Respectfully Submitted,

Brian Spann
Laboratory Director
Spectrum Analytical, Inc. Florida Division

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EXECUTIVE SUMMARY - Detection Highlights

3510993

SAMPLE ID: SMSMW03B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	96700	10.0	MG/L	E160.1
Alkalinity (Total)	456	2.00	MG/L	E310.1
Ammonia	107	0.250	MG/L	E350.1
Sulfide	1.00 J	2.00	MG/L	E376.1
TOC	19.3	1.00	MG/L	SW9060

SAMPLE ID: SMSMW03BDL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Sulfate	706	10.0	MG/L	E300.1

SAMPLE ID: SMSMW03BDL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	52100	1000	MG/L	E300.1

SAMPLE ID: SMSMW04A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	23200	10.0	MG/L	E160.1
Fluoride	3.30	1.00	MG/L	E300.1
Alkalinity (Total)	140	5.00	MG/L	E310.1
Ammonia	57.3	0.250	MG/L	E350.1
TOC	4.36	1.00	MG/L	SW9060

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EXECUTIVE SUMMARY - Detection Highlights

3510993

SAMPLE ID: SMSMW04ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Nitrate-N	32.4	1.00	MG/L	E300.1
Sulfate	578	10.0	MG/L	E300.1

SAMPLE ID: SMSMW04ADL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	13400	500	MG/L	E300.1

SAMPLE ID: SMSSW03

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	1110	10.0	MG/L	E160.1
Fluoride	8.40	1.00	MG/L	E300.1
Nitrate-N	0.0690 J	0.100	MG/L	E300.1
Nitrite-N	0.0640 J	0.100	MG/L	E300.1
Sulfate	9.00	1.00	MG/L	E300.1
Alkalinity (Total)	255	5.00	MG/L	E310.1
Ammonia	0.252	0.250	MG/L	E350.1
TOC	20.6	1.00	MG/L	SW9060

SAMPLE ID: SMSSW03DL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	346	10.0	MG/L	E300.1

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EXECUTIVE SUMMARY - Detection Highlights

3510993

SAMPLE ID: SMSSW13

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	576	10.0	MG/L	E160.1
Nitrate-N	1.40	0.100	MG/L	E300.1
Sulfate	19.2	1.00	MG/L	E300.1
Alkalinity (Total)	190	5.00	MG/L	E310.1
Ammonia	0.0351 J	0.250	MG/L	E350.1
TOC	0.804 J	1.00	MG/L	SW9060

SAMPLE ID: SMSSW13DL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	155	10.0	MG/L	E300.1

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Inorganics

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Inorganic Data Qualifiers

C (Concentration) Qualifier - Entries and their meanings are:

J The reported value obtained was less than the RL but greater than or equal to the MDL.

E The reported value obtained was over calibration or linear range.

U The reported value obtained was less than the MDL or was not detected.

Q Qualifier - Entries and their meanings are:

U The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

M Duplicate injection precision was not met (two analyses of the same sample did not agree).

N Spiked sample recovery not within control limits.

E Serial Dilution percent difference not within control limits.

S The reported value was determined by the Method of Standard Additions (MSA).

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

+ Correlation coefficient for the MSA is less than 0.995.

X The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

M (Method) Qualifier - Enter one of the following:

P ICP
A Flame AA
F Furnace AA
CV Manual Cold Vapor AA
TC Total Organic Carbon
AS Semi-Automated Spectrophotometric
CA Midi-Distillation Spectrophotometric
T Titrimetric
C Manual Spectrophotometric
GR Gravimetric
NR Analyte was not required by your lab

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Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

DL Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

R Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

RE Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

MS Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

SD Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

A Post Digestion Spike.

L Serial Dilution.

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Wet Chemistry Data Package

091213 1224

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E160.1

IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 160.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

The following samples were re-analyzed out of hold Nitrate: SMSMW04ADL1.

The sample was initially analyzed within hold, however the sample required a dilution for Nitrate and was re-analyzed approximately 20 days out of hold due to the instrument being down for repair. Both sets of data are reported for this sample for Nitrate.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E300.1

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1245734 was analyzed on 12/05/13 01:45. The following analyte(s) were detected below RL: Chloride at 0.49 mg/L.
CCB1245725 was analyzed on 12/05/13 05:25. The following analyte(s) were detected below RL: Chloride at 0.49 mg/L, Sulfate at 0.45 mg/L.
CCB1245726 was analyzed on 12/05/13 09:49. The following analyte(s) were detected below RL: Chloride at 0.49 mg/L, Sulfate at 0.45 mg/L.
CCB1245727 was analyzed on 12/05/13 12:44. The following analyte(s) were detected below RL: Chloride at 0.49 mg/L, Sulfate at 0.45 mg/L.
Samples coded accordingly.

The hits in the blanks are below the RL, therefore, no corrective action was taken.

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

2. Method Blanks:

All acceptance criteria were met with the exception of:

Blank 120413MB1 was analyzed with the water samples on 12/05/13. The following analyte(s) were detected below RL: Chloride at 0.49 mg/L
Samples coded accordingly.

The hits in the blank are below the RL, therefore, no corrective action was taken.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW03B required a 10X dilution due to high concentration of the following analyte(s): Sulfate.

Sample SMSMW03B required a 1000X dilution due to high concentration of the following analyte(s): Chloride.

Sample SMSMW04A required a 10X dilution due to high concentration of the following analyte(s): Nitrate-N, Sulfate.

Sample SMSMW04A required a 500X dilution due to high concentration of the following analyte(s): Chloride.

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

Sample SMSSW03 required a 10X dilution due to high concentration of the following analyte(s): Chloride.

Sample SMSSW13 required a 10X dilution due to high concentration of the following analyte(s): Chloride.

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Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

MANUAL INTEGRATION SUMMARY

The following analytes were manually integrated by the chemist.

Sample: 111413LCS Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW03B Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW03B Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW03B Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW03BDL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW04A Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW04A Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW04A Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW04ADL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW04ADL2 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW03 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW03 Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW03 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW13 Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW13 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCB1245725 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCB1245726 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1242255 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1242255 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245730 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245730 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245730 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

Calibration Sample: CCV1245731 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245731 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245731 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245732 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245732 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245732 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1242258 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1242258 Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1242258 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1245736 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1245736 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1245736 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 2 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 3 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 4 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 5 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak

CASE NARRATIVE

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

Calibration Sample: STD 6 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 7 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak

These manual integrations have been reviewed and meet all criteria in accordance with Spectrum Analytical Inc.'s SOP regarding manual integration.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

CHEMIST: DATE: 12/06/2013

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SECTION LEADER: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E310.1

IV. PREPARATION

Water samples were prepared by EPA Method 310.1 / SM2320B.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW03B required a 2X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSMW04A required a 5X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSSW03 required a 5X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSSW13 required a 5X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

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Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E350.1

IV. PREPARATION

Water samples were prepared by EPA Method 350.1 / SM4500-NH3 G.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

207011ICB was analyzed on 11/27/13 16:30. The following analyte(s) were detected below RL: Ammonia at -0.054 MG/L.
207018CCB was analyzed on 11/27/13 16:44. The following analyte(s) were detected below RL: Ammonia at -0.135 MG/L.
207020CCB was analyzed on 11/27/13 17:00. The following analyte(s) were detected below RL: Ammonia at 0.143 MG/L.
207022CCB was analyzed on 11/27/13 17:18. The following analyte(s) were detected below RL: Ammonia at 0.177 MG/L.
Samples coded accordingly.

The hits in the blank were below the Reporting Limit, therefore no corrective action was taken.

2. Method Blanks:

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW03B required a 10X dilution due to high concentration of the following analyte(s): Ammonia.

Sample SMSMW04A required a 10X dilution due to high concentration of the following analyte(s): Ammonia.

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CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/04/2013

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E376.1

IV. PREPARATION

Water samples were prepared by according to PEL Laboratory's Standard Operating Procedures and EPA Method 376.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/04/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method SW9060

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3510993

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter

Lab Code : PEL Case No.: SDG No.: 3510993

SOW No.:

EPA Sample No	Lab Sample ID
SMSMW03B	351099301
SMSMW03BDL1	351099301DL1
SMSMW03BDL2	351099301DL2
SMSMW04A	351099302
SMSMW04ADL1	351099302DL1
SMSMW04ADL2	351099302DL2
SMSSW03	351099303
SMSSW03DL1	351099303DL1
SMSSW13	351099304
SMSSW13DL1	351099304DL1

Comments:

091213 1225

Wet Chemistry Sample Data

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW03B

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099301

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	456			IS		1	2
7664-41-7	Ammonia	107			AS		0.02	0.25
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	96700			GR		10	10
18496-25-8	Sulfide	1	J		T		0.08	2
1012_5	TOC	19.3			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW03BDL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099301DL1

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
3-03-5	Sulfate	706			IC		3.2	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.8	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW03BDL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099301DL2

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	52100			IC		340	1000

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	90.2	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW04A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099302

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	140			IS		2.5	5
7664-41-7	Ammonia	57.3			AS		0.02	0.25
7782-41-4	Fluoride	3.3			IC		0.33	1
25-90-0	Nitrate-N	29.4	E		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	23200			GR		10	10
18496-25-8	Sulfide	2	U		T		0.08	2
1012_5	TOC	4.36			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	98.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW04ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099302DL1

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
25-90-0	Nitrate-N	32.4			IC		0.36	1
3-03-5	Sulfate	578			IC		3.2	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.2	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW04ADL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099302DL2

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	13400			IC		170	500

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.8	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW03

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099303

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	255			IS		2.5	5
7664-41-7	Ammonia	0.252			AS		0.02	0.25
7782-41-4	Fluoride	8.4			IC		0.33	1
25-90-0	Nitrate-N	0.069	J		IC		0.036	0.1
15-90-0	Nitrite-N	0.064	J		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	1110			GR		10	10
3-03-5	Sulfate	9			IC		0.32	1
18496-25-8	Sulfide	2	U		T		0.08	2
1012_5	TOC	20.6			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW03DL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099303DL1

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	346			IC		3.4	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	90.6	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW13

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099304

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	190			IS		2.5	5
7664-41-7	Ammonia	0.0351	J		AS		0.02	0.25
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	1.4			IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	576			GR		10	10
3-03-5	Sulfate	19.2			IC		0.32	1
18496-25-8	Sulfide	2	U		T		0.08	2
1012_5	TOC	0.804	J		TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW13DL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 351099304DL1

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	155			IC		3.4	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	90.4	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

Wet Chemistry QC Summary Data

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

111413MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 111413MB

Level:(low/med) LOW Date Received: 11/14/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
3-03-5	Sulfate	1	U		IC		0.32	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	102.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

120413MB1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 120413MB1

Level:(low/med) LOW Date Received: 12/5/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	0.49	J		IC		0.34	1
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
3-03-5	Sulfate	1	U		IC		0.32	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	96.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206396MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 206396MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206399MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 206399MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206800MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 206800MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206804MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 206804MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206806MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 206806MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207012MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 207012MB

Level:(low/med) LOW Date Received: 11/27/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7664-41-7	Ammonia	0.25	U		AS		0.02	0.25

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207074MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 207074MB

Level:(low/med) LOW Date Received: 11/27/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1	U		IS		0.5	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207284MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Lab Sample ID: 207284MB

Level:(low/med) LOW Date Received: 12/1/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1012_5	TOC	1	U		TC		0.31	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1225

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia	50545	8	7.930	99.1	28547	8	8.100	101.2	7.940	99.2	AS
Chloride											IC
Fluoride	49171	8	8.700	108.8	49171	8	8.600	107.5			IC
Nitrate-N	49171	1	1.000	100.0	49171	1	1.000	100.0			IC
Nitrite-N	49171	1	1.000	100.0	49171	1	1.100	110.0			IC
ortho-Phosphate-	49171	5.18	4.700	90.7	49171	5.18	4.800	92.7			IC
Residue, Filterabl											GR
Sulfate	49171	8	8.400	105.0	49171	8	8.100	101.2			IC
Sulfide											T
TOC	52578	2.5	2.460	98.4	49986	2.5	2.430	97.2			TC

ICV IDs: AS= 207010ICV, IC= ICV1242258, TC= 207282ICV

CCV1 IDs: AS= 207017CCV, IC= CCV1242255, TC= 207287CCV

CCV2 IDs: AS= 207019CCV

(1) Control Limits: TOC: 75-125

Comments:

091213 1225

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia					28547	8	8.090	101.1			AS
Chloride	49171	8	8.600	107.5	49171	8	8.600	107.5	8.600	107.5	IC
Fluoride											IC
Nitrate-N	49171	1	1.000	100.0	49171	1	1.000	100.0	1.000	100.0	IC
Nitrite-N											IC
ortho-Phosphate-											IC
Residue, Filterabl											GR
Sulfate	49171	8	8.500	106.2	49171	8	8.500	106.2	8.500	106.2	IC
Sulfide											T
TOC											TC

ICV IDs: IC= ICV1245736

CCV1 IDs: AS= 207021CCV, IC= CCV1245730

CCV2 IDs: IC= CCV1245731

(1) Control Limits: TOC: 75-125

Comments:

091213 1225

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride					49171	8	8.600	107.5			IC
Fluoride											IC
Nitrate-N					49171	1	1.000	100.0			IC
Nitrite-N											IC
ortho-Phosphate-											IC
Residue, Filterabl											GR
Sulfate					49171	8	8.500	106.2			IC
Sulfide											T
TOC											TC

ICV IDs:

CCV1 IDs: IC= CCV1245732

CCV2 IDs:

(1) Control Limits: TOC: 75-125

Comments:

091213 1225

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3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)									1	U	IS
Ammonia	-0.054	J	-0.135	J	0.143	J	0.177	J	0.25	U	AS
Chloride											IC
Fluoride	1	U	1	U					1	U	IC
Nitrate-N	0.1	U	0.1	U					0.1	U	IC
Nitrite-N	0.1	U	0.1	U					0.1	U	IC
ortho-Phosphate-P	1	U	1	U					1	U	IC
Residue, Filterable (TDS)									10	U	GR
Sulfate	1	U	1	U					1	U	IC
Sulfide									2	U	T
TOC	1	U	1	U					1	U	TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	102.0	90 - 115	

ICB IDs: AS= 207011ICB, IC= ICB1242257, TC= 207283ICB

CCB1 IDs: AS= 207018CCB, IC= CCB1242253, TC= 207288CCB

CCB2 IDs: AS= 207020CCB

CCB3 IDs: AS= 207022CCB

091213 1225

U.S. EPA - CLP

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BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride	0.49	J	0.49	J	0.49	J	0.49	J	0.49	J	IC
Fluoride											IC
Nitrate-N	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate	1	U	0.45	J	0.45	J	0.45	J	1	U	IC
Sulfide									2	U	T
TOC											TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	96.0	90 - 115	

ICB IDs: IC= ICB1245734

CCB1 IDs: IC= CCB1245725

CCB2 IDs: IC= CCB1245726

CCB3 IDs: IC= CCB1245727

091213 1225

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Preparation Blank Matrix (water/soil): WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride											IC
Fluoride											IC
Nitrate-N											IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate											IC
Sulfide											T
TOC											TC

ICB IDs:

CCB1 IDs:

CCB2 IDs:

CCB3 IDs:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

111413LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Fluoride	20	9		9		0.0		IC
Nitrate-N	20	1		1		0.0		IC
Nitrite-N	20	1.1		1.1		0.0		IC
ortho-Phosphate-P	20	4.4		4.2		4.7		IC
Sulfate	20	8.4		8.4		0.0		IC

Comments:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

120413LCSD1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Chloride	20	8.8		8.7		1.1		IC
Nitrate-N	20	1		1		0.0		IC
Sulfate	20	8.7		8.7		0.0		IC

Comments:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

206398LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Sulfide	20	5.21		4.77		8.8		T

Comments:

091213 1225

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206802LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Residue, Filterable (TDS)	20	292		282		3.5		GR

Comments:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

207014LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Ammonia	10	7.91		8.15		3.0		AS

Comments:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

207076LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Alkalinity (Total)	20	48		49		2.1		IS

Comments:

091213 1225

U.S. EPA - CLP

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DUPLICATES

EPA Sample No.

207286LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TOC	20	2.52		2.63		4.3		TC

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111413LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Fluoride	49171	IC	75	125	8	9	112.5	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1.1	110	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.4	84.9	
Sulfate	49171	IC	75	125	8	8.4	105	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111413LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Fluoride	49171	IC	75	125	8	9	112.5	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1.1	110	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.2	81.1	
Sulfate	49171	IC	75	125	8	8.4	105	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 120413LCS1

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.8	110	
Nitrate-N	49171	IC	75	125	1	1	100	
Sulfate	49171	IC	75	125	8	8.7	108.8	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 120413LCSD1

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.7	108.8	
Nitrate-N	49171	IC	75	125	1	1	100	
Sulfate	49171	IC	75	125	8	8.7	108.8	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206397LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	5.21	104.2	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206398LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	4.77	95.4	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206801LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	292	116.8	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206802LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	282	112.8	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207013LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	50545	AS	90	110	8	7.91	98.9	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207014LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	50545	AS	90	110	8	8.15	101.9	

Comments:

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U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207075LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	48	96	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207076LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	49	98	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207285LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.52	100.8	

Comments:

091213 1225

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207286LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3510993

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.63	105.2	

Comments:

091213 1225

U.S. EPA - CLP

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METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Matrix: Water

Concentration Units: MG/L

PARAMETER	M	INSTRUMENT ID	DATE	CRDL	MDL	Raw MDL (UG/L)
Alkalinity (Total)	IS	HACH	1/10/2007	1	0.5	0.5
Ammonia	AS	LACHAT	8/13/2013	0.25	0.02	0.02
Chloride	IC	IC	11/12/2013	1	0.34	0.34
Fluoride	IC	IC	11/12/2013	1	0.33	0.33
Nitrate-N	IC	IC	11/12/2013	0.1	0.036	0.036
Nitrite-N	IC	IC	11/12/2013	0.1	0.031	0.031
ortho-Phosphate-P	IC	IC	11/12/2013	1	0.24	0.24
Residue, Filterable (TDS)	GR	HACH	12/14/2010	10	10	10
Sulfate	IC	IC	11/12/2013	1	0.32	0.32
Sulfide	T	HACH	5/1/2006	2	0.08	0.08
TOC	TC	SHIMZ1	10/18/2013	1	0.31	0.31

Comments:

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : HACH Method : GR

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
206800MB	1	9:06		X
206801LCS	1	9:09		X
206802LCSD	1	9:12		X
SMSMW03B	1	9:15		X
ZZZZZZ	1	9:18		
SMSMW04A	1	9:21		X
SMSSW03	1	9:24		X
SMSSW13	1	9:27		X
ZZZZZZ	1	9:30		
ZZZZZZ	1	9:33		
ZZZZZZ	1	9:36		
ZZZZZZ	1	9:39		
ZZZZZZ	1	9:42		
206804MB	1	9:45		X
ZZZZZZ	1	9:48		
ZZZZZZ	1	9:51		
ZZZZZZ	1	9:54		
ZZZZZZ	1	9:57		
ZZZZZZ	1	10:00		

* Residue, Filterable (TDS)

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 12/5/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
OICAL1	1	12:08		X
OICAL2	1	12:30		X
OICAL3	1	12:52		X
OICAL4	1	13:14		X
OICAL5	1	13:36		X
OICAL6	1	13:58		X
OICAL7	1	14:20		X
ICV1242258	1	17:06		X
ICB1242257	1	17:28		X
111413MB	1	17:50		X
111413LCS	1	18:12		X
111413LCSD	1	18:34		X
SMSMW03B	1	18:56		X
SMSMW04A	1	19:17		X
SMSSW03	1	19:39		X
SMSSW13	1	20:01		X
ZZZZZZ	1	20:23		
CCV1242255	1	20:45		X
CCB1242253	1	21:07		X
ZZZZZZ	1	21:29		
ZZZZZZ	1	21:51		
ZZZZZZ	1	22:13		
ZZZZZZ	1	22:35		
ZZZZZZ	1	22:57		
ZZZZZZ	1	23:19		
ZZZZZZ	1	23:41		
ZZZZZZ	1	0:03		
ZZZZZZ	1	0:25		
OICAL1	1	12:58		X
OICAL2	1	14:13		X
OICAL3	1	14:35		X
OICAL4	1	14:57		X
OICAL5	1	15:19		X
OICAL6	1	15:41		X
OICAL7	1	16:03		X
ZZZZZZ	1	17:42		
ZZZZZZ	1	18:04		

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 12/5/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	18:26		
ZZZZZZ	1	18:48		
ZZZZZZ	1	19:10		
ZZZZZZ	1	19:32		
ZZZZZZ	1	19:54		
ZZZZZZ	1	20:16		
ZZZZZZ	1	20:38		
ZZZZZZ	1	21:00		
ZZZZZZ	1	21:22		
ZZZZZZ	1	21:44		
ZZZZZZ	1	22:06		
ZZZZZZ	1	22:28		
ZZZZZZ	1	22:50		
ZZZZZZ	1	23:12		
ZZZZZZ	1	23:34		
ZZZZZZ	1	23:56		
ZZZZZZ	1	0:18		
ZZZZZZ	1	0:40		
ZZZZZZ	1	1:01		
ICV1245736	1	1:23		X
ICB1245734	1	1:45		X
120413MB1	1	2:07		X
120413LCS1	1	2:29		X
120413LCSD1	1	2:51		X
ZZZZZZ	10	3:13		
ZZZZZZ	1	3:35		
ZZZZZZ	5	3:57		
ZZZZZZ	25	4:19		
ZZZZZZ	10	4:41		
CCV1245730	1	5:03		X
CCB1245725	1	5:25		X
ZZZZZZ	100	5:47		
ZZZZZZ	10	6:09		
ZZZZZZ	100	6:31		
ZZZZZZ	10	6:53		
ZZZZZZ	5	7:15		
ZZZZZZ	50	7:37		

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 12/5/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	10	7:59		
ZZZZZZ	10	8:21		
ZZZZZZ	10	8:43		
ZZZZZZ	5	9:05		
CCV1245731	1	9:27		X
CCB1245726	1	9:49		X
SMSMW03BDL1	10	10:11		X
SMSMW03BDL2	1000	10:33		X
SMSMW04ADL1	10	10:55		X
SMSMW04ADL2	500	11:17		X
SMSSW03DL1	10	11:39		X
SMSSW13DL1	10	12:01		X
CCV1245732	1	12:23		X
CCB1245727	1	12:44		X

* Chloride
* ortho-Phosphate-P
* Nitrite-N
* Dichloroacetate - DCA
* Nitrate-N
* Sulfate
* Fluoride

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : HACH Method : IS

Start Date : 11/27/2013 End Date : 11/27/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	13:15		
ZZZZZZ	1	13:19		
207074MB	1	13:23		X
207075LCS	1	13:27		X
207076LCSD	1	13:31		X
SMSMW03B	2	13:34		X
SMSMW04A	5	13:37		X
SMSSW03	5	13:40		X
SMSSW13	5	13:43		X
ZZZZZZ	10	13:46		
ZZZZZZ	10	13:49		
ZZZZZZ	10	13:52		
ZZZZZZ	20	13:55		
ZZZZZZ	20	13:58		
ZZZZZZ	5	14:01		
207260CCB	1	14:04		X
ZZZZZZ	10	14:07		
ZZZZZZ	5	14:10		
ZZZZZZ	1	14:13		

* Alkalinity (Total)

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : LACHAT Method : AS

Start Date : 11/27/2013 End Date : 11/27/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	16:10		X
CAL02	2.5	16:15		X
CAL03	10	16:17		X
CAL04	20	16:20		X
CAL05	50	16:22		X
CAL06	100	16:25		X
CAL07	1	16:26		X
207010ICV	1	16:27		X
207011ICB	1	16:30		X
207012MB	1	16:31		X
207013LCS	1	16:33		X
207014LCSD	1	16:34		X
ZZZZZZ	1	16:35		
ZZZZZZ	1	16:36		
ZZZZZZ	1	16:37		
ZZZZZZ	1	16:38		
ZZZZZZ	1	16:39		
207017CCV	1	16:41		X
207018CCB	1	16:44		X
ZZZZZZ	1	16:45		
ZZZZZZ	1	16:46		
ZZZZZZ	1	16:47		
ZZZZZZ	1	16:48		
ZZZZZZ	1	16:50		
ZZZZZZ	1	16:51		
SMSSW03	1	16:54		X
SMSSW13	1	16:55		X
207019CCV	1	16:56		X
207020CCB	1	17:00		X
SMSMW03B	10	17:02		X
SMSMW04A	10	17:05		X
ZZZZZZ	1	17:06		
ZZZZZZ	1	17:07		
ZZZZZZ	1	17:08		
ZZZZZZ	1	17:14		
207021CCV	1	17:15		X
207022CCB	1	17:18		X

091213 1226

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : LACHAT Method : AS

Start Date : 11/27/2013 End Date : 11/27/2013

EPA Sample No.	D/F	Time	%R	Analytes *:

* Ammonia

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : HACH Method : T

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	12:13		
206396MB	1	12:16		X
206397LCS	1	12:19		X
206398LCSD	1	12:22		X
SMSMW03B	1	12:25		X
SMSMW04A	1	12:28		X
SMSSW03	1	12:31		X
SMSSW13	1	12:34		X
ZZZZZZ	1	12:37		
ZZZZZZ	2	12:40		
ZZZZZZ	1	12:43		
ZZZZZZ	1	12:46		
ZZZZZZ	1	12:49		
ZZZZZZ	1	12:52		
206399MB	1	12:55		X
ZZZZZZ	1	12:58		
ZZZZZZ	1	13:01		
ZZZZZZ	1	13:04		

* Sulfide

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U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3510993

Instrument ID Number : SHIMZ1 Method : TC

Start Date : 12/1/2013 End Date : 12/2/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	14:51		X
CAL02	2	15:08		X
CAL03	4	15:24		X
CAL04	5	15:39		X
CAL05	10	15:54		X
CAL06	1	16:08		X
207282ICV	1	17:08		X
207283ICB	1	17:23		X
207284MB	1	17:39		X
207285LCS	1	17:54		X
207286LCSD	1	18:10		X
SMSMW03B	1	20:33		X
SMSMW04A	1	20:51		X
SMSSW03	1	21:10		X
SMSSW13	1	21:27		X
ZZZZZZ	1	22:18		
207287CCV	1	22:37		X
207288CCB	1	22:57		X
ZZZZZZ	1	23:12		
ZZZZZZ	1	23:30		
ZZZZZZ	1	23:48		
ZZZZZZ	1	0:05		
ZZZZZZ	1	0:23		
ZZZZZZ	1	1:55		
ZZZZZZ	1	2:14		
ZZZZZZ	1	2:33		
ZZZZZZ	1	2:49		
ZZZZZZ	1	3:06		
ZZZZZZ	1	3:24		
ZZZZZZ	1	3:43		
ZZZZZZ	1	4:02		

* TOC

091213 1226

Chain of Custody Documentation

091213 1226

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Tampa Division

Page _____ of _____

3510993 (R)

Special Handling:

☐ TAT _____

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed

Report To: Janice Austin
100 Hartsfield Centre Pkwy Suite 610
Atlanta, GA 30354

Telephone #: 404-443-2777
Project Mgr:

Invoice To: Same

P.O No.: _____ RQN _____

Project No: 073-01-019-01-014
Site Name: Smokey Mountain Smelter
Location: Knoxville State TN
Sampler(s):

1=$Na_2S_2O_3$ **2**=HCl **3**=H_2SO_4 **4**=HNO_3 **5**=NaOH **6**=Ascorbic Acid **7**=CH_3OH
8= $NaHSO_4$ **9**= Deionized Water **10**=H_3PO_4 **11**= _____ **12**= _____

List Preservative Code below:

QA/QC Reporting Notes:
*additional charges may appply

DW=Dinking Water **GW**= Groundwater **WW**= Waste Water
O= Oil **SW**= surface Water **SO**=Soil **SL**= Sludge **A**= Air
X1= _____ **X2**= _____ **X3**= _____

G= Grab **C**=Compsite

☐ Level I ☐ No QC
☐ Level II ☐ DOD
☐ Level III ☐ AFCEE
☑ Level IV ☐ CLP
☐ Other: _____
State-specific reporting standards:

Lab ID	Sample ID	Date	Time	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		AMMONIA	CHLORIDE	ALKALINITY	TDS	SULFATE/PHOSPHATE/FLUORIDE	NITRATE/NITRITE	~~COD~~ 376.1 (R) 11/14/13	TOC	
	~~SMSMW02A~~	~~11/13/2013~~	~~11:07 AM~~	~~G~~	~~GW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	not received 11-14-13 (R)
-01	SMSMW03B	11/13/2013	4:20 PM	G	GW	3			3		X	X	X	X	X	X	X	X	
-02	SMSMW04A	11/13/2013	3:15 PM	G	GW	3			3		X	X	X	X	X	X	X	X	
	~~SMSMW07A~~	~~11/13/2013~~	~~1:15 PM~~	~~G~~	~~GW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
	~~SMSMW07B~~	~~11/13/2013~~	~~11:40 AM~~	~~G~~	~~GW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	not received 11-14-13 (R)
	~~SMSMW08A~~	~~11/13/2013~~	~~10:45 AM~~	~~G~~	~~GW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
-03	SMSSW03	11/13/2013	3:00 PM	G	SW	3			3		X	X	X	X	X	X	X	X	
	~~SMSSW11~~	~~11/13/2013~~	~~1:30 PM~~	~~G~~	~~SW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	not received 11-14-13 (R)
-04	SMSSW13	11/13/2013	1:55 PM	G	SW	3			3		X	X	X	X	X	X	X	X	
	~~SMSSW14~~	~~11/13/2013~~	~~2:20 PM~~	~~G~~	~~SW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	not received 11-14-13 (R)

3510993

Relinquished by:	Received by:	Date	Time	Temp °C
	FedEx	11/13/13	1845	
		11/14/13	08:58	1.4

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☑ EDD format: Equis EPA R4
☑ E-mail to: Janice.austin@jmwaller.com

pH<2 9060, 350.1 pH>9 376.1

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☑ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

From: (404) 443-2777 Origin ID: DBNA
C.J. Roebuck
JM Waller Associates
100 HARTSFIELD CENTRE PKWY
SUITE 610
ATLANTA, GA 30354

FedEx Express

J13201306280326

Ship Date: 13NOV13
ActWgt: 35.0 LB
CAD: 101117635/INET3430

Delivery Address Bar Code

SHIP TO: (813) 888-9507 BILL SENDER
John Heyman
Spectrum Analytical, Inc.-FL
8405 BENJAMIN RD
STE A
TAMPA, FL 33634

Ref # 073-01-019-01-014
Invoice #
PO #
Dept #

1 of 2

THU - 14 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 7971 5259 1467
0201
MASTER
XJ TPFA

33634
FL-US
TPA

51AG1/05E6/1A9E

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: IMPORTANT: TRANSMIT YOUR SHIPPING DATA AND PRINT A MANIFEST:
At the end of each shipping day, you should perform the FedEx Ground End of Day Close procedure to transmit your shipping data to FedEx. To do so, click on the Ground End of Day Close Button. If required, print the pickup manifest that appears. A printed manifest is required to be tendered along with your packages if they are being picked up by FedEx Ground. If you are dropping your packages off at a FedEx drop off location, the manifest is not required.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide and applicable tariff, available upon request. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations, including limitations on our liability, can be found in the current FedEx Service Guide and applicable tariff apply. In no event shall FedEx Ground be liable for any special, incidental, or consequential damages, including, without limitation, loss of profit, loss to the intrinsic value of the package, loss of sale, interest income or attorney's fees. Recovery cannot exceed actual documented loss. Items of extraordinary value are subject to separate limitations of liability set forth in the Service Guide and tariff. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Sample Receipt Confirmation Sheet

Client Information

SDG:	3510993	**Level:**	4
Client:	JMWALL	**Date Rec'd:**	11/14/2013 8:58:00 AM
Profile:	90942		
Project:	Generic / Smokey Mountain Smelters	**Profile Name:**	Generic

Sample Verification

Samples/Cooler Secure?	Yes	**COC Present?**	Yes
Temperature of Samples:	1.4	**All Samples on COC accounted For?**	No
Number of Coolers Received:	1	**All Samples Rec'd Intact?**	Yes
Temp Gun ID:	130544071	**Sample Vol. Sufficient For Analysis**	Yes
pH Verified?	Yes	**Samples Rec'd W/I Hold Time?**	Yes
pH WNL?	Yes	**Are All Samples to be Analyzed?**	Yes
Samples Received By:	Fed-Ex	**Correct Sample Containers?**	Yes
Tracking Number:	797152591467	**COC Comments written on COC?**	Yes
Profile Picked By:	JH	**Samplers Initials on COC?**	Yes
Soil Origin (Domestic/Foreign):		**Sample Date/Time Indicated?**	Yes
Site Location/Project on COC?	Yes	**TAT Requested:**	STD
Client Project # on COC?	Yes	**Client Requests Verbal Results?**	No
Project Mgr. Indicated on COC?	Yes	**Client Requests Faxed Results?**	No
COC relinquished/Dated by Client?	Yes	**Specific Subcontract Indicated?**	No
COC Received/Dated by SA?	Yes	**Written on Outside Lab Board?**	No
Written on Internal COC?	Yes	**Radioactivity Check?**	No
Lab to Conduct ALL Analyses?	Yes		

Comments

Specific tests noted on COC.

LABEL REVIE MG

PEER REVIEW

Client: CH2M Hill

WONo: 3510983 **Profile Name:** Travis AFB **Profile #:** 86111

MATRIX W

Sample #	Bottle	Parameter		Check	Received	Date
01	010	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/13/2013 4:25:53 PM
01	010	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 12:27:59 PM
01	010	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 12:38:01 PM
01	011	310.1	Alkalinity (Total)	In	aclark	11/13/2013 4:25:54 PM
01	011	310.1	Alkalinity (Total)	Out	Theresa Wolf	12/2/2013 8:45:14 AM
01	011	310.1	Alkalinity (Total)	In	Theresa Wolf	12/3/2013 9:08:51 AM
01	009	6010_D	Dissolved Metals	In	aclark	11/13/2013 4:25:53 PM
01	009	6010_D	Dissolved Metals	Out	Justin Bowman	11/22/2013 5:23:45 PM
01	009	6010_D	Dissolved Metals	In	Justin Bowman	11/22/2013 6:42:01 PM
01	001	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:53 PM
01	002	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:53 PM
01	003	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:53 PM
01	002	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/18/2013 2:26:35 PM
01	003	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/19/2013 10:10:48 AM
01	004	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:53 PM
01	005	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:53 PM
01	004	9060	Total Organic Carbon	Out	Theresa Wolf	11/26/2013 8:37:00 PM
01	004	9060	Total Organic Carbon	In	Justin Bowman	11/27/2013 6:26:02 PM
01	006	RSK-175	RSK175	In	aclark	11/13/2013 4:25:53 PM
01	007	RSK-175	RSK175	In	aclark	11/13/2013 4:25:53 PM
01	008	RSK-175	RSK175	In	aclark	11/13/2013 4:25:53 PM
01	007	RSK-175	RSK175	Consumed	Nicole Labus	11/19/2013 12:35:26 PM
02	011	160.1	Total Dissolved Solids	In	aclark	11/13/2013 4:25:54 PM

02	011	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/27/2013 11:17:42 AM
02	011	160.1	Total Dissolved Solids	In	Justin Bowman	11/27/2013 6:26:55 PM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/13/2013 4:25:54 PM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 12:28:01 PM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 12:38:05 PM
02	002	6010_D	Dissolved Metals	In	aclark	11/13/2013 4:25:54 PM
02	002	6010_D	Dissolved Metals	Out	Justin Bowman	11/22/2013 5:23:43 PM
02	002	6010_D	Dissolved Metals	In	Justin Bowman	11/22/2013 6:41:57 PM
02	003	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:54 PM
02	004	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:54 PM
02	005	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:54 PM
02	004	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/18/2013 2:26:31 PM
02	005	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/19/2013 10:10:52 AM
02	006	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:54 PM
02	007	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:54 PM
02	008	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:54 PM
02	007	9060	Total Organic Carbon	Out	Theresa Wolf	11/26/2013 8:36:59 PM
02	007	9060	Total Organic Carbon	In	Justin Bowman	11/27/2013 6:26:11 PM
02	009	RSK-175	RSK175	In	aclark	11/13/2013 4:25:54 PM
02	010	RSK-175	RSK175	In	aclark	11/13/2013 4:25:54 PM
02	010	RSK-175	RSK175	Consumed	Nicole Labus	11/19/2013 12:35:24 PM
03	001	160.1	Total Dissolved Solids	In	aclark	11/13/2013 4:25:54 PM
03	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/27/2013 11:17:46 AM
03	001	160.1	Total Dissolved Solids	In	Justin Bowman	11/27/2013 6:26:53 PM
03	002	6010_D	Dissolved Metals	In	aclark	11/13/2013 4:25:54 PM

03	002	6010_D	Dissolved Metals	Out	Justin Bowman	11/22/2013 5:23:49 PM
03	002	6010_D	Dissolved Metals	In	Justin Bowman	11/22/2013 6:42:03 PM
03	003	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:54 PM
03	004	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:54 PM
03	004	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/18/2013 2:26:38 PM
03	005	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:54 PM
03	006	9060	Total Organic Carbon	In	aclark	11/13/2013 4:25:55 PM
03	006	9060	Total Organic Carbon	Out	Theresa Wolf	11/26/2013 8:36:57 PM
03	006	9060	Total Organic Carbon	In	Justin Bowman	11/27/2013 6:26:13 PM
03	007	RSK-175	RSK175	In	aclark	11/13/2013 4:25:55 PM
03	008	RSK-175	RSK175	In	aclark	11/13/2013 4:25:55 PM
03	009	RSK-175	RSK175	In	aclark	11/13/2013 4:25:55 PM
03	008	RSK-175	RSK175	Consumed	Nicole Labus	11/19/2013 12:35:21 PM
04	001	8260AFC	Volatile Organic Compounds	In	aclark	11/13/2013 4:25:55 PM
04	001	8260AFC	Volatile Organic Compounds	Consumed	Marcell Stephens	11/18/2013 2:26:41 PM

Addendum

091213 1226

Letter of Acceptance

Customer Name:	J.M.Waller Associates Inc.
Date and Time Received:	11/14/2013 8:58
Date to be Reported:	12/9/2013
Laboratory Submission Number/SDG:	3510993

Project: Smokey Mountain Smelters 073-01-019-01-014

Samples: The submission consisted of 4 samples, including QC, with sample identification shown in the attached data tables.

Tests: The Samples will be analyzed for EPA methods: 160.1, 300.1, 310.1, 350.1, 376.1, 9060.

Sample Custody/COC discrepancies:

None.

Notes:

Per client, COD analysis cancelled and Sulfide analysis added for all samples. Several samples not received on 14NOV13, client notified.

Distribution of Report to:

J.M.Waller Associates Inc.
Attn: Austin Janice
(W): 404.443.2777
(M): 904.400.4549

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. Spectrum Analytical letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Level: 4

Total of: 24 analyses on 4 samples (including QC) *18-Nov-13*

Report/SDG #: 3510993

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW03B	351099301		W	11/13/2013 16:20	11/14/2013 8:58

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW04A	351099302		W	11/13/2013 15:15	11/14/2013 8:58

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSSW03	351099303		W	11/13/2013 15:00	11/14/2013 8:58

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

Report/SDG #: 3510993

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSSW13	351099304		W	11/13/2013 13:55	11/14/2013 8:58

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

John Heyman [Tampa]

From: Roebuck, CJ [cj.roebuck@jmwaller.com]
Sent: Thursday, November 14, 2013 11:43 AM
To: John Heyman [Tampa]
Subject: Re: SMS samples received today (13NOV13) - issue COC

Sulfide for yesterday and today's shipment Youre going to receive.

Sent from my HTC smartphone on the Now Network from Sprint!

C.J. Roebuck, P.E.
Project Manager
(847) 346-5224

----- Reply message -----
From: "John Heyman [Tampa]" <jheyman@pelab.com>
To: "John Heyman [Tampa]" <jheyman@pelab.com>, "Austin, Janice" <janice.austin@jmwaller.com>
Cc: "Roebuck, CJ" <cj.roebuck@jmwaller.com>
Subject: SMS samples received today (13NOV13) - issue COC
Date: Thu, Nov 14, 2013 11:41 am

Good morning.

Please let me know if you want the laboratory to analyze these samples received yesterday for COD and / or Sulfide.

Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 4:26 PM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Good afternoon.

We will place the COD and Sulfide on hold until I hear back from you. We will proceed with the other analysis to meet holding times.

Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 11:02 AM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Janice:
We did not receive containers for COD preserved with H_2SO_4. We do have containers for Ammonia preserved with H_2SO_4 that we could split and send to our Rhode Island lab for COD analysis.
We did received containers for Sulfide analysis preserved with NaOH / ZnAce; however Sulfide is not on you list below.
Let me know if you need COD analysis and/or Sulfide analysis.
Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 10:52 AM
To: 'Austin, Janice'
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Thanks!
John

_____
From: Austin, Janice [mailto:janice.austin@jmwaller.com]
Sent: Wednesday, November 13, 2013 10:45 AM
To: John Heyman [Tampa]
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Good morning John,

Please ensure that the following analyses are completed. I apologize for the inconvenience.

Thanks in advance for your time.

Ammonia

EPA 350.1

Chloride (1)

EPA 352.2

Alkalinity (2)

EPA 310.2

TDS (3)

EPA 100.4

Sulfate (4)

EPA 300

Phosphate (4)

EPA 300

Fluoride (4)

EPA 300

Nitrate

EPA 300.1

Nitrite

EPA 300.1

COD (5)

EPA 410.4

TOC (6)

EPA 415.1

Janice D. Austin, P.E.
Project Manager

J. M. Waller Associates Inc.
Tel: 404.443.2777 Ext.: 4030 | Cell: 904.248.1247
100 Hartsfield Centre Parkway, Suite 610 Atlanta, Georgia 30354-1390
Email: janice.austin@jmwaller.com | www.jmwaller.com<http://www.jmwaller.com/>
A Service Disabled Veteran Owned Small Business

From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Wednesday, November 13, 2013 10:09 AM
To: Austin, Janice
Subject: SMS samples received today - issue COC

Good morning. COC attached.

No analysis is listed on the COC for these samples.

We have not yet reconciled the container received.

Please let me know what analysis is required for these samples.

Thanks!

John Heyman
Project Manager
Spectrum Analytical, Inc. Featuring Hanibal Technology, Florida Division
8405 Benjamin Road, Suite A
Tampa, FL 33634
813-888-9507 ext 228

Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all kit requests, 3 days notice at a minimum. If you need an expedited kit request Spectrum Analytical will provide the kit but will require that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation.

This e-mail is intended for the named addressee(s) and may contain information that is confidential and proprietary. If this information is received by anyone other than the named addressee(s), the recipient(s) should immediately notify the sender by e-mail and promptly delete the transmitted material. In no event shall this material be read, used, stored, or retained by anyone other than the named addressee(s) without the express written consent of the sender or the named addressee(s).

John Heyman [Tampa]

From: Roebuck, CJ [cj.roebuck@jmwaller.com]
Sent: Thursday, November 14, 2013 2:26 PM
To: John Heyman [Tampa]; Austin, Janice
Subject: RE: SMS samples received 14NOV13 - issue missing cooler

Apparently the cooler is in Memphis as of 3am.

C.J. Roebuck, P.E.
Project Manager
(404) 443-2777 x 4024

From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Thursday, November 14, 2013 11:55 AM
To: Austin, Janice; Roebuck, CJ
Subject: SMS samples received 14NOV13 - issue missing cooler

Good morning. COC attached.

We only received 1 cooler today.

Missing cooler tracking number: 797152591489

We did not receive any containers for the following samples listed on the COC:
SMSMW02A
SMSMW07A
SMSMW07B
SMSMW08A
SMSSW11
SMSSW14

Per CJ's earlier email, we will add Sulfide analysis to all of the samples and cancel the COD analysis.

Thanks!

John Heyman

Project Manager
Spectrum Analytical, Inc. Featuring Hanibal Technology, Florida Division
8405 Benjamin Road, Suite A
Tampa, FL 33634
813-888-9507 ext 228

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This e-mail is intended for the named addressee(s) and may contain information that is confidential and proprietary. If this information is received by anyone other than the named addressee(s), the recipient(s) should immediately notify the sender by e-mail and promptly delete the transmitted material. In no event shall this material be read, used, stored, or retained by anyone other than the named addressee(s) without the express written consent of the sender or the named addressee(s).

Appendix

091213 1226

Raw Data Method 300.1

SEQUENCE CHECK

SDG: 3510993 **Method:** 300.1

SAMPLE ID	LAB ID	InitialCal Reference	FILE	BATCH	COL	INSTRUMENT	RUN DATE	DILUTION
STD 1	CAL1	IC07/29/13-1420~IC1072913cal	CAL1.D	IC1072913cal	1	IC	07/29/13 12:08	1
STD 2	CAL2	IC07/29/13-1420~IC1072913cal	CAL2.D	IC1072913cal	1	IC	07/29/13 12:30	1
STD 3	CAL3	IC07/29/13-1420~IC1072913cal	CAL3.D	IC1072913cal	1	IC	07/29/13 12:52	1
STD 4	CAL4	IC07/29/13-1420~IC1072913cal	CAL4.D	IC1072913cal	1	IC	07/29/13 13:14	1
STD 5	CAL5	IC07/29/13-1420~IC1072913cal	CAL5.D	IC1072913cal	1	IC	07/29/13 13:36	1
STD 6	CAL6	IC07/29/13-1420~IC1072913cal	CAL6.D	IC1072913cal	1	IC	07/29/13 13:58	1
STD 7	CAL7	IC07/29/13-1420~IC1072913cal	CAL7.D	IC1072913cal	1	IC	07/29/13 14:20	1
ICV1242258	111413ICV	IC07/29/13-1420~IC1072913cal	111413ICV.D	IC1111413	1	IC	11/14/13 17:06	1
ICB1242257	111413ICB	IC07/29/13-1420~IC1072913cal	111413ICB.D	IC1111413	1	IC	11/14/13 17:28	1
111413MB	111413MB	IC07/29/13-1420~IC1072913cal	111413MB.D	IC1111413	1	IC	11/14/13 17:50	1
111413LCS	111413LCS	IC07/29/13-1420~IC1072913cal	111413LCS.D	IC1111413	1	IC	11/14/13 18:12	1
111413LCSD	111413LCSD	IC07/29/13-1420~IC1072913cal	111413LCSD.D	IC1111413	1	IC	11/14/13 18:34	1
SMSMW03B	351099301	IC07/29/13-1420~IC1072913cal	351099301.D	IC1111413	1	IC	11/14/13 18:56	1
SMSMW04A	351099302	IC07/29/13-1420~IC1072913cal	351099302.D	IC1111413	1	IC	11/14/13 19:17	1
SMSSW03	351099303	IC07/29/13-1420~IC1072913cal	351099303.D	IC1111413	1	IC	11/14/13 19:39	1
SMSSW13	351099304	IC07/29/13-1420~IC1072913cal	351099304.D	IC1111413	1	IC	11/14/13 20:01	1
CCV1242255	111413CCV1	IC07/29/13-1420~IC1072913cal	111413CCV1.D	IC1111413	1	IC	11/14/13 20:45	1
CCB1242253	111413CCB1	IC07/29/13-1420~IC1072913cal	111413CCB1.D	IC1111413	1	IC	11/14/13 21:07	1
STD 1	CAL1	IC11/25/13-1603~IC1112513cal	CAL1.D	IC1112513cal	1	IC	11/25/13 12:58	1
STD 2	CAL2	IC11/25/13-1603~IC1112513cal	CAL2.D	IC1112513cal	1	IC	11/25/13 14:13	1
STD 3	CAL3	IC11/25/13-1603~IC1112513cal	CAL3.D	IC1112513cal	1	IC	11/25/13 14:35	1
STD 4	CAL4	IC11/25/13-1603~IC1112513cal	CAL4.D	IC1112513cal	1	IC	11/25/13 14:57	1
STD 5	CAL5	IC11/25/13-1603~IC1112513cal	CAL5.D	IC1112513cal	1	IC	11/25/13 15:19	1
STD 6	CAL6	IC11/25/13-1603~IC1112513cal	CAL6.D	IC1112513cal	1	IC	11/25/13 15:41	1
STD 7	CAL7	IC11/25/13-1603~IC1112513cal	CAL7.D	IC1112513cal	1	IC	11/25/13 16:03	1
ICV1245736	120413ICV1	IC11/25/13-1603~IC1112513cal	120413ICV1.D	IC1120413	1	IC	12/05/13 01:23	1
ICB1245734	120413ICB1	IC11/25/13-1603~IC1112513cal	120413ICB1.D	IC1120413	1	IC	12/05/13 01:45	1
120413MB1	120413MB1	IC11/25/13-1603~IC1112513cal	120413MB1.D	IC1120413	1	IC	12/05/13 02:07	1
120413LCS1	120413LCS1	IC11/25/13-1603~IC1112513cal	120413LCS1.D	IC1120413	1	IC	12/05/13 02:29	1
120413LCSD1	120413LCSD1	IC11/25/13-1603~IC1112513cal	120413LCSD1.D	IC1120413	1	IC	12/05/13 02:51	1
CCV1245730	120413CCV3	IC11/25/13-1603~IC1112513cal	120413CCV3.D	IC1120413	1	IC	12/05/13 05:03	1
CCB1245725	120413CCB3	IC11/25/13-1603~IC1112513cal	120413CCB3.D	IC1120413	1	IC	12/05/13 05:25	1
CCV1245731	120413CCV4	IC11/25/13-1603~IC1112513cal	120413CCV4.D	IC1120413	1	IC	12/05/13 09:27	1

CCB1245726	120413CCB4	IC11/25/13-1603~IC1112513cal	120413CCB4.D	IC1120413	1	IC	12/05/13 09:49	1
SMSMW03BDL1	351099301DL1	IC11/25/13-1603~IC1112513cal	351099301DL1.D	IC1120413	1	IC	12/05/13 10:11	10
SMSMW03BDL2	351099301DL2	IC11/25/13-1603~IC1112513cal	351099301DL2.D	IC1120413	1	IC	12/05/13 10:33	1000
SMSMW04ADL1	351099302DL1	IC11/25/13-1603~IC1112513cal	351099302DL1.D	IC1120413	1	IC	12/05/13 10:55	10
SMSMW04ADL2	351099302DL2	IC11/25/13-1603~IC1112513cal	351099302DL2.D	IC1120413	1	IC	12/05/13 11:17	500
SMSSW03DL1	351099303DL1	IC11/25/13-1603~IC1112513cal	351099303DL1.D	IC1120413	1	IC	12/05/13 11:39	10
SMSSW13DL1	351099304DL1	IC11/25/13-1603~IC1112513cal	351099304DL1.D	IC1120413	1	IC	12/05/13 12:01	10
CCV1245732	120413CCV5	IC11/25/13-1603~IC1112513cal	120413CCV5.D	IC1120413	1	IC	12/05/13 12:23	1
CCB1245727	120413CCB5	IC11/25/13-1603~IC1112513cal	120413CCB5.D	IC1120413	1	IC	12/05/13 12:44	1

STANDARD

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49048	300.1_Mix2_NSI	NSI Q-6391-1 (co	122812	12/31/2013	250 ML	1/3/2013	troberts

250 MG/L: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49049	300.1_Mix1_NSI	NSI Q-6391-1	111711	6/30/2014	250 MG/	1/3/2013	troberts

1294 MG/L: ortho-Phosphate-P
2000 MG/L: Bromide, Chloride, Fluoride, Sulfate
250 MG/L: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49171	300.1_STKB	HPS	1300409	1/9/2014	500 ML	1/11/2013	troberts

250 UG/ML: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49172	300.1_STKA	HPS	1300410	1/9/2014	500 ML	1/11/2013	troberts

1296 UG/ML: ortho-Phosphate-P
2000 UG/ML: Bromide, Chloride, Fluoride, Sulfate
250 UG/ML: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51195	IC_Dionex_EluentCartridg	Dionex #074532	130553061015	6/30/2015	1 N/A	7/17/2013	troberts

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 29-JUL-2013 12:08
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:08 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.300	3.325	-0.025	46802	0.40000		(M)
T 2 Chloride	4.356	4.350	0.006	26437	0.40000		
T 3 Nitrite as N	5.071	5.054	0.017	7812	0.05000		
T 4 Sulfate	5.784	5.689	0.095	18225	0.40000		
T 5 Bromide	6.716	6.592	0.124	9904	0.40000		
T 6 Nitrate as N	7.763	7.575	0.188	6708	0.05000		
T 7 DCA	9.229	9.195	0.034	885	0.10000		
T 8 Phosphate as P	10.362	10.875	-0.513	7126	0.26000		(TM)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D

Date : 29-JUL-2013 12:08

Client ID: CAL1

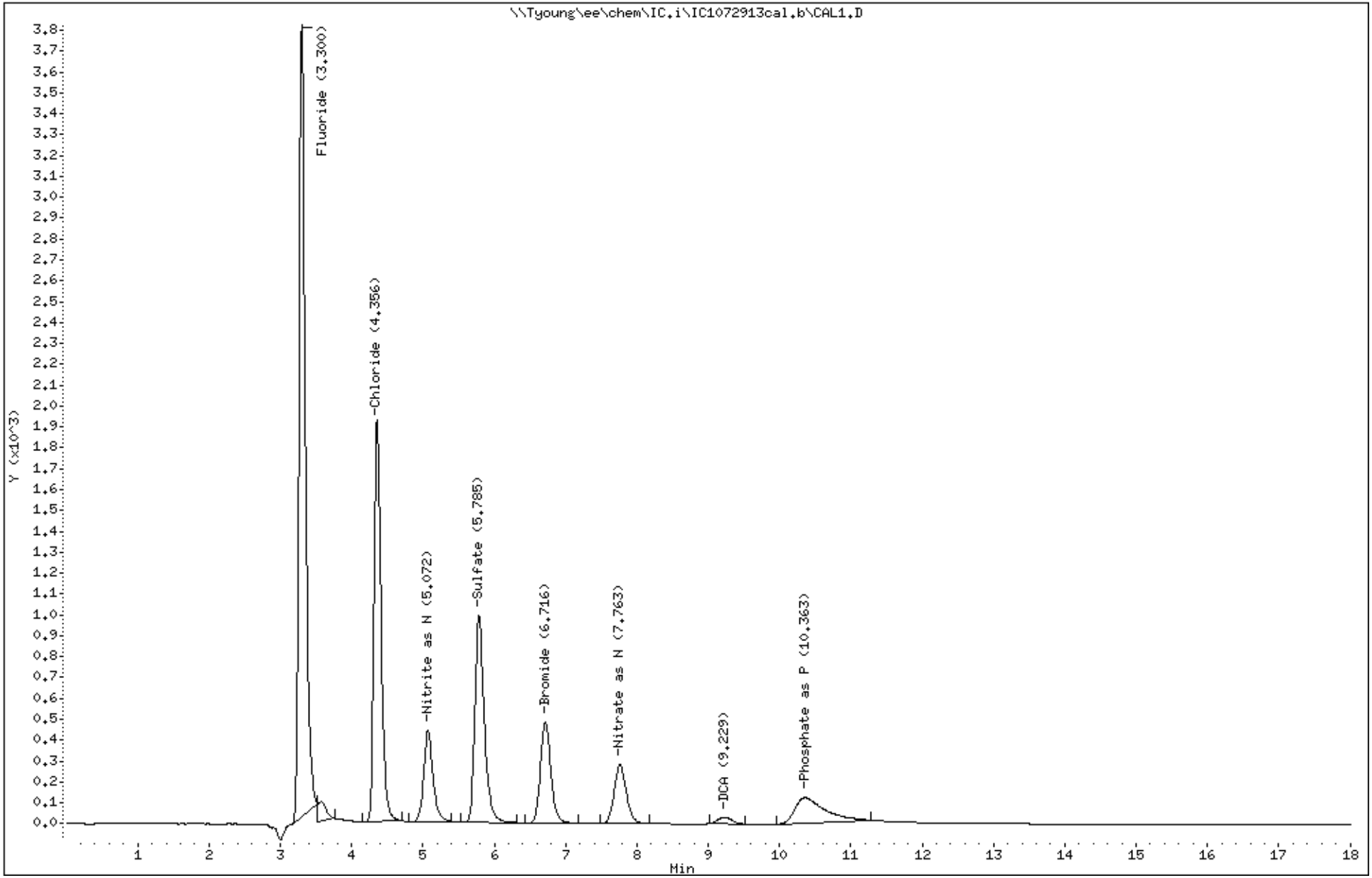
Instrument: IC.i

Sample Info: CAL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 29-JUL-2013 12:30
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:30 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.300	3.325	-0.025	95670	0.80000	0.82(M)
T 2 Chloride	4.357	4.350	0.007	54983	0.80000	0.83
T 3 Nitrite as N	5.072	5.054	0.018	15106	0.10000	0.097
T 4 Sulfate	5.783	5.689	0.094	37265	0.80000	0.82
T 5 Bromide	6.717	6.592	0.125	20600	0.80000	0.83
T 6 Nitrate as N	7.765	7.575	0.190	13696	0.10000	0.10
T 7 DCA	9.230	9.195	0.035	5823	0.50000	0.66
T 8 Phosphate as P	10.295	10.875	-0.580	18671	0.52000	0.68

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D

Date : 29-JUL-2013 12:30

Client ID: CAL2

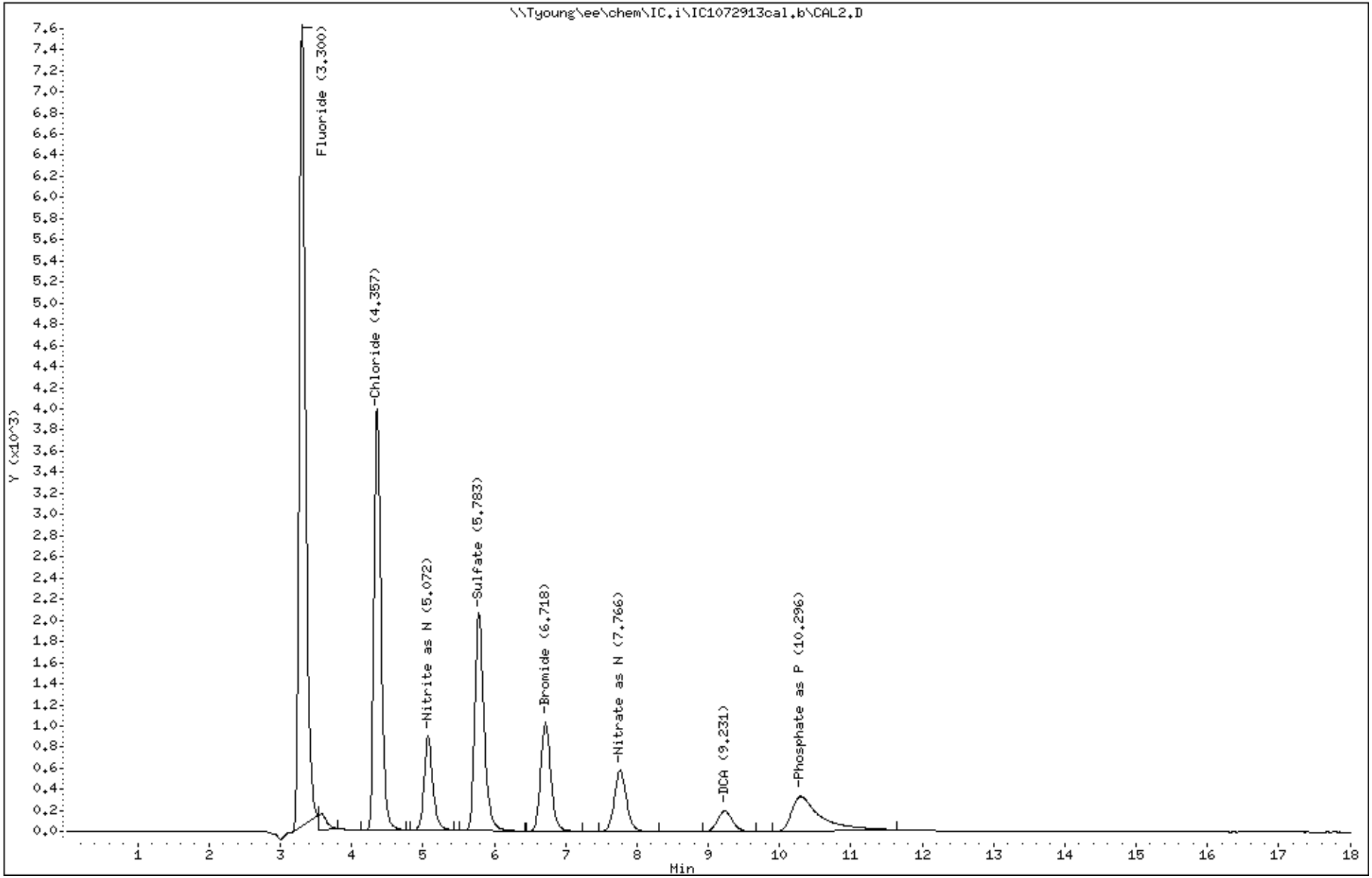
Instrument: IC.i

Sample Info: CAL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 29-JUL-2013 12:52
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:52 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	467142	4.00000	3.8(M)
T 2 Chloride	4.356	4.350	0.006	303181	4.00000	4.3
T 3 Nitrite as N	5.067	5.054	0.013	80981	0.50000	0.53
T 4 Sulfate	5.775	5.689	0.086	217028	4.00000	4.6
T 5 Bromide	6.702	6.592	0.110	125442	4.00000	4.7
T 6 Nitrate as N	7.740	7.575	0.165	84343	0.50000	0.60
T 7 DCA	9.208	9.195	0.013	35505	2.50000	2.9
T 8 Phosphate as P	10.122	10.875	-0.753	148913	2.59000	3.4

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D

Date : 29-JUL-2013 12:52

Client ID: CAL3

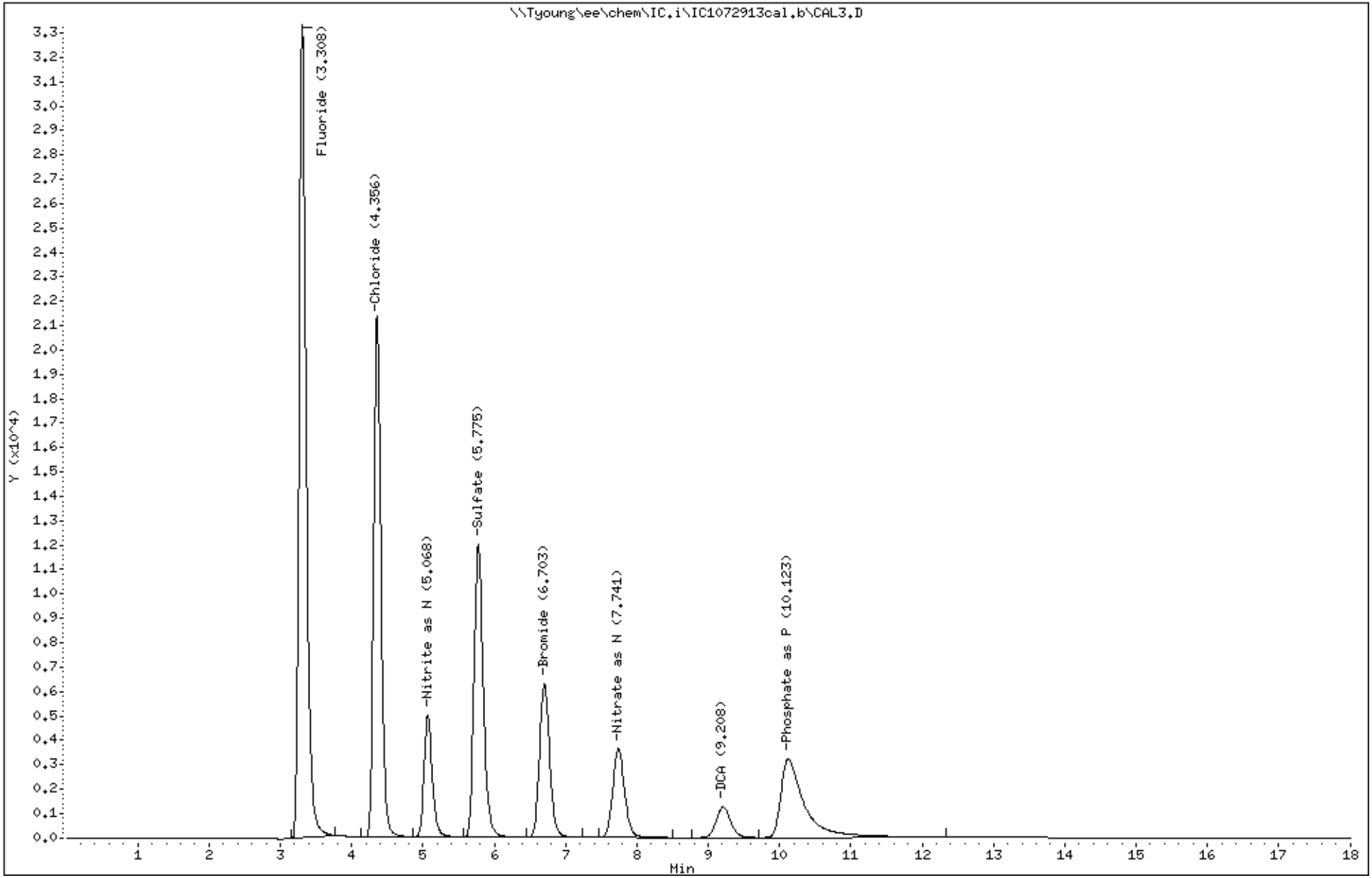
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 29-JUL-2013 13:14
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:14 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	873661	8.00000	7.5(M)
T 2 Chloride	4.358	4.350	0.008	615928	8.00000	8.0
T 3 Nitrite as N	5.071	5.054	0.017	171258	1.00000	1.1
T 4 Sulfate	5.774	5.689	0.085	445472	8.00000	8.1
T 5 Bromide	6.699	6.592	0.107	261938	8.00000	8.2
T 6 Nitrate as N	7.730	7.575	0.155	178365	1.00000	1.0
T 7 DCA	9.189	9.195	-0.006	78745	5.00000	5.5
T 8 Phosphate as P	10.003	10.875	-0.872	329624	5.18000	5.5

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D

Date : 29-JUL-2013 13:14

Client ID: CAL4

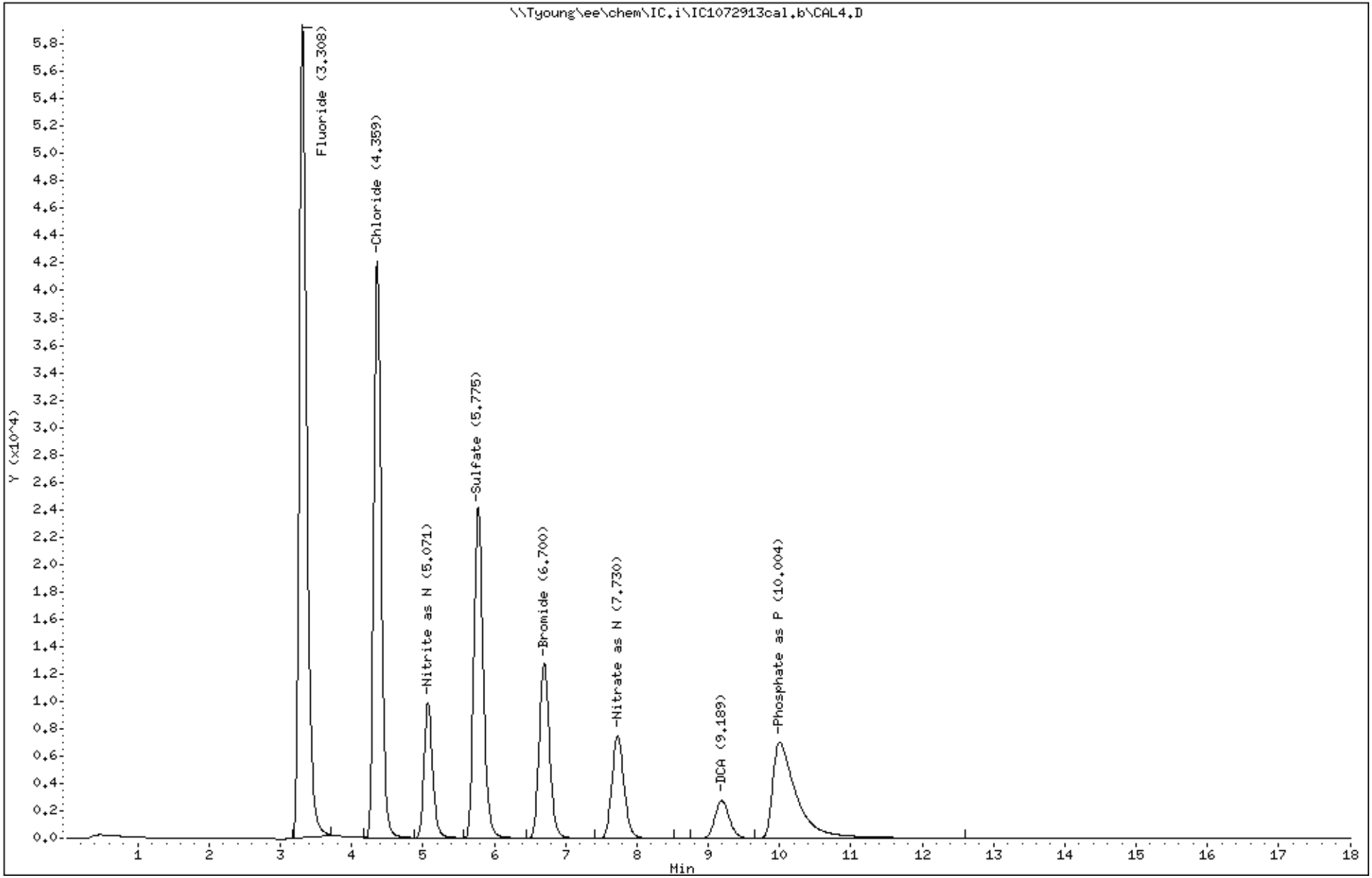
Instrument: IC.i

Sample Info: CAL4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 29-JUL-2013 13:36
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:36 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	1639414	16.0000	14.9(M)
T 2 Chloride	4.362	4.350	0.012	1264054	16.0000	16.4
T 3 Nitrite as N	5.074	5.054	0.020	341856	2.00000	2.1
T 4 Sulfate	5.769	5.689	0.080	919813	16.0000	16.4
T 5 Bromide	6.688	6.592	0.096	546425	16.0000	16.6
T 6 Nitrate as N	7.709	7.575	0.134	377690	2.00000	2.1
T 7 DCA	9.175	9.195	-0.020	116776	7.00000	7.4
T 8 Phosphate as P	9.850	10.875	-1.025	728275	10.3700	11.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D

Date : 29-JUL-2013 13:36

Client ID: CAL5

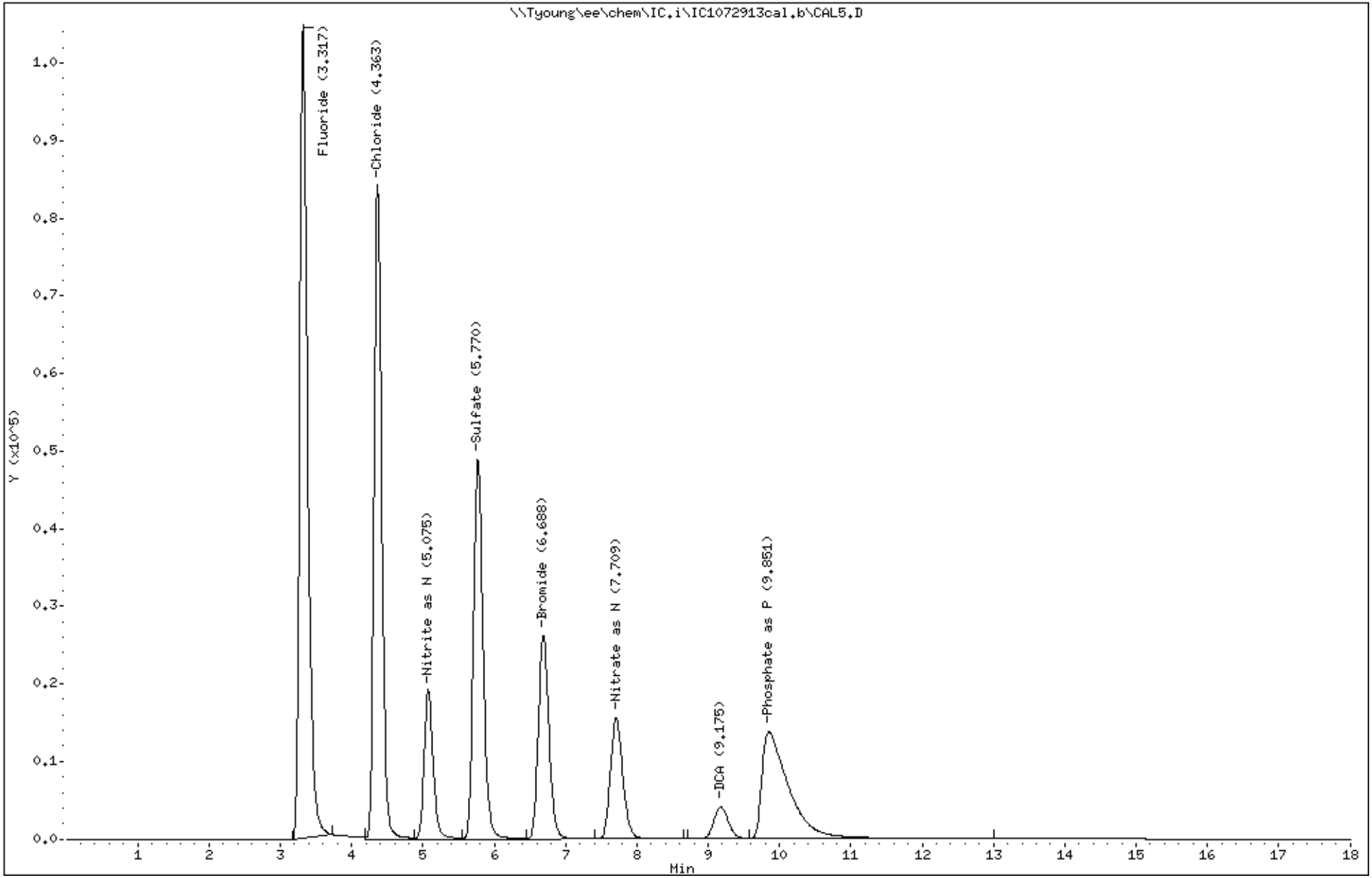
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 29-JUL-2013 13:58
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:58 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	3469338	40.0000	33.7(AM)
T 2 Chloride	4.356	4.350	0.006	3127633	40.0000	39.5
T 3 Nitrite as N	5.066	5.054	0.012	811088	5.00000	5.0
T 4 Sulfate	5.735	5.689	0.046	2280730	40.0000	39.6
T 5 Bromide	6.646	6.592	0.054	1373627	40.0000	40.1
T 6 Nitrate as N	7.650	7.575	0.075	965380	5.00000	5.1
T 7 DCA	9.125	9.195	-0.070	170834	10.0000	10.4
T 8 Phosphate as P	9.538	10.875	-1.337	1923582	25.9200	27.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D

Date : 29-JUL-2013 13:58

Client ID: CAL6

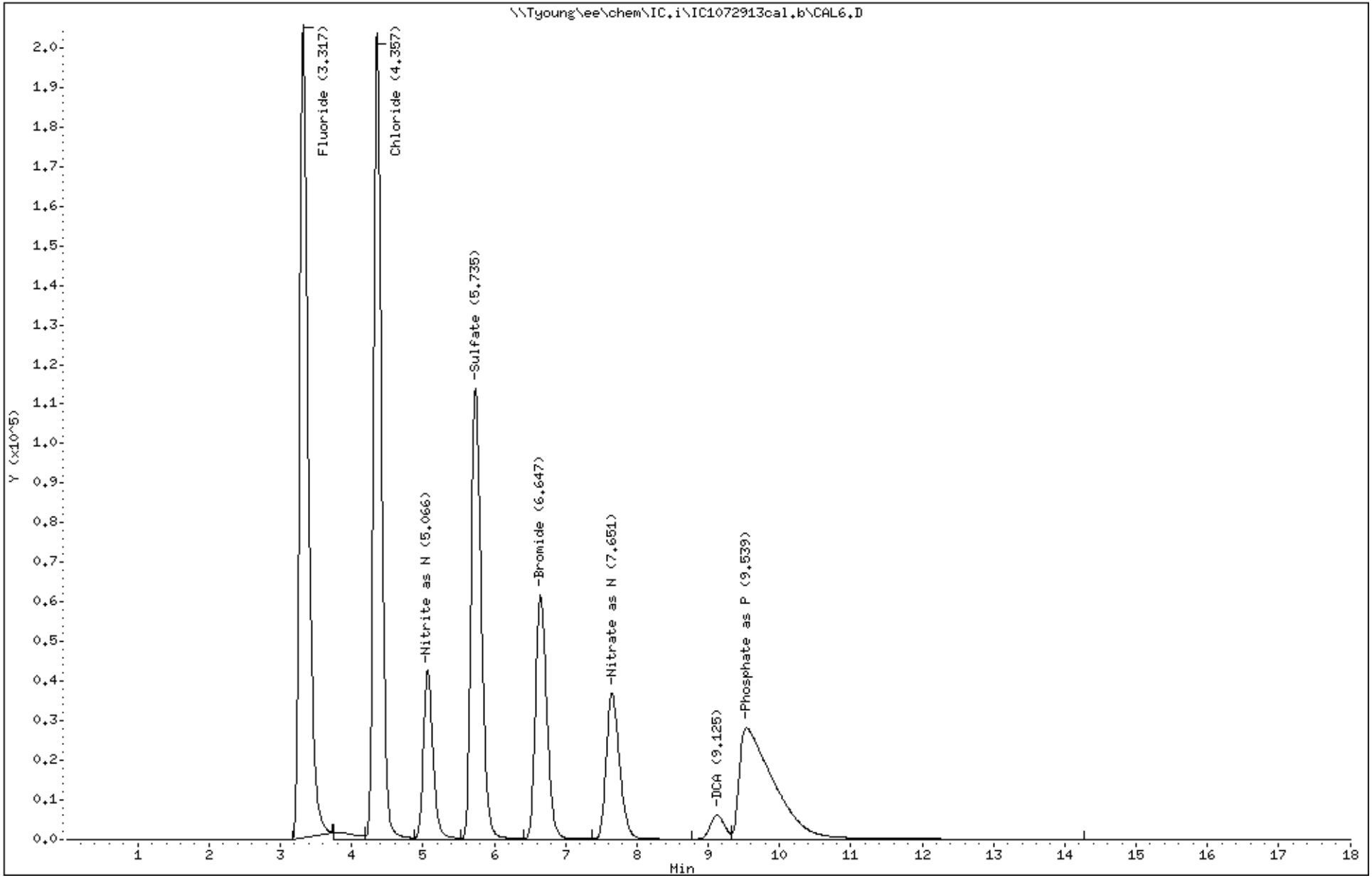
Instrument: IC.i

Sample Info: CAL6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 29-JUL-2013 14:20
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.325	3.325	0.000	5969962	80.0000	58.2(AM)
T 2 Chloride	4.350	4.350	0.000	6294429	80.0000	80.3(A)
T 3 Nitrite as N	5.054	5.054	0.000	1512306	10.0000	9.3(A)
T 4 Sulfate	5.689	5.689	0.000	4586411	80.0000	80.2(A)
T 5 Bromide	6.592	6.592	0.000	2772233	80.0000	80.5(A)
T 6 Nitrate as N	7.575	7.575	0.000	1959123	10.0000	10.1(A)
T 8 Phosphate as P	9.169	10.875	-1.706	4231453	51.8400	56.8(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D

Date : 29-JUL-2013 14:20

Client ID: CAL7

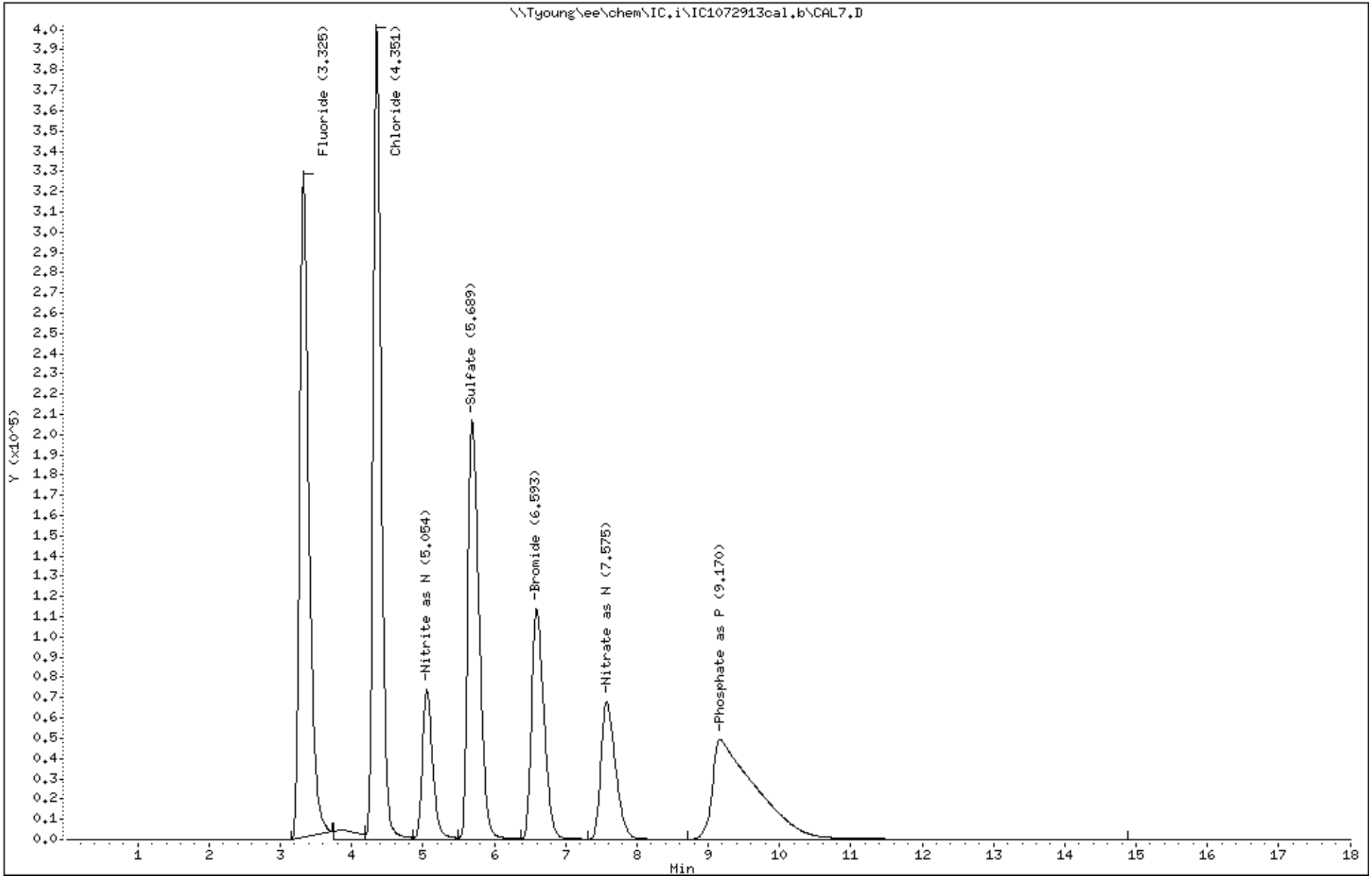
Instrument: IC.i

Sample Info: CAL7

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413ICV.D
Lab Smp Id: 111413ICV Client Smp ID: 111413ICV
Inj Date : 14-NOV-2013 17:06
Operator : TR Inst ID: IC.i
Smp Info : 111413ICV
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	913578	8.67099	8.7(M)
T 2 Chloride	4.340	4.350	-0.010	650364	8.36946	8.4
T 3 Nitrite as N	5.016	5.054	-0.038	165751	1.03143	1.0(M)
T 4 Sulfate	5.612	5.689	-0.077	471072	8.35663	8.4
T 5 Bromide	6.589	6.592	-0.003	274933	8.21616	8.2
T 6 Nitrate as N	7.569	7.575	-0.006	188725	1.01941	1.0
T 7 DCA	8.956	9.195	-0.239	80013	4.87318	4.9
T 8 Phosphate as P	9.725	9.914	-0.189	311264	4.71760	4.7(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413ICV.D

Date : 14-NOV-2013 17:06

Client ID: 111413ICV

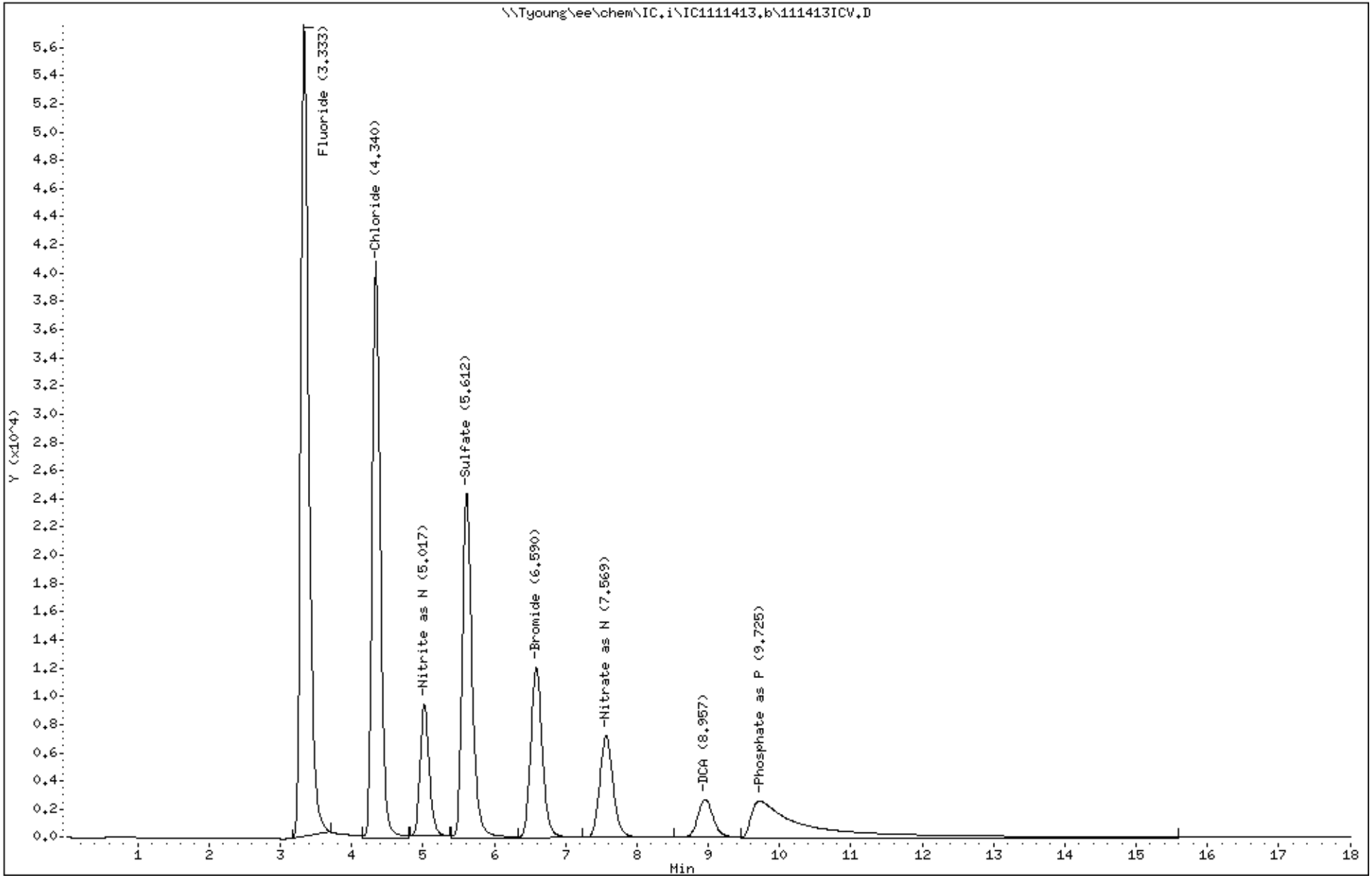
Instrument: IC.i

Sample Info: 111413ICV

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413ICB.D
Lab Smp Id: 111413ICB Client Smp ID: 111413ICB
Inj Date : 14-NOV-2013 17:28
Operator : TR Inst ID: IC.i
Smp Info : 111413ICB
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.341	4.350	-0.009	1658	0.12992	0.13
T 3 Nitrite as N	4.925	5.054	-0.129	964	0.00600	0.0060
T 7 DCA	8.966	9.195	-0.229	84227	5.11710	5.1

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413ICB.D

Date : 14-NOV-2013 17:28

Client ID: 111413ICB

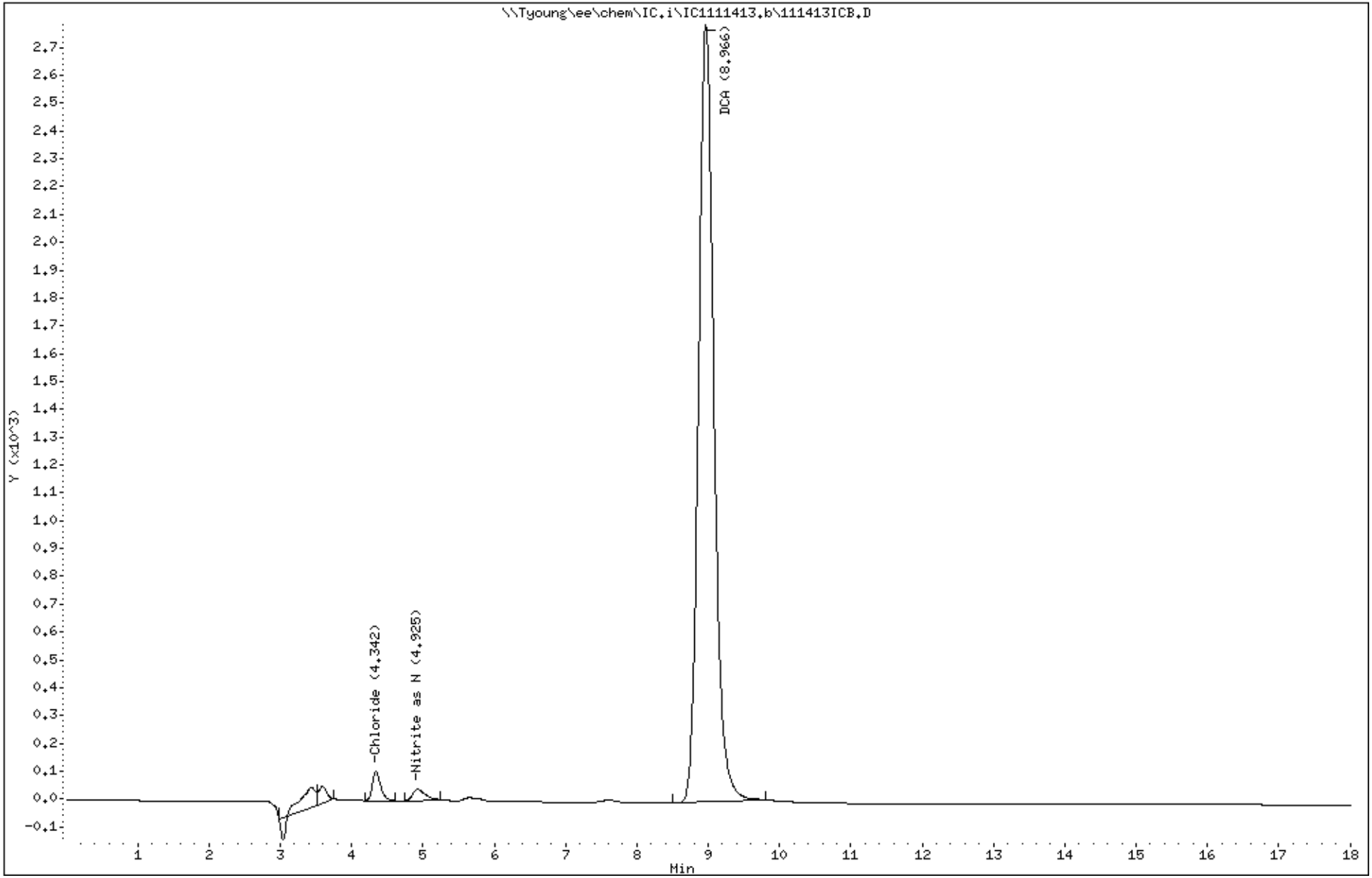
Instrument: IC.i

Sample Info: 111413ICB

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413MB.D
Lab Smp Id: 111413MB Client Smp ID: 111413MB
Inj Date : 14-NOV-2013 17:50
Operator : TR Inst ID: IC.i
Smp Info : 111413MB
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.345	4.350	-0.005	1816	0.13193	0.13
T 3 Nitrite as N	4.929	5.054	-0.125	1050	0.00653	0.0065
T 7 DCA	8.971	9.195	-0.224	84570	5.13695	5.1

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413MB.D

Date : 14-NOV-2013 17:50

Client ID: 111413MB

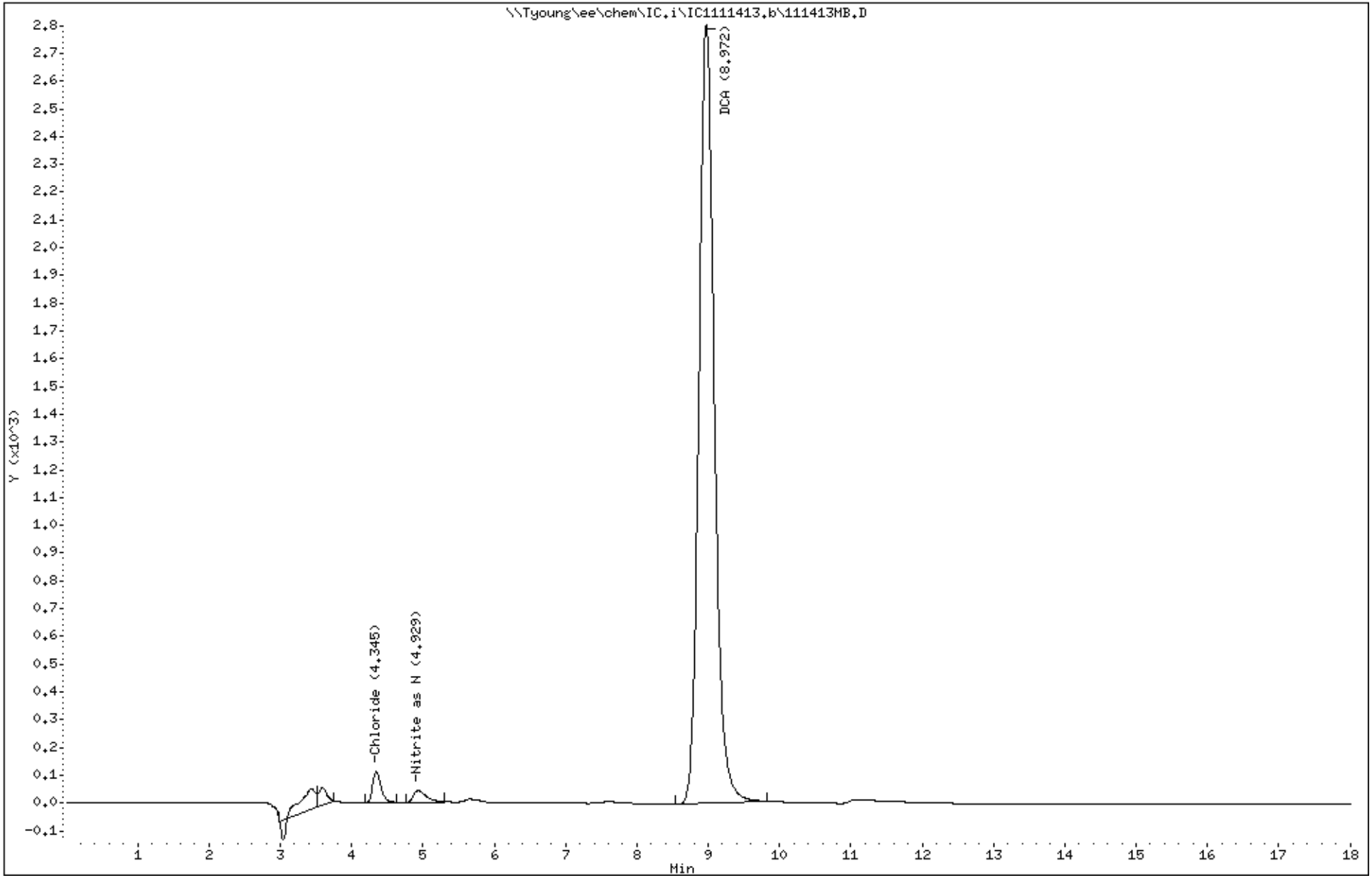
Instrument: IC.i

Sample Info: 111413MB

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413LCS.D
Lab Smp Id: 111413LCS Client Smp ID: 111413LCS
Inj Date : 14-NOV-2013 18:12
Operator : TR Inst ID: IC.i
Smp Info : 111413LCS
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.335	3.325	0.010	946505	8.99349	9.0
T 2 Chloride	4.346	4.350	-0.004	649995	8.36477	8.4
T 3 Nitrite as N	5.028	5.054	-0.026	176043	1.09548	1.1
T 4 Sulfate	5.627	5.689	-0.062	471945	8.37183	8.4
T 5 Bromide	6.596	6.592	0.004	275005	8.21823	8.2
T 6 Nitrate as N	7.574	7.575	-0.001	188776	1.01967	1.0
T 7 DCA	8.965	9.195	-0.230	79882	4.86560	4.9
T 8 Phosphate as P	9.733	9.914	-0.181	287260	4.42425	4.4(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413LCS.D

Date : 14-NOV-2013 18:12

Client ID: 111413LCS

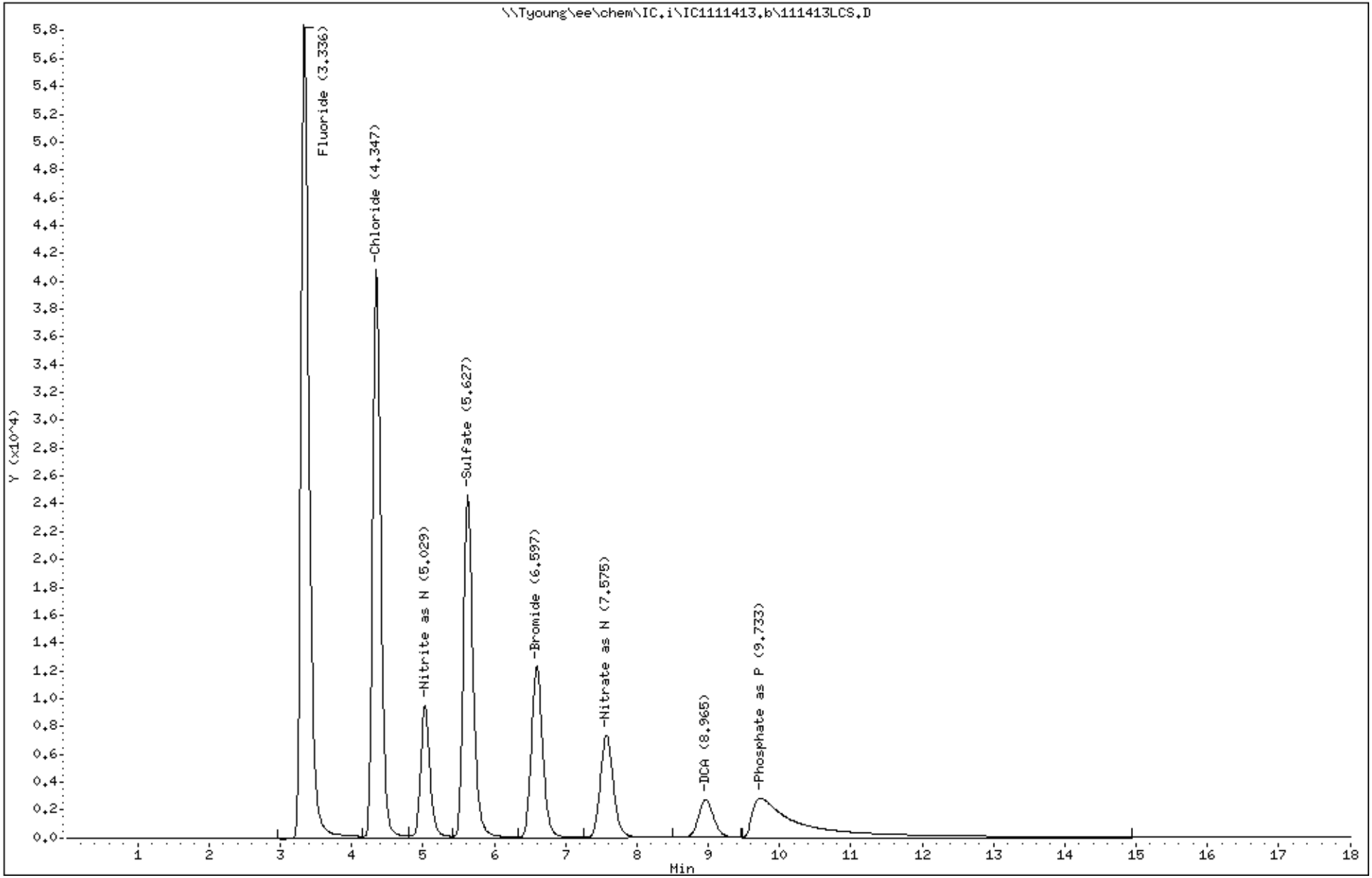
Instrument: IC.i

Sample Info: 111413LCS

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413LCSD.D
Lab Smp Id: 111413LCSD Client Smp ID: 111413LCSD
Inj Date : 14-NOV-2013 18:34
Operator : TR Inst ID: IC.i
Smp Info : 111413LCSD
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.334	3.325	0.009	947044	8.99877	9.0
T 2 Chloride	4.344	4.350	-0.006	649632	8.36016	8.4
T 3 Nitrite as N	5.026	5.054	-0.028	176675	1.09941	1.1
T 4 Sulfate	5.632	5.689	-0.057	473004	8.39028	8.4
T 5 Bromide	6.595	6.592	0.003	275468	8.23156	8.2
T 6 Nitrate as N	7.573	7.575	-0.002	189257	1.02212	1.0
T 7 DCA	8.968	9.195	-0.227	80313	4.89055	4.9
T 8 Phosphate as P	9.732	9.914	-0.182	269535	4.20763	4.2

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413LCSD.D

Date : 14-NOV-2013 18:34

Client ID: 111413LCSD

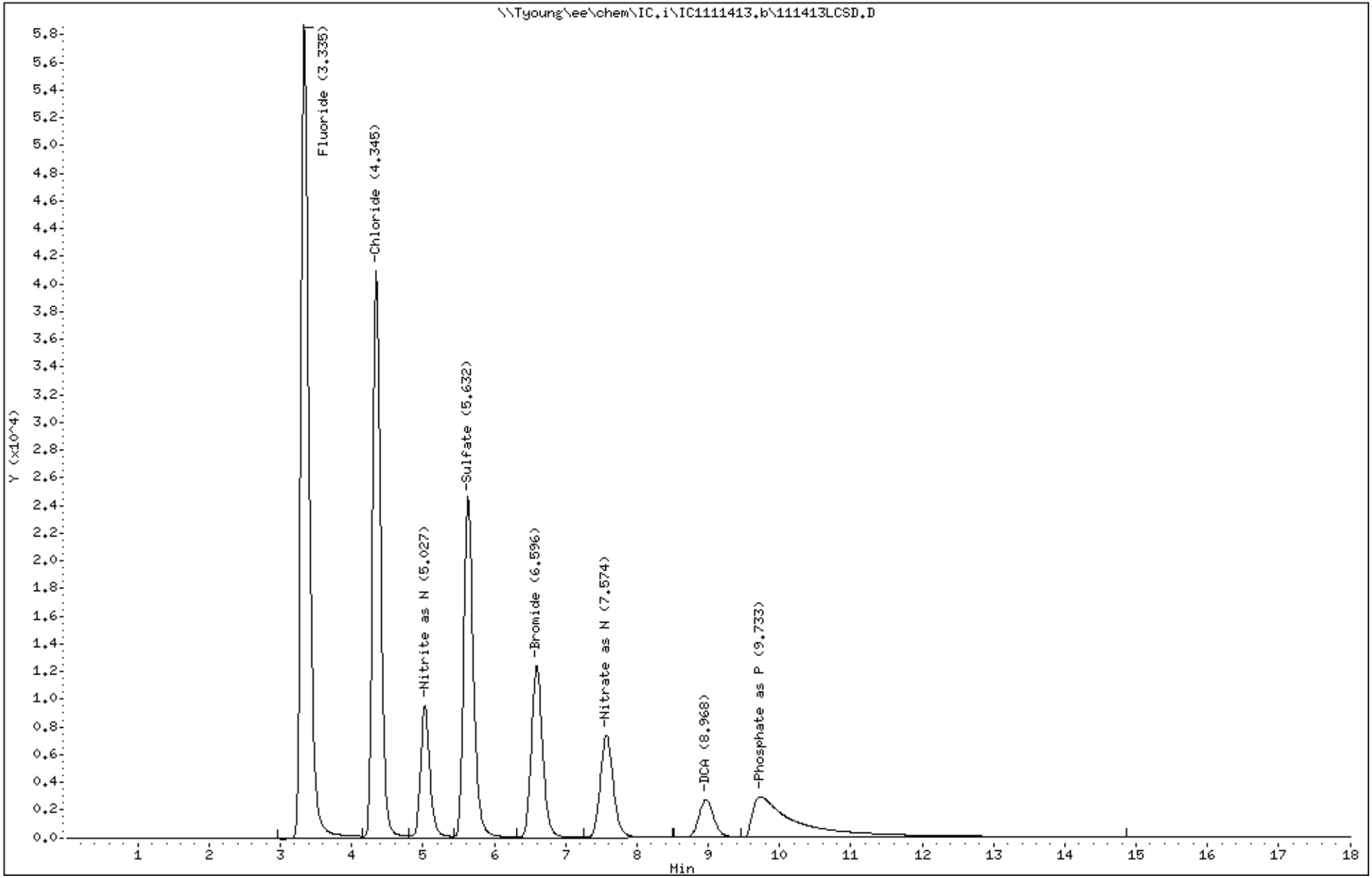
Instrument: IC.i

Sample Info: 111413LCSD

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\351099301.D
Lab Smp Id: 351099301 Client Smp ID: SMSMW03B
Inj Date : 14-NOV-2013 18:56
Operator : TR Inst ID: IC.i
Smp Info : 351099301
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	2.783	3.325	-0.542	23		(M)
T 2 Chloride	4.866	4.350	0.516	3249465649	41273.2	41300(AM)
T 3 Nitrite as N	5.300	5.054	0.246	0		(M)
T 4 Sulfate	5.491	5.689	-0.198	20004474	348.591	348(AM)
T 7 DCA	8.908	9.195	-0.287	75344	4.60294	4.6(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\351099301.D

Date : 14-NOV-2013 18:56

Client ID: SMSMW03B

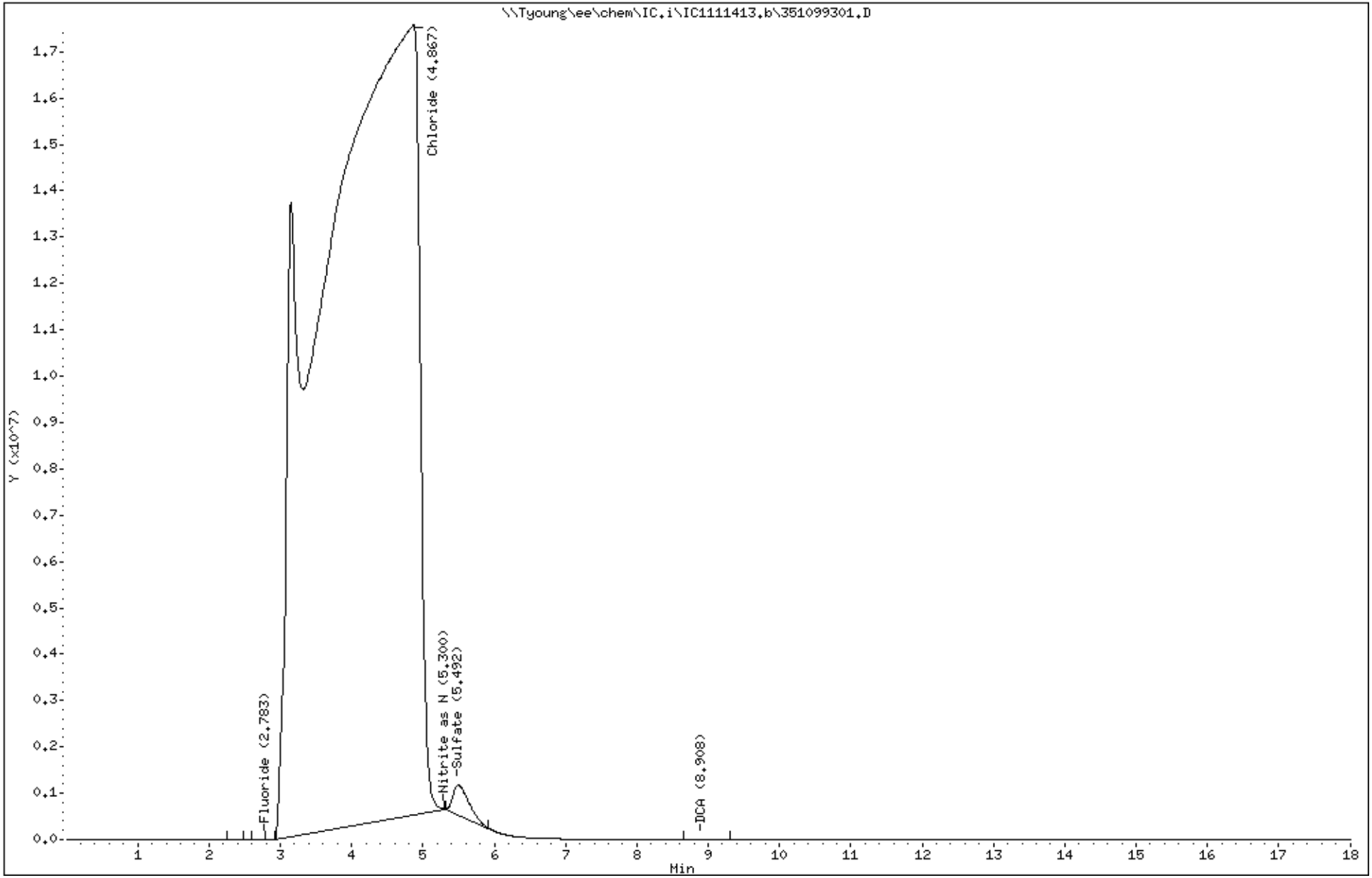
Instrument: IC.i

Sample Info: 351099301

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\351099302.D
Lab Smp Id: 351099302 Client Smp ID: SMSMW04A
Inj Date : 14-NOV-2013 19:17
Operator : TR Inst ID: IC.i
Smp Info : 351099302
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.091	3.325	-0.234	365199	3.29992	3.3(M)
T 2 Chloride	4.550	4.350	0.200	763898907	9702.78	9700(AM)
T 4 Sulfate	5.450	5.689	-0.239	14457344	251.971	252(AM)
T 5 Bromide	6.558	6.592	-0.034	70653	2.33671	2.3(M)
T 6 Nitrate as N	7.333	7.575	-0.242	5776438	29.4342	29.4(AM)
T 7 DCA	8.950	9.195	-0.245	81241	4.94426	4.9(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\351099302.D

Date : 14-NOV-2013 19:17

Client ID: SMSMW04A

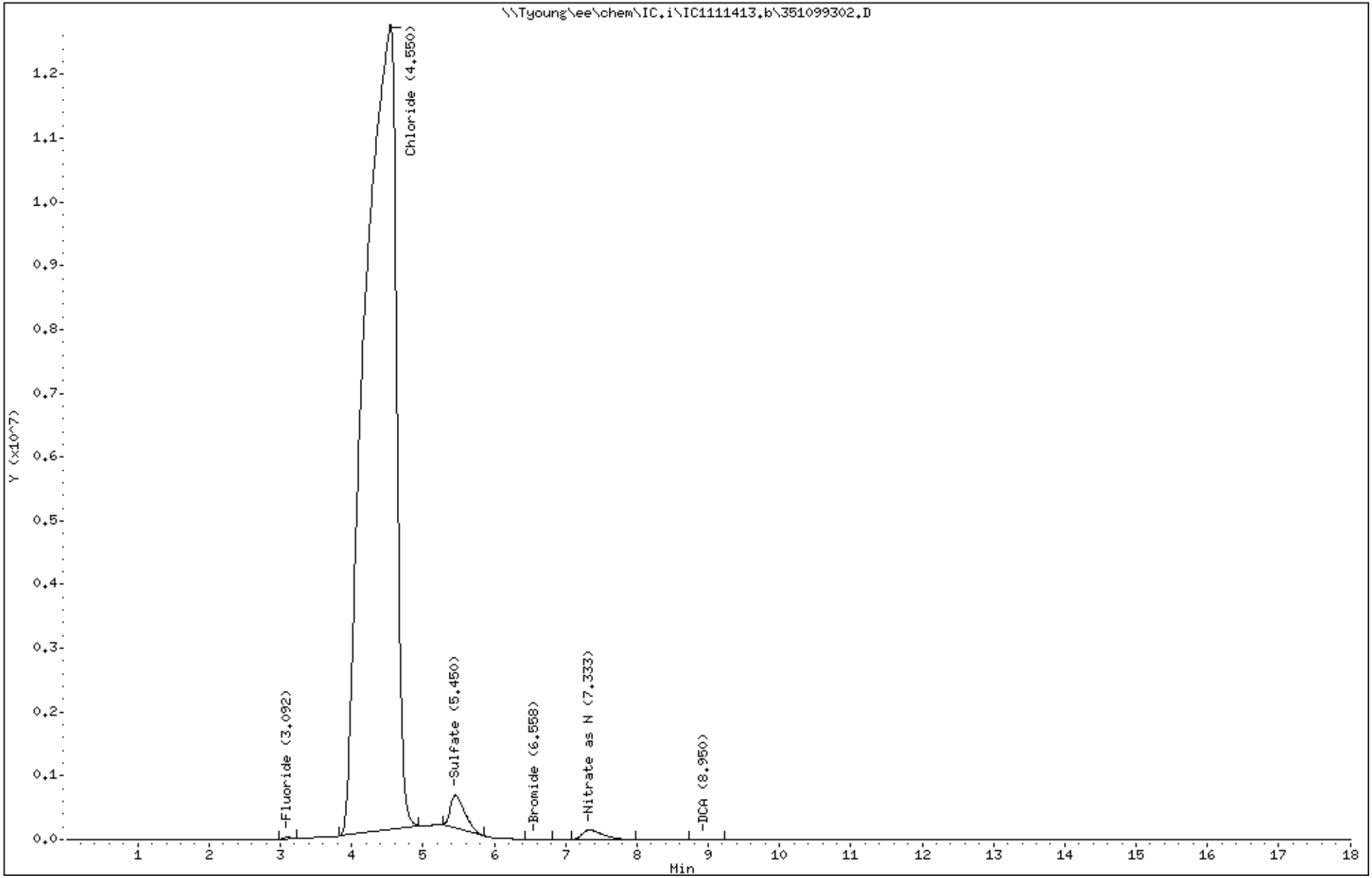
Instrument: IC.i

Sample Info: 351099302

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\351099303.D
Lab Smp Id: 351099303 Client Smp ID: SMSSW03
Inj Date : 14-NOV-2013 19:39
Operator : TR Inst ID: IC.i
Smp Info : 351099303
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.325	3.325	0.000	885822	8.39914	8.4(M)
T 2 Chloride	4.333	4.350	-0.017	25620032	325.522	326(AM)
T 3 Nitrite as N	5.250	5.054	0.196	10367	0.06451	0.064(M)
T 4 Sulfate	5.633	5.689	-0.056	508989	9.01707	9.0(M)
T 5 Bromide	6.595	6.592	0.003	2617	0.37854	0.38
T 6 Nitrate as N	7.600	7.575	0.025	1835	0.06903	0.069
T 7 DCA	8.986	9.195	-0.209	77231	4.71216	4.7

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

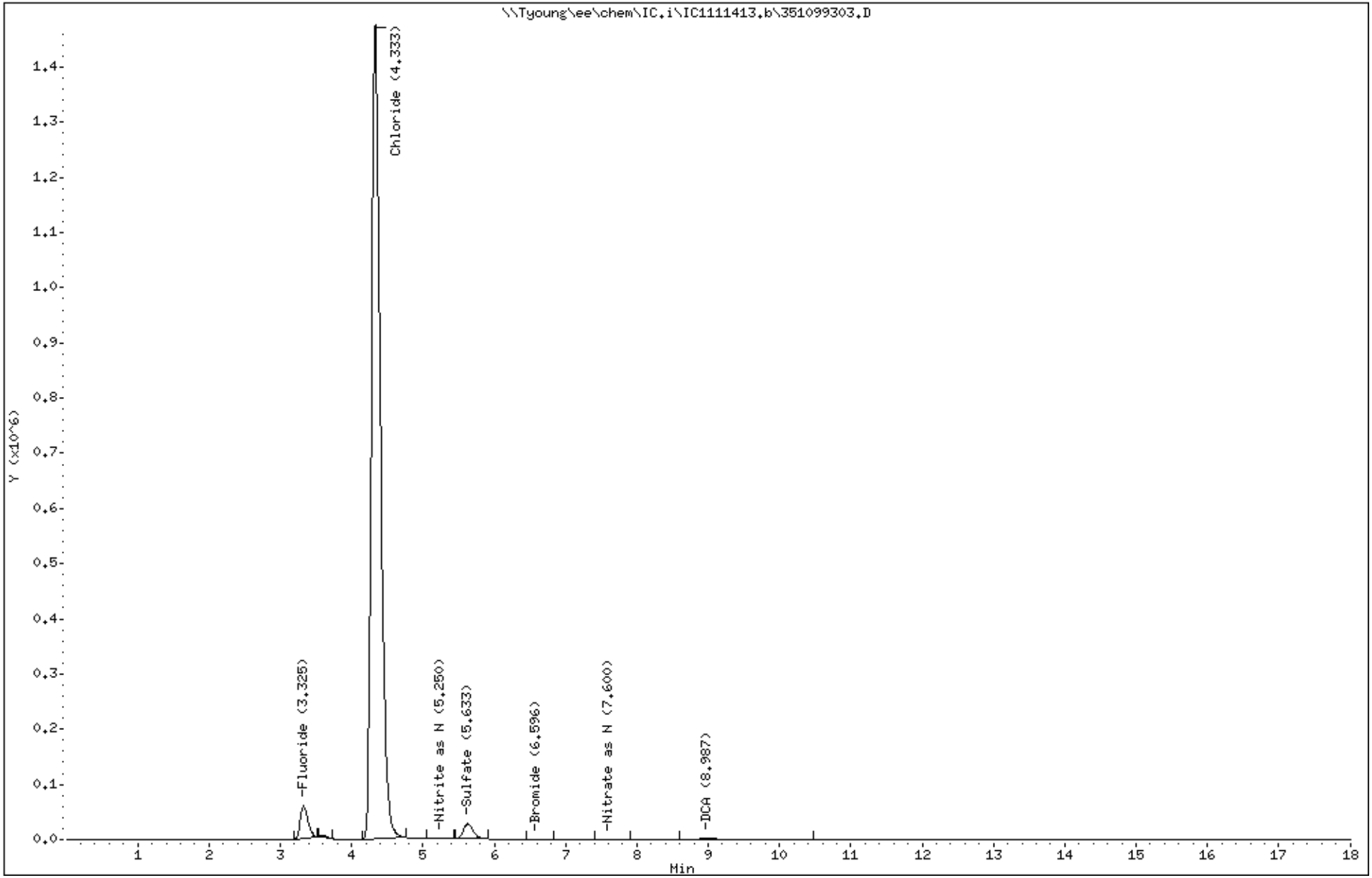
Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\351099303.D
Date : 14-NOV-2013 19:39
Client ID: SMSSW03
Sample Info: 351099303

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\351099304.D
Lab Smp Id: 351099304 Client Smp ID: SMSSW13
Inj Date : 14-NOV-2013 20:01
Operator : TR Inst ID: IC.i
Smp Info : 351099304
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.323	3.325	-0.002	35559	0.07128	0.071
T 2 Chloride	4.333	4.350	-0.017	11690955	148.602	149(AM)
T 3 Nitrite as N	5.241	5.054	0.187	1520	0.00946	0.0094(M)
T 4 Sulfate	5.616	5.689	-0.073	1095643	19.2355	19.2(M)
T 5 Bromide	6.579	6.592	-0.013	707	0.32357	0.32
T 6 Nitrate as N	7.573	7.575	-0.002	261618	1.39009	1.4
T 7 DCA	8.982	9.195	-0.213	76754	4.68455	4.7

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\351099304.D

Date : 14-NOV-2013 20:01

Client ID: SMSSW13

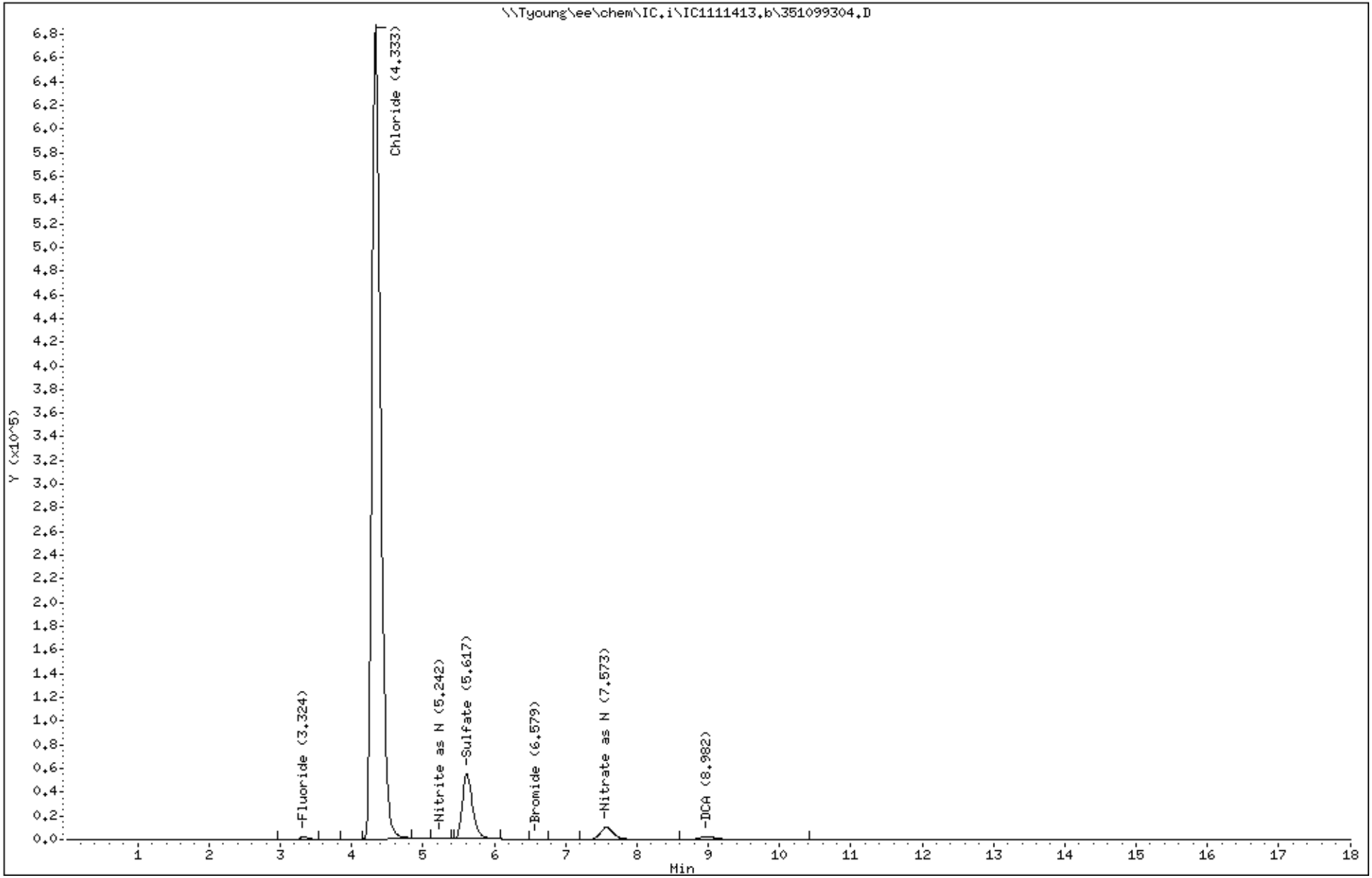
Instrument: IC.i

Sample Info: 351099304

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413CCV1.D
Lab Smp Id: 111413CCV1 Client Smp ID: 111413CCV1
Inj Date : 14-NOV-2013 20:45
Operator : TR Inst ID: IC.i
Smp Info : 111413CCV1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.341	3.325	0.016	904782	8.58484	8.6(M)
T 2 Chloride	4.350	4.350	0.000	640609	8.24556	8.2
T 3 Nitrite as N	5.032	5.054	-0.022	173810	1.08158	1.1
T 4 Sulfate	5.640	5.689	-0.049	457602	8.12201	8.1
T 5 Bromide	6.601	6.592	0.009	276033	8.24782	8.2
T 6 Nitrate as N	7.582	7.575	0.007	191068	1.03132	1.0
T 7 DCA	8.981	9.195	-0.214	80719	4.91405	4.9
T 8 Phosphate as P	10.000	9.914	0.086	322895	4.85975	4.8(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413CCV1.D

Date : 14-NOV-2013 20:45

Client ID: 111413CCV1

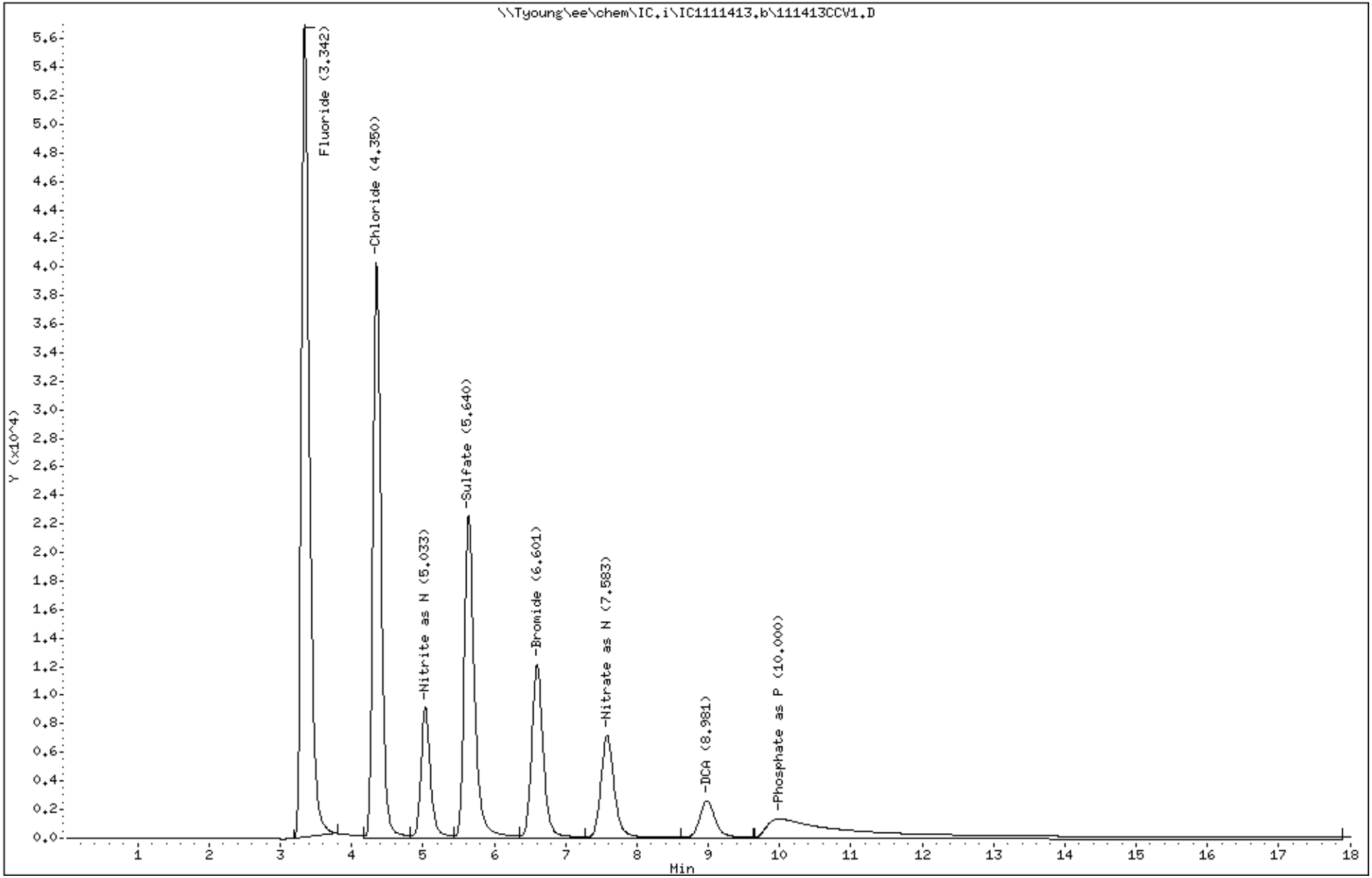
Instrument: IC.i

Sample Info: 111413CCV1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111413.b\111413CCB1.D
Lab Smp Id: 111413CCB1 Client Smp ID: 111413CCB1
Inj Date : 14-NOV-2013 21:07
Operator : TR Inst ID: IC.i
Smp Info : 111413CCB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111413.b\IC1300.m
Meth Date : 18-Nov-2013 08:41 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.344	4.350	-0.006	2195	0.13674	0.14
T 7 DCA	8.975	9.195	-0.220	80907	4.92493	4.9

Data File: \\Tyoung\ee\chem\IC.i\IC1111413.b\111413CCB1.D

Date : 14-NOV-2013 21:07

Client ID: 111413CCB1

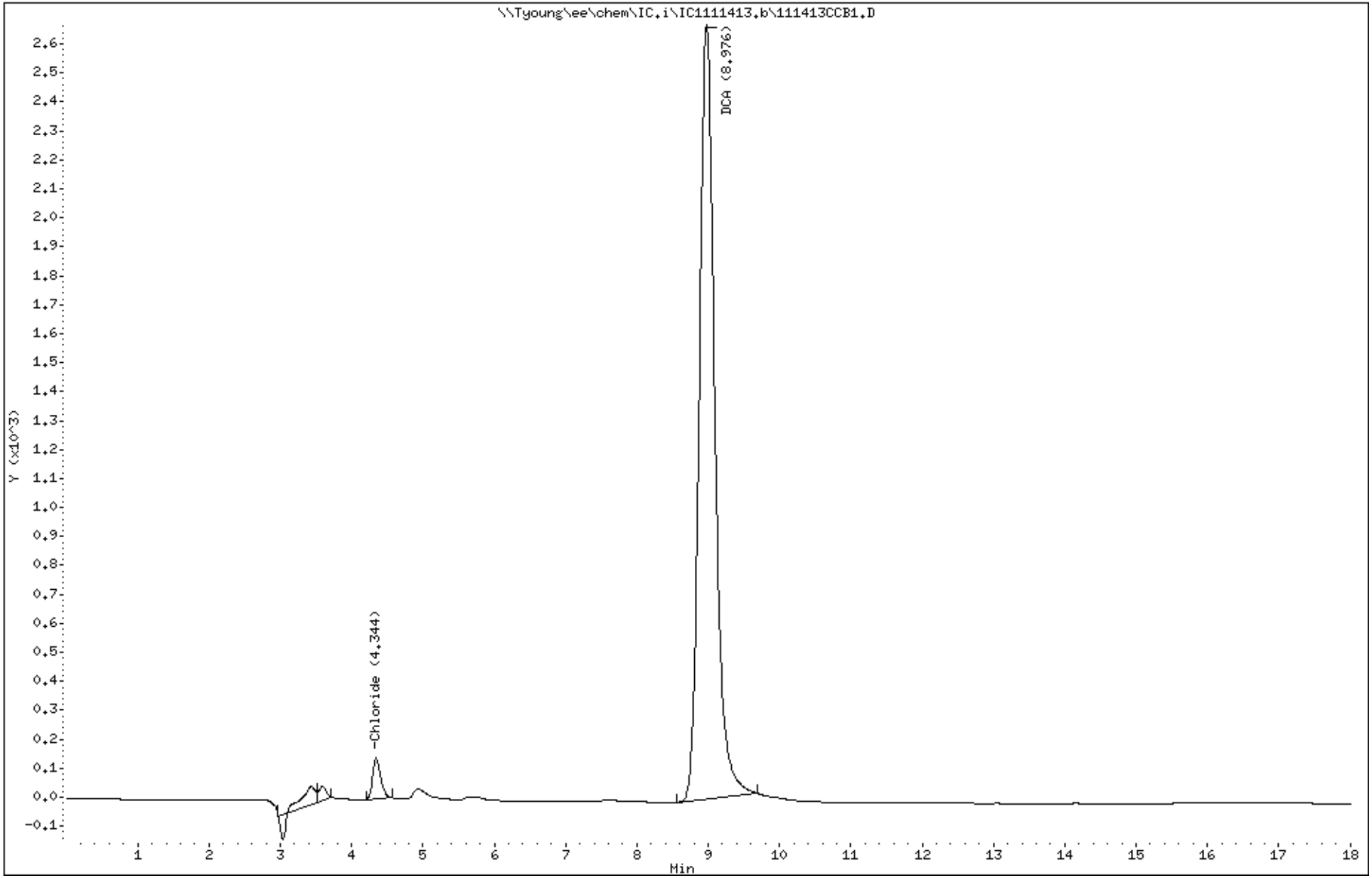
Instrument: IC.i

Sample Info: 111413CCB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



141

3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 25-NOV-2013 12:58
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 12:58 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.303	3.325	-0.022	50896	0.40000		
T 2 Chloride	4.193	4.194	-0.001	27748	0.40000		
T 3 Nitrite as N	4.788	4.785	0.003	8885	0.05000		
T 4 Sulfate	5.467	5.444	0.023	19876	0.40000		
T 5 Bromide	6.187	6.075	0.112	10986	0.40000		(M)
T 6 Nitrate as N	7.073	6.898	0.175	7780	0.05000		(M)
T 7 DCA	8.354	8.188	0.166	1612	0.10000		(M)
T 8 Phosphate as P	9.570	8.625	0.945	12365	0.26000		(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D

Date : 25-NOV-2013 12:58

Client ID: CAL1

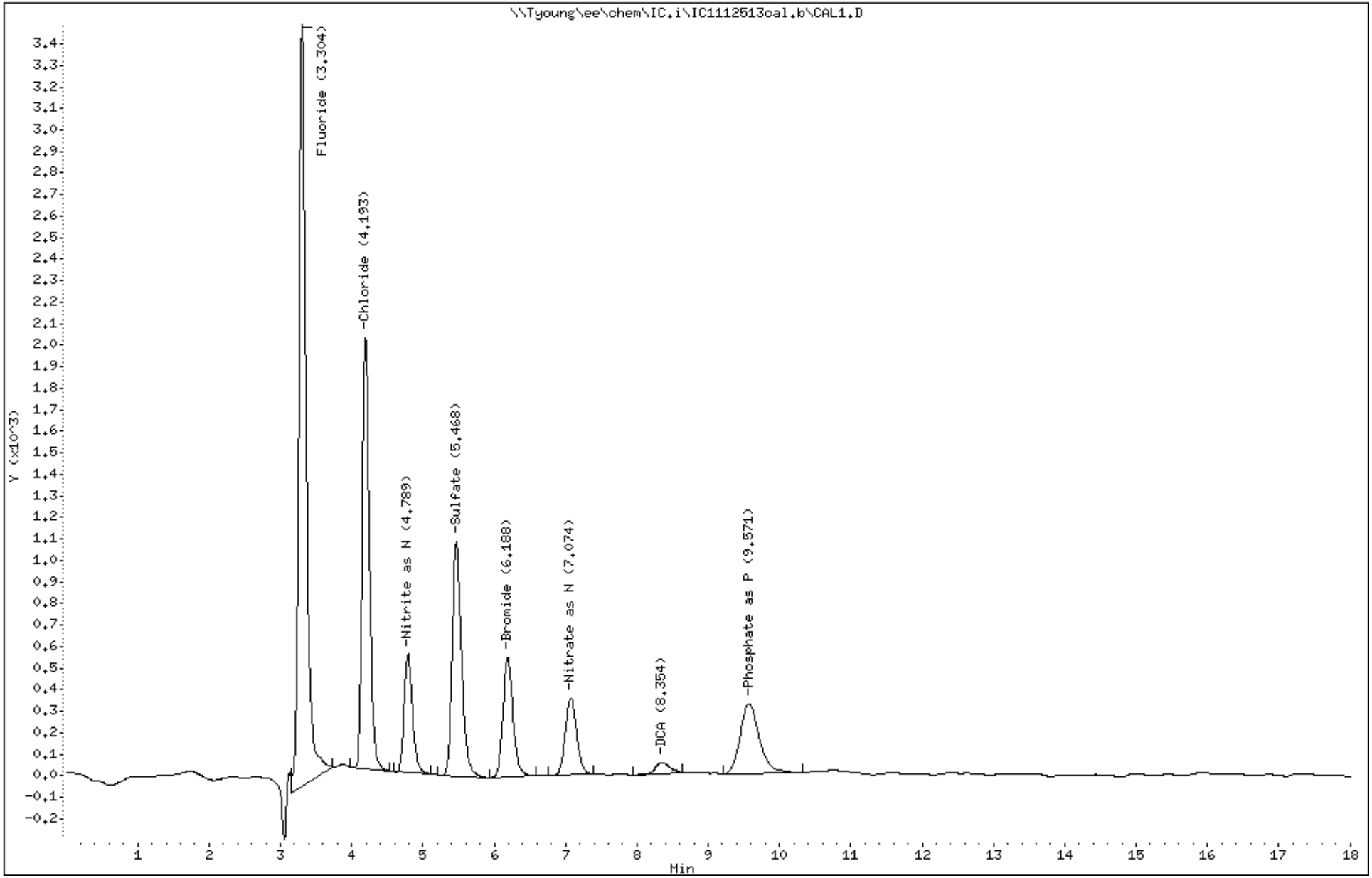
Instrument: IC.i

Sample Info: CAL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

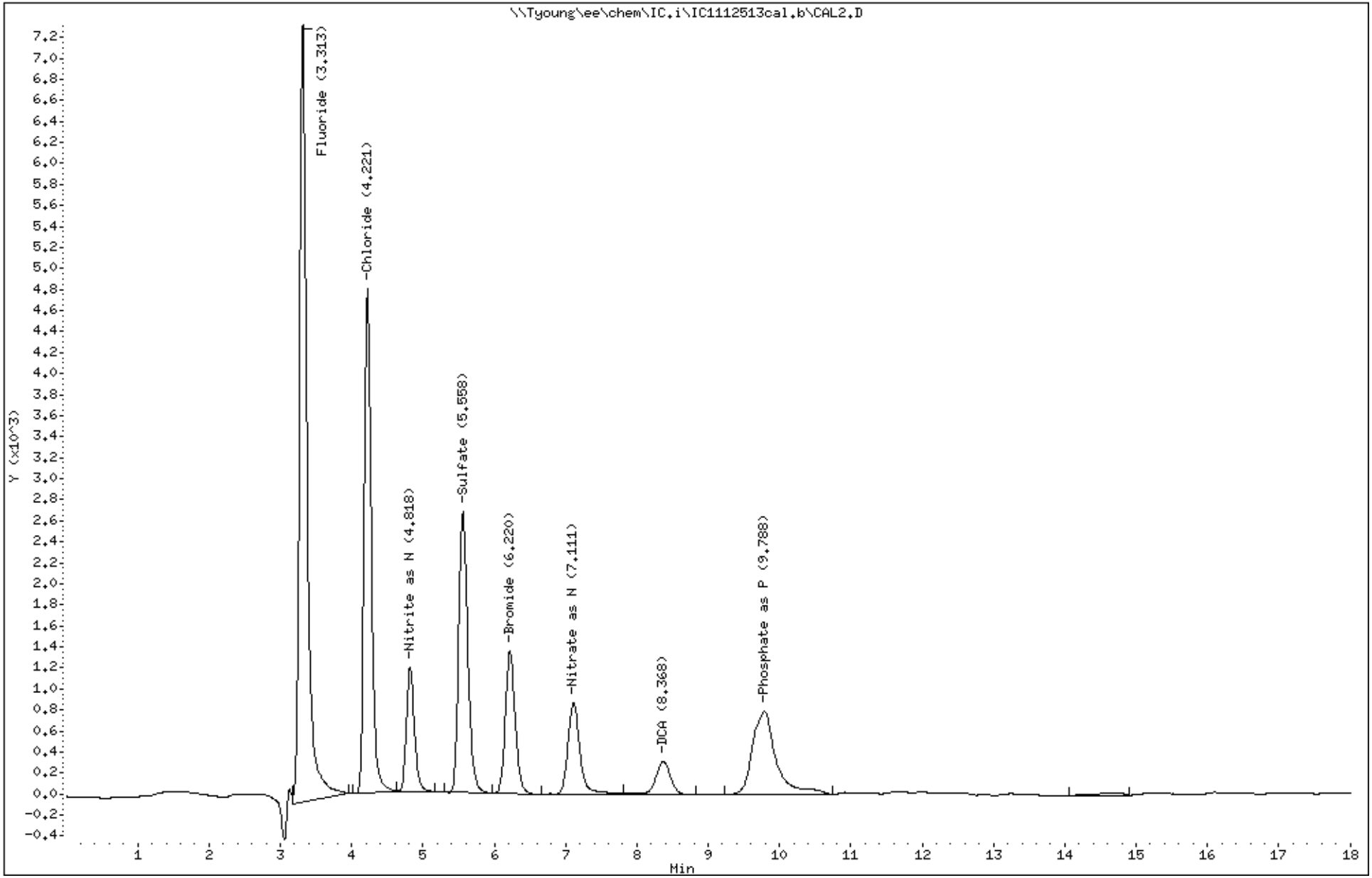
Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 25-NOV-2013 14:13
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:13 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.313	3.325	-0.012	110084	0.80000	0.86
T 2 Chloride	4.220	4.194	0.026	67801	0.80000	0.98
T 3 Nitrite as N	4.818	4.785	0.033	18925	0.10000	0.11
T 4 Sulfate	5.558	5.444	0.114	47616	0.80000	0.96
T 5 Bromide	6.219	6.075	0.144	26210	0.80000	0.95
T 6 Nitrate as N	7.111	6.898	0.213	20974	0.10000	0.13
T 7 DCA	8.367	8.188	0.179	9492	0.50000	0.59
T 8 Phosphate as P	9.788	8.625	1.163	36828	0.52000	0.77

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D
Date : 25-NOV-2013 14:13
Client ID: CAL2
Sample Info: CAL2

Instrument: IC.i

Operator: TR
Column phase: AS18
Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 25-NOV-2013 14:35
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:35 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.302	3.325	-0.023	506998	4.00000	3.5
T 2 Chloride	4.207	4.194	0.013	324271	4.00000	3.4
T 3 Nitrite as N	4.817	4.785	0.032	99903	0.50000	0.54
T 4 Sulfate	5.579	5.444	0.135	233756	4.00000	3.5
T 5 Bromide	6.185	6.075	0.110	138199	4.00000	3.7
T 6 Nitrate as N	7.054	6.898	0.156	97600	0.50000	0.39
T 7 DCA	8.339	8.188	0.151	47723	2.50000	2.4
T 8 Phosphate as P	9.638	8.625	1.013	188427	2.59000	2.1

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D

Date : 25-NOV-2013 14:35

Client ID: CAL3

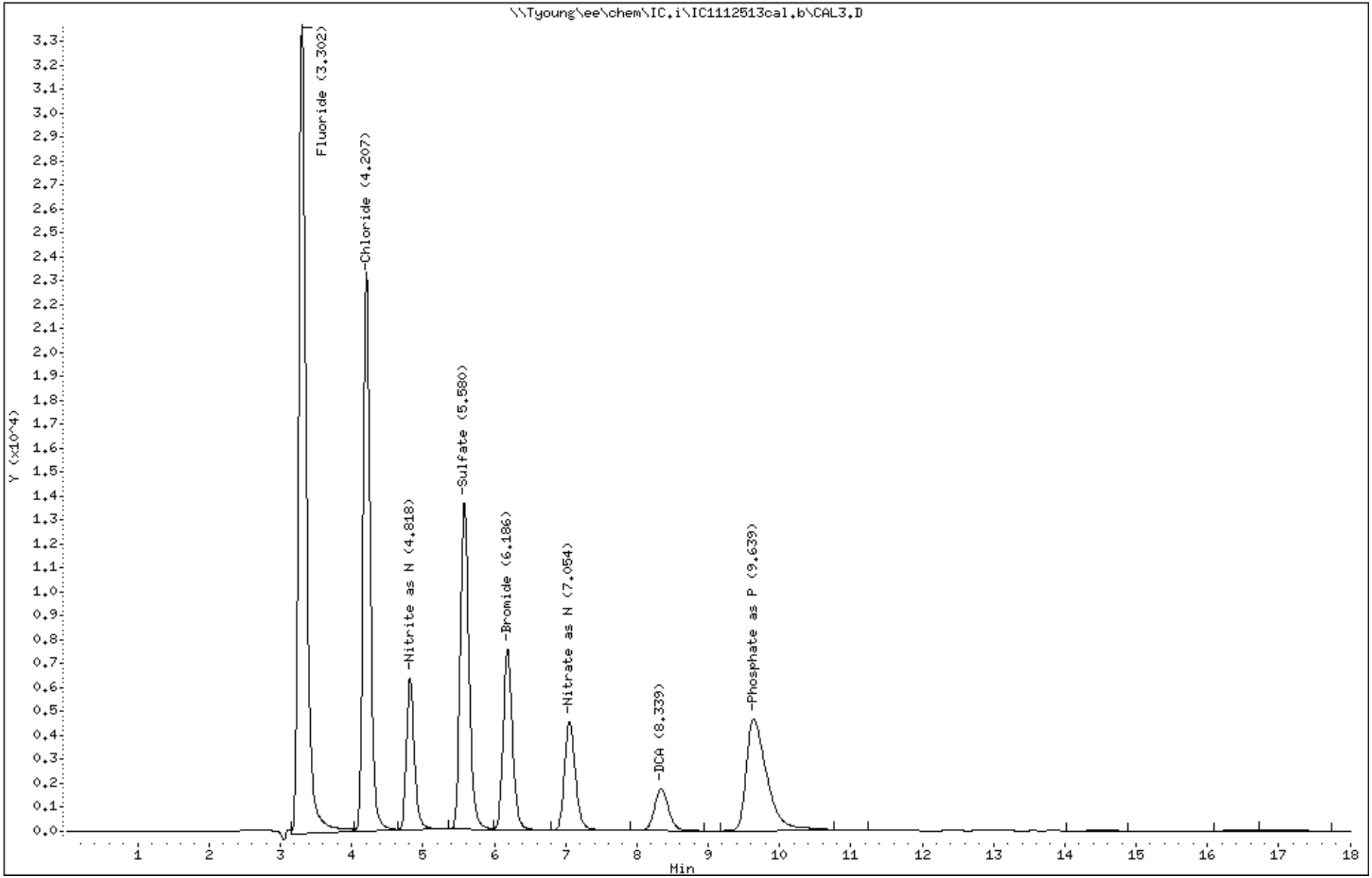
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 25-NOV-2013 14:57
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:57 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.309	3.325	-0.016	963463	8.00000	7.6
T 2 Chloride	4.219	4.194	0.025	664370	8.00000	8.2
T 3 Nitrite as N	4.824	4.785	0.039	207297	1.00000	1.1
T 4 Sulfate	5.605	5.444	0.161	484699	8.00000	8.2
T 5 Bromide	6.204	6.075	0.129	294111	8.00000	8.4
T 6 Nitrate as N	7.071	6.898	0.173	208170	1.00000	1.1
T 7 DCA	8.363	8.188	0.175	102473	5.00000	5.4
T 8 Phosphate as P	9.667	8.625	1.042	408287	5.18000	5.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D

Date : 25-NOV-2013 14:57

Client ID: CAL4

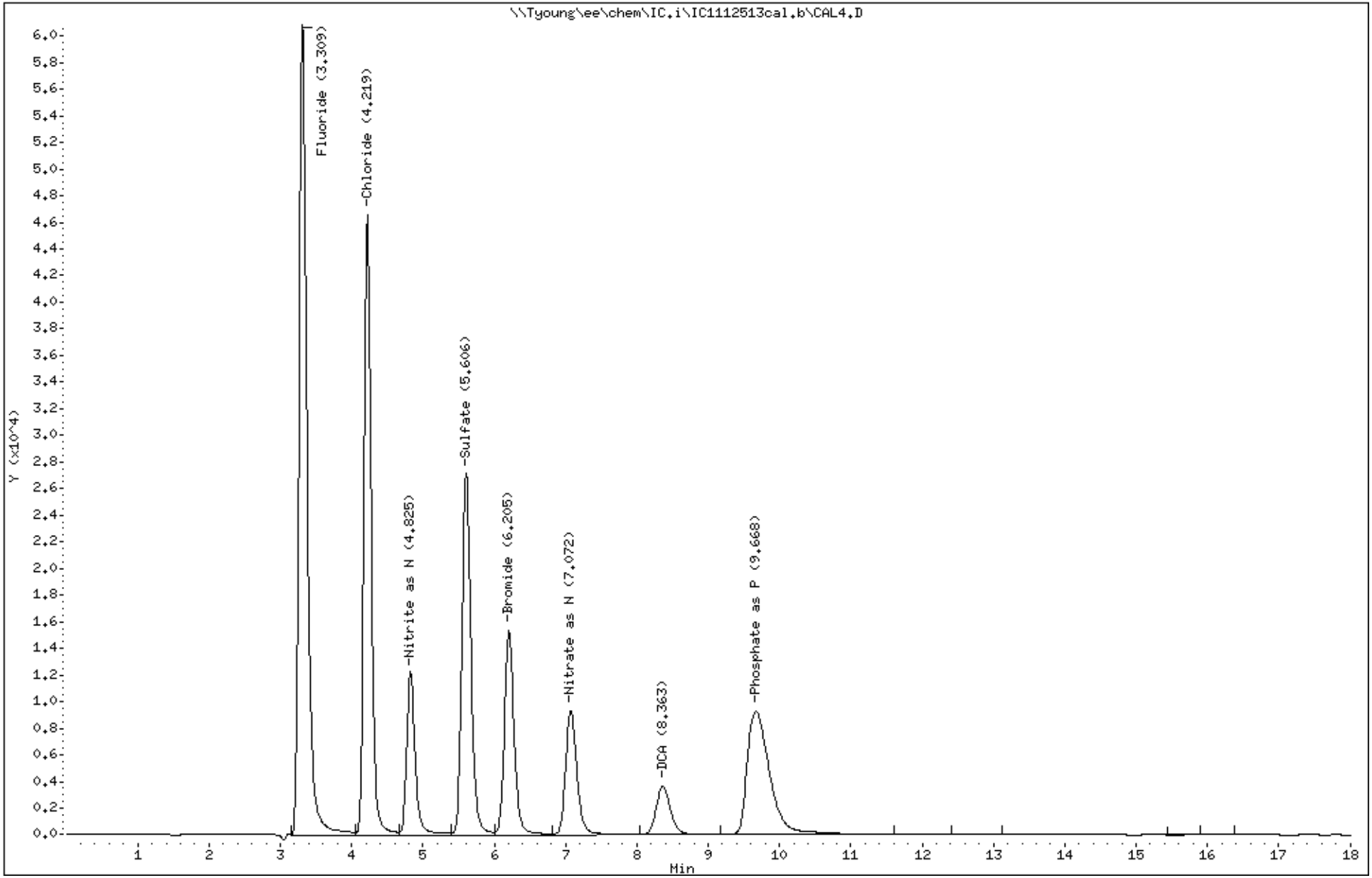
Instrument: IC.i

Sample Info: CAL4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 25-NOV-2013 15:19
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:19 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.323	3.325	-0.002	1765940	16.0000	14.6
T 2 Chloride	4.236	4.194	0.042	1313364	16.0000	15.8
T 3 Nitrite as N	4.843	4.785	0.058	404586	2.00000	2.1
T 4 Sulfate	5.600	5.444	0.156	960762	16.0000	15.9
T 5 Bromide	6.195	6.075	0.120	584132	16.0000	15.9
T 6 Nitrate as N	7.055	6.898	0.157	417736	2.00000	2.0
T 7 DCA	8.352	8.188	0.164	149871	7.00000	7.4
T 8 Phosphate as P	9.429	8.625	0.804	826525	10.3700	10.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D

Date : 25-NOV-2013 15:19

Client ID: CAL5

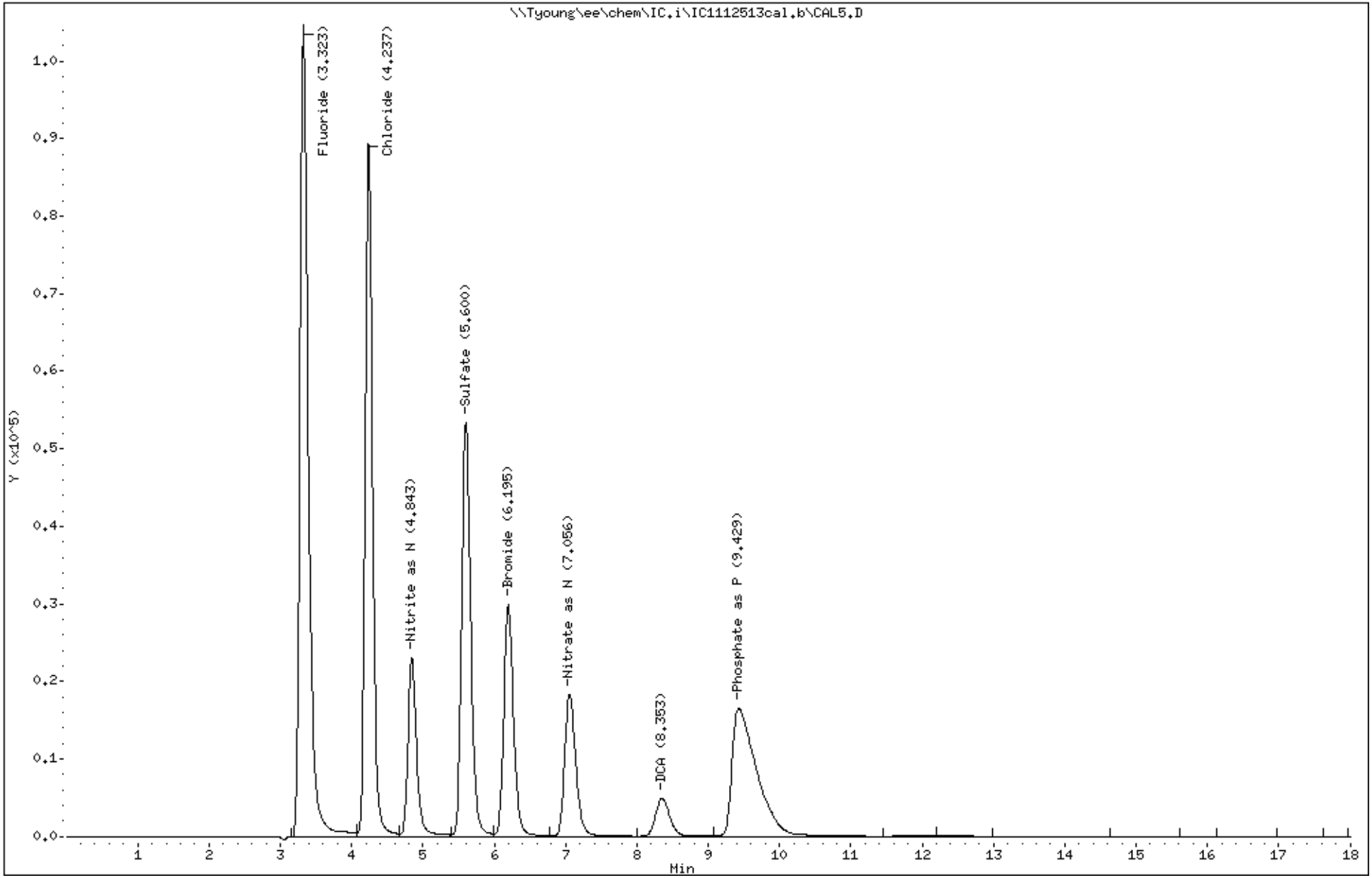
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 25-NOV-2013 15:41
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:41 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	3364776	40.0000	30.2(AM)
T 2 Chloride	4.183	4.194	-0.011	2844322	40.0000	34.6(M)
T 3 Nitrite as N	4.783	4.785	-0.002	797258	5.00000	4.1(M)
T 4 Sulfate	5.466	5.444	0.022	2078836	40.0000	34.5(M)
T 5 Bromide	6.125	6.075	0.050	1263772	40.0000	34.4(M)
T 6 Nitrate as N	6.958	6.898	0.060	896762	5.00000	4.3(M)
T 7 DCA	8.258	8.188	0.070	183443	10.0000	8.7(M)
T 8 Phosphate as P	9.033	8.625	0.408	1803781	25.9200	22.5(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

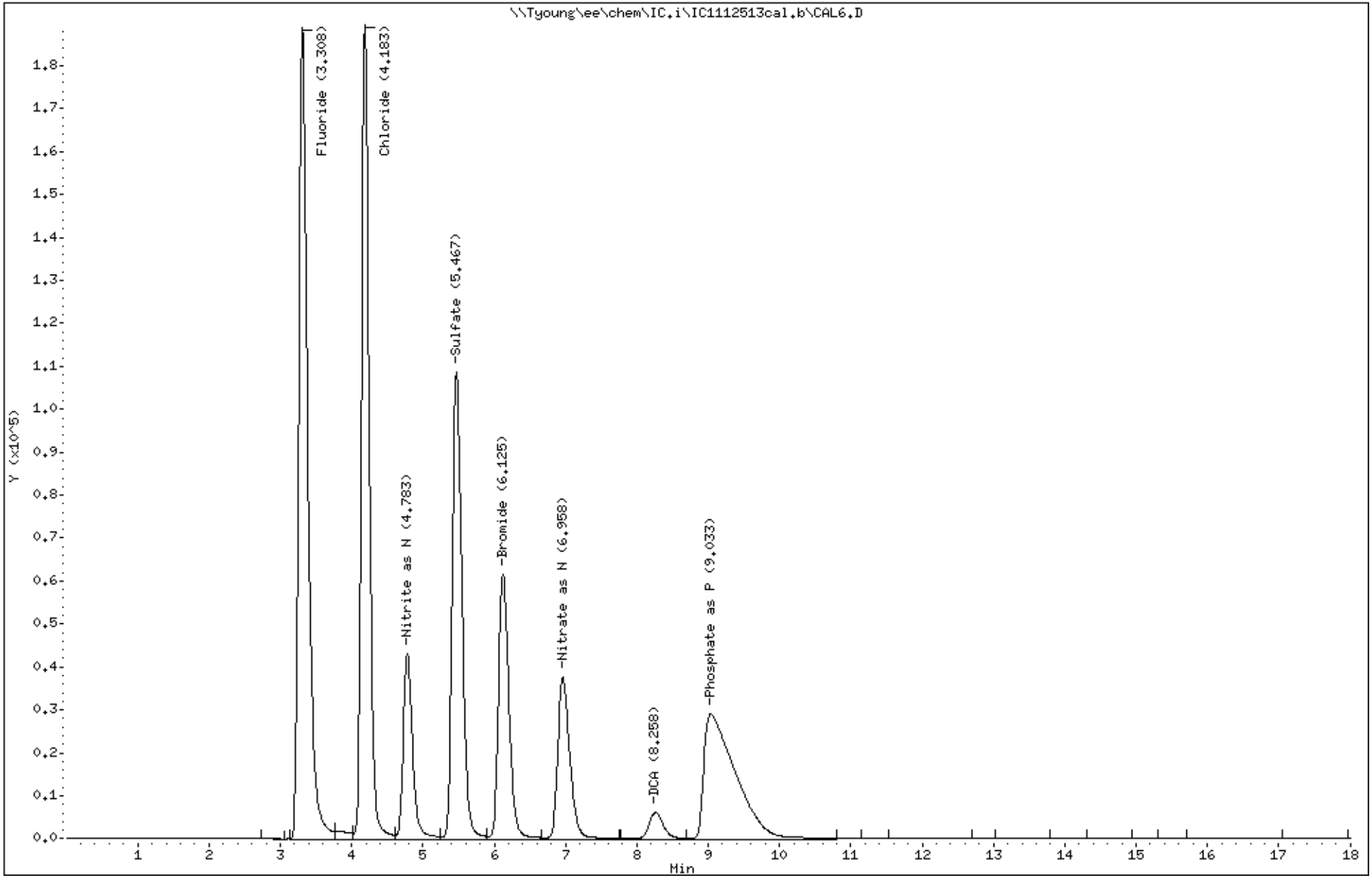
Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D
Date : 25-NOV-2013 15:41
Client ID: CAL6
Sample Info: CAL6

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 25-NOV-2013 16:03
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.324	3.325	-0.001	6540058	80.0000	59.1(A)
T 2 Chloride	4.194	4.194	0.000	6573560	80.0000	91.3(A)
T 3 Nitrite as N	4.785	4.785	0.000	1717450	10.0000	9.1(A)
T 4 Sulfate	5.443	5.444	-0.001	4781142	80.0000	90.8(A)
T 5 Bromide	6.075	6.075	0.000	2822591	80.0000	88.0(AM)
T 6 Nitrate as N	6.897	6.898	-0.001	2010490	10.0000	11.0(A)
T 7 DCA	8.188	8.188	0.000	283291	15.0000	13.3
T 8 Phosphate as P	8.625	8.625	0.000	3904826	51.8400	55.3(AM)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D

Date : 25-NOV-2013 16:03

Client ID: CAL7

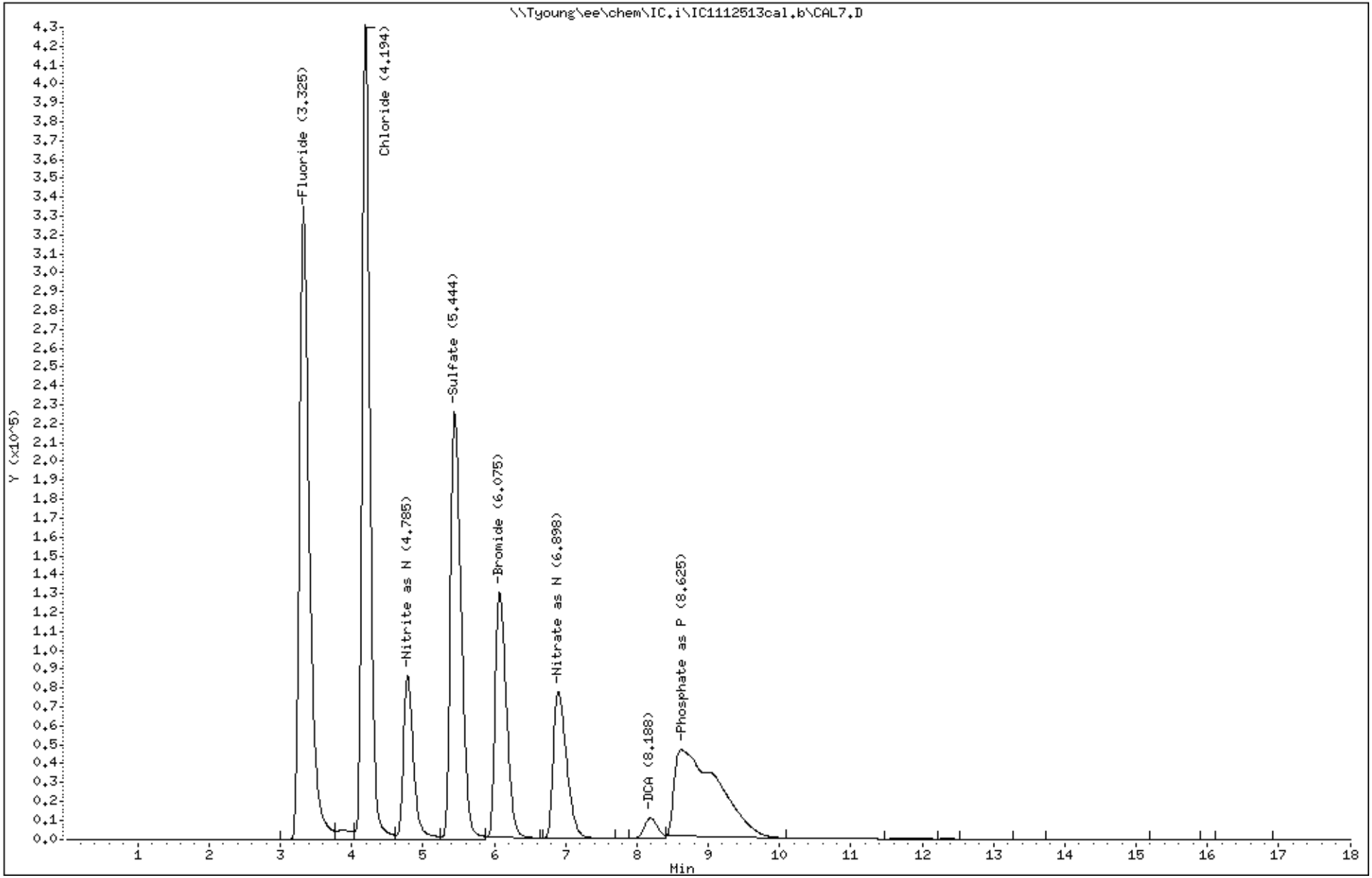
Instrument: IC.i

Sample Info: CAL7

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413ICV1.D
Lab Smp Id: 120413ICV1 Client Smp ID: 120413ICV1
Inj Date : 05-DEC-2013 01:23
Operator : TR Inst ID: IC.i
Smp Info : 120413ICV1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.291	3.325	-0.034	953398	8.32810	8.3(M)
T 2 Chloride	4.141	4.194	-0.053	658006	8.59128	8.6(M)
T 3 Nitrite as N	4.708	4.785	-0.077	174772	0.93565	0.94(M)
T 4 Sulfate	5.258	5.444	-0.186	475887	8.51968	8.5(M)
T 5 Bromide	6.016	6.075	-0.059	275519	8.14306	8.1(M)
T 6 Nitrate as N	6.825	6.898	-0.073	192298	0.99837	1.00(M)
T 7 DCA	8.010	8.024	-0.014	95272	4.56347	4.6
T 8 Phosphate as P	8.443	9.925	-1.482	390553	5.29249	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413ICV1.D

Date : 05-DEC-2013 01:23

Client ID: 120413ICV1

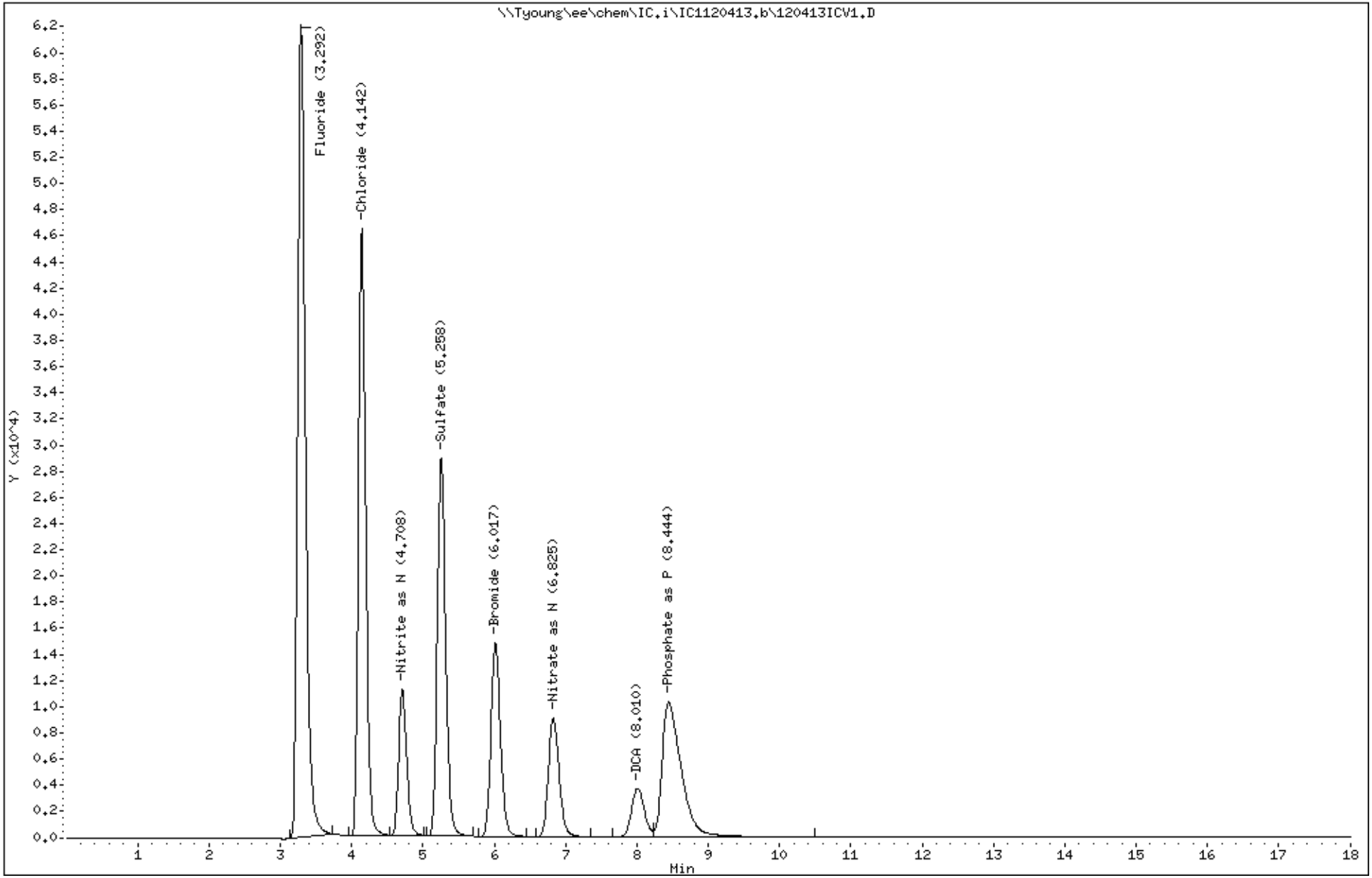
Instrument: IC.i

Sample Info: 120413ICV1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413ICB1.D
Lab Smp Id: 120413ICB1 Client Smp ID: 120413ICB1
Inj Date : 05-DEC-2013 01:45
Operator : TR Inst ID: IC.i
Smp Info : 120413ICB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.145	4.194	-0.049	2304	0.49108	0.49
T 3 Nitrite as N	4.670	4.785	-0.115	596	0.00319	0.0032
T 7 DCA	8.022	8.024	-0.002	99996	4.78417	4.8

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413ICB1.D

Date : 05-DEC-2013 01:45

Client ID: 120413ICB1

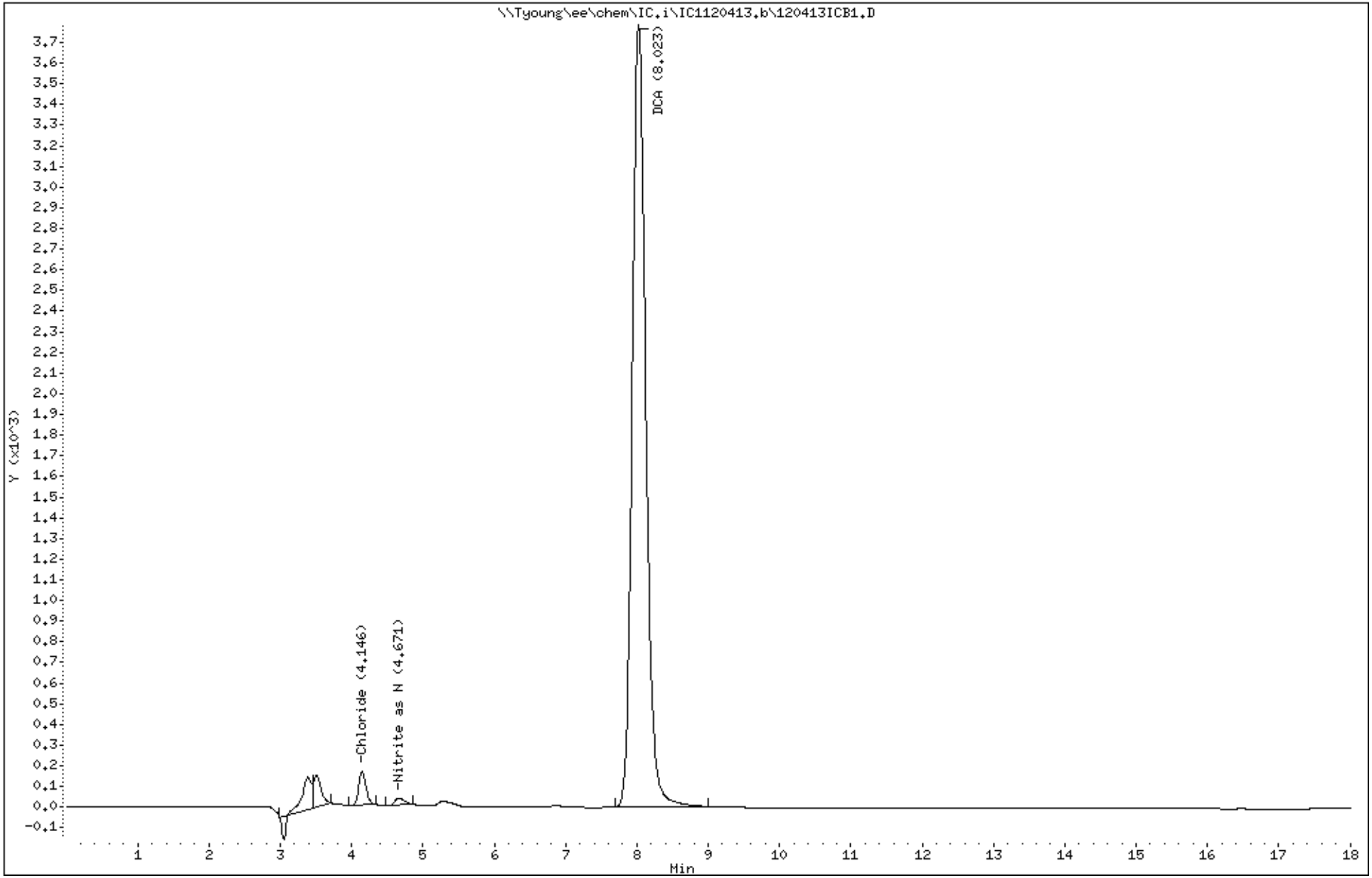
Instrument: IC.i

Sample Info: 120413ICB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413MB1.D
Lab Smp Id: 120413MB1 Client Smp ID: 120413MB1
Inj Date : 05-DEC-2013 02:07
Operator : TR Inst ID: IC.i
Smp Info : 120413MB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.144	4.194	-0.050	2271	0.49068	0.49
T 3 Nitrite as N	4.670	4.785	-0.115	724	0.00388	0.0039
T 7 DCA	8.019	8.024	-0.005	100098	4.78894	4.8

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413MB1.D

Date : 05-DEC-2013 02:07

Client ID: 120413MB1

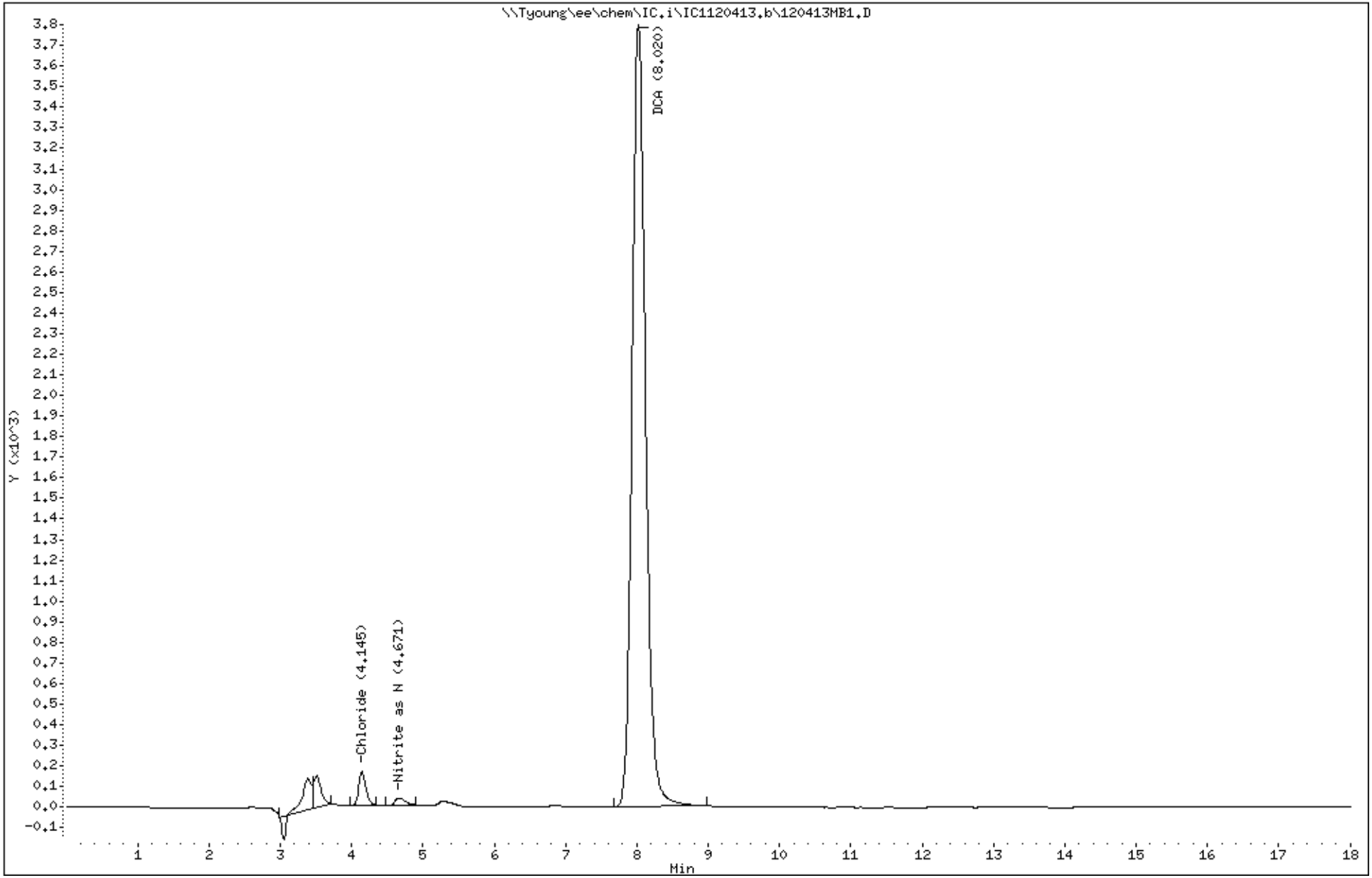
Instrument: IC.i

Sample Info: 120413MB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413LCS1.D
Lab Smp Id: 120413LCS1 Client Smp ID: 120413LCS1
Inj Date : 05-DEC-2013 02:29
Operator : TR Inst ID: IC.i
Smp Info : 120413LCS1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.293	3.325	-0.032	972376	8.50049	8.5
T 2 Chloride	4.144	4.194	-0.050	672259	8.76735	8.8
T 3 Nitrite as N	4.713	4.785	-0.072	187892	1.00589	1.0
T 4 Sulfate	5.255	5.444	-0.189	488911	8.74079	8.7
T 5 Bromide	6.016	6.075	-0.059	284289	8.39484	8.4
T 6 Nitrate as N	6.827	6.898	-0.071	199215	1.03324	1.0
T 7 DCA	8.012	8.024	-0.012	95017	4.55156	4.6
T 8 Phosphate as P	8.436	9.925	-1.489	389507	5.27846	5.3

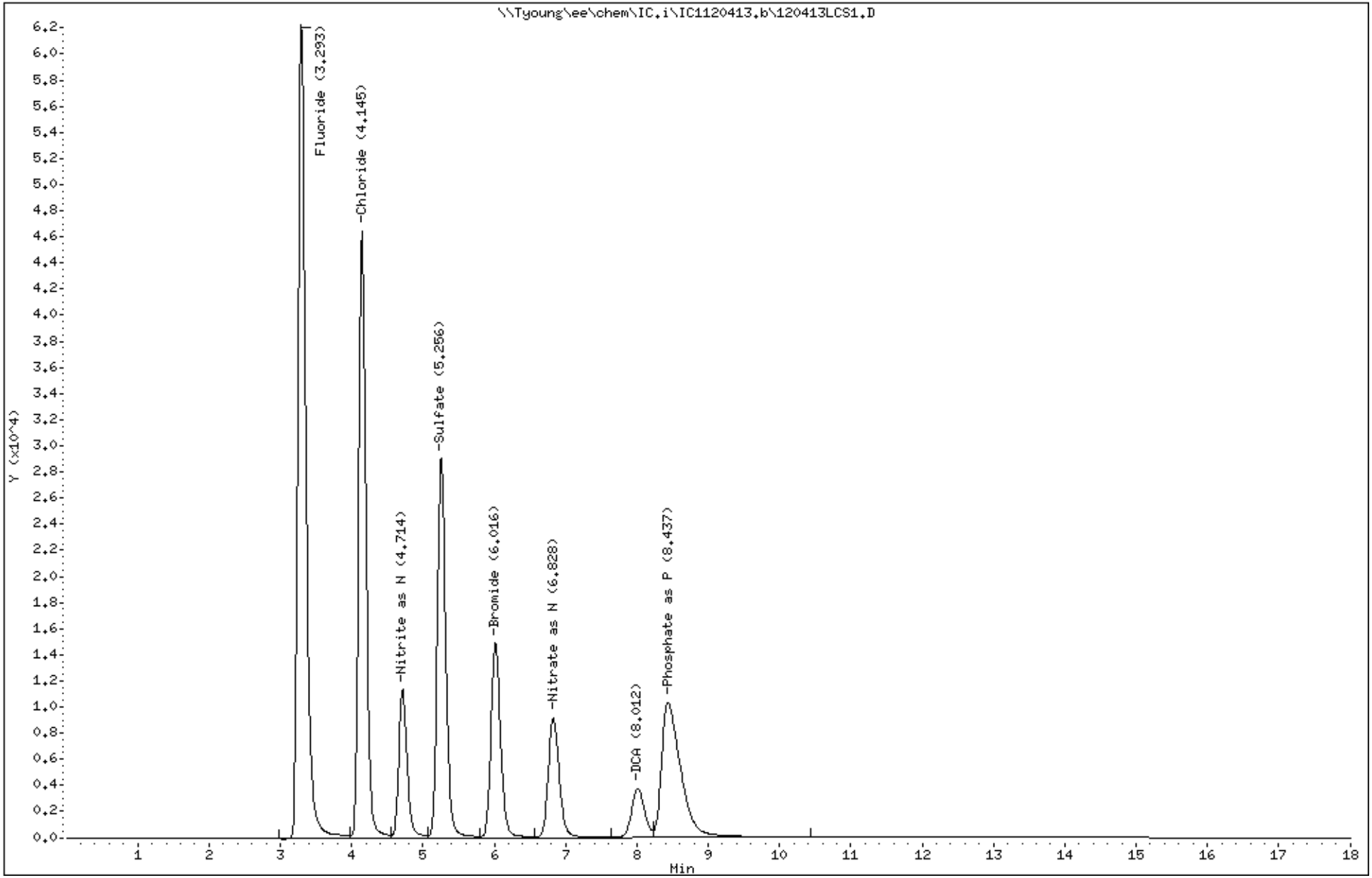
Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413LCS1.D
Date : 05-DEC-2013 02:29
Client ID: 120413LCS1
Sample Info: 120413LCS1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413LCSD1.D
Lab Smp Id: 120413LCSD1 Client Smp ID: 120413LCSD1
Inj Date : 05-DEC-2013 02:51
Operator : TR Inst ID: IC.i
Smp Info : 120413LCSD1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.291	3.325	-0.034	972286	8.49967	8.5
T 2 Chloride	4.143	4.194	-0.051	670749	8.74870	8.7
T 3 Nitrite as N	4.712	4.785	-0.073	186977	1.00099	1.0
T 4 Sulfate	5.248	5.444	-0.196	488356	8.73137	8.7
T 5 Bromide	6.019	6.075	-0.056	283435	8.37033	8.4
T 6 Nitrate as N	6.831	6.898	-0.067	197868	1.02645	1.0
T 7 DCA	8.009	8.024	-0.015	94498	4.52731	4.5
T 8 Phosphate as P	8.431	9.925	-1.494	391058	5.29926	5.3

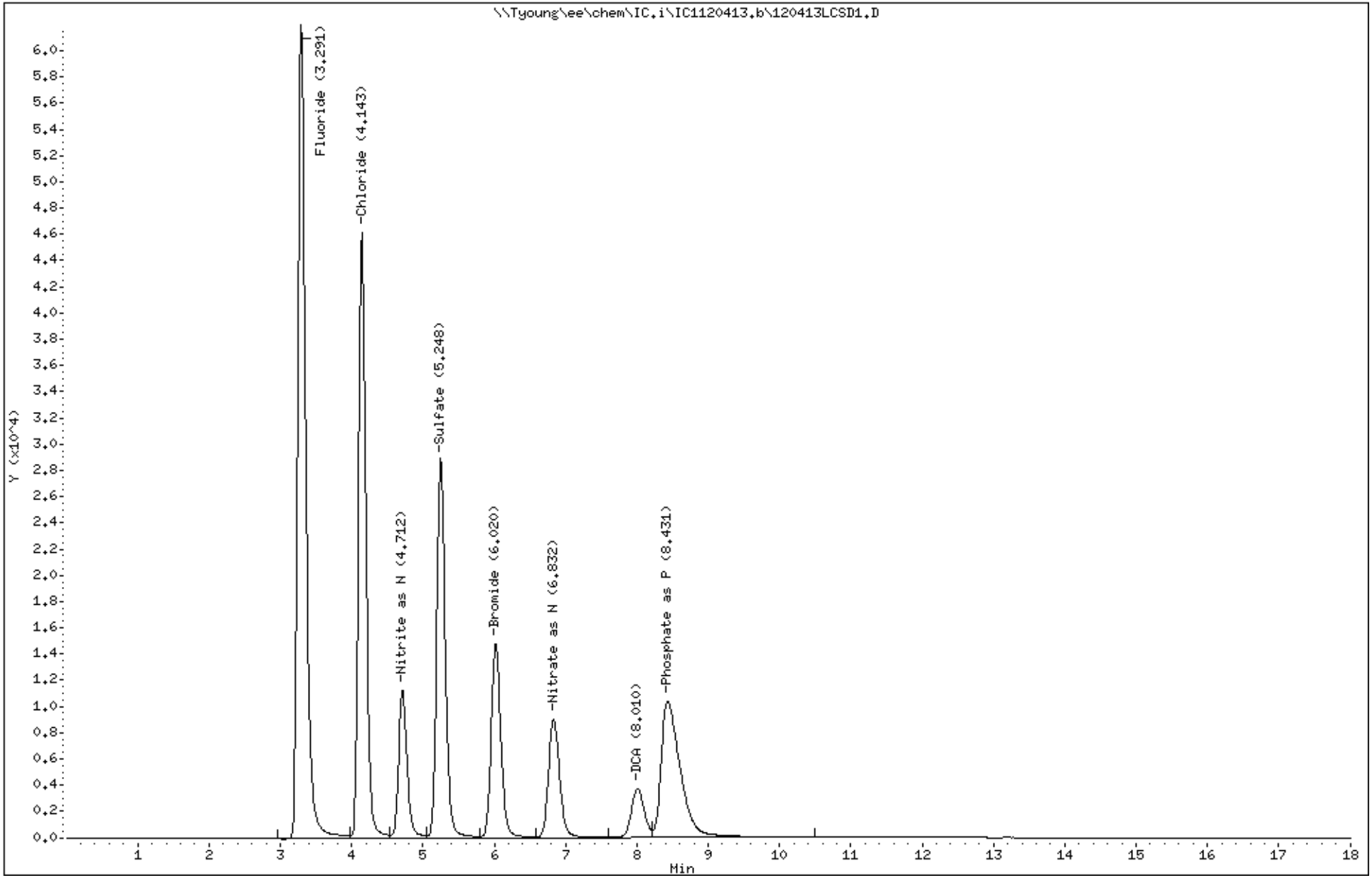
Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413LCSD1.D
Date : 05-DEC-2013 02:51
Client ID: 120413LCSD1
Sample Info: 120413LCSD1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV3.D
Lab Smp Id: 120413CCV3 Client Smp ID: 120413CCV3
Inj Date : 05-DEC-2013 05:03
Operator : TR Inst ID: IC.i
Smp Info : 120413CCV3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.291	3.325	-0.034	955545	8.34760	8.3(M)
T 2 Chloride	4.141	4.194	-0.053	657826	8.58906	8.6(M)
T 3 Nitrite as N	4.716	4.785	-0.069	175488	0.93948	0.94(M)
T 4 Sulfate	5.258	5.444	-0.186	475847	8.51900	8.5(M)
T 5 Bromide	6.025	6.075	-0.050	275577	8.14472	8.1(M)
T 6 Nitrate as N	6.833	6.898	-0.065	192197	0.99786	1.00(M)
T 7 DCA	8.013	8.024	-0.011	95056	4.55338	4.6
T 8 Phosphate as P	8.452	9.925	-1.473	388631	5.26672	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV3.D

Date : 05-DEC-2013 05:03

Client ID: 120413CCV3

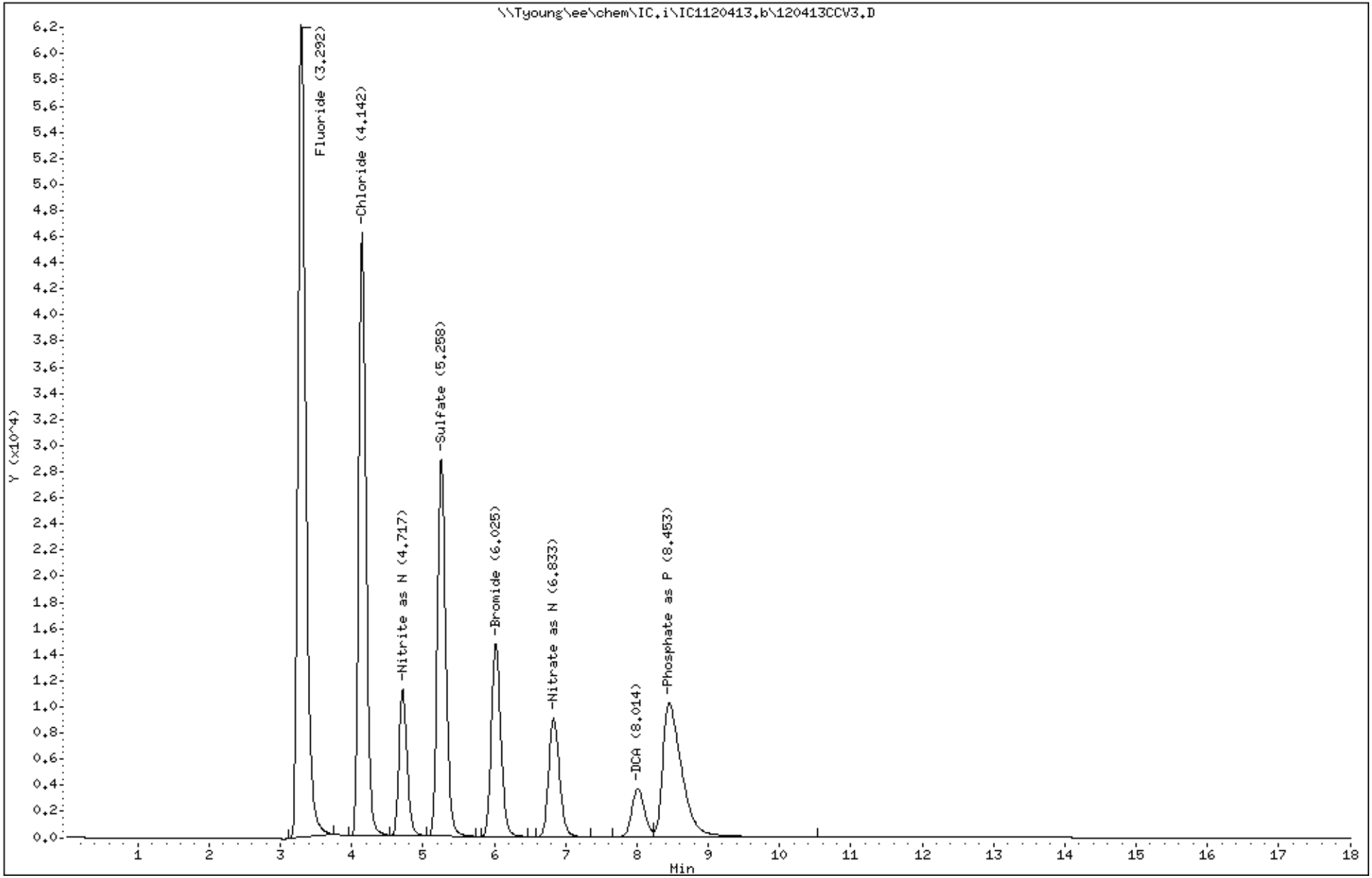
Instrument: IC.i

Sample Info: 120413CCV3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB3.D
Lab Smp Id: 120413CCB3 Client Smp ID: 120413CCB3
Inj Date : 05-DEC-2013 05:25
Operator : TR Inst ID: IC.i
Smp Info : 120413CCB3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.147	4.194	-0.047	2314	0.49121	0.49
T 3 Nitrite as N	4.679	4.785	-0.106	645	0.00345	0.0034
T 4 Sulfate	5.283	5.444	-0.161	641	0.45139	0.45
T 7 DCA	8.025	8.024	0.001	100082	4.78819	4.8(M)
T 8 Phosphate as P	11.050	9.925	1.125	16	0.05573	0.056(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB3.D

Date : 05-DEC-2013 05:25

Client ID: 120413CCB3

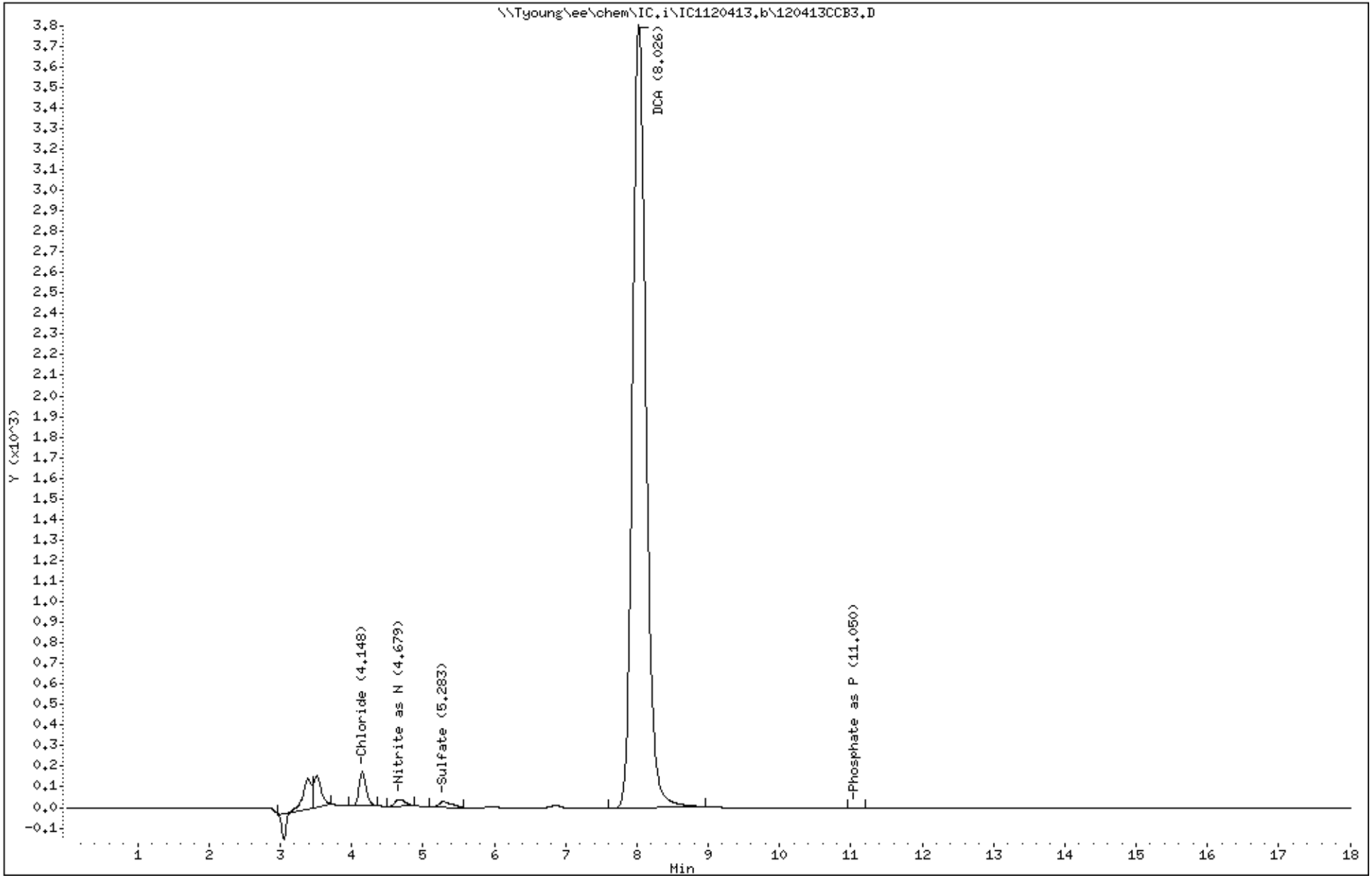
Instrument: IC.i

Sample Info: 120413CCB3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV4.D
Lab Smp Id: 120413CCV4 Client Smp ID: 120413CCV4
Inj Date : 05-DEC-2013 09:27
Operator : TR Inst ID: IC.i
Smp Info : 120413CCV4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.291	3.325	-0.034	959390	8.38253	8.4(M)
T 2 Chloride	4.141	4.194	-0.053	657258	8.58204	8.6(M)
T 3 Nitrite as N	4.708	4.785	-0.077	175498	0.93954	0.94(M)
T 4 Sulfate	5.250	5.444	-0.194	476151	8.52416	8.5(M)
T 5 Bromide	6.016	6.075	-0.059	276117	8.16022	8.2(M)
T 6 Nitrate as N	6.833	6.898	-0.065	192342	0.99859	1.00(M)
T 7 DCA	8.010	8.024	-0.014	95441	4.57137	4.6
T 8 Phosphate as P	8.448	9.925	-1.477	392022	5.31219	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV4.D

Date : 05-DEC-2013 09:27

Client ID: 120413CCV4

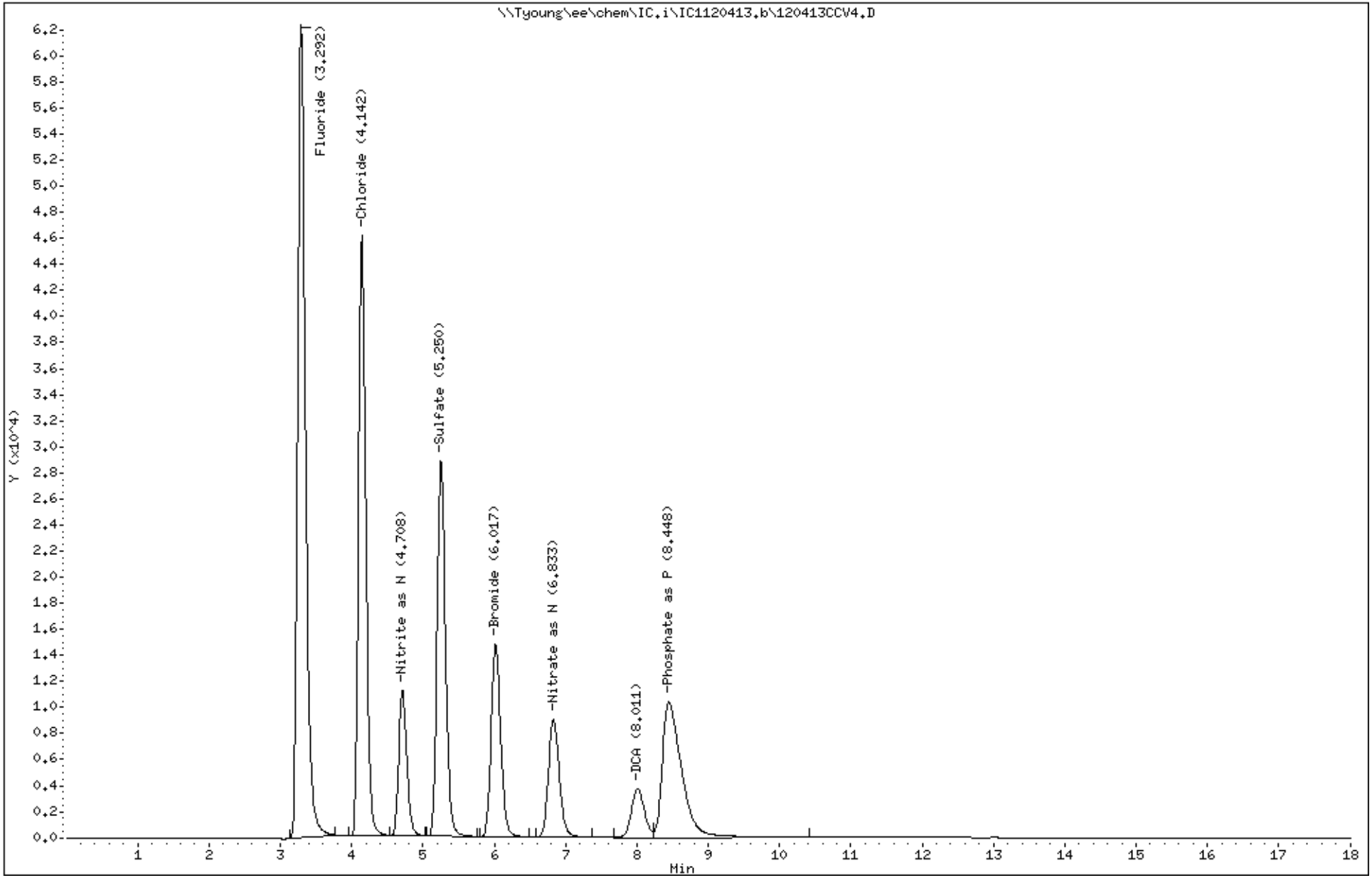
Instrument: IC.i

Sample Info: 120413CCV4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB4.D
Lab Smp Id: 120413CCB4 Client Smp ID: 120413CCB4
Inj Date : 05-DEC-2013 09:49
Operator : TR Inst ID: IC.i
Smp Info : 120413CCB4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.152	4.194	-0.042	2321	0.49129	0.49
T 3 Nitrite as N	4.673	4.785	-0.112	666	0.00357	0.0036
T 4 Sulfate	5.283	5.444	-0.161	665	0.45180	0.45
T 7 DCA	8.024	8.024	0.000	99751	4.77272	4.8(M)
T 8 Phosphate as P	9.925	9.925	0.000	65	0.05639	0.056(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB4.D

Date : 05-DEC-2013 09:49

Client ID: 120413CCB4

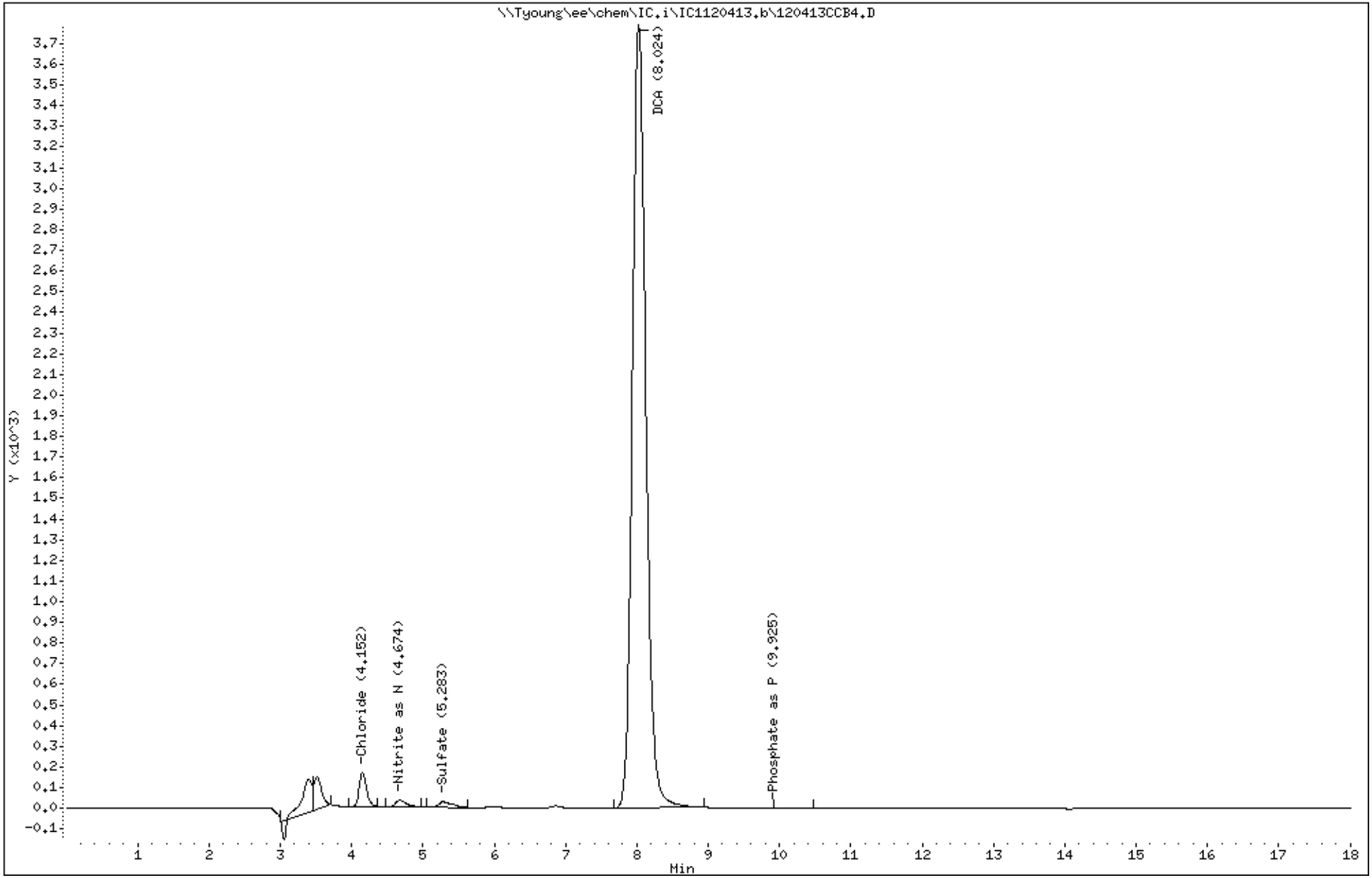
Instrument: IC.i

Sample Info: 120413CCB4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099301DL1.D
Lab Smp Id: 351099301DL1 Client Smp ID: SMSMW03B
Inj Date : 05-DEC-2013 10:11
Operator : TR Inst ID: IC.i
Smp Info : 351099301DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.500	3.325	0.175	43175	0.06031	0.60
T 2 Chloride	4.219	4.194	0.025	366986921	4534.03	45300(A)
T 4 Sulfate	5.175	5.444	-0.269	4133994	70.6237	706(M)
T 7 DCA	8.015	8.024	-0.009	99148	4.74455	47.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099301DL1.D

Date : 05-DEC-2013 10:11

Client ID: SMSMW03B

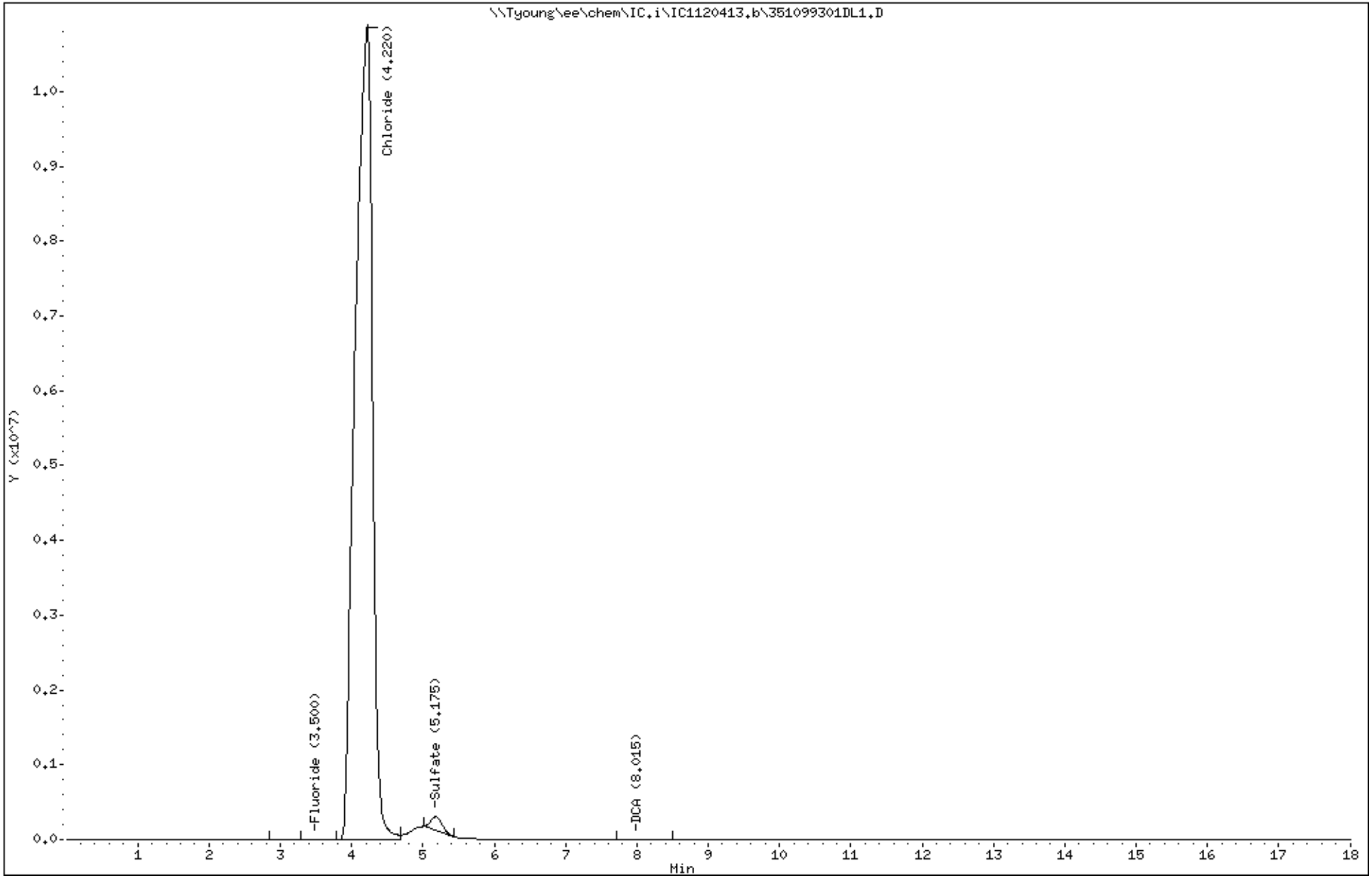
Instrument: IC.i

Sample Info: 351099301DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099301DL2.D
Lab Smp Id: 351099301DL2 Client Smp ID: SMSMW03B
Inj Date : 05-DEC-2013 10:33
Operator : TR Inst ID: IC.i
Smp Info : 351099301DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1000.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.141	4.194	-0.053	4182925	52.1363	52100
T 4 Sulfate	5.266	5.444	-0.178	112249	2.34617	2350
T 7 DCA	8.024	8.024	0.000	94118	4.50956	4510

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099301DL2.D

Date : 05-DEC-2013 10:33

Client ID: SMSMW03B

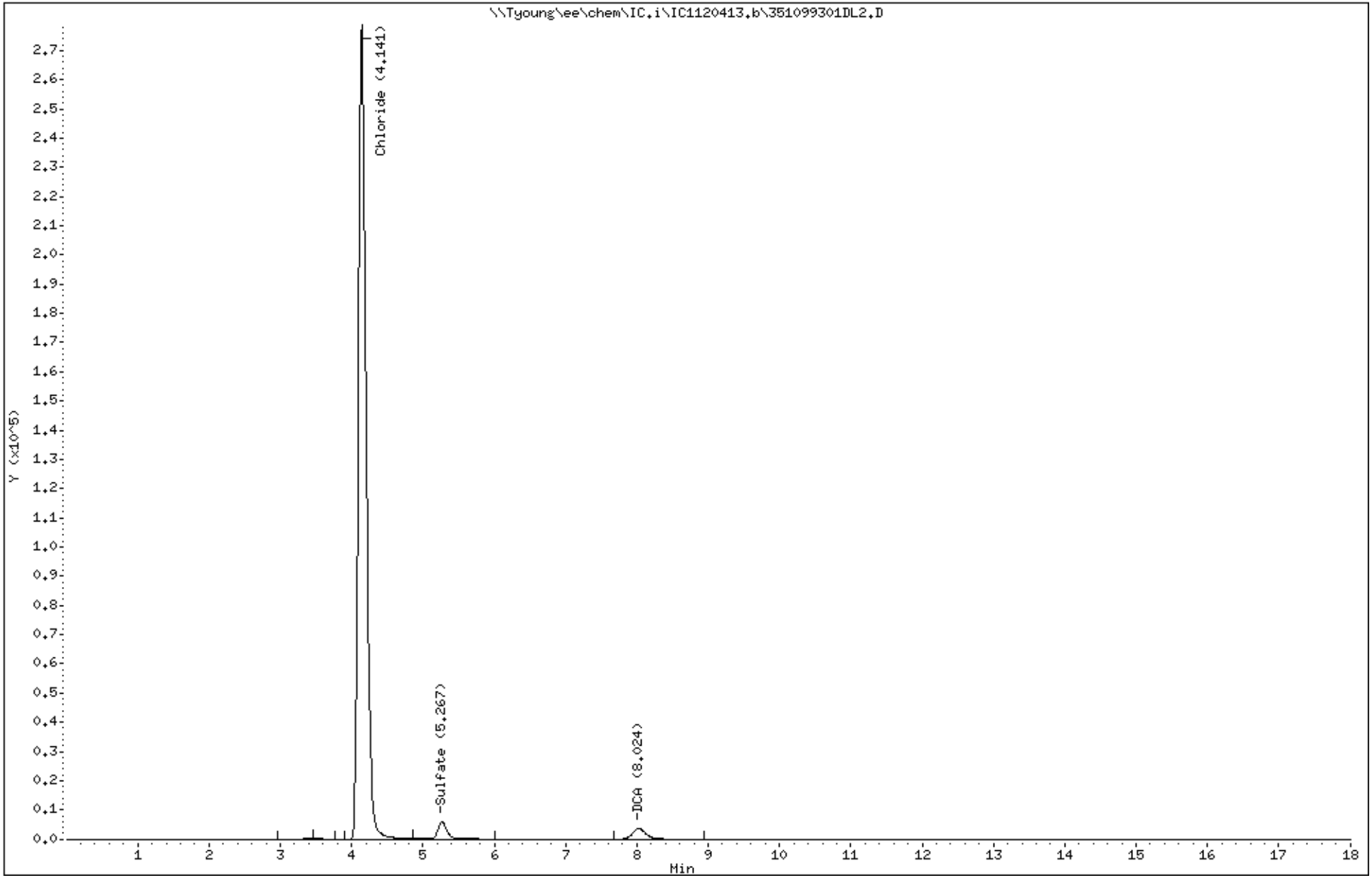
Instrument: IC.i

Sample Info: 351099301DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099302DL1.D
Lab Smp Id: 351099302DL1 Client Smp ID: SMSMW04A
Inj Date : 05-DEC-2013 10:55
Operator : TR Inst ID: IC.i
Smp Info : 351099302DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.141	4.194	-0.053	86159906	1064.84	10600(A)
T 3 Nitrite as N	4.702	4.785	-0.083	818489	4.38183	43.8
T 4 Sulfate	5.208	5.444	-0.236	3379390	57.8127	578(M)
T 5 Bromide	6.017	6.075	-0.058	52438	1.73838	17.4
T 6 Nitrate as N	6.804	6.898	-0.094	637139	3.24070	32.4
T 7 DCA	8.021	8.024	-0.003	96238	4.60860	46.1

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099302DL1.D

Date : 05-DEC-2013 10:55

Client ID: SMSMW04A

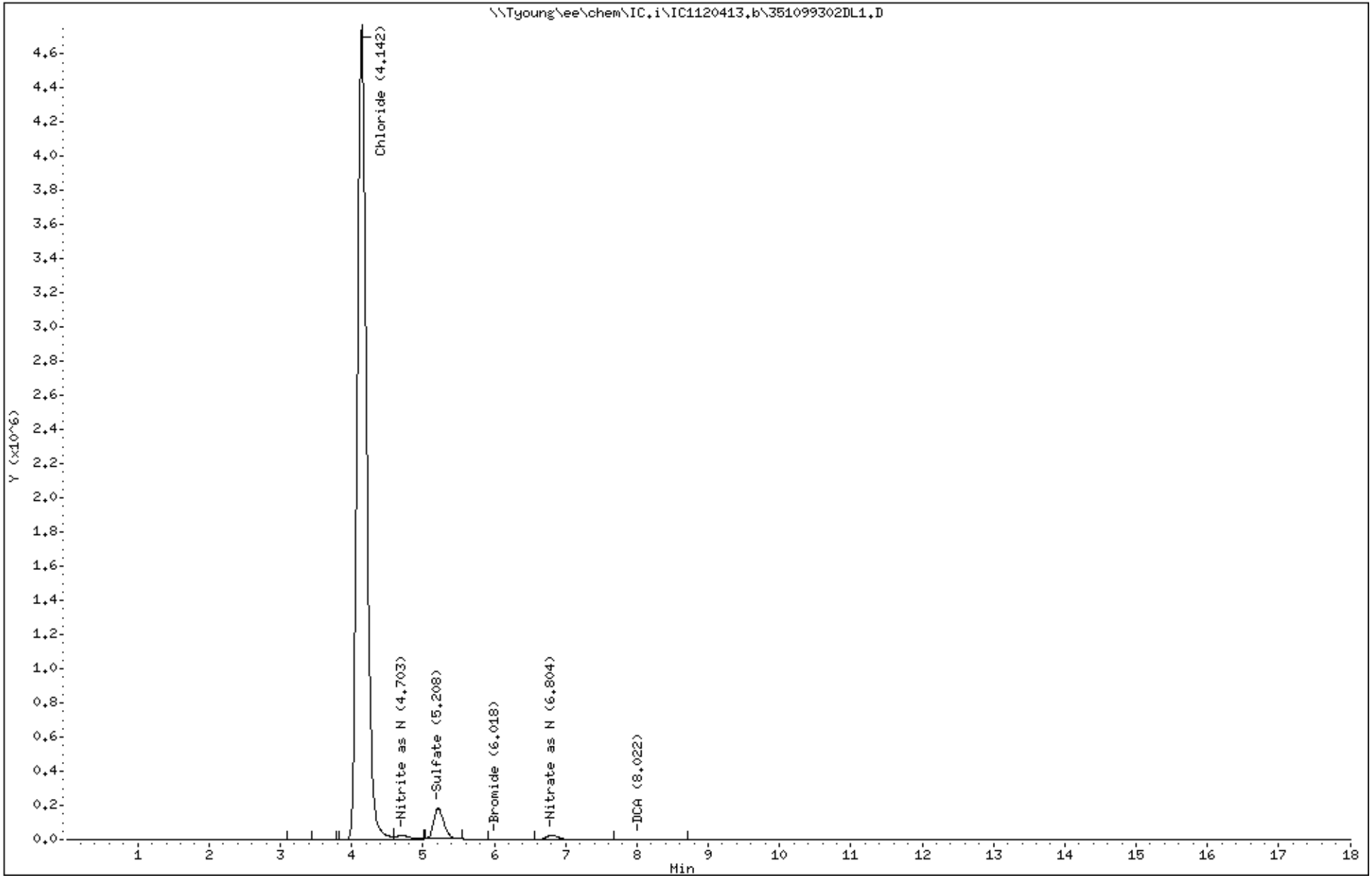
Instrument: IC.i

Sample Info: 351099302DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099302DL2.D
Lab Smp Id: 351099302DL2 Client Smp ID: SMSMW04A
Inj Date : 05-DEC-2013 11:17
Operator : TR Inst ID: IC.i
Smp Info : 351099302DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 500.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.146	4.194	-0.048	2137759	26.8714	13400
T 3 Nitrite as N	4.710	4.785	-0.075	7176	0.03842	19.2
T 4 Sulfate	5.263	5.444	-0.181	71577	1.65567	828
T 6 Nitrate as N	6.856	6.898	-0.042	10263	0.08078	40.4
T 7 DCA	8.025	8.024	0.001	96804	4.63505	2320(M)

QC Flag Legend

M - Compound response manually integrated.

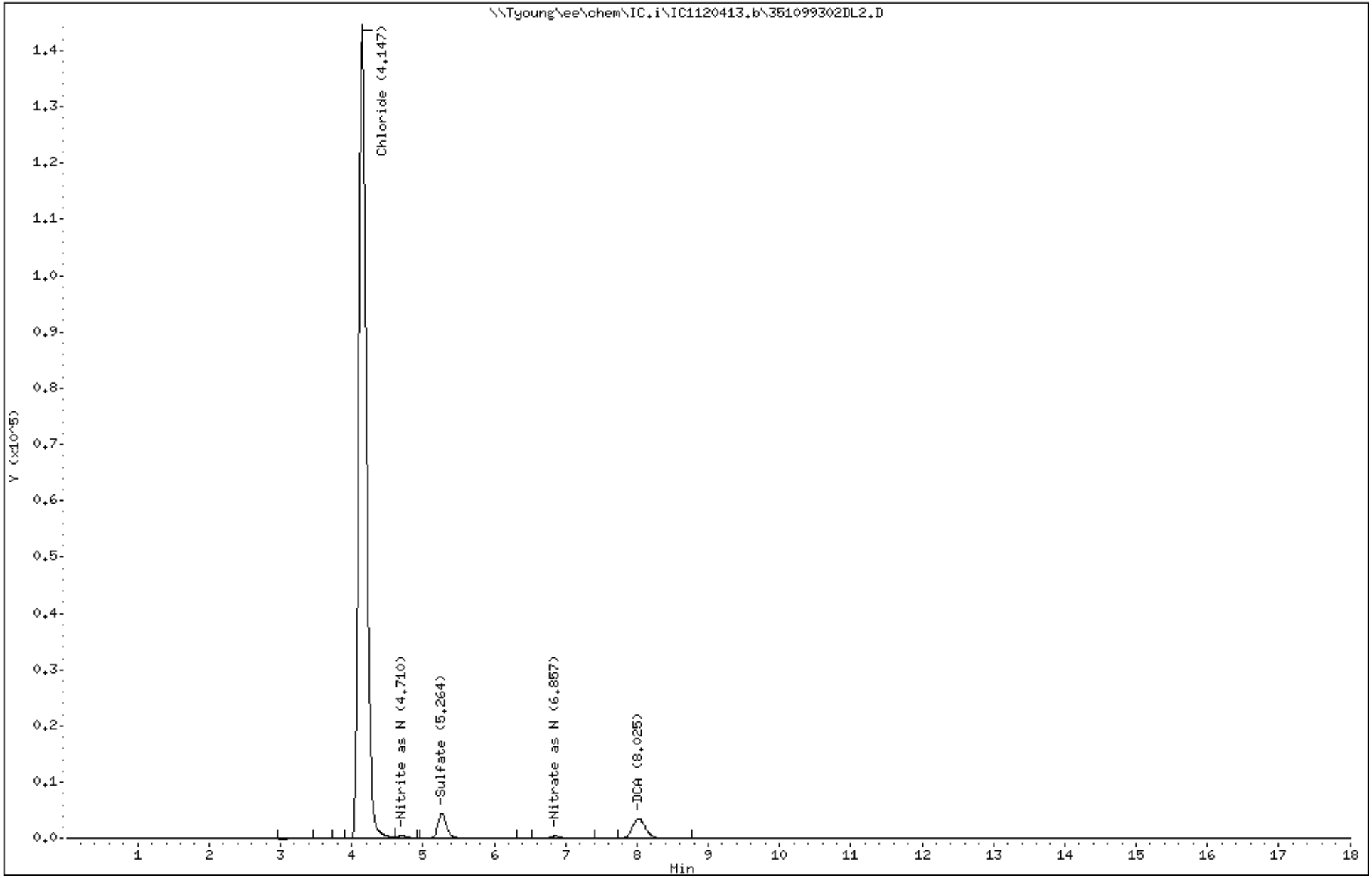
Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099302DL2.D
Date : 05-DEC-2013 11:17
Client ID: SMSMW04A
Sample Info: 351099302DL2

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099303DL1.D
Lab Smp Id: 351099303DL1 Client Smp ID: SMSSW03
Inj Date : 05-DEC-2013 11:39
Operator : TR Inst ID: IC.i
Smp Info : 351099303DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.290	3.325	-0.035	114438	0.70761	7.1
T 2 Chloride	4.145	4.194	-0.049	2763660	34.6034	346
T 4 Sulfate	5.255	5.444	-0.189	61251	1.48037	14.8
T 6 Nitrate as N	6.862	6.898	-0.036	2719	0.04275	0.43
T 7 DCA	8.020	8.024	-0.004	94660	4.53488	45.3

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099303DL1.D

Date : 05-DEC-2013 11:39

Client ID: SMSSW03

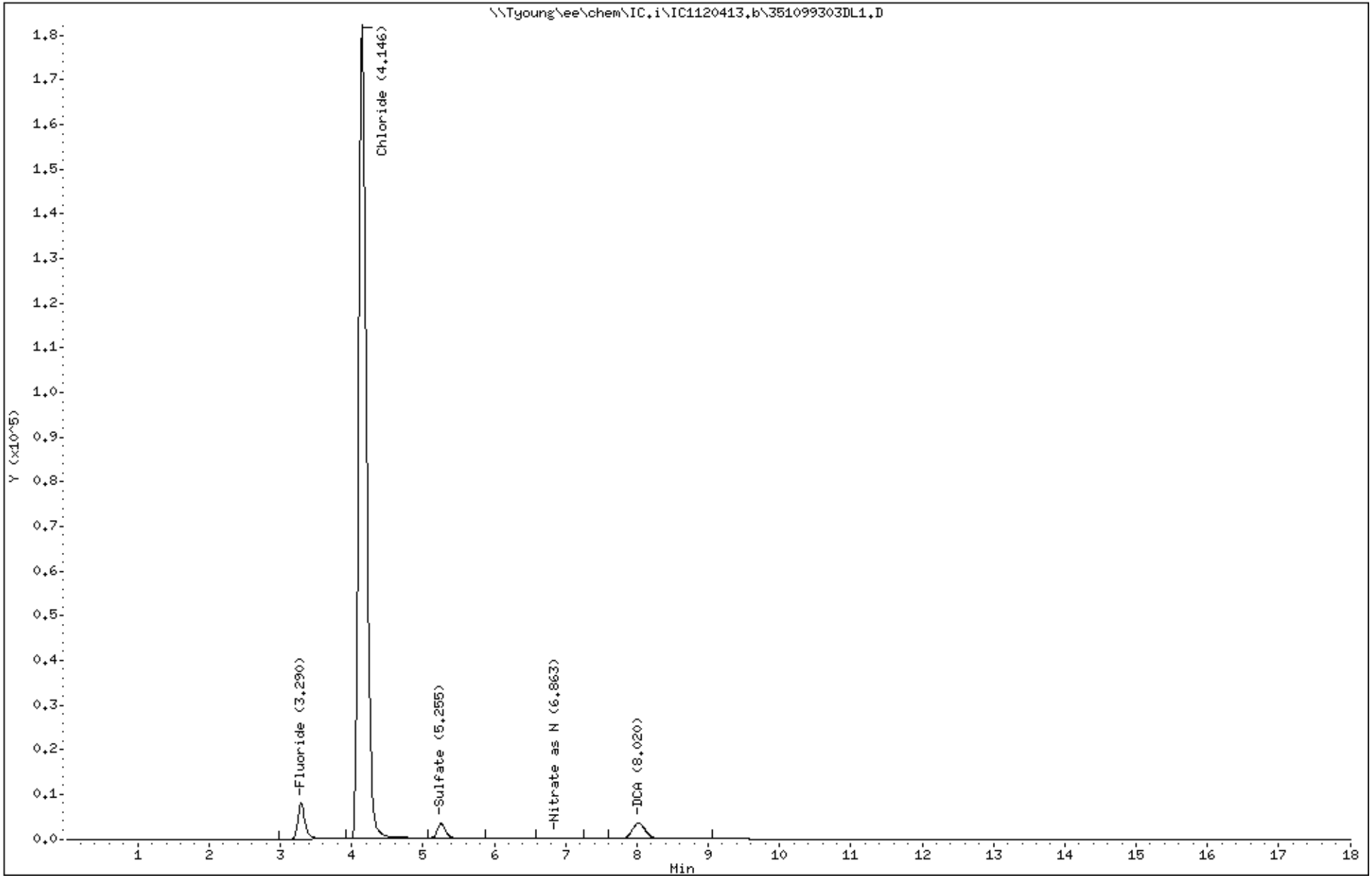
Instrument: IC.i

Sample Info: 351099303DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3510993

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\351099304DL1.D
Lab Smp Id: 351099304DL1 Client Smp ID: SMSSW13
Inj Date : 05-DEC-2013 12:01
Operator : TR Inst ID: IC.i
Smp Info : 351099304DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.146	4.194	-0.048	1217272	15.5002	155
T 3 Nitrite as N	4.608	4.785	-0.177	5888	0.03152	0.32
T 4 Sulfate	5.250	5.444	-0.194	107272	2.26167	22.6
T 6 Nitrate as N	6.857	6.898	-0.041	21766	0.13876	1.4
T 7 DCA	8.020	8.024	-0.004	94420	4.52367	45.2

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\351099304DL1.D

Date : 05-DEC-2013 12:01

Client ID: SMSSW13

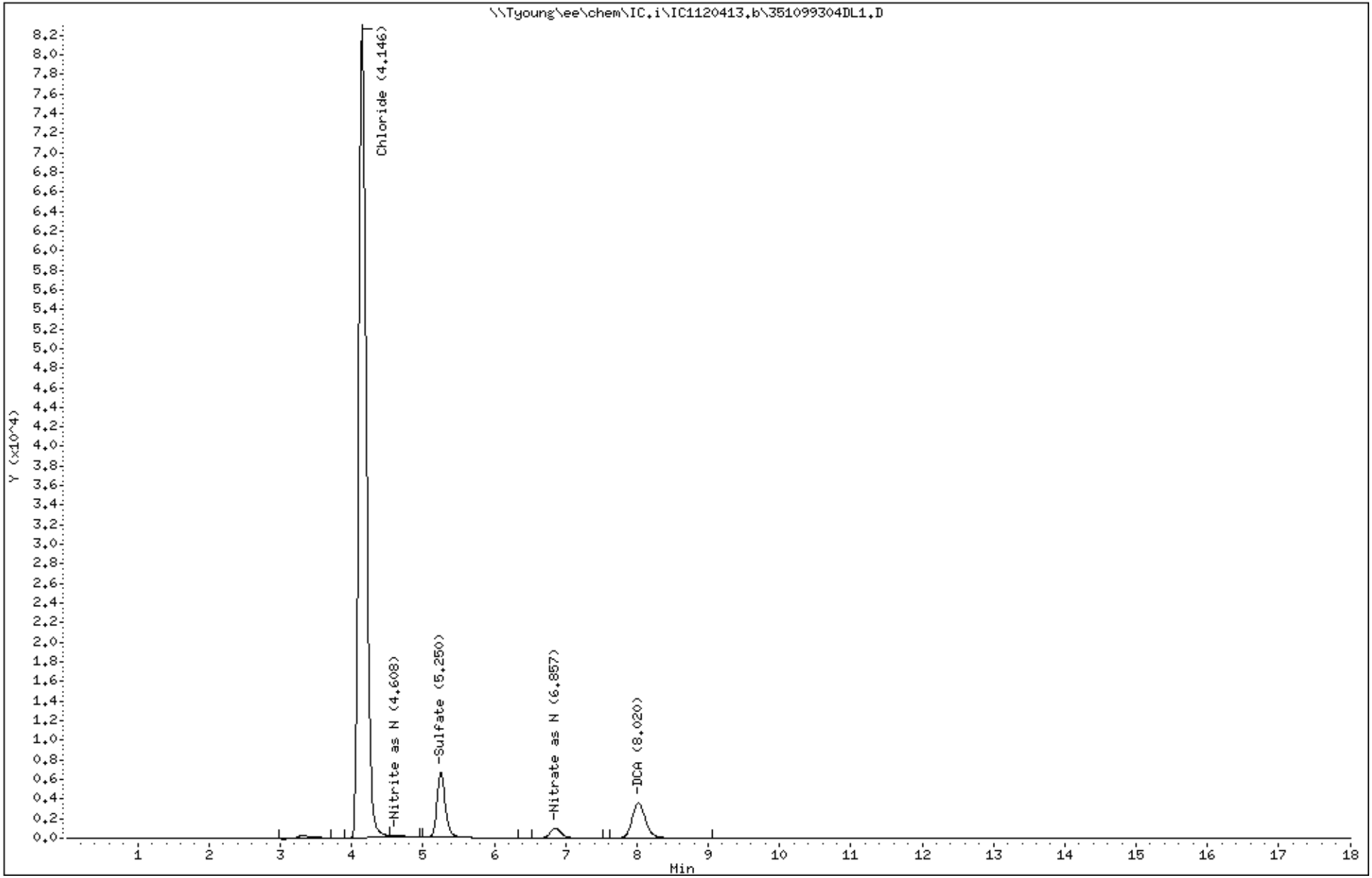
Instrument: IC.i

Sample Info: 351099304DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV5.D
Lab Smp Id: 120413CCV5 Client Smp ID: 120413CCV5
Inj Date : 05-DEC-2013 12:23
Operator : TR Inst ID: IC.i
Smp Info : 120413CCV5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.291	3.325	-0.034	955710	8.34910	8.3(M)
T 2 Chloride	4.141	4.194	-0.053	656391	8.57133	8.6(M)
T 3 Nitrite as N	4.708	4.785	-0.077	174695	0.93524	0.94(M)
T 4 Sulfate	5.241	5.444	-0.203	474762	8.50058	8.5(M)
T 5 Bromide	6.016	6.075	-0.059	275838	8.15221	8.2(M)
T 6 Nitrate as N	6.825	6.898	-0.073	192009	0.99691	1.00(M)
T 7 DCA	8.006	8.024	-0.018	94144	4.51077	4.5
T 8 Phosphate as P	8.419	9.925	-1.506	389810	5.28253	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCV5.D

Date : 05-DEC-2013 12:23

Client ID: 120413CCV5

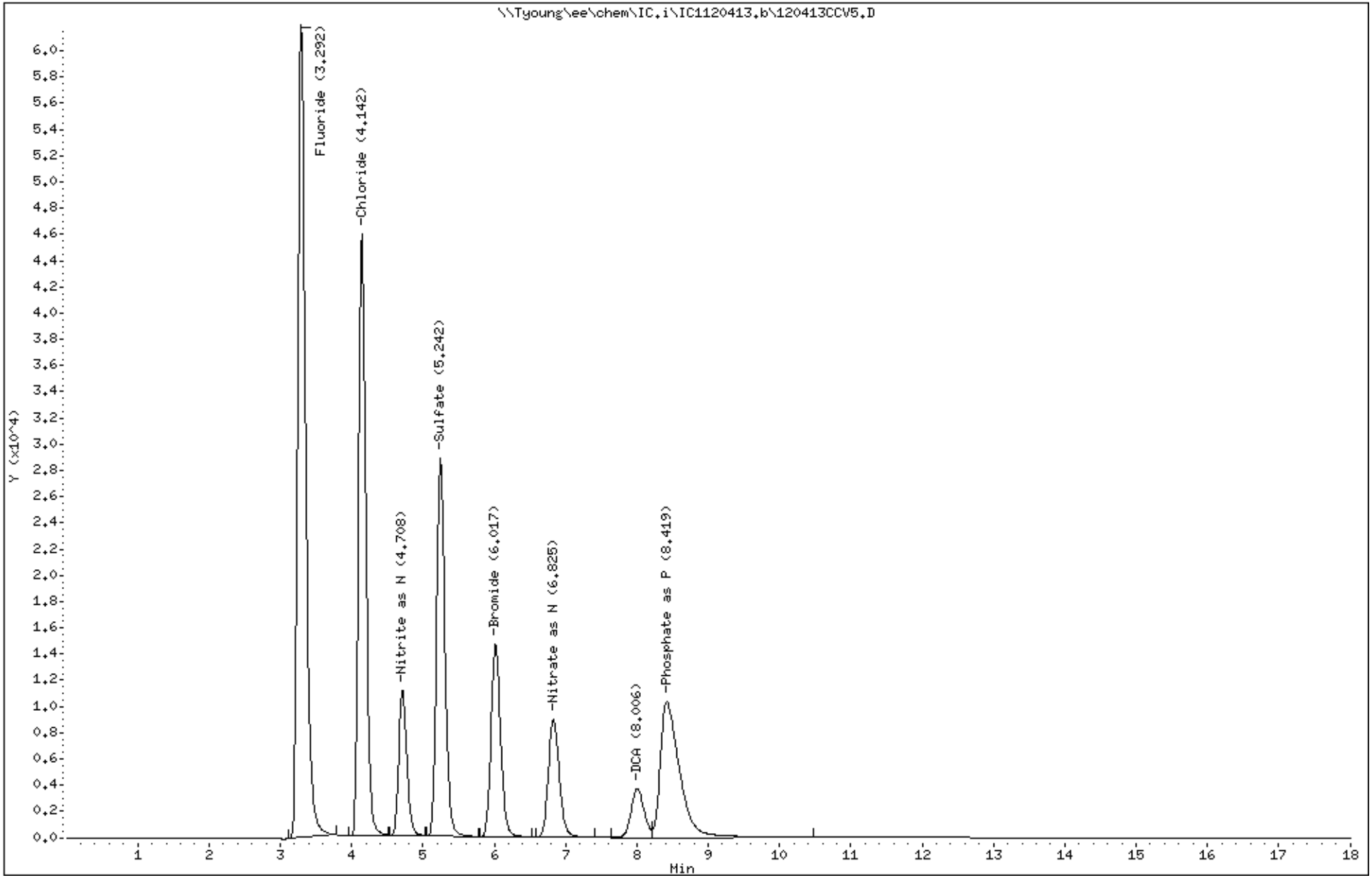
Instrument: IC.i

Sample Info: 120413CCV5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB5.D
Lab Smp Id: 120413CCB5 Client Smp ID: 120413CCB5
Inj Date : 05-DEC-2013 12:44
Operator : TR Inst ID: IC.i
Smp Info : 120413CCB5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1120413.b\IC1300.m
Meth Date : 06-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.142	4.194	-0.052	2301	0.49105	0.49
T 3 Nitrite as N	4.662	4.785	-0.123	624	0.00334	0.0033
T 4 Sulfate	5.275	5.444	-0.169	638	0.45134	0.45
T 7 DCA	8.017	8.024	-0.007	99585	4.76497	4.8

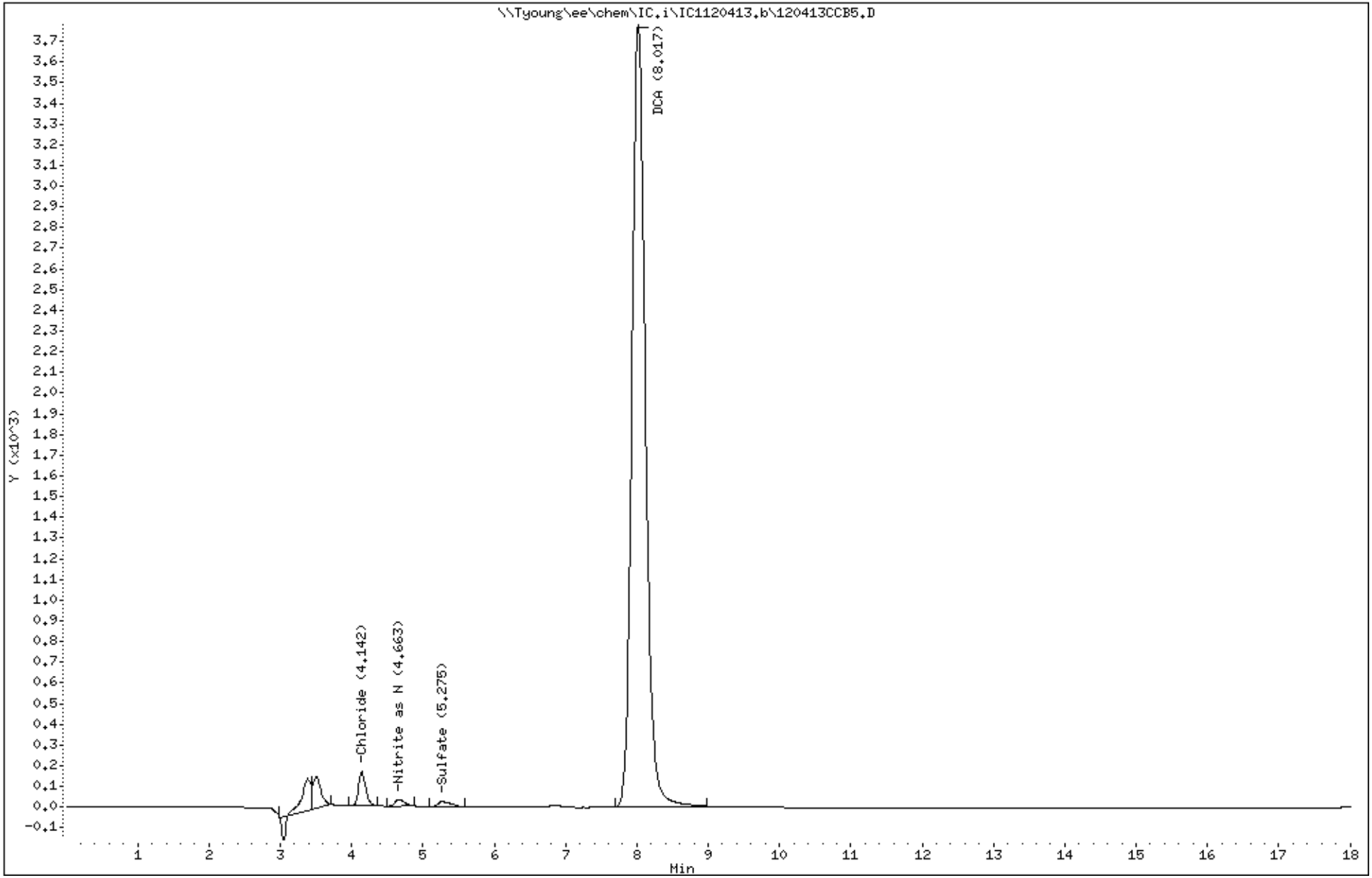
Data File: \\Tyoung\ee\chem\IC.i\IC1120413.b\120413CCB5.D
Date : 05-DEC-2013 12:44
Client ID: 120413CCB5
Sample Info: 120413CCB5

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



Raw Data Inorganics/Wet Chemistry

TDS

Analyst twolf **Units** mg/L **QCStandard:** **QC TV:**

APGL **temp** 103 **LCSStandard:** 52449 **LCS TV:** 250

BATCH_NUMBER 16252 **Method** 160.1 **DateTime** 11/20/2013 9:03:04

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	Initial Weight	Final Weight #1	Final Weight #2	Res Weight	Filt Res	RPD	Perc Rec	Dil_F	Final Wt Diff
1	206800MB	206800MB	MB	09:06 AM	50	79.8865	79.8865	79.8865	0	0			1	0
2	206801LCS	206801LCS	LCS	09:09 AM	50	80.1203	80.1349	80.1349	0.01460000	14.6000		116.8	1	292.0000
3	206802LCSD	206802LCSD	LCSD	09:12 AM	50	81.3209	81.335	81.335	0.0141	14.1	3.484	112.8	1	282
4	351099301	SMSMW03B	SAMPLE	09:15 AM	2	80.1242	80.3176	80.3176	0.1934	193.4			1	96700
5	206803SAMDUP	SMSMW03BSAMDUP	SAMDUP	09:18 AM	2	81.3291	81.5173	81.5173	0.18820000	188.200	2.725		1	94100.00
6	351099302	SMSMW04A	SAMPLE	09:21 AM	5	85.9094	86.0256	86.0256	0.1162	116.2			1	23240
7	351099303	SMSSW03	SAMPLE	09:24 AM	50	87.7479	87.8036	87.8036	0.05570000	55.7000			1	1114.000
8	351099304	SMSSW13	SAMPLE	09:27 AM	50	84.5231	84.5519	84.5519	0.02880000	28.8000			1	576.0000
9	351100901	SMSMW02A	SAMPLE	09:30 AM	25	86.2423	86.3895	86.3895	0.1472	147.2			1	5888
10	351100902	SMSMW07A	SAMPLE	09:33 AM	2	79.6914	79.8223	79.8223	0.1309	130.9			1	65450
11	351100903	SMSMW07B	SAMPLE	09:36 AM	5	80.7036	80.8726	80.8726	0.16900000	169.000			1	33800.00
12	351100904	SMSMW08A	SAMPLE	09:39 AM	25	81.7979	81.9122	81.9122	0.1143	114.3			1	4572
13	351100905	SMSSW11	SAMPLE	09:42 AM	50	80.4248	80.4448	80.4448	0.02	20			1	400
14	206804MB	206804MB	MB	09:45 AM	50	85.3315	85.3315	85.3315	0	0			1	0
15	351100906	SMSSW14	SAMPLE	09:48 AM	50	81.2648	81.2895	81.2895	0.02470000	24.7000			1	494.0000
16	351101201	SMSMW12A	SAMPLE	09:51 AM	50	78.1359	78.2087	78.2087	0.0728	72.8			1	1456
17	351101202	SMSMW01A	SAMPLE	09:54 AM	5	80.1558	80.3164	80.3164	0.16060000	160.600			1	32120.00
18	206805SAMDUP	SMSMW01ASAMDUP	SAMDUP	09:57 AM	5	88.075	88.2383	88.2383	0.1633	163.3	1.667		1	32660
19	206806MB	206806MB	MB	10:00 AM	50	87.0156	87.0156	87.0156	0	0			1	0

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
44474	Residue, TSS/TDS	NSI	111811	12/31/2014	1 G	1/6/2012	ddthompson

500 MG/G: Residue, Filterable (TDS), Total Suspended Solids

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52449	Residue Solution			12/11/2013	1000 ML	11/14/2013	twolf

250 MG/L: Residue, Filterable (TDS), Total Suspended Solids

COMPOSED OF:

44474: 0.5 G 49005: 1000 ML

Alkalinity

PH Calibration		True Val	Read	Expires
IS	48258	4	4.01	5/31/2015
IS	47071	7	7	6/30/2014
IS	48542	10	10.01	6/30/2014

Analyst twolf

Date Time 11/27/2013 1:15:00 PM

pH Meter 1353764

Reagents:

Titrant: Sulfuric Acid(0.02N)

IS	51144	Exp	6/30/2014

Spike Used

QC	IS	52254	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
LCS	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
MS / MSD	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml sample =50 ppm)

BATCH_NUMBER 16332 **Method** 310.1 / SM2320B **Units** mg/L

POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
1	207072CB	207072CB	CB	01:15 PM	1	100	7.11	4.3	0	0.05	0.05	0.5	0	0
2	207073QC	207073QC	QC	01:19 PM	1	100	9.36	4.41	0.05	4.9	4.85	48.5	50	97
3	207074MB	207074MB	MB	01:23 PM	1	100	6.88	4.3	4.9	4.95	0.05	0.5	0	0
4	207075LCS	207075LCS	LCS	01:27 PM	1	100	8.96	4.32	4.95	9.75	4.8	48	50	96
5	207076LCSD	207076LCSD	LCSD	01:31 PM	1	100	9.01	4.3	9.8	14.7	4.9	49	50	98
6	351099301	SMSMW03B	SAMPLE	01:34 PM	2	100	6.83	4.37	0	22.8	22.8	456	0	0
7	351099302	SMSMW04A	SAMPLE	01:37 PM	5	100	6.55	4.3	22.8	25.6	2.8	140	0	0
8	351099303	SMSSW03	SAMPLE	01:40 PM	5	100	7.41	4.35	25.6	30.7	5.1	255	0	0
9	351099304	SMSSW13	SAMPLE	01:43 PM	5	100	7.86	4.44	30.7	34.5	3.8	190	0	0

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POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
10	351100901	SMSMW02A	SAMPLE	01:46 PM	10	100	9.45	4.46	36.5	47	10.5	1050	0	0
11	351100902	SMSMW07A	SAMPLE	01:49 PM	10	100	6.81	4.48	9.9	21	11.1	1110	0	0
12	351100903	SMSMW07B	SAMPLE	01:52 PM	10	100	7	4.43	21	32.4	11.4	1140	0	0
13	351100904	SMSMW08A	SAMPLE	01:55 PM	20	100	8.4	4.39	32.4	36.5	4.1	820	0	0
14	351100905	SMSSW11	SAMPLE	01:58 PM	20	100	7.06	4.34	36.5	37.6	1.1	220	0	0
15	351100906	SMSSW14	SAMPLE	02:01 PM	5	100	7.49	4.3	37.6	41.5	3.9	195	0	0
16	207260CCB	207260CCB	CCB	02:04 PM	1	100	7.02	4.3	41.5	41.55	0.05	0.5	0	0
17	351101201	SMSMW12A	SAMPLE	02:07 PM	10	100	7.1	4.48	0	2.3	2.3	230	0	0
18	351101202	SMSMW01A	SAMPLE	02:10 PM	5	100	7.14	4.47	2.3	15	12.7	635	0	0
19	207261CCB	207261CCB	CCB	02:13 PM	1	100	7.09	4.3	15	15.05	0.0500	0.5000	0	0

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STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28506	Na2CO3_STK	VWR CAT BDH02	48337915	4/30/2014	500 G	4/30/2009	pconklin
1000 MG/G: sodium carbonate							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
32490	Na2CO3_STK	Fisher	094498	1/7/2015	500 G	1/7/2010	pconklin
1000 MG/G: Alkalinity (Total)							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47071	Buf_Soln7_STK	HACH	A2156	6/30/2014	4 L	7/19/2012	twolf
7 pH: pH							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48258	Buf_Soln4_STK	HACH	A1126	5/31/2015	4 L	5/23/2011	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52254	Sodium Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: sodium carbonate

COMPOSED OF:

28506: 2.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52255	Sodium_Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: Alkalinity (Total)

COMPOSED OF:

32490: 2.5 G 49005: 10000 ML

Original Run Filename: OM_11-27-2013_04-09-06PM.OMN Created: 11/27/2013 4:09:06 PM
Original Run Author's Signature: [twolf]
Current Run Filename: OM_11-27-2013_04-09-06PM.OMN Last Modified: 11/27/2013 5:21:19 PM
Current Run Author's Signature: [twolf]
Description: Digestion Start Time 10:30 AM Digestion End Time: 11:00 AM
Ammonia by 4500-NH3-G / 350.1 Oven Temp: 120°C
ICV = 50545 Trapping Solution - 51144
CCV = 28547 Borate Buffer - 52466
Sodium Nitroprusside - 52471 Sodium EDTA Buffer - 52467
Sodium Phenolate - 51676 Sodium Hypochlorite - 52566
Ammonia Carrier - 52470
Analyst = TW

Sample	Rep.	Cup No.	Channel 1 NH3-N Conc. (mg/L NH3-N)	Area (V.s)	Height (V)	Detection Time	ADF	MDF	Weight	Description
CalStd 20	1	S1	20.0	35.8	3.20	11/27/2013@4:10:33 PM				
CalStd 8	1	S1	8.00	14.5	1.27	11/27/2013@4:15:13 PM	2.50			
CalStd 2	1	S1	2.00	3.85	0.305	11/27/2013@4:17:45 PM	10.00			
CalStd 1	1	S1	1.00	1.96	0.160	11/27/2013@4:20:15 PM	20.00			
CalStd 0.4	1	S1	0.400	0.830	0.0621	11/27/2013@4:22:45 PM	50.00			
CalStd 0.2	1	S1	0.200	0.489	0.0320	11/27/2013@4:25:14 PM	100.00			
CalStd 0	1	3	0.00	-0.117	-5.44e-3	11/27/2013@4:26:23 PM				
ICV 8.0	1	1	7.93	14.8	1.28	11/27/2013@4:27:32 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	-0.9 < 20.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	-0.9 > -10.0							
		Message	Pass							
		Action								
		Calibration:	Table/Fig. : 1							
ICB	1	2	-0.0540	-0.0967	-3.77e-3	11/27/2013@4:30:51 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.0540 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	-0.0540 > -0.200							
		Message	Pass							
		Action								
MB	1	3	-0.0102	-0.0124	-2.21e-3	11/27/2013@4:31:59 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										

		Result:	-0.0102 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	-0.0102 > -0.200							
		Message	Pass							
		Action								
LCS 8.0	1	4	7.91	14.8	1.22	11/27/2013@4:33:09 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	-1.1 < 20.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	-1.1 > -20.0							
		Message	Pass							
		Action								
LCSD 8.0	1	5	8.15	15.2	1.27	11/27/2013@4:34:16 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	1.9 < 10.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	1.9 > -10.0							
		Message	Pass							
		Action								
351103001	1	6	0.0423	0.0886	9.86e-3	11/27/2013@4:35:25 PM				
351103001MS	1	7	7.35	13.7	1.18	11/27/2013@4:36:33 PM				
351103001MSD	1	8	7.77	14.5	1.14	11/27/2013@4:37:42 PM				
351103002	1	9	0.0807	0.163	0.0155	11/27/2013@4:38:49 PM				
351103003	1	10	0.0802	0.162	0.0220	11/27/2013@4:39:56 PM				
CCV	1	11	8.10	15.1	1.25	11/27/2013@4:41:05 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	1.3 < 20.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	1.3 > -20.0							
		Message	Pass							
		Action								
CCB	1	12	-0.135	-0.253	-8.39e-3	11/27/2013@4:44:22 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.135 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										

		Result:	-0.135 > -0.200							
		Message	Pass							
		Action								
351103004	1	13	-0.0287	-0.0482	3.82e-3	11/27/2013@4:45:29 PM				
351103005	1	14	0.0411	0.0863	4.74e-3	11/27/2013@4:46:37 PM				
351103006	1	15	0.0911	0.183	0.0183	11/27/2013@4:47:44 PM				
351104201	1	16	0.130	0.258	0.0151	11/27/2013@4:48:53 PM				
351104202	1	17	-0.0341	-0.0585	-5.69e-3	11/27/2013@4:50:02 PM				
351104203	1	18	0.0897	0.180	0.0122	11/27/2013@4:51:11 PM				
351099301	1	19	96.1	141	9.91	11/27/2013@4:52:20 PM				
351099302	1	20	60.0	95.2	7.40	11/27/2013@4:53:28 PM				
351099303	1	21	0.252	0.492	0.0381	11/27/2013@4:54:37 PM				
351099304	1	22	0.0351	0.0747	8.92e-3	11/27/2013@4:55:45 PM				
CCV	1	23	7.94	14.8	1.23	11/27/2013@4:56:53 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	-0.8 < 20.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	-0.8 > -20.0							
		Message	Pass							
		Action								
CCB	1	24	0.143	0.283	0.0154	11/27/2013@5:00:12 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	0.143 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	0.143 > -0.200							
		Message	Pass							
		Action								
351099301	1	19	107	19.8	1.68	11/27/2013@5:02:47 PM	10.00			
351099302	1	20	57.3	10.8	0.886	11/27/2013@5:05:23 PM	10.00			
351100901	1	25	0.629	1.21	0.273	11/27/2013@5:06:31 PM				
351100902	1	26	0.442	0.856	0.196	11/27/2013@5:07:39 PM				
351100903	1	27	6.96	13.0	1.09	11/27/2013@5:08:47 PM				
351100901	1	25	83.2	125	9.40	11/27/2013@5:09:55 PM				
351100902	1	26	183	232	10.6	11/27/2013@5:11:03 PM				
351100903	1	27	147	196	10.5	11/27/2013@5:12:11 PM				
351100904	1	28	55.1	88.6	7.30	11/27/2013@5:13:17 PM				
351100905	1	29	0.0410	0.0861	0.0156	11/27/2013@5:14:25 PM				
CCV	1	31	8.09	15.1	1.24	11/27/2013@5:15:35 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	1.1 < 10.0							
		Message	Pass							
		Action								

DQM Test: < - Percent Relative Difference										
		Result:	1.1 > -10.0							
		Message	Pass							
		Action								
CCB	1	32	0.177	0.347	0.0128	11/27/2013@5:18:54 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	0.177 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	0.177 > -0.200							
		Message	Pass							
		Action								

Analyte Properties Table for : OM_11-27-2013_04-09-06PM.OMN

Property	Channel 1
	NH3-N
Concentration Units	mg/L NH3-N
Calibration Fit Type	Second Order
Clear Calibration	Yes
Force through Zero	No
Calibration Weighting	1/x
Auto Dilution Trigger	No
% of High Standard	100
Quik Chem Method	10-107-06-1-C
Chemistry	Direct/Bipolar
Calibration by Height	No
Inject to Peak Start	28
Peak Base Width	66

3510993 200

Author: twolf SPECTRUM ANALYTICAL Date : 11/27/2013

Channel 1 - Current View

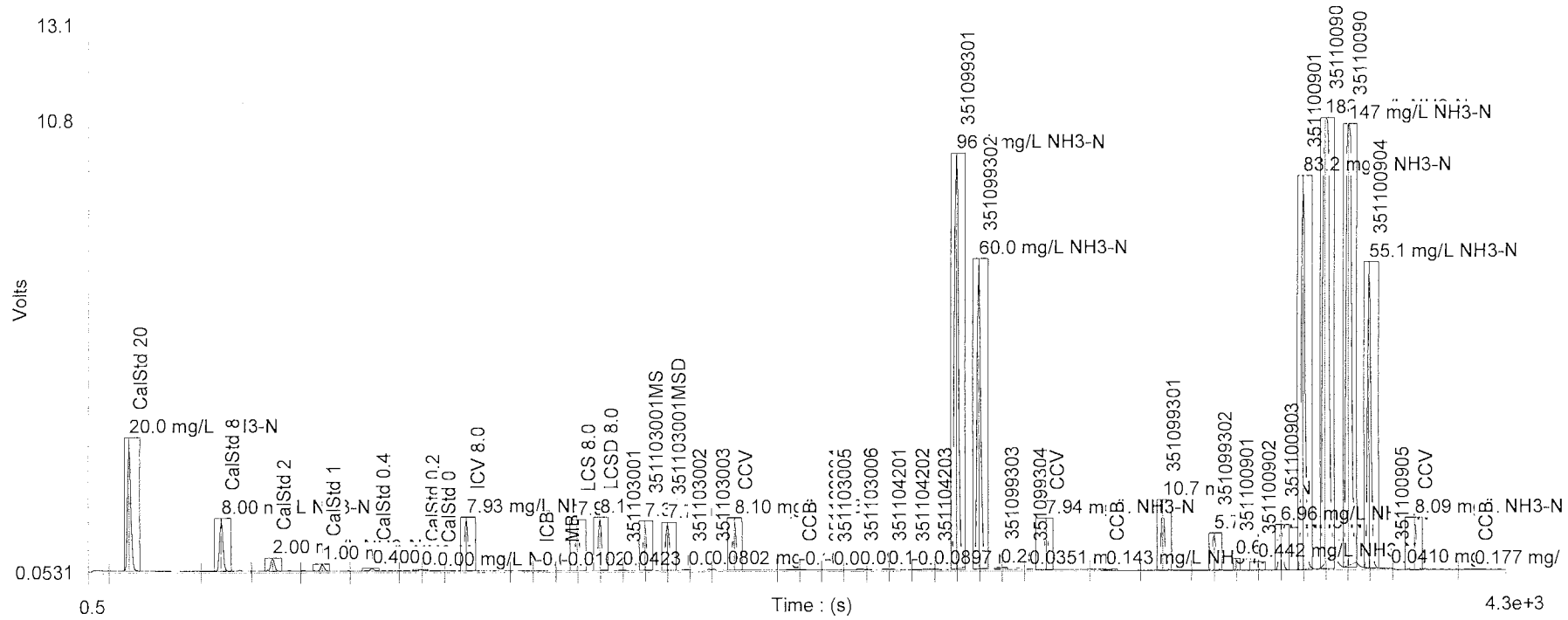
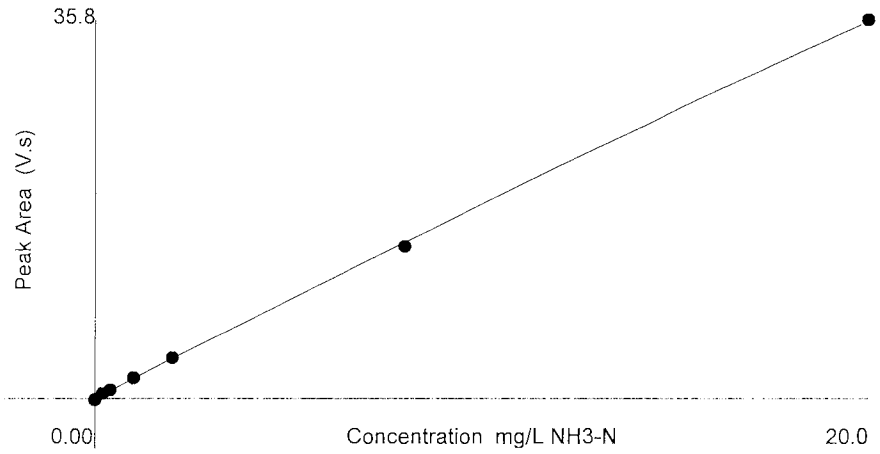


Table : 1 (NH3-N)

	Known Conc. (mg/L NH3-N)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L NH3-N)	Detection Date	Detection Time
1	20.0	1	35.8	3.20	0.0	-0.4	20.1	11/27/2013	4:10:33 PM
2	8.00	1	14.5	1.27	0.0	2.7	7.75	11/27/2013	4:15:13 PM
3	2.00	1	3.85	0.305	0.0	-1.4	2.01	11/27/2013	4:17:45 PM
4	1.00	1	1.96	0.160	0.0	-2.6	1.02	11/27/2013	4:20:15 PM
5	0.400	1	0.830	0.0621	0.0	-7.3	0.428	11/27/2013	4:22:45 PM
6	0.200	1	0.489	0.0320	0.0	-24.3	0.251	11/27/2013	4:25:14 PM
7	0.00	1	-0.117	-5.44e-3			-0.0644	11/27/2013	4:26:23 PM

Author: twolf SPECTRUM ANALYTICAL Date : 11/27/2013

Figure : 1 (NH3-N)



Area = - 6.02e-3 * Conc^2 + 1.90 * Conc + 0.0132
Conc = 1.16e-3 * Area^2 + 0.519 * Area - 3.74e-3
Correlation Coefficient (r) = 0.99991

Weighting : 1/x

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STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28547	Nit_Std_STK	HACH	A9091	4/30/2014	1 L	5/4/2009	pconklin
1 MG/ML: Ammonia, Total Kjeldahl Nitrogen							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28551	Na_Nitr_STK	JTBAKER	G41608	5/4/2014	500 G	5/4/2009	pconklin

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
46081	EDTA_Di_STK	RICCA	2203007	1/31/2017	500 G	4/20/2012	ddthompson

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Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47083	Bleach	Clorox	5813GA1	7/26/2014	16.14 L	7/26/2012	ddthompson

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49846	Phenol	ACROS	A0318606	11/16/2014	100 G	3/20/2013	jbowman
: Phenol							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50280	H2SO4_0.02N	RICCA	1303887	2/28/2015	4 L	4/24/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50545	Nit_Std_STK	RICCA	2303D90	9/30/2014	120 ML	5/15/2013	twolf

1 MG/ML: Ammonia, Total Kjeldahl Nitrogen

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50598	NaOH	EMD	B0847769	8/31/2015	2.5 KG	5/21/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51676	Sodium Phenolate - Am			12/31/2013	1000 ML	8/28/2013	twolf

UG/L: Phenol

COMPOSED OF:

49005: 1000 ML 49846: 83 G 50598: 32 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51899	Borax	20 Mule Team	1	9/30/2014	2.15 KG	9/24/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52466	Sodium Borate Buffer - A			12/31/2013	500 ML	11/15/2013	twolf

COMPOSED OF:

49005: 482 G 50598: 11 G 51899: 2.5 G

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52467	Sodium EDTA Buffer - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

46081: 50 G 49005: 1000 ML 50598: 5.5 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52470	0.003M H2SO4 - Ammon			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

49005: 700 ML 50280: 300 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52471	Sodium Nitroprusside - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

28551: 3.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52566	Sodium Hypochlorite - A			11/27/2013	500 ML	11/26/2013	twolf

COMPOSED OF:

47083: 47 ML 49005: 500 ML

Sulfide

Analyst	twolf	MB	0	IODINE	0.025	QC IS	52489	Exp	11/20/2013
Units	mg/L	SPIKE	5	TITRANT	0.025	LCS IS	52490	Exp	11/20/2013

BATCH_NUMBER 16266 **Method** 376.1 / SM4500-S F **Run Date** 11/20/2013

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
1	206395QC	206395QC	QC	12:13	100	1	2	0.05	0	0.7	0.7	0.0175	5.2098	104.2	
2	206396MB	206396MB	MB	12:16	100	1	1	0.025	0.7	1.7	1	0.025	0		
3	206397LCS	206397LCS	LCS	12:19	100	1	2	0.05	1.7	2.4	0.7	0.0175	5.2098	104.2	
4	206398LCSD	206398LCSD	LCSD	12:22	100	1	2	0.05	2.4	3.21	0.81	0.02025	4.7689	95.379	8.835
5	351099301	SMSMW03B	SAMPLE	12:25	100	1	1	0.025	0	0.75	0.75	0.01875	1.0019		
6	351099302	SMSMW04A	SAMPLE	12:28	100	1	1	0.025	0.75	1.75	1	0.025	0		
7	351099303	SMSSW03	SAMPLE	12:31	100	1	1	0.025	1.75	2.75	1	0.025	0		
8	351099304	SMSSW13	SAMPLE	12:34	100	1	1	0.025	2.8	3.8	1	0.025	0		
9	351100901	SMSMW02A	SAMPLE	12:37	100	1	1	0.025	3.8	4.6	0.8	0.02	0.8015		
10	351100902	SMSMW07A	SAMPLE	12:40	100	2	1	0.025	5.6	6.6	1	0.025	0		
11	351100903	SMSMW07B	SAMPLE	12:43	100	1	1	0.025	6.6	7.6	1	0.025	0		
12	351100904	SMSMW08A	SAMPLE	12:46	100	1	1	0.025	7.65	8.6	0.95	0.02375	0.2004		
13	351100905	SMSSW11	SAMPLE	12:49	100	1	1	0.025	8.65	9.6	0.95	0.02375	0.2004		
14	351100906	SMSSW14	SAMPLE	12:52	100	1	1	0.025	0	0.9	0.9	0.0225	0.4008		

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POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
15	206399MB	206399MB	MB	12:55	100	1	1	0.025	0.9	1.9	1	0.025	6E-16		
16	351101201	SMSMW12A	SAMPLE	12:58	100	1	1	0.025	1.9	2.85	0.95	0.02375	0.2004		
17	351101202	SMSMW01A	SAMPLE	13:01	100	1	1	0.025	3	3.98	0.975	0.024375	0.1002		
18	206400MB	206400MB	MB	13:04	100	1	1	0.025	4	5	1	0.025	0		

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48098	Na_Sul_STK	ACROS	A0313853	10/17/2015	25 G	10/17/2012	ddthompson
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48605	HCl	RICCA	1210514	4/30/2014	1 L	11/19/2012	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50171	Na_Sul_STK	EMD	UI23BZEMS	4/1/2015	500 G	4/1/2013	twolf
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51842	Strch_Ind_STK	BDH	3041134	4/30/2014	1 L	9/1/2013	twolf
: Chloroform							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51944	Na2S2O3_STK	RICCA	4308A47	2/20/2015	4 L	9/30/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51945	I_Soln_STK	RICCA	2307A99	7/30/2014	1 L	10/1/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52489	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

49005: 250 ML 50171: 1.875 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52490	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

48098: 1.875 G 49005: 250 ML

Instr.Information

System	TOC
Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Control Sample

Sample Name:	RINSE
Sample ID:	RINSE - DI H2O - IS# 45611
Method:	RINSE - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 0.04634 / Control within range!

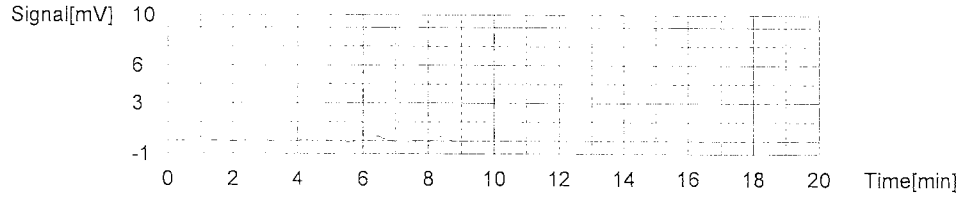
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.04634ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.524	0.1727ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:27:05 PM
2	1.126	0.06442ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:29:10 PM
3	0.9335	0.01204ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:31:15 PM
4	0.8879	-0.00037ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:33:20 PM
5	0.8263	-0.01714ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:34:46 PM

Mean Area	1.060
Mean Conc.	0.04634ppm



Cal. Curve

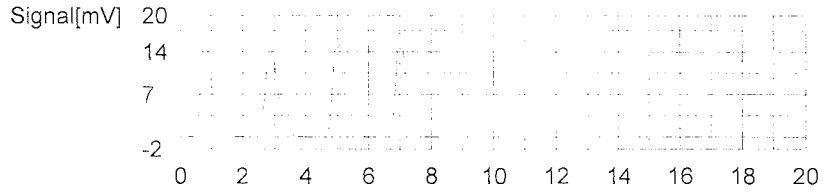
Sample Name:	10PPM
Sample ID:	10PPM - IS# 49986
Cal. Curve:	NPOC 10ppm.2013_12_01_14_34_46.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 10.00ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.68	50uL	1	*******		12/1/2013 2:44:28 PM
2	39.65	50uL	1	*******		12/1/2013 2:46:49 PM
3	39.31	50uL	1	*******		12/1/2013 2:49:02 PM
4	39.00	50uL	1	*******		12/1/2013 2:51:11 PM

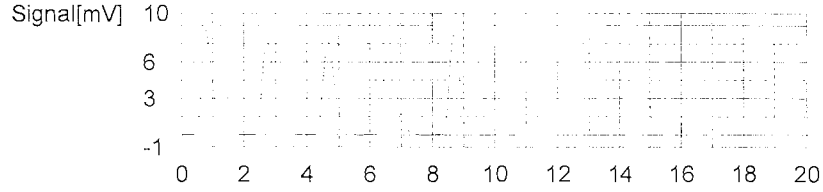
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 39.41



Conc: 5.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.46	50uL	2	*******	E	12/1/2013 3:00:05 PM
2	20.13	50uL	2	*******		12/1/2013 3:02:12 PM
3	19.57	50uL	2	*******		12/1/2013 3:04:18 PM
4	19.60	50uL	2	*******		12/1/2013 3:06:37 PM
5	19.84	50uL	2	*******		12/1/2013 3:08:53 PM

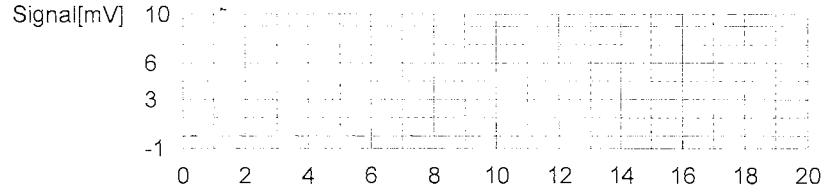
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 19.79



Conc: 2.500ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.28	50uL	4	*******		12/1/2013 3:17:43 PM
2	10.21	50uL	4	*******		12/1/2013 3:19:49 PM
3	9.934	50uL	4	*******		12/1/2013 3:21:54 PM
4	10.06	50uL	4	*******		12/1/2013 3:24:01 PM

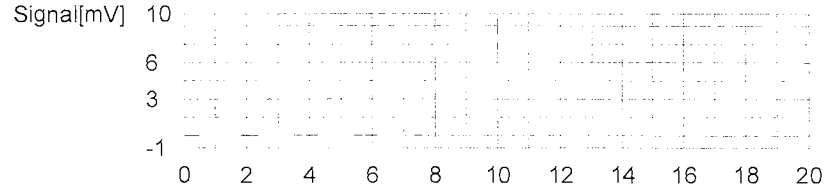
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 10.12



Conc: 2.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.270	50uL	5	*******		12/1/2013 3:32:55 PM
2	8.186	50uL	5	*******		12/1/2013 3:34:59 PM
3	7.986	50uL	5	*******		12/1/2013 3:37:04 PM
4	7.969	50uL	5	*******		12/1/2013 3:39:09 PM

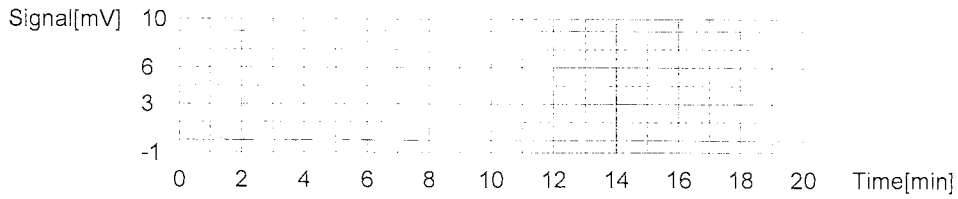
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 8.103



Conc: 1.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.475	50uL	10	*******		12/1/2013 3:48:04 PM
2	4.351	50uL	10	*******		12/1/2013 3:50:09 PM
3	4.360	50uL	10	*******		12/1/2013 3:52:14 PM
4	4.311	50uL	10	*******		12/1/2013 3:54:19 PM

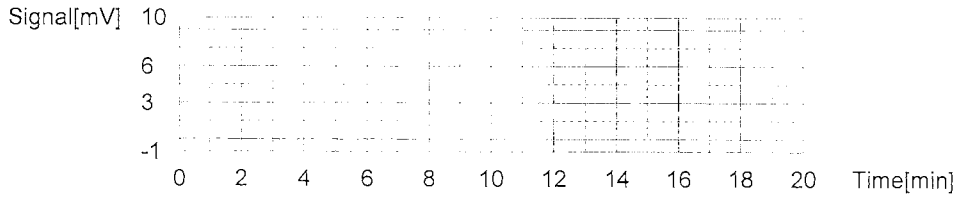
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 4.374



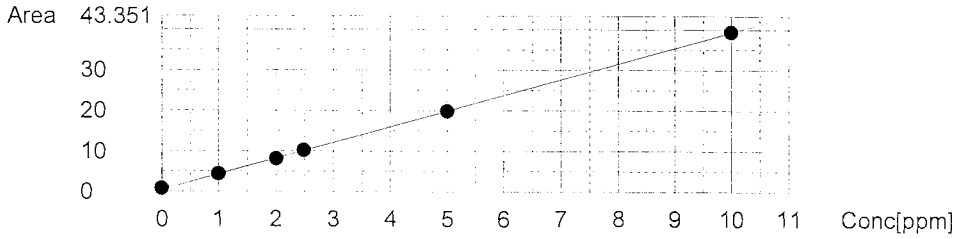
Conc: 0.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.8250	50uL	1	*******		12/1/2013 4:01:56 PM
2	0.7695	50uL	1	*******		12/1/2013 4:04:01 PM
3	0.7396	50uL	1	*******		12/1/2013 4:06:06 PM
4	0.6782	50uL	1	*******		12/1/2013 4:08:11 PM

Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 0.7531



Slope: 3.880
Intercept 0.5017
r^2 0.9999
r 0.9999
Zero Shift No



Control Sample

Sample Name: ICV
Sample ID: ICV - IS# 52578
Method: ICV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.464 / Control within range!

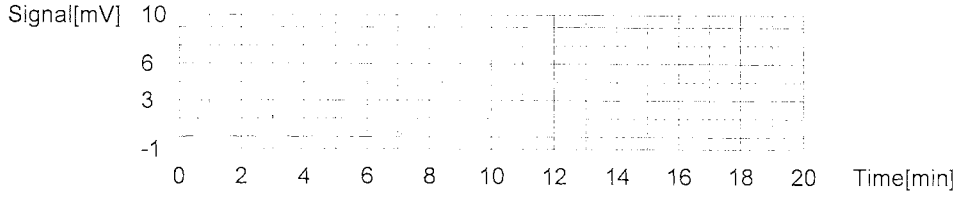
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.464ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.31	2.485ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:01:54 PM
2	10.10	2.433ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:03:59 PM
3	10.15	2.445ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:06:04 PM
4	10.34	2.492ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:08:09 PM

Mean Area 10.23
Mean Conc. 2.464ppm



Control Sample

Sample Name: ICB
Sample ID: ICB
Method: ICB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.03064 / Control within range!

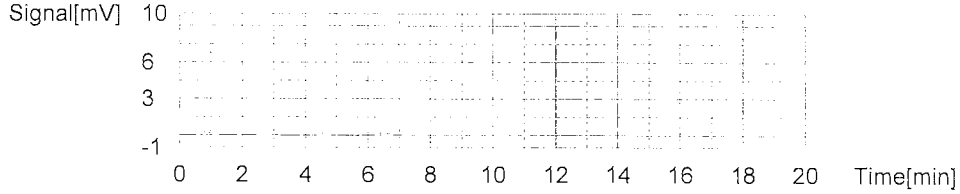
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03064ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4325	-0.01784ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:17:29 PM
2	0.3782	-0.03183ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:19:34 PM
3	0.3543	-0.03799ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:21:39 PM
4	0.3663	-0.03490ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:23:44 PM

Mean Area 0.3828
Mean Conc. -0.03064ppm



Control Sample

Sample Name: MB
Sample ID: MB
Method: MB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.04104 / Control within range!

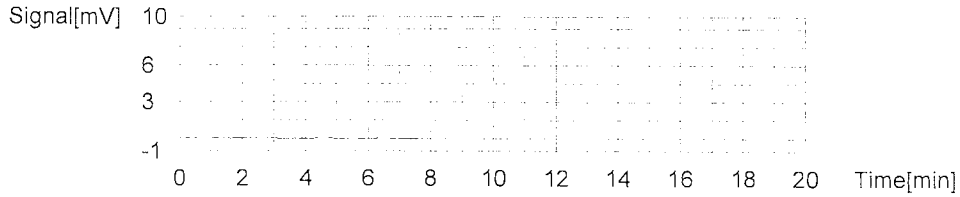
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.04104ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3526	-0.03843ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:33:03 PM
2	0.3397	-0.04176ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:35:08 PM
3	0.3543	-0.03799ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:37:13 PM
4	0.3233	-0.04598ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:39:18 PM

Mean Area 0.3425
Mean Conc. -0.04104ppm



Control Sample

Sample Name: LCS
Sample ID: LCS - IS# 52578
Method: LCS - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.520 / Control within range!

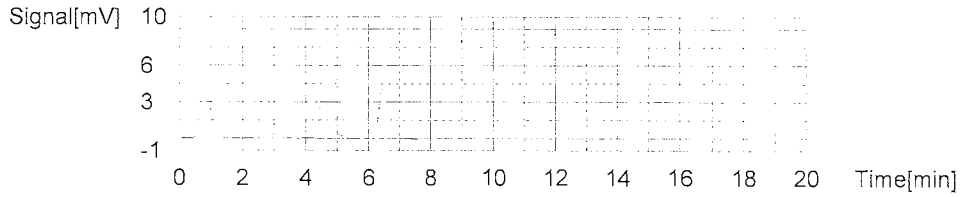
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.520ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.46	2.567ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:48:38 PM
2	10.17	2.492ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:50:43 PM
3	10.19	2.497ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:52:48 PM
4	10.29	2.523ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:54:53 PM

Mean Area 10.28
Mean Conc. 2.520ppm



Control Sample

Sample Name: LCSD
Sample ID: LCSD - IS# 52578
Method: LCS - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.628 / Control within range!

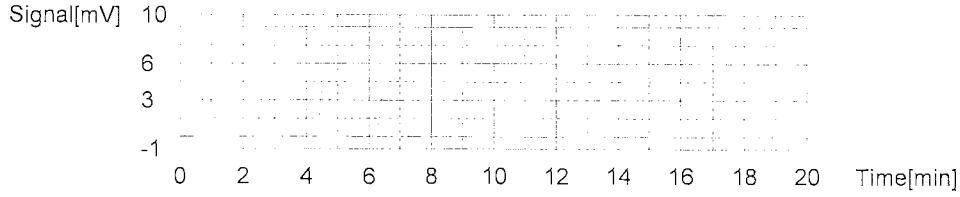
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.628ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.02	2.662ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:04:14 PM
2	10.88	2.627ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:06:19 PM
3	10.82	2.612ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:08:24 PM
4	10.82	2.612ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:10:31 PM

Mean Area 10.89
Mean Conc. 2.628ppm



Sample

Sample Name: 351099301 2x
Sample ID: 351099301 2x
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

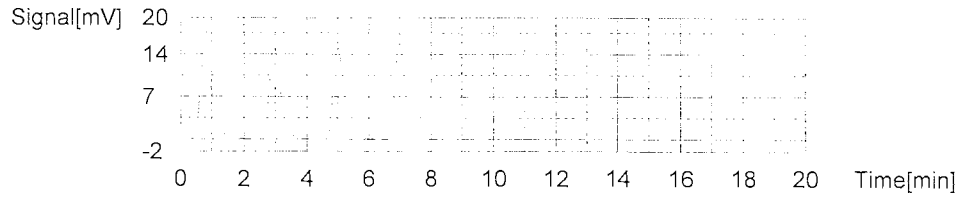
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.32ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.52	19.08ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:27:15 PM
2	38.54	19.61ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:29:28 PM
3	37.85	19.25ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:31:39 PM
4	38.04	19.35ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:33:53 PM

Mean Area 37.99
Mean Conc. 19.32ppm



Sample

Sample Name: 351099302
Sample ID: 351099302
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

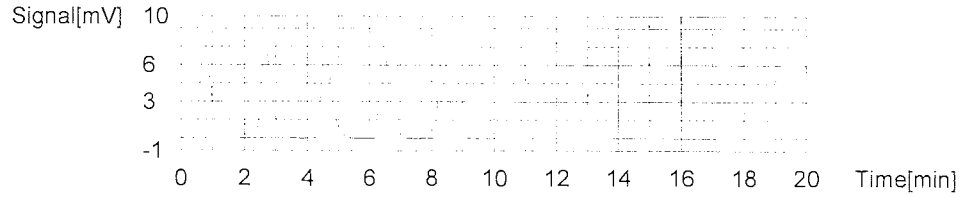
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.360ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.13	4.801ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:43:11 PM
2	17.97	4.502ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:45:16 PM
3	17.27	4.322ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:47:21 PM
4	17.16	4.294ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:49:26 PM
5	17.27	4.322ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:51:31 PM

Mean Area 17.42
Mean Conc. 4.360ppm



Sample

Sample Name: 351099303 3x
Sample ID: 351099303 3x
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

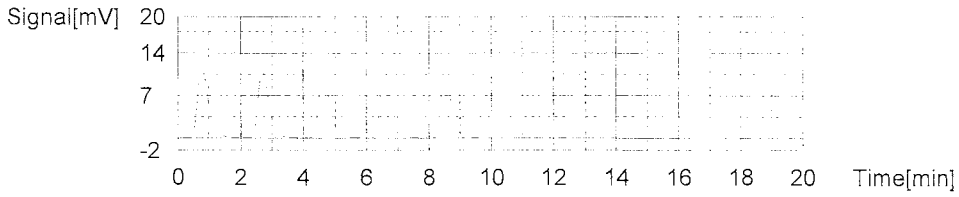
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.63ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.94	21.99ppm	50uL	3	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:01:49 PM
2	27.55	20.91ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:03:56 PM
3	26.88	20.40ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:06:03 PM
4	27.38	20.78ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:08:12 PM
5	26.92	20.43ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:10:18 PM

Mean Area 27.18
Mean Conc. 20.63ppm



Sample

Sample Name: 351099304
Sample ID: 351099304
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

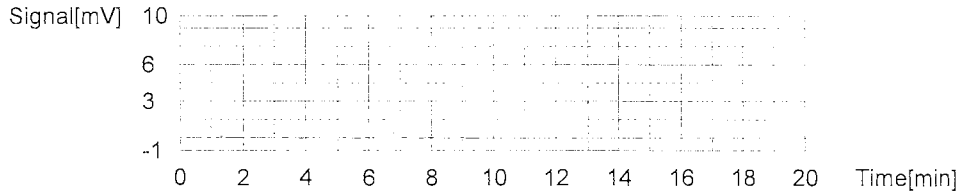
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8040ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.698	1.082ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:19:31 PM
2	3.820	0.8553ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:21:36 PM
3	3.537	0.7823ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:23:41 PM
4	3.559	0.7880ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:25:46 PM
5	3.568	0.7903ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:27:51 PM

Mean Area 3.621
Mean Conc. 0.8040ppm



Sample

Sample Name: 351099403
Sample ID: 351099403
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

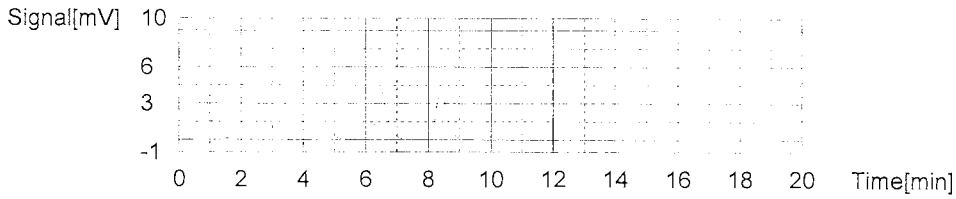
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.438ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.40	2.551ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:10:22 PM
2	10.07	2.466ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:12:27 PM
3	9.932	2.431ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:14:32 PM
4	9.887	2.419ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:16:37 PM
5	9.952	2.436ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:18:42 PM

Mean Area 9.960
Mean Conc. 2.438ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.426 / Control within range!

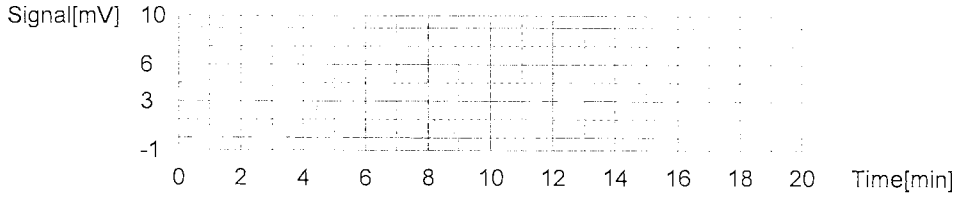
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.426ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.77	2.647ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:29:35 PM
2	10.08	2.469ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:31:40 PM
3	9.924	2.429ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:33:45 PM
4	9.784	2.392ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:35:50 PM
5	9.864	2.413ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:37:55 PM

Mean Area 9.913
Mean Conc. 2.426ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.03888 / Control within range!

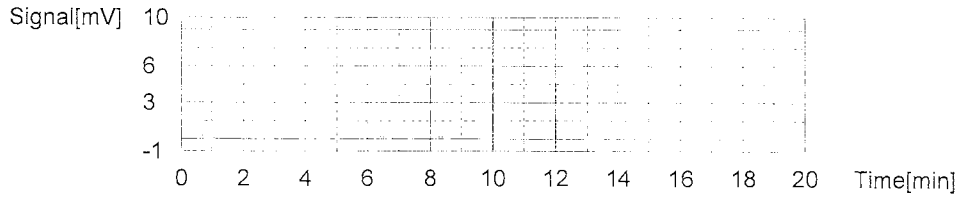
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03888ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5493	0.01227ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:48:43 PM
2	0.3609	-0.03629ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:50:48 PM
3	0.3496	-0.03921ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:52:53 PM
4	0.3312	-0.04395ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:54:58 PM
5	0.3617	-0.03609ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:57:03 PM

Mean Area 0.3509
Mean Conc. -0.03888ppm



Sample

Sample Name: 351099408
Sample ID: 351099408
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

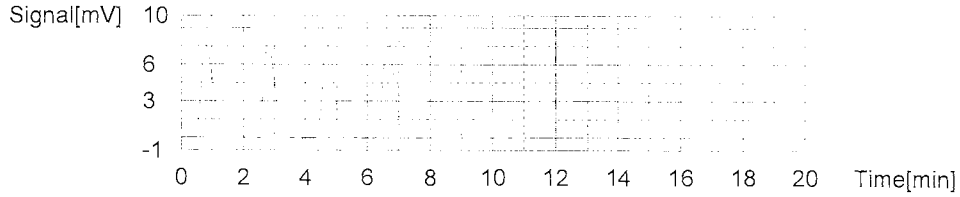
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.246ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.68	5.201ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:06:30 PM
2	20.82	5.237ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:08:35 PM
3	20.79	5.229ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:10:41 PM
4	21.13	5.317ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:12:51 PM

Mean Area 20.86
Mean Conc. 5.246ppm



Sample

Sample Name: 351099409
Sample ID: 351099409
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

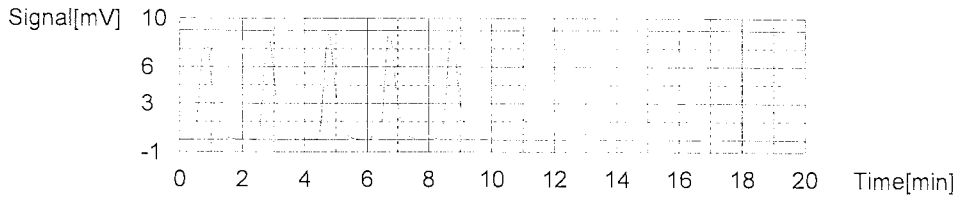
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.471ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.80	5.747ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:22:15 PM
2	21.94	5.526ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:24:24 PM
3	21.56	5.428ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:26:32 PM
4	21.58	5.433ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:28:42 PM
5	21.84	5.500ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:30:47 PM

Mean Area 21.73
Mean Conc. 5.471ppm



Sample

Sample Name: 351099410
Sample ID: 351099410
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

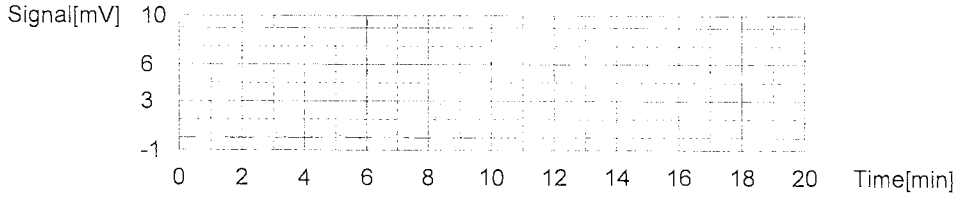
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.621ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.746	1.867ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:39:59 PM
2	6.928	1.656ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:42:04 PM
3	6.678	1.592ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:44:09 PM
4	6.772	1.616ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:46:14 PM
5	6.788	1.620ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:48:19 PM

Mean Area 6.792
Mean Conc. 1.621ppm



Sample

Sample Name: 351099411
Sample ID: 351099411
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

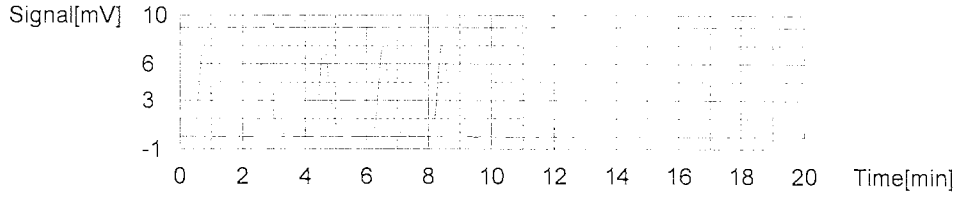
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.547ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.00	4.768ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:57:31 PM
2	18.23	4.569ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:59:37 PM
3	18.14	4.546ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:01:44 AM
4	18.01	4.513ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:03:49 AM
5	18.20	4.562ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:05:54 AM

Mean Area 18.15
Mean Conc. 4.547ppm



Sample

Sample Name: 351099414
Sample ID: 351099414
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

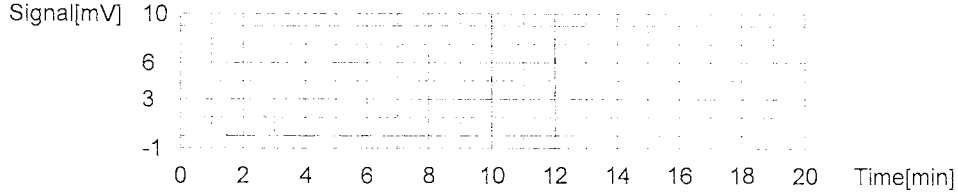
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8735ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.612	1.059ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:15:06 AM
2	4.016	0.9058ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:17:11 AM
3	3.809	0.8524ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:19:16 AM
4	3.938	0.8857ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:21:21 AM
5	3.800	0.8501ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:23:26 AM

Mean Area 3.891
Mean Conc. 0.8735ppm



Sample

Sample Name: 351100901
Sample ID: 351100901
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

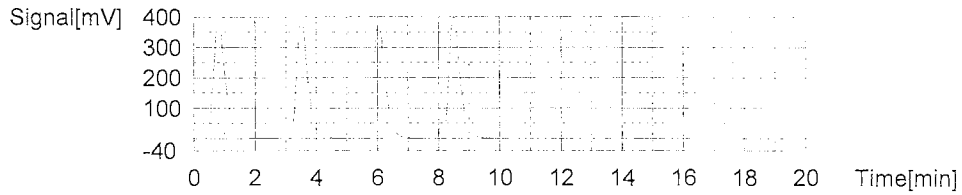
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:259.2ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1019	262.5ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:33:27 AM
2	998.7	257.3ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:36:09 AM
3	1001	257.9ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:38:52 AM
4	1006	259.2ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:41:36 AM

Mean Area 1006
Mean Conc. 259.2ppm



Sample

Sample Name: 351100902
Sample ID: 351100902
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

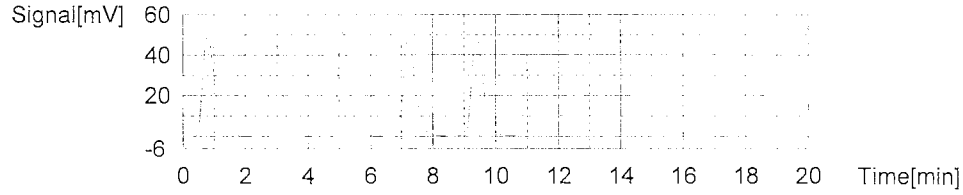
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.64ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	133.5	34.28ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:51:08 AM
2	127.7	32.78ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:53:31 AM
3	125.5	32.22ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:55:47 AM
4	127.4	32.71ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:58:08 AM
5	128.0	32.86ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:00:31 AM

Mean Area 127.2
Mean Conc. 32.64ppm



Sample

Sample Name: 351100903
Sample ID: 351100903
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

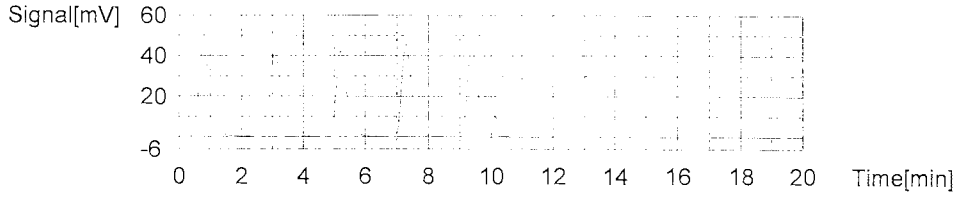
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	110.5	28.35ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:10:08 AM
2	106.2	27.24ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:12:26 AM
3	104.3	26.75ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:14:43 AM
4	105.7	27.11ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:16:59 AM
5	104.8	26.88ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:19:16 AM

Mean Area 105.3
Mean Conc. 27.00ppm



Sample

Sample Name: 351100904
Sample ID: 351100904
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

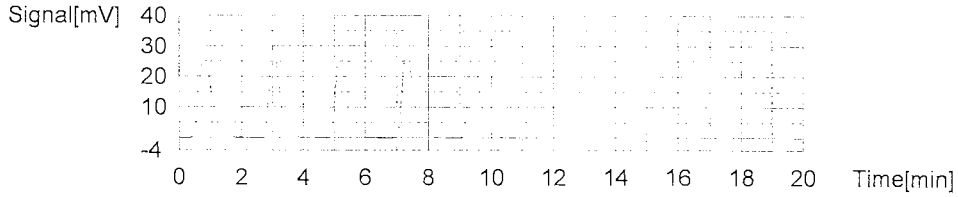
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.13ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.58	19.61ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:28:50 AM
2	72.53	18.56ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:31:09 AM
3	69.43	17.77ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:33:28 AM
4	70.80	18.12ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:35:44 AM
5	70.58	18.06ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:38:04 AM

Mean Area 70.83
Mean Conc. 18.13ppm



Sample

Sample Name: 351100905
Sample ID: 351100905
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

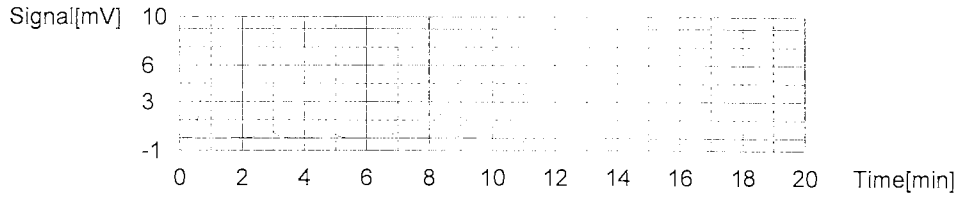
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.133ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.670	2.105ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:47:16 AM
2	5.507	1.290ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:49:21 AM
3	4.758	1.097ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:51:26 AM
4	4.684	1.078ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:53:31 AM
5	4.640	1.067ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:55:36 AM

Mean Area 4.897
Mean Conc. 1.133ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.329 / Control within range!

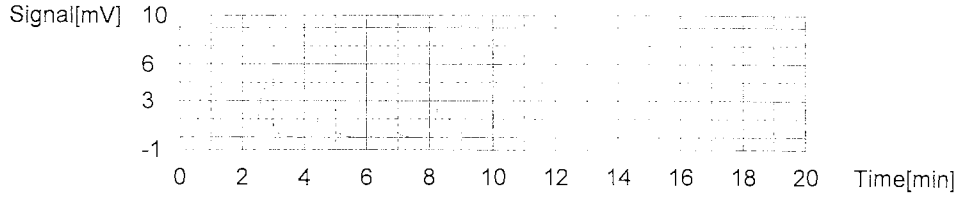
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.329ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.08	2.727ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:06:21 AM
2	9.722	2.376ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:08:26 AM
3	9.470	2.312ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:10:31 AM
4	9.336	2.277ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:12:36 AM
5	9.624	2.351ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:14:41 AM

Mean Area 9.538
Mean Conc. 2.329ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 0.01736 / Control within range!

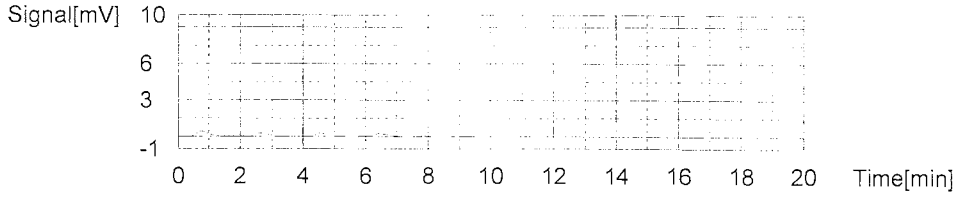
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.01736ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9342	0.1115ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:25:26 AM
2	0.5986	0.02497ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:27:31 AM
3	0.5349	0.00855ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:29:36 AM
4	0.5170	0.00394ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:31:41 AM
5	0.6257	0.03196ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:33:46 AM

Mean Area 0.5691
Mean Conc. 0.01736ppm



Sample

Sample Name: 351100906
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

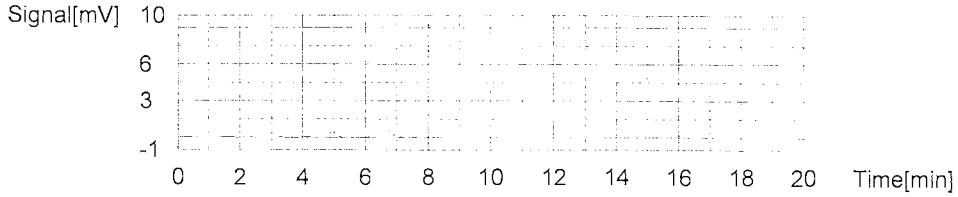
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7710ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.539	0.7828ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:42:58 AM
2	3.526	0.7795ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:45:03 AM
3	3.450	0.7599ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:47:08 AM
4	3.457	0.7617ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:49:13 AM

Mean Area 3.493
Mean Conc. 0.7710ppm



Sample

Sample Name: 351100906MS
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

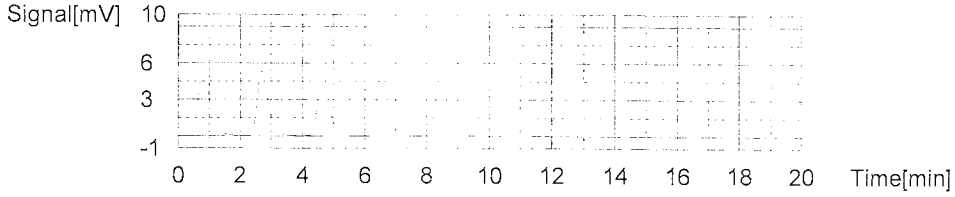
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.286ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.16	3.520ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:58:30 AM
2	13.51	3.353ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:00:37 AM
3	13.04	3.232ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:02:42 AM
4	13.17	3.265ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:04:47 AM
5	13.28	3.294ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:06:52 AM

Mean Area 13.25
Mean Conc. 3.286ppm



Sample

Sample Name: 351100906MSD
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

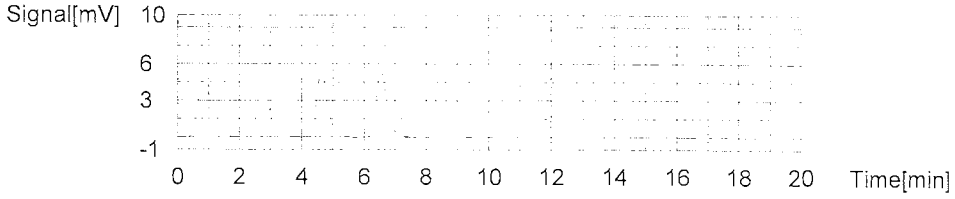
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.270ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.96	3.469ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:16:06 AM
2	13.41	3.327ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:18:12 AM
3	12.97	3.214ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:20:17 AM
4	13.14	3.257ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:22:22 AM
5	13.23	3.281ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:24:27 AM

Mean Area 13.19
Mean Conc. 3.270ppm



Control Sample

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49986	C_Std_STK	Ultra Scientific	R00176	3/31/2015	500 ML	4/2/2013	twolf
1000 MG/L: TOC							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52578	C_Std_STK	RICCA	2310A81	10/20/2014	500 ML	11/21/2013	twolf
1000 MG/L: TOC							

End Of Report

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Date Reported:
09-Dec-13

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

J.M.Waller Associates Inc.
100 Harstfield Centre Parkway, Suite 610
Atlanta, GA 30354

Project # 3511009
Project: Smokey Mountain Smelters 073-01-019-01-014

Attn: Austin Janice

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
351100901	SMSMW02A	W	13-Nov-13 11:07	15-Nov-13 10:00
351100902	SMSMW07A	W	13-Nov-13 13:15	15-Nov-13 10:00
351100903	SMSMW07B	W	13-Nov-13 11:40	15-Nov-13 10:00
351100904	SMSMW08A	W	13-Nov-13 10:45	15-Nov-13 10:00
351100905	SMSSW11	W	13-Nov-13 13:30	15-Nov-13 10:00
351100906	SMSSW14	W	13-Nov-13 14:20	15-Nov-13 10:00

Soil samples are reported on dry weight basis, unless otherwise noted.

Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis.

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirements have been meet unless noted in the case narrative.

Please contact the laboratory at 813-888-9507 with any questions regarding the data contained in the laboratory report.

Florida	E84207
Texas	T104704408-13-5
South Carolina	96011001
North Dakota	R-178
California	07253CA
Louisiana	02025
Kansas	E-10385
Arkansas	11-036-1

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2259 Testing

Respectfully Submitted,

Brian Spann
Laboratory Director
Spectrum Analytical, Inc. Florida Division

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EXECUTIVE SUMMARY - Detection Highlights

3511009

SAMPLE ID: SMSMW02A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	5890	10.0	MG/L	E160.1
Nitrite-N	1.60	0.100	MG/L	E300.1
ortho-Phosphate-P	1.20	1.00	MG/L	E300.1
Alkalinity (Total)	1050	10.0	MG/L	E310.1
Ammonia	80.4	0.250	MG/L	E350.1
Sulfide	0.802 J	2.00	MG/L	E376.1
TOC	233	1.00	MG/L	SW9060

SAMPLE ID: SMSMW02ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Fluoride	253	25.0	MG/L	E300.1

SAMPLE ID: SMSMW02ADL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	2560	50.0	MG/L	E300.1

SAMPLE ID: SMSMW07A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	65400	10.0	MG/L	E160.1
Nitrate-N	3.20	0.100	MG/L	E300.1
Alkalinity (Total)	1110	10.0	MG/L	E310.1
Ammonia	242	0.250	MG/L	E350.1
TOC	31.1	1.00	MG/L	SW9060

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EXECUTIVE SUMMARY - Detection Highlights

3511009

SAMPLE ID: SMSMW07ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Sulfate	426	10.0	MG/L	E300.1

SAMPLE ID: SMSMW07ADL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	44800	1000	MG/L	E300.1

SAMPLE ID: SMSMW07B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	33800	10.0	MG/L	E160.1
Nitrate-N	9.40	0.100	MG/L	E300.1
ortho-Phosphate-P	1.00	1.00	MG/L	E300.1
Alkalinity (Total)	1140	10.0	MG/L	E310.1
Ammonia	47.7	0.250	MG/L	E350.1
TOC	26.3	1.00	MG/L	SW9060

SAMPLE ID: SMSMW07BDL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Sulfate	1140	25.0	MG/L	E300.1

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EXECUTIVE SUMMARY - Detection Highlights

3511009

SAMPLE ID: SMSMW07BDL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	24200	500	MG/L	E300.1

SAMPLE ID: SMSMW08A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	4570	10.0	MG/L	E160.1
Nitrite-N	0.210	0.100	MG/L	E300.1
ortho-Phosphate-P	1.20	1.00	MG/L	E300.1
Alkalinity (Total)	820	20.0	MG/L	E310.1
Ammonia	507	0.250	MG/L	E350.1
Sulfide	0.200 J	2.00	MG/L	E376.1
TOC	16.8	1.00	MG/L	SW9060

SAMPLE ID: SMSMW08ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Fluoride	192	25.0	MG/L	E300.1
Sulfate	86.1	25.0	MG/L	E300.1

SAMPLE ID: SMSMW08ADL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	2030	50.0	MG/L	E300.1

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EXECUTIVE SUMMARY - Detection Highlights

3511009

SAMPLE ID: SMSSW11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	400	10.0	MG/L	E160.1
Chloride	9.20	1.00	MG/L	E300.1
Nitrate-N	0.730	0.100	MG/L	E300.1
Nitrite-N	0.0370 J	0.100	MG/L	E300.1
Sulfate	7.90	1.00	MG/L	E300.1
Alkalinity (Total)	220	20.0	MG/L	E310.1
Ammonia	0.197 J	0.250	MG/L	E350.1
Sulfide	0.200 J	2.00	MG/L	E376.1
TOC	1.13	1.00	MG/L	SW9060

SAMPLE ID: SMSSW14

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	494	10.0	MG/L	E160.1
Fluoride	0.400 J	1.00	MG/L	E300.1
Nitrate-N	1.20	0.100	MG/L	E300.1
Sulfate	16.6	1.00	MG/L	E300.1
Alkalinity (Total)	195	5.00	MG/L	E310.1
Ammonia	0.155 J	0.250	MG/L	E350.1
Sulfide	0.401 J	2.00	MG/L	E376.1
TOC	0.771 J	1.00	MG/L	SW9060

SAMPLE ID: SMSSW14DL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	128	10.0	MG/L	E300.1

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Inorganics

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Inorganic Data Qualifiers

C (Concentration) Qualifier - Entries and their meanings are:

J The reported value obtained was less than the RL but greater than or equal to the MDL.

E The reported value obtained was over calibration or linear range.

U The reported value obtained was less than the MDL or was not detected.

Q Qualifier - Entries and their meanings are:

U The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

M Duplicate injection precision was not met (two analyses of the same sample did not agree).

N Spiked sample recovery not within control limits.

E Serial Dilution percent difference not within control limits.

S The reported value was determined by the Method of Standard Additions (MSA).

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

+ Correlation coefficient for the MSA is less than 0.995.

X The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

M (Method) Qualifier - Enter one of the following:

P ICP
A Flame AA
F Furnace AA
CV Manual Cold Vapor AA
TC Total Organic Carbon
AS Semi-Automated Spectrophotometric
CA Midi-Distillation Spectrophotometric
T Titrimetric
C Manual Spectrophotometric
GR Gravimetric
NR Analyte was not required by your lab

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Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

DL Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

R Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

RE Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

MS Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

SD Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

A Post Digestion Spike.

L Serial Dilution.

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Wet Chemistry Data Package

091213 1228

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E160.1

IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 160.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

The following samples were analyzed out of hold: SMSMW07B, SMSMW08A, SMSSW11, SMSSW14.

The samples were received the same day as they were going out of hold. It was attempted to analyze the samples within hold, however the samples were analyzed approximately 5 hours out of hold for Nitrate, Nitrite and ortho-Phosphate.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E300.1

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1244174 was analyzed on 11/26/13 09:48. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Nitrate-N at 0.048 mg/L, Sulfate at 0.45 mg/L. CCB1244172 was analyzed on 11/26/13 15:13. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Nitrate-N at 0.043 mg/L, Sulfate at 0.45 mg/L. CCB1245673 was analyzed on 11/26/13 19:36. The following analyte(s) were detected below RL: Chloride at 0.53 mg/L, Nitrate-N at 0.048 mg/L, Sulfate at 0.46 mg/L. Samples coded accordingly.

The hits in the blanks are below the RL, therefore, no corrective action was taken.

2. Method Blanks:

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

All acceptance criteria were met with the exception of:

Blank 112513MB2 was analyzed with the water samples on 11/26/13. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Sulfate at 0.45 mg/L Samples coded accordingly.

The hits in the blank are below the RL, therefore, no corrective action was taken.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW02A required a 25X dilution due to high concentration of the following analyte(s): Fluoride.

Sample SMSMW02A required a 50X dilution due to high concentration of the following analyte(s): Chloride.

Sample SMSMW07A required a 10X dilution due to high concentration of the following analyte(s): Sulfate.

Sample SMSMW07A required a 1000X dilution due to high concentration of the following analyte(s): Chloride.

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Sample SMSMW07B required a 25X dilution due to high concentration of the following analyte(s): Fluoride, Sulfate.

Sample SMSMW07B required a 500X dilution due to high concentration of the following analyte(s): Chloride.

Sample SMSMW08A required a 25X dilution due to high concentration of the following analyte(s): Fluoride, Sulfate.

Sample SMSMW08A required a 50X dilution due to high concentration of the following analyte(s): Chloride.

Sample SMSSW14 required a 10X dilution due to high concentration of the following analyte(s): Chloride.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

MANUAL INTEGRATION SUMMARY

The following analytes were manually integrated by the chemist.

Sample: 111513LCS Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: 111513LCS Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: 111513LCSD Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02A Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02A Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02ADL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02ADL1 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02ADL2 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW02ADL2 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07A Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07A Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07A Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07A Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07ADL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07ADL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07B Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07B Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07B Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07BDL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW07BDL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW08A Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW08A Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Sample: SMSMW08A Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW08ADL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW08ADL1 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW08ADL2 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW11 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW11 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW11 Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW11 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW14 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSSW14DL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241693 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241693 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241693 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241694 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241694 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245674 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1241700 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1241700 Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1241700 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Calibration Sample: ICV1244175 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 2 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 3 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 4 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 5 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 7 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak

These manual integrations have been reviewed and meet all criteria in accordance with Spectrum Analytical Inc.'s SOP regarding manual integration.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

CHEMIST: DATE: 12/06/2013

CASE NARRATIVE

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SECTION LEADER: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E310.1

IV. PREPARATION

Water samples were prepared by EPA Method 310.1 / SM2320B.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW02A required a 10X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSMW07A required a 10X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSMW07B required a 10X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSMW08A required a 20X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSSW11 required a 20X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSSW14 required a 5X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

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CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Signature:_____
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E350.1

IV. PREPARATION

Water samples were prepared by EPA Method 350.1 / SM4500-NH3 G.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

207437ICB was analyzed on 12/05/13 14:27. The following analyte(s) were detected below RL: Ammonia at -0.0529 MG/L.
207441CCB was analyzed on 12/05/13 14:40. The following analyte(s) were detected below RL: Ammonia at -0.0685 MG/L.
207443CCB was analyzed on 12/05/13 15:03. The following analyte(s) were detected below RL: Ammonia at -0.0546 MG/L.
207452CCB was analyzed on 12/05/13 15:30. The following analyte(s) were detected below RL: Ammonia at -0.0512 MG/L
Samples coded accordingly.

The hits in the blank were below the Reporting Limit, therefore no corrective action was taken.

2. Method Blanks:

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW02A required a 15X dilution due to high concentration of the following analyte(s): Ammonia.

Sample SMSMW07A required a 20X dilution due to high concentration of the following analyte(s): Ammonia.

Sample SMSMW07B required a 10X dilution due to high concentration of the following analyte(s): Ammonia.

Sample SMSMW08A required a 40X dilution due to high concentration of the following analyte(s): Ammonia.

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CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/06/2013

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E376.1

IV. PREPARATION

Water samples were prepared by according to PEL Laboratory's Standard Operating Procedures and EPA Method 376.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW07A required a 2X dilution due to high concentration of the following analyte(s): Sulfide.

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Signature:

Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/04/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method SW9060

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3511009

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter

Lab Code : PEL Case No.: SDG No.: 3511009

SOW No.:

EPA Sample No	Lab Sample ID
SMSMW02A	351100901
SMSMW02ADL1	351100901DL1
SMSMW02ADL2	351100901DL2
SMSMW07A	351100902
SMSMW07ADL1	351100902DL1
SMSMW07ADL2	351100902DL2
SMSMW07B	351100903
SMSMW07BDL1	351100903DL1
SMSMW07BDL2	351100903DL2
SMSMW08A	351100904
SMSMW08ADL1	351100904DL1
SMSMW08ADL2	351100904DL2
SMSSW11	351100905
SMSSW14	351100906
SMSSW14DL1	351100906DL1

Comments:

091213 1229

Wet Chemistry Sample Data

091213 1229

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW02A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100901

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1050			IS		5	10
7664-41-7	Ammonia	80.4			AS		0.02	0.25
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	1.6			IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1.2			IC		0.24	1
1-01-0	Residue, Filterable (TDS)	5890			GR		10	10
3-03-5	Sulfate	1	U		IC		0.32	1
18496-25-8	Sulfide	0.802	J		T		0.08	2
1012_5	TOC	233			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	110.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW02ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100901DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	253			IC		8.25	25

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	100.8	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW02ADL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100901DL2

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	2560			IC		17	50

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	93.2	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100902

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1110			IS		5	10
7664-41-7	Ammonia	242			AS		0.02	0.25
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	3.2			IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	65400			GR		10	10
18496-25-8	Sulfide	4	U		T		0.16	4
1012_5	TOC	31.1			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	112.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100902DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
3-03-5	Sulfate	426			IC		3.2	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	95.6	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07ADL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100902DL2

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	44800			IC		340	1000

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	90.4	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07B

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100903

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1140			IS		5	10
7664-41-7	Ammonia	47.7			AS		0.02	0.25
25-90-0	Nitrate-N	9.4			IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1			IC		0.24	1
1-01-0	Residue, Filterable (TDS)	33800			GR		10	10
18496-25-8	Sulfide	2	U		T		0.08	2
1012_5	TOC	26.3			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	112.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07BDL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100903DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	25	U		IC		8.25	25
3-03-5	Sulfate	1140			IC		8	25

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	97.6	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW07BDL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100903DL2

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	24200			IC		170	500

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.8	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW08A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100904

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	820			IS		10	20
7664-41-7	Ammonia	507			AS		0.02	0.25
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	0.21			IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1.2			IC		0.24	1
1-01-0	Residue, Filterable (TDS)	4570			GR		10	10
18496-25-8	Sulfide	0.2	J		T		0.08	2
1012_5	TOC	16.8			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW08ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100904DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	192			IC		8.25	25
3-03-5	Sulfate	86.1			IC		8	25

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.4	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW08ADL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100904DL2

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	2030			IC		17	50

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	91.6	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW11

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100905

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	220			IS		10	20
7664-41-7	Ammonia	0.197	J		AS		0.02	0.25
1-00-3	Chloride	9.2			IC		0.34	1
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.73			IC		0.036	0.1
15-90-0	Nitrite-N	0.037	J		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	400			GR		10	10
3-03-5	Sulfate	7.9			IC		0.32	1
18496-25-8	Sulfide	0.2	J		T		0.08	2
1012_5	TOC	1.13			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	92.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW14

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100906

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	195			IS		2.5	5
7664-41-7	Ammonia	0.155	J		AS		0.02	0.25
7782-41-4	Fluoride	0.4	J		IC		0.33	1
25-90-0	Nitrate-N	1.2			IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	494			GR		10	10
3-03-5	Sulfate	16.6			IC		0.32	1
18496-25-8	Sulfide	0.401	J		T		0.08	2
1012_5	TOC	0.771	J		TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	108.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSSW14DL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 351100906DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	128			IC		3.4	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	90.8	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

Wet Chemistry QC Summary Data

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

111513MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 111513MB

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	1	U		IC		0.34	1
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
3-03-5	Sulfate	1	U		IC		0.32	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

112513MB2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 112513MB2

Level:(low/med) LOW Date Received: 11/26/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	0.52	J		IC		0.34	1
7782-41-4	Fluoride	1	U		IC		0.33	1
3-03-5	Sulfate	0.45	J		IC		0.32	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206396MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 206396MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206399MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 206399MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206800MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 206800MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206804MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 206804MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206806MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 206806MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207074MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 207074MB

Level:(low/med) LOW Date Received: 11/27/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1	U		IS		0.5	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207284MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 207284MB

Level:(low/med) LOW Date Received: 12/1/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1012_5	TOC	1	U		TC		0.31	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207303MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 207303MB

Level:(low/med) LOW Date Received: 12/2/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1012_5	TOC	1	U		TC		0.31	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207438MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Lab Sample ID: 207438MB

Level:(low/med) LOW Date Received: 12/5/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7664-41-7	Ammonia	0.25	U		AS		0.02	0.25

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1229

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia	50545	8	8.210	102.6	50545	8	8.110	101.4	8.370	104.6	AS
Chloride	49171	8	8.400	105.0	49171	8	8.100	101.2	8.300	103.8	IC
Fluoride	49171	8	8.600	107.5	49171	8	8.700	108.8	8.600	107.5	IC
Nitrate-N	49171	1	1.000	100.0	49171	1	0.920	92.0	1.000	100.0	IC
Nitrite-N	49171	1	1.000	100.0	49171	1	1.000	100.0	1.100	110.0	IC
ortho-Phosphate-	49171	5.18	5.000	96.5	49171	5.18	4.400	84.9	5.000	96.5	IC
Residue, Filterabl											GR
Sulfate	49171	8	8.300	103.8	49171	8	8.000	100.0	8.200	102.5	IC
Sulfide											T
TOC	52578	2.5	2.380	95.2	49986	2.5	2.240	89.6			TC

ICV IDs: AS= 207436ICV, IC= ICV1241700, TC= 207301ICV

CCV1 IDs: AS= 207440CCV, IC= CCV1241693, TC= 207312CCV

CCV2 IDs: AS= 207442CCV, IC= CCV1241694

(1) Control Limits: TOC: 75-125

Comments:

091213 1229

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia					28547	8	8.700	108.8			AS
Chloride	49171	8	8.600	107.5	49171	8	8.700	108.8	8.700	108.8	IC
Fluoride	49171	8	8.300	103.8	49171	8	8.400	105.0	8.500	106.2	IC
Nitrate-N											IC
Nitrite-N											IC
ortho-Phosphate-											IC
Residue, Filterabl											GR
Sulfate	49171	8	8.600	107.5	49171	8	8.500	106.2	8.600	107.5	IC
Sulfide											T
TOC	52578	2.5	2.460	98.4	49986	2.5	2.330	93.2	2.210	88.4	TC

ICV IDs: IC= ICV1244175, TC= 207282ICV

CCV1 IDs: AS= 207451CCV, IC= CCV1244173, TC= 207289CCV

CCV2 IDs: IC= CCV1245674, TC= 207293CCV

(1) Control Limits: TOC: 75-125

Comments:

091213 1229

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)									1	U	IS
Ammonia	-0.0529	J	-0.0685	J	-0.0546	J	-0.0512	J	0.25	U	AS
Chloride	1	U	1	U	1	U			1	U	IC
Fluoride	1	U	1	U	1	U			1	U	IC
Nitrate-N	0.1	U	0.1	U	0.1	U			0.1	U	IC
Nitrite-N	0.1	U	0.1	U	0.1	U			0.1	U	IC
ortho-Phosphate-P	1	U	1	U	1	U			1	U	IC
Residue, Filterable (TDS)									10	U	GR
Sulfate	1	U	1	U	1	U			1	U	IC
Sulfide									2	U	T
TOC	1	U	1	U	1	U			1	U	TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

ICB IDs: AS= 207437ICB, IC= ICB1241698, TC= 207283ICB

CCB1 IDs: AS= 207441CCB, IC= CCB1241688, TC= 207290CCB

CCB2 IDs: AS= 207443CCB, IC= CCB1241689, TC= 207294CCB

CCB3 IDs: AS= 207452CCB

091213 1229

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride	0.52	J	0.52	J	0.53	J			0.52	J	IC
Fluoride	1	U	1	U	1	U			1	U	IC
Nitrate-N											IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate	0.45	J	0.45	J	0.46	J			0.45	J	IC
Sulfide									2	U	T
TOC	1	U	1	U					1	U	TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

ICB IDs: IC= ICB1244174, TC= 207302ICB

CCB1 IDs: IC= CCB1244172, TC= 207313CCB

CCB2 IDs: IC= CCB1245673

CCB3 IDs:

091213 1229

U.S. EPA - CLP

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BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Preparation Blank Matrix (water/soil): WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride											IC
Fluoride											IC
Nitrate-N											IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate											IC
Sulfide											T
TOC											TC

ICB IDs:

CCB1 IDs:

CCB2 IDs:

CCB3 IDs:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

111513LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Chloride	20	8.2		8.2		0.0		IC
Fluoride	20	8.4		8.8		4.7		IC
Nitrate-N	20	1		1		0.0		IC
Nitrite-N	20	1		1		0.0		IC
ortho-Phosphate-P	20	4.7		4.8		2.1		IC
Sulfate	20	8.1		8.1		0.0		IC

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

112513LCSD2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Chloride	20	8.9		8.7		2.3		IC
Fluoride	20	8.6		8.3		3.6		IC
Sulfate	20	8.7		8.4		3.5		IC

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206398LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Sulfide	20	5.21		4.77		8.8		T

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206802LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Residue, Filterable (TDS)	20	292		282		3.5		GR

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207076LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Alkalinity (Total)	20	48		49		2.1		IS

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207286LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TOC	20	2.52		2.63		4.3		TC

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207305LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TOC	20	2.4		2.25		6.5		TC

Comments:

091213 1229

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207445LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Ammonia	10	8.06		8.15		1.1		AS

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111513LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.2	102.5	
Fluoride	49171	IC	75	125	8	8.4	105	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1	100	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.7	90.7	
Sulfate	49171	IC	75	125	8	8.1	101.2	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111513LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.2	102.5	
Fluoride	49171	IC	75	125	8	8.8	110	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1	100	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.8	92.7	
Sulfate	49171	IC	75	125	8	8.1	101.2	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 112513LCS2

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.9	111.2	
Fluoride	49171	IC	75	125	8	8.6	107.5	
Sulfate	49171	IC	75	125	8	8.7	108.8	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 112513LCSD2

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.7	108.8	
Fluoride	49171	IC	75	125	8	8.3	103.8	
Sulfate	49171	IC	75	125	8	8.4	105	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206397LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	5.21	104.2	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206398LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	4.77	95.4	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206801LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	292	116.8	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206802LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	282	112.8	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207075LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	48	96	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207076LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	49	98	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207285LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.52	100.8	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207286LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.63	105.2	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207304LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.4	96	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207305LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.25	90	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207444LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	28547	AS	90	110	8	8.06	100.8	

Comments:

091213 1229

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207445LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511009

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	28547	AS	90	110	8	8.15	101.9	

Comments:

091213 1229

U.S. EPA - CLP

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METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Matrix: Water

Concentration Units: MG/L

PARAMETER	M	INSTRUMENT ID	DATE	CRDL	MDL	Raw MDL (UG/L)
Alkalinity (Total)	IS	HACH	1/10/2007	1	0.5	0.5
Ammonia	AS	LACHAT	8/13/2013	0.25	0.02	0.02
Chloride	IC	IC	11/12/2013	1	0.34	0.34
Fluoride	IC	IC	11/12/2013	1	0.33	0.33
Nitrate-N	IC	IC	11/12/2013	0.1	0.036	0.036
Nitrite-N	IC	IC	11/12/2013	0.1	0.031	0.031
ortho-Phosphate-P	IC	IC	11/12/2013	1	0.24	0.24
Residue, Filterable (TDS)	GR	HACH	12/14/2010	10	10	10
Sulfate	IC	IC	11/12/2013	1	0.32	0.32
Sulfide	T	HACH	5/1/2006	2	0.08	0.08
TOC	TC	SHIMZ1	10/18/2013	1	0.31	0.31

Comments:

091213 1229

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : HACH Method : GR

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
206800MB	1	9:06		X
206801LCS	1	9:09		X
206802LCSD	1	9:12		X
ZZZZZZ	1	9:15		
ZZZZZZ	1	9:18		
ZZZZZZ	1	9:21		
ZZZZZZ	1	9:24		
ZZZZZZ	1	9:27		
SMSMW02A	1	9:30		X
SMSMW07A	1	9:33		X
SMSMW07B	1	9:36		X
SMSMW08A	1	9:39		X
SMSSW11	1	9:42		X
206804MB	1	9:45		X
SMSSW14	1	9:48		X
ZZZZZZ	1	9:51		
ZZZZZZ	1	9:54		
ZZZZZZ	1	9:57		
206806MB	1	10:00		X

* Residue, Filterable (TDS)

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
OICAL1	1	12:08		X
OICAL2	1	12:30		X
OICAL3	1	12:52		X
OICAL4	1	13:14		X
OICAL5	1	13:36		X
OICAL6	1	13:58		X
OICAL7	1	14:20		X
ICV1241700	1	10:42		X
SMSMW02A	1	11:38		X
SMSMW07A	1	12:00		X
ICB1241698	1	13:14		X
111513MB	1	13:36		X
111513LCS	1	13:58		X
111513LCSD	1	14:20		X
SMSMW07B	1	14:42		X
SMSMW08A	1	15:04		X
SMSSW11	1	15:38		X
CCV1241693	1	16:00		X
CCB1241688	1	16:22		X
SMSSW14	1	16:46		X
ZZZZZZ	1	17:08		
ZZZZZZ	1	17:29		
ZZZZZZ	1	17:51		
ZZZZZZ	1	18:13		
ZZZZZZ	1	18:35		
ZZZZZZ	1	18:57		
ZZZZZZ	1	19:19		
ZZZZZZ	1	19:41		
ZZZZZZ	1	20:03		
CCV1241694	1	20:25		X
CCB1241689	1	20:47		X
ZZZZZZ	1	21:09		
ZZZZZZ	1	21:31		
ZZZZZZ	1	21:53		
ZZZZZZ	1	22:15		
ZZZZZZ	1	22:37		
ZZZZZZ	1	22:59		

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	23:21		
ZZZZZZ	1	23:43		
ZZZZZZ	1	0:05		
ZZZZZZ	1	0:27		
ZZZZZZ	1	0:49		
ZZZZZZ	1	1:11		
ZZZZZZ	1	1:33		
ZZZZZZ	1	1:55		
ZZZZZZ	1	2:17		
ZZZZZZ	1	2:39		
ZZZZZZ	1	3:01		
ZZZZZZ	1	3:23		
ZZZZZZ	1	3:45		
ZZZZZZ	1	4:07		
ZZZZZZ	1	4:29		
ZZZZZZ	1	4:50		
ZZZZZZ	1	5:12		
ZZZZZZ	1	5:34		
ZZZZZZ	1	5:56		
ZZZZZZ	1	6:18		
ZZZZZZ	1	6:40		
ZZZZZZ	1	7:02		
OICAL1	1	12:58		X
OICAL2	1	14:13		X
OICAL3	1	14:35		X
OICAL4	1	14:57		X
OICAL5	1	15:19		X
OICAL6	1	15:41		X
OICAL7	1	16:03		X
ZZZZZZ	1	17:20		
ZZZZZZ	1	17:42		
ZZZZZZ	1	18:04		
ZZZZZZ	1	19:10		
ZZZZZZ	1	19:32		
ZZZZZZ	1	19:54		
ZZZZZZ	1	20:15		
ZZZZZZ	1	20:59		

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	21:21		
ZZZZZZ	1	21:43		
ZZZZZZ	1	22:05		
ZZZZZZ	1	22:27		
ZZZZZZ	1	22:49		
ZZZZZZ	1	23:11		
ZZZZZZ	1	23:33		
ZZZZZZ	1	23:55		
ZZZZZZ	1	0:17		
ZZZZZZ	1	0:39		
ZZZZZZ	1	1:01		
ZZZZZZ	1	1:23		
ZZZZZZ	1	1:45		
ZZZZZZ	1	2:07		
ZZZZZZ	1	2:29		
ZZZZZZ	1	2:51		
ZZZZZZ	1	3:13		
ZZZZZZ	1	3:35		
ZZZZZZ	1	3:57		
ZZZZZZ	1	4:19		
ZZZZZZ	1	4:40		
ZZZZZZ	1	5:02		
ZZZZZZ	1	5:24		
ZZZZZZ	1	5:46		
ZZZZZZ	1	6:08		
ZZZZZZ	1	6:30		
ZZZZZZ	1	6:52		
ZZZZZZ	1	7:14		
ZZZZZZ	1	7:36		
ZZZZZZ	1	7:58		
ZZZZZZ	1	8:20		
ZZZZZZ	1	8:42		
ZZZZZZ	1	9:04		
ICV1244175	1	9:26		X
ICB1244174	1	9:48		X
112513MB2	1	10:10		X
ZZZZZZ	1	10:38		

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	11:33		
ZZZZZZ	1	11:55		
112513LCS2	1	12:17		X
112513LCSD2	1	12:39		X
ZZZZZZ	25	13:01		
ZZZZZZ	5	13:23		
ZZZZZZ	25	13:45		
SMSMW07ADL2	1000	14:07		X
SMSMW07BDL1	25	14:29		X
CCV1244173	1	14:51		X
CCB1244172	1	15:13		X
SMSMW07BDL2	500	15:35		X
SMSMW08ADL1	25	15:57		X
SMSMW08ADL2	50	16:19		X
SMSSW14DL1	10	16:40		X
ZZZZZZ	10	17:02		
ZZZZZZ	25	17:24		
ZZZZZZ	500	17:46		
SMSMW02ADL1	25	18:08		X
SMSMW02ADL2	50	18:30		X
SMSMW07ADL1	10	18:52		X
CCV1245674	1	19:14		X
CCB1245673	1	19:36		X

* Chloride
* ortho-Phosphate-P
* Nitrite-N
* Dichloroacetate - DCA
* Nitrate-N
* Sulfate
* Fluoride

091213 1229

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : HACH Method : IS

Start Date : 11/27/2013 End Date : 11/27/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	13:15		
ZZZZZZ	1	13:19		
207074MB	1	13:23		X
207075LCS	1	13:27		X
207076LCSD	1	13:31		X
ZZZZZZ	2	13:34		
ZZZZZZ	5	13:37		
ZZZZZZ	5	13:40		
ZZZZZZ	5	13:43		
SMSMW02A	10	13:46		X
SMSMW07A	10	13:49		X
SMSMW07B	10	13:52		X
SMSMW08A	20	13:55		X
SMSSW11	20	13:58		X
SMSSW14	5	14:01		X
207260CCB	1	14:04		X
ZZZZZZ	10	14:07		
ZZZZZZ	5	14:10		
ZZZZZZ	1	14:13		

* Alkalinity (Total)

091213 1229

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : LACHAT Method : AS

Start Date : 12/5/2013 End Date : 12/5/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	14:06		X
CAL02	2.5	14:11		X
CAL03	10	14:14		X
CAL04	20	14:16		X
CAL05	50	14:18		X
CAL06	100	14:21		X
CAL07	1	14:22		X
207436ICV	1	14:23		X
207437ICB	1	14:27		X
207438MB	1	14:28		X
207444LCS	1	14:29		X
207445LCSD	1	14:30		X
SMSSW11	1	14:36		X
207440CCV	1	14:37		X
207441CCB	1	14:40		X
SMSSW14	1	14:41		X
ZZZZZZ	1	14:42		
ZZZZZZ	1	14:43		
ZZZZZZ	1	14:45		
207442CCV	1	15:00		X
207443CCB	1	15:03		X
SMSMW02A	15	15:08		X
SMSMW07A	20	15:13		X
SMSMW07B	10	15:16		X
SMSMW08A	40	15:23		X
207451CCV	1	15:27		X
207452CCB	1	15:30		X

* Ammonia

091213 1229

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : HACH Method : T

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	12:13		
206396MB	1	12:16		X
206397LCS	1	12:19		X
206398LCSD	1	12:22		X
ZZZZZZ	1	12:25		
ZZZZZZ	1	12:28		
ZZZZZZ	1	12:31		
ZZZZZZ	1	12:34		
SMSMW02A	1	12:37		X
SMSMW07A	2	12:40		X
SMSMW07B	1	12:43		X
SMSMW08A	1	12:46		X
SMSSW11	1	12:49		X
SMSSW14	1	12:52		X
206399MB	1	12:55		X
ZZZZZZ	1	12:58		
ZZZZZZ	1	13:01		
ZZZZZZ	1	13:04		

* Sulfide

091213 1229

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : SHIMZ1 Method : TC

Start Date : 12/1/2013 End Date : 12/2/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	14:51		X
CAL02	2	15:08		X
CAL03	4	15:24		X
CAL04	5	15:39		X
CAL05	10	15:54		X
CAL06	1	16:08		X
207282ICV	1	17:08		X
207283ICB	1	17:23		X
207284MB	1	17:39		X
207285LCS	1	17:54		X
207286LCSD	1	18:10		X
SMSSW11	1	1:55		X
207289CCV	1	2:14		X
207290CCB	1	2:33		X
SMSSW14	1	2:49		X
ZZZZZZ	1	3:06		
ZZZZZZ	1	3:24		
207293CCV	1	3:43		X
207294CCB	1	4:02		X

* TOC

091213 1229

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511009

Instrument ID Number : SHIMZ1 Method : TC

Start Date : 12/1/2013 End Date : 12/2/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	14:51		X
CAL02	2	15:08		X
CAL03	4	15:24		X
CAL04	5	15:39		X
CAL05	10	15:54		X
CAL06	1	16:08		X
207301ICV	1	8:55		X
207302ICB	1	9:10		X
207303MB	1	9:26		X
207304LCS	1	9:41		X
207305LCSD	1	9:57		X
SMSMW02A	1	11:54		X
SMSMW07A	1	12:13		X
SMSMW07B	1	12:32		X
SMSMW08A	1	13:09		X
207312CCV	1	13:28		X
207313CCB	1	13:47		X

* TOC

091213 1229

Chain of Custody Documentation

091213 1229

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Tampa Division

Page _____ of _____ 3511009 (R)

Special Handling:

☐ TAT _____

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed

Report To: Janice Austin
100 Hartsfield Centre Pkwy Suite 610
Atlanta, GA 30354

Telephone #: 404-443-2777
Project Mgr:

Invoice To: Same

P.O No.: _____ RQN _____

Project No: 073-01-019-01-014
Site Name: Smokey Mountain Smelter
Location: Knoxville State TN
Sampler(s):

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11= _____ 12= _____

List Preservative Code below:

QA/QC Reporting Notes:
*additional charges may appply

DW=Dinking Water GW= Groundwater WW= Waste Water
O= Oil SW= surface Water SO=Soil SL= Sludge A= Air
X1= 11/15/13 (R) X2= _____ X3= _____

G= Grab C=Compsite

☐ Level I ☐ No QC
☐ Level II ☐ DOD
☐ Level III ☐ AFCEE
☑ Level IV ☐ CLP
☐ Other: _____
State-specific reporting standards:

Lab ID	Sample ID	Date	Time	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		AMMONIA	CHLORIDE	ALKALINITY	TDS	SULFATE/PHOSPHATE/FLUORIDE/	NITRATE/NITRITE	COD 376.1 11/15/13 per client (R)	TOC	
3511009 01-05	SMSMW02A	11/13/2013	11:07 AM	G	GW	3			3		X	X	X	X	X	X	X	X	
~~-01~~	~~SMSMW03B~~	11/13/2013	4:20 PM	G	GW	3	11/15/13 (R)		3		X	X	X	X	X	X	X	X	
~~-02~~	~~SMSMW04A~~	11/13/2013	3:15 PM	G	GW	3			3		X	X	X	X	X	X	X	X	
-02-06	SMSMW07A	11/13/2013	1:15 PM	G	GW	3			3		X	X	X	X	X	X	X	X	
-03-07	SMSMW07B	11/13/2013	11:40 AM	G	GW	3			3		X	X	X	X	X	X	X	X	
-04-08	SMSMW08A	11/13/2013	10:45 AM	G	GW	3			3		X	X	X	X	X	X	X	X	
~~-03~~	~~SMSSW03~~	~~11/13/2013~~	~~3:00 PM~~	~~G~~	~~SW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	11/15/13 (R)
-05-09	SMSSW11	11/13/2013	1:30 PM	G	SW	3			3		X	X	X	X	X	X	X	X	
~~-04~~	~~SMSSW13~~	~~11/13/2013~~	~~1:55 PM~~	~~G~~	~~SW~~	~~3~~			~~3~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	11/15/13 (R)
-06-10	SMSSW14	11/13/2013	2:20 PM	G	SW	3			3		X	X	X	X	X	X	X	X	

Relinquished by:	Received by:	Date	Time	Temp °C
[signature]	FedEx	11/13/13	1845	
[signature]	[signature]	11/15/13	10:00	11/15/13 (R) 2.6

☑ EDD format: Equis EPA R4
☑ E-mail to: Janice.austin@jmwaller.com

pH<2 9000, 350.1 pH>9 376.1

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☐ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

8405 Benjamin Rd • Suite A •
Tampa, FL 33634 • 813-888-9507 • www.spectrum-analytical.com

pH LOG SHEET

WO#: 3511009

Client/Project Generic

SampNumber	Method	Matrix		pH	Containers	Temp	Acid	
351100901	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351100901	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100901	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100902	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100902	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351100902	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100903	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100903	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100903	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351100904	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13

SampNumber	Method	Matrix		pH	Containers	Temp	Acid	
351100904	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100904	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100905	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100905	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351100905	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100906	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351100906	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351100906	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13

From: (404) 443-2777 Origin ID: DBNA
C.J. Roebuck
JM Waller Associates
100 HARTSFIELD CENTRE PKWY
SUITE 610
ATLANTA, GA 30354

FedEx Express

J13201306280326

Ship Date: 13NOV13
ActWgt: 35.0 LB
CAD: 101117635/INET3430

Delivery Address Bar Code

SHIP TO: (813) 888-9507 BILL SENDER
John Heyman
Spectrum Analytical, Inc.-FL
8405 BENJAMIN RD
STE A
TAMPA, FL 33634

Ref # 073-01-019-01-014
Invoice #
PO #
Dept #

2 of 2

THU - 14 NOV 10:30A
PRIORITY OVERNIGHT

MPS# 7971 5259 1489
0263
Mstr# 7971 5259 1467 0201

XJ TPFA

33634
FL-US
TPA

51A/31/D5E6/1A9E

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: IMPORTANT: TRANSMIT YOUR SHIPPING DATA AND PRINT A MANIFEST:
At the end of each shipping day, you should perform the FedEx Ground End of Day Close procedure to transmit your shipping data to FedEx. To do so, click on the Ground End of Day Close Button. If required, print the pickup manifest that appears. A printed manifest is required to be tendered along with your packages if they are being picked up by FedEx Ground. If you are dropping your packages off at a FedEx drop off location, the manifest is not required.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide and applicable tariff, available upon request. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations, including limitations on our liability, can be found in the current FedEx Service Guide and applicable tariff apply. In no event shall FedEx Ground be liable for any special, incidental, or consequential damages, including, without limitation, loss of profit, loss to the intrinsic value of the package, loss of sale, interest income or attorney's fees. Recovery cannot exceed actual documented loss. Items of extraordinary value are subject to separate limitations of liability set forth in the Service Guide and tariff. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Sample Receipt Confirmation Sheet

Client Information

SDG:	3511009	**Level:**	4
Client:	JMWALL	**Date Rec'd:**	11/15/2013 10:00:00 AM
Profile:	90942		
Project:	Generic / Smokey Mountain Smelters	**Profile Name:**	Generic

Sample Verification

Samples/Cooler Secure?	Yes	**COC Present?**	Yes
Temperature of Samples:	2.6	**All Samples on COC accounted For?**	Yes
Number of Coolers Received:	1	**All Samples Rec'd Intact?**	Yes
Temp Gun ID:	130544071	**Sample Vol. Sufficient For Analysis**	Yes
pH Verified?	Yes	**Samples Rec'd W/I Hold Time?**	Yes
pH WNL?	Yes	**Are All Samples to be Analyzed?**	Yes
Samples Received By:	Fed-Ex	**Correct Sample Containers?**	Yes
Tracking Number:	797152591489	**COC Comments written on COC?**	Yes
Profile Picked By:	JH	**Samplers Initials on COC?**	Yes
Soil Origin (Domestic/Foreign):		**Sample Date/Time Indicated?**	Yes
Site Location/Project on COC?	Yes	**TAT Requested:**	STD
Client Project # on COC?	Yes	**Client Requests Verbal Results?**	No
Project Mgr. Indicated on COC?	Yes	**Client Requests Faxed Results?**	No
COC relinquished/Dated by Client?	Yes	**Specific Subcontract Indicated?**	No
COC Received/Dated by SA?	Yes	**Written on Outside Lab Board?**	No
Written on Internal COC?	Yes	**Radioactivity Check?**	No
Lab to Conduct ALL Analyses?	Yes		

Comments

Specific tests noted on COC.

LABEL REVIE _____

PEER REVIEW _____

Client: JMWALL

WONo: 3511009 **Profile Name:** Generic **Profile #:** 90942

MATRIX W

Sample #	Bottle	Parameter		Check	Received	Date
01	002	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:10 AM
01	002	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:36 AM
01	002	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:27:38 PM
01	002	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:10 AM
01	002	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:27 PM
01	002	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:00:50 PM
01	002	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:10 AM
01	002	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:10:53 PM
01	002	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:16 PM
01	003	350.1	Ammonia	In	aclark	11/15/2013 11:33:10 AM
01	003	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:09 AM
01	003	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:44 PM
01	003	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:04 AM
01	003	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:09 AM
01	001	376.1	Sulfide	In	aclark	11/15/2013 11:33:10 AM
01	001	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:28 AM
01	001	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:10:04 PM
01	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
01	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
01	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
01	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:48:09 PM
01	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:10 AM
01	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:35:16 AM

01	006	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:07:05 AM
02	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:10 AM
02	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:40 AM
02	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:14:12 PM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:10 AM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:33 PM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:00:59 PM
02	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:10 AM
02	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:32:17 PM
02	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:28 PM
02	002	350.1	Ammonia	In	aclark	11/15/2013 11:33:10 AM
02	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:08 AM
02	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:37 PM
02	002	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:06 AM
02	002	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:17 AM
02	003	376.1	Sulfide	In	aclark	11/15/2013 11:33:10 AM
02	003	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:25 AM
02	003	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:10:02 PM
02	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
02	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
02	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:10 AM
02	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:48:14 PM
02	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:07 AM
02	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:35:14 AM
02	006	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:07:03 AM
03	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:11 AM

03	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:38 AM
03	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:13:58 PM
03	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:10 AM
03	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:35 PM
03	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:01:00 PM
03	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:11 AM
03	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:10:56 PM
03	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:21 PM
03	002	350.1	Ammonia	In	aclark	11/15/2013 11:33:11 AM
03	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:15 AM
03	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:46 PM
03	002	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:08 AM
03	002	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:18 AM
03	003	376.1	Sulfide	In	aclark	11/15/2013 11:33:11 AM
03	003	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:39 AM
03	003	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:10:00 PM
03	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
03	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
03	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
03	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:48 PM
03	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:05 AM
03	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:35:12 AM
03	006	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:07:01 AM
04	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:11 AM
04	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:42 AM
04	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:14:11 PM

04	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:11 AM
04	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:34 PM
04	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:00:59 PM
04	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:11 AM
04	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:11:01 PM
04	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:24 PM
04	002	350.1	Ammonia	In	aclark	11/15/2013 11:33:11 AM
04	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:13 AM
04	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:32 PM
04	002	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:09 AM
04	002	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:20 AM
04	003	376.1	Sulfide	In	aclark	11/15/2013 11:33:11 AM
04	003	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:43 AM
04	003	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:09:58 PM
04	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
04	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
04	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:11 AM
04	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:53 PM
04	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:04 AM
04	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:35:10 AM
04	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 11:13:37 AM
04	005	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 11:14:18 AM
04	005	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:06:37 AM
05	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:11 AM
05	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:32 AM
05	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:14:10 PM

05	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:11 AM
05	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:34 PM
05	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:01:00 PM
05	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:12 AM
05	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:10:58 PM
05	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:23 PM
05	002	350.1	Ammonia	In	aclark	11/15/2013 11:33:12 AM
05	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:11 AM
05	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:35 PM
05	002	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:10 AM
05	002	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:29 AM
05	003	376.1	Sulfide	In	aclark	11/15/2013 11:33:12 AM
05	003	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:35 AM
05	003	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:09:56 PM
05	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
05	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
05	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
05	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:55 PM
05	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:11 AM
06	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 11:33:12 AM
06	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/20/2013 9:13:41 AM
06	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/20/2013 6:14:11 PM
06	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 11:33:12 AM
06	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/18/2013 3:00:35 PM

06	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/18/2013 3:01:01 PM
06	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 11:33:12 AM
06	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/27/2013 12:11:02 PM
06	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/27/2013 6:11:26 PM
06	002	350.1	Ammonia	In	aclark	11/15/2013 11:33:12 AM
06	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:19:06 AM
06	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:41 PM
06	002	350.1	Ammonia	Out	Theresa Wolf	11/25/2013 8:50:14 AM
06	002	350.1	Ammonia	In	Theresa Wolf	11/26/2013 8:33:29 AM
06	003	376.1	Sulfide	In	aclark	11/15/2013 11:33:12 AM
06	003	376.1	Sulfide	Out	Theresa Wolf	11/20/2013 8:40:50 AM
06	003	376.1	Sulfide	In	Theresa Wolf	11/20/2013 2:09:53 PM
06	004	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
06	005	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
06	006	9060	Total Organic Carbon	In	aclark	11/15/2013 11:33:12 AM
06	004	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:16 PM
06	005	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:19 PM
06	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/1/2013 9:47:42 PM
06	005	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:15 AM
06	004	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:19 AM
06	006	9060	Total Organic Carbon	In	Theresa Wolf	12/2/2013 8:34:23 AM

Addendum

091213 1229

Letter of Acceptance

Customer Name:	J.M.Waller Associates Inc.
Date and Time Received:	11/15/2013 10:00
Date to be Reported:	12/10/2013
Laboratory Submission Number/SDG:	3511009

Project: Smokey Mountain Smelters 073-01-019-01-014

Samples: The submission consisted of 6 samples, including QC, with sample identification shown in the attached data tables.

Tests: The Samples will be analyzed for EPA methods: 160.1, 300.1, 310.1, 350.1, 376.1, 9060.

Sample Custody/COC discrepancies:

None.

Notes:

Sample for 300.1 analysis to be analyzed as soon as possible, client notified.

Distribution of Report to:

J.M.Waller Associates Inc.
Attn: Austin Janice
(W): 404.443.2777
(M): 904.400.4549

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. Spectrum Analytical letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Level: 4

Total of: 36 analyses on 6 samples (including QC) *18-Nov-13*

Report/SDG #: 3511009

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW02A	351100901		W	11/13/2013 11:07	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW07A	351100902		W	11/13/2013 13:15	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW07B	351100903		W	11/13/2013 11:40	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

Report/SDG #: 3511009

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW08A	351100904		W	11/13/2013 10:45	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSSW11	351100905		W	11/13/2013 13:30	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSSW14	351100906		W	11/13/2013 14:20	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

John Heyman [Tampa]

From: Roebuck, CJ [cj.roebuck@jmwaller.com]
Sent: Thursday, November 14, 2013 11:43 AM
To: John Heyman [Tampa]
Subject: Re: SMS samples received today (13NOV13) - issue COC

Sulfide for yesterday and today's shipment Youre going to receive.

Sent from my HTC smartphone on the Now Network from Sprint!

C.J. Roebuck, P.E.
Project Manager
(847) 346-5224

----- Reply message -----
From: "John Heyman [Tampa]" <jheyman@pelab.com>
To: "John Heyman [Tampa]" <jheyman@pelab.com>, "Austin, Janice" <janice.austin@jmwaller.com>
Cc: "Roebuck, CJ" <cj.roebuck@jmwaller.com>
Subject: SMS samples received today (13NOV13) - issue COC
Date: Thu, Nov 14, 2013 11:41 am

Good morning.

Please let me know if you want the laboratory to analyze these samples received yesterday for COD and / or Sulfide.

Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 4:26 PM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Good afternoon.

We will place the COD and Sulfide on hold until I hear back from you. We will proceed with the other analysis to meet holding times.

Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 11:02 AM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Janice:
We did not receive containers for COD preserved with H_2SO_4. We do have containers for Ammonia preserved with H_2SO_4 that we could split and send to our Rhode Island lab for COD analysis.
We did received containers for Sulfide analysis preserved with NaOH / ZnAce; however Sulfide is not on you list below.
Let me know if you need COD analysis and/or Sulfide analysis.
Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 10:52 AM
To: 'Austin, Janice'
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Thanks!
John

_____
From: Austin, Janice [mailto:janice.austin@jmwaller.com]
Sent: Wednesday, November 13, 2013 10:45 AM
To: John Heyman [Tampa]
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Good morning John,

Please ensure that the following analyses are completed. I apologize for the inconvenience.

Thanks in advance for your time.

Ammonia

EPA 350.1

Chloride (1)

EPA 352.2

Alkalinity (2)

EPA 310.2

TDS (3)

EPA 100.4

Sulfate (4)

EPA 300

Phosphate (4)

EPA 300

Fluoride (4)

EPA 300

Nitrate

EPA 300.1

Nitrite

EPA 300.1

COD (5)

EPA 410.4

TOC (6)

EPA 415.1

Janice D. Austin, P.E.
Project Manager

J. M. Waller Associates Inc.
Tel: 404.443.2777 Ext.: 4030 | Cell: 904.248.1247
100 Hartsfield Centre Parkway, Suite 610 Atlanta, Georgia 30354-1390
Email: janice.austin@jmwaller.com | www.jmwaller.com<http://www.jmwaller.com/>
A Service Disabled Veteran Owned Small Business

From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Wednesday, November 13, 2013 10:09 AM
To: Austin, Janice
Subject: SMS samples received today - issue COC

Good morning. COC attached.

No analysis is listed on the COC for these samples.

We have not yet reconciled the container received.

Please let me know what analysis is required for these samples.

Thanks!

John Heyman
Project Manager
Spectrum Analytical, Inc. Featuring Hanibal Technology, Florida Division
8405 Benjamin Road, Suite A
Tampa, FL 33634
813-888-9507 ext 228

Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all kit requests, 3 days notice at a minimum. If you need an expedited kit request Spectrum Analytical will provide the kit but will require that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation.

This e-mail is intended for the named addressee(s) and may contain information that is confidential and proprietary. If this information is received by anyone other than the named addressee(s), the recipient(s) should immediately notify the sender by e-mail and promptly delete the transmitted material. In no event shall this material be read, used, stored, or retained by anyone other than the named addressee(s) without the express written consent of the sender or the named addressee(s).

John Heyman [Tampa]

From: Austin, Janice [janice.austin@jmwaller.com]
Sent: Friday, November 15, 2013 10:07 AM
To: John Heyman [Tampa]
Cc: Roebuck, CJ
Subject: RE: SMS samples received 14NOV13 - issue missing cooler

Thanks John.

Janice

-----Original Message-----
From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Friday, November 15, 2013 10:07 AM
To: Roebuck, CJ; Austin, Janice
Subject: RE: SMS samples received 14NOV13 - issue missing cooler
Importance: High

Cooler temp at 2.6C.

We will proceed with analysis. 300.1 Nitrate, Nitrite, and o-Phos will be analyzed as soon as possible and may be out of hold by a few minutes.
Earliest collection time is 1045 for these samples.

Let me know if you have any questions or concerns.

Thanks!
John

-----Original Message-----
From: Roebuck, CJ [mailto:cj.roebuck@jmwaller.com]
Sent: Friday, November 15, 2013 8:47 AM
To: John Heyman [Tampa]; Austin, Janice
Subject: Re: SMS samples received 14NOV13 - issue missing cooler

Ok keep us posted.

Sent from my HTC smartphone on the Now Network from Sprint!

C.J. Roebuck, P.E.
Project Manager
(847) 346-5224

----- Reply message -----
From: "John Heyman [Tampa]" <jheyman@pelab.com>
To: "Roebuck, CJ" <cj.roebuck@jmwaller.com>, "Austin, Janice" <janice.austin@jmwaller.com>
Subject: SMS samples received 14NOV13 - issue missing cooler
Date: Fri, Nov 15, 2013 8:45 am

Looks like this will make it here today. Out for delivery as of 7am.
I will check the temp right away and let you know the status as soon as is arrives.
Depending on what time it arrives, we may be able to meet some of the holding times.
Thanks!
John

_____
From: Roebuck, CJ [mailto:cj.roebuck@jmwaller.com]
Sent: Thursday, November 14, 2013 2:26 PM
To: John Heyman [Tampa]; Austin, Janice
Subject: RE: SMS samples received 14NOV13 - issue missing cooler

Apparently the cooler is in Memphis as of 3am.

C.J. Roebuck, P.E.
Project Manager
(404) 443-2777 x 4024

From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Thursday, November 14, 2013 11:55 AM
To: Austin, Janice; Roebuck, CJ
Subject: SMS samples received 14NOV13 - issue missing cooler

Good morning. COC attached.

We only received 1 cooler today.

Missing cooler tracking number: 797152591489

We did not receive any containers for the following samples listed on the COC:
SMSMW02A
SMSMW07A
SMSMW07B
SMSMW08A
SMSSW11
SMSSW14

Per CJ's earlier email, we will add Sulfide analysis to all of the samples and cancel the COD analysis.

Thanks!

John Heyman
Project Manager
Spectrum Analytical, Inc. Featuring Hanibal Technology, Florida Division
8405 Benjamin Road, Suite A
Tampa, FL 33634
813-888-9507 ext 228

Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all kit requests, 3 days notice at a minimum. If you need an expedited kit request Spectrum Analytical will provide the kit but will require that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation.

This e-mail is intended for the named addressee(s) and may contain information that is confidential and proprietary. If this information is received by anyone other than the named addressee(s), the recipient(s) should immediately notify the sender by e-mail and promptly delete the transmitted material. In no event shall this material be read, used, stored, or retained by anyone other than the named addressee(s) without the express written consent of the sender or the named addressee(s).

Appendix

091213 1229

Raw Data Method 300.1

SEQUENCE CHECK

SDG: 3511009 **Method:** 300.1

SAMPLE ID	LAB ID	InitialCal Reference	FILE	BATCH	COL	INSTRUMENT	RUN DATE	DILUTION
STD 1	CAL1	IC07/29/13-1420~IC1072913cal	CAL1.D	IC1072913cal	1	IC	07/29/13 12:08	1
STD 2	CAL2	IC07/29/13-1420~IC1072913cal	CAL2.D	IC1072913cal	1	IC	07/29/13 12:30	1
STD 3	CAL3	IC07/29/13-1420~IC1072913cal	CAL3.D	IC1072913cal	1	IC	07/29/13 12:52	1
STD 4	CAL4	IC07/29/13-1420~IC1072913cal	CAL4.D	IC1072913cal	1	IC	07/29/13 13:14	1
STD 5	CAL5	IC07/29/13-1420~IC1072913cal	CAL5.D	IC1072913cal	1	IC	07/29/13 13:36	1
STD 6	CAL6	IC07/29/13-1420~IC1072913cal	CAL6.D	IC1072913cal	1	IC	07/29/13 13:58	1
STD 7	CAL7	IC07/29/13-1420~IC1072913cal	CAL7.D	IC1072913cal	1	IC	07/29/13 14:20	1
ICV1241700	111513ICV	IC07/29/13-1420~IC1072913cal	111513ICV.D	IC1111513	1	IC	11/15/13 10:42	1
SMSMW02A	351100901	IC07/29/13-1420~IC1072913cal	351100901.D	IC1111513	1	IC	11/15/13 11:38	1
SMSMW07A	351100902	IC07/29/13-1420~IC1072913cal	351100902.D	IC1111513	1	IC	11/15/13 12:00	1
ICB1241698	111513ICB	IC07/29/13-1420~IC1072913cal	111513ICB.D	IC1111513	1	IC	11/15/13 13:14	1
111513MB	111513MB	IC07/29/13-1420~IC1072913cal	111513MB.D	IC1111513	1	IC	11/15/13 13:36	1
111513LCS	111513LCS	IC07/29/13-1420~IC1072913cal	111513LCS.D	IC1111513	1	IC	11/15/13 13:58	1
111513LCSD	111513LCSD	IC07/29/13-1420~IC1072913cal	111513LCSD.D	IC1111513	1	IC	11/15/13 14:20	1
SMSMW07B	351100903	IC07/29/13-1420~IC1072913cal	351100903.D	IC1111513	1	IC	11/15/13 14:42	1
SMSMW08A	351100904	IC07/29/13-1420~IC1072913cal	351100904.D	IC1111513	1	IC	11/15/13 15:04	1
SMSSW11	351100905	IC07/29/13-1420~IC1072913cal	351100905.D	IC1111513	1	IC	11/15/13 15:38	1
CCV1241693	111513CCV1	IC07/29/13-1420~IC1072913cal	111513CCV1.D	IC1111513	1	IC	11/15/13 16:00	1
CCB1241688	111513CCB1	IC07/29/13-1420~IC1072913cal	111513CCB1.D	IC1111513	1	IC	11/15/13 16:22	1
SMSSW14	351100906	IC07/29/13-1420~IC1072913cal	351100906.D	IC1111513	1	IC	11/15/13 16:46	1
CCV1241694	111513CCV2	IC07/29/13-1420~IC1072913cal	111513CCV2.D	IC1111513	1	IC	11/15/13 20:25	1
CCB1241689	111513CCB2	IC07/29/13-1420~IC1072913cal	111513CCB2.D	IC1111513	1	IC	11/15/13 20:47	1
STD 1	CAL1	IC11/25/13-1603~IC1112513cal	CAL1.D	IC1112513cal	1	IC	11/25/13 12:58	1
STD 2	CAL2	IC11/25/13-1603~IC1112513cal	CAL2.D	IC1112513cal	1	IC	11/25/13 14:13	1
STD 3	CAL3	IC11/25/13-1603~IC1112513cal	CAL3.D	IC1112513cal	1	IC	11/25/13 14:35	1
STD 4	CAL4	IC11/25/13-1603~IC1112513cal	CAL4.D	IC1112513cal	1	IC	11/25/13 14:57	1
STD 5	CAL5	IC11/25/13-1603~IC1112513cal	CAL5.D	IC1112513cal	1	IC	11/25/13 15:19	1
STD 6	CAL6	IC11/25/13-1603~IC1112513cal	CAL6.D	IC1112513cal	1	IC	11/25/13 15:41	1
STD 7	CAL7	IC11/25/13-1603~IC1112513cal	CAL7.D	IC1112513cal	1	IC	11/25/13 16:03	1
ICV1244175	112513ICV2	IC11/25/13-1603~IC1112513cal	112513ICV2.D	IC1112513A	1	IC	11/26/13 09:26	1
ICB1244174	112513ICB2	IC11/25/13-1603~IC1112513cal	112513ICB2.D	IC1112513A	1	IC	11/26/13 09:48	1
112513MB2	112513MB2	IC11/25/13-1603~IC1112513cal	112513MB2.D	IC1112513A	1	IC	11/26/13 10:10	1
112513LCS2	112513LCS2	IC11/25/13-1603~IC1112513cal	112513LCS2.D	IC1112513A	1	IC	11/26/13 12:17	1

112513LCSD2	112513LCSD2	IC11/25/13-1603~IC1112513cal	112513LCSD2.D	IC1112513A	1	IC	11/26/13 12:39	1
SMSMW07ADL2	351100902DL2	IC11/25/13-1603~IC1112513cal	351100902DL2.D	IC1112513A	1	IC	11/26/13 14:07	1000
SMSMW07BDL1	351100903DL1	IC11/25/13-1603~IC1112513cal	351100903DL1.D	IC1112513A	1	IC	11/26/13 14:29	25
CCV1244173	112513CCV5	IC11/25/13-1603~IC1112513cal	112513CCV5.D	IC1112513A	1	IC	11/26/13 14:51	1
CCB1244172	112513CCB5	IC11/25/13-1603~IC1112513cal	112513CCB5.D	IC1112513A	1	IC	11/26/13 15:13	1
SMSMW07BDL2	351100903DL2	IC11/25/13-1603~IC1112513cal	351100903DL2.D	IC1112513A	1	IC	11/26/13 15:35	500
SMSMW08ADL1	351100904DL1	IC11/25/13-1603~IC1112513cal	351100904DL1.D	IC1112513A	1	IC	11/26/13 15:57	25
SMSMW08ADL2	351100904DL2	IC11/25/13-1603~IC1112513cal	351100904DL2.D	IC1112513A	1	IC	11/26/13 16:19	50
SMSSW14DL1	351100906DL1	IC11/25/13-1603~IC1112513cal	351100906DL1.D	IC1112513A	1	IC	11/26/13 16:40	10
SMSMW02ADL1	351100901DL1	IC11/25/13-1603~IC1112513cal	351100901DL1.D	IC1112513A	1	IC	11/26/13 18:08	25
SMSMW02ADL2	351100901DL2	IC11/25/13-1603~IC1112513cal	351100901DL2.D	IC1112513A	1	IC	11/26/13 18:30	50
SMSMW07ADL1	351100902DL1	IC11/25/13-1603~IC1112513cal	351100902DL1.D	IC1112513A	1	IC	11/26/13 18:52	10
CCV1245674	112513CCV6	IC11/25/13-1603~IC1112513cal	112513CCV6.D	IC1112513A	1	IC	11/26/13 19:14	1
CCB1245673	112513CCB6	IC11/25/13-1603~IC1112513cal	112513CCB6.D	IC1112513A	1	IC	11/26/13 19:36	1

STANDARD

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49048	300.1_Mix2_NSI	NSI Q-6391-1 (co	122812	12/31/2013	250 ML	1/3/2013	troberts

250 MG/L: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49049	300.1_Mix1_NSI	NSI Q-6391-1	111711	6/30/2014	250 MG/	1/3/2013	troberts

1294 MG/L: ortho-Phosphate-P
2000 MG/L: Bromide, Chloride, Fluoride, Sulfate
250 MG/L: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49171	300.1_STKB	HPS	1300409	1/9/2014	500 ML	1/11/2013	troberts

250 UG/ML: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49172	300.1_STKA	HPS	1300410	1/9/2014	500 ML	1/11/2013	troberts

1296 UG/ML: ortho-Phosphate-P
2000 UG/ML: Bromide, Chloride, Fluoride, Sulfate
250 UG/ML: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51195	IC_Dionex_EluentCartridg	Dionex #074532	130553061015	6/30/2015	1 N/A	7/17/2013	troberts

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 29-JUL-2013 12:08
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:08 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.300	3.325	-0.025	46802	0.40000		(M)
T 2 Chloride	4.356	4.350	0.006	26437	0.40000		
T 3 Nitrite as N	5.071	5.054	0.017	7812	0.05000		
T 4 Sulfate	5.784	5.689	0.095	18225	0.40000		
T 5 Bromide	6.716	6.592	0.124	9904	0.40000		
T 6 Nitrate as N	7.763	7.575	0.188	6708	0.05000		
T 7 DCA	9.229	9.195	0.034	885	0.10000		
T 8 Phosphate as P	10.362	10.875	-0.513	7126	0.26000		(TM)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

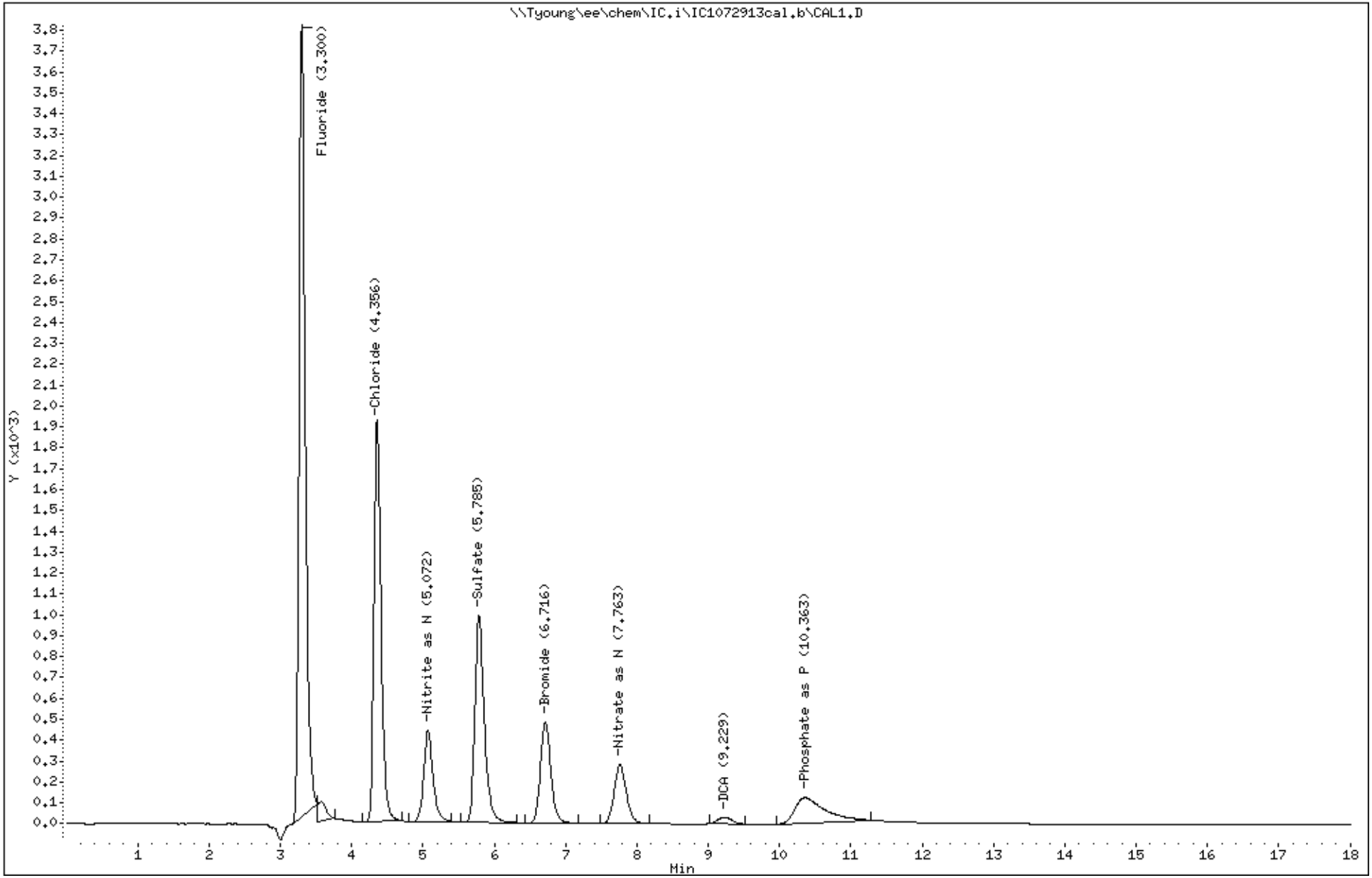
Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D
Date : 29-JUL-2013 12:08
Client ID: CAL1
Sample Info: CAL1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 29-JUL-2013 12:30
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:30 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.300	3.325	-0.025	95670	0.80000	0.82(M)
T 2 Chloride	4.357	4.350	0.007	54983	0.80000	0.83
T 3 Nitrite as N	5.072	5.054	0.018	15106	0.10000	0.097
T 4 Sulfate	5.783	5.689	0.094	37265	0.80000	0.82
T 5 Bromide	6.717	6.592	0.125	20600	0.80000	0.83
T 6 Nitrate as N	7.765	7.575	0.190	13696	0.10000	0.10
T 7 DCA	9.230	9.195	0.035	5823	0.50000	0.66
T 8 Phosphate as P	10.295	10.875	-0.580	18671	0.52000	0.68

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D

Date : 29-JUL-2013 12:30

Client ID: CAL2

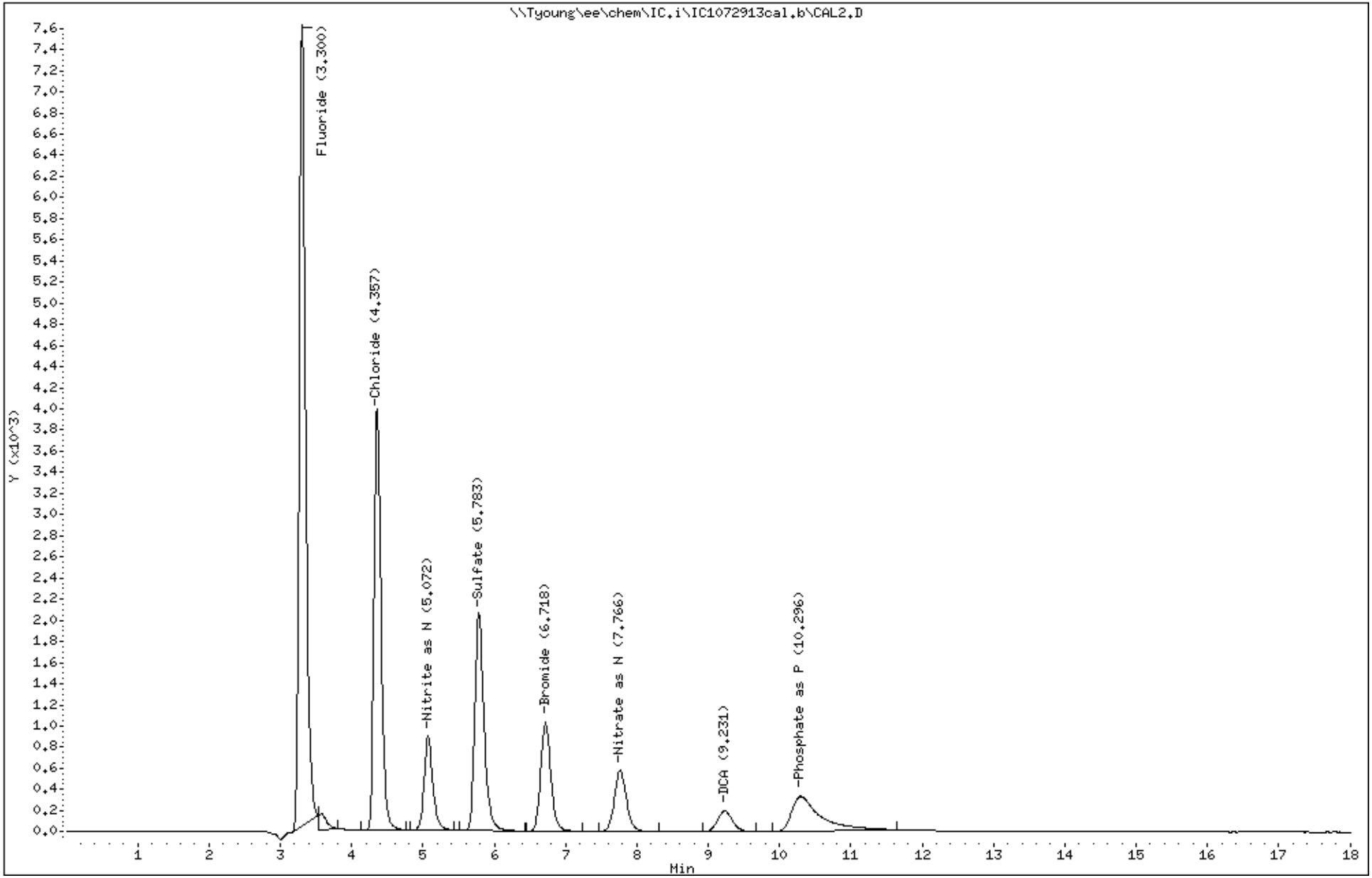
Instrument: IC.i

Sample Info: CAL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 29-JUL-2013 12:52
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:52 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	467142	4.00000	3.8(M)
T 2 Chloride	4.356	4.350	0.006	303181	4.00000	4.3
T 3 Nitrite as N	5.067	5.054	0.013	80981	0.50000	0.53
T 4 Sulfate	5.775	5.689	0.086	217028	4.00000	4.6
T 5 Bromide	6.702	6.592	0.110	125442	4.00000	4.7
T 6 Nitrate as N	7.740	7.575	0.165	84343	0.50000	0.60
T 7 DCA	9.208	9.195	0.013	35505	2.50000	2.9
T 8 Phosphate as P	10.122	10.875	-0.753	148913	2.59000	3.4

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D

Date : 29-JUL-2013 12:52

Client ID: CAL3

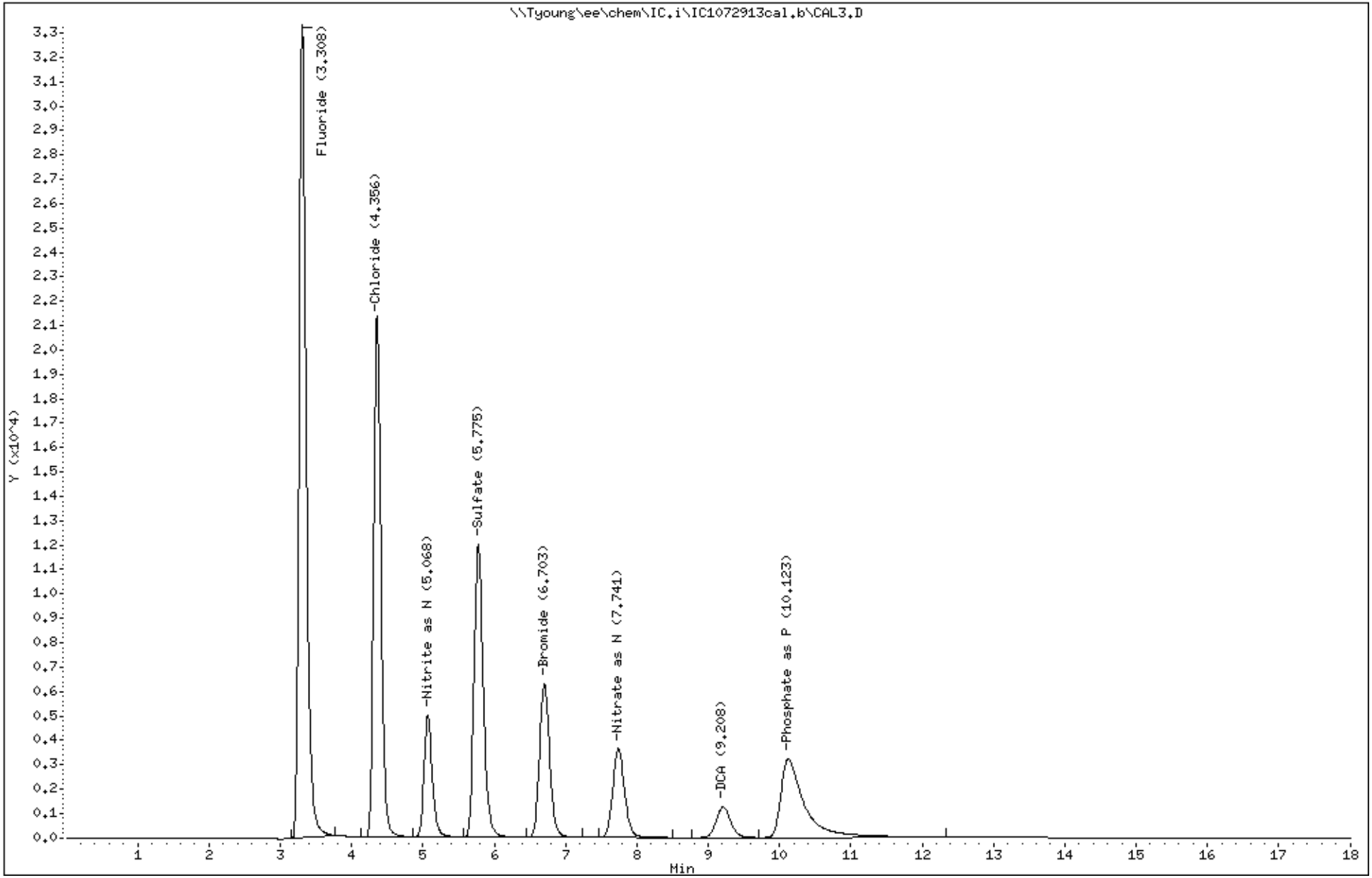
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 29-JUL-2013 13:14
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:14 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	873661	8.00000	7.5(M)
T 2 Chloride	4.358	4.350	0.008	615928	8.00000	8.0
T 3 Nitrite as N	5.071	5.054	0.017	171258	1.00000	1.1
T 4 Sulfate	5.774	5.689	0.085	445472	8.00000	8.1
T 5 Bromide	6.699	6.592	0.107	261938	8.00000	8.2
T 6 Nitrate as N	7.730	7.575	0.155	178365	1.00000	1.0
T 7 DCA	9.189	9.195	-0.006	78745	5.00000	5.5
T 8 Phosphate as P	10.003	10.875	-0.872	329624	5.18000	5.5

QC Flag Legend

M - Compound response manually integrated.

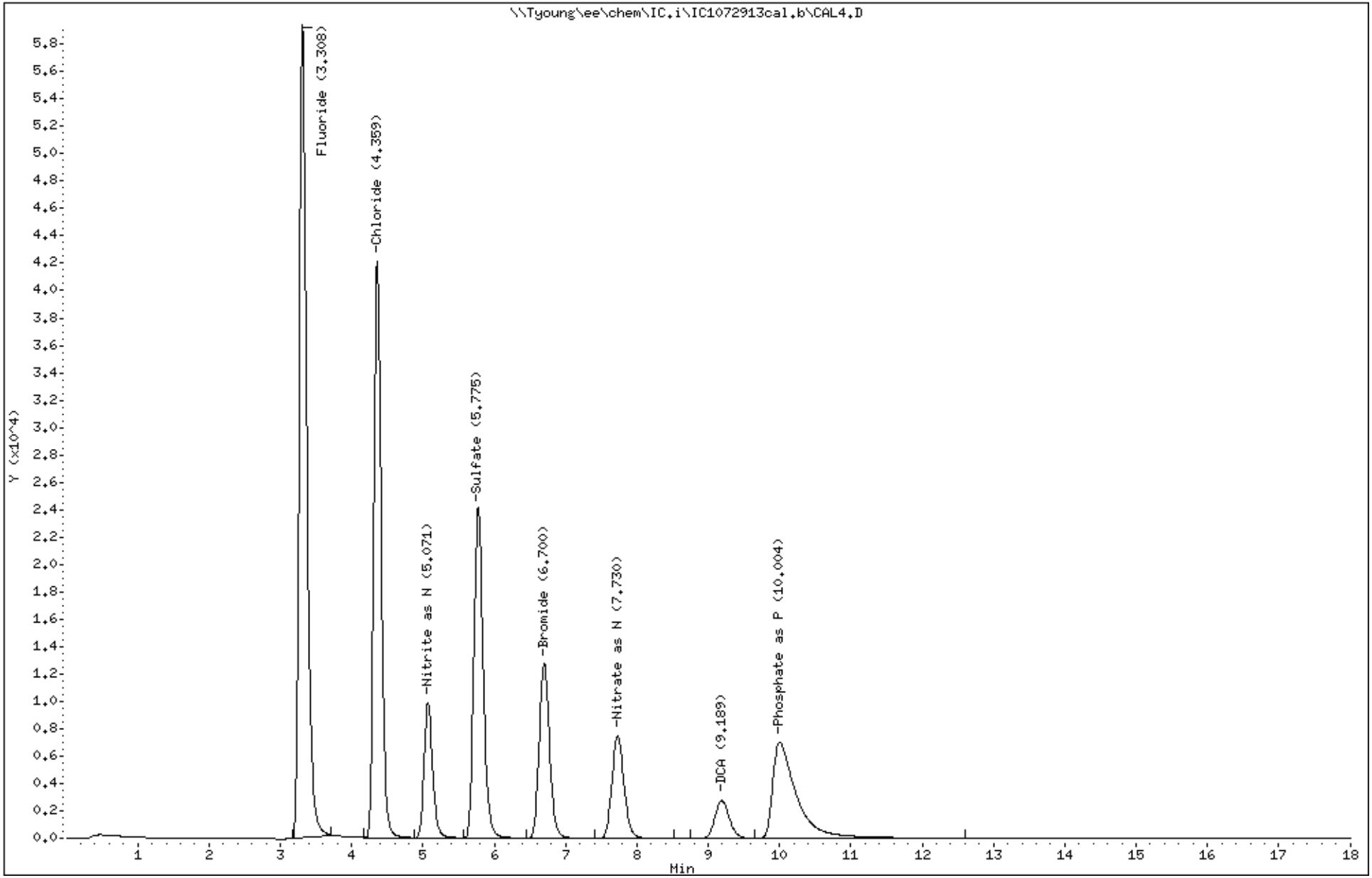
Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D
Date : 29-JUL-2013 13:14
Client ID: CAL4
Sample Info: CAL4

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 29-JUL-2013 13:36
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:36 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	1639414	16.0000	14.9(M)
T 2 Chloride	4.362	4.350	0.012	1264054	16.0000	16.4
T 3 Nitrite as N	5.074	5.054	0.020	341856	2.00000	2.1
T 4 Sulfate	5.769	5.689	0.080	919813	16.0000	16.4
T 5 Bromide	6.688	6.592	0.096	546425	16.0000	16.6
T 6 Nitrate as N	7.709	7.575	0.134	377690	2.00000	2.1
T 7 DCA	9.175	9.195	-0.020	116776	7.00000	7.4
T 8 Phosphate as P	9.850	10.875	-1.025	728275	10.3700	11.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D

Date : 29-JUL-2013 13:36

Client ID: CAL5

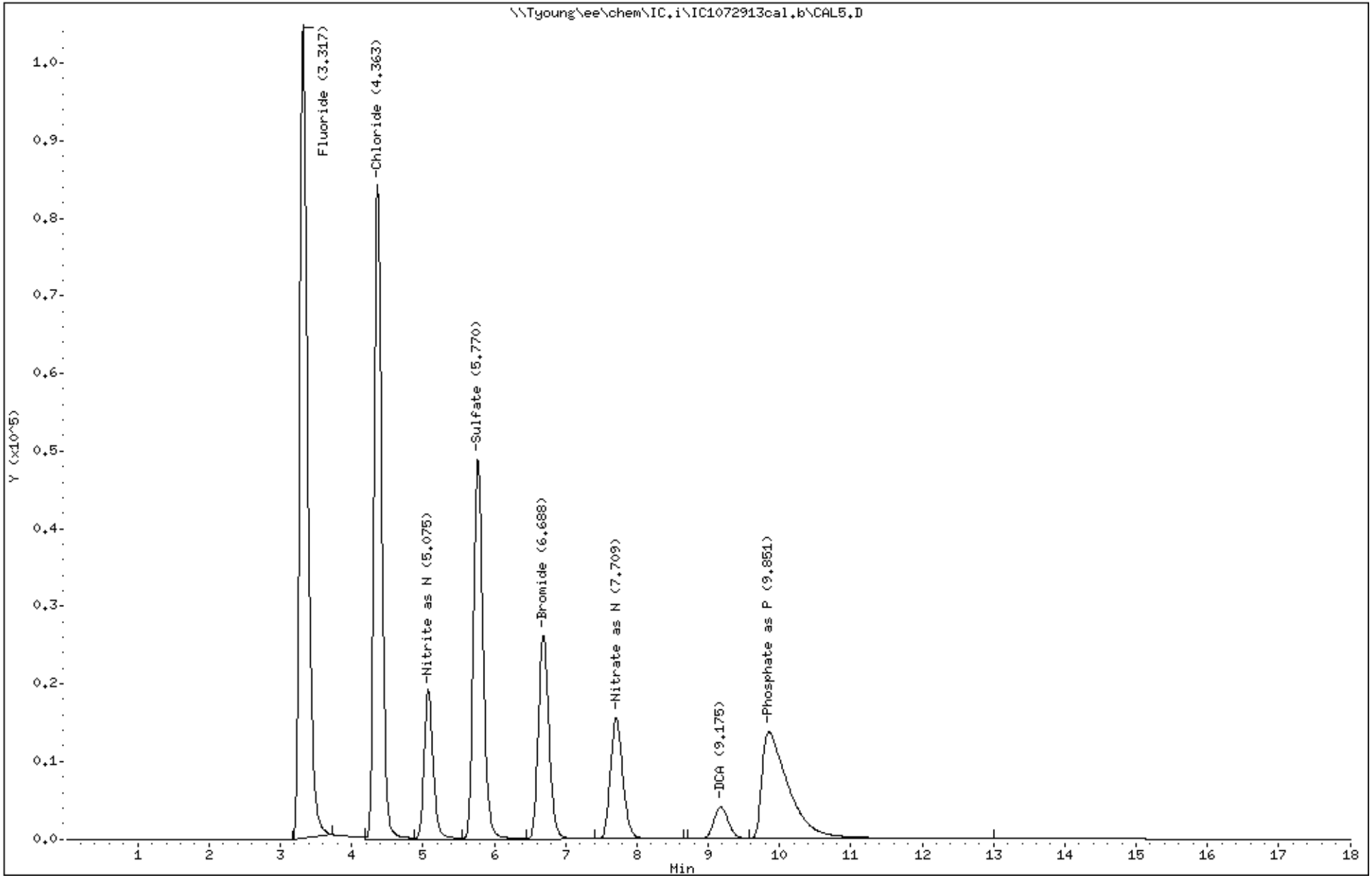
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 29-JUL-2013 13:58
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:58 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	3469338	40.0000	33.7(AM)
T 2 Chloride	4.356	4.350	0.006	3127633	40.0000	39.5
T 3 Nitrite as N	5.066	5.054	0.012	811088	5.00000	5.0
T 4 Sulfate	5.735	5.689	0.046	2280730	40.0000	39.6
T 5 Bromide	6.646	6.592	0.054	1373627	40.0000	40.1
T 6 Nitrate as N	7.650	7.575	0.075	965380	5.00000	5.1
T 7 DCA	9.125	9.195	-0.070	170834	10.0000	10.4
T 8 Phosphate as P	9.538	10.875	-1.337	1923582	25.9200	27.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D

Date : 29-JUL-2013 13:58

Client ID: CAL6

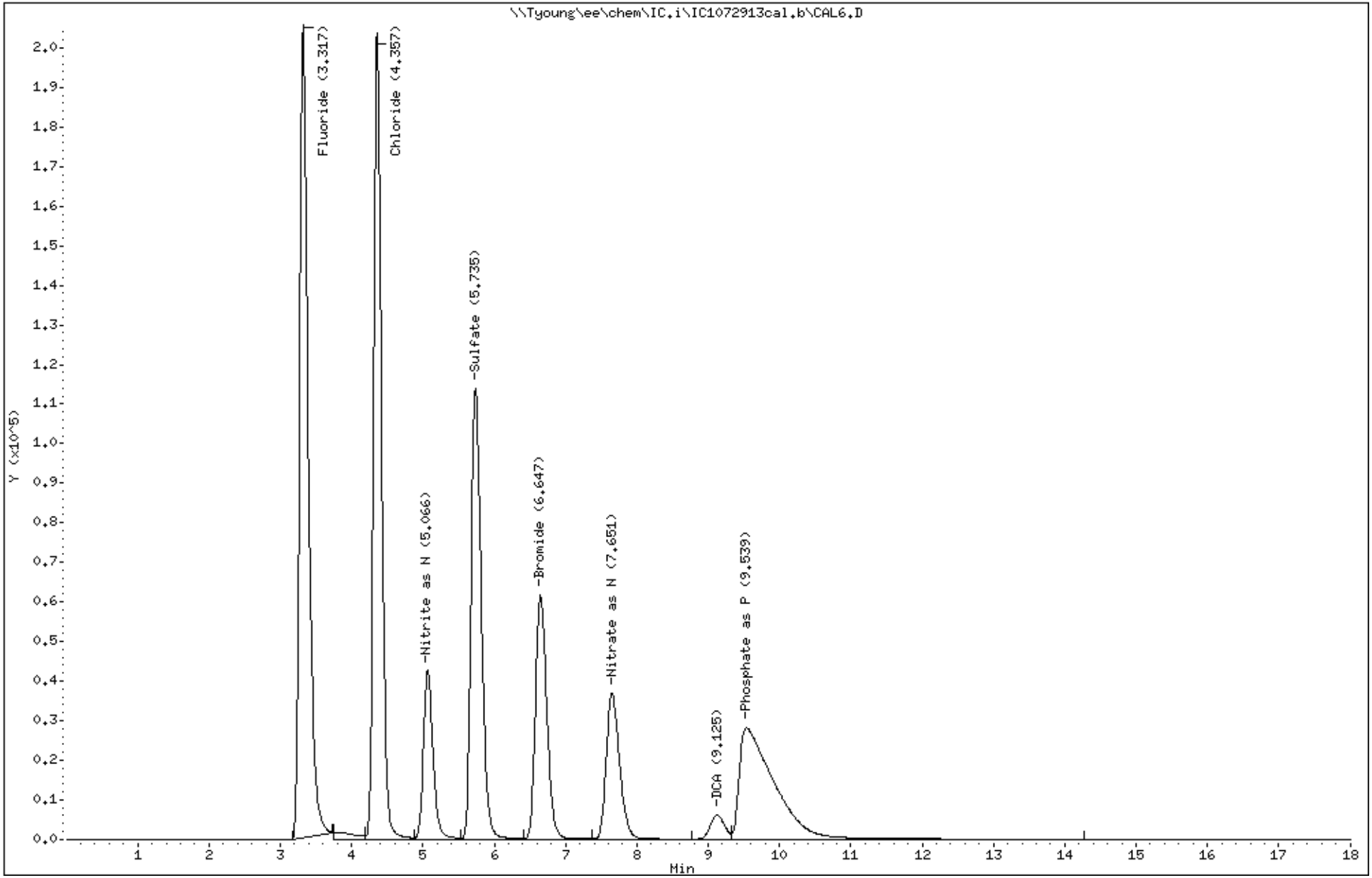
Instrument: IC.i

Sample Info: CAL6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 29-JUL-2013 14:20
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.325	3.325	0.000	5969962	80.0000	58.2(AM)
T 2 Chloride	4.350	4.350	0.000	6294429	80.0000	80.3(A)
T 3 Nitrite as N	5.054	5.054	0.000	1512306	10.0000	9.3(A)
T 4 Sulfate	5.689	5.689	0.000	4586411	80.0000	80.2(A)
T 5 Bromide	6.592	6.592	0.000	2772233	80.0000	80.5(A)
T 6 Nitrate as N	7.575	7.575	0.000	1959123	10.0000	10.1(A)
T 8 Phosphate as P	9.169	10.875	-1.706	4231453	51.8400	56.8(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D

Date : 29-JUL-2013 14:20

Client ID: CAL7

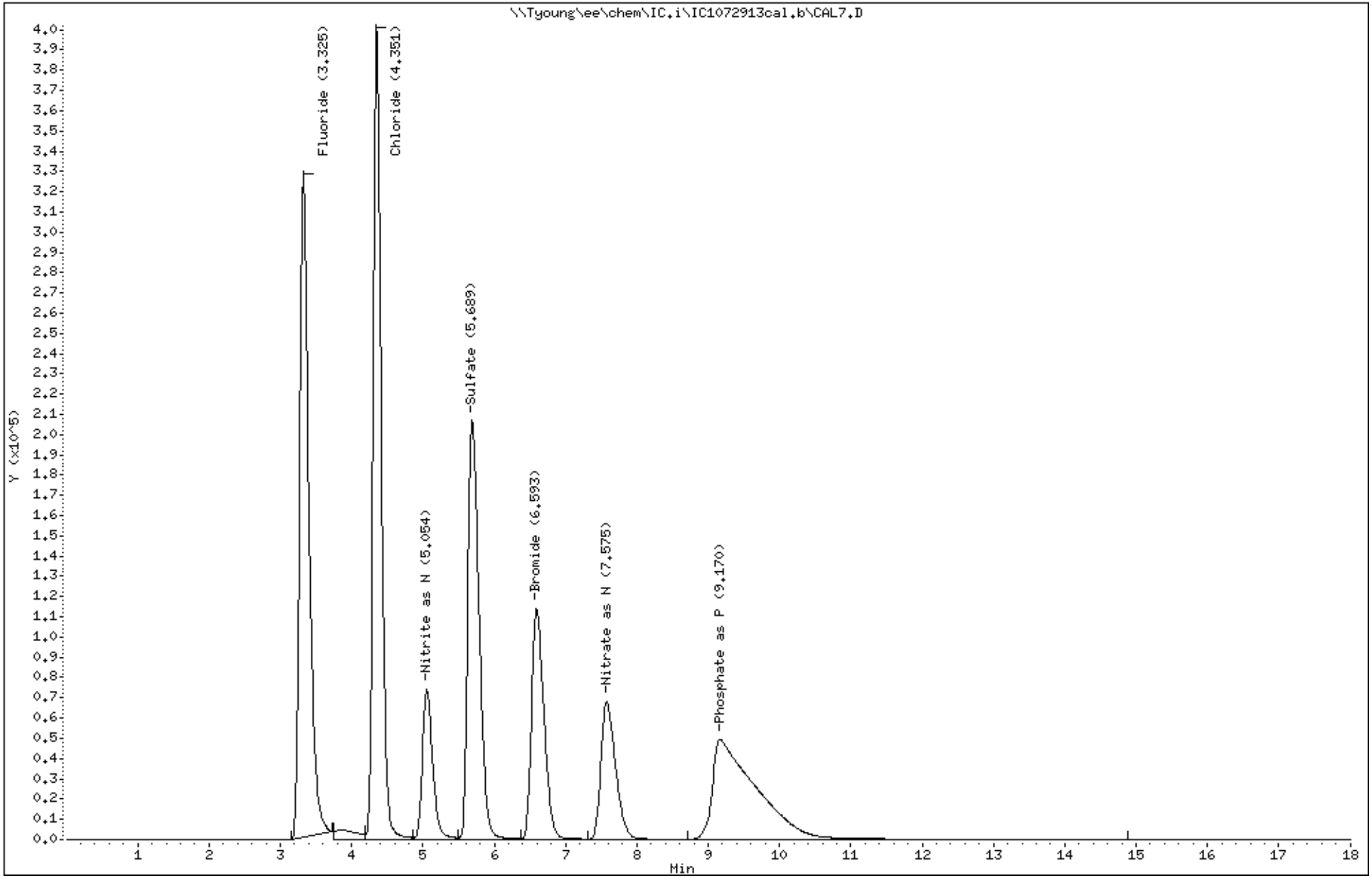
Instrument: IC.i

Sample Info: CAL7

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICV.D
Lab Smp Id: 111513ICV Client Smp ID: 111513ICV
Inj Date : 15-NOV-2013 10:42
Operator : TR Inst ID: IC.i
Smp Info : 111513ICV
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	906126	8.59800	8.6(M)
T 2 Chloride	4.339	4.350	-0.011	650490	8.37106	8.4
T 3 Nitrite as N	5.016	5.054	-0.038	165881	1.03224	1.0(M)
T 4 Sulfate	5.629	5.689	-0.060	468741	8.31603	8.3
T 5 Bromide	6.590	6.592	-0.002	278813	8.32783	8.3
T 6 Nitrate as N	7.569	7.575	-0.006	191200	1.03200	1.0
T 7 DCA	8.964	9.195	-0.231	81294	4.94733	4.9
T 8 Phosphate as P	9.725	9.914	-0.189	337372	5.03667	5.0(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICV.D

Date : 15-NOV-2013 10:42

Client ID: 111513ICV

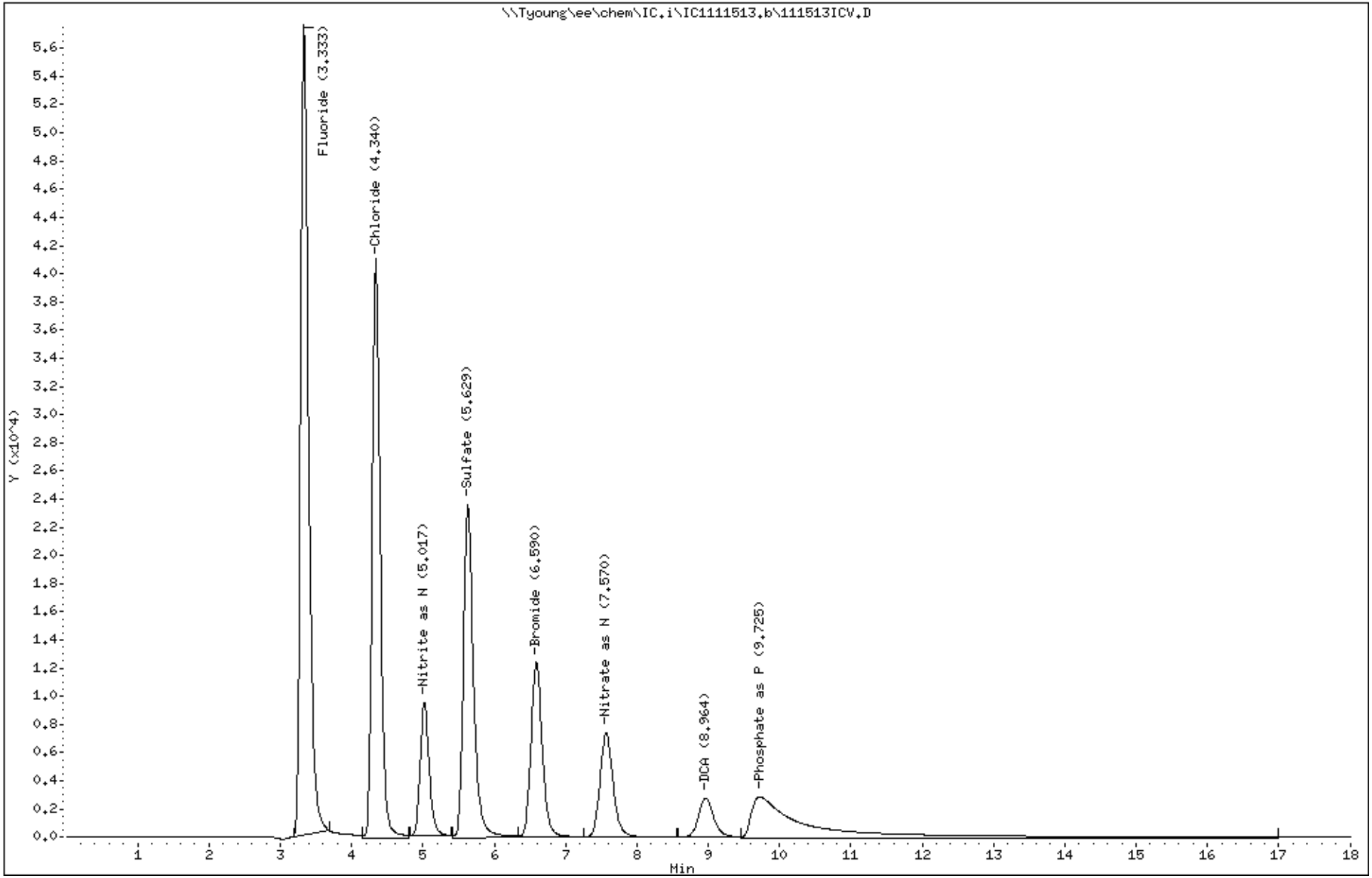
Instrument: IC.i

Sample Info: 111513ICV

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100901.D
Lab Smp Id: 351100901 Client Smp ID: SMSMW02A
Inj Date : 15-NOV-2013 11:38
Operator : TR Inst ID: IC.i
Smp Info : 351100901
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.325	3.325	0.000	16388139	160.236	160(AM)
T 2 Chloride	4.383	4.350	0.033	194120913	2465.74	2460(AM)
T 3 Nitrite as N	5.166	5.054	0.112	256758	1.59775	1.6(M)
T 5 Bromide	6.558	6.592	-0.034	63934	2.14333	2.1(M)
T 7 DCA	8.964	9.195	-0.231	90897	5.50317	5.5
T 8 Phosphate as P	10.483	9.914	0.569	27981	1.25560	1.2(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100901.D

Date : 15-NOV-2013 11:38

Client ID: SMSMW02A

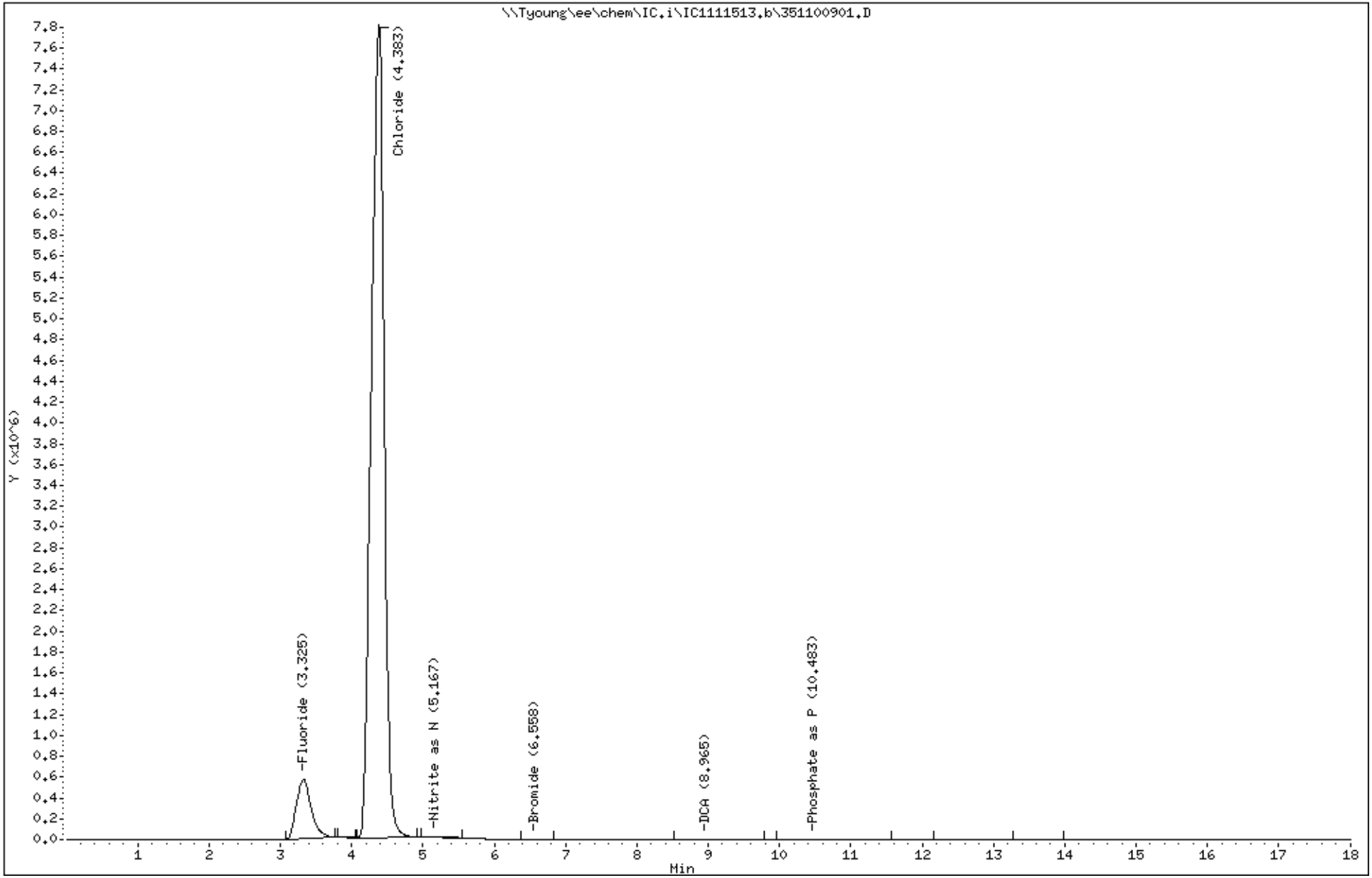
Instrument: IC.i

Sample Info: 351100901

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100902.D
Lab Smp Id: 351100902 Client Smp ID: SMSMW07A
Inj Date : 15-NOV-2013 12:00
Operator : TR Inst ID: IC.i
Smp Info : 351100902
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	2.833	3.325	-0.492	35		(M)
T 2 Chloride	4.825	4.350	0.475	2653829974	33707.7	33700(AM)
T 3 Nitrite as N	5.350	5.054	0.296	15	9e-005	0.000093(M)
T 4 Sulfate	5.550	5.689	-0.139	12416439	216.422	216(AM)
T 6 Nitrate as N	7.533	7.575	-0.042	622431	3.22490	3.2(M)
T 7 DCA	8.900	9.195	-0.295	93008	5.62536	5.6(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100902.D

Date : 15-NOV-2013 12:00

Client ID: SMSMW07A

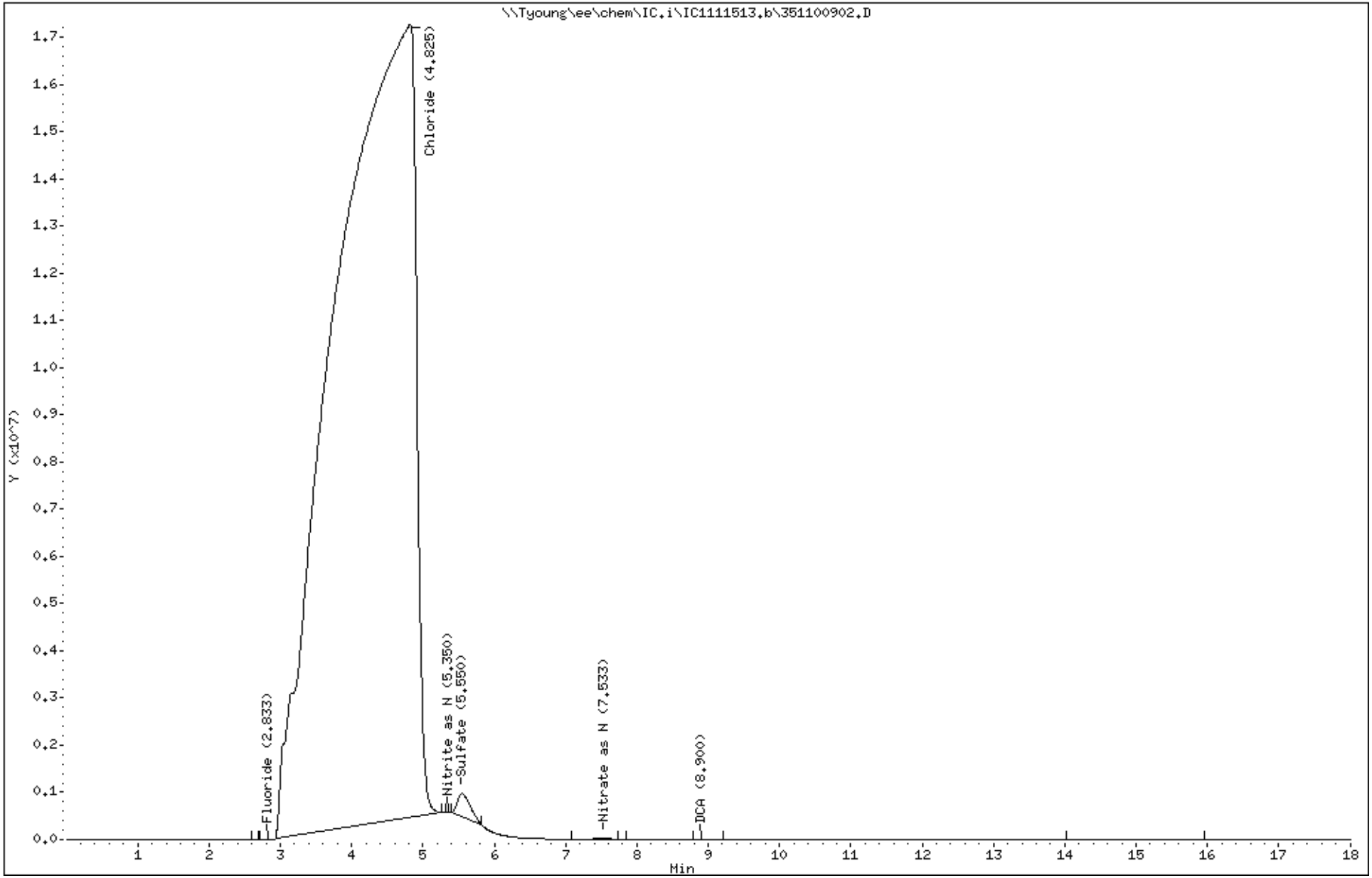
Instrument: IC.i

Sample Info: 351100902

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICB.D
Lab Smp Id: 111513ICB Client Smp ID: 111513ICB
Inj Date : 15-NOV-2013 13:14
Operator : TR Inst ID: IC.i
Smp Info : 111513ICB
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.337	4.350	-0.013	849	0.11964	0.12
T 3 Nitrite as N	4.941	5.054	-0.113	869	0.00541	0.0054
T 7 DCA	8.985	9.195	-0.210	75647	4.62047	4.6

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICB.D

Date : 15-NOV-2013 13:14

Client ID: 111513ICB

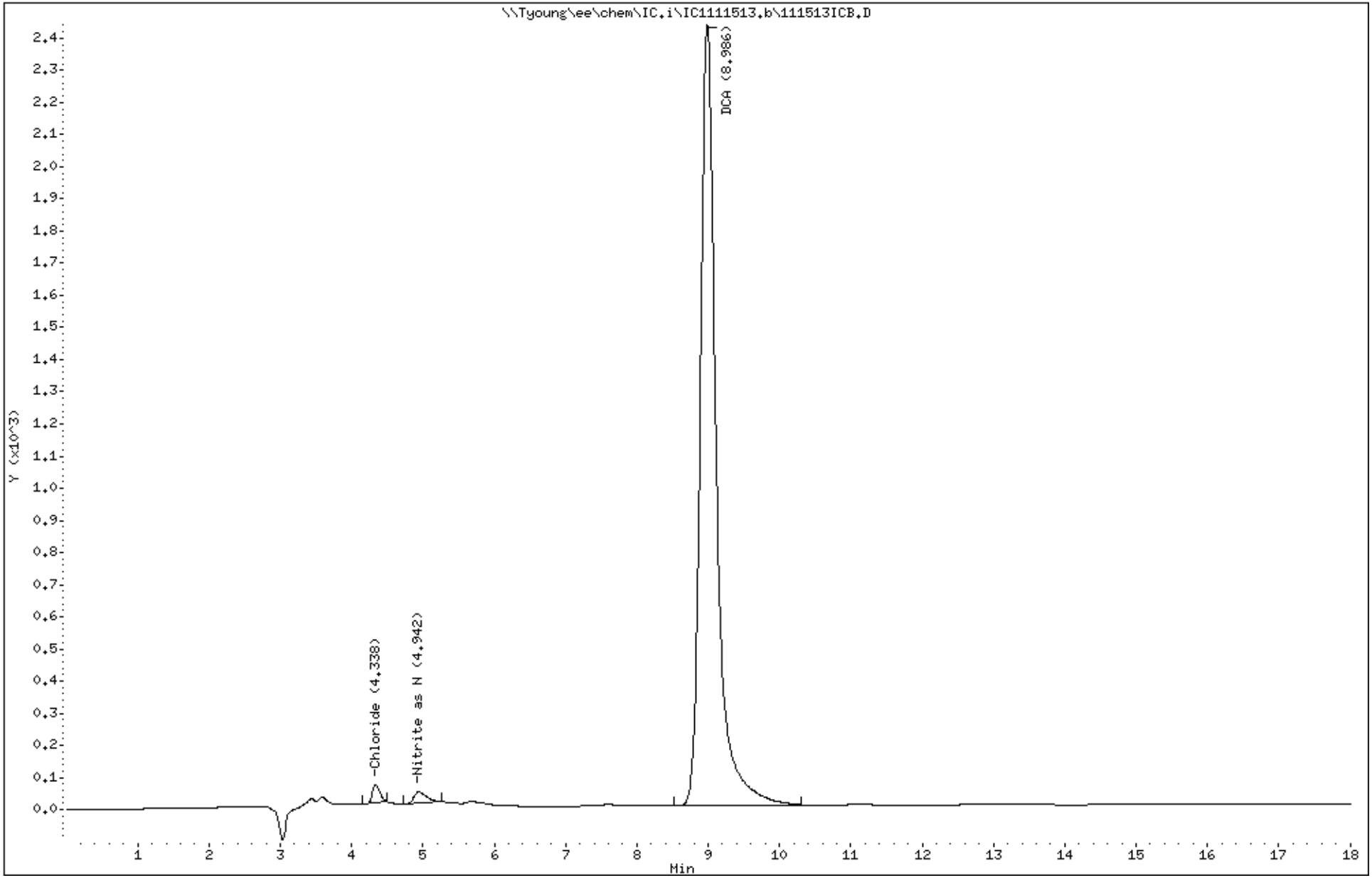
Instrument: IC.i

Sample Info: 111513ICB

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513MB.D
Lab Smp Id: 111513MB Client Smp ID: 111513MB
Inj Date : 15-NOV-2013 13:36
Operator : TR Inst ID: IC.i
Smp Info : 111513MB
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.351	4.350	0.001	978	0.12128	0.12
T 3 Nitrite as N	4.951	5.054	-0.103	917	0.00571	0.0057
T 7 DCA	8.989	9.195	-0.206	77502	4.72784	4.7

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513MB.D

Date : 15-NOV-2013 13:36

Client ID: 111513MB

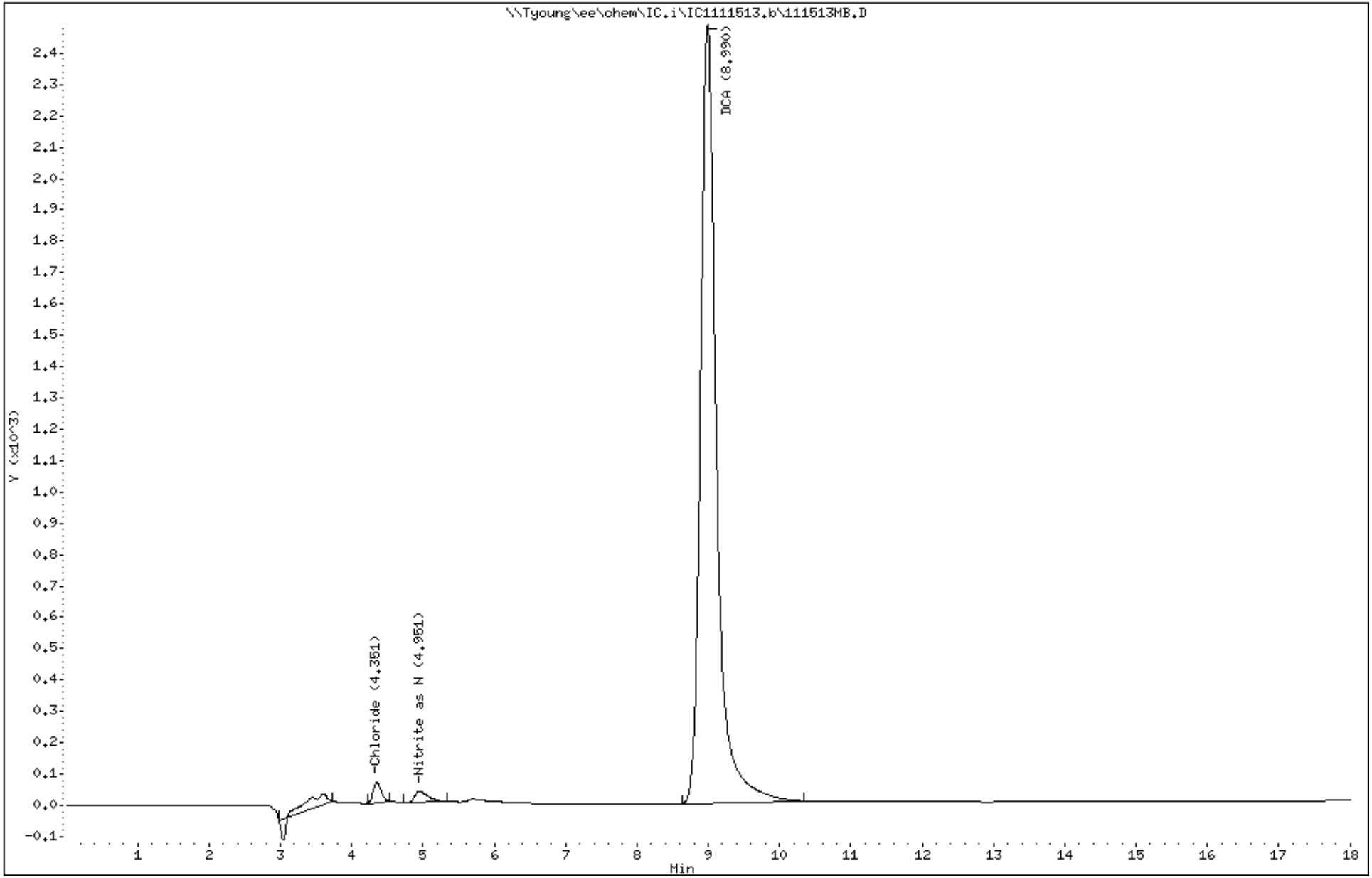
Instrument: IC.i

Sample Info: 111513MB

Operator: TR

Column phase: AS18

Column diameter: 4.00



147

3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCS.D
Lab Smp Id: 111513LCS Client Smp ID: 111513LCS
Inj Date : 15-NOV-2013 13:58
Operator : TR Inst ID: IC.i
Smp Info : 111513LCS
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.341	3.325	0.016	890032	8.44037	8.4(M)
T 2 Chloride	4.347	4.350	-0.003	636138	8.18877	8.2
T 3 Nitrite as N	5.028	5.054	-0.026	169381	1.05402	1.0
T 4 Sulfate	5.641	5.689	-0.048	455497	8.08534	8.1
T 5 Bromide	6.592	6.592	0.000	271256	8.11033	8.1
T 6 Nitrate as N	7.573	7.575	-0.002	185862	1.00485	1.0
T 7 DCA	8.979	9.195	-0.216	74908	4.57770	4.6
T 8 Phosphate as P	9.791	9.914	-0.123	313473	4.74460	4.7(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCS.D

Date : 15-NOV-2013 13:58

Client ID: 111513LCS

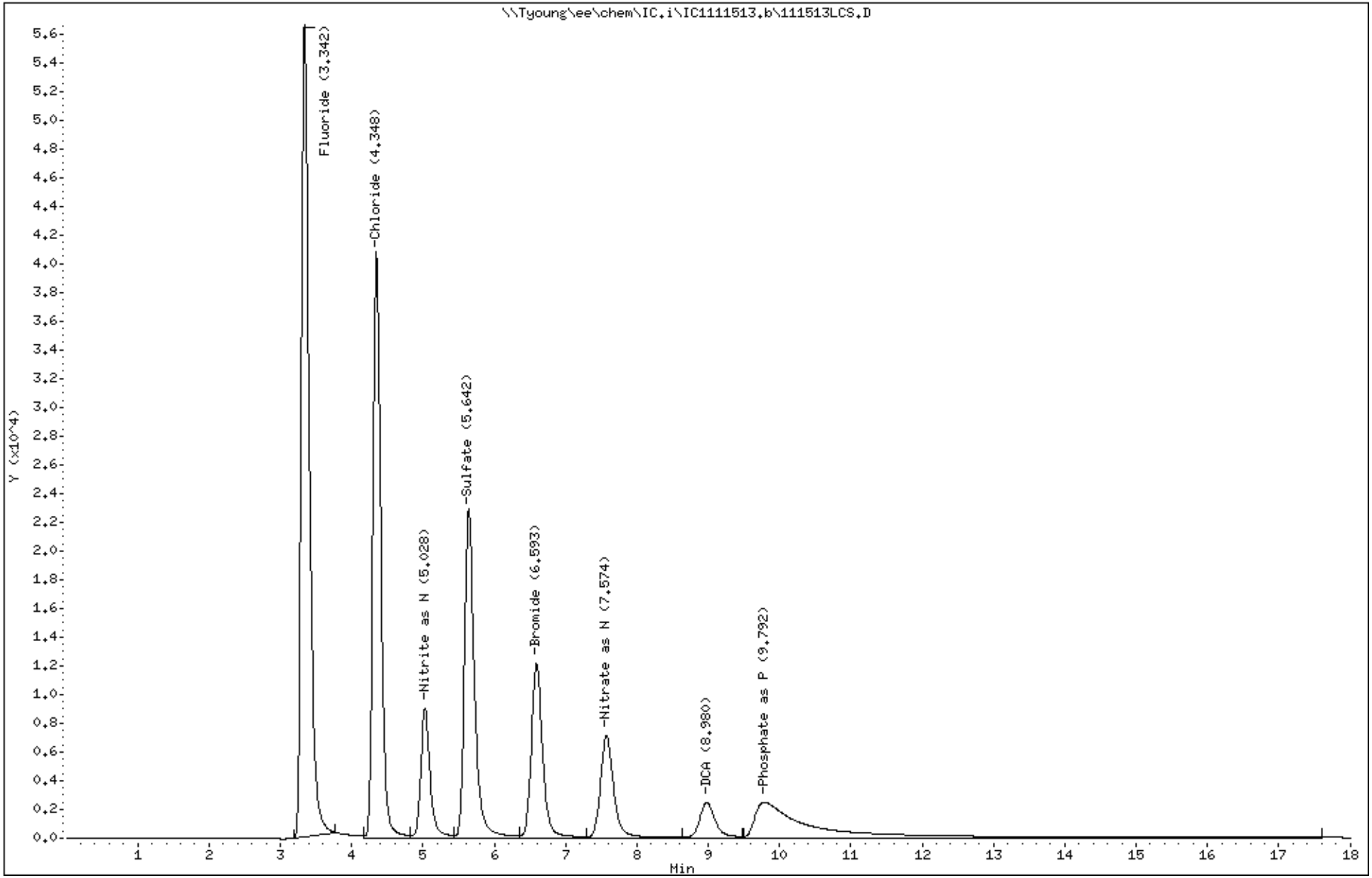
Instrument: IC.i

Sample Info: 111513LCS

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCSD.D
Lab Smp Id: 111513LCSD Client Smp ID: 111513LCSD
Inj Date : 15-NOV-2013 14:20
Operator : TR Inst ID: IC.i
Smp Info : 111513LCSD
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.332	3.325	0.007	921697	8.75051	8.8
T 2 Chloride	4.341	4.350	-0.009	639001	8.22513	8.2
T 3 Nitrite as N	5.025	5.054	-0.029	170037	1.05811	1.0
T 4 Sulfate	5.643	5.689	-0.046	458777	8.14247	8.1
T 5 Bromide	6.591	6.592	-0.001	271528	8.11816	8.1
T 6 Nitrate as N	7.571	7.575	-0.004	186309	1.00712	1.0
T 7 DCA	8.971	9.195	-0.224	75535	4.61399	4.6
T 8 Phosphate as P	9.750	9.914	-0.164	321828	4.84671	4.8(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCSD.D

Date : 15-NOV-2013 14:20

Client ID: 111513LCSD

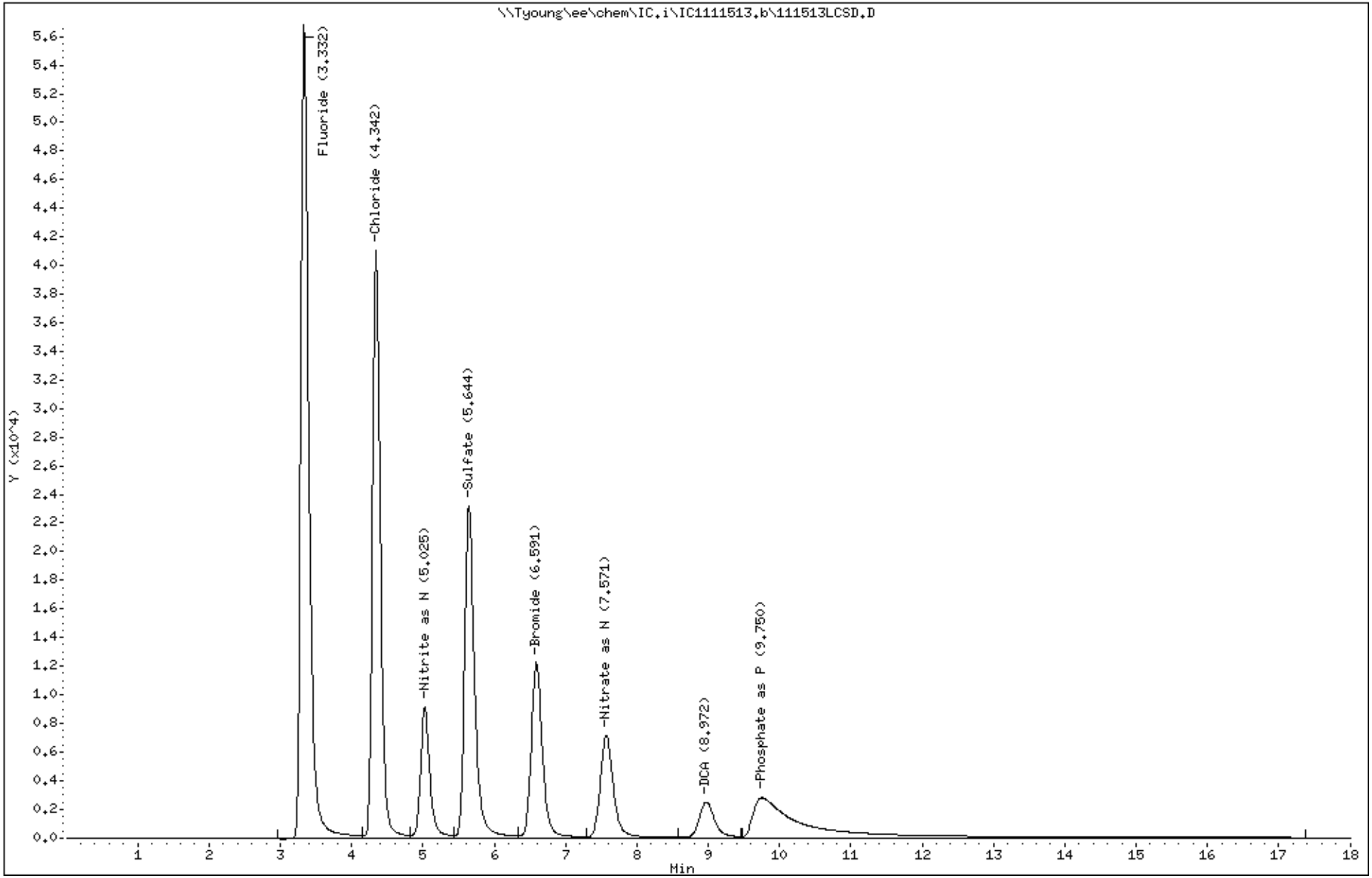
Instrument: IC.i

Sample Info: 111513LCSD

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100903.D
Lab Smp Id: 351100903 Client Smp ID: SMSMW07B
Inj Date : 15-NOV-2013 14:42
Operator : TR Inst ID: IC.i
Smp Info : 351100903
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.058	3.325	-0.267	27581258	269.866	270(AM)
T 2 Chloride	4.675	4.350	0.325	1461781444	18566.9	18600(AM)
T 4 Sulfate	5.466	5.689	-0.223	21014276	366.180	366(AM)
T 6 Nitrate as N	7.475	7.575	-0.100	1839862	9.41582	9.4(M)
T 7 DCA	8.725	9.195	-0.470	91970	5.56527	5.6(M)
T 8 Phosphate as P	9.475	9.914	-0.439	7645	1.00707	1.0(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100903.D

Date : 15-NOV-2013 14:42

Client ID: SMSMW07B

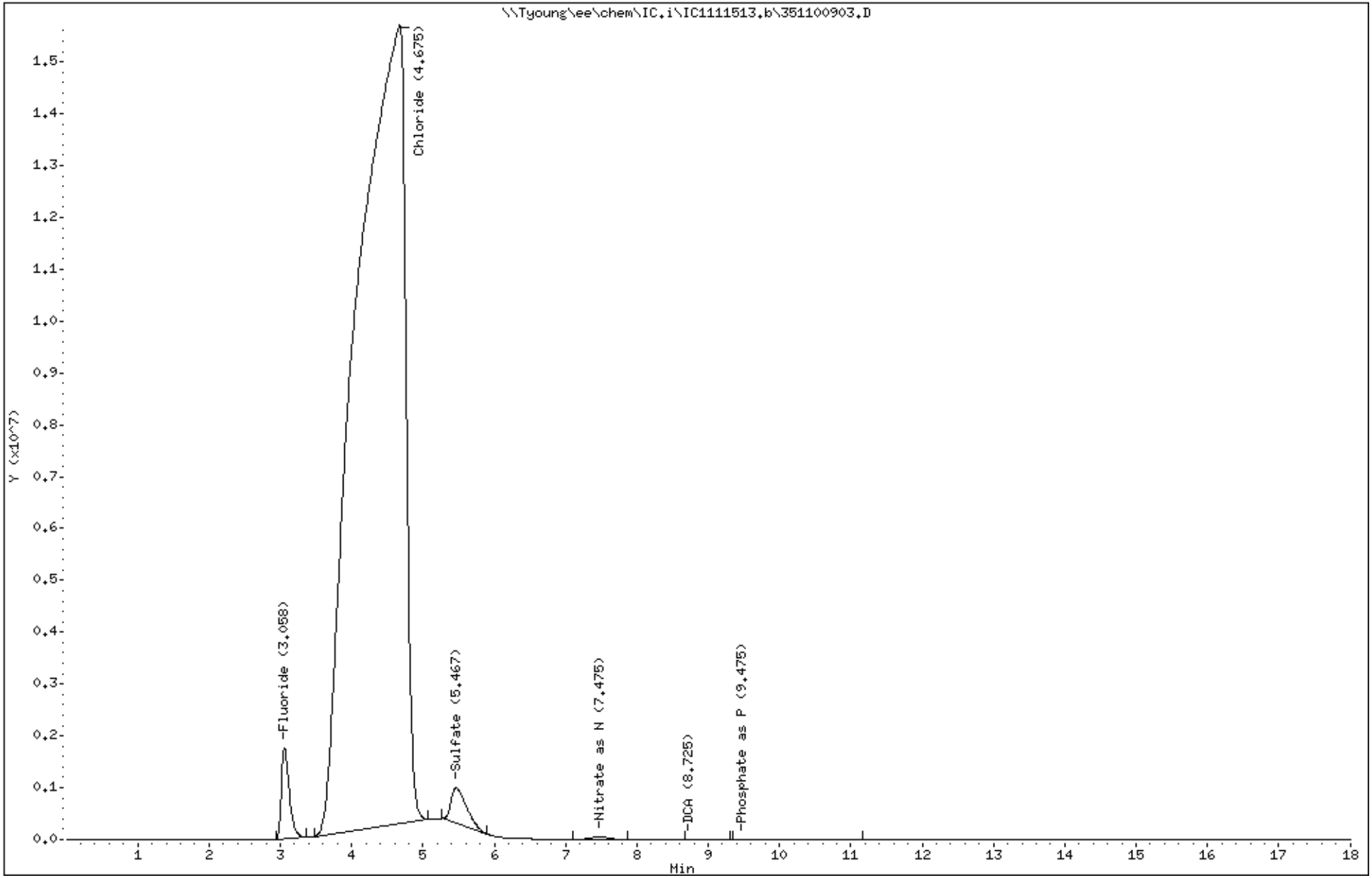
Instrument: IC.i

Sample Info: 351100903

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100904.D
Lab Smp Id: 351100904 Client Smp ID: SMSMW08A
Inj Date : 15-NOV-2013 15:04
Operator : TR Inst ID: IC.i
Smp Info : 351100904
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.325	3.325	0.000	12214202	119.354	119(AM)
T 2 Chloride	4.366	4.350	0.016	142589617	1811.21	1810(AM)
T 3 Nitrite as N	5.183	5.054	0.129	34140	0.21245	0.21(M)
T 4 Sulfate	5.575	5.689	-0.114	4317147	75.3479	75.3(M)
T 5 Bromide	6.591	6.592	-0.001	5467	0.46057	0.46
T 7 DCA	9.000	9.195	-0.195	76214	4.65329	4.6(M)
T 8 Phosphate as P	10.441	9.914	0.527	23949	1.20632	1.2(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100904.D

Date : 15-NOV-2013 15:04

Client ID: SMSMW08A

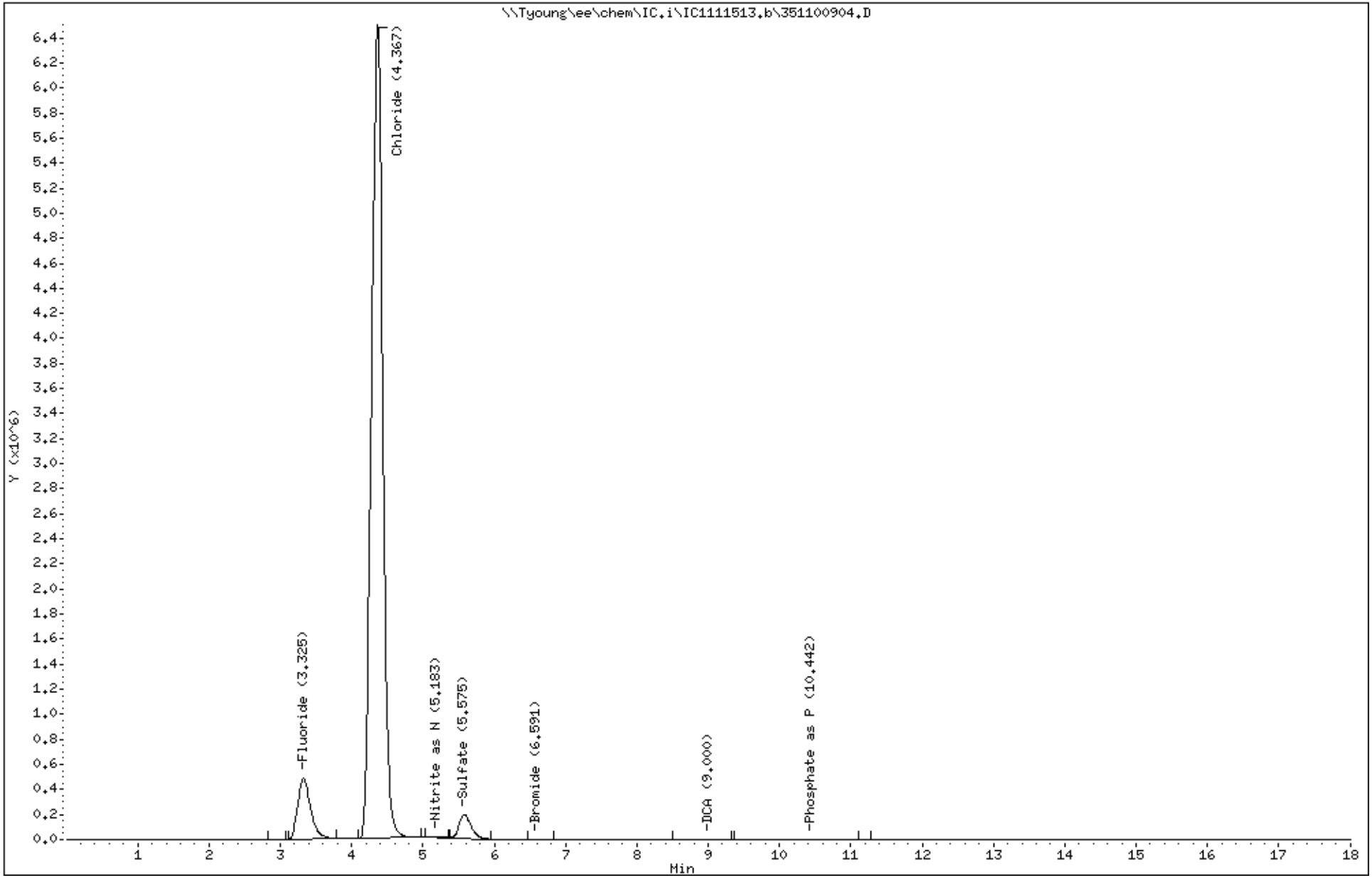
Instrument: IC.i

Sample Info: 351100904

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100905.D
Lab Smp Id: 351100905 Client Smp ID: SMSSW11
Inj Date : 15-NOV-2013 15:38
Operator : TR Inst ID: IC.i
Smp Info : 351100905
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.341	4.350	-0.009	713904	9.17651	9.2(M)
T 3 Nitrite as N	4.800	5.054	-0.254	5910	0.03678	0.037(M)
T 4 Sulfate	5.625	5.689	-0.064	447157	7.94007	7.9(M)
T 6 Nitrate as N	7.583	7.575	0.008	131836	0.73012	0.73
T 7 DCA	8.983	9.195	-0.212	75896	4.63489	4.6(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100905.D

Date : 15-NOV-2013 15:38

Client ID: SMSSW11

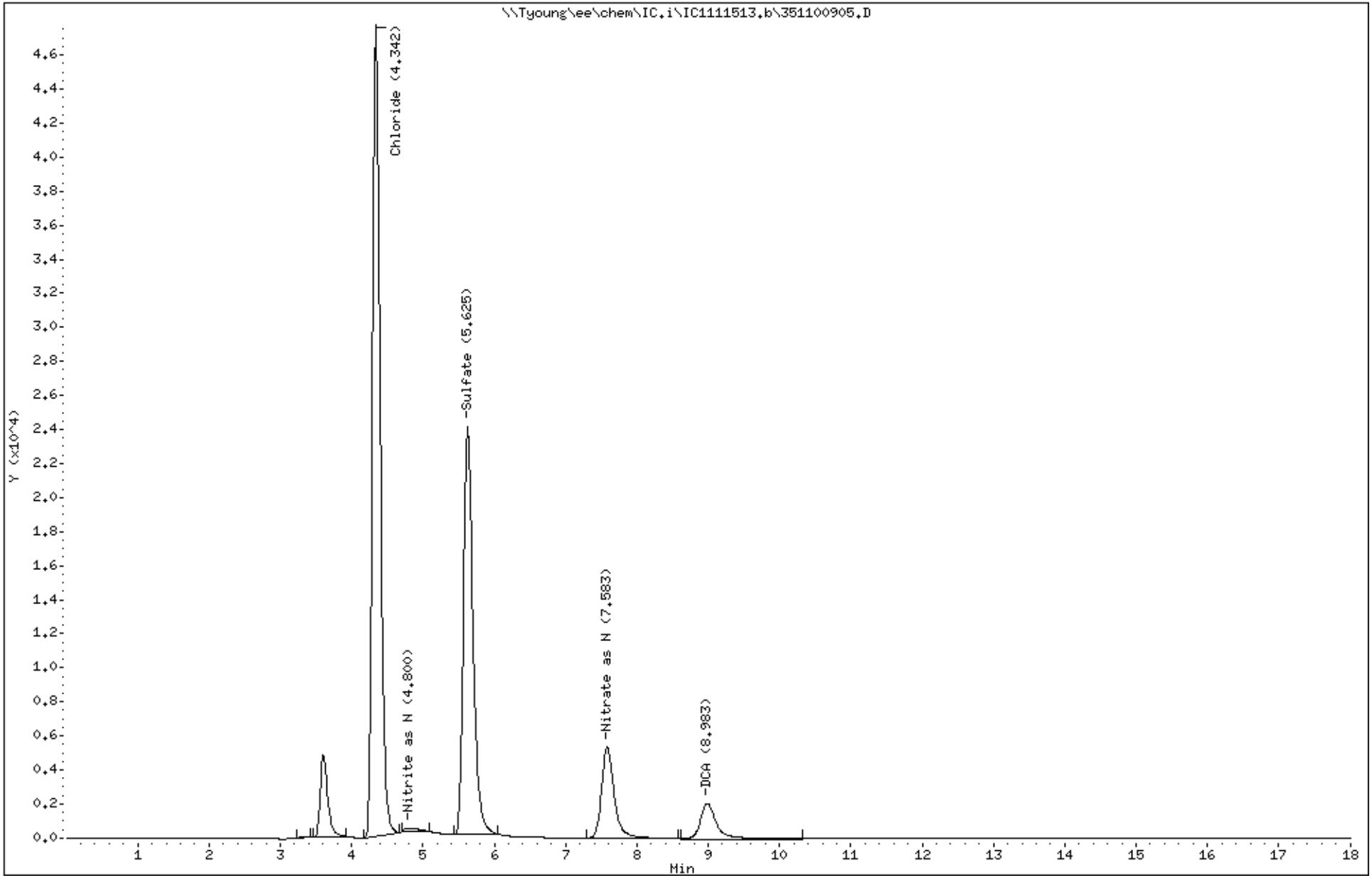
Instrument: IC.i

Sample Info: 351100905

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV1.D
Lab Smp Id: 111513CCV1 Client Smp ID: 111513CCV1
Inj Date : 15-NOV-2013 16:00
Operator : TR Inst ID: IC.i
Smp Info : 111513CCV1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.335	3.325	0.010	912733	8.66271	8.7
T 2 Chloride	4.344	4.350	-0.006	631953	8.13561	8.1
T 3 Nitrite as N	5.027	5.054	-0.027	165047	1.02705	1.0
T 4 Sulfate	5.636	5.689	-0.053	451387	8.01375	8.0
T 5 Bromide	6.596	6.592	0.004	264346	7.91145	7.9
T 6 Nitrate as N	7.575	7.575	0.000	168659	0.91737	0.92(M)
T 7 DCA	8.975	9.195	-0.220	77882	4.74984	4.7(M)
T 8 Phosphate as P	9.858	9.914	-0.056	282800	4.36974	4.4(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV1.D

Date : 15-NOV-2013 16:00

Client ID: 111513CCV1

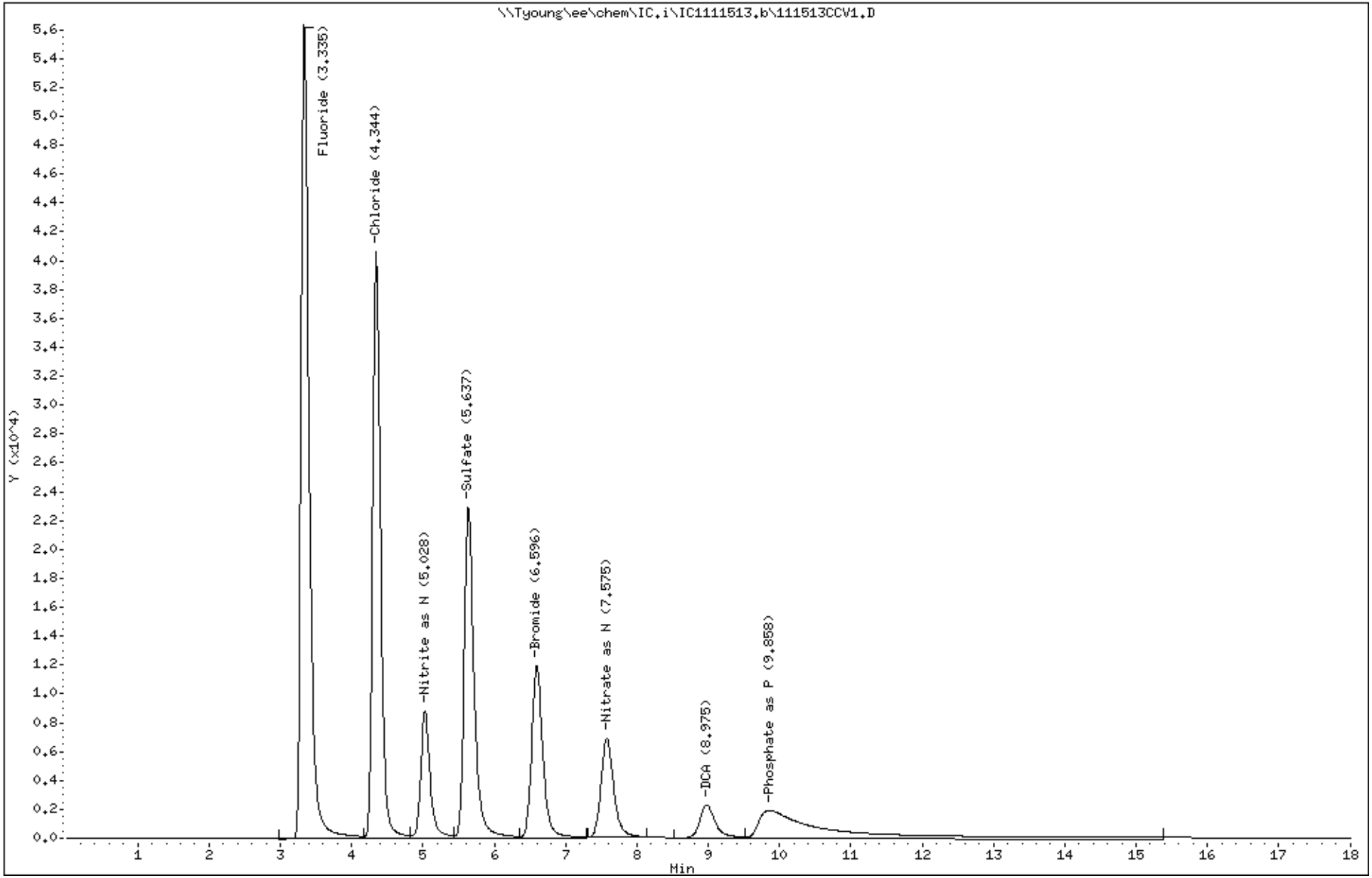
Instrument: IC.i

Sample Info: 111513CCV1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB1.D
Lab Smp Id: 111513CCB1 Client Smp ID: 111513CCB1
Inj Date : 15-NOV-2013 16:22
Operator : TR Inst ID: IC.i
Smp Info : 111513CCB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.341	4.350	-0.009	1050	0.12220	0.12
T 3 Nitrite as N	4.941	5.054	-0.113	876	0.00545	0.0054
T 7 DCA	8.982	9.195	-0.213	75998	4.64079	4.6

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB1.D

Date : 15-NOV-2013 16:22

Client ID: 111513CCB1

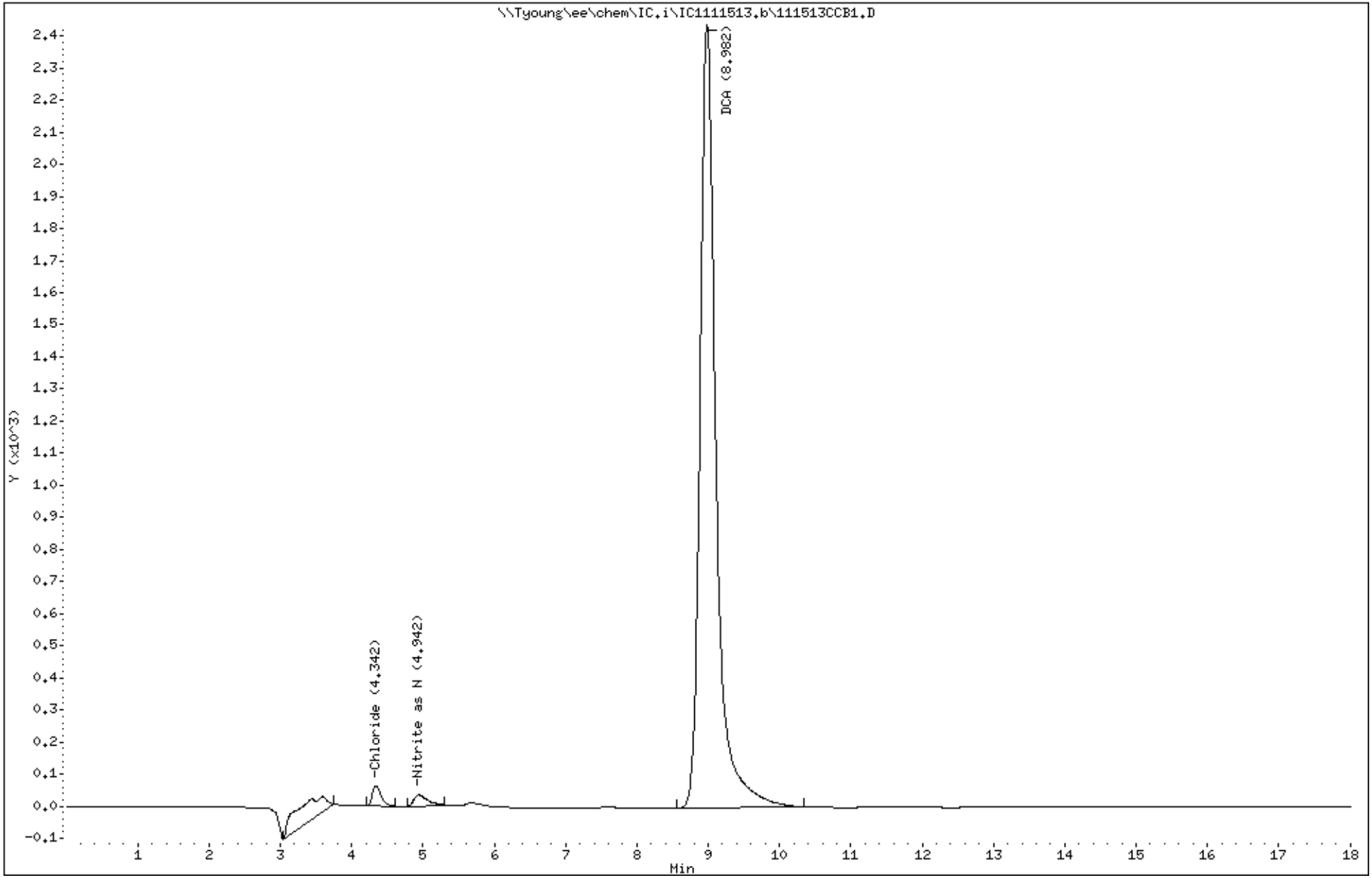
Instrument: IC.i

Sample Info: 111513CCB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351100906.D
Lab Smp Id: 351100906 Client Smp ID: SMSSW14
Inj Date : 15-NOV-2013 16:46
Operator : TR Inst ID: IC.i
Smp Info : 351100906
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.329	3.325	0.004	69682	0.40549	0.40
T 2 Chloride	4.341	4.350	-0.009	9914837	126.042	126(AM)
T 4 Sulfate	5.623	5.689	-0.066	944807	16.6082	16.6
T 6 Nitrate as N	7.576	7.575	0.001	220829	1.18267	1.2
T 7 DCA	8.983	9.195	-0.212	88963	5.39122	5.4(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351100906.D

Date : 15-NOV-2013 16:46

Client ID: SMSSW14

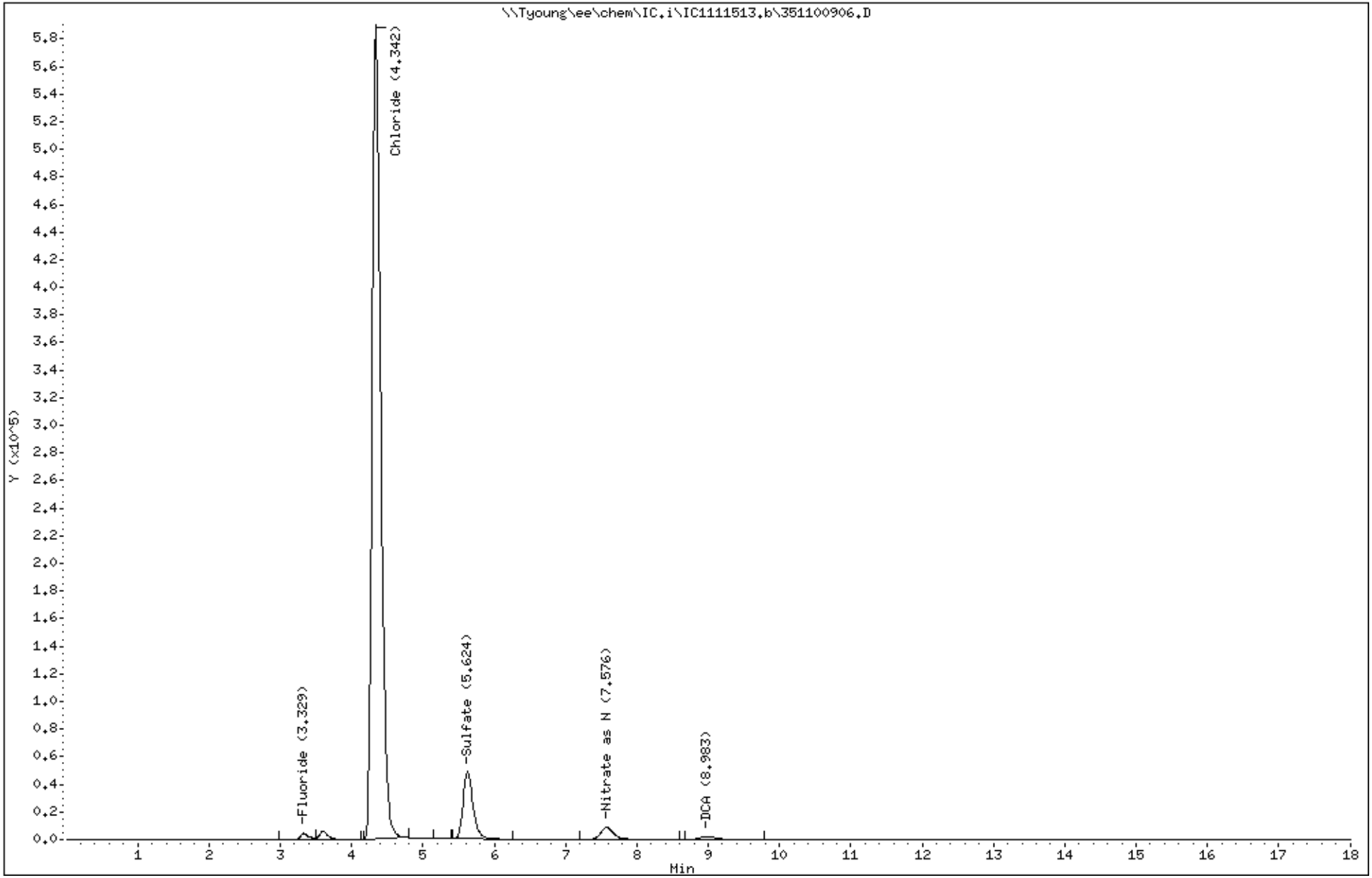
Instrument: IC.i

Sample Info: 351100906

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV2.D
Lab Smp Id: 111513CCV2 Client Smp ID: 111513CCV2
Inj Date : 15-NOV-2013 20:25
Operator : TR Inst ID: IC.i
Smp Info : 111513CCV2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	911904	8.65459	8.6(M)
T 2 Chloride	4.344	4.350	-0.006	644618	8.29648	8.3
T 3 Nitrite as N	5.028	5.054	-0.026	173044	1.07682	1.1
T 4 Sulfate	5.643	5.689	-0.046	464487	8.24193	8.2
T 5 Bromide	6.596	6.592	0.004	273371	8.17120	8.2
T 6 Nitrate as N	7.574	7.575	-0.001	186906	1.01016	1.0
T 7 DCA	8.971	9.195	-0.224	76803	4.68739	4.7
T 8 Phosphate as P	9.916	9.914	0.002	330322	4.95051	5.0(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV2.D

Date : 15-NOV-2013 20:25

Client ID: 111513CCV2

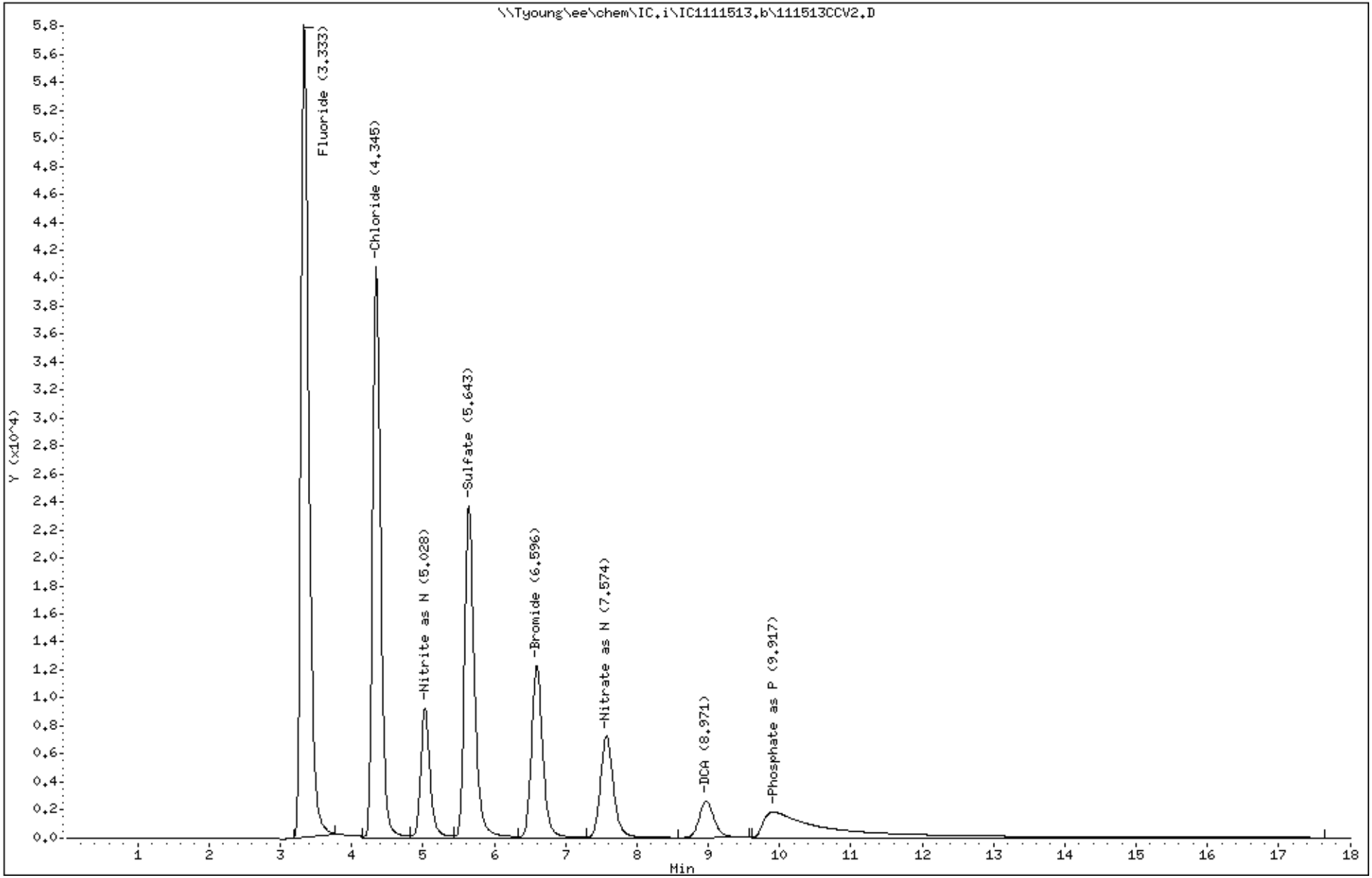
Instrument: IC.i

Sample Info: 111513CCV2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB2.D
Lab Smp Id: 111513CCB2 Client Smp ID: 111513CCB2
Inj Date : 15-NOV-2013 20:47
Operator : TR Inst ID: IC.i
Smp Info : 111513CCB2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.349	4.350	-0.001	1338	0.12585	0.12
T 3 Nitrite as N	4.945	5.054	-0.109	809	0.00503	0.0050
T 7 DCA	8.978	9.195	-0.217	82989	5.04544	5.0

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB2.D

Date : 15-NOV-2013 20:47

Client ID: 111513CCB2

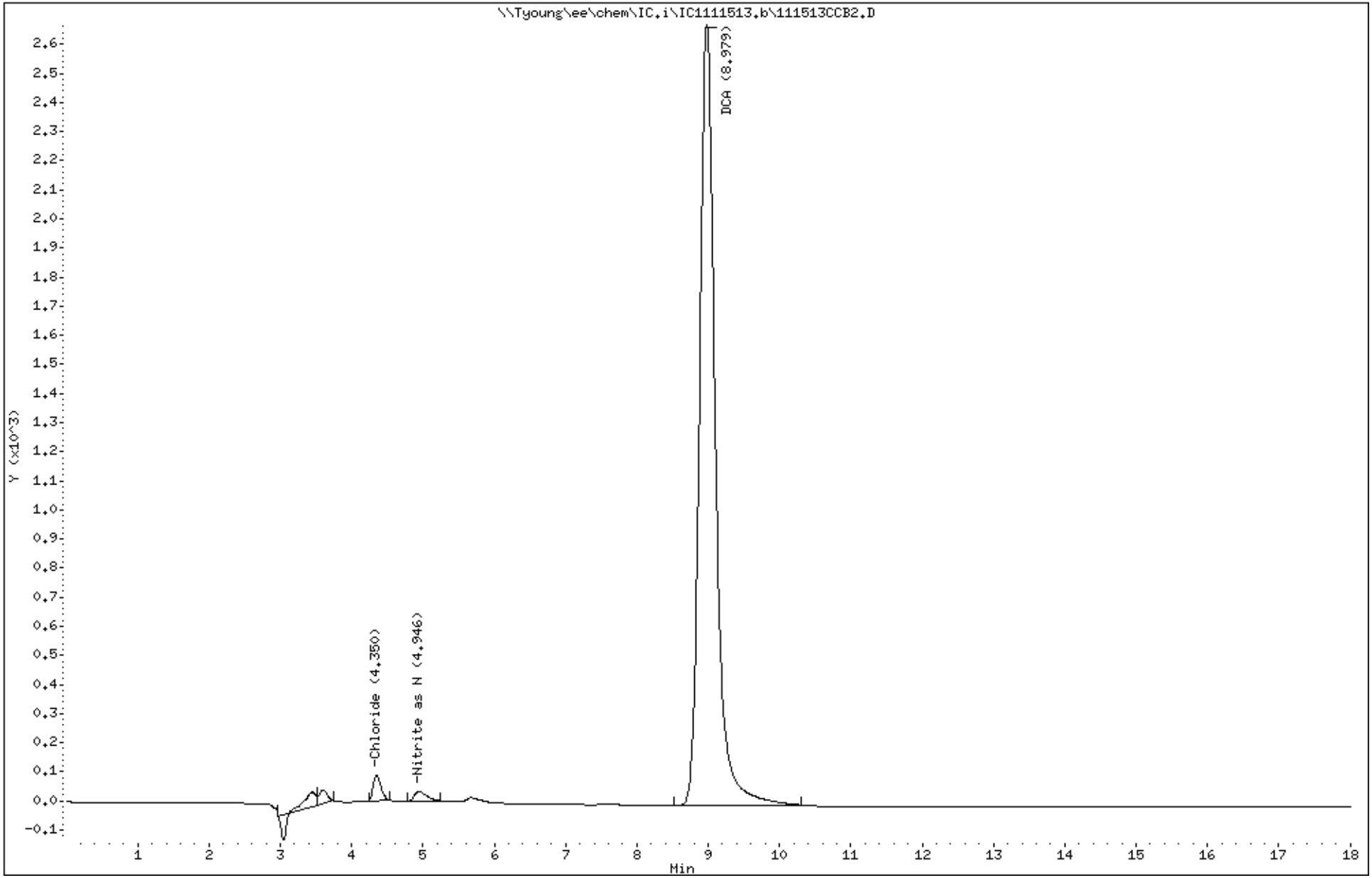
Instrument: IC.i

Sample Info: 111513CCB2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 25-NOV-2013 12:58
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 12:58 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.303	3.325	-0.022	50896	0.40000		
T 2 Chloride	4.193	4.194	-0.001	27748	0.40000		
T 3 Nitrite as N	4.788	4.785	0.003	8885	0.05000		
T 4 Sulfate	5.467	5.444	0.023	19876	0.40000		
T 5 Bromide	6.187	6.075	0.112	10986	0.40000		(M)
T 6 Nitrate as N	7.073	6.898	0.175	7780	0.05000		(M)
T 7 DCA	8.354	8.188	0.166	1612	0.10000		(M)
T 8 Phosphate as P	9.570	8.625	0.945	12365	0.26000		(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D

Date : 25-NOV-2013 12:58

Client ID: CAL1

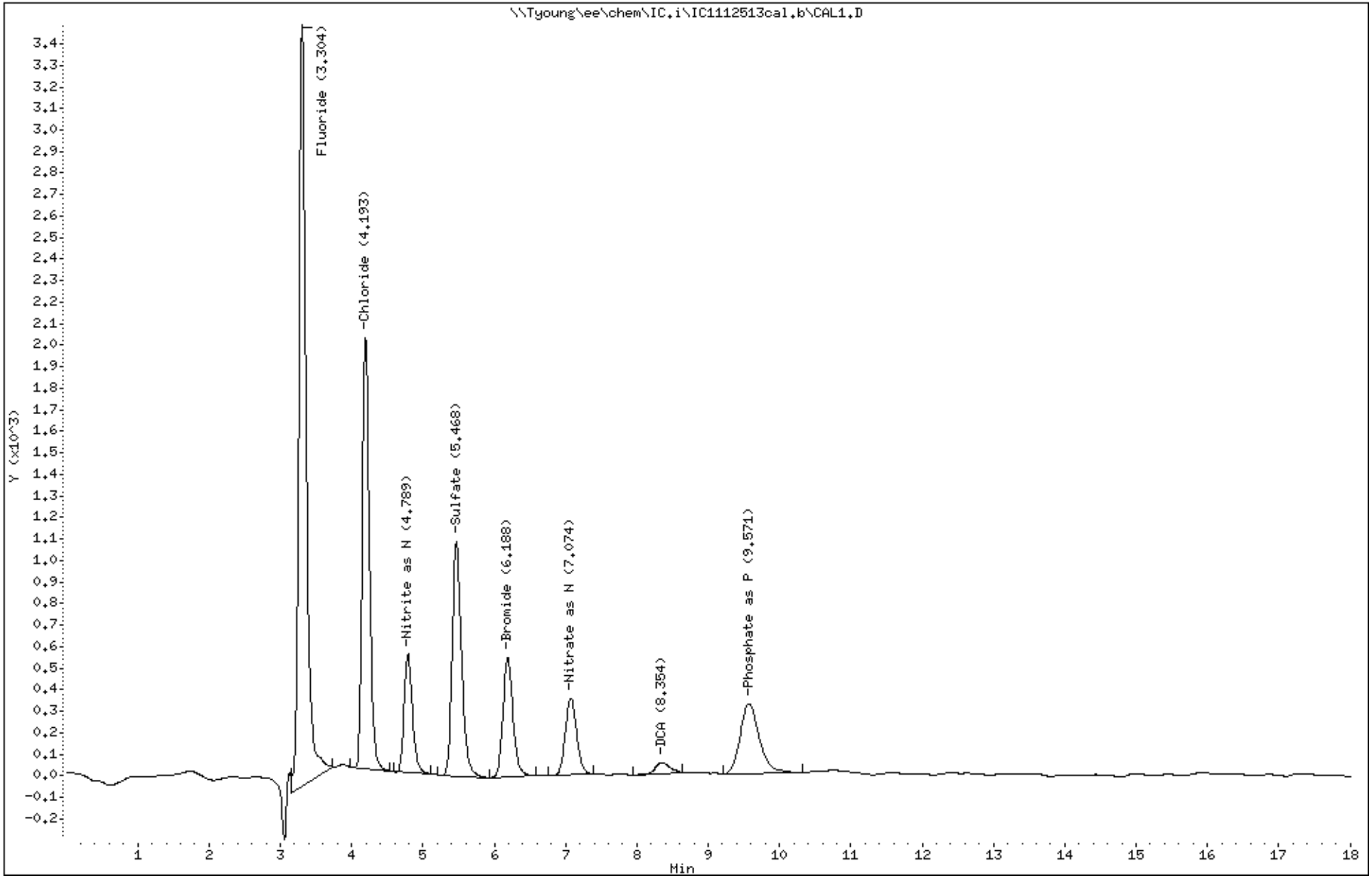
Instrument: IC.i

Sample Info: CAL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 25-NOV-2013 14:13
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:13 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.313	3.325	-0.012	110084	0.80000	0.86
T 2 Chloride	4.220	4.194	0.026	67801	0.80000	0.98
T 3 Nitrite as N	4.818	4.785	0.033	18925	0.10000	0.11
T 4 Sulfate	5.558	5.444	0.114	47616	0.80000	0.96
T 5 Bromide	6.219	6.075	0.144	26210	0.80000	0.95
T 6 Nitrate as N	7.111	6.898	0.213	20974	0.10000	0.13
T 7 DCA	8.367	8.188	0.179	9492	0.50000	0.59
T 8 Phosphate as P	9.788	8.625	1.163	36828	0.52000	0.77

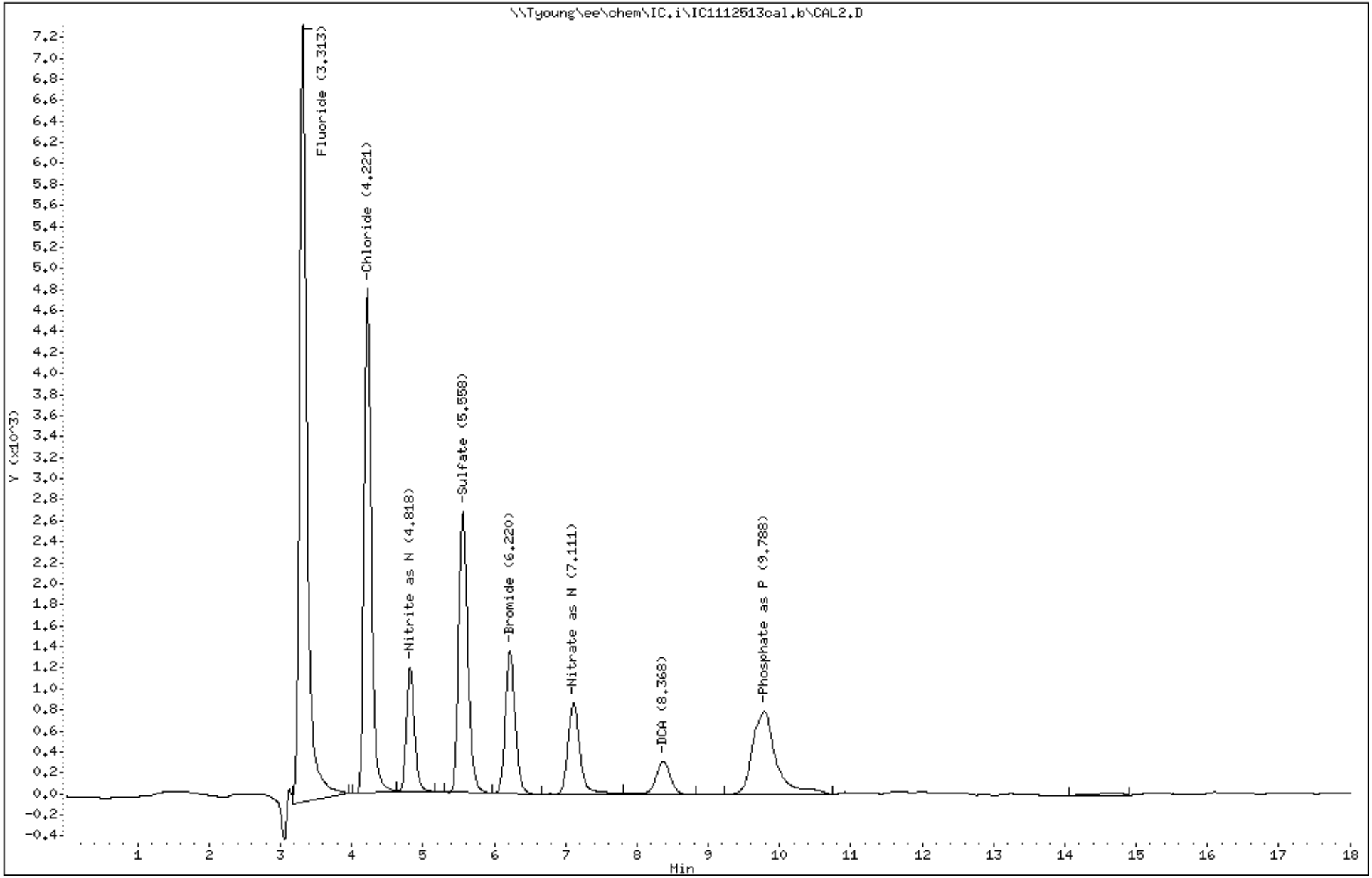
Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D
Date : 25-NOV-2013 14:13
Client ID: CAL2
Sample Info: CAL2

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 25-NOV-2013 14:35
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:35 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.302	3.325	-0.023	506998	4.00000	3.5
T 2 Chloride	4.207	4.194	0.013	324271	4.00000	3.4
T 3 Nitrite as N	4.817	4.785	0.032	99903	0.50000	0.54
T 4 Sulfate	5.579	5.444	0.135	233756	4.00000	3.5
T 5 Bromide	6.185	6.075	0.110	138199	4.00000	3.7
T 6 Nitrate as N	7.054	6.898	0.156	97600	0.50000	0.39
T 7 DCA	8.339	8.188	0.151	47723	2.50000	2.4
T 8 Phosphate as P	9.638	8.625	1.013	188427	2.59000	2.1

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D

Date : 25-NOV-2013 14:35

Client ID: CAL3

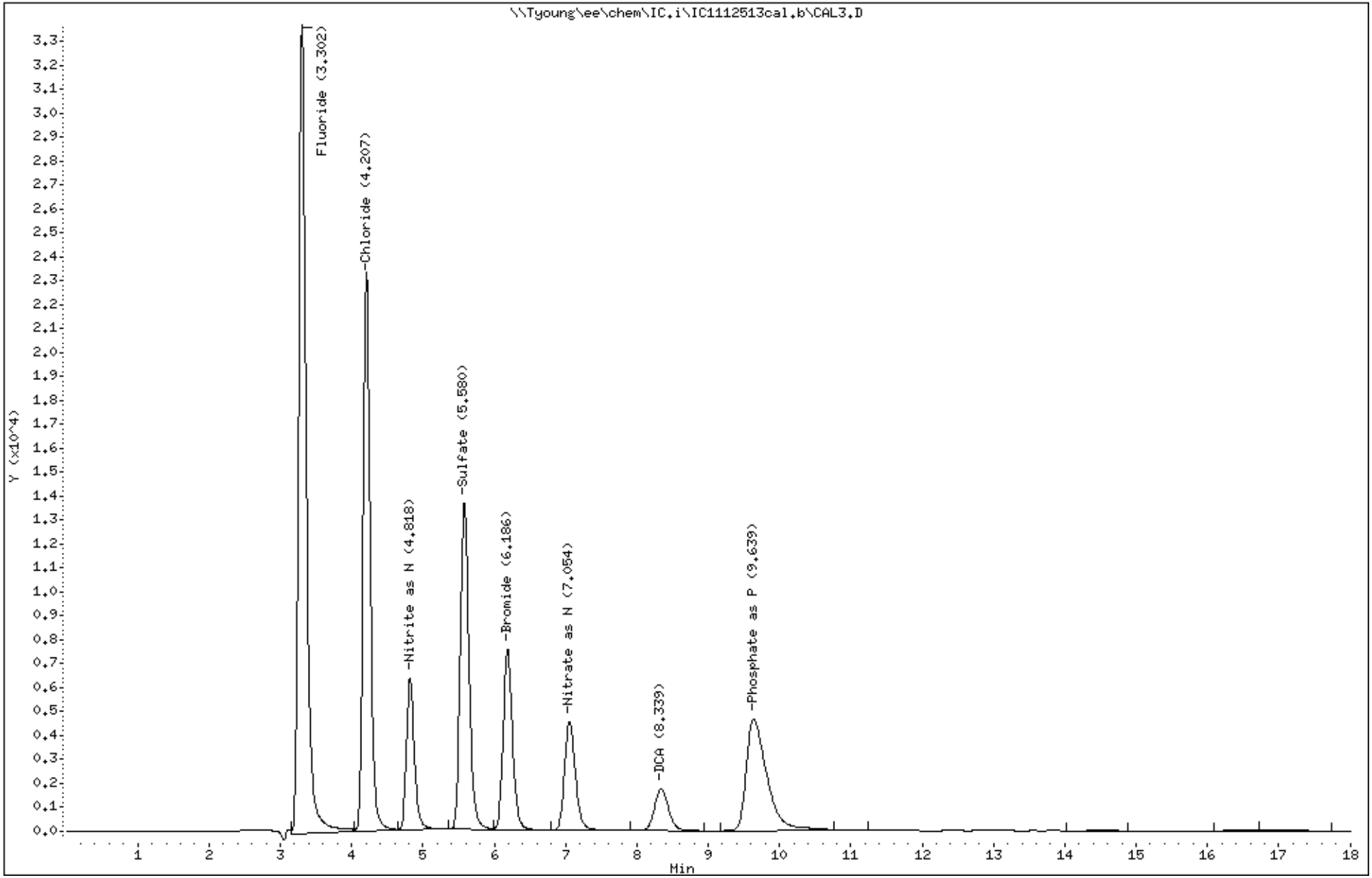
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 25-NOV-2013 14:57
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:57 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.309	3.325	-0.016	963463	8.00000	7.6
T 2 Chloride	4.219	4.194	0.025	664370	8.00000	8.2
T 3 Nitrite as N	4.824	4.785	0.039	207297	1.00000	1.1
T 4 Sulfate	5.605	5.444	0.161	484699	8.00000	8.2
T 5 Bromide	6.204	6.075	0.129	294111	8.00000	8.4
T 6 Nitrate as N	7.071	6.898	0.173	208170	1.00000	1.1
T 7 DCA	8.363	8.188	0.175	102473	5.00000	5.4
T 8 Phosphate as P	9.667	8.625	1.042	408287	5.18000	5.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D

Date : 25-NOV-2013 14:57

Client ID: CAL4

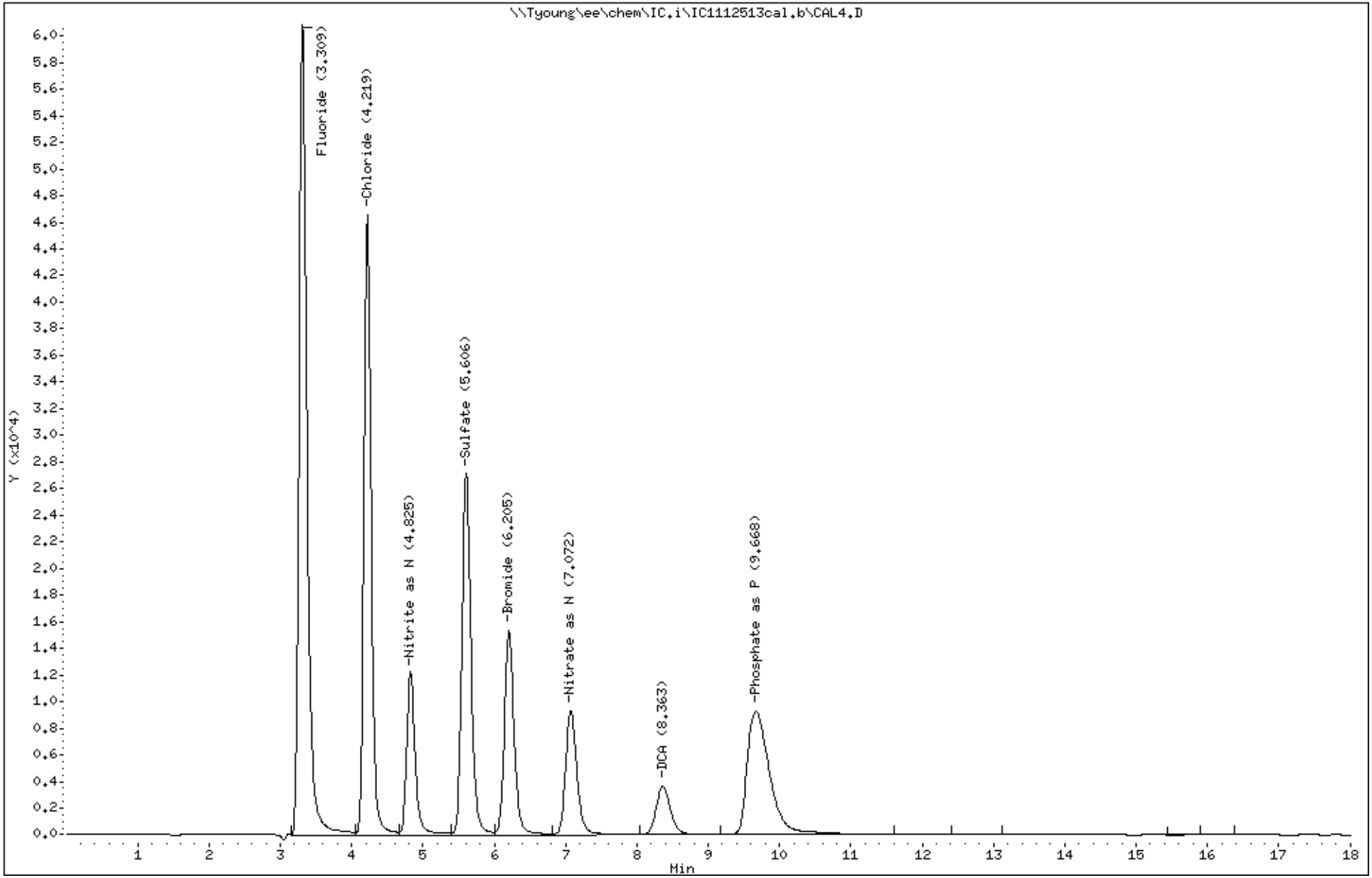
Instrument: IC.i

Sample Info: CAL4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 25-NOV-2013 15:19
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:19 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.323	3.325	-0.002	1765940	16.0000	14.6
T 2 Chloride	4.236	4.194	0.042	1313364	16.0000	15.8
T 3 Nitrite as N	4.843	4.785	0.058	404586	2.00000	2.1
T 4 Sulfate	5.600	5.444	0.156	960762	16.0000	15.9
T 5 Bromide	6.195	6.075	0.120	584132	16.0000	15.9
T 6 Nitrate as N	7.055	6.898	0.157	417736	2.00000	2.0
T 7 DCA	8.352	8.188	0.164	149871	7.00000	7.4
T 8 Phosphate as P	9.429	8.625	0.804	826525	10.3700	10.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D

Date : 25-NOV-2013 15:19

Client ID: CAL5

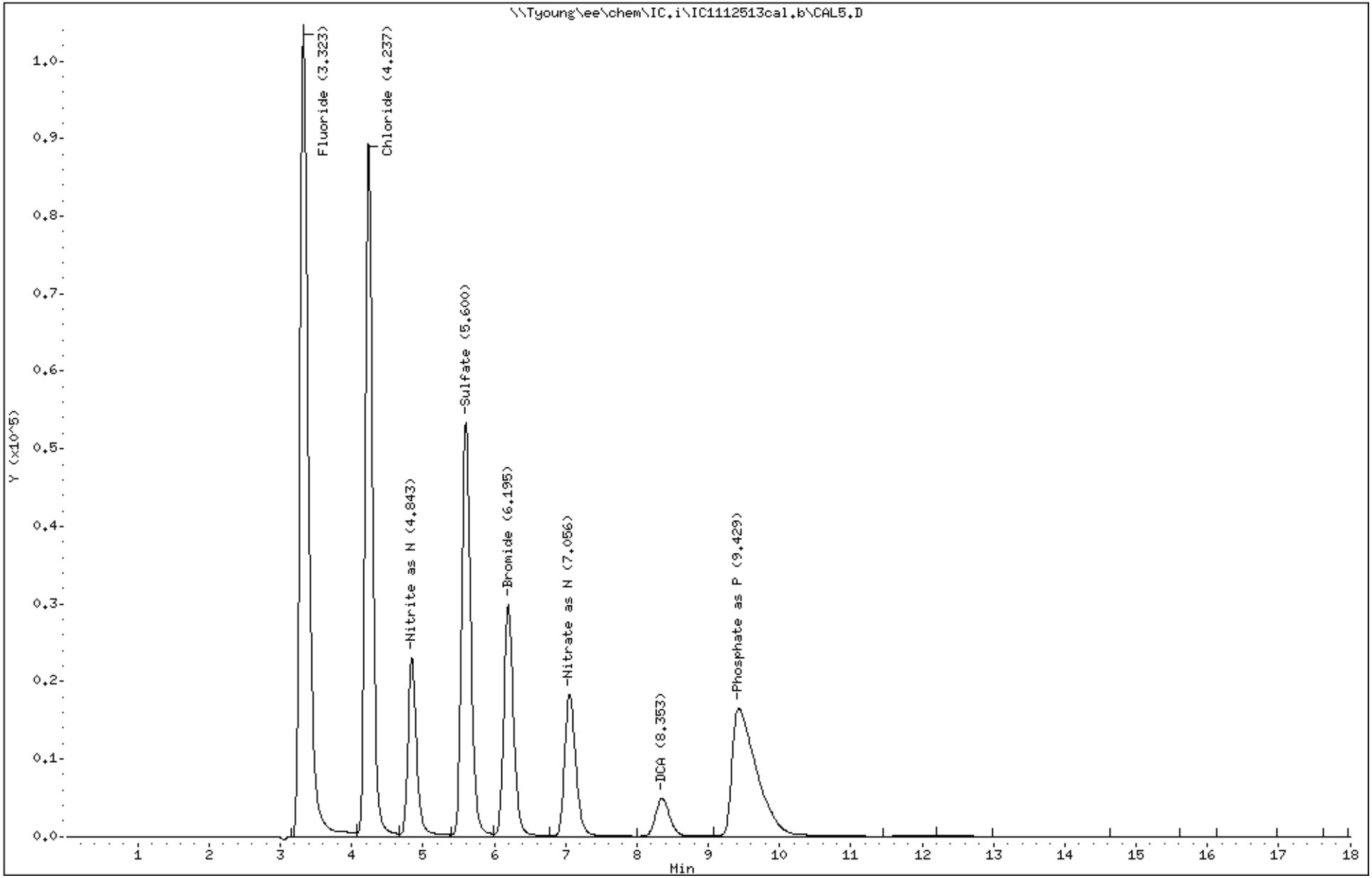
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 25-NOV-2013 15:41
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:41 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	3364776	40.0000	30.2(AM)
T 2 Chloride	4.183	4.194	-0.011	2844322	40.0000	34.6(M)
T 3 Nitrite as N	4.783	4.785	-0.002	797258	5.00000	4.1(M)
T 4 Sulfate	5.466	5.444	0.022	2078836	40.0000	34.5(M)
T 5 Bromide	6.125	6.075	0.050	1263772	40.0000	34.4(M)
T 6 Nitrate as N	6.958	6.898	0.060	896762	5.00000	4.3(M)
T 7 DCA	8.258	8.188	0.070	183443	10.0000	8.7(M)
T 8 Phosphate as P	9.033	8.625	0.408	1803781	25.9200	22.5(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D

Date : 25-NOV-2013 15:41

Client ID: CAL6

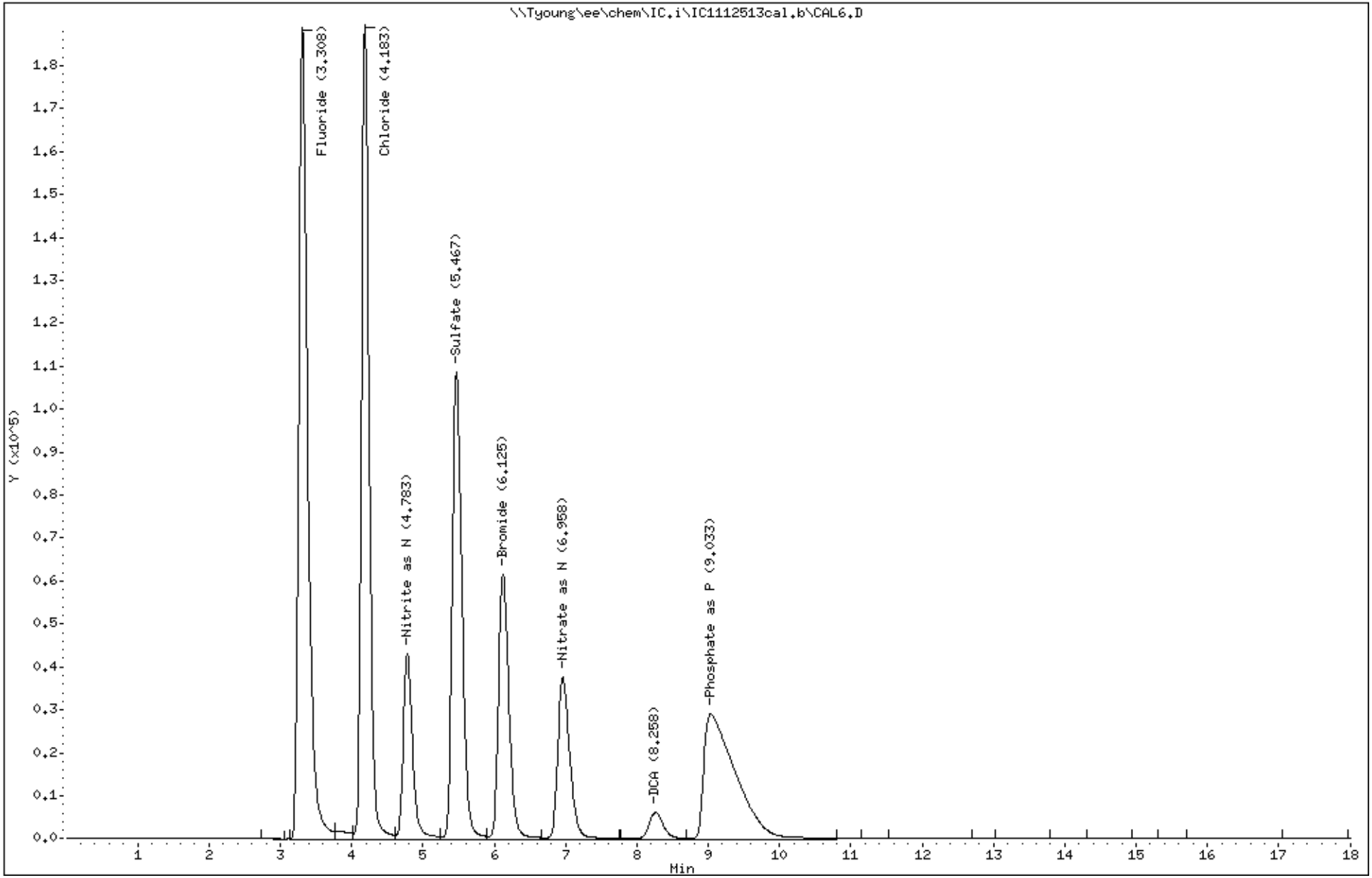
Instrument: IC.i

Sample Info: CAL6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 25-NOV-2013 16:03
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.324	3.325	-0.001	6540058	80.0000	59.1(A)
T 2 Chloride	4.194	4.194	0.000	6573560	80.0000	91.3(A)
T 3 Nitrite as N	4.785	4.785	0.000	1717450	10.0000	9.1(A)
T 4 Sulfate	5.443	5.444	-0.001	4781142	80.0000	90.8(A)
T 5 Bromide	6.075	6.075	0.000	2822591	80.0000	88.0(AM)
T 6 Nitrate as N	6.897	6.898	-0.001	2010490	10.0000	11.0(A)
T 7 DCA	8.188	8.188	0.000	283291	15.0000	13.3
T 8 Phosphate as P	8.625	8.625	0.000	3904826	51.8400	55.3(AM)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

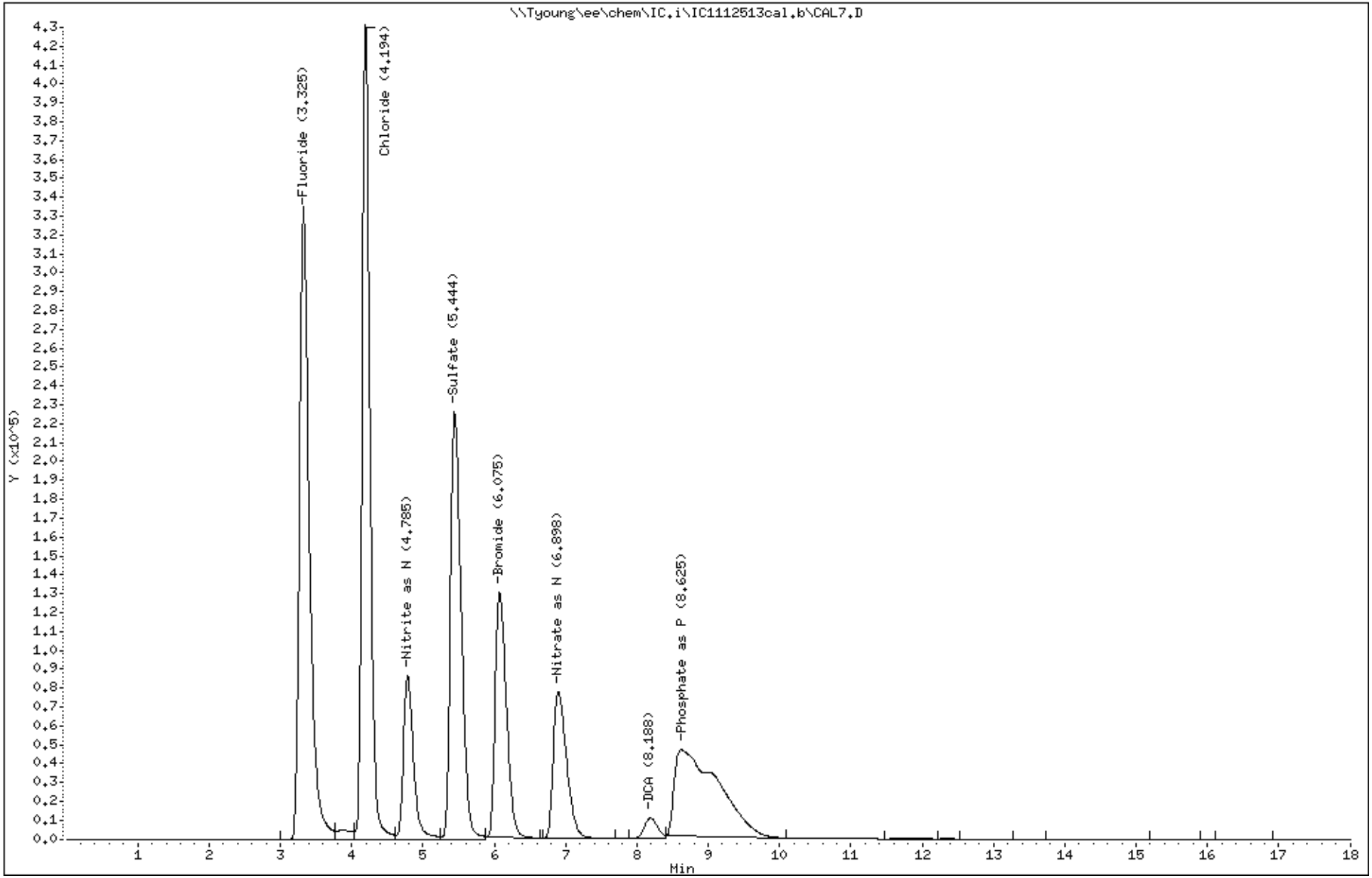
Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D
Date : 25-NOV-2013 16:03
Client ID: CAL7
Sample Info: CAL7

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICV2.D
Lab Smp Id: 112513ICV2 Client Smp ID: 112513ICV2
Inj Date : 26-NOV-2013 09:26
Operator : TR Inst ID: IC.i
Smp Info : 112513ICV2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.325	3.325	0.000	955168	8.34418	8.3(M)
T 2 Chloride	4.233	4.194	0.039	659725	8.61252	8.6(M)
T 3 Nitrite as N	4.841	4.785	0.056	191701	1.02628	1.0(M)
T 4 Sulfate	5.641	5.444	0.197	477915	8.55411	8.6(M)
T 5 Bromide	6.216	6.075	0.141	280803	8.29476	8.3(M)
T 6 Nitrate as N	7.091	6.898	0.193	198454	1.02940	1.0(M)
T 7 DCA	8.396	8.372	0.024	98110	4.69606	4.7
T 8 Phosphate as P	9.741	9.308	0.433	377732	5.12057	5.1(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICV2.D

Date : 26-NOV-2013 09:26

Client ID: 112513ICV2

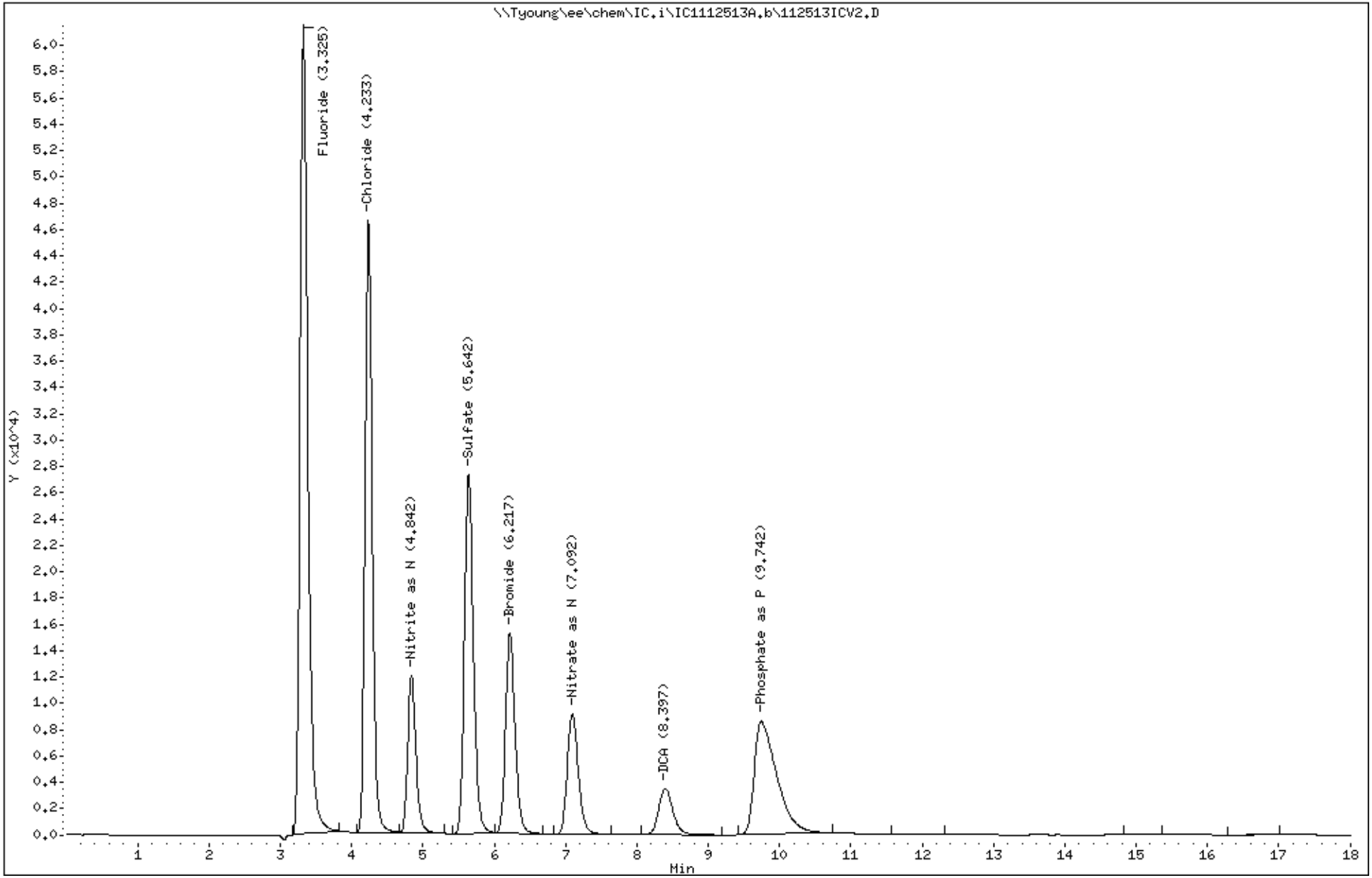
Instrument: IC.i

Sample Info: 112513ICV2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICB2.D
Lab Smp Id: 112513ICB2 Client Smp ID: 112513ICB2
Inj Date : 26-NOV-2013 09:48
Operator : TR Inst ID: IC.i
Smp Info : 112513ICB2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.224	4.194	0.030	4775	0.52161	0.52
T 4 Sulfate	5.654	5.444	0.210	661	0.45173	0.45
T 6 Nitrate as N	7.118	6.898	0.220	3813	0.04827	0.048
T 7 DCA	8.381	8.372	0.009	94817	4.54222	4.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICB2.D

Date : 26-NOV-2013 09:48

Client ID: 112513ICB2

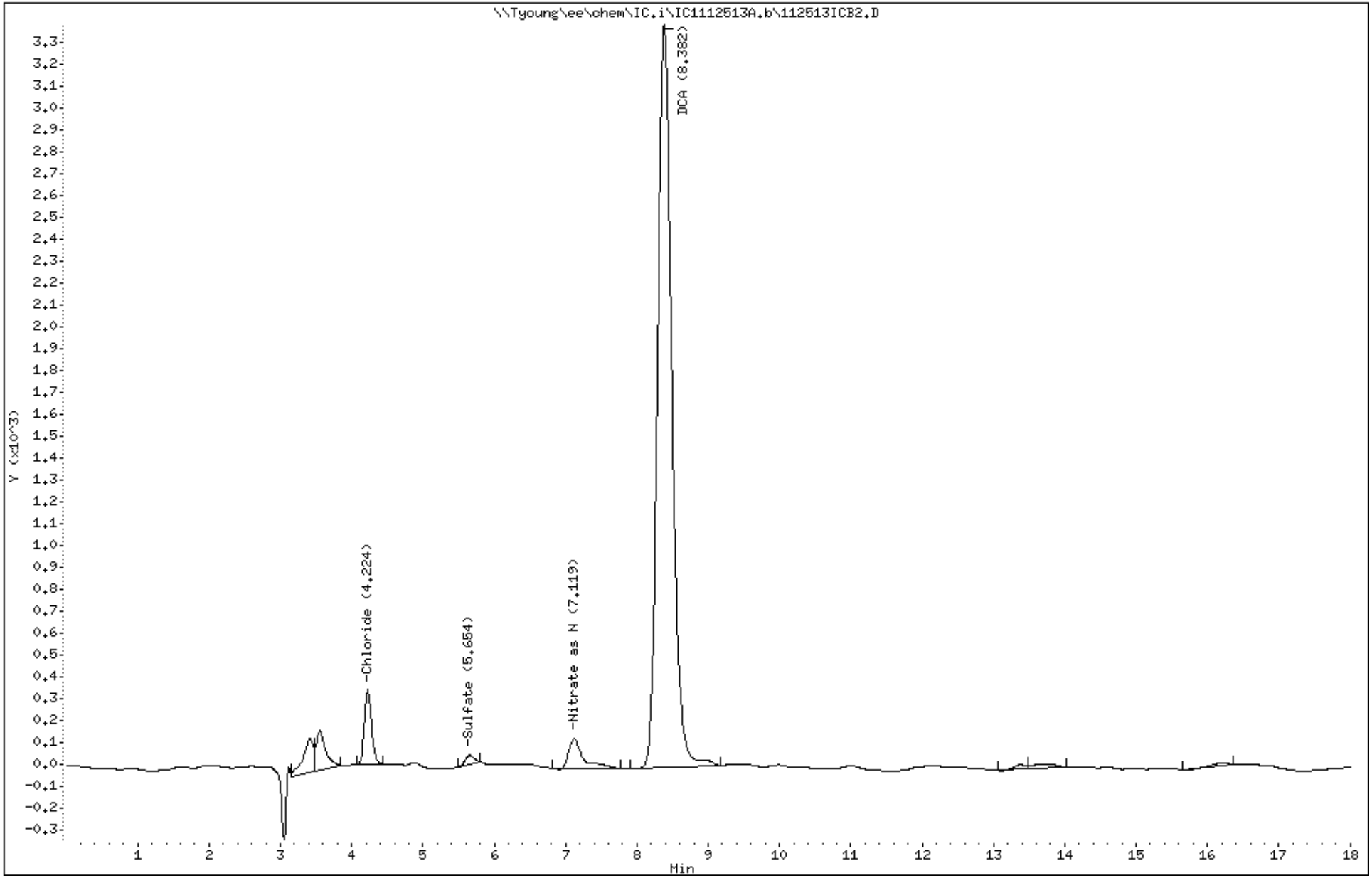
Instrument: IC.i

Sample Info: 112513ICB2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513MB2.D
Lab Smp Id: 112513MB2 Client Smp ID: 112513MB2
Inj Date : 26-NOV-2013 10:10
Operator : TR Inst ID: IC.i
Smp Info : 112513MB2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.227	4.194	0.033	4563	0.51899	0.52
T 4 Sulfate	5.670	5.444	0.226	787	0.45387	0.45
T 6 Nitrate as N	7.114	6.898	0.216	2740	0.04286	0.043
T 7 DCA	8.385	8.372	0.013	97393	4.66256	4.7

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513MB2.D

Date : 26-NOV-2013 10:10

Client ID: 112513MB2

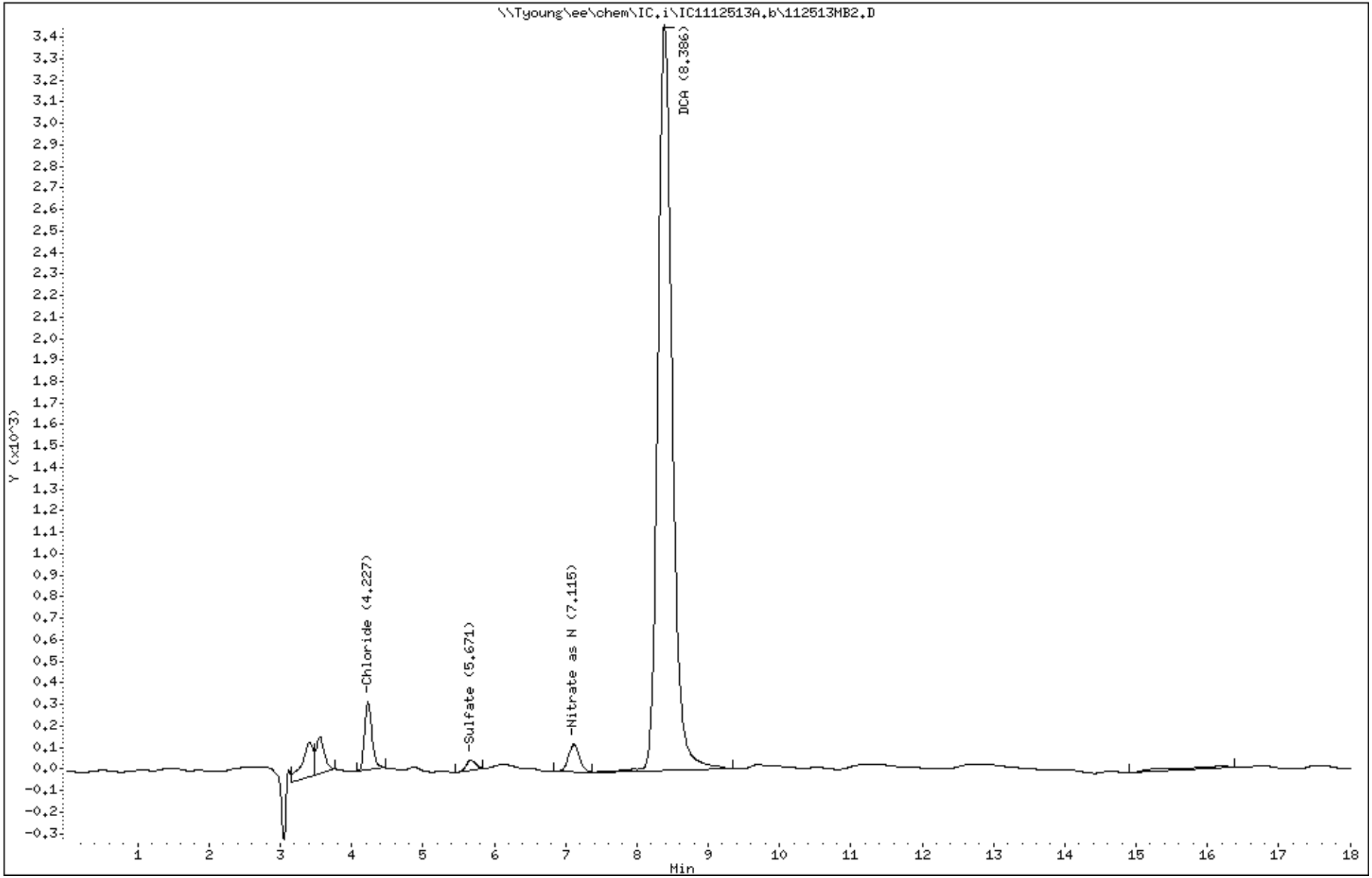
Instrument: IC.i

Sample Info: 112513MB2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCS2.D
Lab Smp Id: 112513LCS2 Client Smp ID: 112513LCS2
Inj Date : 26-NOV-2013 12:17
Operator : TR Inst ID: IC.i
Smp Info : 112513LCS2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.317	3.325	-0.008	981405	8.58250	8.6
T 2 Chloride	4.221	4.194	0.027	686765	8.94655	8.9
T 3 Nitrite as N	4.825	4.785	0.040	191140	1.02328	1.0
T 4 Sulfate	5.595	5.444	0.151	488556	8.73476	8.7
T 5 Bromide	6.201	6.075	0.126	294727	8.69452	8.7
T 6 Nitrate as N	7.056	6.898	0.158	219091	1.13343	1.1
T 7 DCA	8.334	8.372	-0.038	98685	4.72292	4.7
T 8 Phosphate as P	9.465	9.308	0.157	400630	5.42761	5.4

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCS2.D

Date : 26-NOV-2013 12:17

Client ID: 112513LCS2

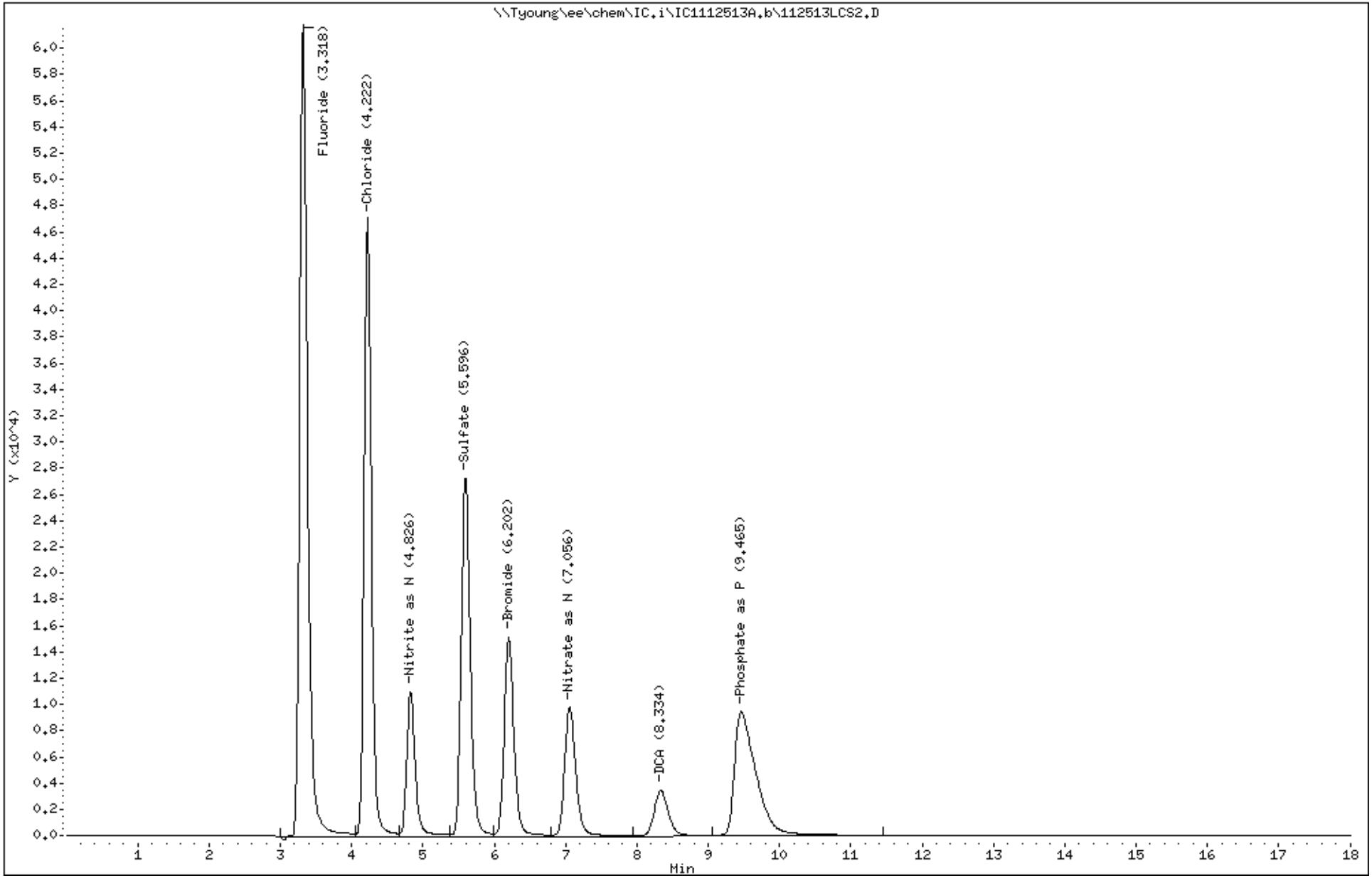
Instrument: IC.i

Sample Info: 112513LCS2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCSD2.D
Lab Smp Id: 112513LCSD2 Client Smp ID: 112513LCSD2
Inj Date : 26-NOV-2013 12:39
Operator : TR Inst ID: IC.i
Smp Info : 112513LCSD2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.320	3.325	-0.005	952658	8.32138	8.3
T 2 Chloride	4.218	4.194	0.024	667399	8.70732	8.7
T 3 Nitrite as N	4.818	4.785	0.033	187295	1.00269	1.0
T 4 Sulfate	5.562	5.444	0.118	472351	8.45965	8.4
T 5 Bromide	6.184	6.075	0.109	286983	8.47219	8.5
T 6 Nitrate as N	7.040	6.898	0.142	213666	1.10608	1.1
T 7 DCA	8.323	8.372	-0.049	98014	4.69157	4.7
T 8 Phosphate as P	9.465	9.308	0.157	391999	5.31188	5.3

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCSD2.D

Date : 26-NOV-2013 12:39

Client ID: 112513LCSD2

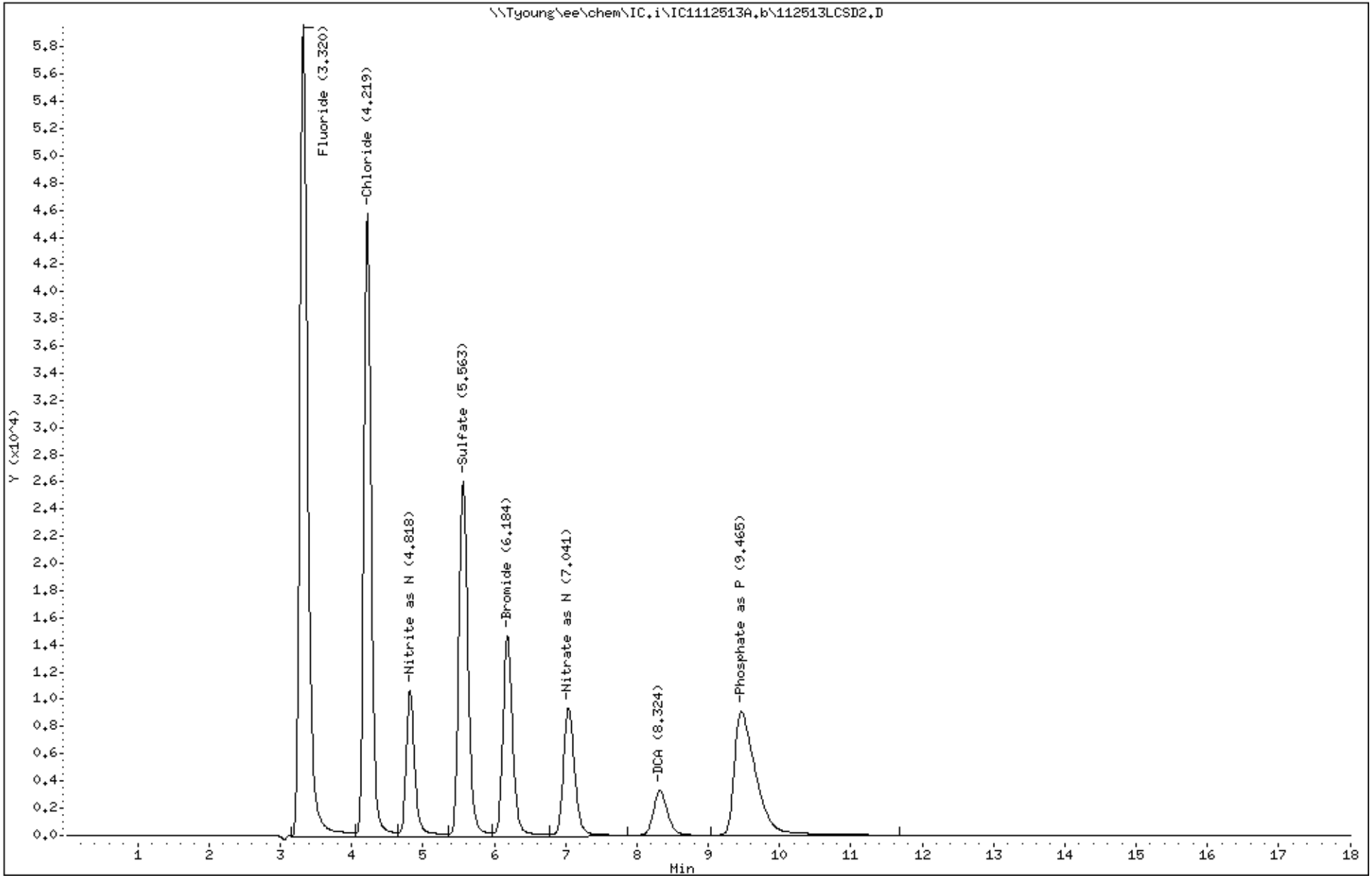
Instrument: IC.i

Sample Info: 112513LCSD2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100902DL2.D
Lab Smp Id: 351100902DL2 Client Smp ID: SMSMW02A
Inj Date : 26-NOV-2013 14:07
Operator : TR Inst ID: IC.i
Smp Info : 351100902DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1000.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.220	4.194	0.026	3589067	44.8001	44800
T 4 Sulfate	5.625	5.444	0.181	66098	1.56266	1560
T 6 Nitrate as N	7.104	6.898	0.206	1350	0.03585	35.8
T 7 DCA	8.372	8.372	0.000	94406	4.52301	4520

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100902DL2.D

Date : 26-NOV-2013 14:07

Client ID: SMSMW02A

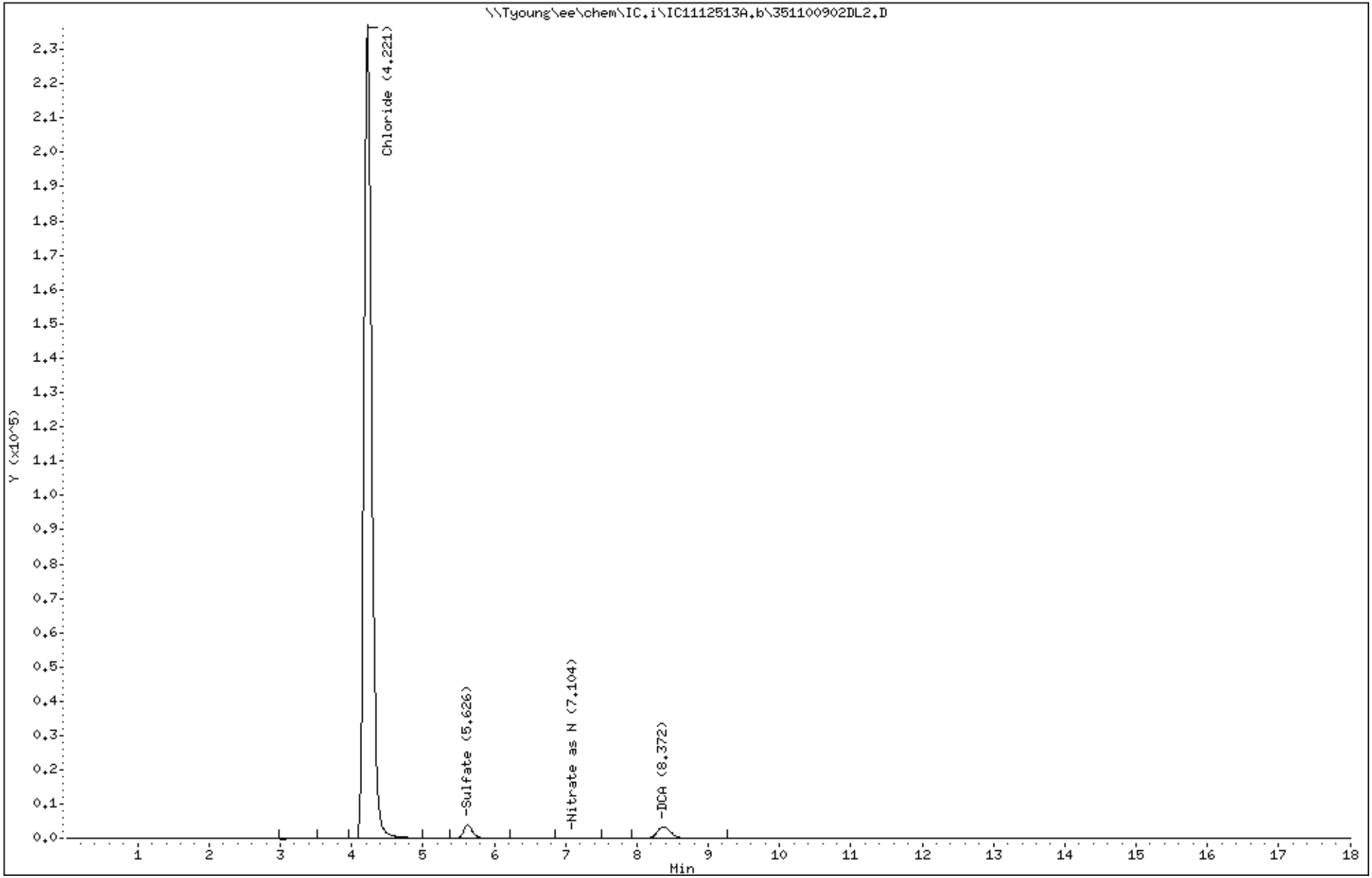
Instrument: IC.i

Sample Info: 351100902DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100903DL1.D
Lab Smp Id: 351100903DL1 Client Smp ID: SMSMW07B
Inj Date : 26-NOV-2013 14:29
Operator : TR Inst ID: IC.i
Smp Info : 351100903DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 25.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.282	3.325	-0.043	42951	0.05828	1.4
T 2 Chloride	4.175	4.194	-0.019	65785835	813.146	20300(AM)
T 3 Nitrite as N	5.025	4.785	0.240	16707	0.08944	2.2(M)
T 4 Sulfate	5.458	5.444	0.014	2659075	45.5838	1140(M)
T 5 Bromide	6.120	6.075	0.045	1811	0.28488	7.1
T 6 Nitrate as N	7.003	6.898	0.105	78627	0.42538	10.6
T 7 DCA	8.266	8.372	-0.106	101948	4.87537	122(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100903DL1.D

Date : 26-NOV-2013 14:29

Client ID: SMSMW07B

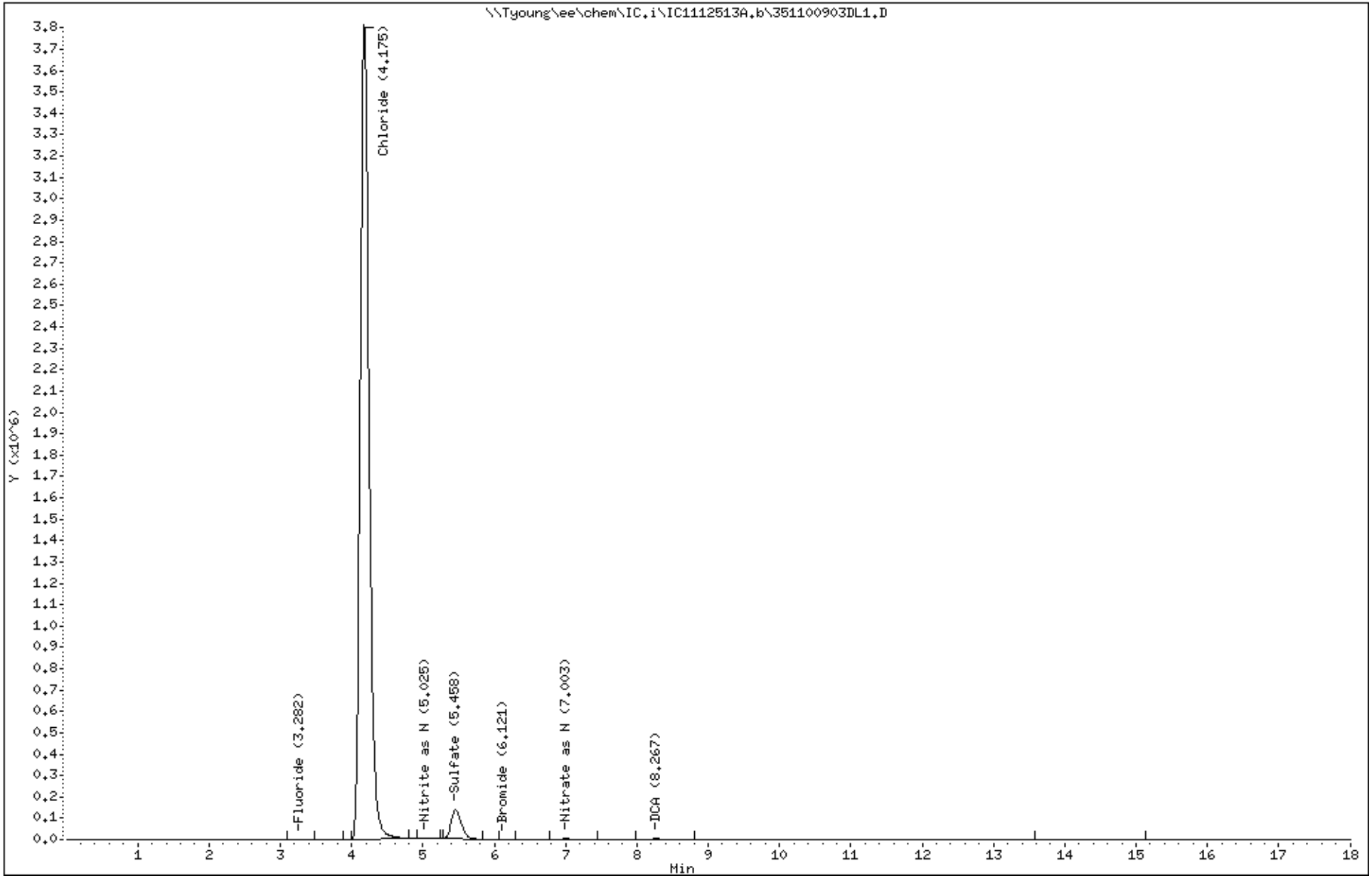
Instrument: IC.i

Sample Info: 351100903DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



195

3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV5.D
Lab Smp Id: 112513CCV5 Client Smp ID: 112513CCV5
Inj Date : 26-NOV-2013 14:51
Operator : TR Inst ID: IC.i
Smp Info : 112513CCV5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.308	3.325	-0.017	958971	8.37872	8.4(M)
T 2 Chloride	4.200	4.194	0.006	667971	8.71438	8.7(M)
T 3 Nitrite as N	4.783	4.785	-0.002	172733	0.92474	0.92(M)
T 4 Sulfate	5.483	5.444	0.039	475619	8.51513	8.5(M)
T 5 Bromide	6.150	6.075	0.075	278182	8.21951	8.2(M)
T 6 Nitrate as N	7.000	6.898	0.102	207793	1.07648	1.1(M)
T 7 DCA	8.283	8.372	-0.089	98092	4.69522	4.7(M)
T 8 Phosphate as P	9.387	9.308	0.079	400686	5.42836	5.4

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV5.D

Date : 26-NOV-2013 14:51

Client ID: 112513CCV5

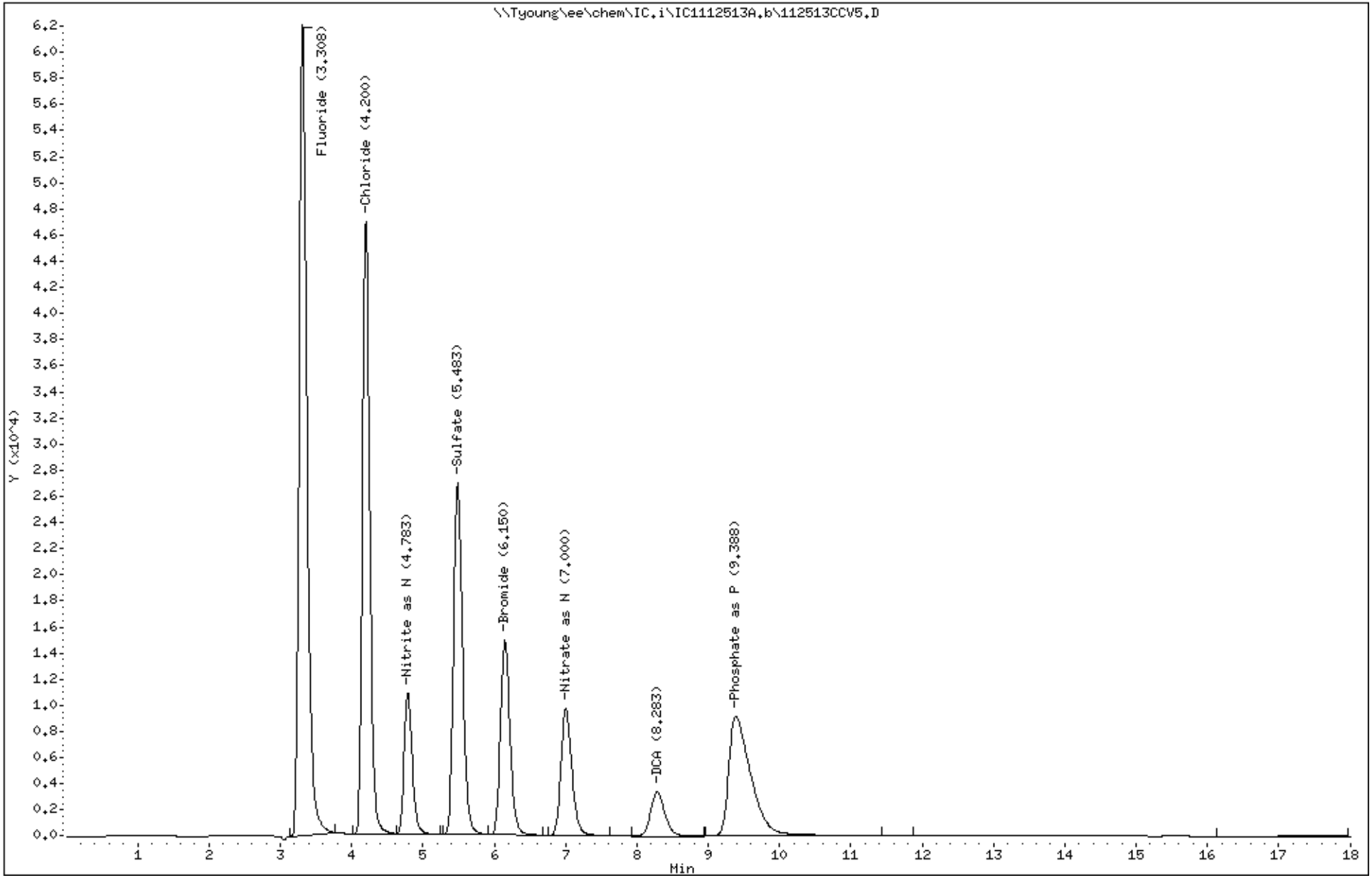
Instrument: IC.i

Sample Info: 112513CCV5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB5.D
Lab Smp Id: 112513CCB5 Client Smp ID: 112513CCB5
Inj Date : 26-NOV-2013 15:13
Operator : TR Inst ID: IC.i
Smp Info : 112513CCB5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.216	4.194	0.022	4528	0.51856	0.52
T 3 Nitrite as N	4.845	4.785	0.060	1268	0.00679	0.0068
T 4 Sulfate	5.560	5.444	0.116	818	0.45439	0.45
T 6 Nitrate as N	7.050	6.898	0.152	2864	0.04348	0.043
T 7 DCA	8.281	8.372	-0.091	97000	4.64420	4.6

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB5.D

Date : 26-NOV-2013 15:13

Client ID: 112513CCB5

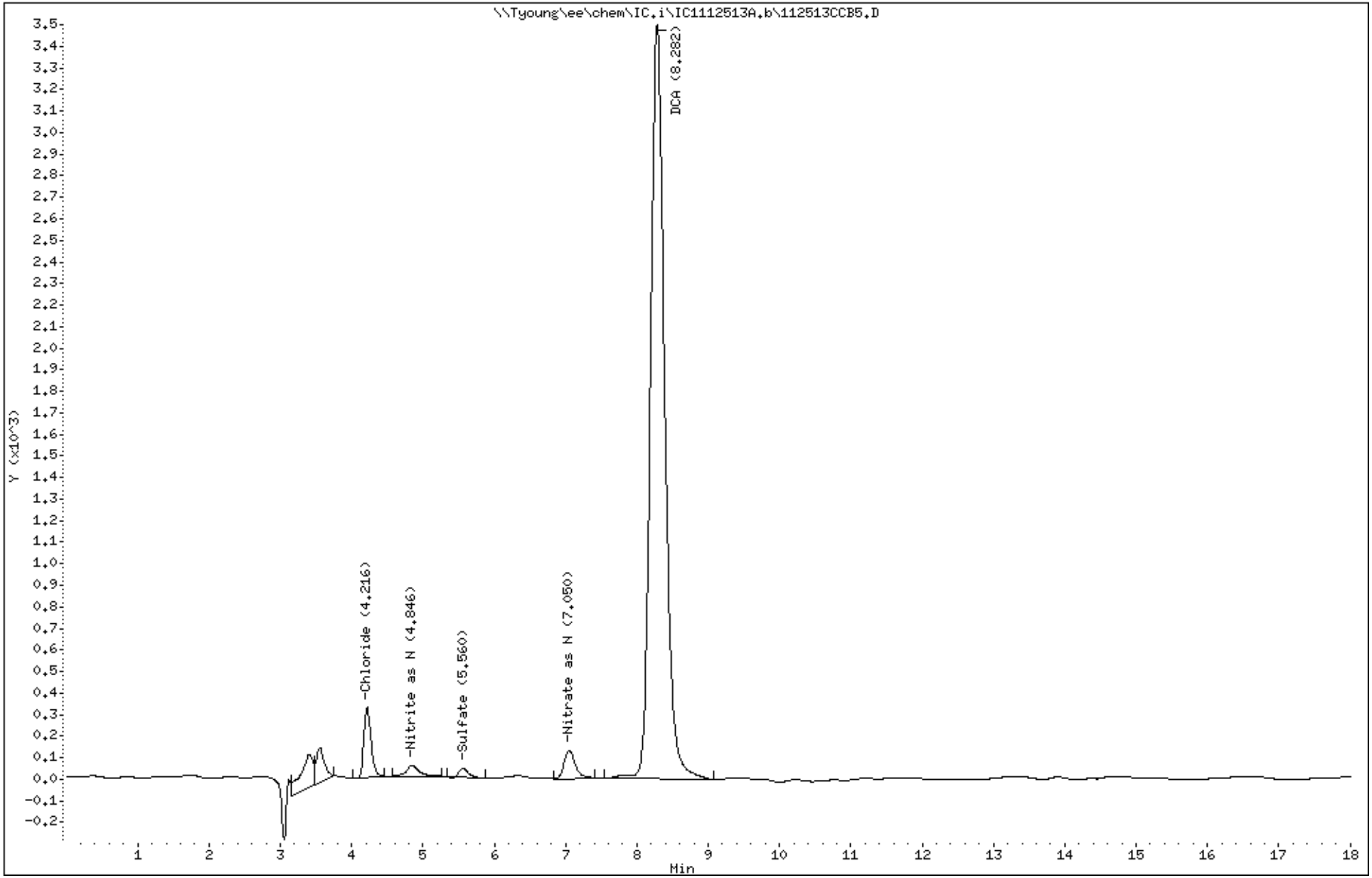
Instrument: IC.i

Sample Info: 112513CCB5

Operator: TR

Column phase: AS18

Column diameter: 4.00



199

3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100903DL2.D
Lab Smp Id: 351100903DL2 Client Smp ID: SMSMW07B
Inj Date : 26-NOV-2013 15:35
Operator : TR Inst ID: IC.i
Smp Info : 351100903DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 500.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.207	4.194	0.013	3878364	48.3739	24200
T 4 Sulfate	5.553	5.444	0.109	144232	2.88914	1440
T 6 Nitrate as N	7.065	6.898	0.167	4190	0.05017	25.1
T 7 DCA	8.328	8.372	-0.044	97013	4.64481	2320

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100903DL2.D

Date : 26-NOV-2013 15:35

Client ID: SMSMW07B

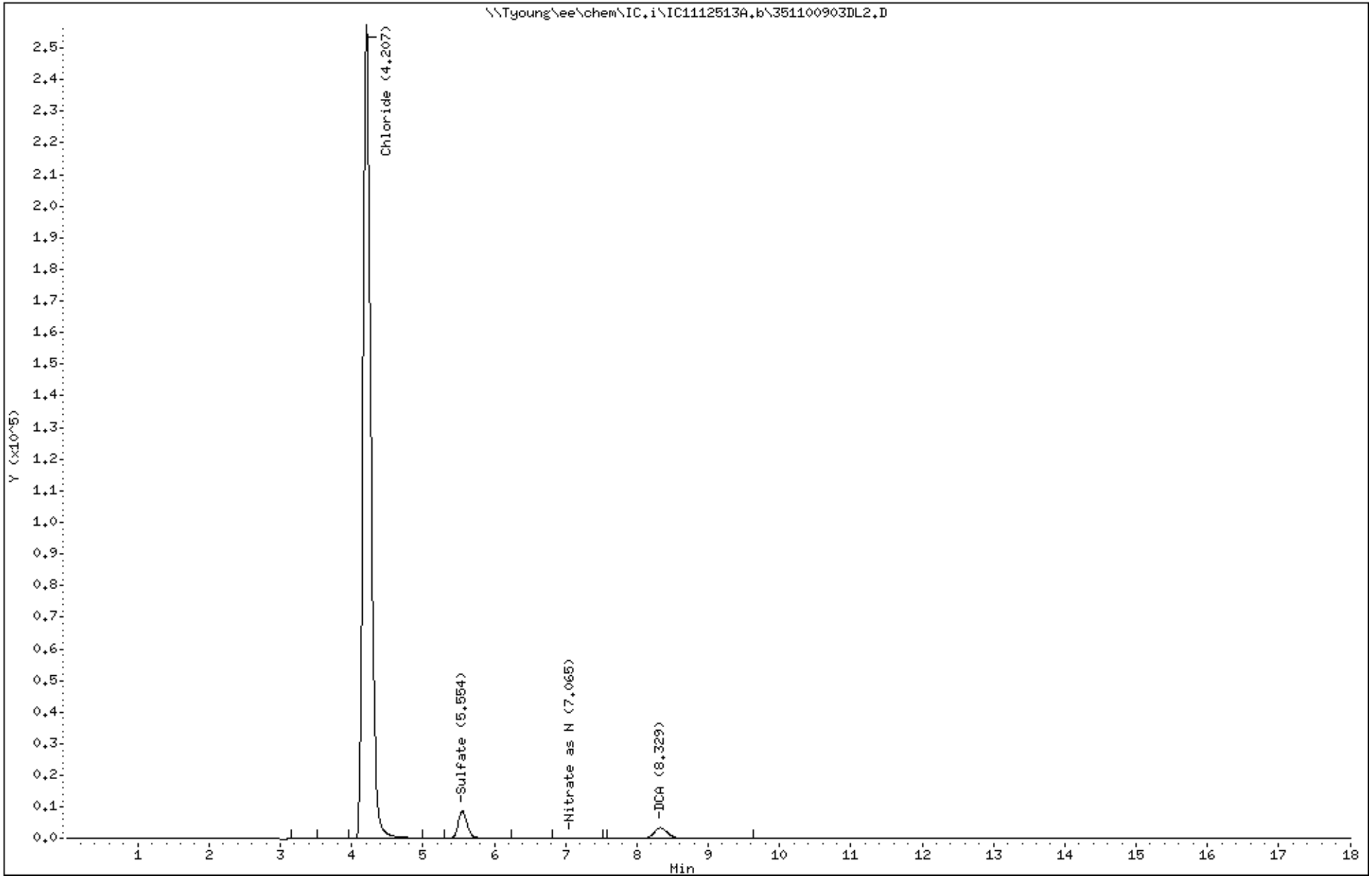
Instrument: IC.i

Sample Info: 351100903DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100904DL1.D
Lab Smp Id: 351100904DL1 Client Smp ID: SMSMW08A
Inj Date : 26-NOV-2013 15:57
Operator : TR Inst ID: IC.i
Smp Info : 351100904DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 25.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.316	3.325	-0.009	882098	7.68047	192(M)
T 2 Chloride	4.216	4.194	0.022	6284391	78.0967	1950(M)
T 4 Sulfate	5.567	5.444	0.123	176840	3.44273	86.1
T 7 DCA	8.316	8.372	-0.056	98410	4.71008	118(M)
T 8 Phosphate as P	9.650	9.308	0.342	2009	0.08246	2.1

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100904DL1.D

Date : 26-NOV-2013 15:57

Client ID: SMSMW08A

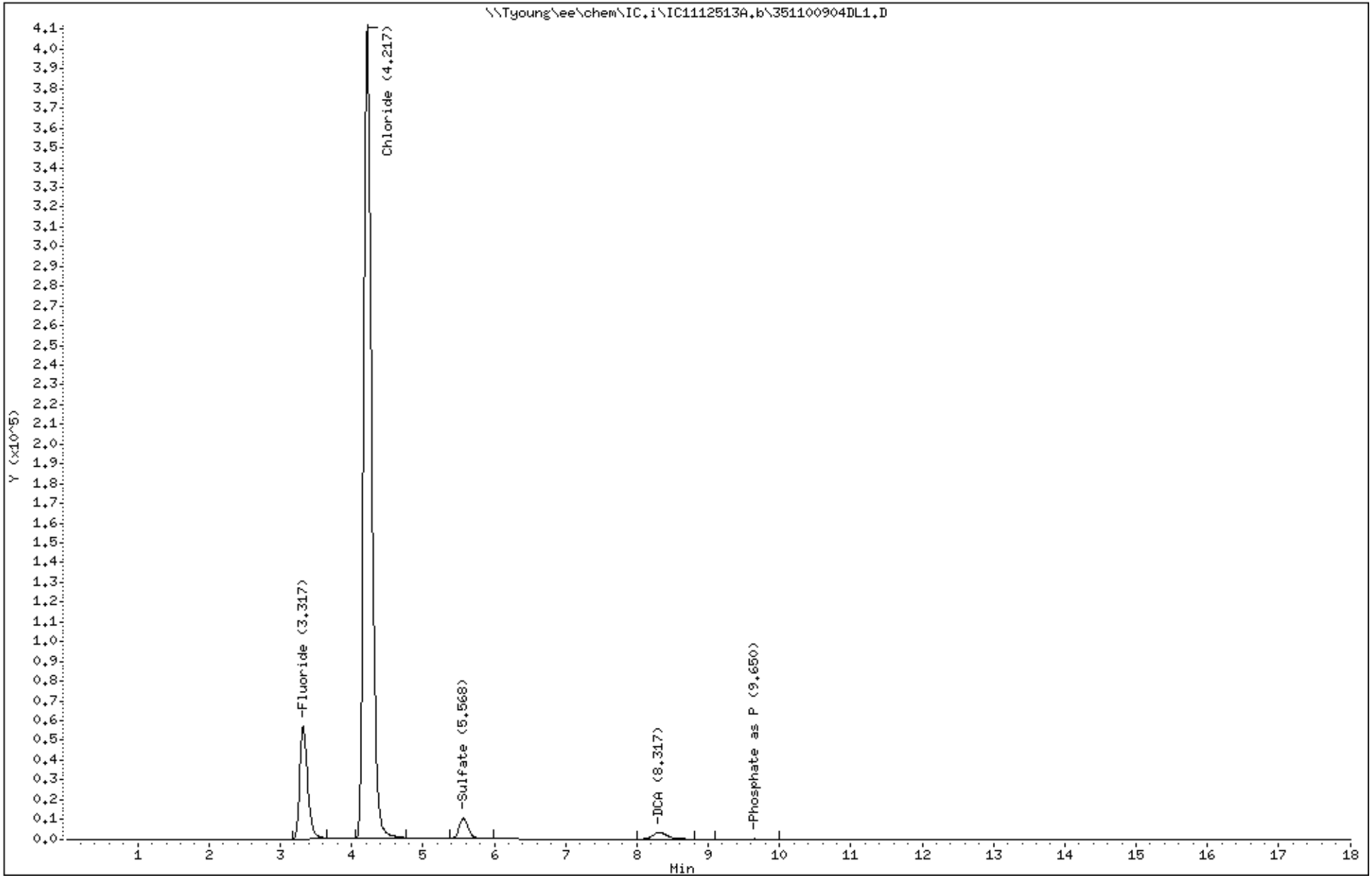
Instrument: IC.i

Sample Info: 351100904DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100904DL2.D
Lab Smp Id: 351100904DL2 Client Smp ID: SMSMW08A
Inj Date : 26-NOV-2013 16:19
Operator : TR Inst ID: IC.i
Smp Info : 351100904DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 50.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.306	3.325	-0.019	485907	4.08176	204
T 2 Chloride	4.212	4.194	0.018	3256155	40.6874	2030
T 3 Nitrite as N	4.837	4.785	0.052	25064	0.13418	6.7
T 4 Sulfate	5.544	5.444	0.100	99572	2.13095	106
T 7 DCA	8.308	8.372	-0.064	95728	4.58478	229(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100904DL2.D

Date : 26-NOV-2013 16:19

Client ID: SMSMW08A

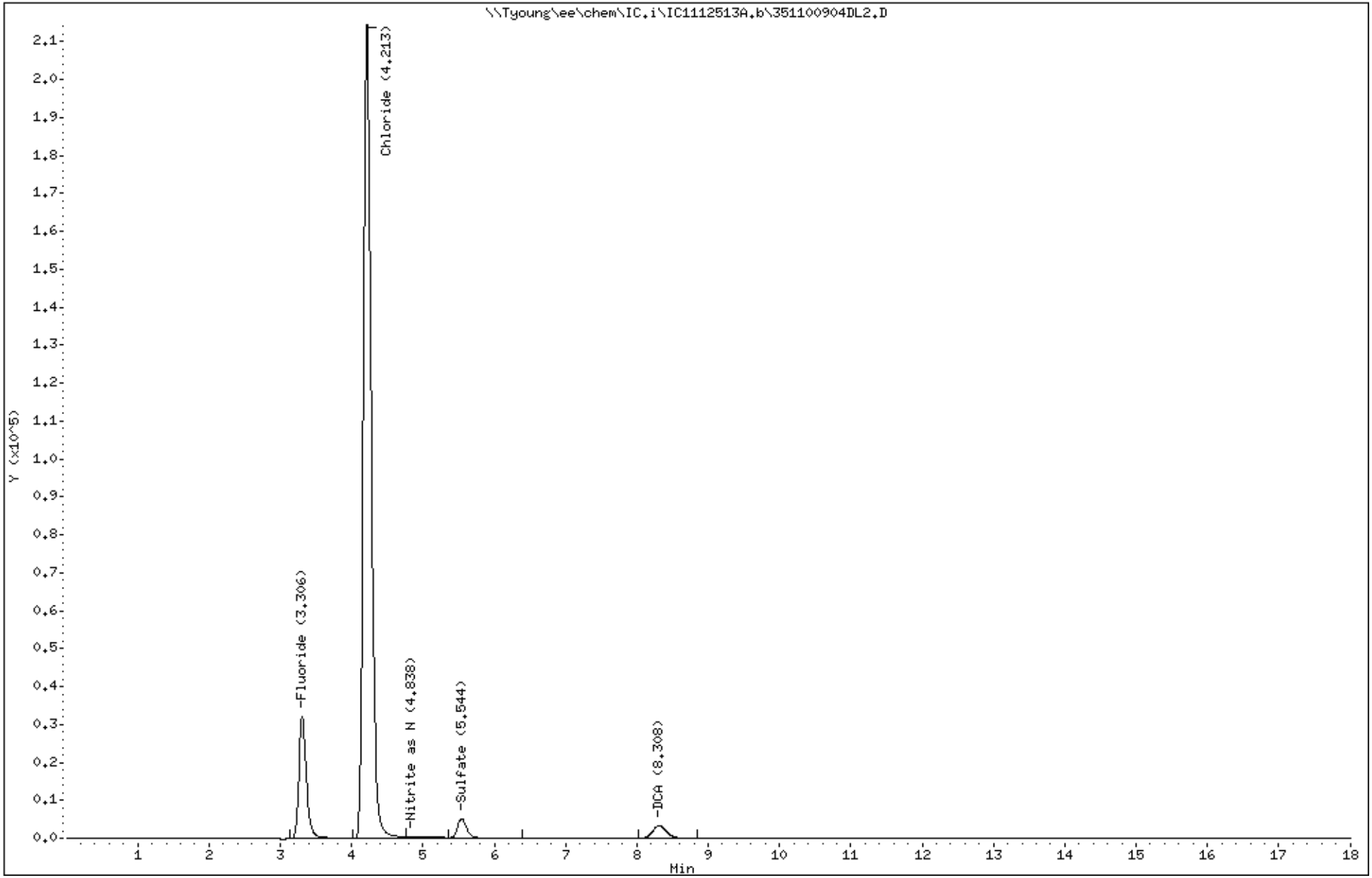
Instrument: IC.i

Sample Info: 351100904DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100906DL1.D
Lab Smp Id: 351100906DL1 Client Smp ID: SMSSW14
Inj Date : 26-NOV-2013 16:40
Operator : TR Inst ID: IC.i
Smp Info : 351100906DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.215	4.194	0.021	1000814	12.8261	128
T 3 Nitrite as N	4.867	4.785	0.082	12385	0.06630	0.66
T 4 Sulfate	5.602	5.444	0.158	96120	2.07234	20.7
T 6 Nitrate as N	7.100	6.898	0.202	15245	0.10589	1.0
T 7 DCA	8.358	8.372	-0.014	94821	4.54240	45.4(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100906DL1.D

Date : 26-NOV-2013 16:40

Client ID: SMSSW14

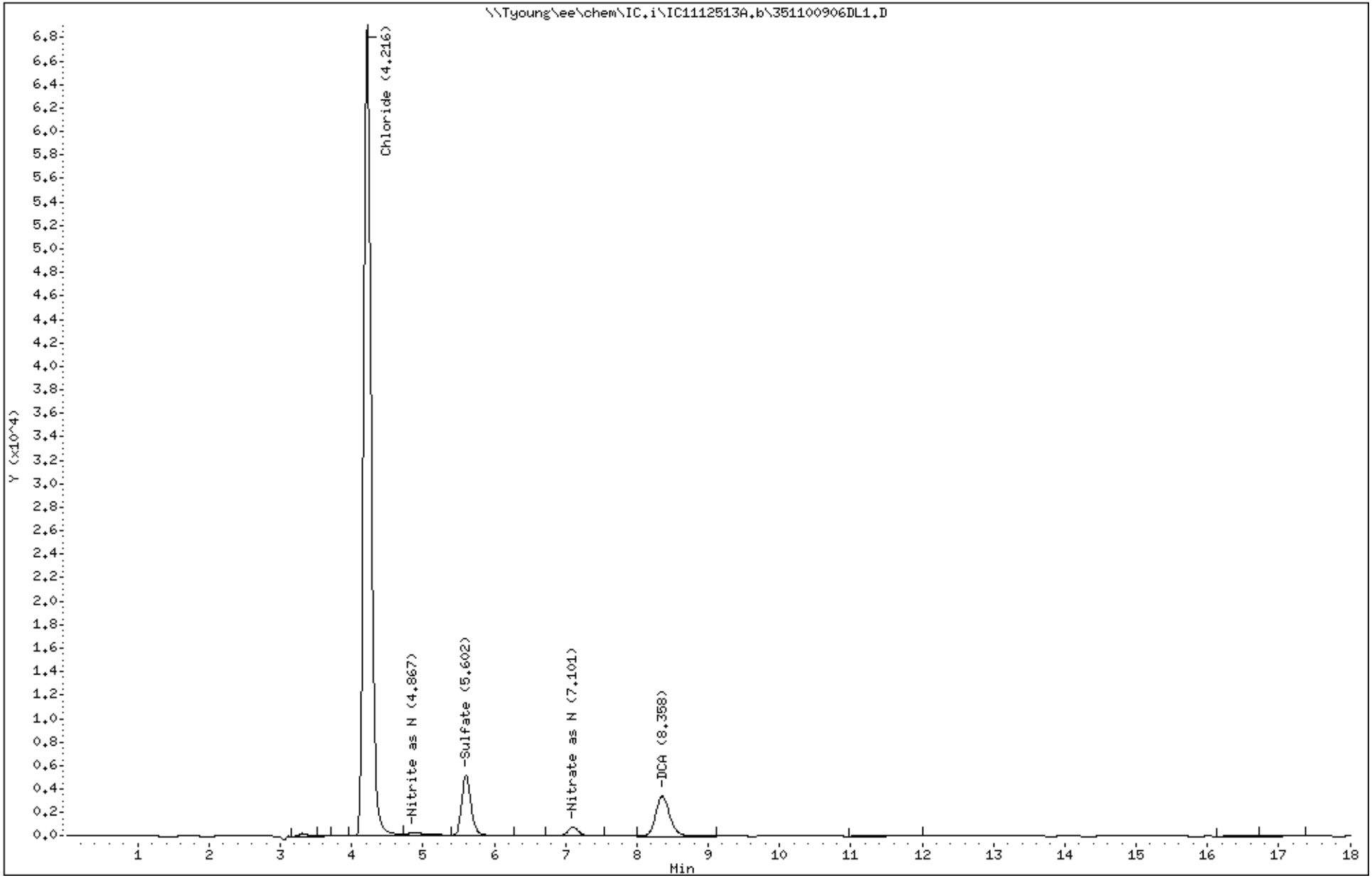
Instrument: IC.i

Sample Info: 351100906DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100901DL1.D
Lab Smp Id: 351100901DL1 Client Smp ID: SMSMW02A
Inj Date : 26-NOV-2013 18:08
Operator : TR Inst ID: IC.i
Smp Info : 351100901DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 25.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.316	3.325	-0.009	1151825	10.1305	253(M)
T 2 Chloride	4.206	4.194	0.012	8161651	101.287	2530(A)
T 5 Bromide	6.191	6.075	0.116	417	0.24486	6.1
T 7 DCA	8.350	8.372	-0.022	105455	5.03921	126(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100901DL1.D

Date : 26-NOV-2013 18:08

Client ID: SMSMW02A

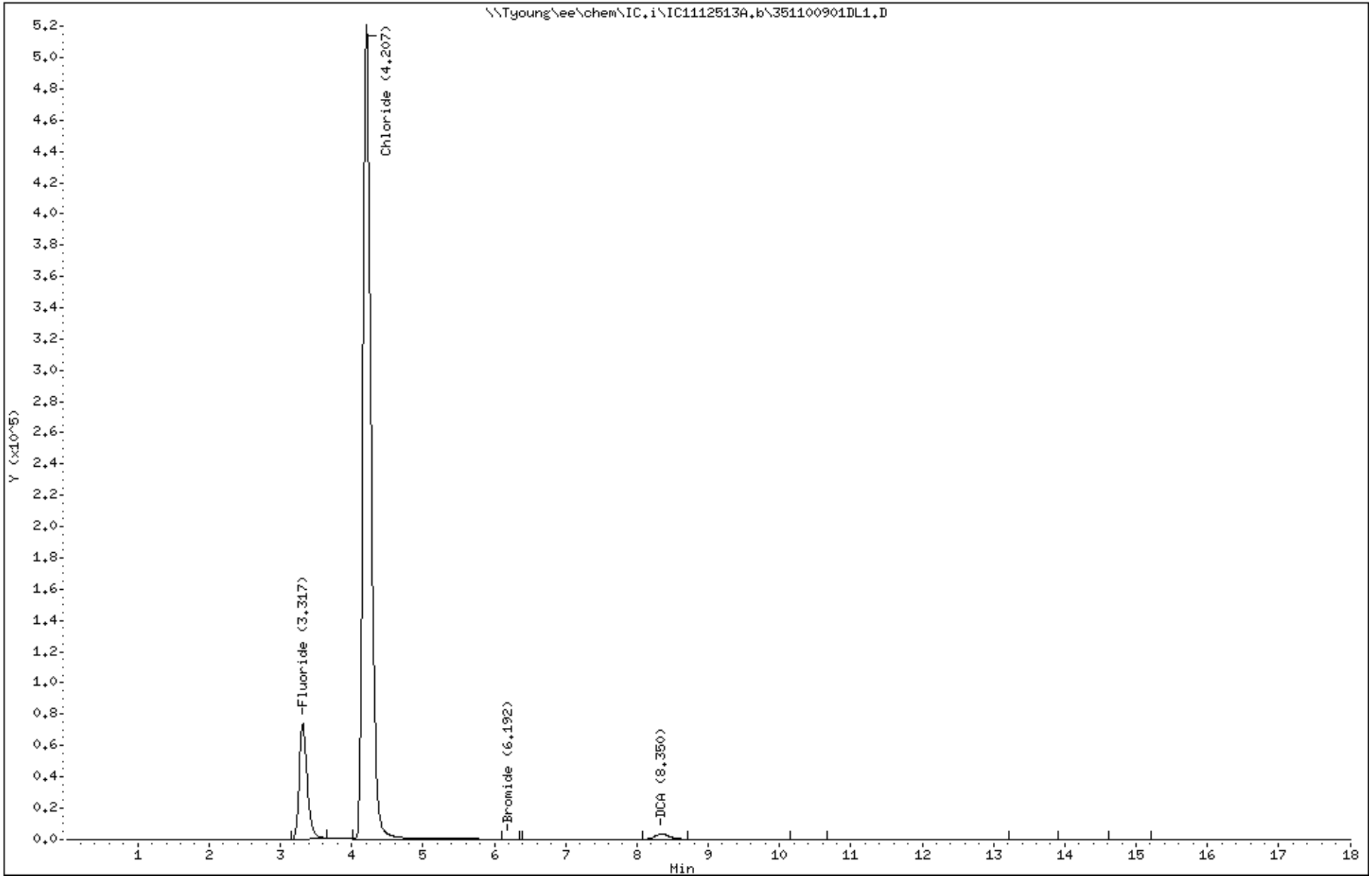
Instrument: IC.i

Sample Info: 351100901DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100901DL2.D
Lab Smp Id: 351100901DL2 Client Smp ID: SMSMW02A
Inj Date : 26-NOV-2013 18:30
Operator : TR Inst ID: IC.i
Smp Info : 351100901DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 50.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.306	3.325	-0.019	645871	5.53476	277
T 2 Chloride	4.208	4.194	0.014	4115106	51.2985	2560(M)
T 3 Nitrite as N	4.833	4.785	0.048	31542	0.16886	8.4
T 7 DCA	8.350	8.372	-0.022	97455	4.66546	233(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100901DL2.D

Date : 26-NOV-2013 18:30

Client ID: SMSMW02A

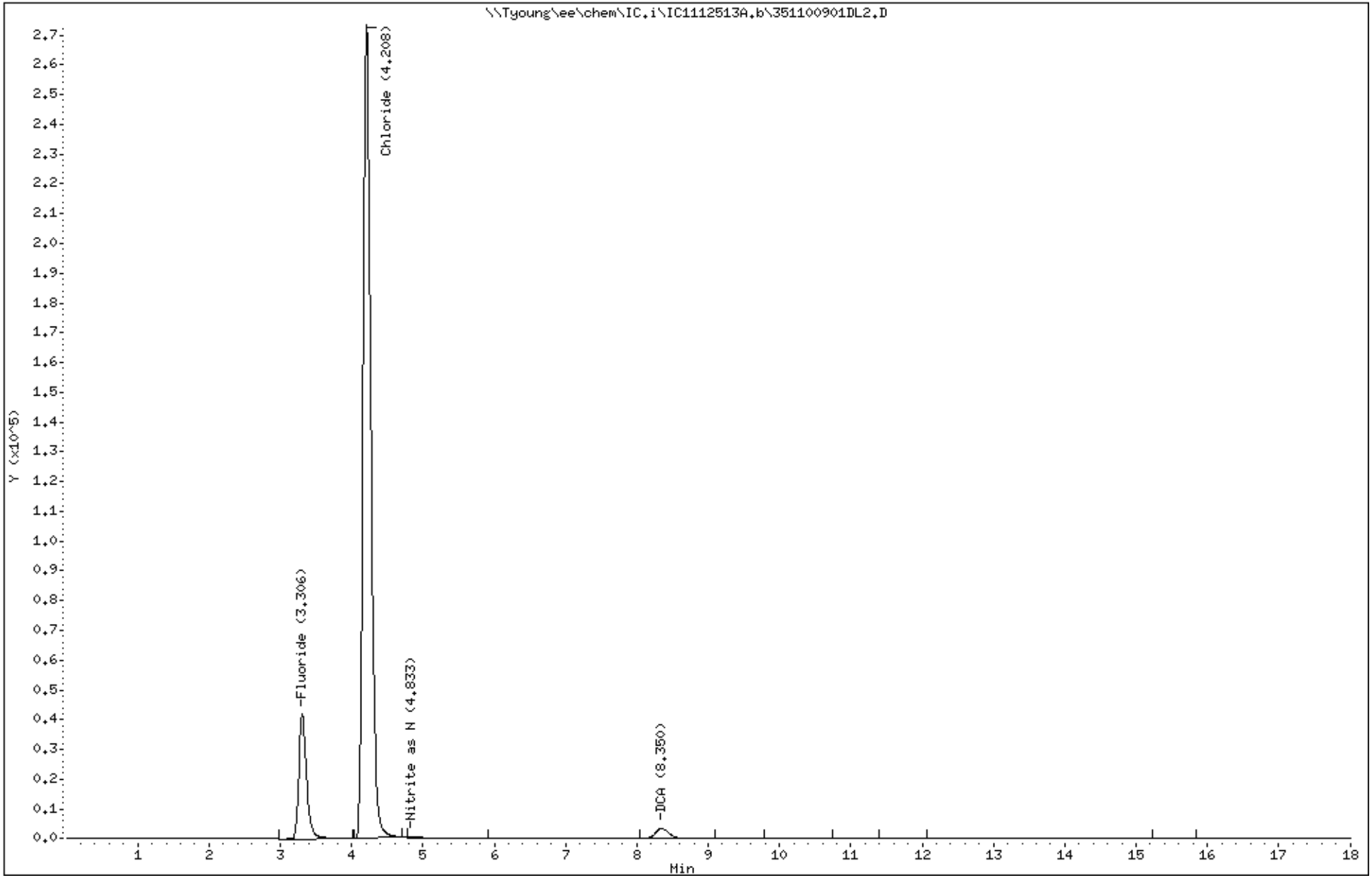
Instrument: IC.i

Sample Info: 351100901DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100902DL1.D
Lab Smp Id: 351100902DL1 Client Smp ID: SMSMW07A
Inj Date : 26-NOV-2013 18:52
Operator : TR Inst ID: IC.i
Smp Info : 351100902DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.258	4.194	0.064	292172789	3609.81	36100(AM)
T 3 Nitrite as N	4.975	4.785	0.190	19330	0.10348	1.0(M)
T 4 Sulfate	5.458	5.444	0.014	2484524	42.6205	426(M)
T 5 Bromide	6.128	6.075	0.053	189460	5.67230	56.7
T 6 Nitrate as N	7.033	6.898	0.135	107976	0.57333	5.7(M)
T 7 DCA	8.308	8.372	-0.064	99991	4.78394	47.8(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

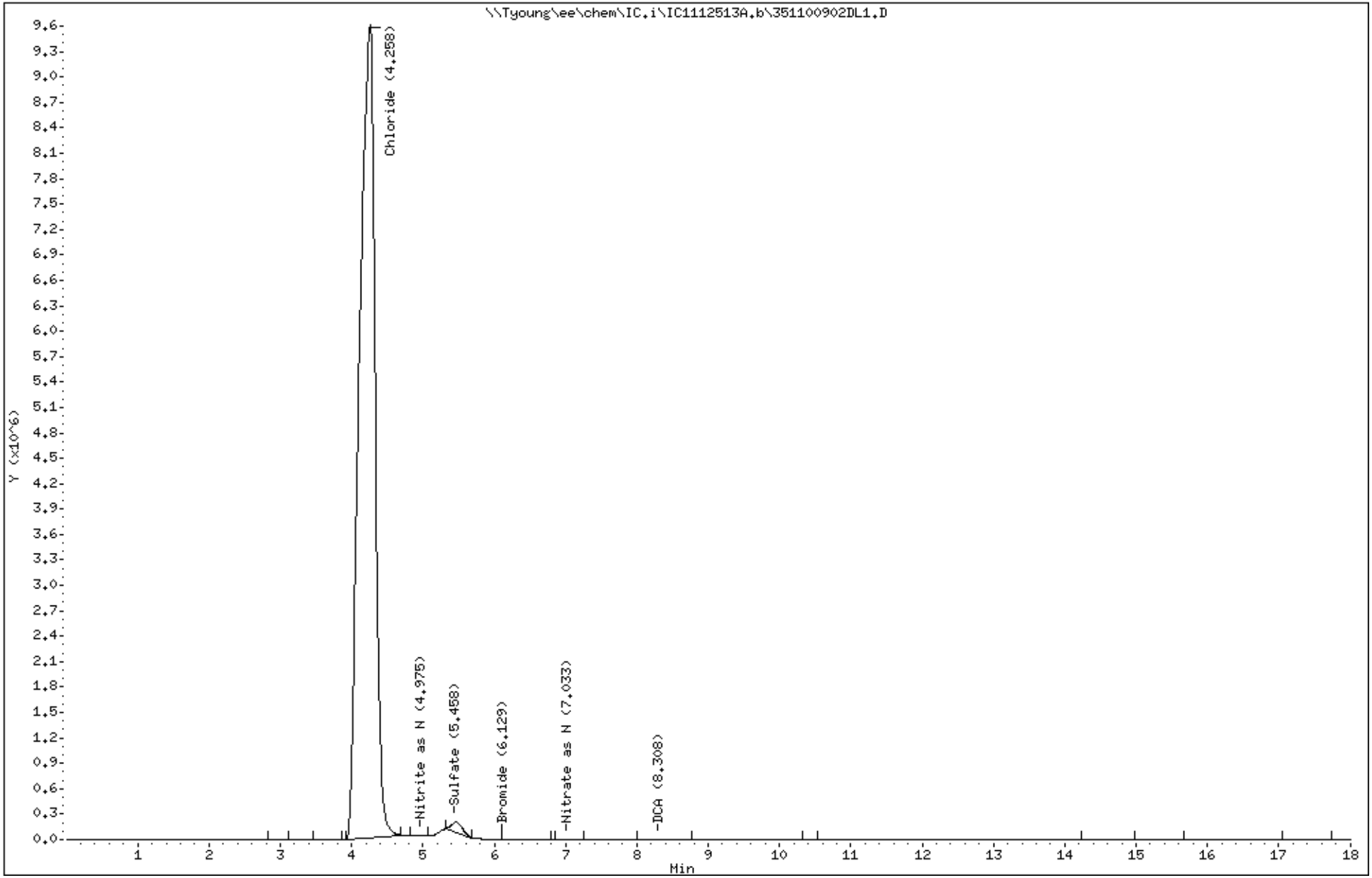
Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351100902DL1.D
Date : 26-NOV-2013 18:52
Client ID: SMSMW07A
Sample Info: 351100902DL1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV6.D
Lab Smp Id: 112513CCV6 Client Smp ID: 112513CCV6
Inj Date : 26-NOV-2013 19:14
Operator : TR Inst ID: IC.i
Smp Info : 112513CCV6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.308	3.325	-0.017	970747	8.48569	8.5
T 2 Chloride	4.208	4.194	0.014	666829	8.70027	8.7(M)
T 3 Nitrite as N	4.812	4.785	0.027	185625	0.99375	0.99
T 4 Sulfate	5.564	5.444	0.120	484047	8.65821	8.6
T 5 Bromide	6.177	6.075	0.102	289047	8.53145	8.5
T 6 Nitrate as N	7.033	6.898	0.135	202843	1.05153	1.0(M)
T 7 DCA	8.315	8.372	-0.057	94354	4.52059	4.5
T 8 Phosphate as P	9.479	9.308	0.171	394071	5.33966	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV6.D

Date : 26-NOV-2013 19:14

Client ID: 112513CCV6

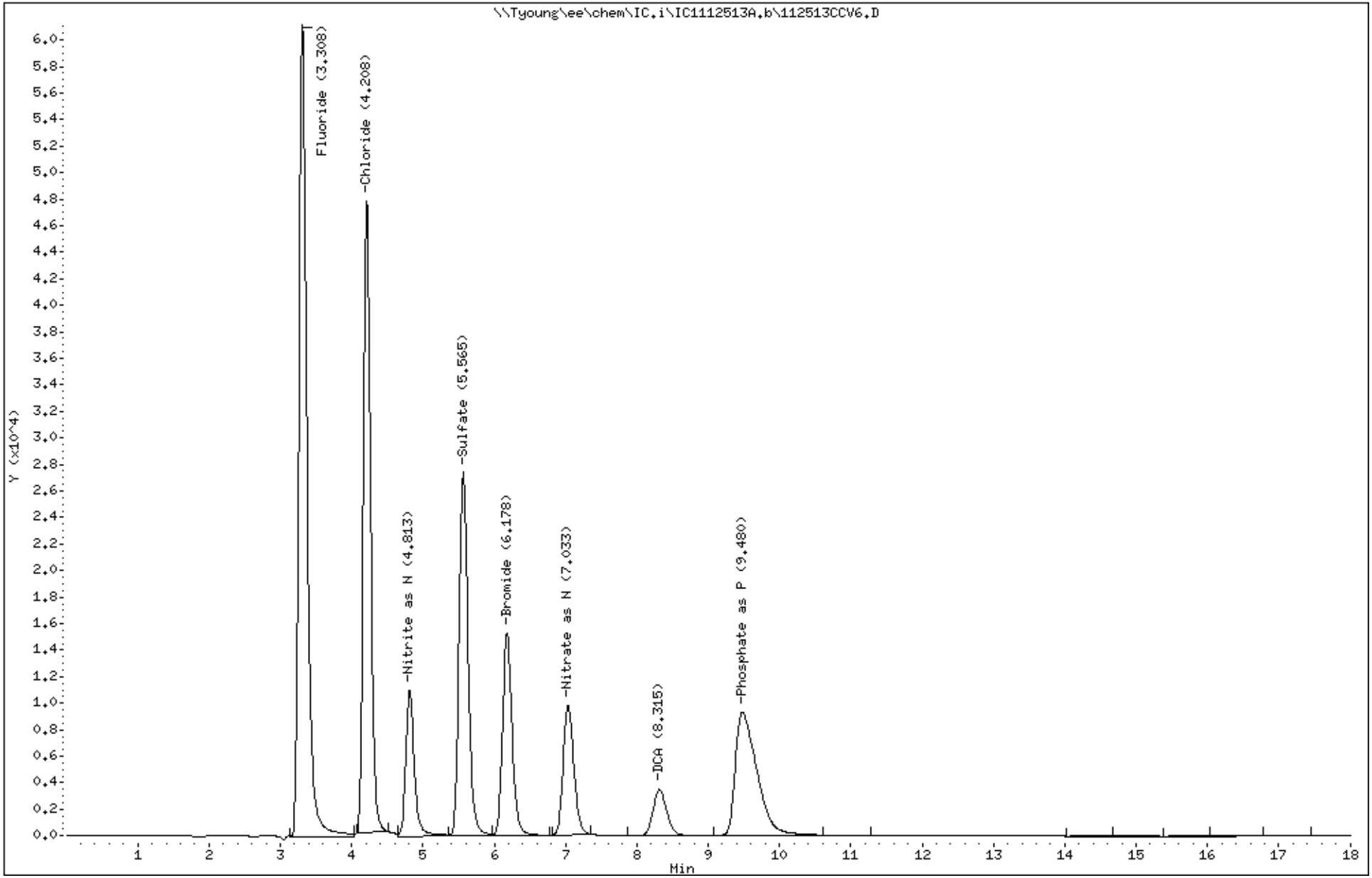
Instrument: IC.i

Sample Info: 112513CCV6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB6.D
Lab Smp Id: 112513CCB6 Client Smp ID: 112513CCB6
Inj Date : 26-NOV-2013 19:36
Operator : TR Inst ID: IC.i
Smp Info : 112513CCB6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.209	4.194	0.015	5610	0.53192	0.53
T 4 Sulfate	5.583	5.444	0.139	1056	0.45843	0.46
T 6 Nitrate as N	7.064	6.898	0.166	3801	0.04821	0.048
T 7 DCA	8.332	8.372	-0.040	98255	4.70283	4.7
T 8 Phosphate as P	9.662	9.308	0.354	2037	0.08283	0.083

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB6.D

Date : 26-NOV-2013 19:36

Client ID: 112513CCB6

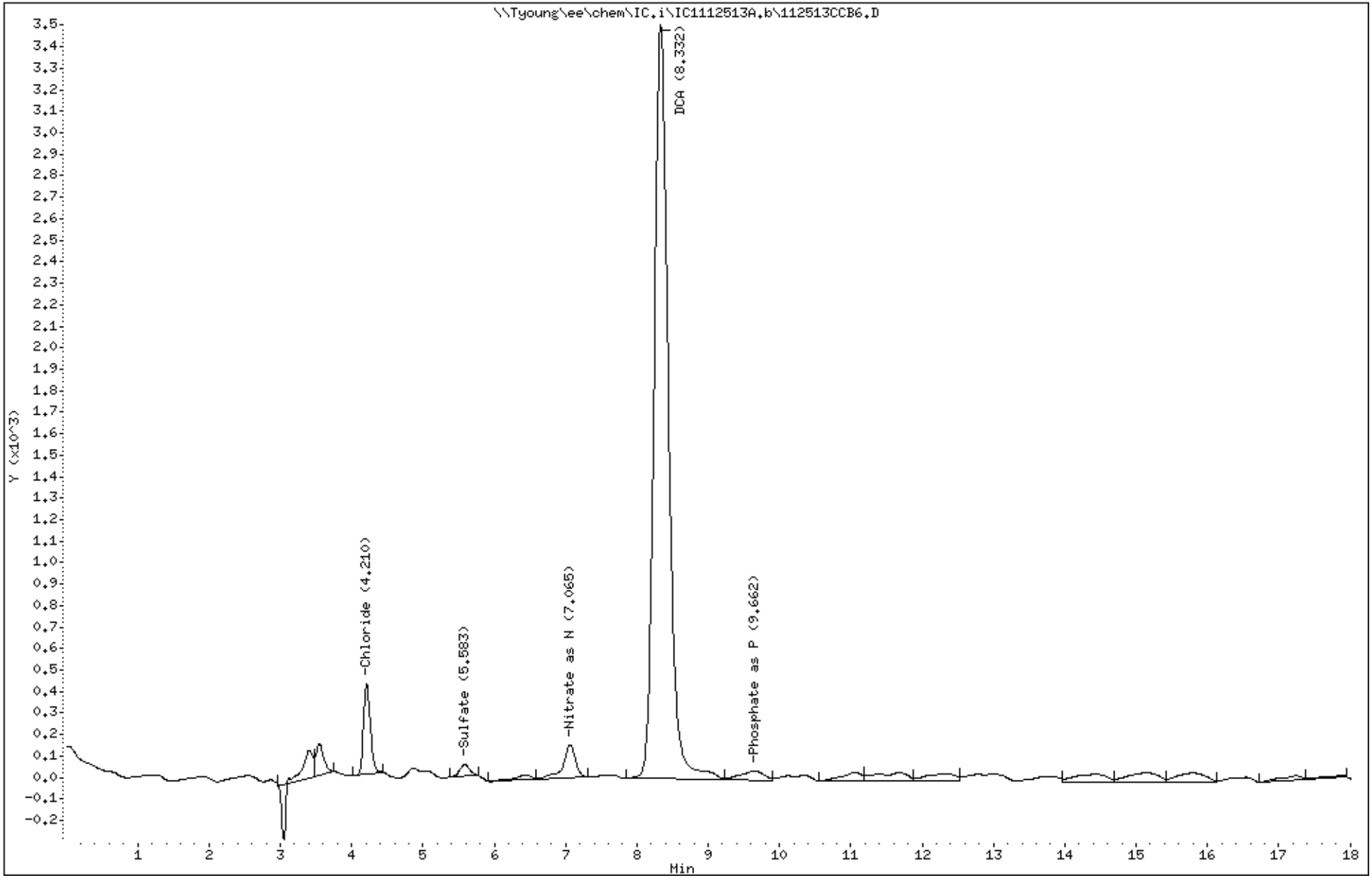
Instrument: IC.i

Sample Info: 112513CCB6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511009

Raw Data Inorganics/Wet Chemistry

TDS

Analyst twolf **Units** mg/L **QCStandard:** **QC TV:**
APGL **temp** 103 **LCSStandard:** 52449 **LCS TV:** 250

BATCH_NUMBER 16252 **Method** 160.1 **DateTime** 11/20/2013 9:03:04

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	Initial Weight	Final Weight #1	Final Weight #2	Res Weight	Filt Res	RPD	Perc Rec	Dil_F	Final Wt Diff
1	206800MB	206800MB	MB	09:06 AM	50	79.8865	79.8865	79.8865	0	0			1	0
2	206801LCS	206801LCS	LCS	09:09 AM	50	80.1203	80.1349	80.1349	0.01460000	14.6000		116.8	1	292.0000
3	206802LCSD	206802LCSD	LCSD	09:12 AM	50	81.3209	81.335	81.335	0.0141	14.1	3.484	112.8	1	282
4	351099301	SMSMW03B	SAMPLE	09:15 AM	2	80.1242	80.3176	80.3176	0.1934	193.4			1	96700
5	206803SAMDUP	SMSMW03BSAMDUP	SAMDUP	09:18 AM	2	81.3291	81.5173	81.5173	0.18820000	188.200	2.725		1	94100.00
6	351099302	SMSMW04A	SAMPLE	09:21 AM	5	85.9094	86.0256	86.0256	0.1162	116.2			1	23240
7	351099303	SMSSW03	SAMPLE	09:24 AM	50	87.7479	87.8036	87.8036	0.05570000	55.7000			1	1114.000
8	351099304	SMSSW13	SAMPLE	09:27 AM	50	84.5231	84.5519	84.5519	0.02880000	28.8000			1	576.0000
9	351100901	SMSMW02A	SAMPLE	09:30 AM	25	86.2423	86.3895	86.3895	0.1472	147.2			1	5888
10	351100902	SMSMW07A	SAMPLE	09:33 AM	2	79.6914	79.8223	79.8223	0.1309	130.9			1	65450
11	351100903	SMSMW07B	SAMPLE	09:36 AM	5	80.7036	80.8726	80.8726	0.16900000	169.000			1	33800.00
12	351100904	SMSMW08A	SAMPLE	09:39 AM	25	81.7979	81.9122	81.9122	0.1143	114.3			1	4572
13	351100905	SMSSW11	SAMPLE	09:42 AM	50	80.4248	80.4448	80.4448	0.02	20			1	400
14	206804MB	206804MB	MB	09:45 AM	50	85.3315	85.3315	85.3315	0	0			1	0
15	351100906	SMSSW14	SAMPLE	09:48 AM	50	81.2648	81.2895	81.2895	0.02470000	24.7000			1	494.0000
16	351101201	SMSMW12A	SAMPLE	09:51 AM	50	78.1359	78.2087	78.2087	0.0728	72.8			1	1456
17	351101202	SMSMW01A	SAMPLE	09:54 AM	5	80.1558	80.3164	80.3164	0.16060000	160.600			1	32120.00
18	206805SAMDUP	SMSMW01ASAMDUP	SAMDUP	09:57 AM	5	88.075	88.2383	88.2383	0.1633	163.3	1.667		1	32660
19	206806MB	206806MB	MB	10:00 AM	50	87.0156	87.0156	87.0156	0	0			1	0

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
44474	Residue, TSS/TDS	NSI	111811	12/31/2014	1 G	1/6/2012	ddthompson

500 MG/G: Residue, Filterable (TDS), Total Suspended Solids

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52449	Residue Solution			12/11/2013	1000 ML	11/14/2013	twolf

250 MG/L: Residue, Filterable (TDS), Total Suspended Solids

COMPOSED OF:

44474: 0.5 G 49005: 1000 ML

Alkalinity

PH Calibration		True Val	Read	Expires
IS	48258	4	4.01	5/31/2015
IS	47071	7	7	6/30/2014
IS	48542	10	10.01	6/30/2014

Analyst twolf

Date Time 11/27/2013 1:15:00 PM

pH Meter 1353764

Reagents:

Titrant: Sulfuric Acid(0.02N)

IS	51144	Exp	6/30/2014

Spike Used

QC	IS	52254	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
LCS	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
MS / MSD	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml sample =50 ppm)

BATCH_NUMBER 16332 **Method** 310.1 / SM2320B **Units** mg/L

POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
1	207072CB	207072CB	CB	01:15 PM	1	100	7.11	4.3	0	0.05	0.05	0.5	0	0
2	207073QC	207073QC	QC	01:19 PM	1	100	9.36	4.41	0.05	4.9	4.85	48.5	50	97
3	207074MB	207074MB	MB	01:23 PM	1	100	6.88	4.3	4.9	4.95	0.05	0.5	0	0
4	207075LCS	207075LCS	LCS	01:27 PM	1	100	8.96	4.32	4.95	9.75	4.8	48	50	96
5	207076LCSD	207076LCSD	LCSD	01:31 PM	1	100	9.01	4.3	9.8	14.7	4.9	49	50	98
6	351099301	SMSMW03B	SAMPLE	01:34 PM	2	100	6.83	4.37	0	22.8	22.8	456	0	0
7	351099302	SMSMW04A	SAMPLE	01:37 PM	5	100	6.55	4.3	22.8	25.6	2.8	140	0	0
8	351099303	SMSSW03	SAMPLE	01:40 PM	5	100	7.41	4.35	25.6	30.7	5.1	255	0	0
9	351099304	SMSSW13	SAMPLE	01:43 PM	5	100	7.86	4.44	30.7	34.5	3.8	190	0	0

POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
10	351100901	SMSMW02A	SAMPLE	01:46 PM	10	100	9.45	4.46	36.5	47	10.5	1050	0	0
11	351100902	SMSMW07A	SAMPLE	01:49 PM	10	100	6.81	4.48	9.9	21	11.1	1110	0	0
12	351100903	SMSMW07B	SAMPLE	01:52 PM	10	100	7	4.43	21	32.4	11.4	1140	0	0
13	351100904	SMSMW08A	SAMPLE	01:55 PM	20	100	8.4	4.39	32.4	36.5	4.1	820	0	0
14	351100905	SMSSW11	SAMPLE	01:58 PM	20	100	7.06	4.34	36.5	37.6	1.1	220	0	0
15	351100906	SMSSW14	SAMPLE	02:01 PM	5	100	7.49	4.3	37.6	41.5	3.9	195	0	0
16	207260CCB	207260CCB	CCB	02:04 PM	1	100	7.02	4.3	41.5	41.55	0.05	0.5	0	0
17	351101201	SMSMW12A	SAMPLE	02:07 PM	10	100	7.1	4.48	0	2.3	2.3	230	0	0
18	351101202	SMSMW01A	SAMPLE	02:10 PM	5	100	7.14	4.47	2.3	15	12.7	635	0	0
19	207261CCB	207261CCB	CCB	02:13 PM	1	100	7.09	4.3	15	15.05	0.0500	0.5000	0	0

351100903

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STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28506	Na2CO3_STK	VWR CAT BDH02	48337915	4/30/2014	500 G	4/30/2009	pconklin
1000 MG/G: sodium carbonate							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
32490	Na2CO3_STK	Fisher	094498	1/7/2015	500 G	1/7/2010	pconklin
1000 MG/G: Alkalinity (Total)							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47071	Buf_Soln7_STK	HACH	A2156	6/30/2014	4 L	7/19/2012	twolf
7 pH: pH							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48258	Buf_Soln4_STK	HACH	A1126	5/31/2015	4 L	5/23/2011	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52254	Sodium Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: sodium carbonate

COMPOSED OF:

28506: 2.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52255	Sodium_Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: Alkalinity (Total)

COMPOSED OF:

32490: 2.5 G 49005: 10000 ML

Original Run Filename: OM_12-5-2013_02-05-23PM.OMN Created: 12/5/2013 2:05:23 PM
Original Run Author's Signature: [twolf]
Current Run Filename: OM_12-5-2013_02-05-23PM.OMN Last Modified: 12/5/2013 2:55:30 PM
Current Run Author's Signature: [twolf]
Description: Digestion Start Time 10:30 AM Digestion End Time: 11:00 AM
Ammonia by 4500-NH3-G / 350.1 Oven Temp: 120°C
ICV = 50545 Trapping Solution - 51144
CCV = 28547 Borate Buffer - 52466
Sodium Nitroprusside - 52471 Sodium EDTA Buffer - 52467
Sodium Phenolate - 51676 Sodium Hypochlorite - 52611
Ammonia Carrier - 52470
Analyst = TW

Sample	Rep.	Cup No.	Channel 1 NH3-N Conc. (mg/L NH3-N)	Area (V.s)	Height (V)	Detection Time	ADF	MDF	Weight	Description
CalStd 20	1	S1	20.0	24.2	2.68	12/5/2013@2:06:47 PM				
CalStd 8	1	S1	8.00	10.1	1.12	12/5/2013@2:11:28 PM	2.50			
CalStd 2	1	S1	2.00	2.62	0.283	12/5/2013@2:14:00 PM	10.00			
CalStd 1	1	S1	1.00	1.34	0.141	12/5/2013@2:16:30 PM	20.00			
CalStd 0.4	1	S1	0.400	0.554	0.0572	12/5/2013@2:18:59 PM	50.00			
CalStd 0.2	1	S1	0.200	0.360	0.0267	12/5/2013@2:21:28 PM	100.00			
CalStd 0	1	3	0.00	0.0417	4.21e-3	12/5/2013@2:22:38 PM				
ICV 8.0	1	1	8.21	10.3	1.15	12/5/2013@2:23:47 PM				
	Known Conc:		8.00							
DQM Test: > + Percent Relative Difference										
	Result:		2.6 < 10.0							
	Message		Pass							
	Action									
DQM Test: < - Percent Relative Difference										
	Result:		2.6 > -10.0							
	Message		Pass							
	Action									
	Calibration:		Table/Fig. : 1							
ICB	1	2	-0.0529	-3.87e-3	7.37e-3	12/5/2013@2:27:05 PM				
	Known Conc:		0.00							
DQM Test: > + Concentration Limit										
	Result:		-0.0529 < 0.200							
	Message		Pass							
	Action									
DQM Test: < - Concentration Limit										
	Result:		-0.0529 > -0.200							
	Message		Pass							
	Action									
MB	1	3	7.41e-3	0.0739	3.84e-3	12/5/2013@2:28:14 PM				
	Known Conc:		0.00							
DQM Test: > + Concentration Limit										

		Result:	7.41e-3 < 0.200			
		Message	Pass			
		Action				
DQM Test: < - Concentration Limit						
		Result:	7.41e-3 > -0.200			
		Message	Pass			
		Action				
LCS 8.0	1	4	8.06	10.2	1.12	12/5/2013@2:29:22 PM
		Known Conc:	8.00			
DQM Test: > + Percent Relative Difference						
		Result:	0.8 < 10.0			
		Message	Pass			
		Action				
DQM Test: < - Percent Relative Difference						
		Result:	0.8 > -10.0			
		Message	Pass			
		Action				
LCSD 8.0	1	5	8.15	10.3	1.12	12/5/2013@2:30:31 PM
		Known Conc:	8.00			
DQM Test: > + Percent Relative Difference						
		Result:	1.9 < 10.0			
		Message	Pass			
		Action				
DQM Test: < - Percent Relative Difference						
		Result:	1.9 > -10.0			
		Message	Pass			
		Action				
351100901	1	6	73.7	77.8	7.99	12/5/2013@2:31:39 PM
351100902	1	7	187	164	10.1	12/5/2013@2:32:47 PM
351100903	1	8	145	135	10.0	12/5/2013@2:33:55 PM
351100904	1	9	48.4	54.1	5.80	12/5/2013@2:35:02 PM
351100905	1	10	0.197	0.318	0.0299	12/5/2013@2:36:10 PM
CCV	1	11	8.11	10.2	1.14	12/5/2013@2:37:18 PM
		Known Conc:	8.00			
DQM Test: > + Percent Relative Difference						
		Result:	1.4 < 10.0			
		Message	Pass			
		Action				
DQM Test: < - Percent Relative Difference						
		Result:	1.4 > -10.0			
		Message	Pass			
		Action				
CCB	1	12	-0.0685	-0.0239	-4.86e-3	12/5/2013@2:40:34 PM
		Known Conc:	0.00			
DQM Test: > + Concentration Limit						
		Result:	-0.0685 < 0.200			
		Message	Pass			
		Action				
DQM Test: < - Concentration Limit						

		Result:	-0.0685 > -0.200			
		Message	Pass			
		Action				
351100906	1	13	0.155	0.265	0.0141	12/5/2013@2:41:42 PM
351111902	1	14	0.164	0.276	0.0191	12/5/2013@2:42:49 PM
351111902MS	1	15	7.27	9.20	1.02	12/5/2013@2:43:56 PM
351111902MSD	1	16	7.18	9.09	1.00	12/5/2013@2:45:06 PM
351111401	1	17	0.556	0.780	0.0720	12/5/2013@2:46:15 PM
351111402	1	18	0.155	0.264	0.0200	12/5/2013@2:47:23 PM
351111403	1	19	0.199	0.321	0.0280	12/5/2013@2:48:31 PM
351111404	1	20	0.0752	0.161	0.0159	12/5/2013@2:49:40 PM
351111405	1	21	0.208	0.332	0.0301	12/5/2013@2:50:49 PM
351111406	1	22	23.0	27.6	2.89	12/5/2013@2:51:57 PM
* CCV	1	23	0.587	0.819	0.162	12/5/2013@2:53:06 PM
		Known Conc:	8.00			
			DQM Test: > + Percent Relative Difference			
		Result:	-92.7 < 10.0			
		Message	Pass			
		Action				
			DQM Test: < - Percent Relative Difference			
		Result:	-92.7 < -10.0			
		Message	Fail			
		Action	Stop Run			

Failed due to sample volume. CCV re-run pass all criteria. 351100906 TW 12/5/2013

Analyte Properties Table for : OM_12-5-2013_02-05-23PM.OMN

Property	Channel 1
	NH3-N
Concentration Units	mg/L NH3-N
Calibration Fit Type	Second Order
Clear Calibration	Yes
Force through Zero	No
Calibration Weighting	1/x
Auto Dilution Trigger	Yes
% of High Standard	100
Quik Chem Method	10-107-06-1-C
Chemistry	Direct/Bipolar
Calibration by Height	No
Inject to Peak Start	28
Peak Base Width	66

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Author: twolf SPECTRUM ANALYTICAL Date : 12/5/2013

Channel 1 - Current View

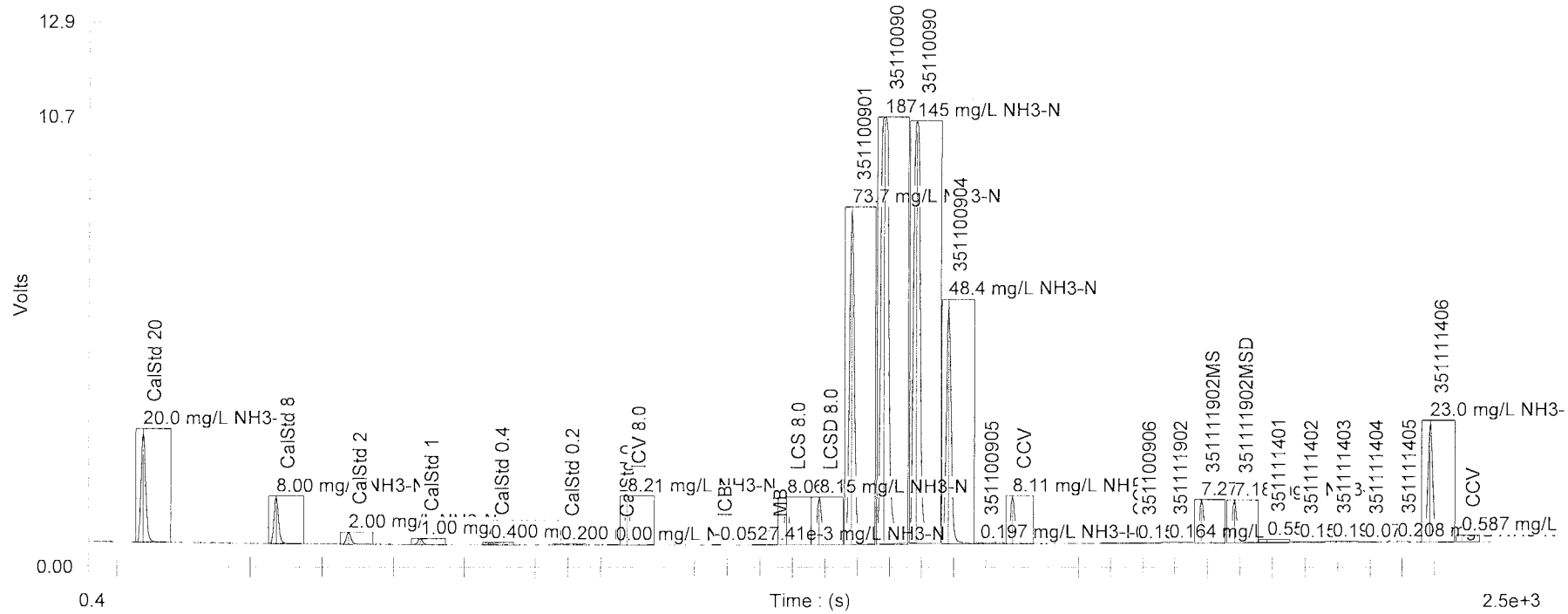


Table : 1 (NH3-N)

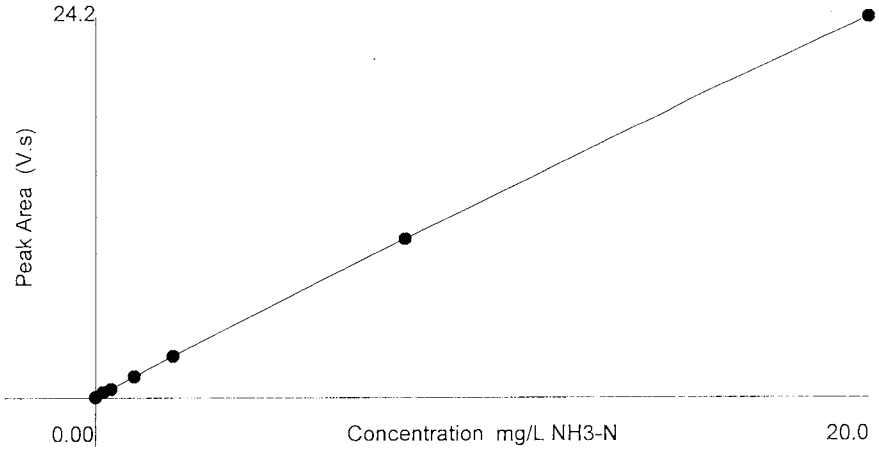
	Known Conc. (mg/L NH3-N)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L NH3-N)	Detection Date	Detection Time
1	20.0	1	24.2	2.68	0.0	0.0	20.0	12/5/2013	2:06:47 PM
2	8.00	1	10.1	1.12	0.0	0.1	7.99	12/5/2013	2:11:28 PM
3	2.00	1	2.62	0.283	0.0	0.1	1.99	12/5/2013	2:14:00 PM
4	1.00	1	1.34	0.141	0.0	0.6	0.992	12/5/2013	2:16:30 PM
5	0.400	1	0.554	0.0572	0.0	4.3	0.380	12/5/2013	2:18:59 PM
6	0.200	1	0.360	0.0267	0.0	-11.8	0.230	12/5/2013	2:21:28 PM
7	0.00	1	0.0417	4.21e-3			-0.0175	12/5/2013	2:22:38 PM

Author: twolf

SPECTRUM ANALYTICAL

Date : 12/5/2013

Figure : 1 (NH3-N)



Area = - 3.93e-3 * Conc^2 + 1.28 * Conc + 0.0656
Conc = 2.23e-3 * Area^2 + 0.775 * Area - 0.0499
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

3511009

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Original Run Filename: OM_12-5-2013_02-05-23PM.OMN Created: 12/5/2013 2:05:23 PM
Original Run Author's Signature: [twolf]
Current Run Filename: OM_12-5-2013_02-59-26PM.OMN Last Modified: 12/5/2013 3:32:40 PM
Current Run Author's Signature: [twolf]
Description: Digestion Start Time 10:30 AM Digestion End Time: 11:00 AM
Ammonia by 4500-NH3-G / 350.1 Oven Temp: 120ºC
ICV = 50545 Trapping Solution - 51144
CCV = 28547 Borate Buffer - 52466
Sodium Nitroprusside - 52471 Sodium EDTA Buffer - 52467
Sodium Phenolate - 51676 Sodium Hypochlorite - 52611
Ammonia Carrier - 52470
Analyst = TW

Sample	Rep.	Cup No.	Channel 1 NH3-N Conc. (mg/L NH3-N)	Area (V.s)	Height (V)	Detection Time	ADF	MDF	Weight	Description
CCV	1	23	8.38	10.5	1.13	12/5/2013@3:00:41 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	4.7 < 10.0							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
DQM Test: < - Percent Relative Difference										
		Result:	4.7 > -10.0							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
CCB	1	24	-0.0546	-6.07e-3	3.20e-3	12/5/2013@3:03:59 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.0546 < 0.200							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
DQM Test: < - Concentration Limit										
		Result:	-0.0546 > -0.200							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
		Calibration:	Table/Fig. : 1							
351111407	1	25	8.49	10.7	1.14	12/5/2013@3:05:07 PM				
351111408	1	26	0.167	0.280	0.0269	12/5/2013@3:06:15 PM				
351100901	1	6	80.4	6.84	0.721	12/5/2013@3:08:49 PM	15.00			
351100902	1	7	523	31.0	3.19	12/5/2013@3:11:21 PM	20.00			
351100903	1	8	242	15.0	1.56	12/5/2013@3:13:52 PM	20.00			
351100904	1	9	47.7	6.11	0.647	12/5/2013@3:16:25 PM	10.00			
351111406	1	22	22.3	5.73	0.620	12/5/2013@3:19:03 PM	5.00			
351100902	1	7	507	15.7	1.65	12/5/2013@3:23:44 PM	40.00			
CCV	1	27	8.70	10.9	1.15	12/5/2013@3:27:00 PM				
		Known Conc:	8.00							

DQM Test: > + Percent Relative Difference										
		Result:	8.7 < 10.0							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
DQM Test: < - Percent Relative Difference										
		Result:	8.7 > -10.0							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
CCB	1	28	-0.0766	-0.0344	-3.99e-3	12/5/2013@3:30:16 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.0766 < 0.200							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							
DQM Test: < - Concentration Limit										
		Result:	-0.0766 > -0.200							
		Message	Passed due to:							
		Action	...Rerun Peak Detection							

Analyte Properties Table for : OM_12-5-2013_02-59-26PM.OMN

Property	Channel 1
	NH3-N
Concentration Units	mg/L NH3-N
Calibration Fit Type	Second Order
Clear Calibration	Yes
Force through Zero	No
Calibration Weighting	1/x
Auto Dilution Trigger	Yes
% of High Standard	100
Quik Chem Method	10-107-06-1-C
Chemistry	Direct/Bipolar
Calibration by Height	No
Inject to Peak Start	28
Peak Base Width	66

Author: twolf SPECTRUM ANALYTICAL Date : 12/5/2013

Channel 1 - Current View

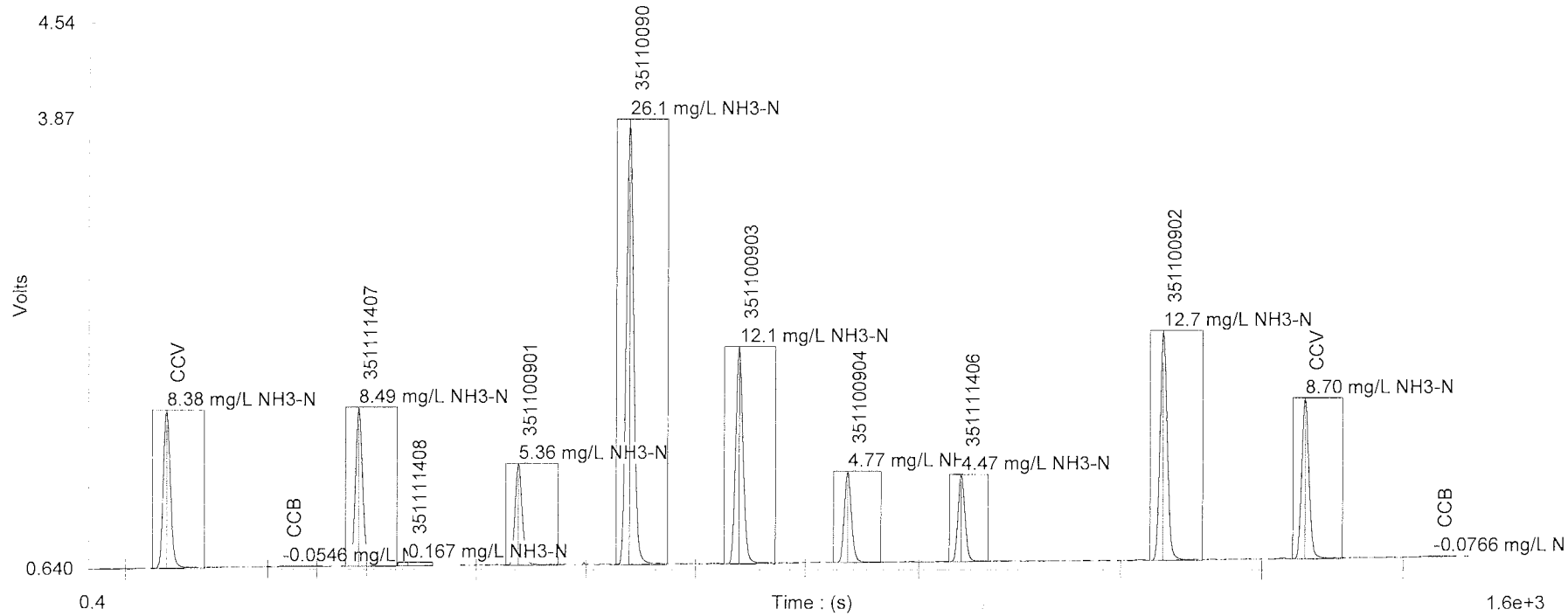

Table : 1 (NH3-N)

	Known Conc. (mg/L NH3-N)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L NH3-N)	Detection Date	Detection Time
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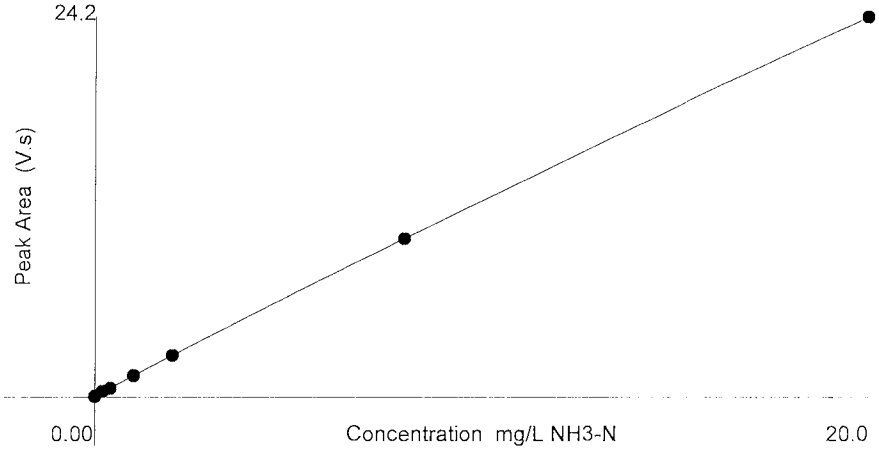
3	2.00	1	2.62	0.283	0.0	0.1	1.99	12/5/2013	2:14:00 PM
4	1.00	1	1.34	0.141	0.0	0.6	0.992	12/5/2013	2:16:30 PM
5	0.400	1	0.554	0.0572	0.0	4.3	0.380	12/5/2013	2:18:59 PM
6	0.200	1	0.360	0.0267	0.0	-11.8	0.230	12/5/2013	2:21:28 PM
7	0.00	1	0.0417	4.21e-3			-0.0175	12/5/2013	2:22:38 PM

Author: twolf SPECTRUM ANALYTICAL Date : 12/5/2013

Figure : 1 (NH3-N)



Area = - 3.93e-3 * Conc^2 + 1.28 * Conc + 0.0656
Conc = 2.23e-3 * Area^2 + 0.775 * Area - 0.0499
Correlation Coefficient (r) = 0.99999

Weighting : 1/x

3511009 233

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28547	Nit_Std_STK	HACH	A9091	4/30/2014	1 L	5/4/2009	pconklin
1 MG/ML: Ammonia, Total Kjeldahl Nitrogen							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28551	Na_Nitr_STK	JTBAKER	G41608	5/4/2014	500 G	5/4/2009	pconklin

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
46081	EDTA_Di_STK	RICCA	2203007	1/31/2017	500 G	4/20/2012	ddthompson

3511009

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47083	Bleach	Clorox	5813GA1	7/26/2014	16.14 L	7/26/2012	ddthompson

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49846	Phenol	ACROS	A0318606	11/16/2014	100 G	3/20/2013	jbowman
: Phenol							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50280	H2SO4_0.02N	RICCA	1303887	2/28/2015	4 L	4/24/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50545	Nit_Std_STK	RICCA	2303D90	9/30/2014	120 ML	5/15/2013	twolf

1 MG/ML: Ammonia, Total Kjeldahl Nitrogen

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50598	NaOH	EMD	B0847769	8/31/2015	2.5 KG	5/21/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

3511009

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51676	Sodium Phenolate - Am			12/31/2013	1000 ML	8/28/2013	twolf

UG/L: Phenol

COMPOSED OF:

49005: 1000 ML 49846: 83 G 50598: 32 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51899	Borax	20 Mule Team	1	9/30/2014	2.15 KG	9/24/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52466	Sodium Borate Buffer - A			12/31/2013	500 ML	11/15/2013	twolf

COMPOSED OF:

49005: 482 G 50598: 11 G 51899: 2.5 G

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52467	Sodium EDTA Buffer - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

46081: 50 G 49005: 1000 ML 50598: 5.5 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52470	0.003M H2SO4 - Ammon			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

49005: 700 ML 50280: 300 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52471	Sodium Nitroprusside - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

28551: 3.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52611	Sodium Hypochlorite - A			12/6/2013	500 ML	12/5/2013	twolf

COMPOSED OF:

47083: 47 ML 49005: 500 ML

Sulfide

Analyst	twolf	MB	0	IODINE	0.025	QC IS	52489	Exp	11/20/2013
Units	mg/L	SPIKE	5	TITRANT	0.025	LCS IS	52490	Exp	11/20/2013

BATCH_NUMBER 16266 **Method** 376.1 / SM4500-S F **Run Date** 11/20/2013

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
1	206395QC	206395QC	QC	12:13	100	1	2	0.05	0	0.7	0.7	0.0175	5.2098	104.2	
2	206396MB	206396MB	MB	12:16	100	1	1	0.025	0.7	1.7	1	0.025	0		
3	206397LCS	206397LCS	LCS	12:19	100	1	2	0.05	1.7	2.4	0.7	0.0175	5.2098	104.2	
4	206398LCSD	206398LCSD	LCSD	12:22	100	1	2	0.05	2.4	3.21	0.81	0.02025	4.7689	95.379	8.835
5	351099301	SMSMW03B	SAMPLE	12:25	100	1	1	0.025	0	0.75	0.75	0.01875	1.0019		
6	351099302	SMSMW04A	SAMPLE	12:28	100	1	1	0.025	0.75	1.75	1	0.025	0		
7	351099303	SMSSW03	SAMPLE	12:31	100	1	1	0.025	1.75	2.75	1	0.025	0		
8	351099304	SMSSW13	SAMPLE	12:34	100	1	1	0.025	2.8	3.8	1	0.025	0		
9	351100901	SMSMW02A	SAMPLE	12:37	100	1	1	0.025	3.8	4.6	0.8	0.02	0.8015		
10	351100902	SMSMW07A	SAMPLE	12:40	100	2	1	0.025	5.6	6.6	1	0.025	0		
11	351100903	SMSMW07B	SAMPLE	12:43	100	1	1	0.025	6.6	7.6	1	0.025	0		
12	351100904	SMSMW08A	SAMPLE	12:46	100	1	1	0.025	7.65	8.6	0.95	0.02375	0.2004		
13	351100905	SMSSW11	SAMPLE	12:49	100	1	1	0.025	8.65	9.6	0.95	0.02375	0.2004		
14	351100906	SMSSW14	SAMPLE	12:52	100	1	1	0.025	0	0.9	0.9	0.0225	0.4008		

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
15	206399MB	206399MB	MB	12:55	100	1	1	0.025	0.9	1.9	1	0.025	6E-16		
16	351101201	SMSMW12A	SAMPLE	12:58	100	1	1	0.025	1.9	2.85	0.95	0.02375	0.2004		
17	351101202	SMSMW01A	SAMPLE	13:01	100	1	1	0.025	3	3.98	0.975	0.024375	0.1002		
18	206400MB	206400MB	MB	13:04	100	1	1	0.025	4	5	1	0.025	0		

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48098	Na_Sul_STK	ACROS	A0313853	10/17/2015	25 G	10/17/2012	ddthompson
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48605	HCl	RICCA	1210514	4/30/2014	1 L	11/19/2012	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50171	Na_Sul_STK	EMD	UI23BZEMS	4/1/2015	500 G	4/1/2013	twolf
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51842	Strch_Ind_STK	BDH	3041134	4/30/2014	1 L	9/1/2013	twolf
: Chloroform							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51944	Na2S2O3_STK	RICCA	4308A47	2/20/2015	4 L	9/30/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51945	I_Soln_STK	RICCA	2307A99	7/30/2014	1 L	10/1/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52489	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

49005: 250 ML 50171: 1.875 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52490	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

48098: 1.875 G 49005: 250 ML

Instr.Information

System	TOC
Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Control Sample

Sample Name:	RINSE
Sample ID:	RINSE - DI H2O - IS# 45611
Method:	RINSE - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 0.04634 / Control within range!

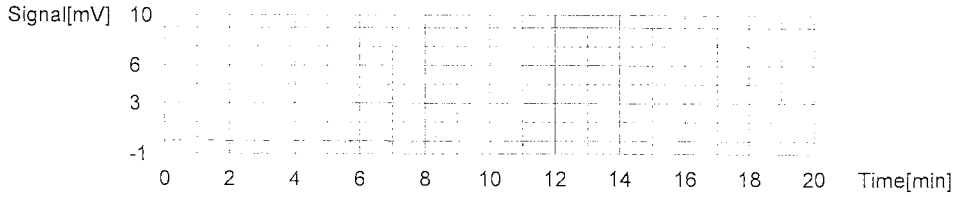
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.04634ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.524	0.1727ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:27:05 PM
2	1.126	0.06442ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:29:10 PM
3	0.9335	0.01204ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:31:15 PM
4	0.8879	-0.00037ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:33:20 PM
5	0.8263	-0.01714ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/1/2013 2:34:46 PM

Mean Area	1.060
Mean Conc.	0.04634ppm



Cal. Curve

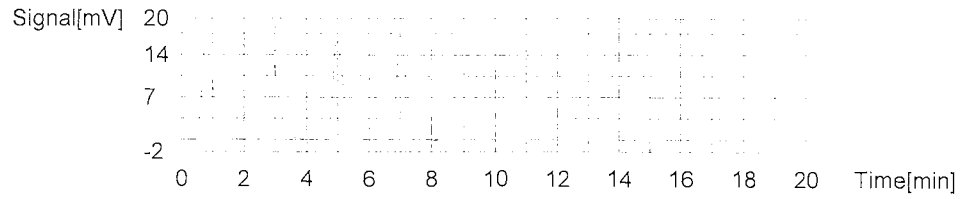
Sample Name:	10PPM
Sample ID:	10PPM - IS# 49986
Cal. Curve:	NPOC 10ppm.2013_12_01_14_34_46.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 10.00ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.68	50uL	1	*******		12/1/2013 2:44:28 PM
2	39.65	50uL	1	*******		12/1/2013 2:46:49 PM
3	39.31	50uL	1	*******		12/1/2013 2:49:02 PM
4	39.00	50uL	1	*******		12/1/2013 2:51:11 PM

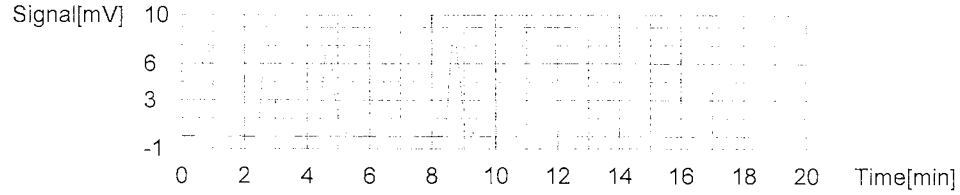
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 39.41



Conc: 5.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.46	50uL	2	*******	E	12/1/2013 3:00:05 PM
2	20.13	50uL	2	*******		12/1/2013 3:02:12 PM
3	19.57	50uL	2	*******		12/1/2013 3:04:18 PM
4	19.60	50uL	2	*******		12/1/2013 3:06:37 PM
5	19.84	50uL	2	*******		12/1/2013 3:08:53 PM

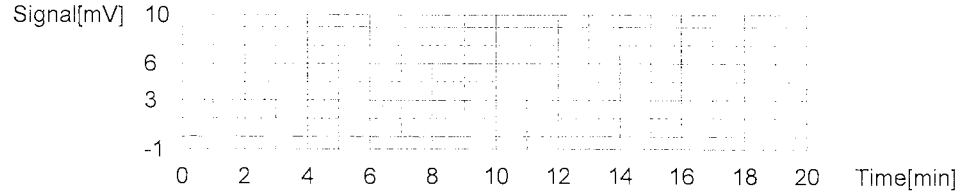
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 19.79



Conc: 2.500ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.28	50uL	4	*******		12/1/2013 3:17:43 PM
2	10.21	50uL	4	*******		12/1/2013 3:19:49 PM
3	9.934	50uL	4	*******		12/1/2013 3:21:54 PM
4	10.06	50uL	4	*******		12/1/2013 3:24:01 PM

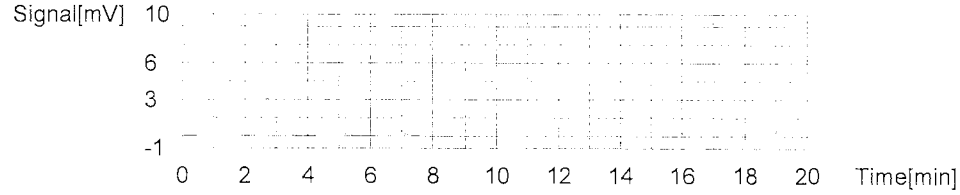
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 10.12



Conc: 2.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.270	50uL	5	*******		12/1/2013 3:32:55 PM
2	8.186	50uL	5	*******		12/1/2013 3:34:59 PM
3	7.986	50uL	5	*******		12/1/2013 3:37:04 PM
4	7.969	50uL	5	*******		12/1/2013 3:39:09 PM

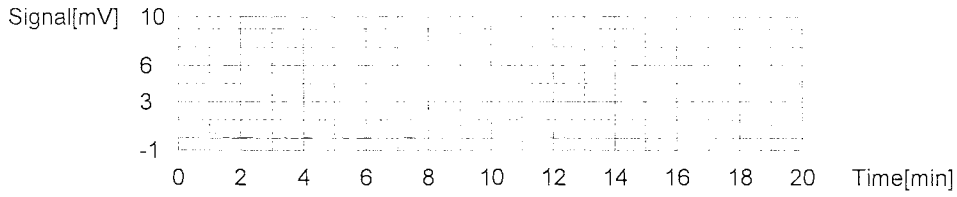
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 8.103



Conc: 1.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.475	50uL	10	*******		12/1/2013 3:48:04 PM
2	4.351	50uL	10	*******		12/1/2013 3:50:09 PM
3	4.360	50uL	10	*******		12/1/2013 3:52:14 PM
4	4.311	50uL	10	*******		12/1/2013 3:54:19 PM

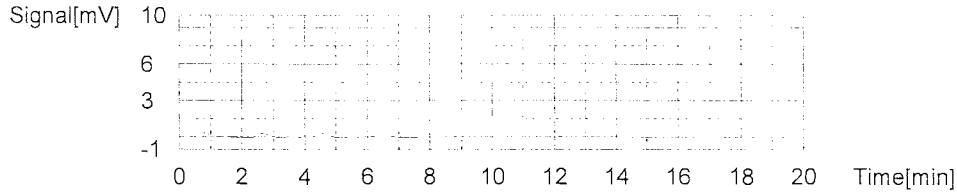
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 4.374



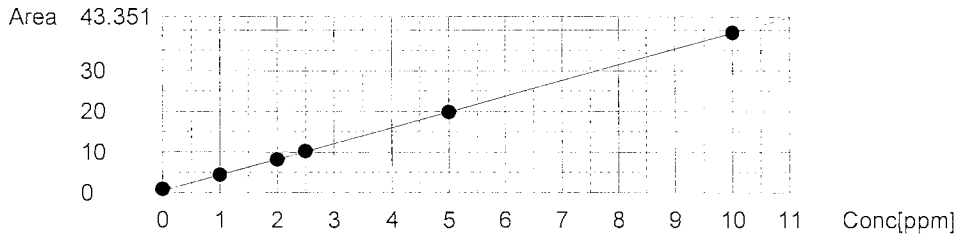
Conc: 0.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.8250	50uL	1	*******		12/1/2013 4:01:56 PM
2	0.7695	50uL	1	*******		12/1/2013 4:04:01 PM
3	0.7396	50uL	1	*******		12/1/2013 4:06:06 PM
4	0.6782	50uL	1	*******		12/1/2013 4:08:11 PM

Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 0.7531



Slope: 3.880
Intercept 0.5017
r^2 0.9999
r 0.9999
Zero Shift No



Control Sample

Sample Name: ICV
Sample ID: ICV - IS# 52578
Method: ICV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.464 / Control within range!

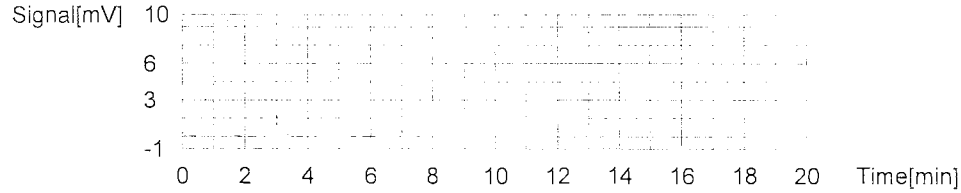
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.464ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.31	2.485ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:01:54 PM
2	10.10	2.433ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:03:59 PM
3	10.15	2.445ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:06:04 PM
4	10.34	2.492ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 5:08:09 PM

Mean Area 10.23
Mean Conc. 2.464ppm



Control Sample

Sample Name: ICB
Sample ID: ICB
Method: ICB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.03064 / Control within range!

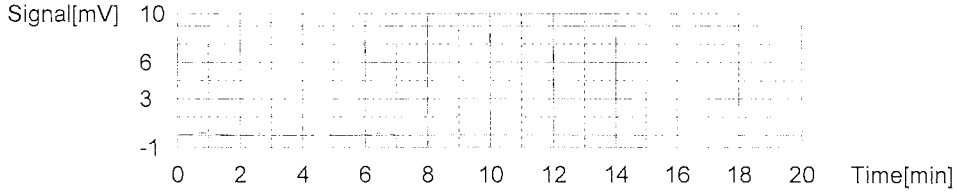
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03064ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4325	-0.01784ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:17:29 PM
2	0.3782	-0.03183ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:19:34 PM
3	0.3543	-0.03799ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:21:39 PM
4	0.3663	-0.03490ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:23:44 PM

Mean Area 0.3828
Mean Conc. -0.03064ppm



Control Sample

Sample Name: MB
Sample ID: MB
Method: MB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.04104 / Control within range!

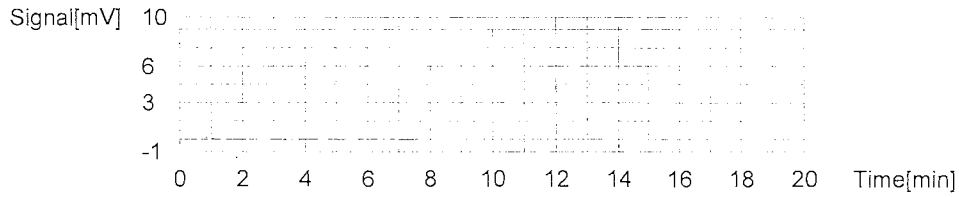
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.04104ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3526	-0.03843ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:33:03 PM
2	0.3397	-0.04176ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:35:08 PM
3	0.3543	-0.03799ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:37:13 PM
4	0.3233	-0.04598ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:39:18 PM

Mean Area 0.3425
Mean Conc. -0.04104ppm



Control Sample

Sample Name:	LCS
Sample ID:	LCS - IS# 52578
Method:	LCS - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 2.520 / Control within range!

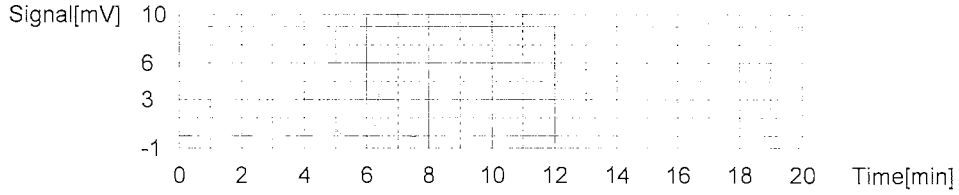
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.520ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.46	2.567ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:48:38 PM
2	10.17	2.492ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:50:43 PM
3	10.19	2.497ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:52:48 PM
4	10.29	2.523ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 5:54:53 PM

Mean Area 10.28
Mean Conc. 2.520ppm



Control Sample

Sample Name:	LCSD
Sample ID:	LCSD - IS# 52578
Method:	LCS - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 2.628 / Control within range!

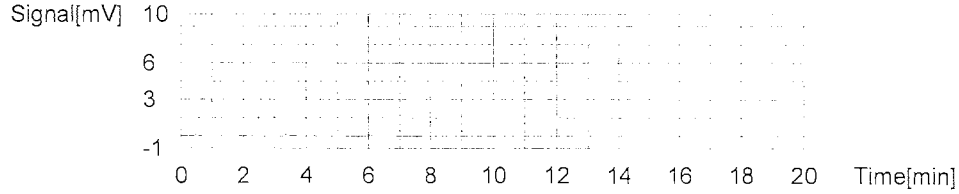
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.628ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.02	2.662ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:04:14 PM
2	10.88	2.627ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:06:19 PM
3	10.82	2.612ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:08:24 PM
4	10.82	2.612ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/1/2013 6:10:31 PM

Mean Area 10.89
Mean Conc. 2.628ppm



Sample

Sample Name: 351099301 2x
Sample ID: 351099301 2x
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

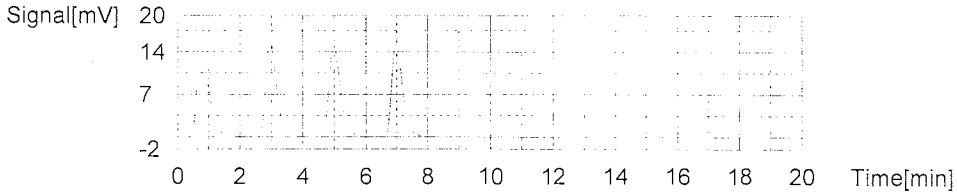
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.32ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.52	19.08ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:27:15 PM
2	38.54	19.61ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:29:28 PM
3	37.85	19.25ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:31:39 PM
4	38.04	19.35ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:33:53 PM

Mean Area 37.99
Mean Conc. 19.32ppm



Sample

Sample Name: 351099302
Sample ID: 351099302
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

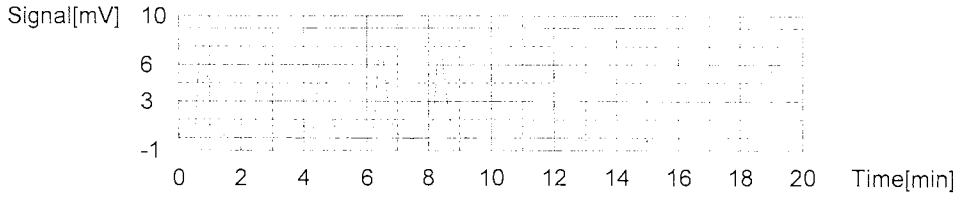
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.360ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.13	4.801ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:43:11 PM
2	17.97	4.502ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:45:16 PM
3	17.27	4.322ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:47:21 PM
4	17.16	4.294ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:49:26 PM
5	17.27	4.322ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 8:51:31 PM

Mean Area 17.42
Mean Conc. 4.360ppm



Sample

Sample Name: 351099303 3x
Sample ID: 351099303 3x
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

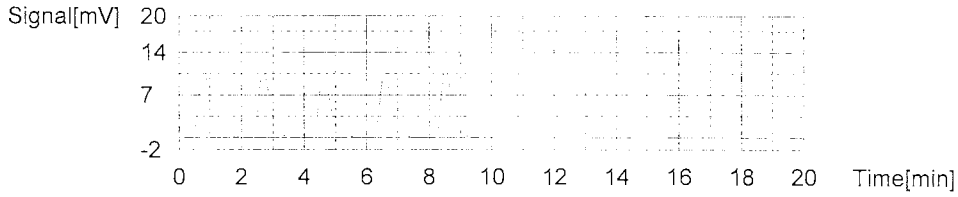
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.63ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.94	21.99ppm	50uL	3	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:01:49 PM
2	27.55	20.91ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:03:56 PM
3	26.88	20.40ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:06:03 PM
4	27.38	20.78ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:08:12 PM
5	26.92	20.43ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:10:18 PM

Mean Area 27.18
Mean Conc. 20.63ppm



Sample

Sample Name: 351099304
Sample ID: 351099304
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

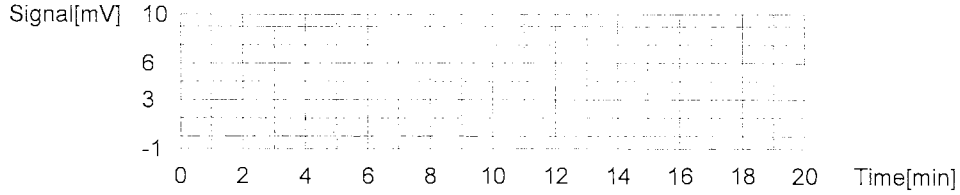
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8040ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.698	1.082ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:19:31 PM
2	3.820	0.8553ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:21:36 PM
3	3.537	0.7823ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:23:41 PM
4	3.559	0.7880ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:25:46 PM
5	3.568	0.7903ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 9:27:51 PM

Mean Area 3.621
Mean Conc. 0.8040ppm



Sample

Sample Name: 351099403
Sample ID: 351099403
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

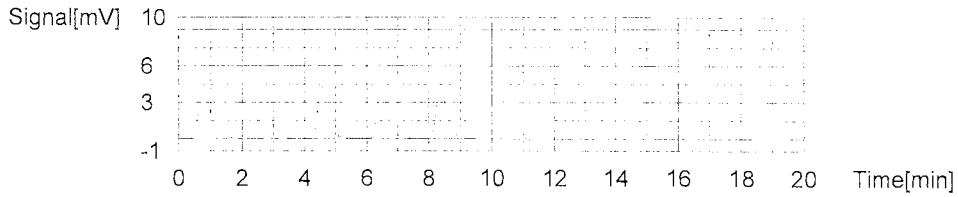
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.438ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.40	2.551ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:10:22 PM
2	10.07	2.466ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:12:27 PM
3	9.932	2.431ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:14:32 PM
4	9.887	2.419ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:16:37 PM
5	9.952	2.436ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:18:42 PM

Mean Area 9.960
Mean Conc. 2.438ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.426 / Control within range!

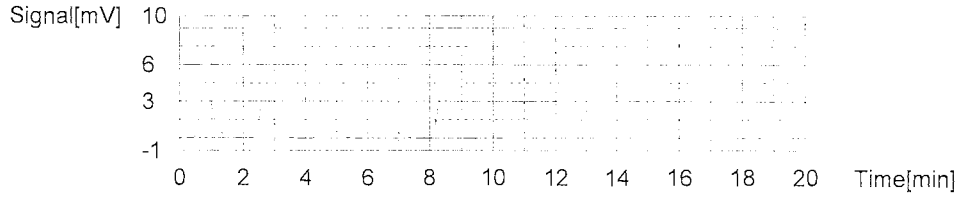
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.426ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.77	2.647ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:29:35 PM
2	10.08	2.469ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:31:40 PM
3	9.924	2.429ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:33:45 PM
4	9.784	2.392ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:35:50 PM
5	9.864	2.413ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:37:55 PM

Mean Area 9.913
Mean Conc. 2.426ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.03888 / Control within range!

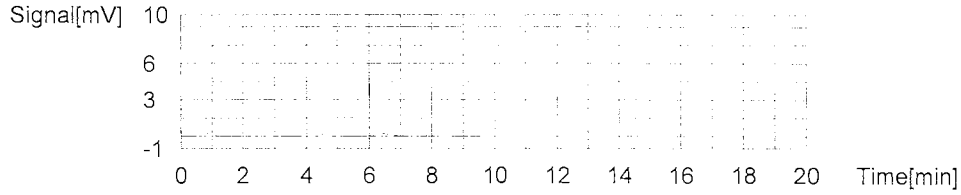
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03888ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5493	0.01227ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:48:43 PM
2	0.3609	-0.03629ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:50:48 PM
3	0.3496	-0.03921ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:52:53 PM
4	0.3312	-0.04395ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:54:58 PM
5	0.3617	-0.03609ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 10:57:03 PM

Mean Area 0.3509
Mean Conc. -0.03888ppm



Sample

Sample Name: 351099408
Sample ID: 351099408
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

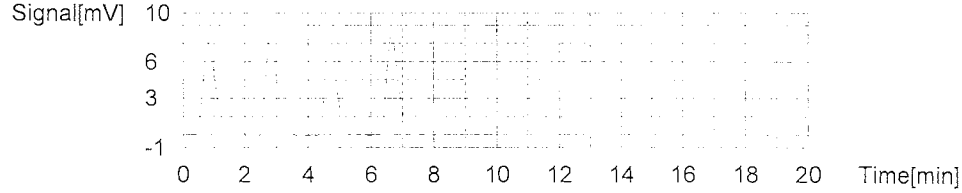
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.246ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.68	5.201ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:06:30 PM
2	20.82	5.237ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:08:35 PM
3	20.79	5.229ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:10:41 PM
4	21.13	5.317ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:12:51 PM

Mean Area 20.86
Mean Conc. 5.246ppm



Sample

Sample Name: 351099409
Sample ID: 351099409
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

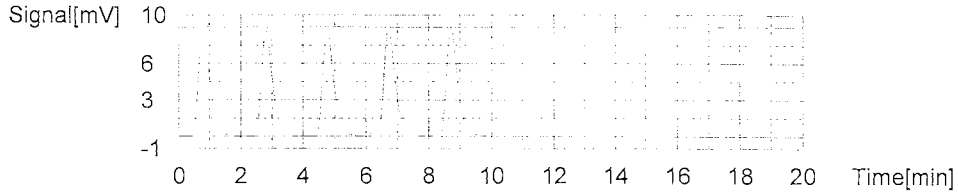
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.471ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.80	5.747ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:22:15 PM
2	21.94	5.526ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:24:24 PM
3	21.56	5.428ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:26:32 PM
4	21.58	5.433ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:28:42 PM
5	21.84	5.500ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:30:47 PM

Mean Area 21.73
Mean Conc. 5.471ppm



Sample

Sample Name: 351099410
Sample ID: 351099410
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

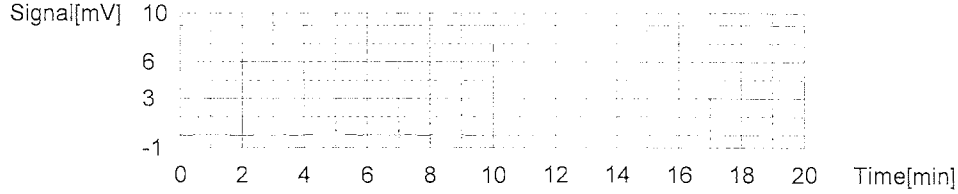
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.621ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.746	1.867ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:39:59 PM
2	6.928	1.656ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:42:04 PM
3	6.678	1.592ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:44:09 PM
4	6.772	1.616ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:46:14 PM
5	6.788	1.620ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:48:19 PM

Mean Area 6.792
Mean Conc. 1.621ppm



Sample

Sample Name: 351099411
Sample ID: 351099411
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

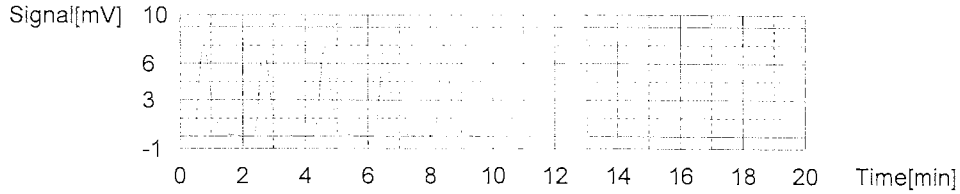
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.547ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.00	4.768ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:57:31 PM
2	18.23	4.569ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/1/2013 11:59:37 PM
3	18.14	4.546ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:01:44 AM
4	18.01	4.513ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:03:49 AM
5	18.20	4.562ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:05:54 AM

Mean Area 18.15
Mean Conc. 4.547ppm



Sample

Sample Name: 351099414
Sample ID: 351099414
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

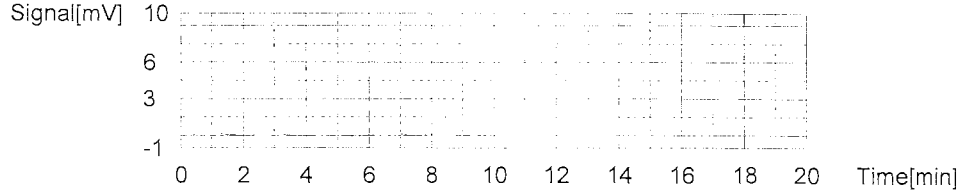
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8735ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.612	1.059ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:15:06 AM
2	4.016	0.9058ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:17:11 AM
3	3.809	0.8524ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:19:16 AM
4	3.938	0.8857ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:21:21 AM
5	3.800	0.8501ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:23:26 AM

Mean Area 3.891
Mean Conc. 0.8735ppm



Sample

Sample Name: 351100901
Sample ID: 351100901
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

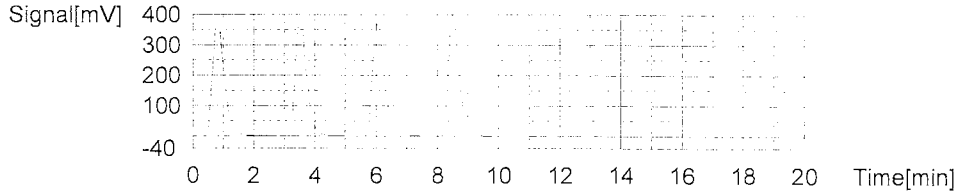
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:259.2ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1019	262.5ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:33:27 AM
2	998.7	257.3ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:36:09 AM
3	1001	257.9ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:38:52 AM
4	1006	259.2ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:41:36 AM

Mean Area 1006
Mean Conc. 259.2ppm



Sample

Sample Name: 351100902
Sample ID: 351100902
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

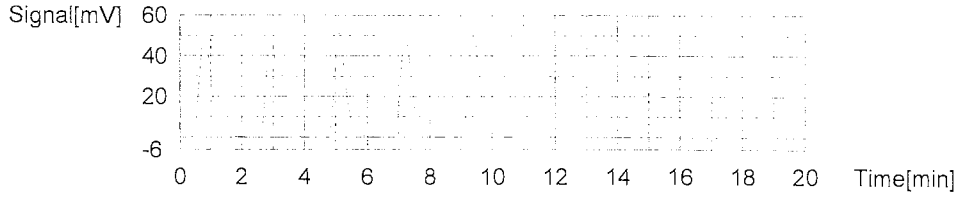
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.64ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	133.5	34.28ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:51:08 AM
2	127.7	32.78ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:53:31 AM
3	125.5	32.22ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:55:47 AM
4	127.4	32.71ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:58:08 AM
5	128.0	32.86ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:00:31 AM

Mean Area 127.2
Mean Conc. 32.64ppm



Sample

Sample Name: 351100903
Sample ID: 351100903
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

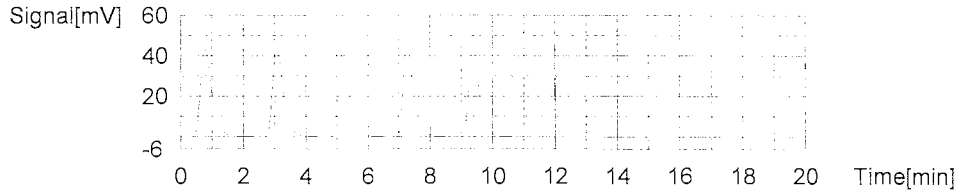
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:27.00ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	110.5	28.35ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:10:08 AM
2	106.2	27.24ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:12:26 AM
3	104.3	26.75ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:14:43 AM
4	105.7	27.11ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:16:59 AM
5	104.8	26.88ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:19:16 AM

Mean Area 105.3
Mean Conc. 27.00ppm



Sample

Sample Name: 351100904
Sample ID: 351100904
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

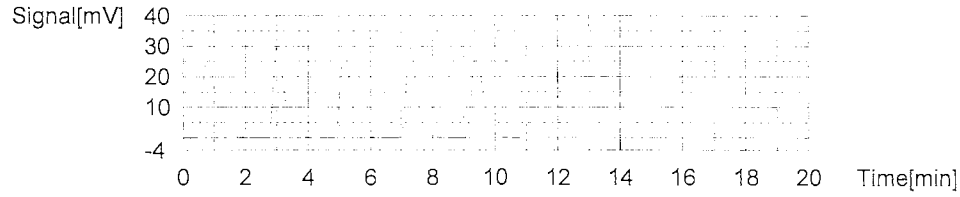
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.13ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.58	19.61ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:28:50 AM
2	72.53	18.56ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:31:09 AM
3	69.43	17.77ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:33:28 AM
4	70.80	18.12ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:35:44 AM
5	70.58	18.06ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:38:04 AM

Mean Area 70.83
Mean Conc. 18.13ppm



Sample

Sample Name: 351100905
Sample ID: 351100905
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

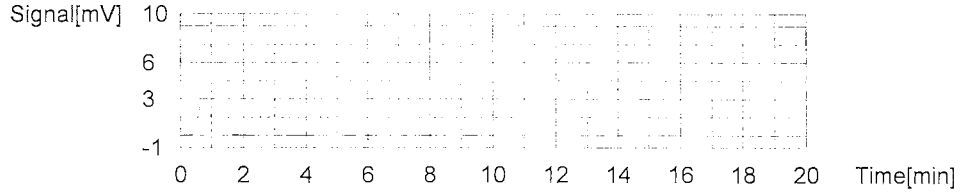
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.133ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.670	2.105ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:47:16 AM
2	5.507	1.290ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:49:21 AM
3	4.758	1.097ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:51:26 AM
4	4.684	1.078ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:53:31 AM
5	4.640	1.067ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:55:36 AM

Mean Area 4.897
Mean Conc. 1.133ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.329 / Control within range!

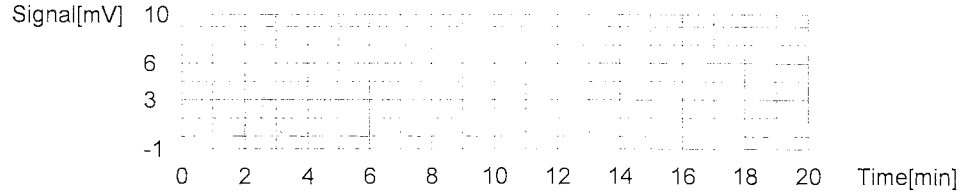
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.329ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.08	2.727ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:06:21 AM
2	9.722	2.376ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:08:26 AM
3	9.470	2.312ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:10:31 AM
4	9.336	2.277ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:12:36 AM
5	9.624	2.351ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:14:41 AM

Mean Area 9.538
Mean Conc. 2.329ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 0.01736 / Control within range!

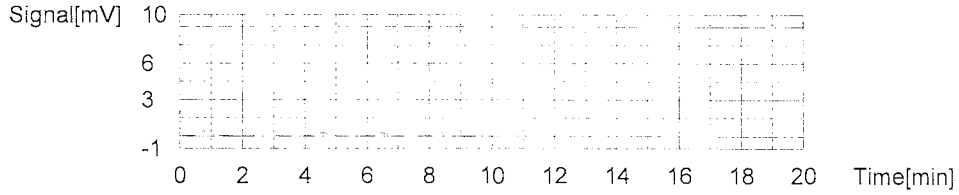
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.01736ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9342	0.1115ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:25:26 AM
2	0.5986	0.02497ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:27:31 AM
3	0.5349	0.00855ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:29:36 AM
4	0.5170	0.00394ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:31:41 AM
5	0.6257	0.03196ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:33:46 AM

Mean Area 0.5691
Mean Conc. 0.01736ppm



Sample

Sample Name: 351100906
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

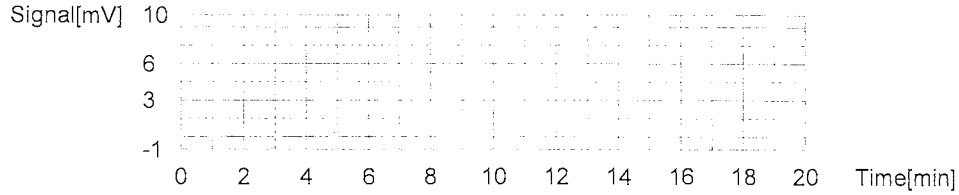
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7710ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.539	0.7828ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:42:58 AM
2	3.526	0.7795ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:45:03 AM
3	3.450	0.7599ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:47:08 AM
4	3.457	0.7617ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:49:13 AM

Mean Area 3.493
Mean Conc. 0.7710ppm



Sample

Sample Name: 351100906MS
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

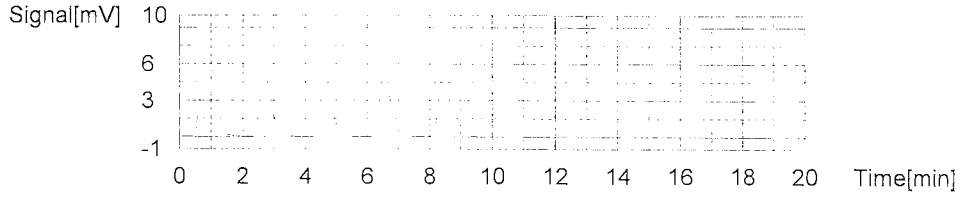
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.286ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.16	3.520ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 2:58:30 AM
2	13.51	3.353ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:00:37 AM
3	13.04	3.232ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:02:42 AM
4	13.17	3.265ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:04:47 AM
5	13.28	3.294ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:06:52 AM

Mean Area 13.25
Mean Conc. 3.286ppm



Sample

Sample Name: 351100906MSD
Sample ID: 351100906
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

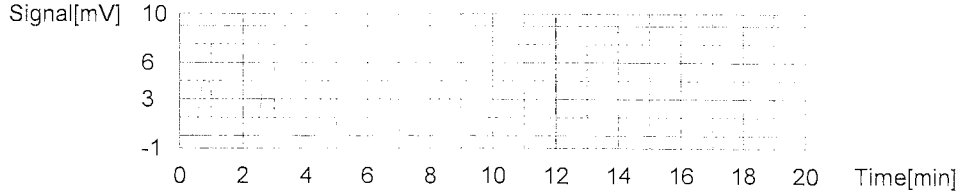
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.270ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.96	3.469ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:16:06 AM
2	13.41	3.327ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:18:12 AM
3	12.97	3.214ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:20:17 AM
4	13.14	3.257ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:22:22 AM
5	13.23	3.281ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:24:27 AM

Mean Area 13.19
Mean Conc. 3.270ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.214 / Control exceeds range!

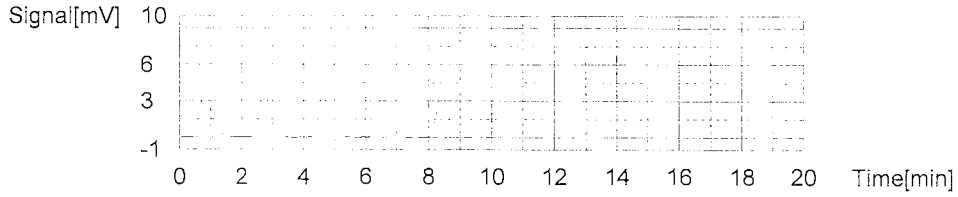
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.214ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.962	2.438ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:35:12 AM
2	9.211	2.245ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:37:17 AM
3	9.036	2.200ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:39:22 AM
4	8.898	2.164ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:41:27 AM
5	9.229	2.249ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:43:32 AM

Mean Area 9.094
Mean Conc. 2.214ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 0.1905 / Control within range!

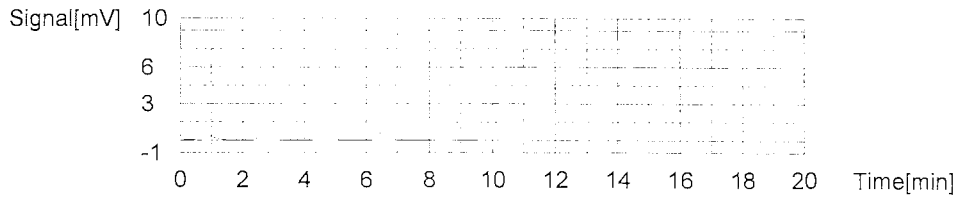
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1905ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.463	0.2478ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:54:17 AM
2	1.243	0.1911ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:56:22 AM
3	1.202	0.1805ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:58:27 AM
4	1.242	0.1908ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:00:32 AM
5	1.276	0.1996ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:02:37 AM

Mean Area 1.241
Mean Conc. 0.1905ppm



Instr.Information

System	TOC
Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Control Sample

Sample Name:	RINSE
Sample ID:	RINSE - DI H2O - IS# 45611
Method:	RINSE - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.02512 / Control within range!

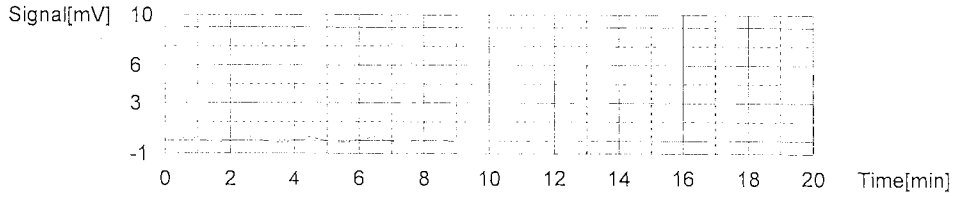
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.02512ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9668	0.02110ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:31:09 AM
2	0.8059	-0.02269ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:33:14 AM
3	0.7141	-0.04767ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:35:19 AM
4	0.6914	-0.05385ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:37:24 AM
5	0.8067	-0.02247ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:39:29 AM

Mean Area	0.7970
Mean Conc.	-0.02512ppm



Cal. Curve

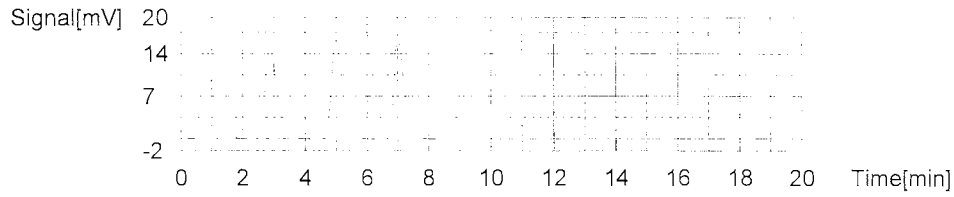
Sample Name:	10PPM
Sample ID:	10PPM - IS# 49986
Cal. Curve:	NPOC 10ppm.2013_12_01_14_34_46.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 10.00ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.68	50uL	1	*******		12/1/2013 2:44:28 PM
2	39.65	50uL	1	*******		12/1/2013 2:46:49 PM
3	39.31	50uL	1	*******		12/1/2013 2:49:02 PM
4	39.00	50uL	1	*******		12/1/2013 2:51:11 PM

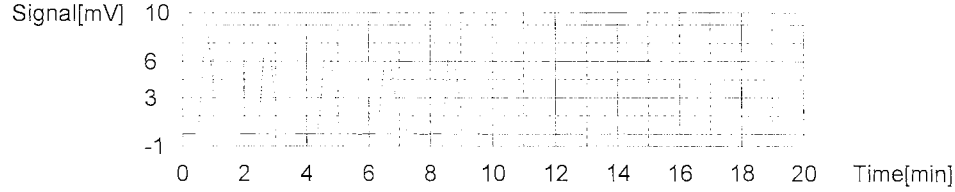
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 39.41



Conc: 5.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.46	50uL	2	*******	E	12/1/2013 3:00:05 PM
2	20.13	50uL	2	*******		12/1/2013 3:02:12 PM
3	19.57	50uL	2	*******		12/1/2013 3:04:18 PM
4	19.60	50uL	2	*******		12/1/2013 3:06:37 PM
5	19.84	50uL	2	*******		12/1/2013 3:08:53 PM

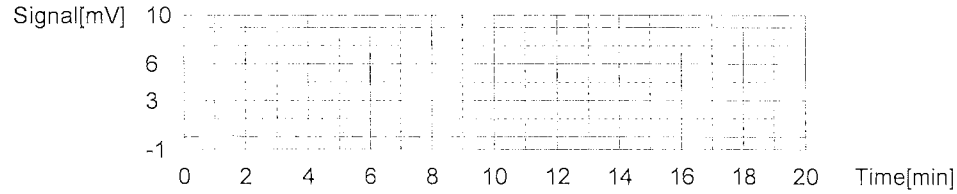
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 19.79



Conc: 2.500ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.28	50uL	4	*******		12/1/2013 3:17:43 PM
2	10.21	50uL	4	*******		12/1/2013 3:19:49 PM
3	9.934	50uL	4	*******		12/1/2013 3:21:54 PM
4	10.06	50uL	4	*******		12/1/2013 3:24:01 PM

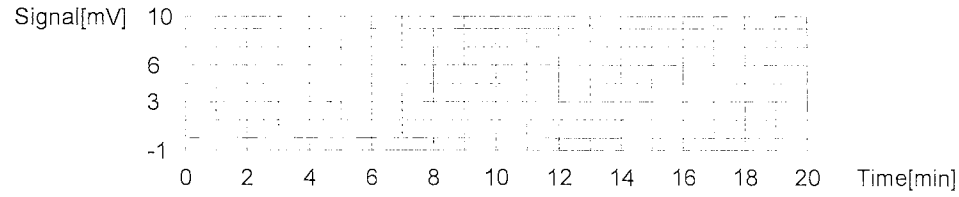
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 10.12



Conc: 2.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.270	50uL	5	*******		12/1/2013 3:32:55 PM
2	8.186	50uL	5	*******		12/1/2013 3:34:59 PM
3	7.986	50uL	5	*******		12/1/2013 3:37:04 PM
4	7.969	50uL	5	*******		12/1/2013 3:39:09 PM

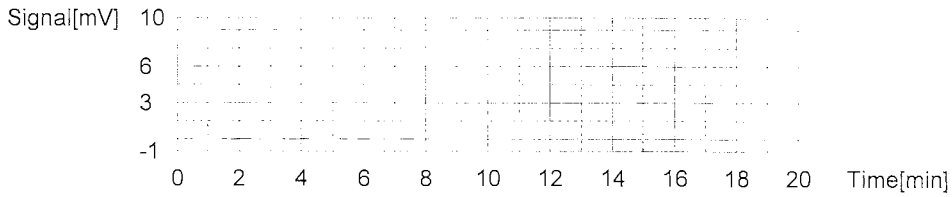
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 8.103



Conc: 1.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.475	50uL	10	*******		12/1/2013 3:48:04 PM
2	4.351	50uL	10	*******		12/1/2013 3:50:09 PM
3	4.360	50uL	10	*******		12/1/2013 3:52:14 PM
4	4.311	50uL	10	*******		12/1/2013 3:54:19 PM

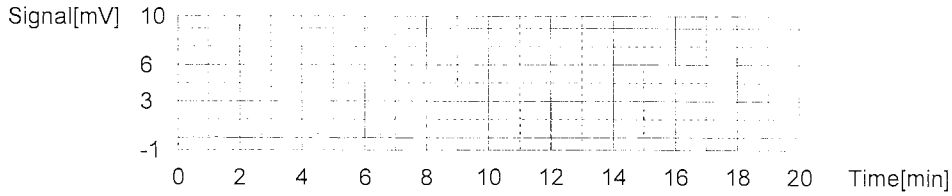
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 4.374



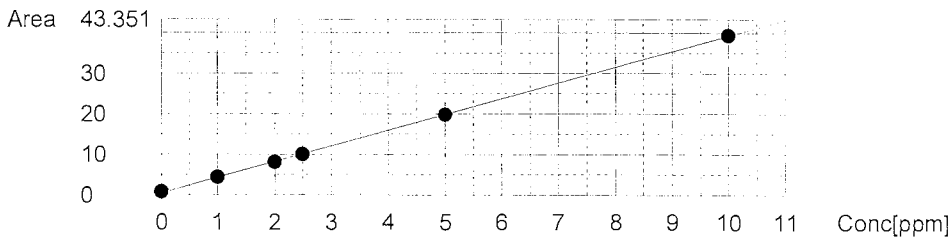
Conc: 0.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.8250	50uL	1	*******		12/1/2013 4:01:56 PM
2	0.7695	50uL	1	*******		12/1/2013 4:04:01 PM
3	0.7396	50uL	1	*******		12/1/2013 4:06:06 PM
4	0.6782	50uL	1	*******		12/1/2013 4:08:11 PM

Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 0.7531



Slope: 3.880
Intercept 0.5017
r^2 0.9999
r 0.9999
Zero Shift No



Control Sample

Sample Name: ICV
Sample ID: ICV - IS# 52578
Method: ICV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.376 / Control within range!

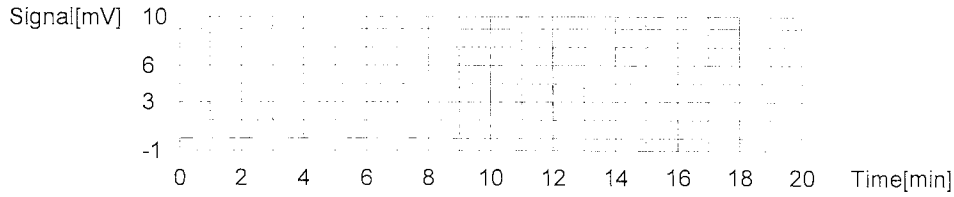
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.376ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.03	2.415ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:48:49 AM
2	9.911	2.385ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:50:54 AM
3	9.763	2.349ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:53:01 AM
4	9.784	2.354ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:55:06 AM

Mean Area 9.872
Mean Conc. 2.376ppm



Control Sample

Sample Name:	ICB
Sample ID:	ICB
Method:	ICB - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.02803 / Control within range!

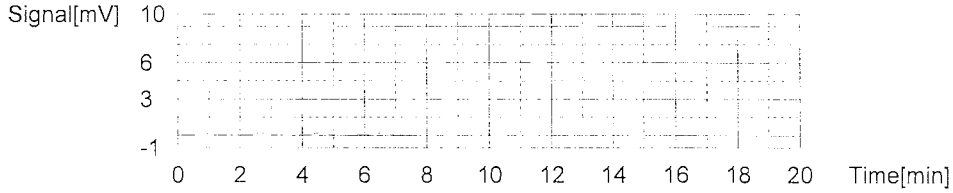
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.02803ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4273	-0.01918ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:04:26 AM
2	0.4038	-0.02524ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:06:31 AM
3	0.3761	-0.03238ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:08:36 AM
4	0.3647	-0.03531ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:10:41 AM

Mean Area	0.3930
Mean Conc.	-0.02803ppm



Control Sample

Sample Name:	MB
Sample ID:	MB
Method:	MB - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.03169 / Control within range!

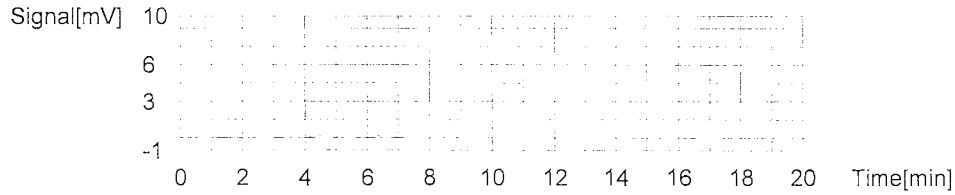
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03169ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4343	-0.01737ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:20:01 AM
2	0.3505	-0.03897ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:22:06 AM
3	0.3606	-0.03637ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:24:11 AM
4	0.3696	-0.03405ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:26:16 AM

Mean Area	0.3788
Mean Conc.	-0.03169ppm



Control Sample

Sample Name: LCS
Sample ID: LCS - IS# 52578
Method: LCS - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.401 / Control within range!

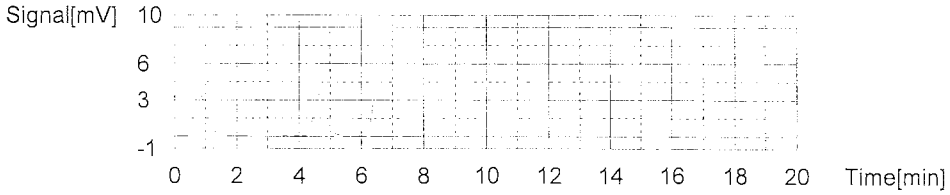
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.401ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.893	2.421ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:35:36 AM
2	9.942	2.433ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:37:41 AM
3	9.638	2.355ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:39:46 AM
4	9.790	2.394ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:41:51 AM

Mean Area 9.816
Mean Conc. 2.401ppm



Control Sample

Sample Name: LCSD
Sample ID: LCSD - IS# 52578
Method: LCS - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.249 / Control within range!

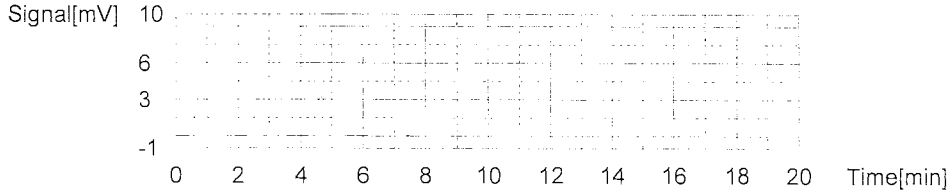
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.249ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.500	2.283ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:51:11 AM
2	9.324	2.239ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:53:16 AM
3	9.228	2.215ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:55:21 AM
4	9.406	2.260ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:57:26 AM

Mean Area 9.364
Mean Conc. 2.249ppm



Sample

Sample Name: 351100901 50x
Sample ID: 351100901
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

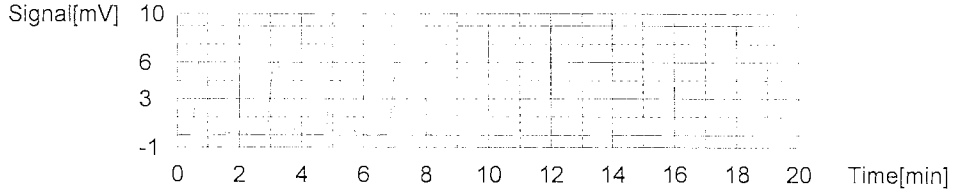
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:232.8ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.79	235.7ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:47:41 AM
2	18.65	233.9ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:49:47 AM
3	18.33	229.8ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:52:00 AM
4	18.49	231.8ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:54:13 AM

Mean Area 18.56
Mean Conc. 232.8ppm



Sample

Sample Name: 351100902 5x
Sample ID: 351100902
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

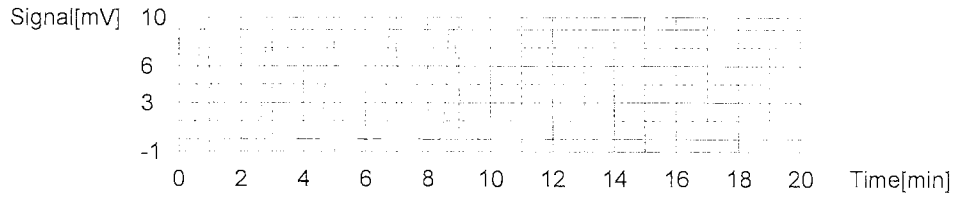
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.12ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.38	34.64ppm	50uL	5	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:04:46 PM
2	24.79	31.30ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:06:58 PM
3	24.30	30.67ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:09:08 PM
4	24.75	31.25ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:11:13 PM
5	24.77	31.28ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:13:18 PM

Mean Area 24.65
Mean Conc. 31.12ppm



Sample

Sample Name: 351100903 3x
Sample ID: 351100903
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

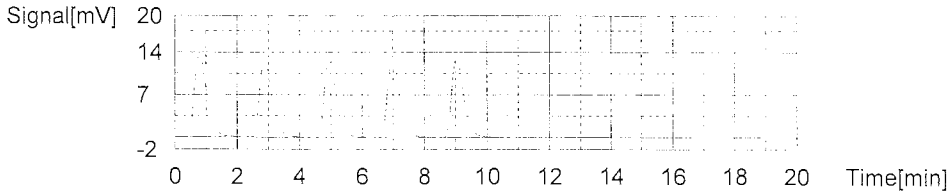
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.28ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.36	28.50ppm	50uL	3	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:23:48 PM
2	35.13	26.78ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:26:04 PM
3	34.17	26.03ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:28:16 PM
4	34.32	26.15ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:30:30 PM
5	34.33	26.16ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:32:43 PM

Mean Area 34.49
Mean Conc. 26.28ppm



Sample

Sample Name: 351100904 2x
Sample ID: 351100904
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

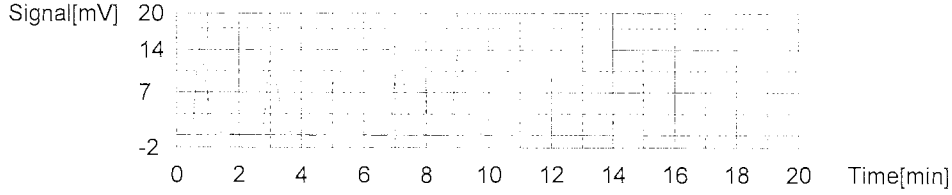
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.81ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.65	17.60ppm	50uL	2	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:00:29 PM
2	32.84	16.67ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:02:45 PM
3	33.07	16.79ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:04:56 PM
4	33.02	16.76ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:07:03 PM
5	33.48	17.00ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:09:11 PM

Mean Area 33.10
Mean Conc. 16.81ppm



Control Sample

Sample Name:	CCV
Sample ID:	CCV - IS# 49986
Method:	CCV - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 2.237 / Control exceeds range!

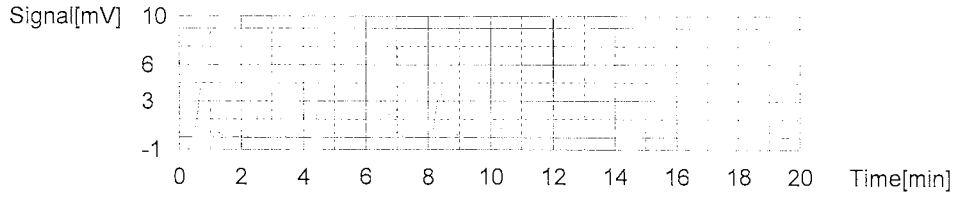
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.237ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.17	3.007ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:20:05 PM
2	9.713	2.374ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:22:10 PM
3	9.176	2.236ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:24:15 PM
4	8.976	2.184ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:26:20 PM
5	8.854	2.153ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:28:25 PM

Mean Area	9.180
Mean Conc.	2.237ppm



Control Sample

Sample Name:	CCB
Sample ID:	CCB
Method:	CCB - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.00795 / Control within range!

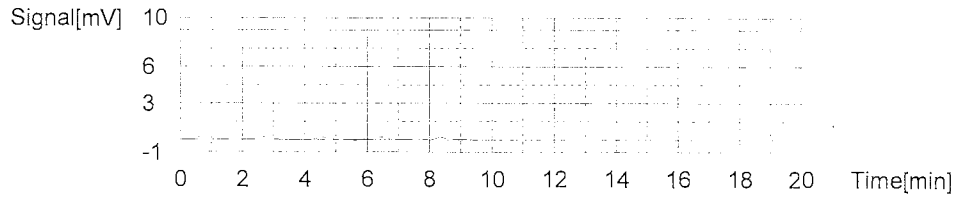
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00795ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8670	0.09415ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:39:13 PM
2	0.5145	0.00330ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:41:18 PM
3	0.4873	-0.00371ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:43:23 PM
4	0.4553	-0.01196ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:45:28 PM
5	0.4263	-0.01944ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:47:33 PM

Mean Area	0.4708
Mean Conc.	-0.00795ppm



Sample

Sample Name: 351101102
Sample ID: 351101102
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

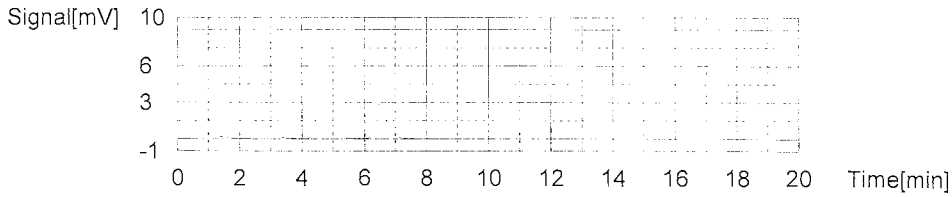
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.753ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.430	1.786ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:15:25 PM
2	7.307	1.754ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:17:30 PM
3	7.236	1.736ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:19:35 PM
4	7.234	1.735ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:21:40 PM

Mean Area 7.302
Mean Conc. 1.753ppm



Sample

Sample Name: 351101103
Sample ID: 351101103
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

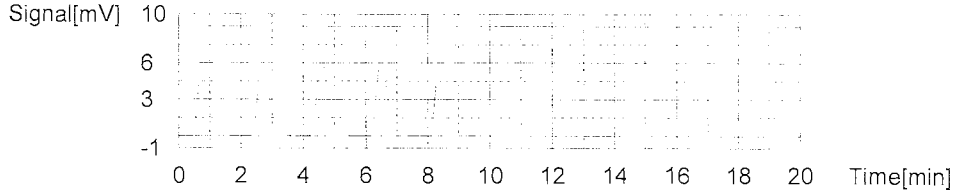
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.939ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.22	4.309ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:30:57 PM
2	15.96	3.984ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:33:02 PM
3	15.69	3.915ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:35:07 PM
4	15.61	3.894ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:37:12 PM
5	15.87	3.961ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:39:17 PM

Mean Area 15.78
Mean Conc. 3.939ppm



Sample

Sample Name: 351101104
Sample ID: 351101104
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

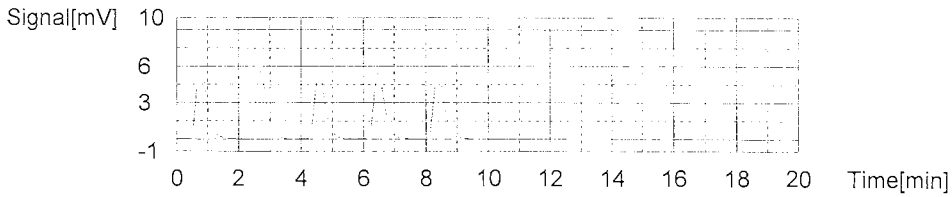
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.305ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.51	3.611ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:48:29 PM
2	13.58	3.371ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:50:34 PM
3	13.07	3.239ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:52:39 PM
4	13.33	3.306ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:54:44 PM
5	13.32	3.304ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:56:49 PM

Mean Area 13.32
Mean Conc. 3.305ppm



Sample

Sample Name: 351101106
Sample ID: 351101106
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

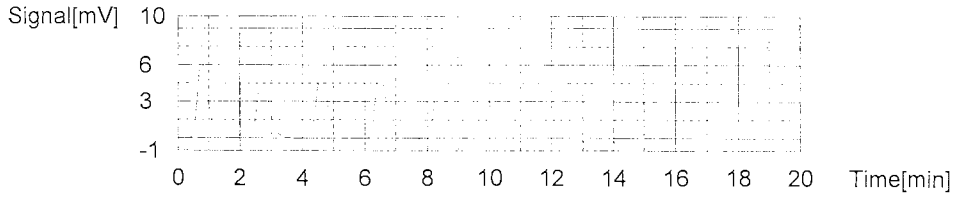
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.408ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.83	3.693ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:06:01 PM
2	13.93	3.461ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:08:06 PM
3	13.37	3.317ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:10:11 PM
4	13.72	3.407ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:12:16 PM
5	13.87	3.446ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:14:21 PM

Mean Area 13.72
Mean Conc. 3.408ppm



Sample

Sample Name: 351101107
Sample ID: 351101107
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

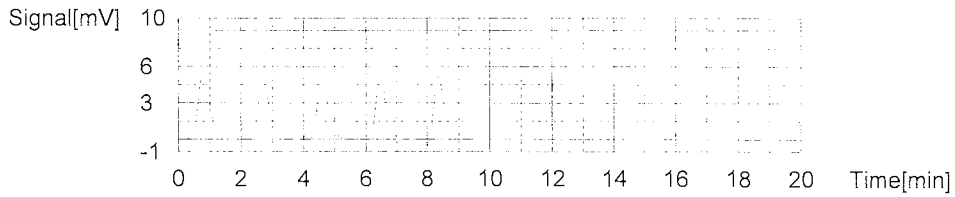
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.949ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.35	3.312ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:23:33 PM
2	12.02	2.969ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:25:38 PM
3	11.93	2.946ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:27:43 PM
4	11.96	2.953ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:29:48 PM
5	11.86	2.928ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:31:53 PM

Mean Area 11.94
Mean Conc. 2.949ppm



Sample

Sample Name: 351101108
Sample ID: 351101108
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

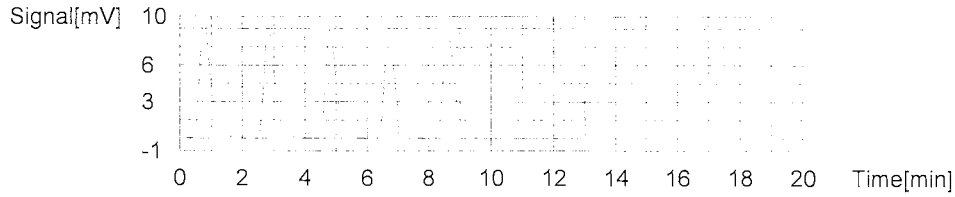
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.472ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.76	5.737ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:41:14 PM
2	21.89	5.513ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:43:23 PM
3	21.48	5.407ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:45:28 PM
4	21.64	5.448ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:47:33 PM
5	21.92	5.520ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:49:39 PM

Mean Area 21.73
Mean Conc. 5.472ppm



Sample

Sample Name: 351101109
Sample ID: 351101109
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

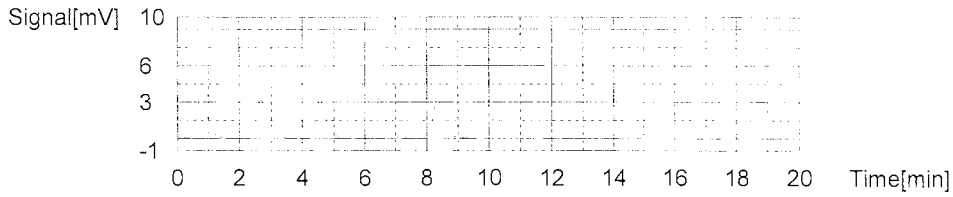
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.764ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.616	2.091ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:58:51 PM
2	7.513	1.807ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:00:56 PM
3	7.272	1.745ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:03:01 PM
4	7.341	1.763ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:05:06 PM
5	7.255	1.741ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:07:11 PM

Mean Area 7.345
Mean Conc. 1.764ppm



Sample

Sample Name: 351101110
Sample ID: 351101110
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

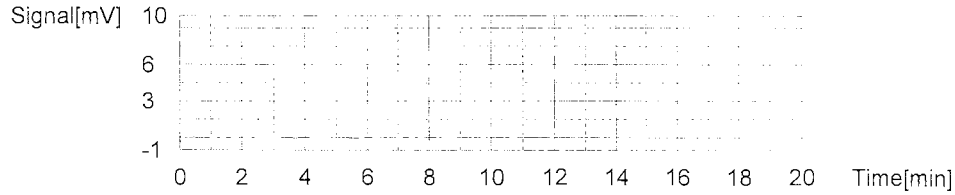
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.550ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.207	1.728ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:16:23 PM
2	6.554	1.560ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:18:28 PM
3	6.466	1.537ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:20:33 PM
4	6.456	1.535ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:22:38 PM
5	6.593	1.570ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:24:43 PM

Mean Area 6.517
Mean Conc. 1.550ppm



Sample

Sample Name: 351101201
Sample ID: 351101201
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

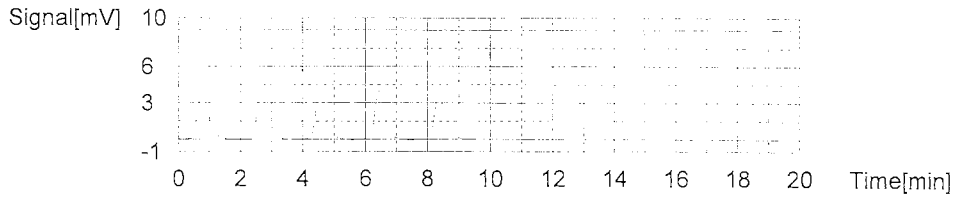
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.109ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.376	2.287ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:33:55 PM
2	8.614	2.091ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:36:00 PM
3	8.494	2.060ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:38:05 PM
4	8.781	2.134ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:40:10 PM
5	8.846	2.151ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:42:15 PM

Mean Area 8.684
Mean Conc. 2.109ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.739 / Control within range!

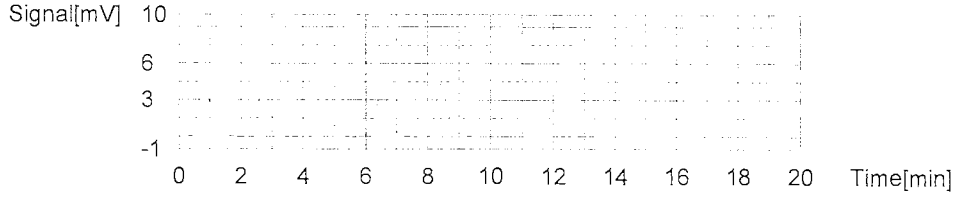
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.739ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.17	3.007ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:10:38 PM
2	11.48	2.830ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:12:43 PM
3	10.93	2.688ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:14:48 PM
4	10.94	2.690ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:16:53 PM
5	11.16	2.747ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:18:58 PM

Mean Area 11.13
Mean Conc. 2.739ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.00293 / Control within range!

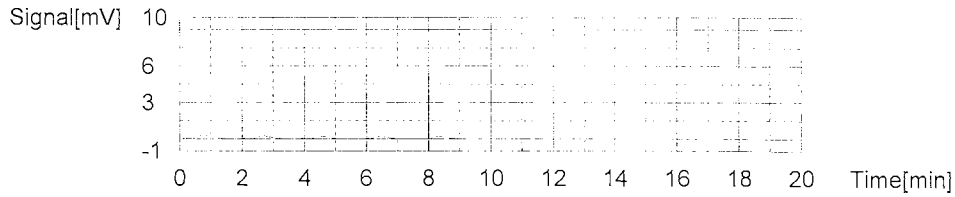
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00293ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7194	0.05611ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:29:43 PM
2	0.5526	0.01312ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:31:48 PM
3	0.5041	0.00062ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:33:53 PM
4	0.4181	-0.02155ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:35:58 PM
5	0.4866	-0.00389ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:38:03 PM

Mean Area 0.4904
Mean Conc. -0.00293ppm



Sample

Sample Name: 351101201MS
Sample ID: 351101201MS
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

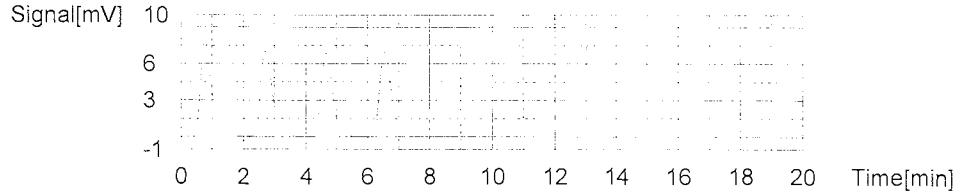
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.664ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.90	4.742ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:47:16 PM
2	18.57	4.657ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:49:22 PM
3	18.35	4.600ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:51:27 PM
4	18.57	4.657ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:53:32 PM

Mean Area 18.60
Mean Conc. 4.664ppm



Sample

Sample Name: 351101201MSD
Sample ID: 351101201MSD
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

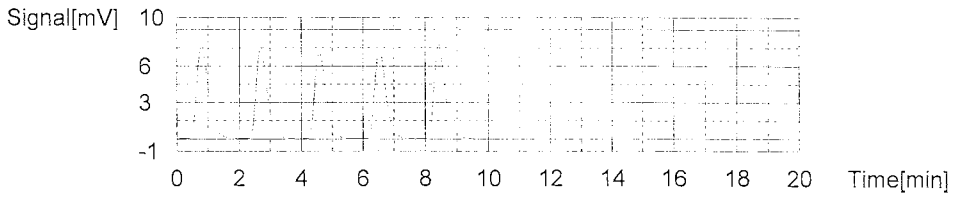
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.636ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.21	5.080ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:02:49 PM
2	18.74	4.701ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:04:54 PM
3	18.24	4.572ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:07:01 PM
4	18.34	4.598ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:09:06 PM
5	18.63	4.672ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:11:11 PM

Mean Area 18.49
Mean Conc. 4.636ppm



Sample

Sample Name: 351101202
Sample ID: 351101202
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

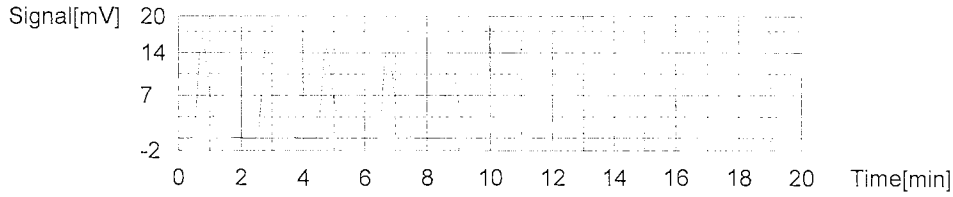
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.503ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.77	10.38ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:25:25 PM
2	37.90	9.639ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:27:32 PM
3	36.44	9.263ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:29:42 PM
4	37.32	9.490ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:31:53 PM
5	37.83	9.621ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:34:01 PM

Mean Area 37.37
Mean Conc. 9.503ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.567 / Control within range!

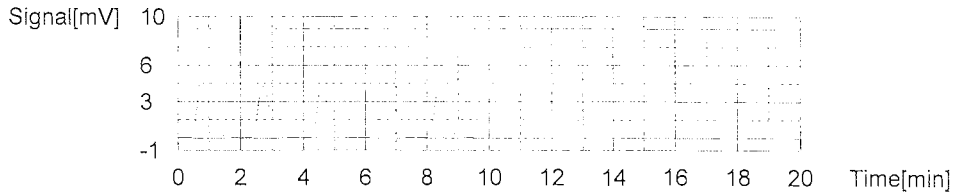
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.567ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.61	3.379ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:44:46 PM
2	11.01	2.708ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:46:51 PM
3	10.32	2.531ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:48:56 PM
4	10.24	2.510ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:51:01 PM
5	10.28	2.520ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:53:06 PM

Mean Area 10.46
Mean Conc. 2.567ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 0.1625 / Control within range!

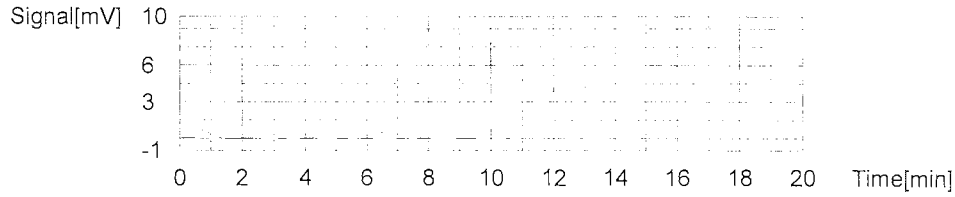
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1625ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.680	0.3037ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:03:51 PM
2	1.212	0.1831ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:05:56 PM
3	1.061	0.1442ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:08:01 PM
4	1.105	0.1555ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:10:06 PM
5	1.151	0.1674ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:12:11 PM

Mean Area 1.132
Mean Conc. 0.1625ppm



STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49986	C_Std_STK	Ultra Scientific	R00176	3/31/2015	500 ML	4/2/2013	twolf
1000 MG/L: TOC							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52578	C_Std_STK	RICCA	2310A81	10/20/2014	500 ML	11/21/2013	twolf
1000 MG/L: TOC							

End Of Report

091213 1230

Date Reported:
09-Dec-13

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

J.M.Waller Associates Inc.
100 Harstfield Centre Parkway, Suite 610
Atlanta, GA 30354

Project # 3511012
Project: Smokey Mountain Smelters 073-01-019-01-014

Attn: Austin Janice

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
351101201	SMSMW12A	W	14-Nov-13 10:00	15-Nov-13 10:00
351101202	SMSMW01A	W	14-Nov-13 12:20	15-Nov-13 10:00

Soil samples are reported on dry weight basis, unless otherwise noted.

Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis.

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirements have been meet unless noted in the case narrative.

Please contact the laboratory at 813-888-9507 with any questions regarding the data contained in the laboratory report.

Florida	E84207
Texas	T104704408-13-5
South Carolina	96011001
North Dakota	R-178
California	07253CA
Louisiana	02025
Kansas	E-10385
Arkansas	11-036-1

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2259 Testing

Respectfully Submitted,

Brian Spann
Laboratory Director
Spectrum Analytical, Inc. Florida Division

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EXECUTIVE SUMMARY - Detection Highlights

3511012

SAMPLE ID: SMSMW01A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	32100	10.0	MG/L	E160.1
Nitrite-N	0.210	0.100	MG/L	E300.1
ortho-Phosphate-P	0.920 J	1.00	MG/L	E300.1
Alkalinity (Total)	635	5.00	MG/L	E310.1
Ammonia	263	0.250	MG/L	E350.1
Sulfide	0.100 J	2.00	MG/L	E376.1
TOC	9.50	1.00	MG/L	SW9060

SAMPLE ID: SMSMW01ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Nitrate-N	97.5	2.50	MG/L	E300.1
Sulfate	900	25.0	MG/L	E300.1

SAMPLE ID: SMSMW01ADL2

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	20000	500	MG/L	E300.1

SAMPLE ID: SMSMW12A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Residue, Filterable (TDS	1460	10.0	MG/L	E160.1
Alkalinity (Total)	230	10.0	MG/L	E310.1
Ammonia	0.0557 J	0.250	MG/L	E350.1
Sulfide	0.200 J	2.00	MG/L	E376.1
TOC	2.11	1.00	MG/L	SW9060

091213 1230

EXECUTIVE SUMMARY - Detection Highlights

3511012

SAMPLE ID: SMSMW12ADL1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Chloride	338	10.0	MG/L	E300.1
Nitrate-N	21.4	1.00	MG/L	E300.1
Sulfate	220	10.0	MG/L	E300.1

091213 1230

Inorganics

091213 1230

Inorganic Data Qualifiers

C (Concentration) Qualifier - Entries and their meanings are:

J The reported value obtained was less than the RL but greater than or equal to the MDL.

E The reported value obtained was over calibration or linear range.

U The reported value obtained was less than the MDL or was not detected.

Q Qualifier - Entries and their meanings are:

U The reported value is estimated because of interference. An explanatory comment must be included under "Comments" on the Cover Page if the problem applies to all samples in this data package or on the individual FORM 1 if it is an isolated problem.

M Duplicate injection precision was not met (two analyses of the same sample did not agree).

N Spiked sample recovery not within control limits.

E Serial Dilution percent difference not within control limits.

S The reported value was determined by the Method of Standard Additions (MSA).

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%) while sample absorbance is less than 50% of spike absorbance.

***** Duplicate analysis not within control limits.

+ Correlation coefficient for the MSA is less than 0.995.

X The data is flagged as rejected by analyst utilizing analytical judgement.

Entering "S", "W", or "+" is mutually exclusive. No combination of these qualifiers can apear in the same field.

M (Method) Qualifier - Enter one of the following:

P ICP
A Flame AA
F Furnace AA
CV Manual Cold Vapor AA
TC Total Organic Carbon
AS Semi-Automated Spectrophotometric
CA Midi-Distillation Spectrophotometric
T Titrimetric
C Manual Spectrophotometric
GR Gravimetric
NR Analyte was not required by your lab

091213 1230

Inorganic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for inorganic analysis are defined below:

DL Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.

R Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.

RE Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.

MS Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).

SD Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

A Post Digestion Spike.

L Serial Dilution.

091213 1230

Wet Chemistry Data Package

091213 1230

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E160.1

IV. PREPARATION

Water samples were prepared according to PEL Laboratory's Standard Operating Procedures and EPA Method 160.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

The following samples were re-analyzed out of hold for Nitrate: SMSMW01ADL1, SMSMW12ADL1.

The samples were initially analyzed within hold, however the samples required a dilution for Nitrate and were re-analyzed approximately 10 days out of hold due to the instrument being down for repair. Both sets of data are reported for these samples for Nitrate.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E300.1

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

ICB1244174 was analyzed on 11/26/13 09:48. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Nitrate-N at 0.048 mg/L, Sulfate at 0.45 mg/L. CCB1244172 was analyzed on 11/26/13 15:13. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Nitrate-N at 0.043 mg/L, Sulfate at 0.45 mg/L. CCB1245673 was analyzed on 11/26/13 19:36. The following analyte(s) were detected below RL: Chloride at 0.53 mg/L, Nitrate-N at 0.048 mg/L, Sulfate at 0.46 mg/L. Samples coded accordingly.

The hits in the blanks are below the RL, therefore, no corrective action was taken.

2. Method Blanks:

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

All acceptance criteria were met with the exception of:

Blank 112513MB2 was analyzed with the water samples on 11/26/13. The following analyte(s) were detected below RL: Chloride at 0.52 mg/L, Nitrate-N at 0.043 mg/L, Sulfate at 0.45 mg/L
Samples coded accordingly.

The hits in the blank are below the RL, therefore, no corrective action was taken.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW01A required a 25X dilution due to high concentration of the following analyte(s): Fluoride, Nitrate-N, Sulfate.

Sample SMSMW01A required a 500X dilution due to high concentration of the following analyte(s): Chloride, Nitrate-N.

Sample SMSMW12A required a 10X dilution due to high concentration of the following analyte(s): Chloride, Nitrate-N, Sulfate.

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

MANUAL INTEGRATION SUMMARY

The following analytes were manually integrated by the chemist.

Sample: 111513LCS1 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: 111513LCSD1 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01A Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01A Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01A Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01ADL1 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01ADL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01ADL2 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW01ADL2 Analyte: Dichloroacetate - DCA
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW12A Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW12A Analyte: Nitrite-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW12ADL1 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW12ADL1 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Sample: SMSMW12ADL1 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241696 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241696 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241697 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1241697 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1244173 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

Calibration Sample: CCV1244173 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245674 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: CCV1245674 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1241701 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1241701 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: ICV1244175 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 1 Analyte: ortho-Phosphate-P
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 2 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 3 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 4 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 5 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Chloride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Dichloroacetate - DCA(SURR)
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Nitrate-N
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 6 Analyte: Sulfate
Reason: Baseline integration, needs re-enforced due to interference on target peak
Calibration Sample: STD 7 Analyte: Fluoride
Reason: Baseline integration, needs re-enforced due to interference on target peak

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

These manual integrations have been reviewed and meet all criteria in accordance with Spectrum Analytical Inc.'s SOP regarding manual integration.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

CHEMIST: DATE: 12/06/2013

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SECTION LEADER: DATE: 12/06/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E310.1

IV. PREPARATION

Water samples were prepared by EPA Method 310.1 / SM2320B.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW01A required a 5X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

Sample SMSMW12A required a 10X dilution due to high concentration of the following analyte(s): Alkalinity (Total).

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:

Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E350.1

IV. PREPARATION

Water samples were prepared by EPA Method 350.1 / SM4500-NH3 G.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met. No action required. The following ICB/CCB(s) had element concentrations below the RL:

206018CCB was analyzed on 11/22/13 13:10. The following analyte(s) were detected below RL: Ammonia at -0.0339 MG/L.
206020CCB was analyzed on 11/22/13 13:29. The following analyte(s) were detected below RL: Ammonia at -0.0283 MG/L.
Samples coded accordingly.

The hits in the blank were below the Reporting Limit, therefore no corrective action was taken.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

1. Laboratory Control Spikes (LCS):

   An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

   Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

   No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

Sample SMSMW01A required a 20X dilution due to high concentration of the following analyte(s): Ammonia.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature: _____

Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 11/22/2013

CASE NARRATIVE
Inorganic

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method E376.1

IV. PREPARATION

Water samples were prepared by according to PEL Laboratory's Standard Operating Procedures and EPA Method 376.1.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/04/2013

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation:

All holding times were met.

B. Sample Analysis:

All holding times were met.

III. METHOD

Samples were analyzed according to Spectrum Analytical's Standard Operating Procedures and Method SW9060

IV. PREPARATION

There is no preparation step for this method.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

1. Calibration Blanks:

All acceptance criteria were met.

2. Method Blanks:

All acceptance criteria were met.

C. Spikes:

1. Laboratory Control Spikes (LCS):

An LCS/LCSD set was analyzed. All percent recovery and relative percent difference (RPD) criteria were met.

2. Post Digestion Spike:

Not applicable.

3. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD):

Spectrum Analytical Inc. Lab Reference No./SDG: 3511012

Client: JMWALL

No spikes requested by client.

D. Duplicate:

No sample duplicates are reported with this method. (Spike duplicates are referenced above in section C. Spikes.)

E. Serial Dilution:

Not applicable.

F. ICP Interference Check Samples:

Not Applicable.

G. Samples:

Sample analysis proceeded normally.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum Analytical Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

Signature:
Name: Troy L. Roberts Title: Inorg. Manager

SIGNED: DATE: 12/05/2013

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter

Lab Code : PEL Case No.: SDG No.: 3511012

SOW No.:

EPA Sample No	Lab Sample ID
SMSMW12A	351101201
SMSMW12ADL1	351101201DL1
SMSMW01A	351101202
SMSMW01ADL1	351101202DL1
SMSMW01ADL2	351101202DL2

Comments:

091213 1230

Wet Chemistry Sample Data

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW12A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 351101201

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	230			IS		5	10
7664-41-7	Ammonia	0.0557	J		AS		0.02	0.25
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	20.8	E		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	1460			GR		10	10
18496-25-8	Sulfide	0.2	J		T		0.08	2
1012_5	TOC	2.11			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	104.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW12ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 351101201DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	338			IC		3.4	10
25-90-0	Nitrate-N	21.4			IC		0.36	1
3-03-5	Sulfate	220			IC		3.2	10

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	91.6	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW01A

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 351101202

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	635			IS		2.5	5
7664-41-7	Ammonia	263			AS		0.02	0.25
25-90-0	Nitrate-N	93.1	E		IC		0.036	0.1
15-90-0	Nitrite-N	0.21			IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	0.92	J		IC		0.24	1
1-01-0	Residue, Filterable (TDS)	32100			GR		10	10
18496-25-8	Sulfide	0.1	J		T		0.08	2
1012_5	TOC	9.5			TC		0.31	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	98.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW01ADL1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 351101202DL1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	25	U		IC		8.25	25
25-90-0	Nitrate-N	97.5			IC		0.9	2.5
3-03-5	Sulfate	900			IC		8	25

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	100.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

SMSMW01ADL2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 351101202DL2

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	20000			IC		170	500
25-90-0	Nitrate-N	111			IC		18	50

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	95.2	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

Wet Chemistry QC Summary Data

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

111513MB1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 111513MB1

Level:(low/med) LOW Date Received: 11/15/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.1	U		IC		0.036	0.1
15-90-0	Nitrite-N	0.1	U		IC		0.031	0.1
14265-44-2	ortho-Phosphate-P	1	U		IC		0.24	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	100.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

112513MB2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 112513MB2

Level:(low/med) LOW Date Received: 11/26/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-00-3	Chloride	0.52	J		IC		0.34	1
7782-41-4	Fluoride	1	U		IC		0.33	1
25-90-0	Nitrate-N	0.043	J		IC		0.036	0.1
3-03-5	Sulfate	0.45	J		IC		0.32	1

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206009MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206009MB

Level:(low/med) LOW Date Received: 11/22/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
7664-41-7	Ammonia	0.25	U		AS		0.02	0.25

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206396MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206396MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206399MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206399MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206400MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206400MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
18496-25-8	Sulfide	2	U		T		0.08	2

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206800MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206800MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206804MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206804MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

206806MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 206806MB

Level:(low/med) LOW Date Received: 11/20/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1-01-0	Residue, Filterable (TDS)	10	U		GR		10	10

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207074MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 207074MB

Level:(low/med) LOW Date Received: 11/27/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
47752-0-60-0	Alkalinity (Total)	1	U		IS		0.5	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

207303MB

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Lab Sample ID: 207303MB

Level:(low/med) LOW Date Received: 12/2/2013

PercentSolids: 0 Station ID:

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M		MDL	RL
1012_5	TOC	1	U		TC		0.31	1

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

091213 1231

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia	50545	8	8.030	100.4	28547	8	8.320	104.0	8.120	101.5	AS
Chloride											IC
Fluoride	49171	8	8.700	108.8	49171	8	8.700	108.8	8.600	107.5	IC
Nitrate-N	49171	1	1.000	100.0	49171	1	1.000	100.0	1.000	100.0	IC
Nitrite-N	49171	1	1.100	110.0	49171	1	1.100	110.0	1.100	110.0	IC
ortho-Phosphate-	49171	5.18	5.100	98.5	49171	5.18	5.200	100.4	4.900	94.6	IC
Residue, Filterabl											GR
Sulfate											IC
Sulfide											T
TOC	52578	2.5	2.380	95.2	49986	2.5	2.240	89.6	2.740	109.6	TC

ICV IDs: AS= 206007ICV, IC= ICV1241701, TC= 207301ICV

CCV1 IDs: AS= 206015CCV, IC= CCV1241696, TC= 207312CCV

CCV2 IDs: AS= 206017CCV, IC= CCV1241697, TC= 207306CCV

(1) Control Limits: TOC: 75-125

Comments:

091213 1231

U.S. EPA - CLP

2-CC

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Concentration Units: (MG/L)

Analyte	Initial Calibration				Continuing Calibration						
	Source Used	True	Found	%R (1)	Source Used	True	Found	%R (1)	Found	%R (1)	M
Alkalinity (Total)											IS
Ammonia					28547	8	8.260	103.2			AS
Chloride	49171	8	8.600	107.5	49171	8	8.700	108.8	8.700	108.8	IC
Fluoride	49171	8	8.300	103.8	49171	8	8.400	105.0	8.500	106.2	IC
Nitrate-N	49171	1	1.000	100.0	49171	1	1.100	110.0	1.000	100.0	IC
Nitrite-N											IC
ortho-Phosphate-											IC
Residue, Filterabl											GR
Sulfate	49171	8	8.600	107.5	49171	8	8.500	106.2	8.600	107.5	IC
Sulfide											T
TOC					49986	2.5	2.570	102.8			TC

ICV IDs: IC= ICV1244175

CCV1 IDs: AS= 206019CCV, IC= CCV1244173, TC= 207310CCV

CCV2 IDs: IC= CCV1245674

(1) Control Limits: TOC: 75-125

Comments:

091213 1231

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)									1	U	IS
Ammonia	0.25	U	0.25	U	-0.0339	J	-0.0283	J	0.25	U	AS
Chloride											IC
Fluoride	1	U	1	U	1	U			1	U	IC
Nitrate-N	0.1	U	0.1	U	0.1	U			0.1	U	IC
Nitrite-N	0.1	U	0.1	U	0.1	U			0.1	U	IC
ortho-Phosphate-P	1	U	1	U	1	U			1	U	IC
Residue, Filterable (TDS)									10	U	GR
Sulfate											IC
Sulfide									2	U	T
TOC	1	U	1	U	1	U	1	U	1	U	TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	100.0	90 - 115	

ICB IDs: AS= 206008ICB, IC= ICB1241699, TC= 207302ICB

CCB1 IDs: AS= 206016CCB, IC= CCB1241691, TC= 207313CCB

CCB2 IDs: AS= 206018CCB, IC= CCB1241692, TC= 207307CCB

CCB3 IDs: AS= 206020CCB, TC= 207311CCB

091213 1231

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Preparation Blank Matrix (water/soil): WATER
WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L
Percent R

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride	0.52	J	0.52	J	0.53	J			0.52	J	IC
Fluoride	1	U	1	U	1	U			1	U	IC
Nitrate-N	0.048	J	0.043	J	0.048	J			0.043	J	IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate	0.45	J	0.45	J	0.46	J			0.45	J	IC
Sulfide									2	U	T
TOC											TC

Surrogate	Recovery	Control Limits	Qualifier
Dichloroacetate - DCA	94.0	90 - 115	

ICB IDs: IC= ICB1244174

CCB1 IDs: IC= CCB1244172

CCB2 IDs: IC= CCB1245673

CCB3 IDs:

091213 1231

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Preparation Blank Matrix (water/soil): WATER

Preparation Blank Concentration Units (ug/L or mg/Kg): MG/L

Analyte	Initial Calib. Blank (MG/L)	C	Continuing Calibration Blank (MG/L)	C		C		C	Prepa-ration Blank	C	M
Alkalinity (Total)											IS
Ammonia											AS
Chloride											IC
Fluoride											IC
Nitrate-N											IC
Nitrite-N											IC
ortho-Phosphate-P											IC
Residue, Filterable (TDS)									10	U	GR
Sulfate											IC
Sulfide									2	U	T
TOC											TC

ICB IDs:

CCB1 IDs:

CCB2 IDs:

CCB3 IDs:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

111513LCSD1

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Fluoride	20	8.9		8.9		0.0		IC
Nitrate-N	20	1		1		0.0		IC
Nitrite-N	20	1.1		1.1		0.0		IC
ortho-Phosphate-P	20	4.6		4.9		6.3		IC

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

112513LCSD2

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Chloride	20	8.9		8.7		2.3		IC
Fluoride	20	8.6		8.3		3.6		IC
Nitrate-N	20	1.1		1.1		0.0		IC
Sulfate	20	8.7		8.4		3.5		IC

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206011LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Ammonia	10	8.07		8.04				AS

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206398LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Sulfide	20	5.21		4.77		8.8		T

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

206802LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Residue, Filterable (TDS)	20	292		282		3.5		GR

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207076LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Alkalinity (Total)	20	48		49		2.1		IS

Comments:

091213 1231

U.S. EPA - CLP

6

DUPLICATES

EPA Sample No.

207305LCSD

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: WATER Level:(low/med) LOW

% Solids for Sample: 0 % Solids for Duplicate: 0

Concentration Units (mg/L or mg/kg): MG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TOC	20	2.4		2.25		6.5		TC

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111513LCS1

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Fluoride	49171	IC	75	125	8	8.9	111.2	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1.1	110	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.6	88.8	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 111513LCSD1

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Fluoride	49171	IC	75	125	8	8.9	111.2	
Nitrate-N	49171	IC	75	125	1	1	100	
Nitrite-N	49171	IC	75	125	1	1.1	110	
ortho-Phosphate-P	49171	IC	75	125	5.18	4.9	94.6	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 112513LCS2

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.9	111.2	
Fluoride	49171	IC	75	125	8	8.6	107.5	
Nitrate-N	49171	IC	75	125	1	1.1	110	
Sulfate	49171	IC	75	125	8	8.7	108.8	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 112513LCSD2

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (mg/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Chloride	49171	IC	75	125	8	8.7	108.8	
Fluoride	49171	IC	75	125	8	8.3	103.8	
Nitrate-N	49171	IC	75	125	1	1.1	110	
Sulfate	49171	IC	75	125	8	8.4	105	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206011LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	50545	AS	90	110	8	8.04	100.5	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206012LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Ammonia	50545	AS	90	110	8	8.07	100.9	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206397LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	5.21	104.2	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206398LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Sulfide	52490	T	80	120	5	4.77	95.4	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206801LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	292	116.8	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 206802LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Residue, Filterable (TDS)	52449	GR	80	120	250	282	112.8	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207075LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	48	96	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207076LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
Alkalinity (Total)	52255	IS	80	120	50	49	98	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207304LCS

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.4	96	

Comments:

091213 1231

U.S. EPA - CLP

7-CC

LABORATORY CONTROL SAMPLE

EPA Sample No.

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelter 207305LCSD

Lab Code : PEL Case No. SAS No: SDG No.: 3511012

Matrix: (soil/water) WATER

Concentration Units: (MG/L)

PARAMETER	LCS SOURCE	M	LIMITS LOWER	LIMITS UPPER	TRUE	FOUND	%R	C
TOC	52578	TC	80	120	2.5	2.25	90	

Comments:

091213 1231

U.S. EPA - CLP

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METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-019-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Matrix: Water

Concentration Units: MG/L

PARAMETER	M	INSTRUMENT ID	DATE	CRDL	MDL	Raw MDL (UG/L)
Alkalinity (Total)	IS	HACH	1/10/2007	1	0.5	0.5
Ammonia	AS	LACHAT	8/13/2013	0.25	0.02	0.02
Chloride	IC	IC	11/12/2013	1	0.34	0.34
Fluoride	IC	IC	11/12/2013	1	0.33	0.33
Nitrate-N	IC	IC	11/12/2013	0.1	0.036	0.036
Nitrite-N	IC	IC	11/12/2013	0.1	0.031	0.031
ortho-Phosphate-P	IC	IC	11/12/2013	1	0.24	0.24
Residue, Filterable (TDS)	GR	HACH	12/14/2010	10	10	10
Sulfate	IC	IC	11/12/2013	1	0.32	0.32
Sulfide	T	HACH	5/1/2006	2	0.08	0.08
TOC	TC	SHIMZ1	10/18/2013	1	0.31	0.31

Comments:

091213 1231

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : HACH Method : GR

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
206800MB	1	9:06		X
206801LCS	1	9:09		X
206802LCSD	1	9:12		X
ZZZZZZ	1	9:15		
ZZZZZZ	1	9:18		
ZZZZZZ	1	9:21		
ZZZZZZ	1	9:24		
ZZZZZZ	1	9:27		
ZZZZZZ	1	9:30		
ZZZZZZ	1	9:33		
ZZZZZZ	1	9:36		
ZZZZZZ	1	9:39		
ZZZZZZ	1	9:42		
206804MB	1	9:45		X
ZZZZZZ	1	9:48		
SMSMW12A	1	9:51		X
SMSMW01A	1	9:54		X
ZZZZZZ	1	9:57		
206806MB	1	10:00		X

* Residue, Filterable (TDS)

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
OICAL1	1	12:08		X
OICAL2	1	12:30		X
OICAL3	1	12:52		X
OICAL4	1	13:14		X
OICAL5	1	13:36		X
OICAL6	1	13:58		X
OICAL7	1	14:20		X
ZZZZZZ	1	10:42		
ZZZZZZ	1	11:38		
ZZZZZZ	1	12:00		
ZZZZZZ	1	13:14		
ZZZZZZ	1	13:36		
ZZZZZZ	1	13:58		
ZZZZZZ	1	14:20		
ZZZZZZ	1	14:42		
ZZZZZZ	1	15:04		
ZZZZZZ	1	15:38		
ZZZZZZ	1	16:00		
ZZZZZZ	1	16:22		
ZZZZZZ	1	16:46		
ZZZZZZ	1	17:08		
ZZZZZZ	1	17:29		
ZZZZZZ	1	17:51		
ZZZZZZ	1	18:13		
ZZZZZZ	1	18:35		
ZZZZZZ	1	18:57		
ZZZZZZ	1	19:19		
ZZZZZZ	1	19:41		
ZZZZZZ	1	20:03		
ZZZZZZ	1	20:25		
ZZZZZZ	1	20:47		
ZZZZZZ	1	21:09		
ZZZZZZ	1	21:31		
ZZZZZZ	1	21:53		
ICV1241701	1	22:15		X
ICB1241699	1	22:37		X
111513MB1	1	22:59		X

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
111513LCS1	1	23:21		X
111513LCSD1	1	23:43		X
ZZZZZZ	1	0:05		
ZZZZZZ	1	0:27		
ZZZZZZ	1	0:49		
ZZZZZZ	1	1:11		
ZZZZZZ	1	1:33		
CCV1241696	1	1:55		X
CCB1241691	1	2:17		X
ZZZZZZ	1	2:39		
ZZZZZZ	1	3:01		
ZZZZZZ	1	3:23		
ZZZZZZ	1	3:45		
ZZZZZZ	1	4:07		
SMSMW12A	1	4:29		X
SMSMW01A	1	4:50		X
ZZZZZZ	1	5:12		
ZZZZZZ	1	5:34		
ZZZZZZ	1	5:56		
ZZZZZZ	1	6:18		
CCV1241697	1	6:40		X
CCB1241692	1	7:02		X
OICAL1	1	12:58		X
OICAL2	1	14:13		X
OICAL3	1	14:35		X
OICAL4	1	14:57		X
OICAL5	1	15:19		X
OICAL6	1	15:41		X
OICAL7	1	16:03		X
ZZZZZZ	1	17:20		
ZZZZZZ	1	17:42		
ZZZZZZ	1	18:04		
ZZZZZZ	1	19:10		
ZZZZZZ	1	19:32		
ZZZZZZ	1	19:54		
ZZZZZZ	1	20:15		
ZZZZZZ	1	20:59		

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	21:21		
ZZZZZZ	1	21:43		
ZZZZZZ	1	22:05		
ZZZZZZ	1	22:27		
ZZZZZZ	1	22:49		
ZZZZZZ	1	23:11		
ZZZZZZ	1	23:33		
ZZZZZZ	1	23:55		
ZZZZZZ	1	0:17		
ZZZZZZ	1	0:39		
ZZZZZZ	1	1:01		
ZZZZZZ	1	1:23		
ZZZZZZ	1	1:45		
ZZZZZZ	1	2:07		
ZZZZZZ	1	2:29		
ZZZZZZ	1	2:51		
ZZZZZZ	1	3:13		
ZZZZZZ	1	3:35		
ZZZZZZ	1	3:57		
ZZZZZZ	1	4:19		
ZZZZZZ	1	4:40		
ZZZZZZ	1	5:02		
ZZZZZZ	1	5:24		
ZZZZZZ	1	5:46		
ZZZZZZ	1	6:08		
ZZZZZZ	1	6:30		
ZZZZZZ	1	6:52		
ZZZZZZ	1	7:14		
ZZZZZZ	1	7:36		
ZZZZZZ	1	7:58		
ZZZZZZ	1	8:20		
ZZZZZZ	1	8:42		
ZZZZZZ	1	9:04		
ICV1244175	1	9:26		X
ICB1244174	1	9:48		X
112513MB2	1	10:10		X
ZZZZZZ	1	10:38		

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : IC Method : IC

Start Date : 7/29/2013 End Date : 11/26/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	11:33		
ZZZZZZ	1	11:55		
112513LCS2	1	12:17		X
112513LCSD2	1	12:39		X
ZZZZZZ	25	13:01		
ZZZZZZ	5	13:23		
ZZZZZZ	25	13:45		
ZZZZZZ	1000	14:07		
ZZZZZZ	25	14:29		
CCV1244173	1	14:51		X
CCB1244172	1	15:13		X
ZZZZZZ	500	15:35		
ZZZZZZ	25	15:57		
ZZZZZZ	50	16:19		
ZZZZZZ	10	16:40		
SMSMW12ADL1	10	17:02		X
SMSMW01ADL1	25	17:24		X
SMSMW01ADL2	500	17:46		X
ZZZZZZ	25	18:08		
ZZZZZZ	50	18:30		
ZZZZZZ	10	18:52		
CCV1245674	1	19:14		X
CCB1245673	1	19:36		X

* Chloride
* ortho-Phosphate-P
* Nitrite-N
* Dichloroacetate - DCA
* Nitrate-N
* Sulfate
* Fluoride

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : HACH Method : IS

Start Date : 11/27/2013 End Date : 11/27/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	13:15		
ZZZZZZ	1	13:19		
207074MB	1	13:23		X
207075LCS	1	13:27		X
207076LCSD	1	13:31		X
ZZZZZZ	2	13:34		
ZZZZZZ	5	13:37		
ZZZZZZ	5	13:40		
ZZZZZZ	5	13:43		
ZZZZZZ	10	13:46		
ZZZZZZ	10	13:49		
ZZZZZZ	10	13:52		
ZZZZZZ	20	13:55		
ZZZZZZ	20	13:58		
ZZZZZZ	5	14:01		
207260CCB	1	14:04		X
SMSMW12A	10	14:07		X
SMSMW01A	5	14:10		X
207261CCB	1	14:13		X

* Alkalinity (Total)

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : LACHAT Method : AS

Start Date : 11/22/2013 End Date : 11/22/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	12:23		X
CAL02	2.5	12:26		X
CAL03	10	12:28		X
CAL04	20	12:31		X
CAL05	50	12:33		X
CAL06	100	12:36		X
CAL07	1	12:37		X
206007ICV	1	12:38		X
206008ICB	1	12:41		X
206009MB	1	12:42		X
206012LCS	1	12:44		X
206011LCSD	1	12:45		X
ZZZZZZ	1	12:46		
ZZZZZZ	1	12:47		
ZZZZZZ	1	12:48		
ZZZZZZ	1	12:49		
ZZZZZZ	1	12:50		
206015CCV	1	12:52		X
206016CCB	1	12:55		X
SMSMW12A	1	12:56		X
ZZZZZZ	1	12:58		
ZZZZZZ	1	13:01		
ZZZZZZ	1	13:03		
ZZZZZZ	1	13:04		
ZZZZZZ	1	13:05		
ZZZZZZ	1	13:06		
206017CCV	1	13:07		X
206018CCB	1	13:10		X
ZZZZZZ	1	13:11		
ZZZZZZ	1	13:13		
ZZZZZZ	1	13:14		
ZZZZZZ	1	13:15		
SMSMW01A	20	13:17		X
ZZZZZZ	10	13:20		
ZZZZZZ	10	13:23		
206019CCV	1	13:26		X
206020CCB	1	13:29		X

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : LACHAT Method : AS

Start Date : 11/22/2013 End Date : 11/22/2013

EPA Sample No.	D/F	Time	%R	Analytes *:

* Ammonia

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : HACH Method : T

Start Date : 11/20/2013 End Date : 11/20/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
ZZZZZZ	1	12:13		
206396MB	1	12:16		X
206397LCS	1	12:19		X
206398LCSD	1	12:22		X
ZZZZZZ	1	12:25		
ZZZZZZ	1	12:28		
ZZZZZZ	1	12:31		
ZZZZZZ	1	12:34		
ZZZZZZ	1	12:37		
ZZZZZZ	2	12:40		
ZZZZZZ	1	12:43		
ZZZZZZ	1	12:46		
ZZZZZZ	1	12:49		
ZZZZZZ	1	12:52		
206399MB	1	12:55		X
SMSMW12A	1	12:58		X
SMSMW01A	1	13:01		X
206400MB	1	13:04		X

* Sulfide

091213 1231

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: Smokey Mountain Smelters 073-01-0

Lab Code : PEL Case No.: SAS No: SDG No.: 3511012

Instrument ID Number : SHIMZ1 Method : TC

Start Date : 12/1/2013 End Date : 12/2/2013

EPA Sample No.	D/F	Time	%R	Analytes *:
CAL01	1	14:51		X
CAL02	2	15:08		X
CAL03	4	15:24		X
CAL04	5	15:39		X
CAL05	10	15:54		X
CAL06	1	16:08		X
207301ICV	1	8:55		X
207302ICB	1	9:10		X
207303MB	1	9:26		X
207304LCS	1	9:41		X
207305LCSD	1	9:57		X
ZZZZZZ	1	11:54		
ZZZZZZ	1	12:13		
ZZZZZZ	1	12:32		
ZZZZZZ	1	13:09		
207312CCV	1	13:28		X
207313CCB	1	13:47		X
ZZZZZZ	1	15:21		
ZZZZZZ	1	15:39		
ZZZZZZ	1	15:56		
ZZZZZZ	1	16:14		
ZZZZZZ	1	16:31		
ZZZZZZ	1	16:49		
ZZZZZZ	1	17:07		
ZZZZZZ	1	17:24		
SMSMW12A	1	17:42		X
207306CCV	1	18:18		X
207307CCB	1	18:38		X
ZZZZZZ	1	18:53		
ZZZZZZ	1	19:11		
SMSMW01A	1	19:34		X
207310CCV	1	19:53		X
207311CCB	1	20:12		X

* TOC

091213 1231

Chain of Custody Documentation

091213 1231

SPECTRUM ANALYTICAL, INC

CHAIN OF CUSTODY RECORD

Tampa Division

Page 1 of 1

3511012

Special Handling:

TAT

Rush TAT - Date Needed:

All TATs subject to laboratory approval

Min. 24-hr notification needed for rushes

Samples disposed after 60 days unless otherwise instructed

Report To: Janice Austin *Featuring* HANIBAL TECHNOLOGY
100 Hartsfield Centre Pkwy Suite 610
Atlanta, GA 30354

Telephone #: 404-443-2777
Project Mgr:

Invoice To: Same

P.O No.: RQN

Project No: 073-01-019-01-014
Site Name: Smokey Mountain Smelter
Location: Knoxville State TN
Sampler(s):

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11= 12=

List Preservative Code below:

QA/QC Reporting Notes:
*additional charges may appply

DW=Dinking Water GW= Groundwater WW= Waste Water
O= Oil SW= surface Water SO=Soil SL= Sludge A= Air
X1= X2= X3=

G= Grab C=Compsite

Lab ID	Sample ID	Date	Time	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic		AMMONIA	CHLORIDE	ALKALINITY	TDS	SULFATE/PHOSPHATE/FLUORIDE/	NITRATE/NITRITE	376.1 11/15/13 per client	TOC	Other: State-specific reporting standards:
-01	SMSMW12A	11/14/2013	10:00 AM	G	GW	3			3		X	X	X	X	X	X	X	X	
-02	SMSMW01A	11/14/2013	12:20 PM	G	GW	3			3		X	X	X	X	X	X	X	X	

Relinquished by:	Received by:	Date	Time	Temp °C
[signature]	FedEx	11/14/13	1400	
	[signature]	11/15/13	10:00	2.6

11.16.13 JS

EDD format: Equis EPA R4
E-mail to: Janice.austin@jmwaller.com

pH<2 ~~8260~~ 9060, 350.1 pH>9 376.1

Condition upon receipt: Ambient Iced Refrigerated
Custody Seals: Present Intact Broken
DI VOA Frozen Soil Jar Frozen

pH LOG SHEET

WO#: 3511012

Client/Project Generic

SampNumber	Method	Matrix		pH	Containers	Temp	Acid	
351101201	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351101201	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351101201	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13
351101202	9060	W	<	2	(3)		HCL	aclark 15-Nov-13
351101202	376.1	W	>	9	(1)		ZnAc/NaOH	aclark 15-Nov-13
351101202	350.1	W	<	2	(1)		H2SO4	aclark 15-Nov-13

From: (404) 443-2777 Origin ID: DBNA
C.J. Roebuck
JM Waller Associates
100 HARTSFIELD CENTRE PKWY
SUITE 610
ATLANTA, GA 30354

FedEx Express

J13201306280326

Ship Date: 14NOV13
ActWgt: 30.0 LB
CAD: 101117635/INET3430

Delivery Address Bar Code

SHIP TO: (813) 888-9507 BILL SENDER

John Heyman
Spectrum Analytical, Inc.-FL
8405 BENJAMIN RD
STE A
TAMPA, FL 33634

Ref # 073-01-019-01-014
Invoice #
PO #
Dept #

FRI - 15 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7971 5945 3994

XJ TPFA

33634
FL-US
TPA

51AG1/D5E6/1A9E

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: IMPORTANT: TRANSMIT YOUR SHIPPING DATA AND PRINT A MANIFEST:
At the end of each shipping day, you should perform the FedEx Ground End of Day Close procedure to transmit your shipping data to FedEx. To do so, click on the Ground End of Day Close Button. If required, print the pickup manifest that appears. A printed manifest is required to be tendered along with your packages if they are being picked up by FedEx Ground. If you are dropping your packages off at a FedEx drop off location, the manifest is not required.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide and applicable tariff, available upon request. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations, including limitations on our liability, can be found in the current FedEx Service Guide and applicable tariff apply. In no event shall FedEx Ground be liable for any special, incidental, or consequential damages, including, without limitation, loss of profit, loss to the intrinsic value of the package, loss of sale, interest income or attorney's fees. Recovery cannot exceed actual documented loss. Items of extraordinary value are subject to separate limitations of liability set forth in the Service Guide and tariff. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Sample Receipt Confirmation Sheet

Client Information

SDG:	3511012	**Level:**	4
Client:	JMWALL	**Date Rec'd:**	11/15/2013 10:00:00 AM
Profile:	90942		
Project:	Generic / Smokey Mountain Smelters	**Profile Name:**	Generic

Sample Verification

Samples/Cooler Secure?	Yes	**COC Present?**	Yes
Temperature of Samples:	2.6	**All Samples on COC accounted For?**	Yes
Number of Coolers Received:	1	**All Samples Rec'd Intact?**	Yes
Temp Gun ID:	130544071	**Sample Vol. Sufficient For Analysis**	Yes
pH Verified?	Yes	**Samples Rec'd W/I Hold Time?**	Yes
pH WNL?	Yes	**Are All Samples to be Analyzed?**	Yes
Samples Received By:	Fed-Ex	**Correct Sample Containers?**	Yes
Tracking Number:	797159453994	**COC Comments written on COC?**	Yes
Profile Picked By:	JH	**Samplers Initials on COC?**	Yes
Soil Origin (Domestic/Foreign):		**Sample Date/Time Indicated?**	Yes
Site Location/Project on COC?	Yes	**TAT Requested:**	STD
Client Project # on COC?	Yes	**Client Requests Verbal Results?**	No
Project Mgr. Indicated on COC?	Yes	**Client Requests Faxed Results?**	No
COC relinquished/Dated by Client?	Yes	**Specific Subcontract Indicated?**	No
COC Received/Dated by SA?	Yes	**Written on Outside Lab Board?**	No
Written on Internal COC?	Yes	**Radioactivity Check?**	No
Lab to Conduct ALL Analyses?	Yes		

Comments

Specific tests noted on COC.

LABEL REVIE _____

PEER REVIEW _____

Client: JMWALL

WONo: 3511012 **Profile Name:** Generic **Profile #:** 90942

MATRIX W

Sample #	Bottle	Parameter		Check	Received	Date
01	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 3:15:40 PM
01	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/25/2013 8:53:07 AM
01	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/26/2013 9:09:33 AM
01	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	12/2/2013 8:46:06 AM
01	001	160.1	Total Dissolved Solids	In	Theresa Wolf	12/3/2013 9:07:55 AM
01	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 3:15:40 PM
01	001	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/15/2013 3:25:42 PM
01	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/15/2013 3:30:46 PM
01	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 3:15:40 PM
01	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/25/2013 8:53:07 AM
01	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/26/2013 9:09:33 AM
01	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	12/2/2013 8:46:06 AM
01	001	310.1	Alkalinity (Total)	In	Theresa Wolf	12/3/2013 9:07:55 AM
01	002	350.1	Ammonia	In	aclark	11/15/2013 3:15:40 PM
01	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:17:50 AM
01	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:17:05 PM
01	002	350.1	Ammonia	Out	Theresa Wolf	11/20/2013 12:22:31 PM
01	002	350.1	Ammonia	In	Theresa Wolf	11/20/2013 7:09:39 PM
01	003	376.1	Sulfide	In	aclark	11/15/2013 3:15:40 PM
01	003	376.1	Sulfide	Out	Theresa Wolf	12/2/2013 8:40:00 AM
01	003	376.1	Sulfide	In	Theresa Wolf	12/3/2013 9:09:05 AM
01	004	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:40 PM
01	005	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:40 PM

01	006	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:40 PM
01	005	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:43:19 AM
01	006	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:43:23 AM
01	004	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:43:27 AM
01	005	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:06:41 AM
01	006	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:15:44 AM
01	004	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:15:46 AM
02	001	160.1	Total Dissolved Solids	In	aclark	11/15/2013 3:15:40 PM
02	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	11/25/2013 8:53:04 AM
02	001	160.1	Total Dissolved Solids	In	Theresa Wolf	11/26/2013 9:09:31 AM
02	001	160.1	Total Dissolved Solids	Out	Theresa Wolf	12/2/2013 8:46:03 AM
02	001	160.1	Total Dissolved Solids	In	Theresa Wolf	12/3/2013 9:07:53 AM
02	001	300.1	Determination of Inorganic Anions by Ion Chromatography	In	aclark	11/15/2013 3:15:40 PM
02	002	300.1	Determination of Inorganic Anions by Ion Chromatography	Out	Troy Roberts	11/15/2013 3:25:40 PM
02	002	300.1	Determination of Inorganic Anions by Ion Chromatography	In	Troy Roberts	11/15/2013 3:30:47 PM
02	001	310.1	Alkalinity (Total)	In	aclark	11/15/2013 3:15:41 PM
02	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	11/25/2013 8:53:06 AM
02	001	310.1	Alkalinity (Total)	In	Theresa Wolf	11/26/2013 9:09:31 AM
02	001	310.1	Alkalinity (Total)	Out	Theresa Wolf	12/2/2013 8:46:04 AM
02	001	310.1	Alkalinity (Total)	In	Theresa Wolf	12/3/2013 9:07:52 AM
02	002	350.1	Ammonia	In	aclark	11/15/2013 3:15:41 PM
02	002	350.1	Ammonia	Out	Theresa Wolf	11/19/2013 10:17:52 AM
02	002	350.1	Ammonia	In	Theresa Wolf	11/19/2013 6:16:59 PM
02	002	350.1	Ammonia	Out	Theresa Wolf	11/20/2013 12:22:33 PM
02	002	350.1	Ammonia	In	Theresa Wolf	11/20/2013 7:09:37 PM
02	003	376.1	Sulfide	In	aclark	11/15/2013 3:15:41 PM

WONo: 3511012 **Profile Name:** Generic **Profile #:** 90942

02	003	376.1	Sulfide	Out	Theresa Wolf	12/2/2013 8:40:18 AM
02	003	376.1	Sulfide	In	Theresa Wolf	12/3/2013 9:09:08 AM
02	004	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:41 PM
02	005	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:41 PM
02	006	9060	Total Organic Carbon	In	aclark	11/15/2013 3:15:41 PM
02	005	9060	Total Organic Carbon	Out	Theresa Wolf	12/2/2013 8:43:30 AM
02	005	9060	Total Organic Carbon	In	Theresa Wolf	12/3/2013 9:15:49 AM

Addendum

091213 1231

Letter of Acceptance

Customer Name:	J.M.Waller Associates Inc.
Date and Time Received:	11/15/2013 10:00
Date to be Reported:	12/10/2013
Laboratory Submission Number/SDG:	3511012

Project: Smokey Mountain Smelters 073-01-019-01-014

Samples: The submission consisted of 2 samples, including QC, with sample identification shown in the attached data tables.

Tests: The Samples will be analyzed for EPA methods: 160.1, 300.1, 310.1, 350.1, 376.1, 9060.

Sample Custody/COC discrepancies:

None.

Notes:

376.1 analysis added to COC per client.

Distribution of Report to:

J.M.Waller Associates Inc.
Attn: Austin Janice
(W): 404.443.2777
(M): 904.400.4549

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. Spectrum Analytical letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Level: 4

Total of: 12 analyses on 2 samples (including QC) *18-Nov-13*

Report/SDG #: 3511012

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW12A	351101201		W	11/14/2013 10:00	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
SMSMW01A	351101202		W	11/14/2013 12:20	11/15/2013 10:00

Method		
160.1	Total Dissolved Solids	160.1
300.1	Determination of Inorganic Anions by	300.1
310.1	Alkalinity (Total)	310.1
350.1	Ammonia	350.1
376.1	Sulfide	376.1
9060	Total Organic Carbon	9060

John Heyman [Tampa]

From: Roebuck, CJ [cj.roebuck@jmwaller.com]
Sent: Thursday, November 14, 2013 11:43 AM
To: John Heyman [Tampa]
Subject: Re: SMS samples received today (13NOV13) - issue COC

Sulfide for yesterday and today's shipment Youre going to receive.

Sent from my HTC smartphone on the Now Network from Sprint!

C.J. Roebuck, P.E.
Project Manager
(847) 346-5224

----- Reply message -----
From: "John Heyman [Tampa]" <jheyman@pelab.com>
To: "John Heyman [Tampa]" <jheyman@pelab.com>, "Austin, Janice" <janice.austin@jmwaller.com>
Cc: "Roebuck, CJ" <cj.roebuck@jmwaller.com>
Subject: SMS samples received today (13NOV13) - issue COC
Date: Thu, Nov 14, 2013 11:41 am

Good morning.

Please let me know if you want the laboratory to analyze these samples received yesterday for COD and / or Sulfide.

Thanks!
John

From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 4:26 PM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Good afternoon.

We will place the COD and Sulfide on hold until I hear back from you. We will proceed with the other analysis to meet holding times.

Thanks!
John

From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 11:02 AM
To: John Heyman [Tampa]; 'Austin, Janice'
Cc: 'Roebuck, CJ'
Subject: RE: SMS samples received today - issue COC

Janice:
We did not receive containers for COD preserved with H_2SO_4. We do have containers for Ammonia preserved with H_2SO_4 that we could split and send to our Rhode Island lab for COD analysis.
We did received containers for Sulfide analysis preserved with NaOH / ZnAce; however Sulfide is not on you list below.
Let me know if you need COD analysis and/or Sulfide analysis.
Thanks!
John

_____
From: John Heyman [Tampa]
Sent: Wednesday, November 13, 2013 10:52 AM
To: 'Austin, Janice'
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Thanks!
John

_____
From: Austin, Janice [mailto:janice.austin@jmwaller.com]
Sent: Wednesday, November 13, 2013 10:45 AM
To: John Heyman [Tampa]
Cc: Roebuck, CJ
Subject: RE: SMS samples received today - issue COC

Good morning John,

Please ensure that the following analyses are completed. I apologize for the inconvenience.

Thanks in advance for your time.

Ammonia

EPA 350.1

Chloride (1)

EPA 352.2

Alkalinity (2)

EPA 310.2

TDS (3)

EPA 100.4

Sulfate (4)

EPA 300

Phosphate (4)

EPA 300

Fluoride (4)

EPA 300

Nitrate

EPA 300.1

Nitrite

EPA 300.1

COD (5)

EPA 410.4

TOC (6)

EPA 415.1

Janice D. Austin, P.E.
Project Manager

J. M. Waller Associates Inc.
Tel: 404.443.2777 Ext.: 4030 | Cell: 904.248.1247
100 Hartsfield Centre Parkway, Suite 610 Atlanta, Georgia 30354-1390
Email: janice.austin@jmwaller.com | www.jmwaller.com<http://www.jmwaller.com/>
A Service Disabled Veteran Owned Small Business

From: John Heyman [Tampa] [mailto:jheyman@pelab.com]
Sent: Wednesday, November 13, 2013 10:09 AM
To: Austin, Janice
Subject: SMS samples received today - issue COC

Good morning. COC attached.

No analysis is listed on the COC for these samples.

We have not yet reconciled the container received.

Please let me know what analysis is required for these samples.

Thanks!

John Heyman
Project Manager
Spectrum Analytical, Inc. Featuring Hanibal Technology, Florida Division
8405 Benjamin Road, Suite A
Tampa, FL 33634
813-888-9507 ext 228

Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all kit requests, 3 days notice at a minimum. If you need an expedited kit request Spectrum Analytical will provide the kit but will require that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation.

This e-mail is intended for the named addressee(s) and may contain information that is confidential and proprietary. If this information is received by anyone other than the named addressee(s), the recipient(s) should immediately notify the sender by e-mail and promptly delete the transmitted material. In no event shall this material be read, used, stored, or retained by anyone other than the named addressee(s) without the express written consent of the sender or the named addressee(s).

Appendix

091213 1231

Raw Data Method 300.1

SEQUENCE CHECK

SDG: 3511012 **Method:** 300.1

SAMPLE ID	LAB ID	InitialCal Reference	FILE	BATCH	COL	INSTRUMENT	RUN DATE	DILUTION
STD 1	CAL1	IC07/29/13-1420~IC1072913cal	CAL1.D	IC1072913cal	1	IC	07/29/13 12:08	1
STD 2	CAL2	IC07/29/13-1420~IC1072913cal	CAL2.D	IC1072913cal	1	IC	07/29/13 12:30	1
STD 3	CAL3	IC07/29/13-1420~IC1072913cal	CAL3.D	IC1072913cal	1	IC	07/29/13 12:52	1
STD 4	CAL4	IC07/29/13-1420~IC1072913cal	CAL4.D	IC1072913cal	1	IC	07/29/13 13:14	1
STD 5	CAL5	IC07/29/13-1420~IC1072913cal	CAL5.D	IC1072913cal	1	IC	07/29/13 13:36	1
STD 6	CAL6	IC07/29/13-1420~IC1072913cal	CAL6.D	IC1072913cal	1	IC	07/29/13 13:58	1
STD 7	CAL7	IC07/29/13-1420~IC1072913cal	CAL7.D	IC1072913cal	1	IC	07/29/13 14:20	1
ICV1241701	111513ICV1	IC07/29/13-1420~IC1072913cal	111513ICV1.D	IC1111513	1	IC	11/15/13 22:15	1
ICB1241699	111513ICB1	IC07/29/13-1420~IC1072913cal	111513ICB1.D	IC1111513	1	IC	11/15/13 22:37	1
111513MB1	111513MB1	IC07/29/13-1420~IC1072913cal	111513MB1.D	IC1111513	1	IC	11/15/13 22:59	1
111513LCS1	111513LCS1	IC07/29/13-1420~IC1072913cal	111513LCS1.D	IC1111513	1	IC	11/15/13 23:21	1
111513LCSD1	111513LCSD1	IC07/29/13-1420~IC1072913cal	111513LCSD1.D	IC1111513	1	IC	11/15/13 23:43	1
CCV1241696	111513CCV4	IC07/29/13-1420~IC1072913cal	111513CCV4.D	IC1111513	1	IC	11/16/13 01:55	1
CCB1241691	111513CCB4	IC07/29/13-1420~IC1072913cal	111513CCB4.D	IC1111513	1	IC	11/16/13 02:17	1
SMSMW12A	351101201	IC07/29/13-1420~IC1072913cal	351101201.D	IC1111513	1	IC	11/16/13 04:29	1
SMSMW01A	351101202	IC07/29/13-1420~IC1072913cal	351101202.D	IC1111513	1	IC	11/16/13 04:50	1
CCV1241697	111513CCV5	IC07/29/13-1420~IC1072913cal	111513CCV5.D	IC1111513	1	IC	11/16/13 06:40	1
CCB1241692	111513CCB5	IC07/29/13-1420~IC1072913cal	111513CCB5.D	IC1111513	1	IC	11/16/13 07:02	1
STD 1	CAL1	IC11/25/13-1603~IC1112513cal	CAL1.D	IC1112513cal	1	IC	11/25/13 12:58	1
STD 2	CAL2	IC11/25/13-1603~IC1112513cal	CAL2.D	IC1112513cal	1	IC	11/25/13 14:13	1
STD 3	CAL3	IC11/25/13-1603~IC1112513cal	CAL3.D	IC1112513cal	1	IC	11/25/13 14:35	1
STD 4	CAL4	IC11/25/13-1603~IC1112513cal	CAL4.D	IC1112513cal	1	IC	11/25/13 14:57	1
STD 5	CAL5	IC11/25/13-1603~IC1112513cal	CAL5.D	IC1112513cal	1	IC	11/25/13 15:19	1
STD 6	CAL6	IC11/25/13-1603~IC1112513cal	CAL6.D	IC1112513cal	1	IC	11/25/13 15:41	1
STD 7	CAL7	IC11/25/13-1603~IC1112513cal	CAL7.D	IC1112513cal	1	IC	11/25/13 16:03	1
ICV1244175	112513ICV2	IC11/25/13-1603~IC1112513cal	112513ICV2.D	IC1112513A	1	IC	11/26/13 09:26	1
ICB1244174	112513ICB2	IC11/25/13-1603~IC1112513cal	112513ICB2.D	IC1112513A	1	IC	11/26/13 09:48	1
112513MB2	112513MB2	IC11/25/13-1603~IC1112513cal	112513MB2.D	IC1112513A	1	IC	11/26/13 10:10	1
112513LCS2	112513LCS2	IC11/25/13-1603~IC1112513cal	112513LCS2.D	IC1112513A	1	IC	11/26/13 12:17	1
112513LCSD2	112513LCSD2	IC11/25/13-1603~IC1112513cal	112513LCSD2.D	IC1112513A	1	IC	11/26/13 12:39	1
CCV1244173	112513CCV5	IC11/25/13-1603~IC1112513cal	112513CCV5.D	IC1112513A	1	IC	11/26/13 14:51	1
CCB1244172	112513CCB5	IC11/25/13-1603~IC1112513cal	112513CCB5.D	IC1112513A	1	IC	11/26/13 15:13	1
SMSMW12ADL1	351101201DL1	IC11/25/13-1603~IC1112513cal	351101201DL1.D	IC1112513A	1	IC	11/26/13 17:02	10

SMSMW01ADL1	351101202DL1	IC11/25/13-1603~IC1112513cal	351101202DL1.D	IC1112513A	1	IC	11/26/13 17:24	25
SMSMW01ADL2	351101202DL2	IC11/25/13-1603~IC1112513cal	351101202DL2.D	IC1112513A	1	IC	11/26/13 17:46	500
CCV1245674	112513CCV6	IC11/25/13-1603~IC1112513cal	112513CCV6.D	IC1112513A	1	IC	11/26/13 19:14	1
CCB1245673	112513CCB6	IC11/25/13-1603~IC1112513cal	112513CCB6.D	IC1112513A	1	IC	11/26/13 19:36	1

STANDARD

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49048	300.1_Mix2_NSI	NSI Q-6391-1 (co	122812	12/31/2013	250 ML	1/3/2013	troberts

250 MG/L: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49049	300.1_Mix1_NSI	NSI Q-6391-1	111711	6/30/2014	250 MG/	1/3/2013	troberts

1294 MG/L: ortho-Phosphate-P
2000 MG/L: Bromide, Chloride, Fluoride, Sulfate
250 MG/L: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49171	300.1_STKB	HPS	1300409	1/9/2014	500 ML	1/11/2013	troberts

250 UG/ML: Nitrite-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49172	300.1_STKA	HPS	1300410	1/9/2014	500 ML	1/11/2013	troberts

1296 UG/ML: ortho-Phosphate-P
2000 UG/ML: Bromide, Chloride, Fluoride, Sulfate
250 UG/ML: Nitrate-N

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51195	IC_Dionex_EluentCartridg	Dionex #074532	130553061015	6/30/2015	1 N/A	7/17/2013	troberts

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 29-JUL-2013 12:08
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:08 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.300	3.325	-0.025	46802	0.40000		(M)
T 2 Chloride	4.356	4.350	0.006	26437	0.40000		
T 3 Nitrite as N	5.071	5.054	0.017	7812	0.05000		
T 4 Sulfate	5.784	5.689	0.095	18225	0.40000		
T 5 Bromide	6.716	6.592	0.124	9904	0.40000		
T 6 Nitrate as N	7.763	7.575	0.188	6708	0.05000		
T 7 DCA	9.229	9.195	0.034	885	0.10000		
T 8 Phosphate as P	10.362	10.875	-0.513	7126	0.26000		(TM)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

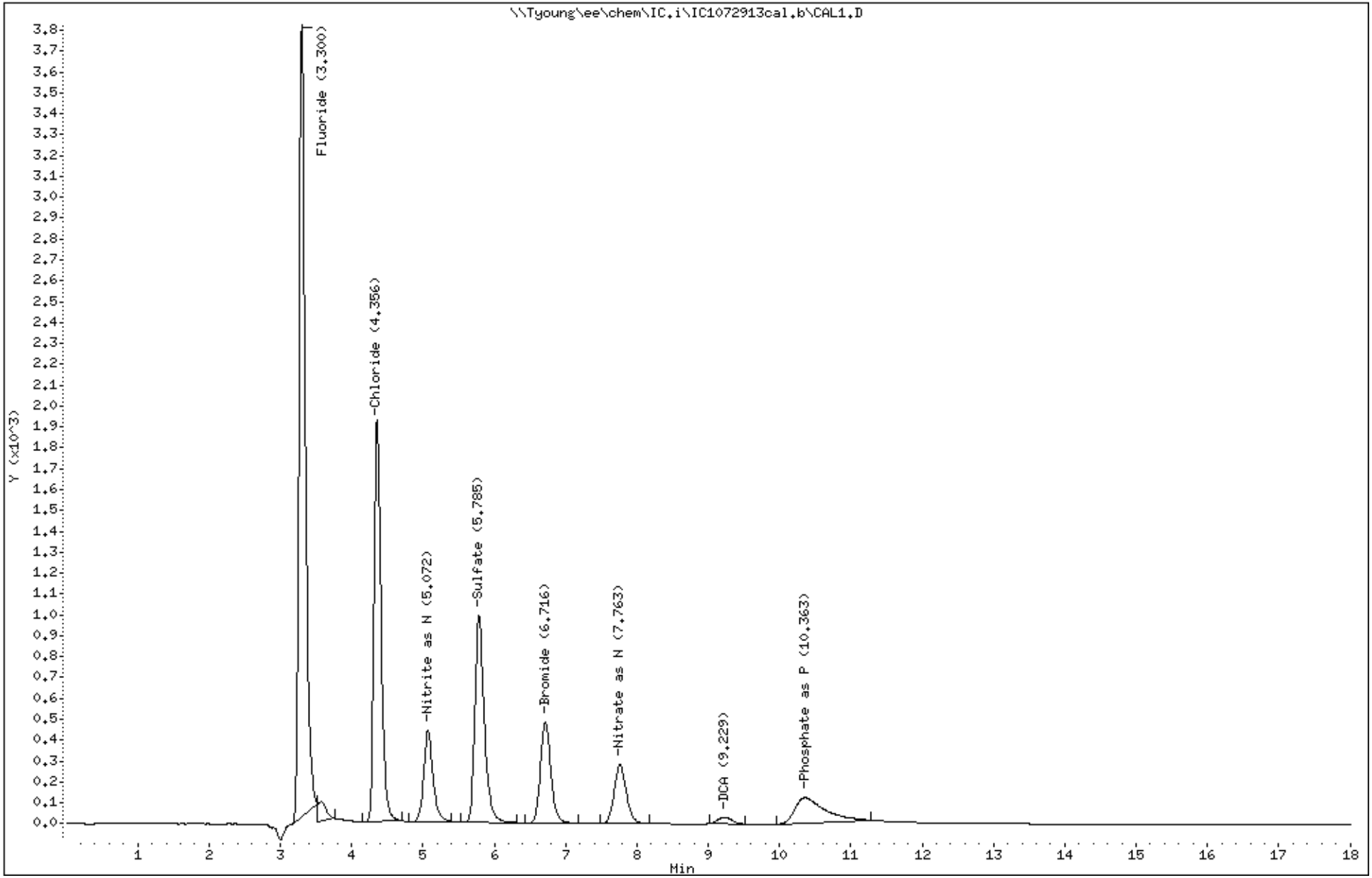
Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL1.D
Date : 29-JUL-2013 12:08
Client ID: CAL1
Sample Info: CAL1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 29-JUL-2013 12:30
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:30 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.300	3.325	-0.025	95670	0.80000	0.82(M)
T 2 Chloride	4.357	4.350	0.007	54983	0.80000	0.83
T 3 Nitrite as N	5.072	5.054	0.018	15106	0.10000	0.097
T 4 Sulfate	5.783	5.689	0.094	37265	0.80000	0.82
T 5 Bromide	6.717	6.592	0.125	20600	0.80000	0.83
T 6 Nitrate as N	7.765	7.575	0.190	13696	0.10000	0.10
T 7 DCA	9.230	9.195	0.035	5823	0.50000	0.66
T 8 Phosphate as P	10.295	10.875	-0.580	18671	0.52000	0.68

QC Flag Legend

M - Compound response manually integrated.

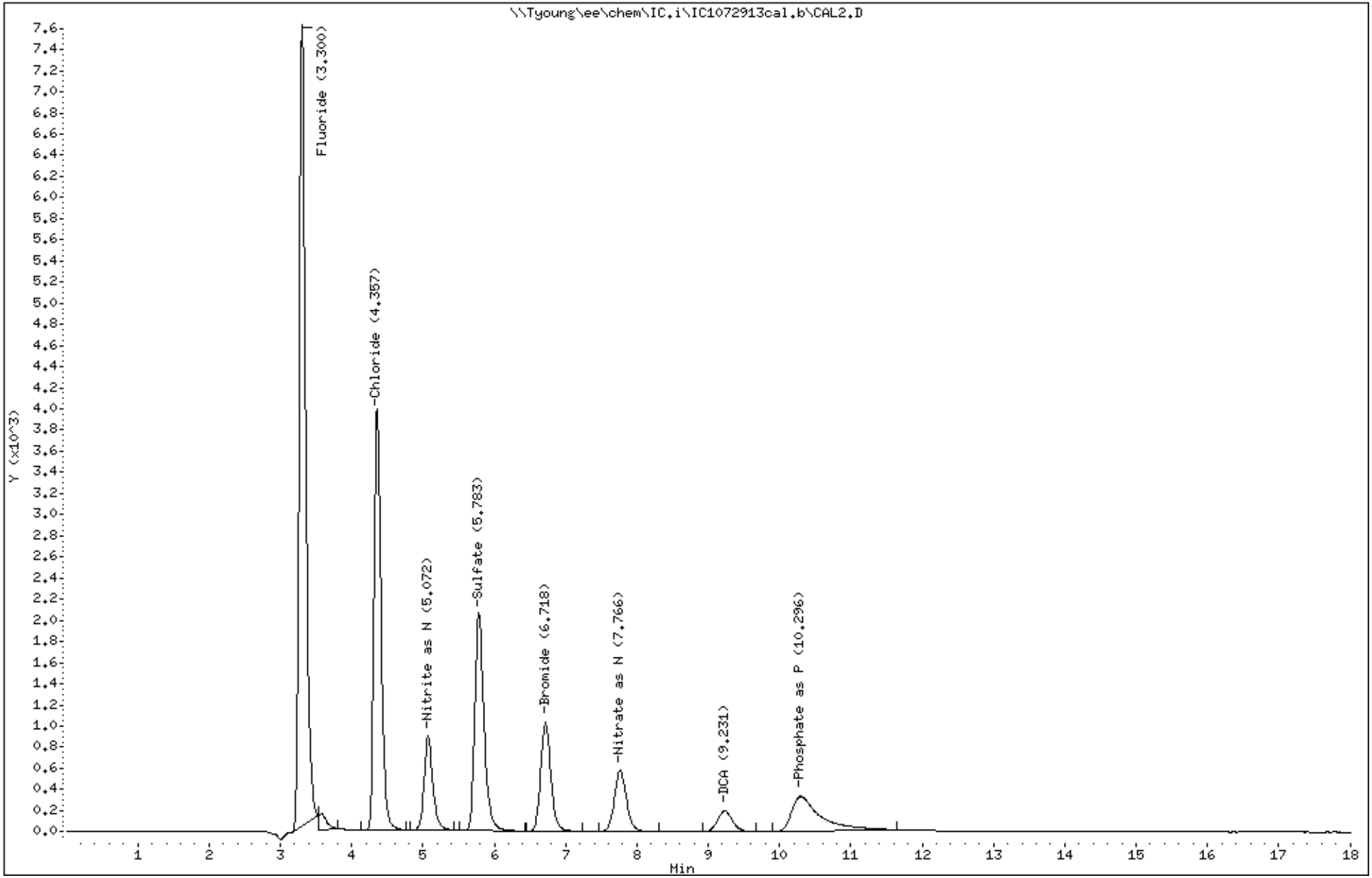
Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL2.D
Date : 29-JUL-2013 12:30
Client ID: CAL2
Sample Info: CAL2

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 29-JUL-2013 12:52
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 12:52 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	467142	4.00000	3.8(M)
T 2 Chloride	4.356	4.350	0.006	303181	4.00000	4.3
T 3 Nitrite as N	5.067	5.054	0.013	80981	0.50000	0.53
T 4 Sulfate	5.775	5.689	0.086	217028	4.00000	4.6
T 5 Bromide	6.702	6.592	0.110	125442	4.00000	4.7
T 6 Nitrate as N	7.740	7.575	0.165	84343	0.50000	0.60
T 7 DCA	9.208	9.195	0.013	35505	2.50000	2.9
T 8 Phosphate as P	10.122	10.875	-0.753	148913	2.59000	3.4

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL3.D

Date : 29-JUL-2013 12:52

Client ID: CAL3

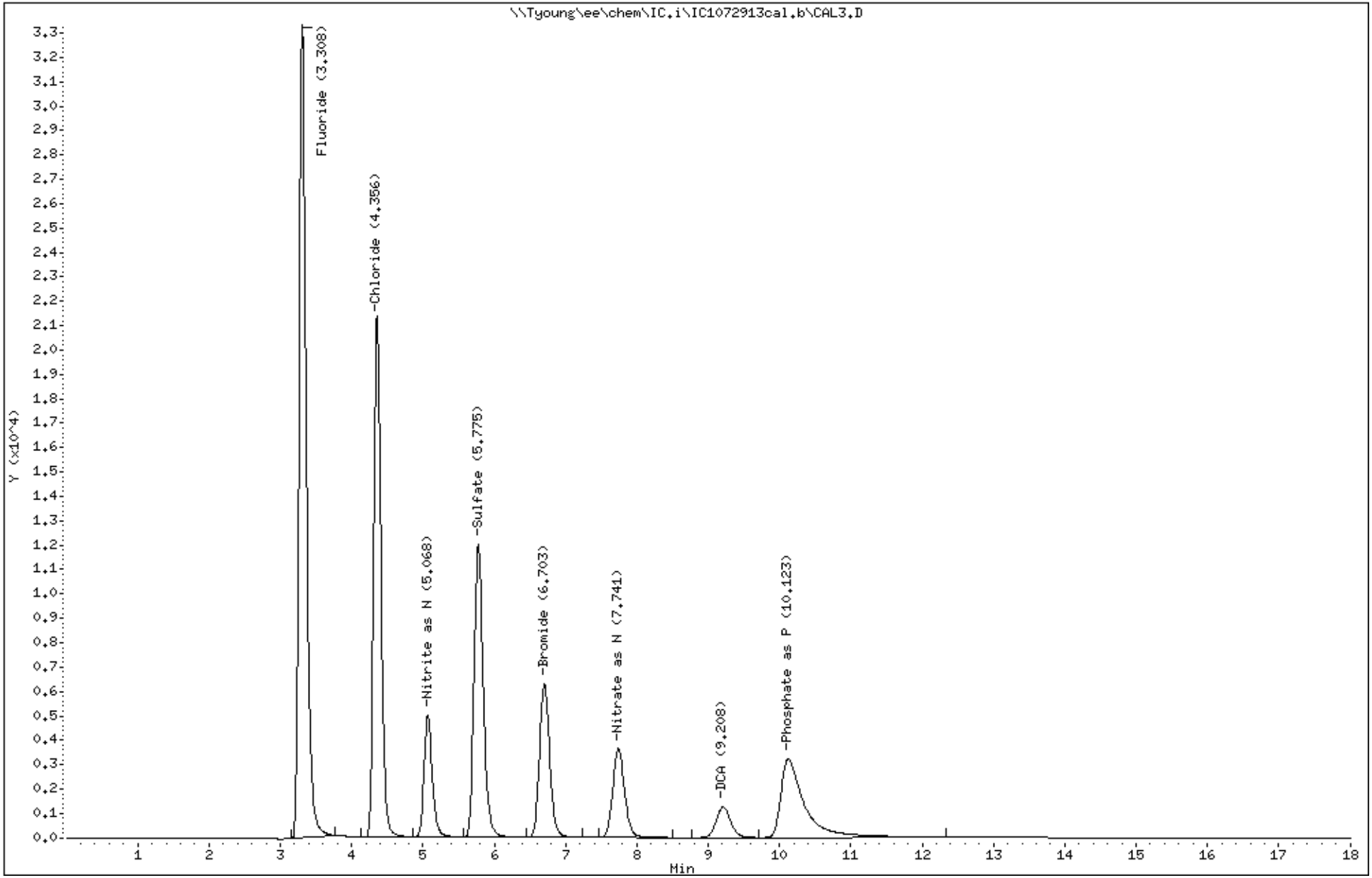
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 29-JUL-2013 13:14
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:14 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	873661	8.00000	7.5(M)
T 2 Chloride	4.358	4.350	0.008	615928	8.00000	8.0
T 3 Nitrite as N	5.071	5.054	0.017	171258	1.00000	1.1
T 4 Sulfate	5.774	5.689	0.085	445472	8.00000	8.1
T 5 Bromide	6.699	6.592	0.107	261938	8.00000	8.2
T 6 Nitrate as N	7.730	7.575	0.155	178365	1.00000	1.0
T 7 DCA	9.189	9.195	-0.006	78745	5.00000	5.5
T 8 Phosphate as P	10.003	10.875	-0.872	329624	5.18000	5.5

QC Flag Legend

M - Compound response manually integrated.

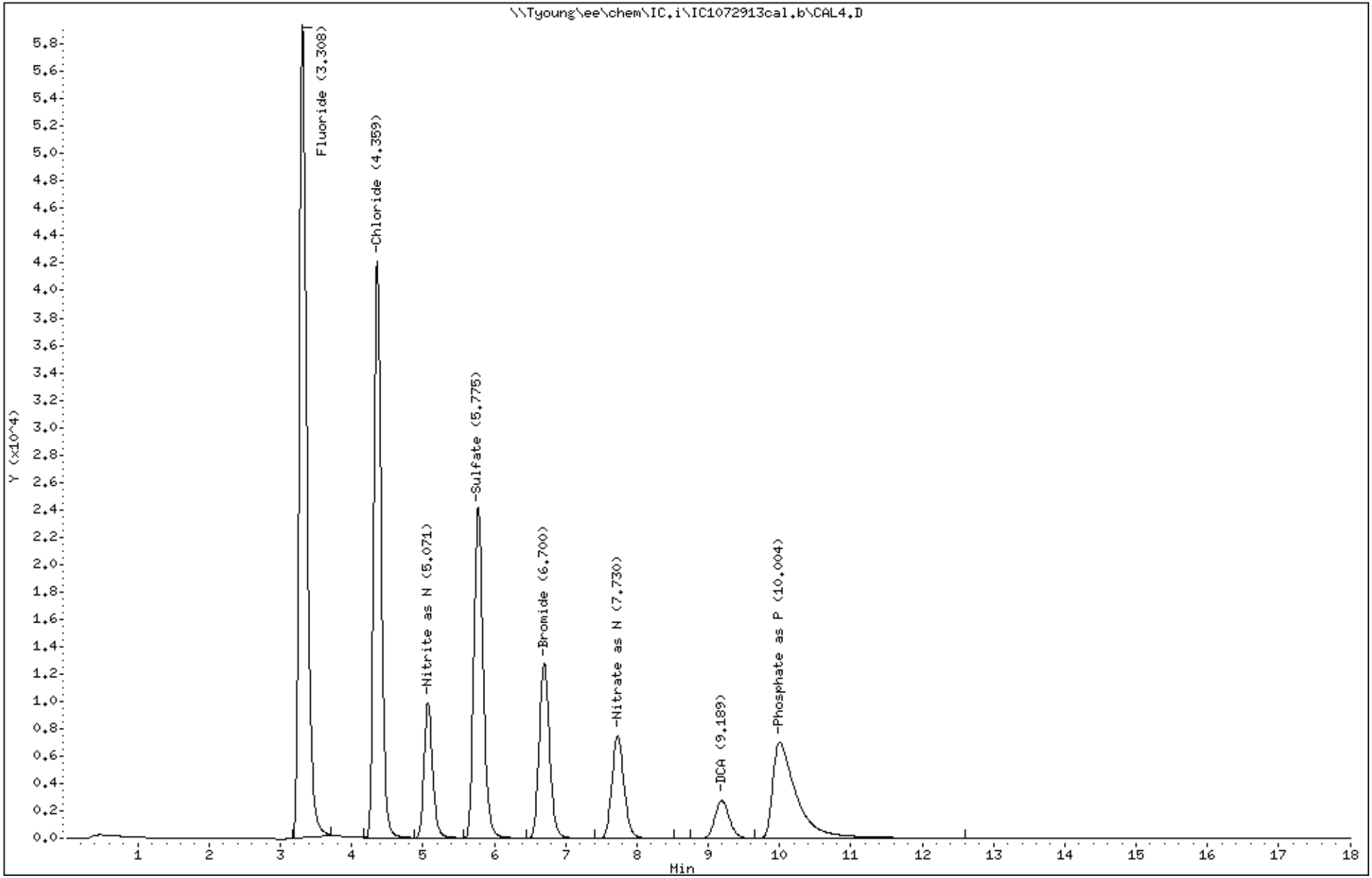
Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL4.D
Date : 29-JUL-2013 13:14
Client ID: CAL4
Sample Info: CAL4

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 29-JUL-2013 13:36
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:36 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	1639414	16.0000	14.9(M)
T 2 Chloride	4.362	4.350	0.012	1264054	16.0000	16.4
T 3 Nitrite as N	5.074	5.054	0.020	341856	2.00000	2.1
T 4 Sulfate	5.769	5.689	0.080	919813	16.0000	16.4
T 5 Bromide	6.688	6.592	0.096	546425	16.0000	16.6
T 6 Nitrate as N	7.709	7.575	0.134	377690	2.00000	2.1
T 7 DCA	9.175	9.195	-0.020	116776	7.00000	7.4
T 8 Phosphate as P	9.850	10.875	-1.025	728275	10.3700	11.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL5.D

Date : 29-JUL-2013 13:36

Client ID: CAL5

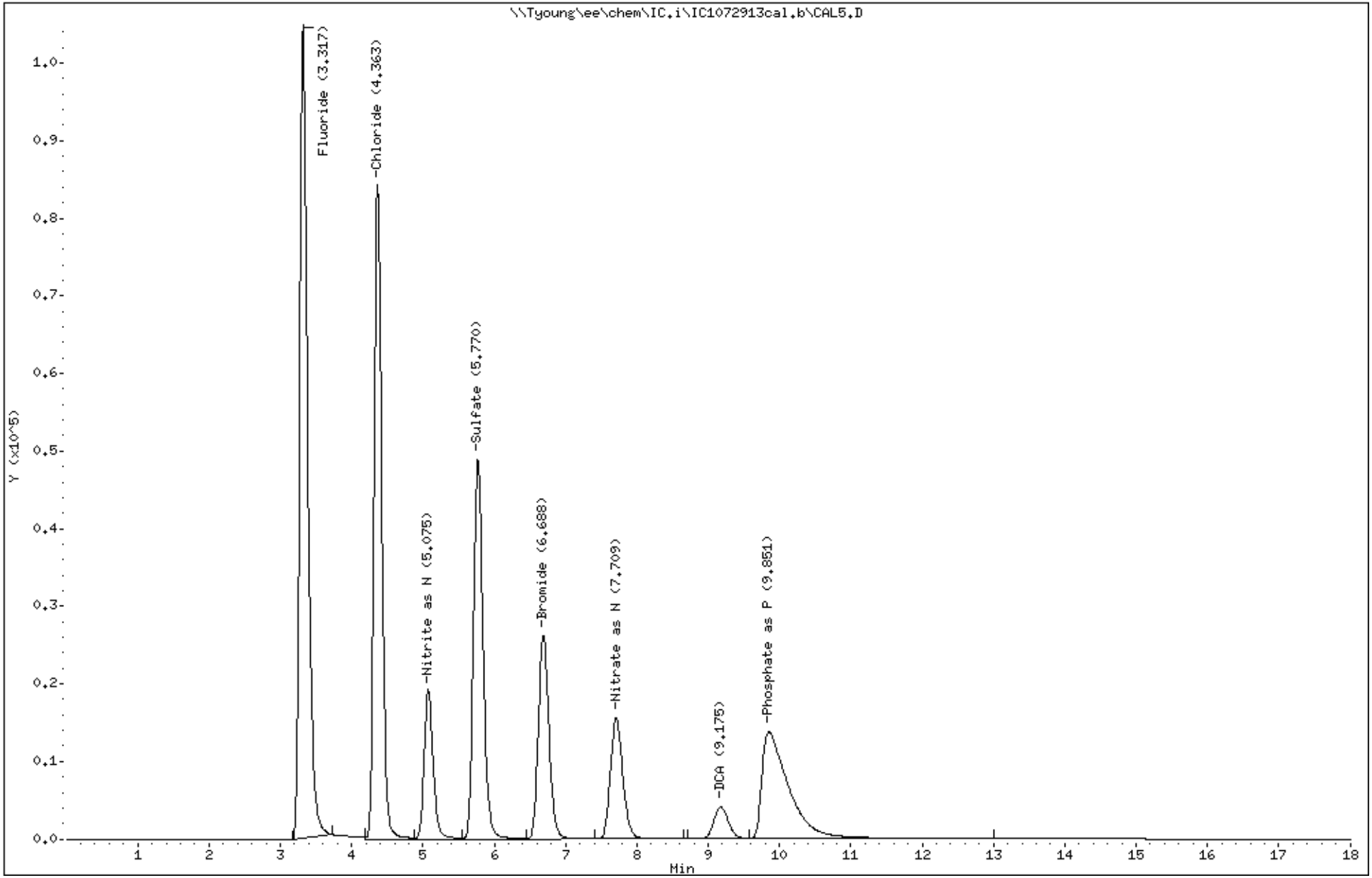
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 29-JUL-2013 13:58
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 13:58 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.316	3.325	-0.009	3469338	40.0000	33.7(AM)
T 2 Chloride	4.356	4.350	0.006	3127633	40.0000	39.5
T 3 Nitrite as N	5.066	5.054	0.012	811088	5.00000	5.0
T 4 Sulfate	5.735	5.689	0.046	2280730	40.0000	39.6
T 5 Bromide	6.646	6.592	0.054	1373627	40.0000	40.1
T 6 Nitrate as N	7.650	7.575	0.075	965380	5.00000	5.1
T 7 DCA	9.125	9.195	-0.070	170834	10.0000	10.4
T 8 Phosphate as P	9.538	10.875	-1.337	1923582	25.9200	27.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL6.D

Date : 29-JUL-2013 13:58

Client ID: CAL6

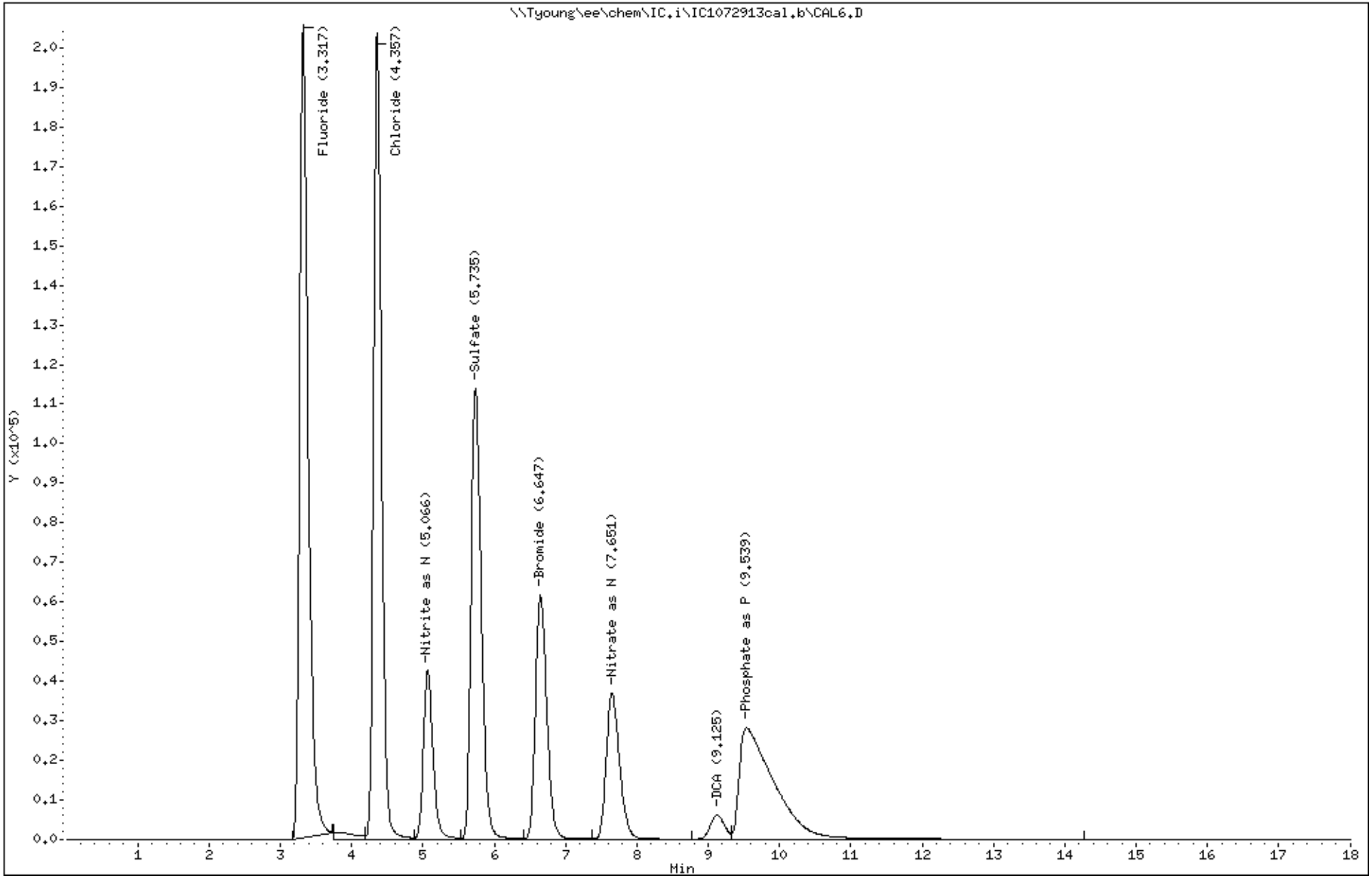
Instrument: IC.i

Sample Info: CAL6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 29-JUL-2013 14:20
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1072913cal.b\IC1300.m
Meth Date : 02-Aug-2013 09:03 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.325	3.325	0.000	5969962	80.0000	58.2(AM)
T 2 Chloride	4.350	4.350	0.000	6294429	80.0000	80.3(A)
T 3 Nitrite as N	5.054	5.054	0.000	1512306	10.0000	9.3(A)
T 4 Sulfate	5.689	5.689	0.000	4586411	80.0000	80.2(A)
T 5 Bromide	6.592	6.592	0.000	2772233	80.0000	80.5(A)
T 6 Nitrate as N	7.575	7.575	0.000	1959123	10.0000	10.1(A)
T 8 Phosphate as P	9.169	10.875	-1.706	4231453	51.8400	56.8(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1072913cal.b\CAL7.D

Date : 29-JUL-2013 14:20

Client ID: CAL7

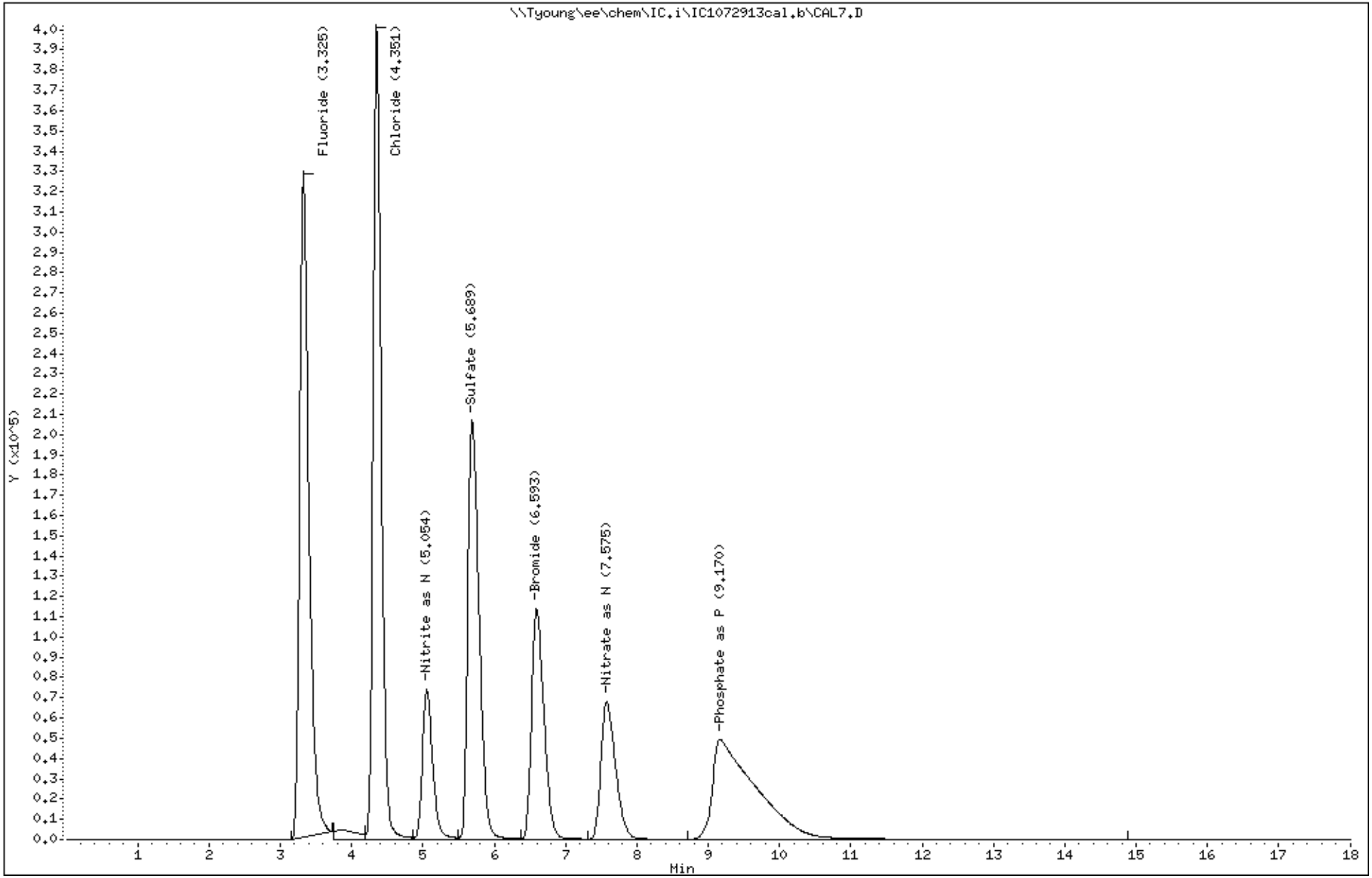
Instrument: IC.i

Sample Info: CAL7

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICV1.D
Lab Smp Id: 111513ICV1 Client Smp ID: 111513ICV1
Inj Date : 15-NOV-2013 22:15
Operator : TR Inst ID: IC.i
Smp Info : 111513ICV1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	916115	8.69584	8.7(M)
T 2 Chloride	4.343	4.350	-0.007	646068	8.31490	8.3
T 3 Nitrite as N	5.027	5.054	-0.027	173521	1.07979	1.1
T 4 Sulfate	5.642	5.689	-0.047	466855	8.28318	8.3
T 5 Bromide	6.596	6.592	0.004	275484	8.23202	8.2
T 6 Nitrate as N	7.572	7.575	-0.003	191087	1.03142	1.0
T 7 DCA	8.966	9.195	-0.229	80603	4.90733	4.9
T 8 Phosphate as P	9.816	9.914	-0.098	340883	5.07958	5.1(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICV1.D

Date : 15-NOV-2013 22:15

Client ID: 111513ICV1

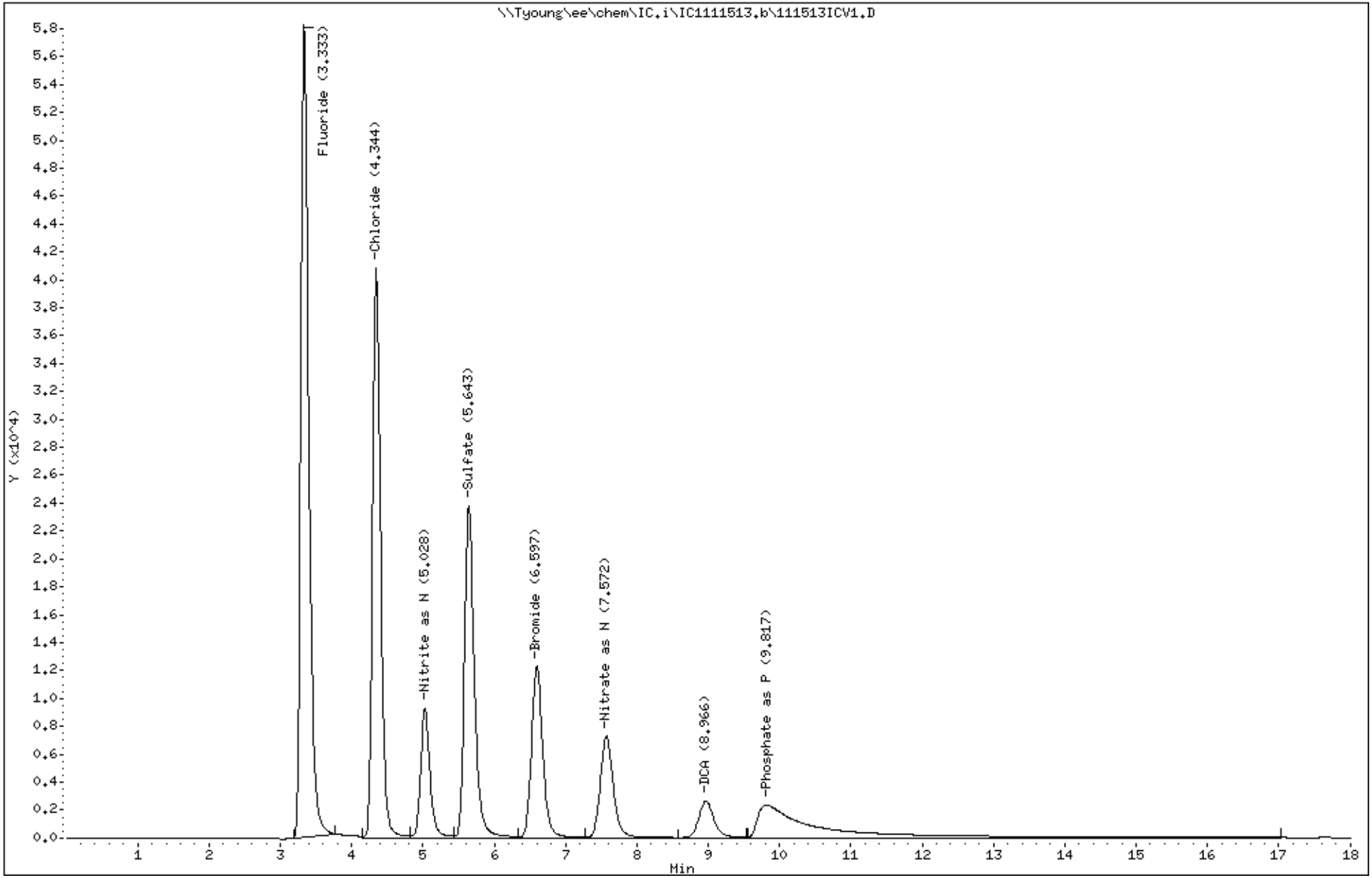
Instrument: IC.i

Sample Info: 111513ICV1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICB1.D
Lab Smp Id: 111513ICB1 Client Smp ID: 111513ICB1
Inj Date : 15-NOV-2013 22:37
Operator : TR Inst ID: IC.i
Smp Info : 111513ICB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.341	4.350	-0.009	1367	0.12622	0.13
T 3 Nitrite as N	4.933	5.054	-0.121	897	0.00558	0.0056
T 7 DCA	8.970	9.195	-0.225	82843	5.03699	5.0

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513ICB1.D

Date : 15-NOV-2013 22:37

Client ID: 111513ICB1

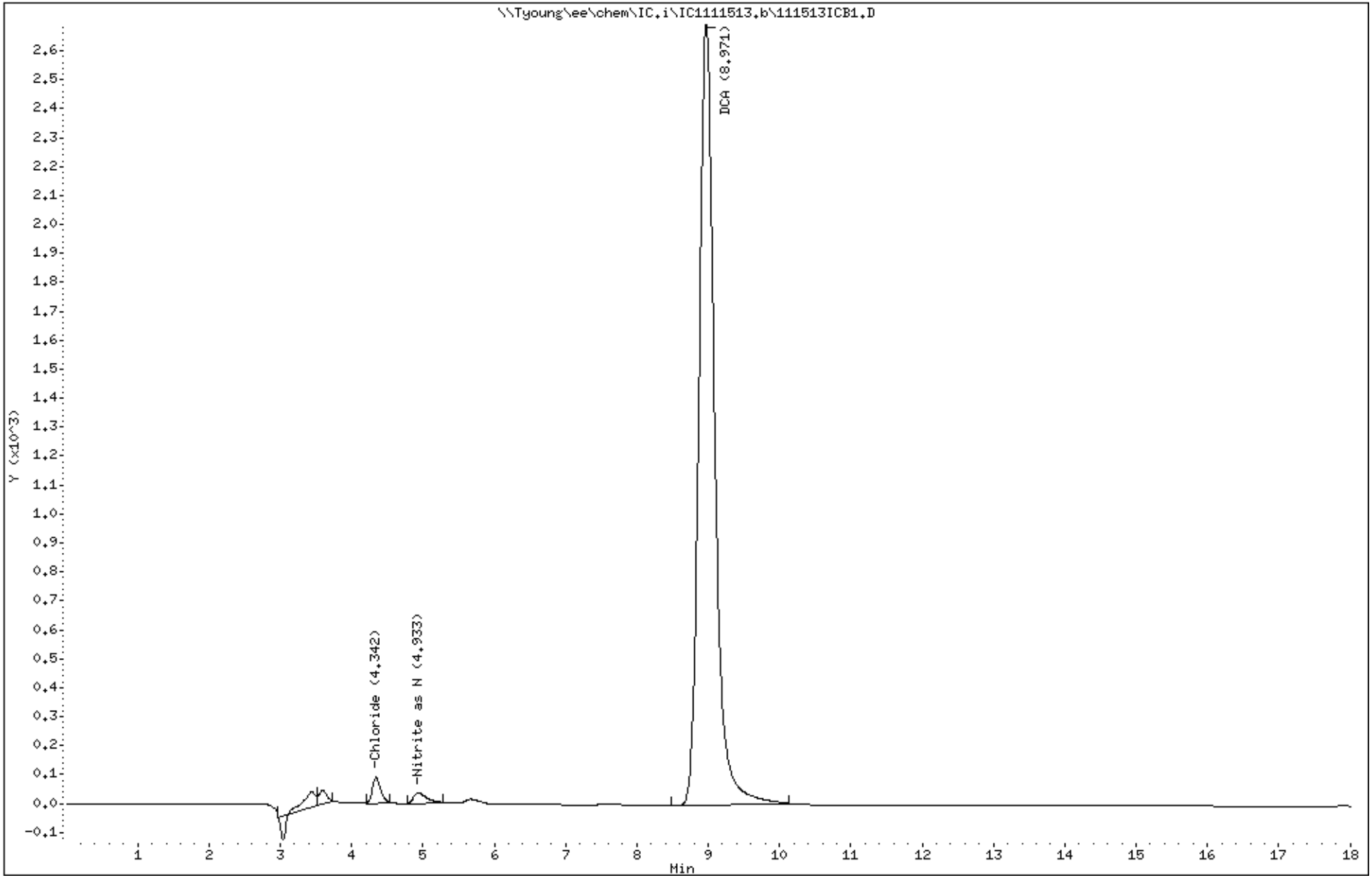
Instrument: IC.i

Sample Info: 111513ICB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513MB1.D
Lab Smp Id: 111513MB1 Client Smp ID: 111513MB1
Inj Date : 15-NOV-2013 22:59
Operator : TR Inst ID: IC.i
Smp Info : 111513MB1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.345	4.350	-0.005	1323	0.12566	0.12
T 3 Nitrite as N	4.950	5.054	-0.104	835	0.00520	0.0052
T 7 DCA	8.978	9.195	-0.217	83128	5.05349	5.0

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513MB1.D

Date : 15-NOV-2013 22:59

Client ID: 111513MB1

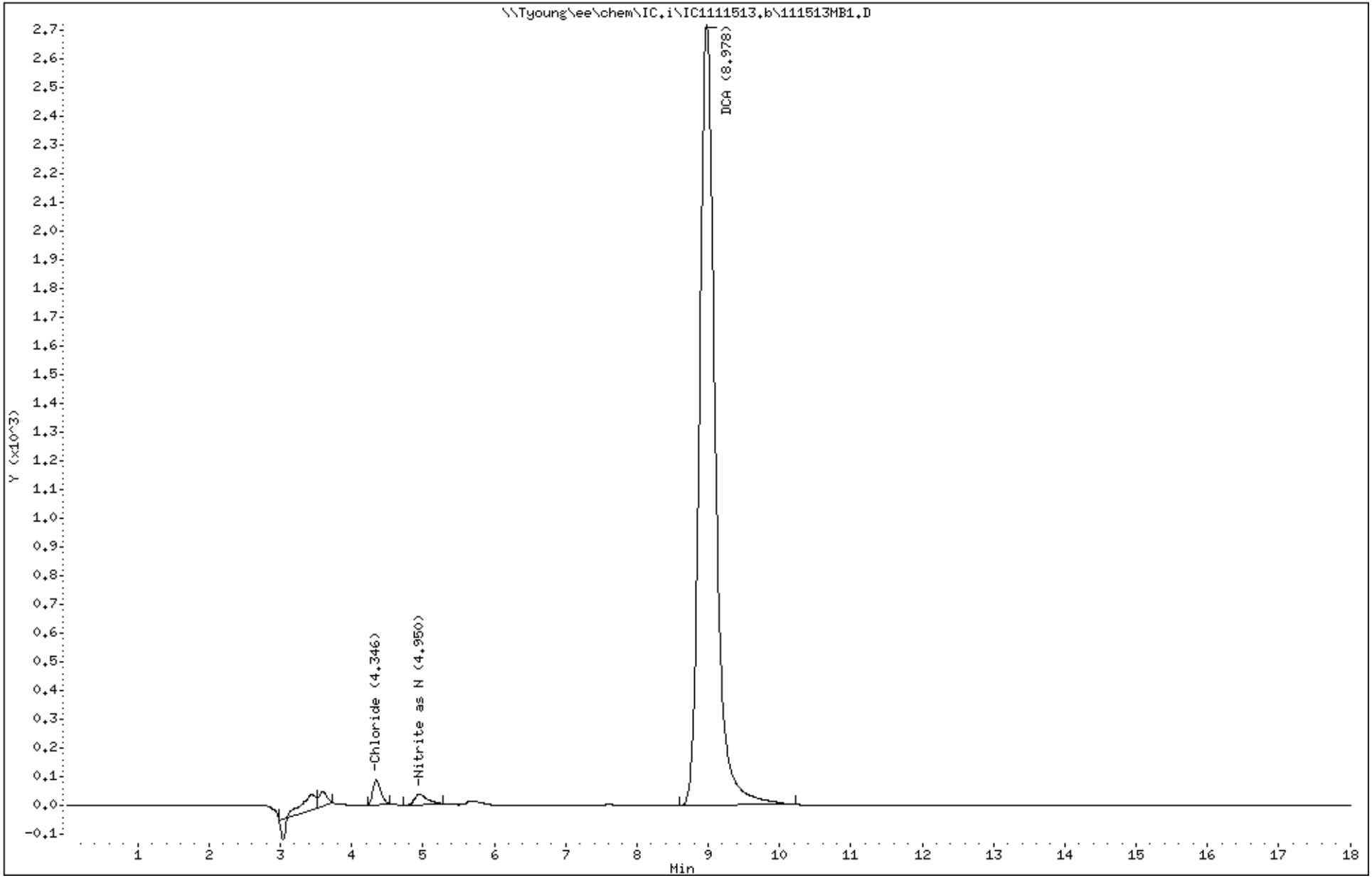
Instrument: IC.i

Sample Info: 111513MB1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCS1.D
Lab Smp Id: 111513LCS1 Client Smp ID: 111513LCS1
Inj Date : 15-NOV-2013 23:21
Operator : TR Inst ID: IC.i
Smp Info : 111513LCS1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.332	3.325	0.007	938682	8.91687	8.9
T 2 Chloride	4.343	4.350	-0.007	645255	8.30457	8.3
T 3 Nitrite as N	5.026	5.054	-0.028	174004	1.08279	1.1
T 4 Sulfate	5.641	5.689	-0.048	466270	8.27299	8.3
T 5 Bromide	6.594	6.592	0.002	274298	8.19788	8.2
T 6 Nitrate as N	7.572	7.575	-0.003	188915	1.02038	1.0
T 7 DCA	8.967	9.195	-0.228	78574	4.78989	4.8
T 8 Phosphate as P	9.800	9.914	-0.114	302534	4.61091	4.6(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCS1.D

Date : 15-NOV-2013 23:21

Client ID: 111513LCS1

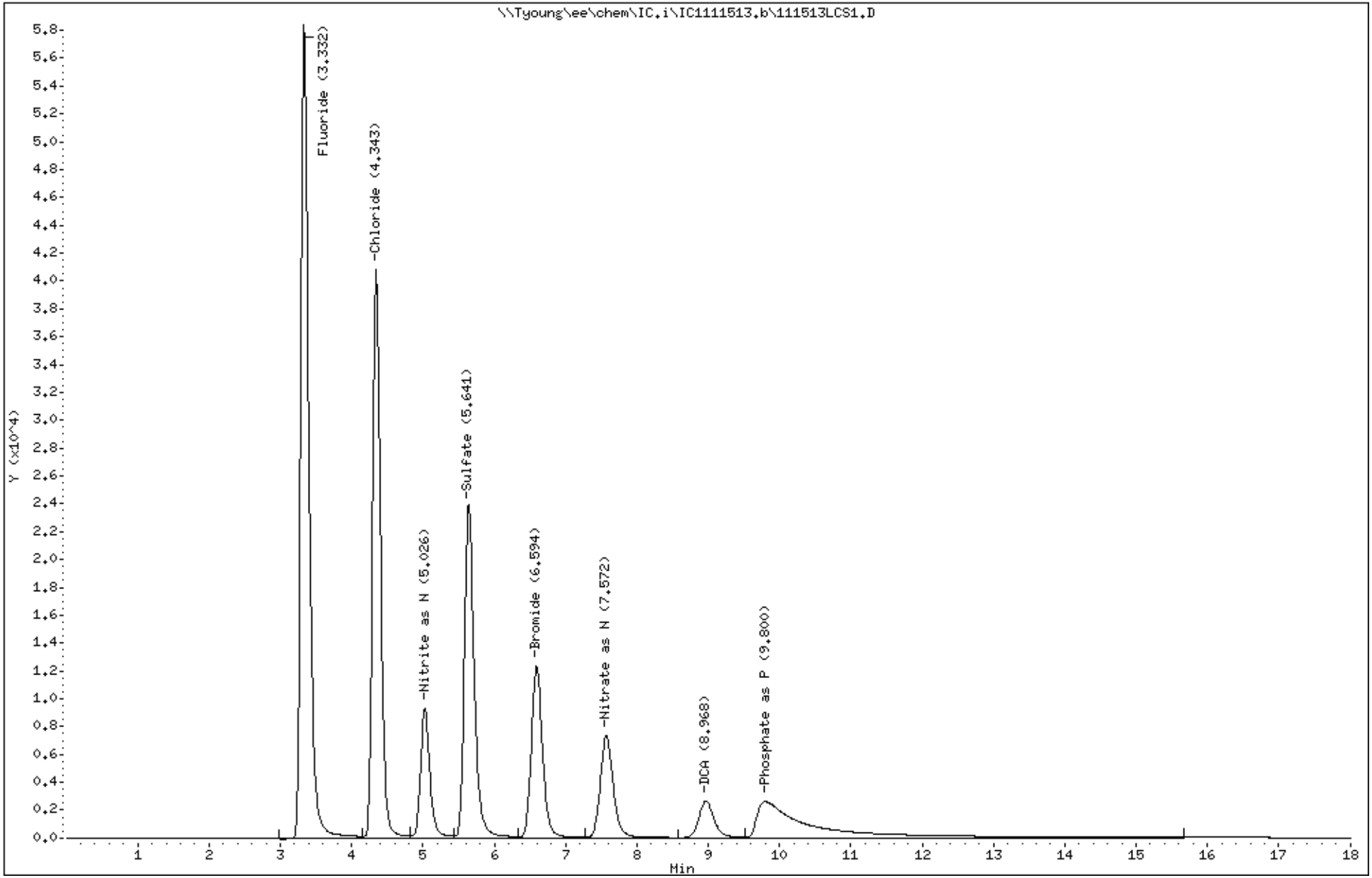
Instrument: IC.i

Sample Info: 111513LCS1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCSD1.D
Lab Smp Id: 111513LCSD1 Client Smp ID: 111513LCSD1
Inj Date : 15-NOV-2013 23:43
Operator : TR Inst ID: IC.i
Smp Info : 111513LCSD1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.332	3.325	0.007	939292	8.92284	8.9
T 2 Chloride	4.343	4.350	-0.007	645754	8.31091	8.3
T 3 Nitrite as N	5.025	5.054	-0.029	174204	1.08404	1.1
T 4 Sulfate	5.637	5.689	-0.052	467664	8.29727	8.3
T 5 Bromide	6.594	6.592	0.002	275267	8.22577	8.2
T 6 Nitrate as N	7.573	7.575	-0.002	190882	1.03038	1.0
T 7 DCA	8.967	9.195	-0.228	80572	4.90554	4.9
T 8 Phosphate as P	9.775	9.914	-0.139	324406	4.87821	4.9(M)

QC Flag Legend

M - Compound response manually integrated.

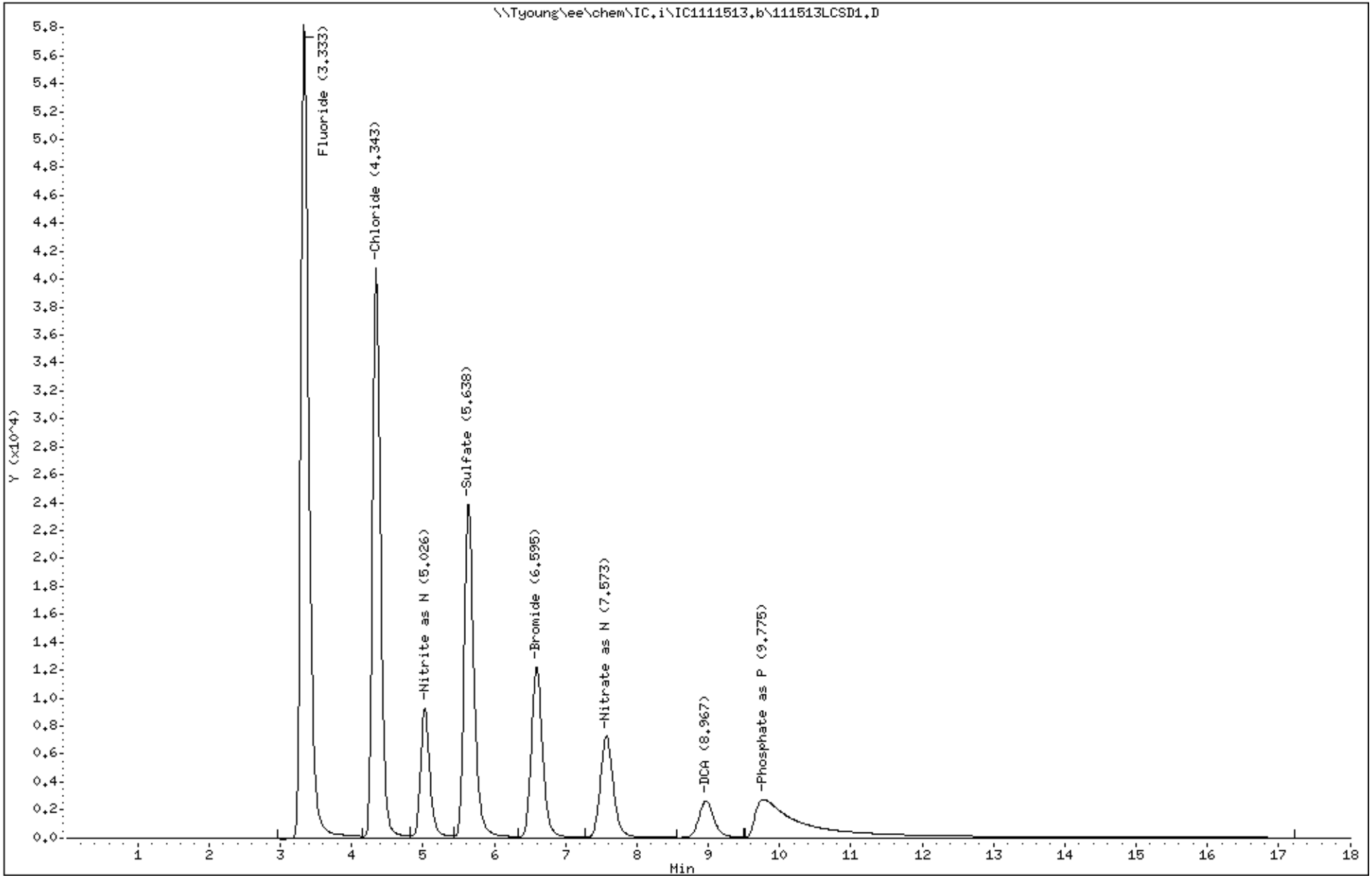
Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513LCSD1.D
Date : 15-NOV-2013 23:43
Client ID: 111513LCSD1
Sample Info: 111513LCSD1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV4.D
Lab Smp Id: 111513CCV4 Client Smp ID: 111513CCV4
Inj Date : 16-NOV-2013 01:55
Operator : TR Inst ID: IC.i
Smp Info : 111513CCV4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	916361	8.69825	8.7(M)
T 2 Chloride	4.343	4.350	-0.007	648387	8.34435	8.3
T 3 Nitrite as N	5.025	5.054	-0.029	175113	1.08969	1.1
T 4 Sulfate	5.639	5.689	-0.050	470818	8.35220	8.4
T 5 Bromide	6.594	6.592	0.002	276342	8.25671	8.2
T 6 Nitrate as N	7.571	7.575	-0.004	192147	1.03681	1.0
T 7 DCA	8.966	9.195	-0.229	81160	4.93957	4.9
T 8 Phosphate as P	9.700	9.914	-0.214	349599	5.18610	5.2(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV4.D

Date : 16-NOV-2013 01:55

Client ID: 111513CCV4

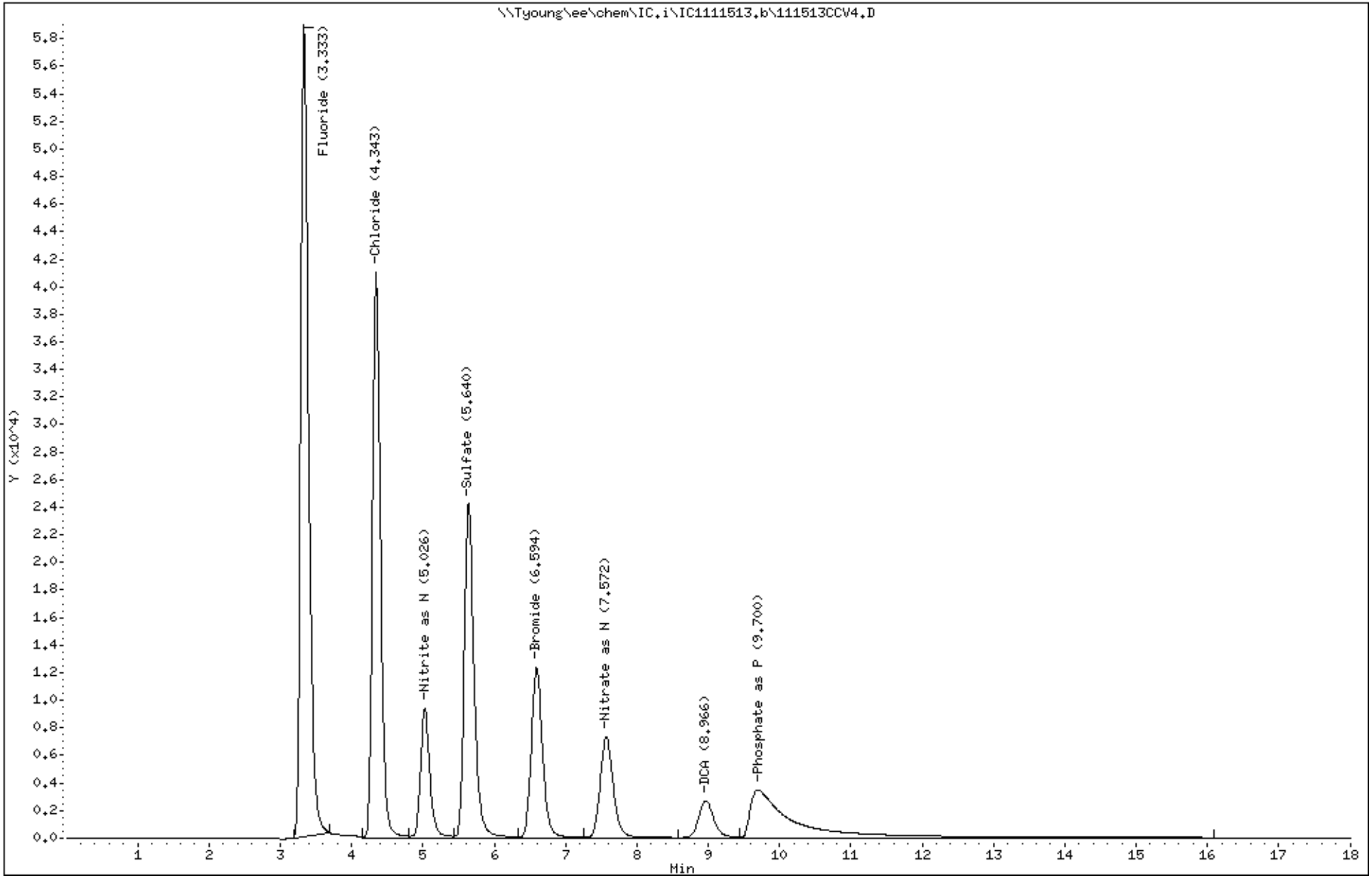
Instrument: IC.i

Sample Info: 111513CCV4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB4.D
Lab Smp Id: 111513CCB4 Client Smp ID: 111513CCB4
Inj Date : 16-NOV-2013 02:17
Operator : TR Inst ID: IC.i
Smp Info : 111513CCB4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.343	4.350	-0.007	1464	0.12745	0.13
T 3 Nitrite as N	4.941	5.054	-0.113	809	0.00503	0.0050
T 7 DCA	8.974	9.195	-0.221	83551	5.07797	5.1

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB4.D

Date : 16-NOV-2013 02:17

Client ID: 111513CCB4

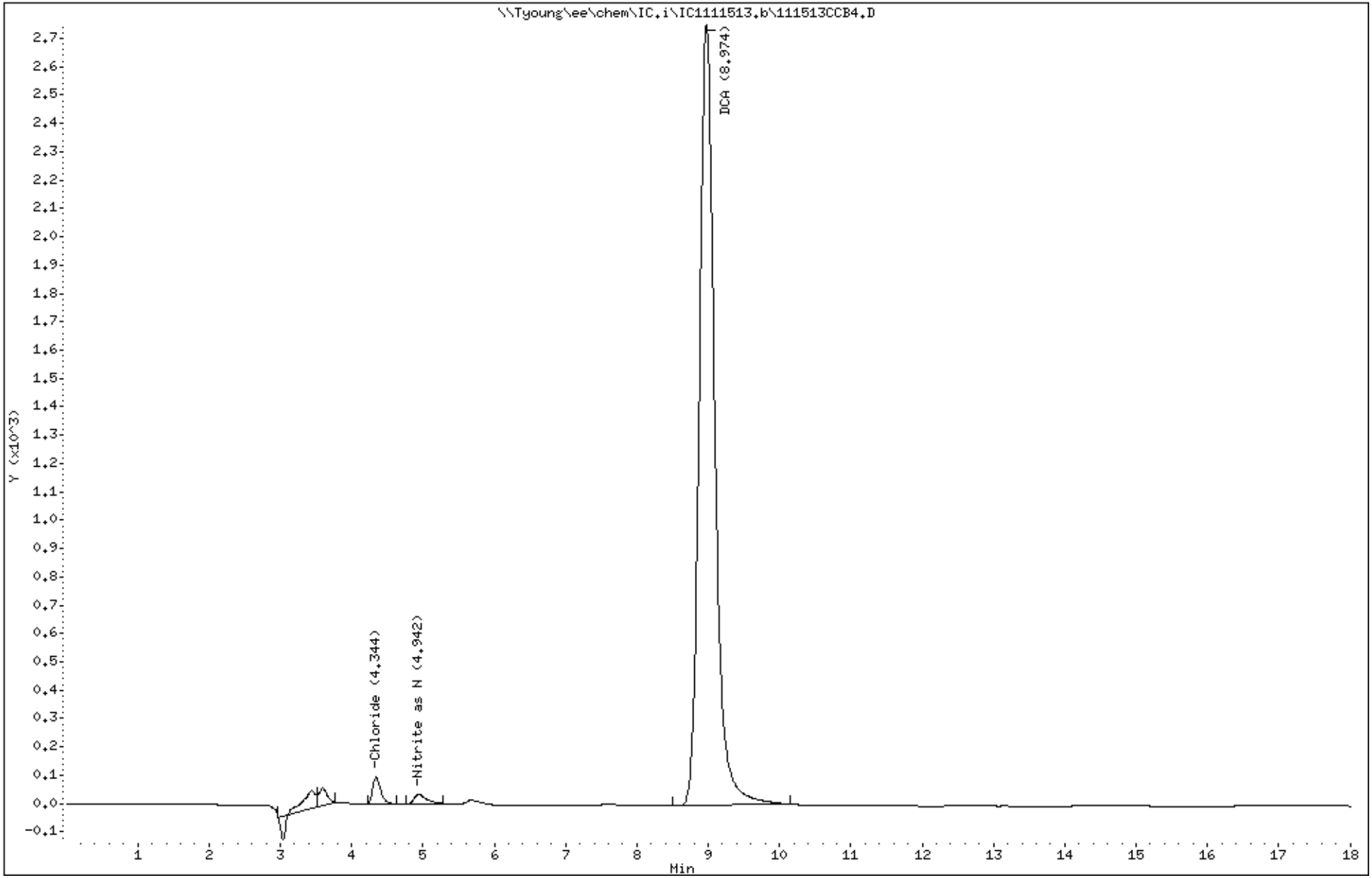
Instrument: IC.i

Sample Info: 111513CCB4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351101201.D
Lab Smp Id: 351101201 Client Smp ID: SMSMW12A
Inj Date : 16-NOV-2013 04:29
Operator : TR Inst ID: IC.i
Smp Info : 351101201
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.325	4.350	-0.025	25781575	327.574	328(AM)
T 3 Nitrite as N	5.225	5.054	0.171	1069	0.00665	0.0066(M)
T 4 Sulfate	5.491	5.689	-0.198	12027372	209.645	210(AM)
T 5 Bromide	6.584	6.592	-0.008	4364	0.42882	0.43
T 6 Nitrate as N	7.391	7.575	-0.184	4087955	20.8479	20.8(AM)
T 7 DCA	8.966	9.195	-0.229	85377	5.18366	5.2

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351101201.D

Date : 16-NOV-2013 04:29

Client ID: SMSMW12A

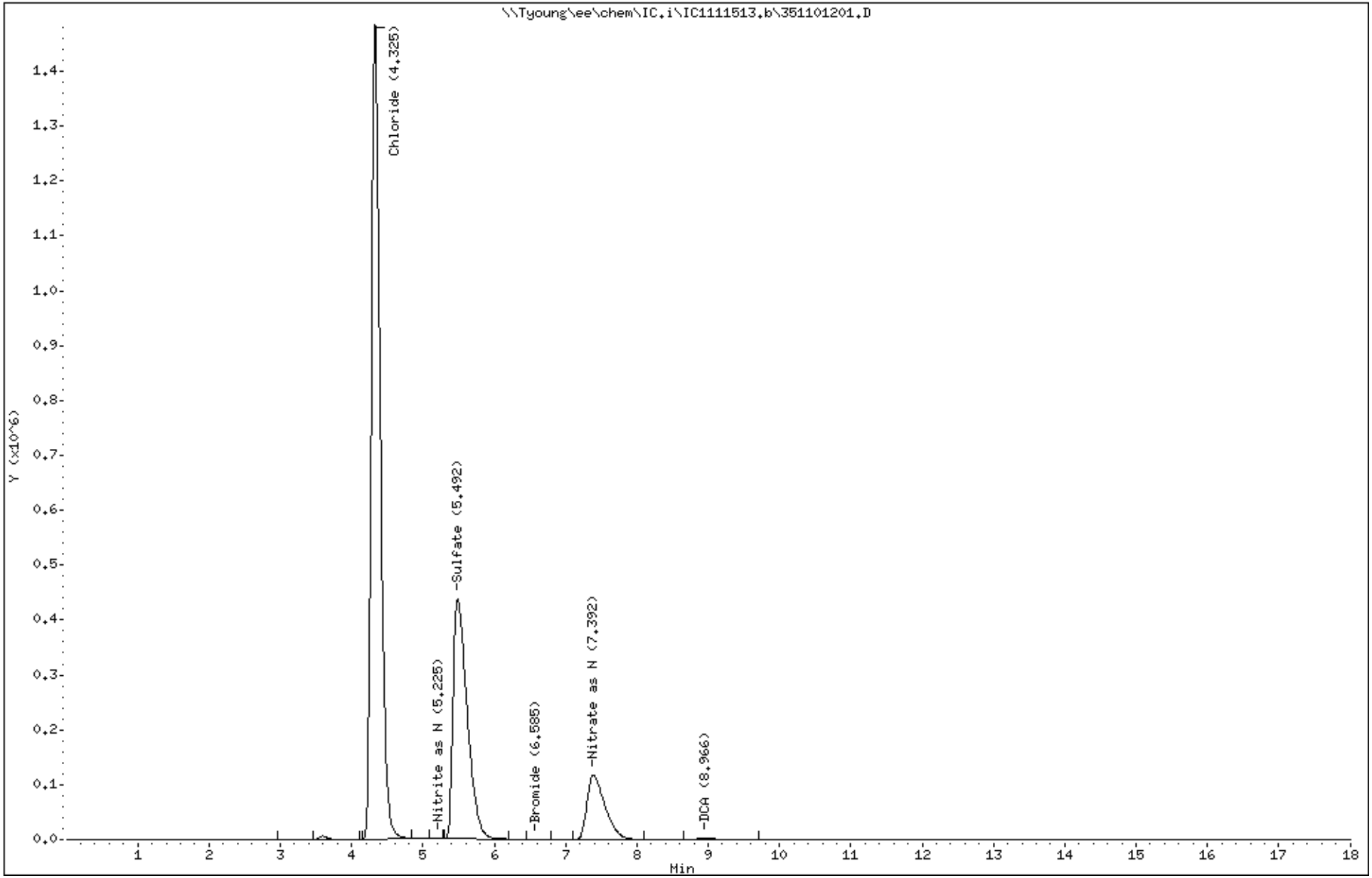
Instrument: IC.i

Sample Info: 351101201

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\351101202.D
Lab Smp Id: 351101202 Client Smp ID: SMSMW01A
Inj Date : 16-NOV-2013 04:50
Operator : TR Inst ID: IC.i
Smp Info : 351101202
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.058	3.325	-0.267	19217582	187.949	188(AM)
T 2 Chloride	4.641	4.350	0.291	1278321611	16236.7	16200(AM)
T 3 Nitrite as N	5.283	5.054	0.229	34513	0.21477	0.21(M)
T 4 Sulfate	5.466	5.689	-0.223	16330968	284.606	285(AM)
T 5 Bromide	6.508	6.592	-0.084	89360	2.87512	2.9(M)
T 6 Nitrate as N	7.091	7.575	-0.484	18302287	93.1310	93.1(AM)
T 7 DCA	8.958	9.195	-0.237	80276	4.88841	4.9(M)
T 8 Phosphate as P	9.862	9.914	-0.052	801	0.92343	0.92

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\351101202.D

Date : 16-NOV-2013 04:50

Client ID: SMSMW01A

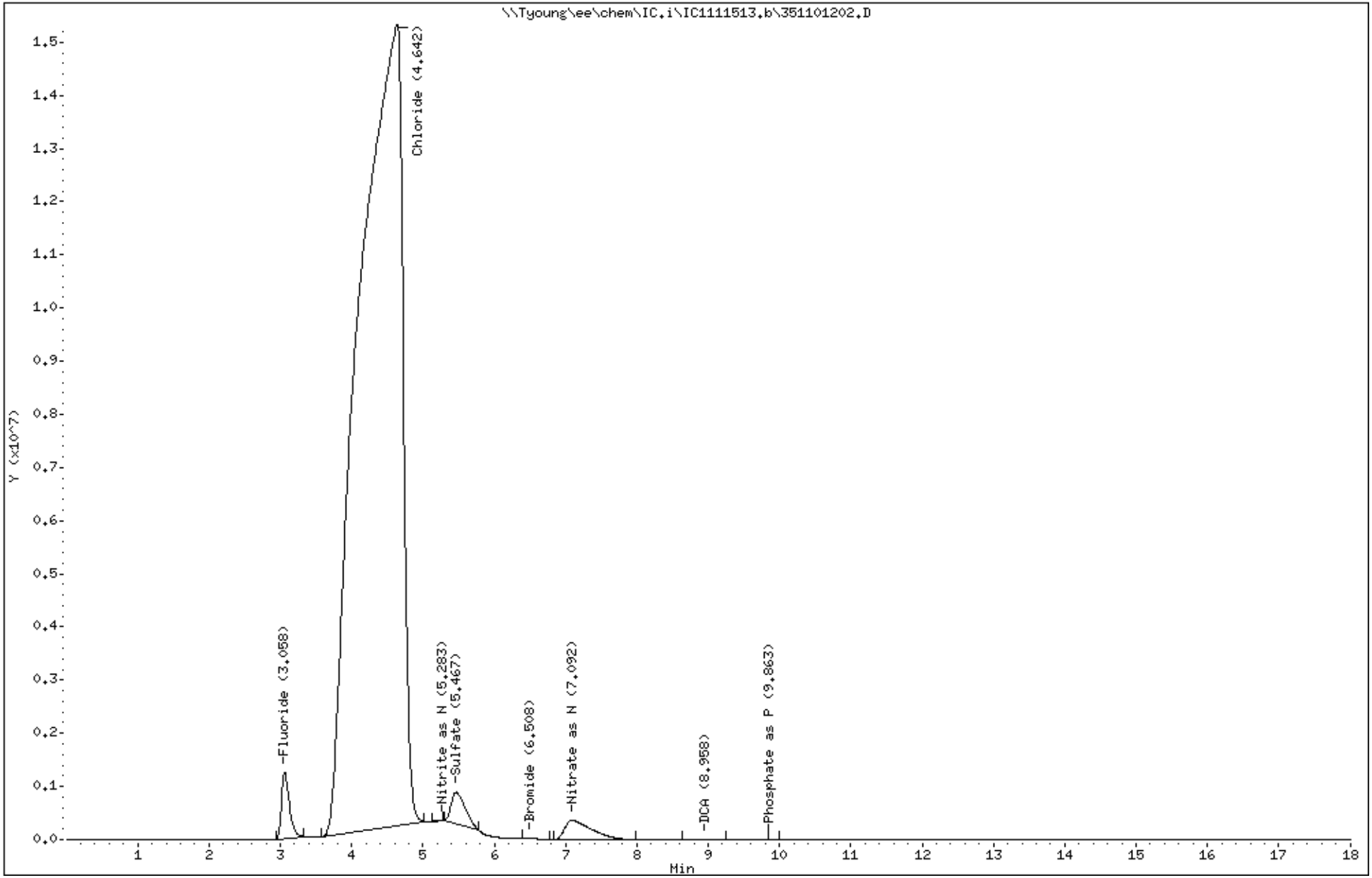
Instrument: IC.i

Sample Info: 351101202

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV5.D
Lab Smp Id: 111513CCV5 Client Smp ID: 111513CCV5
Inj Date : 16-NOV-2013 06:40
Operator : TR Inst ID: IC.i
Smp Info : 111513CCV5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.333	3.325	0.008	905337	8.59027	8.6(M)
T 2 Chloride	4.343	4.350	-0.007	643326	8.28007	8.3
T 3 Nitrite as N	5.026	5.054	-0.028	171255	1.06568	1.1
T 4 Sulfate	5.645	5.689	-0.044	464297	8.23862	8.2
T 5 Bromide	6.595	6.592	0.003	271440	8.11563	8.1
T 6 Nitrate as N	7.573	7.575	-0.002	186219	1.00667	1.0
T 7 DCA	8.971	9.195	-0.224	75347	4.60311	4.6
T 8 Phosphate as P	9.841	9.914	-0.073	325069	4.88631	4.9(M)

QC Flag Legend

M - Compound response manually integrated.

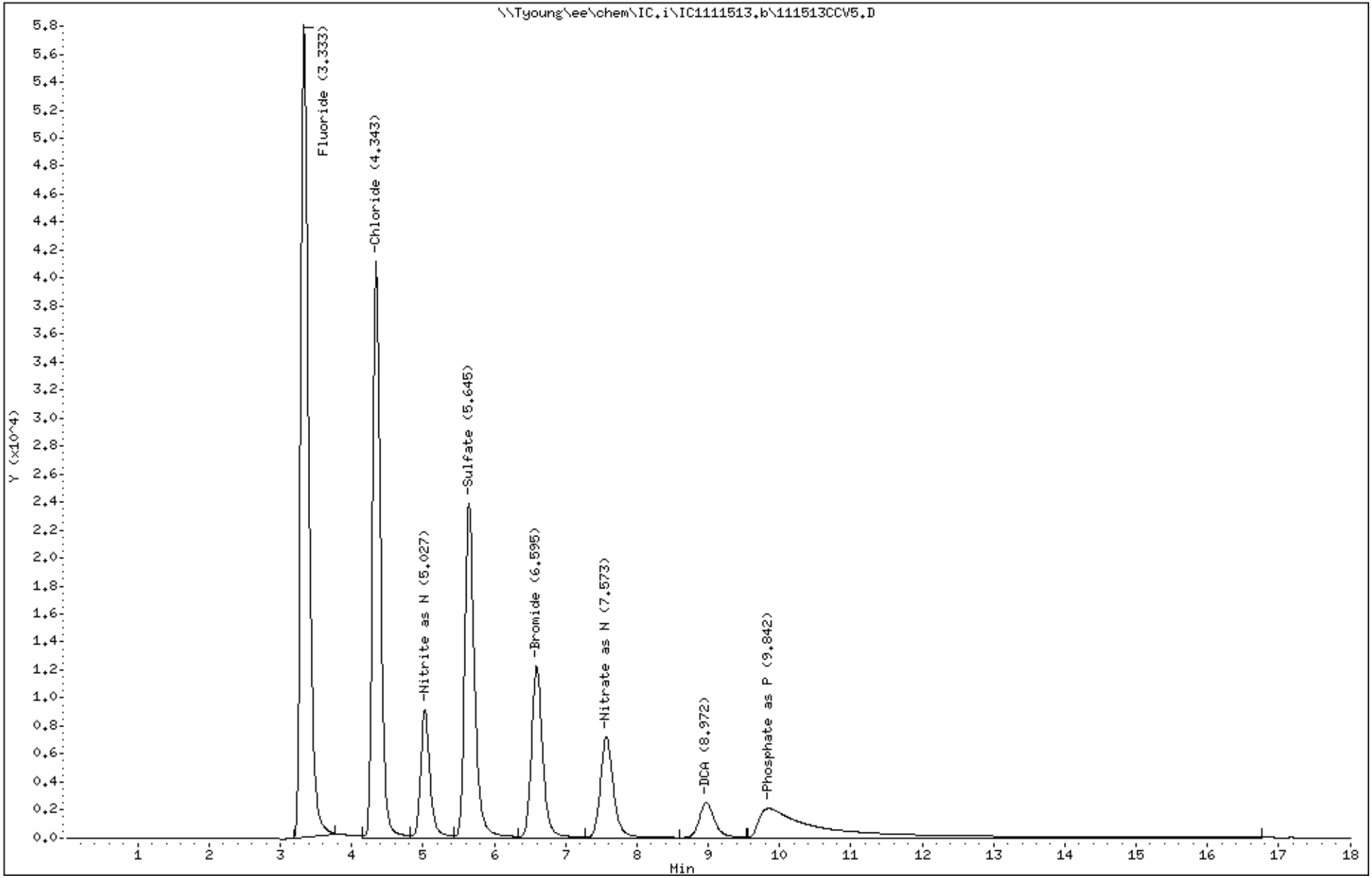
Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCV5.D
Date : 16-NOV-2013 06:40
Client ID: 111513CCV5
Sample Info: 111513CCV5

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB5.D
Lab Smp Id: 111513CCB5 Client Smp ID: 111513CCB5
Inj Date : 16-NOV-2013 07:02
Operator : TR Inst ID: IC.i
Smp Info : 111513CCB5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1111513.b\IC1300.m
Meth Date : 25-Nov-2013 08:54 troberts Quant Type: ESTD
Cal Date : 29-JUL-2013 14:20 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.351	4.350	0.001	1362	0.12616	0.13
T 3 Nitrite as N	4.941	5.054	-0.113	737	0.00459	0.0046
T 7 DCA	8.981	9.195	-0.214	81141	4.93848	4.9

Data File: \\Tyoung\ee\chem\IC.i\IC1111513.b\111513CCB5.D

Date : 16-NOV-2013 07:02

Client ID: 111513CCB5

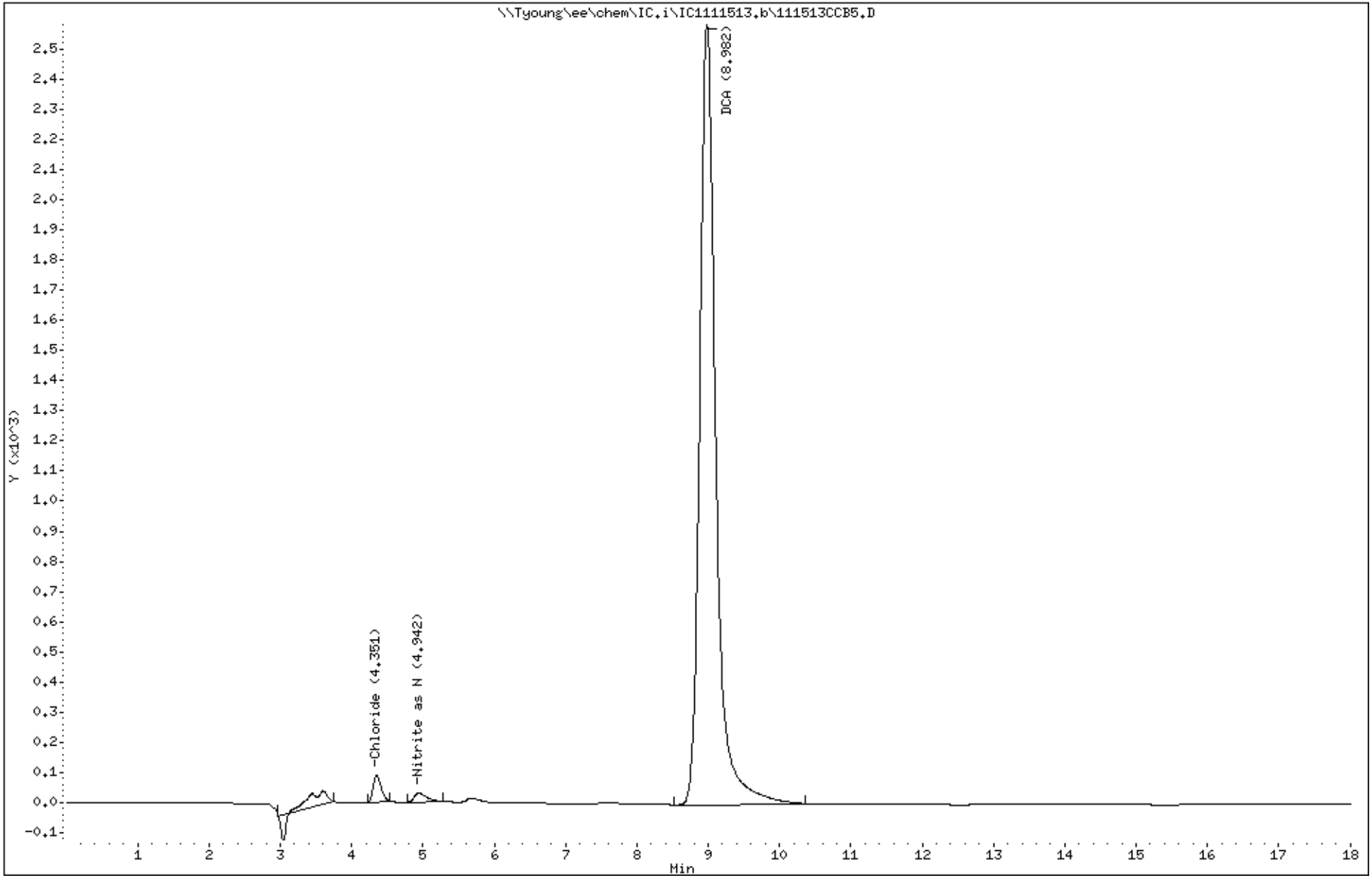
Instrument: IC.i

Sample Info: 111513CCB5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 25-NOV-2013 12:58
Operator : TR Inst ID: IC.i
Smp Info : CAL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 12:58 Cal File: CAL1.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)	
T 1 Fluoride	3.303	3.325	-0.022	50896	0.40000		
T 2 Chloride	4.193	4.194	-0.001	27748	0.40000		
T 3 Nitrite as N	4.788	4.785	0.003	8885	0.05000		
T 4 Sulfate	5.467	5.444	0.023	19876	0.40000		
T 5 Bromide	6.187	6.075	0.112	10986	0.40000		(M)
T 6 Nitrate as N	7.073	6.898	0.175	7780	0.05000		(M)
T 7 DCA	8.354	8.188	0.166	1612	0.10000		(M)
T 8 Phosphate as P	9.570	8.625	0.945	12365	0.26000		(T)

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL1.D
Date : 25-NOV-2013 12:58
Client ID: CAL1
Sample Info: CAL1

Instrument: IC.i

Operator: TR

Column phase: AS18

Column diameter: 4.00

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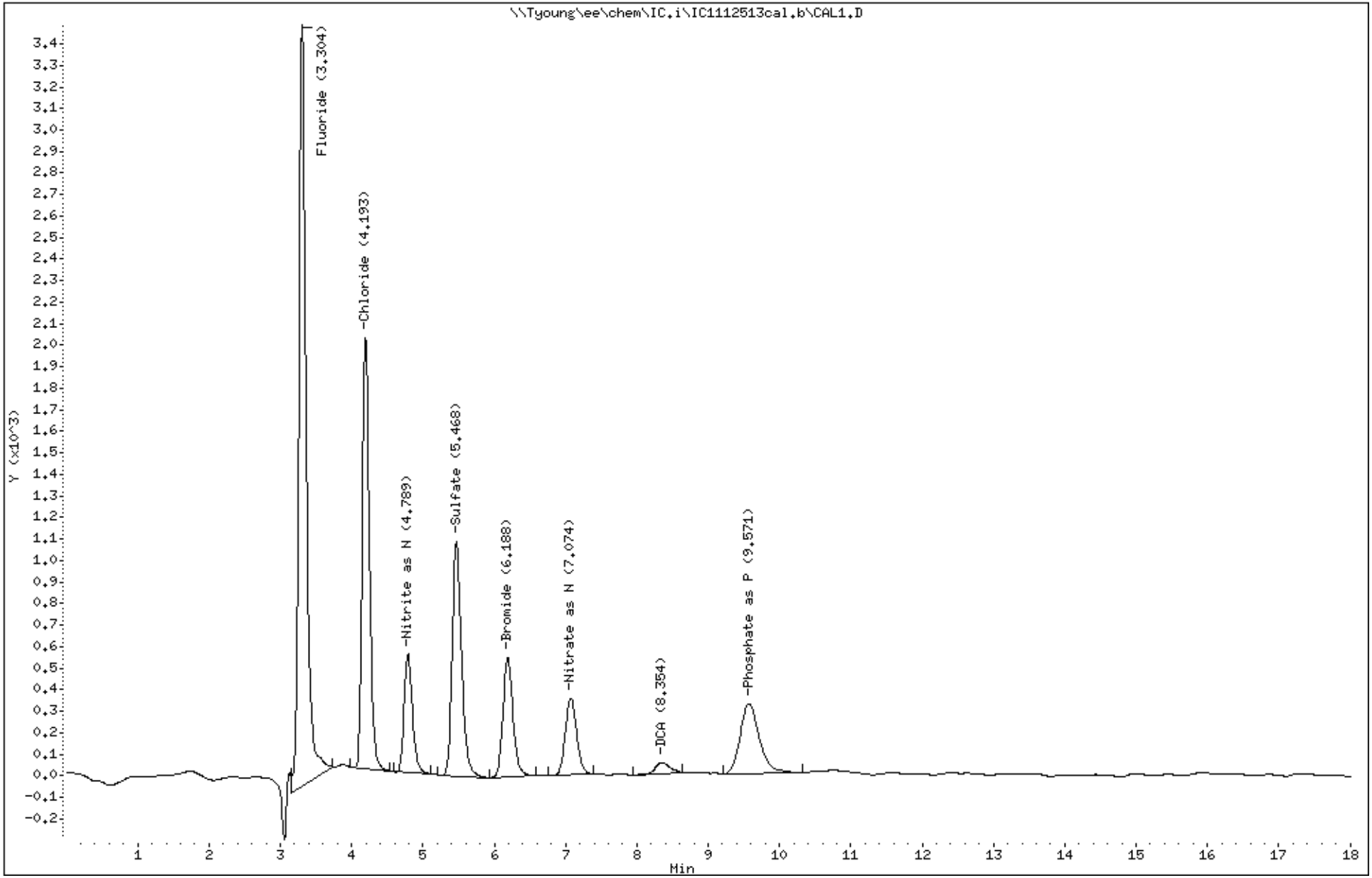


PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 25-NOV-2013 14:13
Operator : TR Inst ID: IC.i
Smp Info : CAL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:13 Cal File: CAL2.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.313	3.325	-0.012	110084	0.80000	0.86
T 2 Chloride	4.220	4.194	0.026	67801	0.80000	0.98
T 3 Nitrite as N	4.818	4.785	0.033	18925	0.10000	0.11
T 4 Sulfate	5.558	5.444	0.114	47616	0.80000	0.96
T 5 Bromide	6.219	6.075	0.144	26210	0.80000	0.95
T 6 Nitrate as N	7.111	6.898	0.213	20974	0.10000	0.13
T 7 DCA	8.367	8.188	0.179	9492	0.50000	0.59
T 8 Phosphate as P	9.788	8.625	1.163	36828	0.52000	0.77

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL2.D

Date : 25-NOV-2013 14:13

Client ID: CAL2

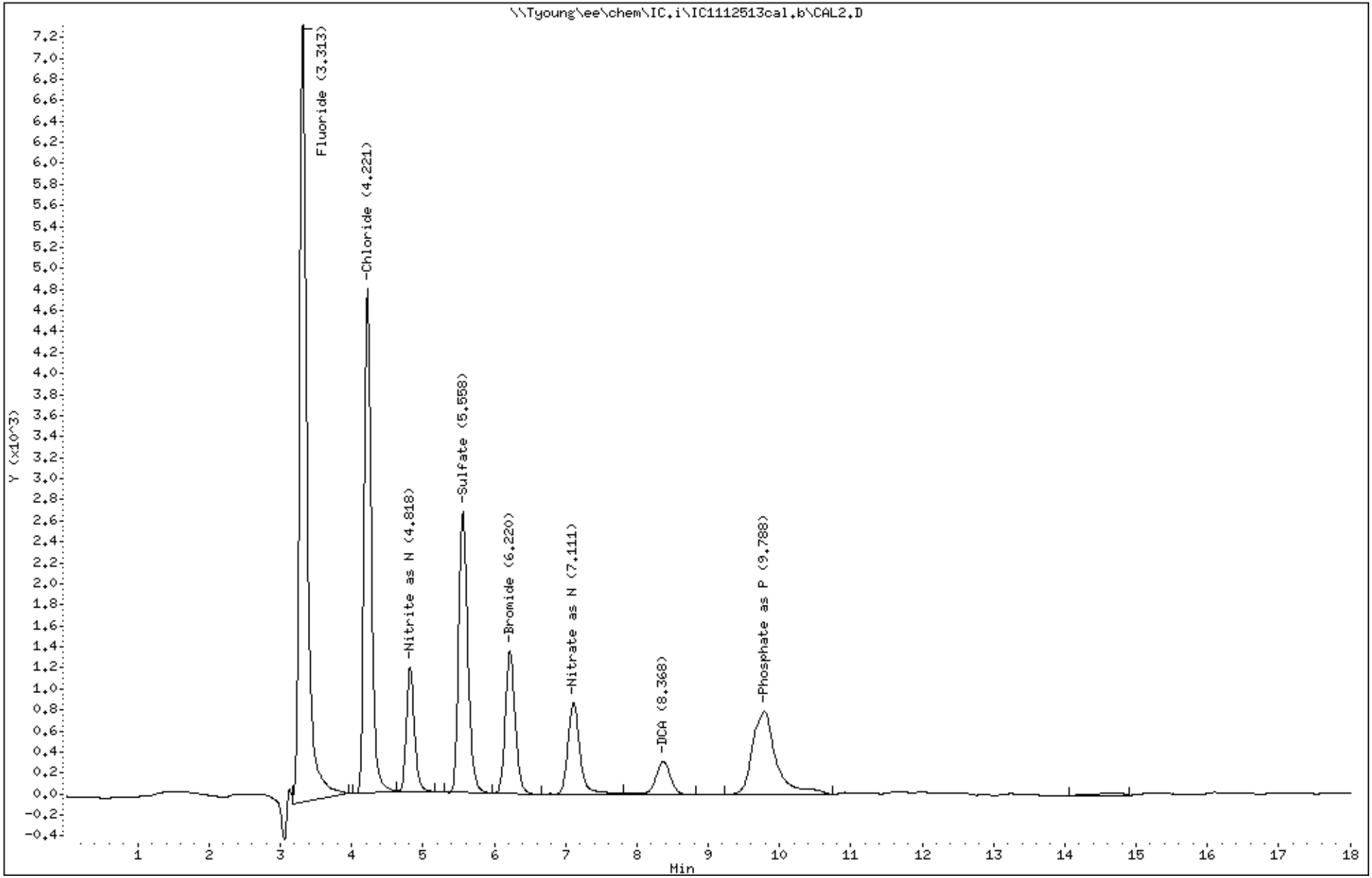
Instrument: IC.i

Sample Info: CAL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 25-NOV-2013 14:35
Operator : TR Inst ID: IC.i
Smp Info : CAL3
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:35 Cal File: CAL3.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.302	3.325	-0.023	506998	4.00000	3.5
T 2 Chloride	4.207	4.194	0.013	324271	4.00000	3.4
T 3 Nitrite as N	4.817	4.785	0.032	99903	0.50000	0.54
T 4 Sulfate	5.579	5.444	0.135	233756	4.00000	3.5
T 5 Bromide	6.185	6.075	0.110	138199	4.00000	3.7
T 6 Nitrate as N	7.054	6.898	0.156	97600	0.50000	0.39
T 7 DCA	8.339	8.188	0.151	47723	2.50000	2.4
T 8 Phosphate as P	9.638	8.625	1.013	188427	2.59000	2.1

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL3.D

Date : 25-NOV-2013 14:35

Client ID: CAL3

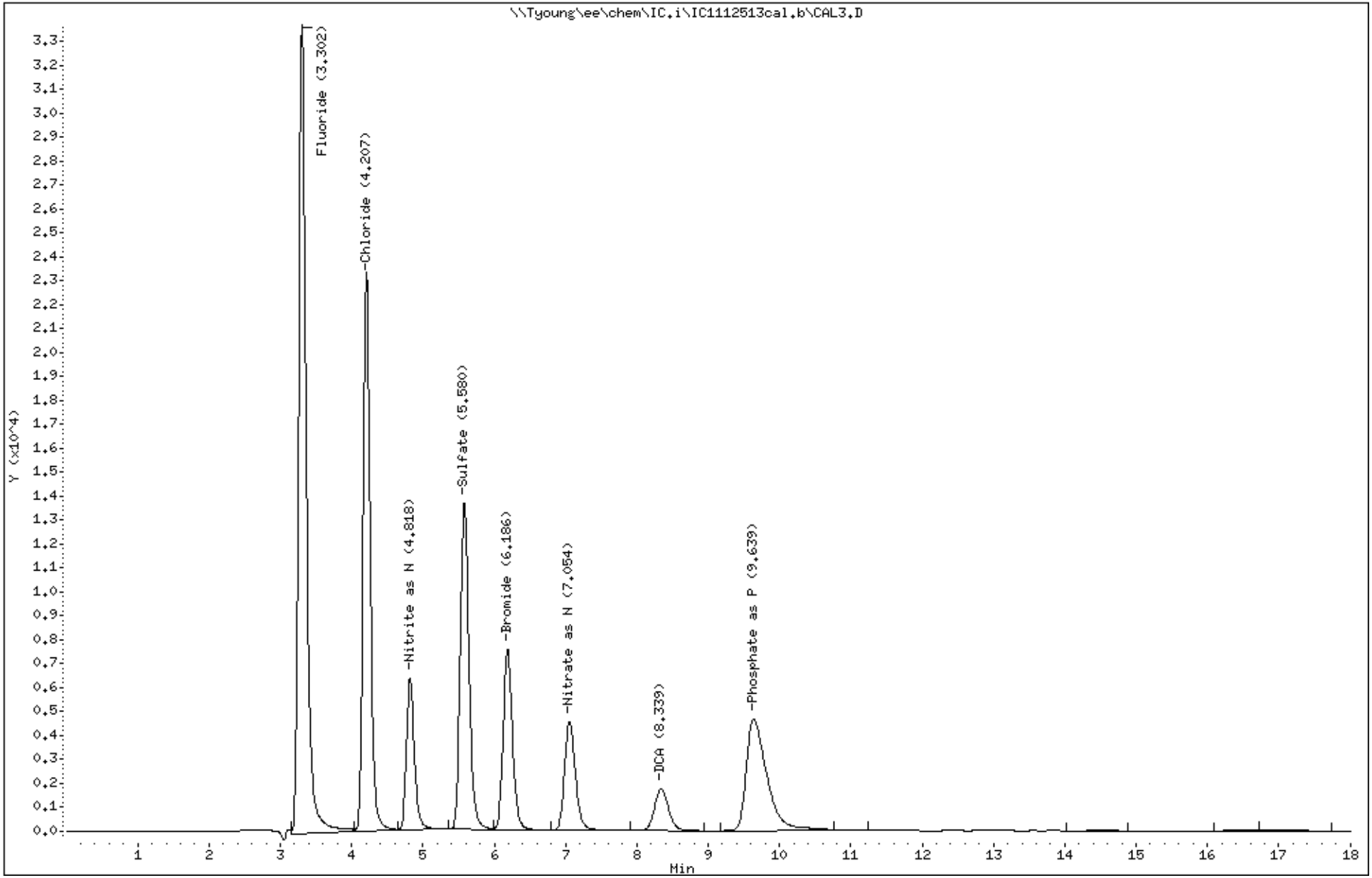
Instrument: IC.i

Sample Info: CAL3

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 25-NOV-2013 14:57
Operator : TR Inst ID: IC.i
Smp Info : CAL4
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 14:57 Cal File: CAL4.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.309	3.325	-0.016	963463	8.00000	7.6
T 2 Chloride	4.219	4.194	0.025	664370	8.00000	8.2
T 3 Nitrite as N	4.824	4.785	0.039	207297	1.00000	1.1
T 4 Sulfate	5.605	5.444	0.161	484699	8.00000	8.2
T 5 Bromide	6.204	6.075	0.129	294111	8.00000	8.4
T 6 Nitrate as N	7.071	6.898	0.173	208170	1.00000	1.1
T 7 DCA	8.363	8.188	0.175	102473	5.00000	5.4
T 8 Phosphate as P	9.667	8.625	1.042	408287	5.18000	5.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL4.D

Date : 25-NOV-2013 14:57

Client ID: CAL4

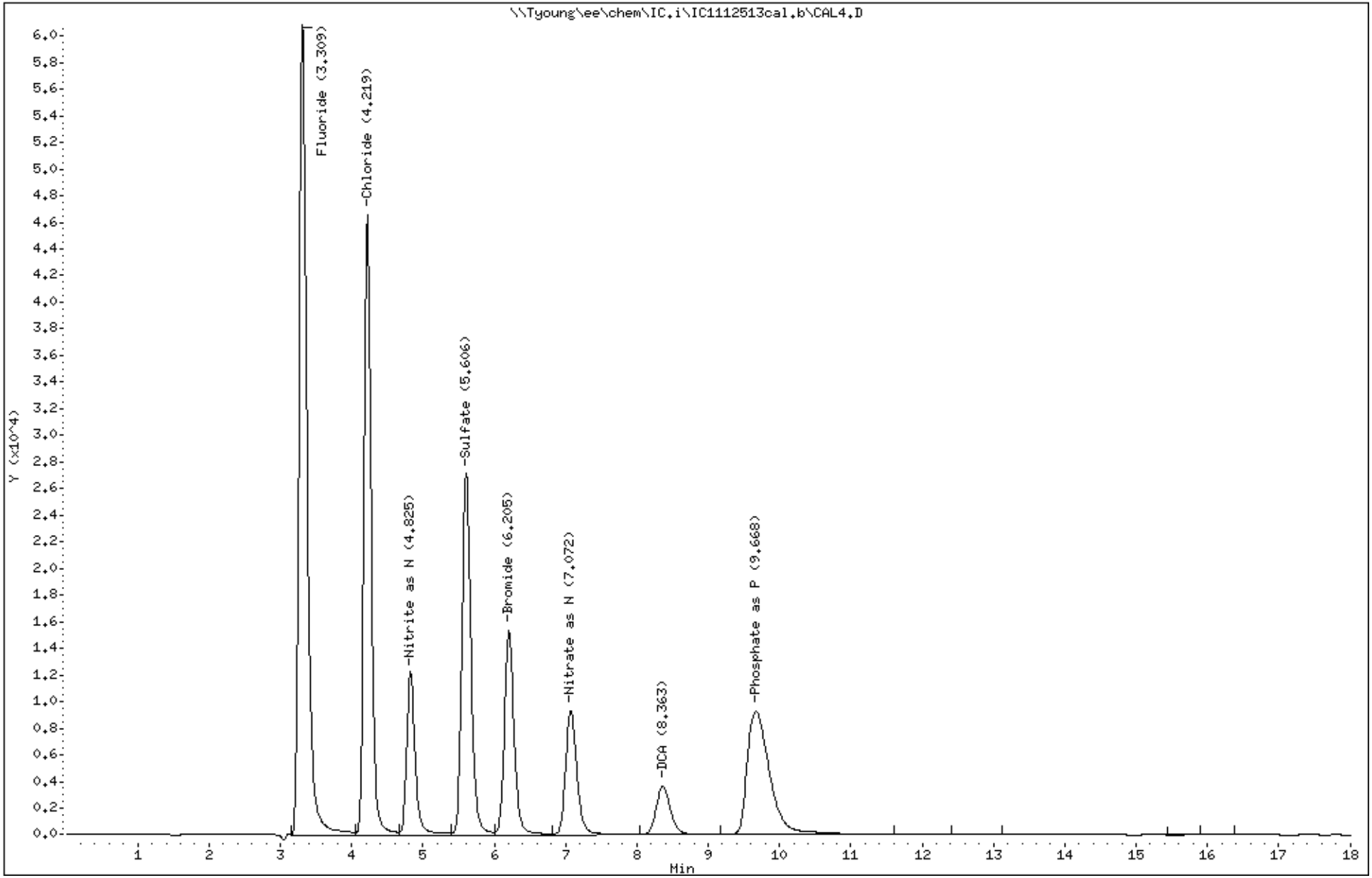
Instrument: IC.i

Sample Info: CAL4

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 25-NOV-2013 15:19
Operator : TR Inst ID: IC.i
Smp Info : CAL5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:19 Cal File: CAL5.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.323	3.325	-0.002	1765940	16.0000	14.6
T 2 Chloride	4.236	4.194	0.042	1313364	16.0000	15.8
T 3 Nitrite as N	4.843	4.785	0.058	404586	2.00000	2.1
T 4 Sulfate	5.600	5.444	0.156	960762	16.0000	15.9
T 5 Bromide	6.195	6.075	0.120	584132	16.0000	15.9
T 6 Nitrate as N	7.055	6.898	0.157	417736	2.00000	2.0
T 7 DCA	8.352	8.188	0.164	149871	7.00000	7.4
T 8 Phosphate as P	9.429	8.625	0.804	826525	10.3700	10.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL5.D

Date : 25-NOV-2013 15:19

Client ID: CAL5

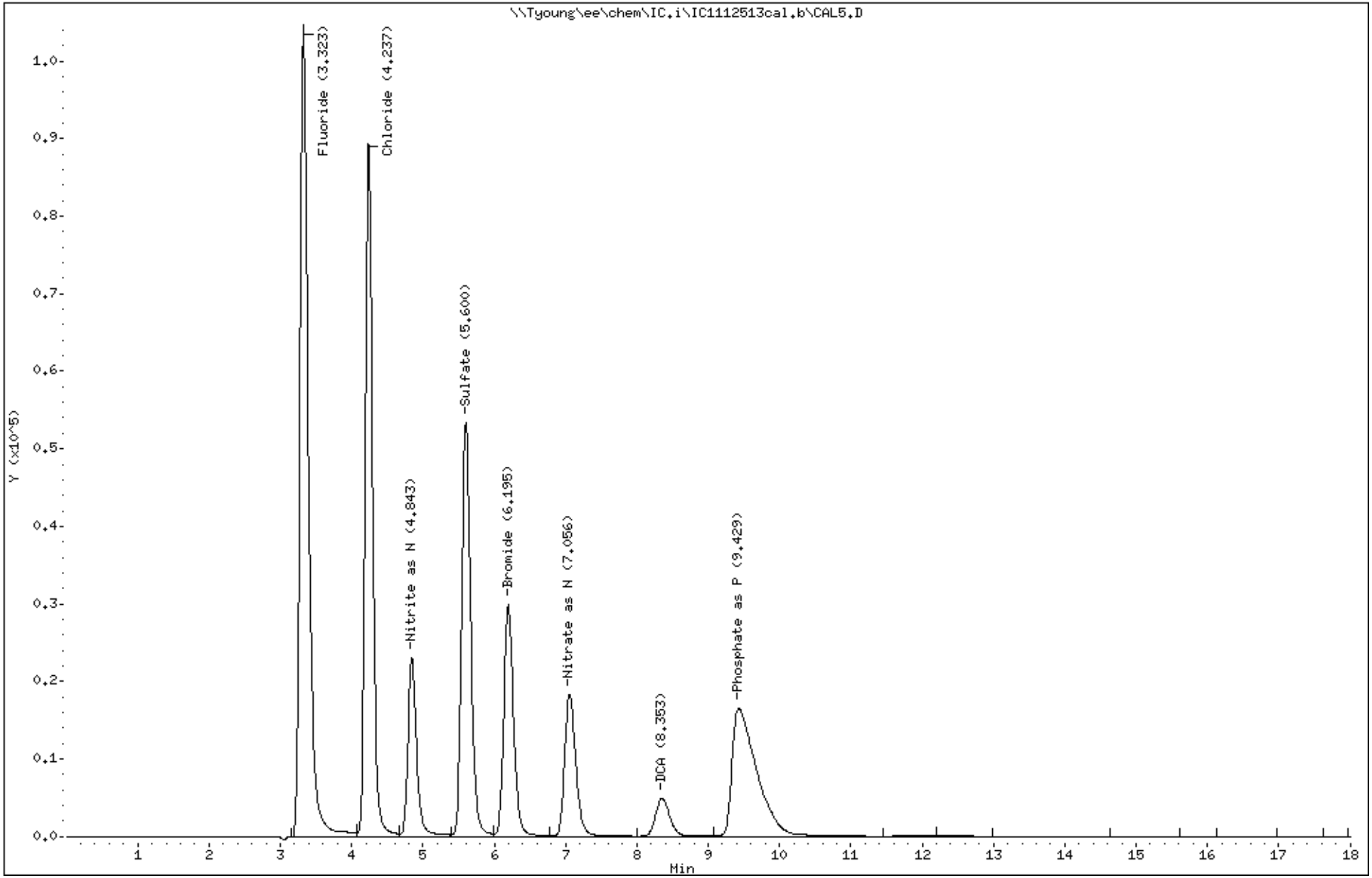
Instrument: IC.i

Sample Info: CAL5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 25-NOV-2013 15:41
Operator : TR Inst ID: IC.i
Smp Info : CAL6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 15:41 Cal File: CAL6.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.308	3.325	-0.017	3364776	40.0000	30.2(AM)
T 2 Chloride	4.183	4.194	-0.011	2844322	40.0000	34.6(M)
T 3 Nitrite as N	4.783	4.785	-0.002	797258	5.00000	4.1(M)
T 4 Sulfate	5.466	5.444	0.022	2078836	40.0000	34.5(M)
T 5 Bromide	6.125	6.075	0.050	1263772	40.0000	34.4(M)
T 6 Nitrate as N	6.958	6.898	0.060	896762	5.00000	4.3(M)
T 7 DCA	8.258	8.188	0.070	183443	10.0000	8.7(M)
T 8 Phosphate as P	9.033	8.625	0.408	1803781	25.9200	22.5(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL6.D

Date : 25-NOV-2013 15:41

Client ID: CAL6

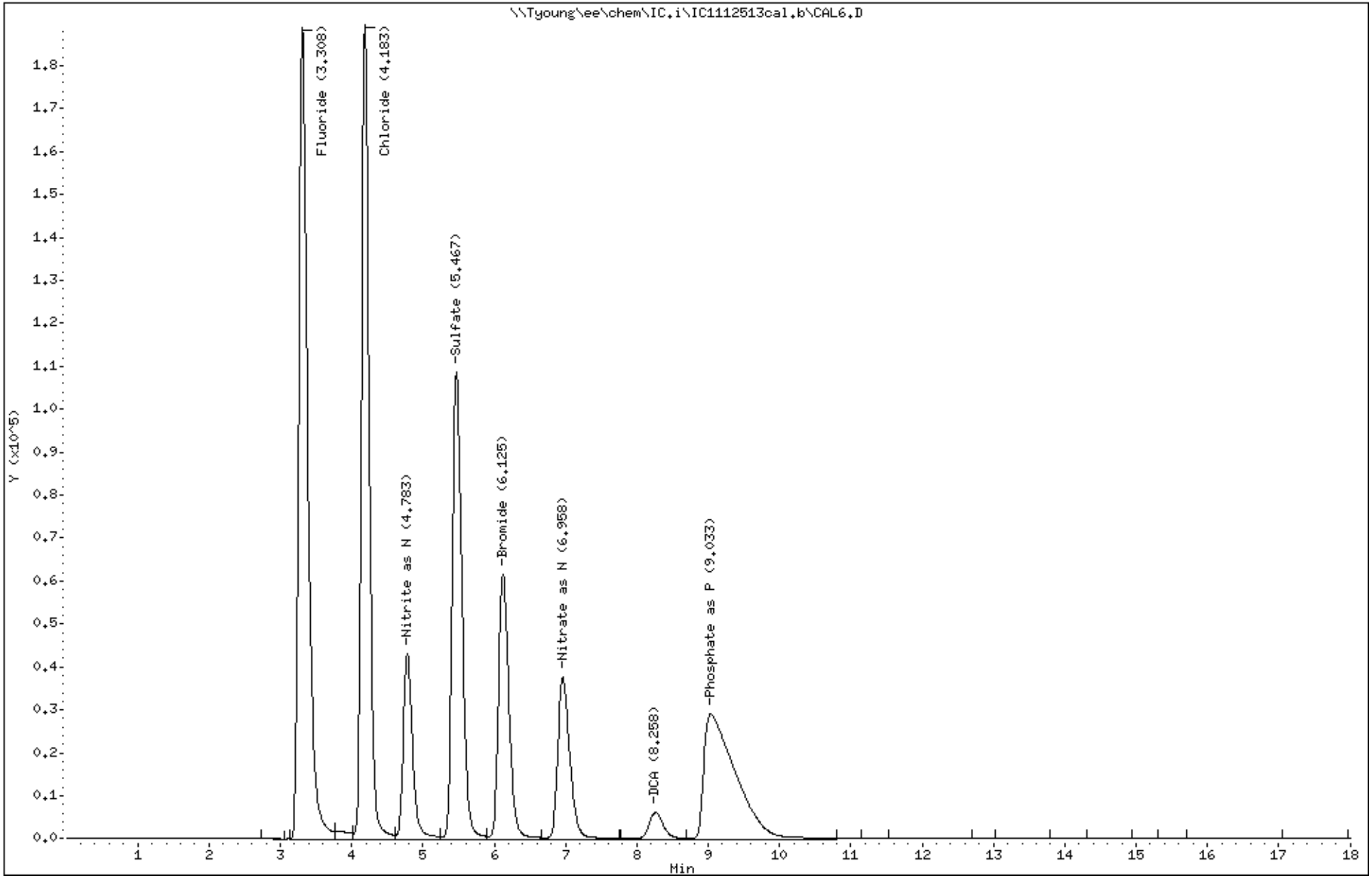
Instrument: IC.i

Sample Info: CAL6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 25-NOV-2013 16:03
Operator : TR Inst ID: IC.i
Smp Info : CAL7
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513cal.b\IC1300.m
Meth Date : 26-Nov-2013 09:39 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
T 1 Fluoride	3.324	3.325	-0.001	6540058	80.0000	59.1(A)
T 2 Chloride	4.194	4.194	0.000	6573560	80.0000	91.3(A)
T 3 Nitrite as N	4.785	4.785	0.000	1717450	10.0000	9.1(A)
T 4 Sulfate	5.443	5.444	-0.001	4781142	80.0000	90.8(A)
T 5 Bromide	6.075	6.075	0.000	2822591	80.0000	88.0(AM)
T 6 Nitrate as N	6.897	6.898	-0.001	2010490	10.0000	11.0(A)
T 7 DCA	8.188	8.188	0.000	283291	15.0000	13.3
T 8 Phosphate as P	8.625	8.625	0.000	3904826	51.8400	55.3(AM)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513cal.b\CAL7.D

Date : 25-NOV-2013 16:03

Client ID: CAL7

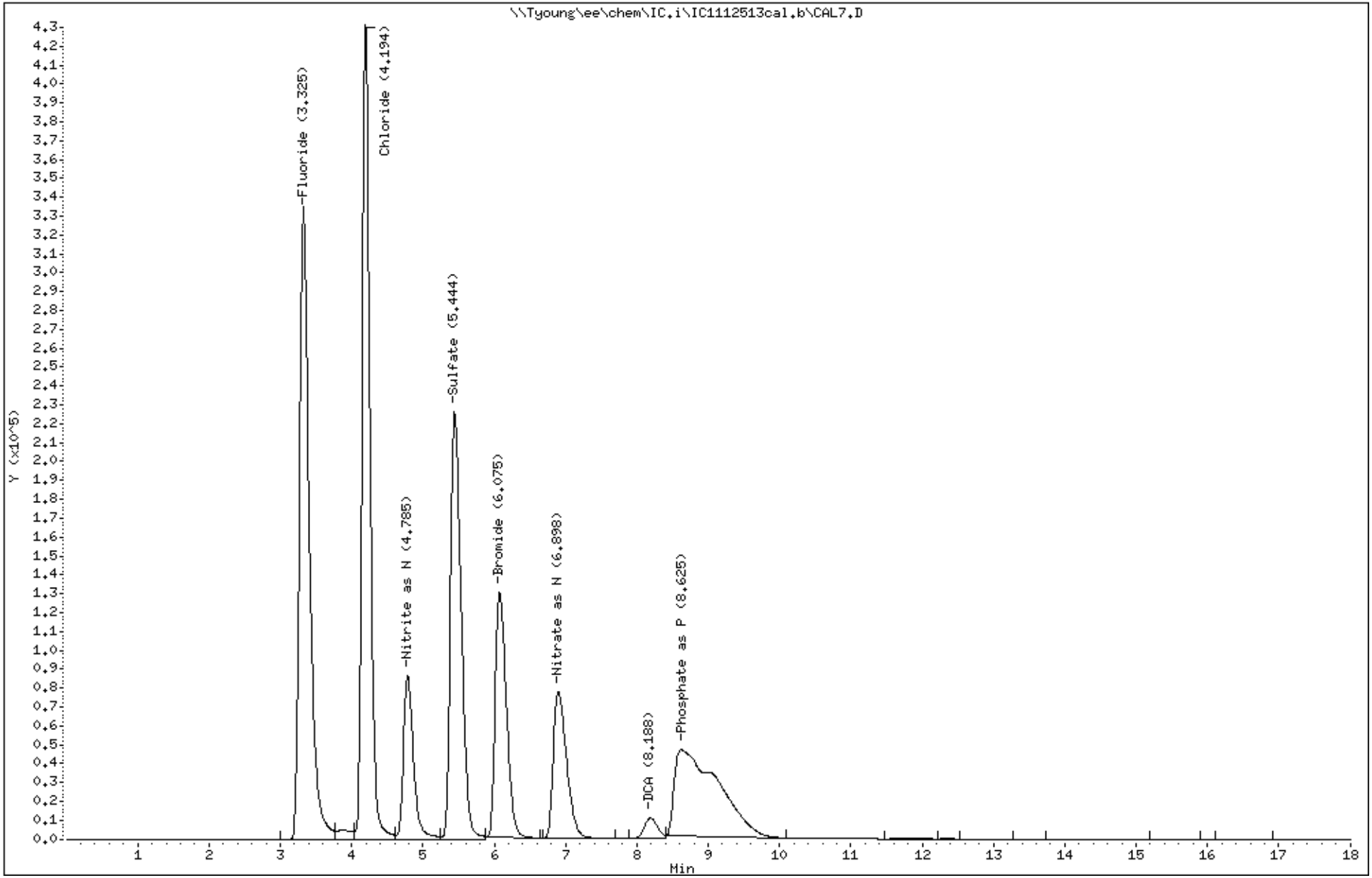
Instrument: IC.i

Sample Info: CAL7

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICV2.D
Lab Smp Id: 112513ICV2 Client Smp ID: 112513ICV2
Inj Date : 26-NOV-2013 09:26
Operator : TR Inst ID: IC.i
Smp Info : 112513ICV2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.325	3.325	0.000	955168	8.34418	8.3(M)
T 2 Chloride	4.233	4.194	0.039	659725	8.61252	8.6(M)
T 3 Nitrite as N	4.841	4.785	0.056	191701	1.02628	1.0(M)
T 4 Sulfate	5.641	5.444	0.197	477915	8.55411	8.6(M)
T 5 Bromide	6.216	6.075	0.141	280803	8.29476	8.3(M)
T 6 Nitrate as N	7.091	6.898	0.193	198454	1.02940	1.0(M)
T 7 DCA	8.396	8.372	0.024	98110	4.69606	4.7
T 8 Phosphate as P	9.741	9.308	0.433	377732	5.12057	5.1(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICV2.D

Date : 26-NOV-2013 09:26

Client ID: 112513ICV2

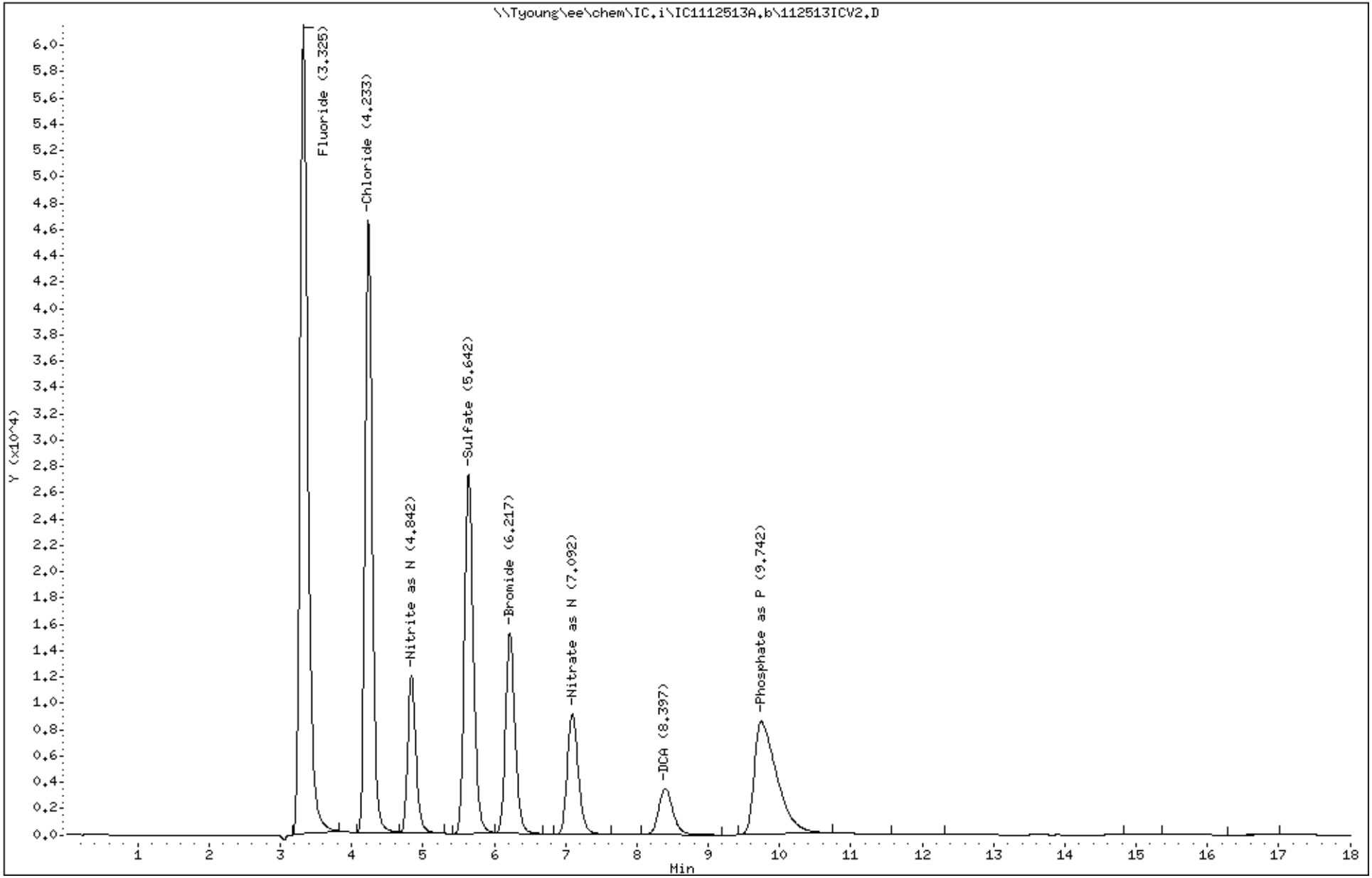
Instrument: IC.i

Sample Info: 112513ICV2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICB2.D
Lab Smp Id: 112513ICB2 Client Smp ID: 112513ICB2
Inj Date : 26-NOV-2013 09:48
Operator : TR Inst ID: IC.i
Smp Info : 112513ICB2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: ICB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.224	4.194	0.030	4775	0.52161	0.52
T 4 Sulfate	5.654	5.444	0.210	661	0.45173	0.45
T 6 Nitrate as N	7.118	6.898	0.220	3813	0.04827	0.048
T 7 DCA	8.381	8.372	0.009	94817	4.54222	4.5

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513ICB2.D

Date : 26-NOV-2013 09:48

Client ID: 112513ICB2

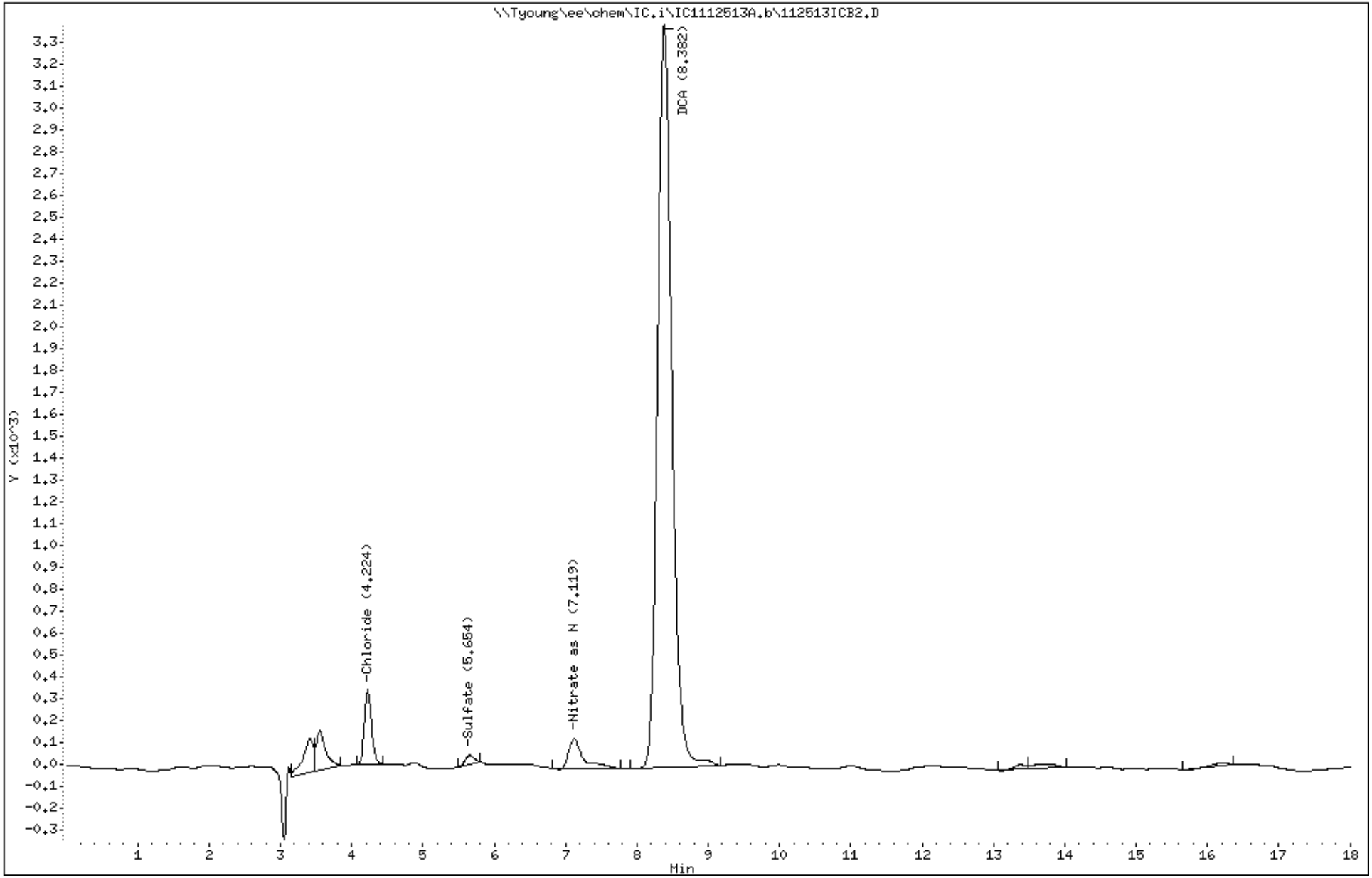
Instrument: IC.i

Sample Info: 112513ICB2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513MB2.D
Lab Smp Id: 112513MB2 Client Smp ID: 112513MB2
Inj Date : 26-NOV-2013 10:10
Operator : TR Inst ID: IC.i
Smp Info : 112513MB2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.227	4.194	0.033	4563	0.51899	0.52
T 4 Sulfate	5.670	5.444	0.226	787	0.45387	0.45
T 6 Nitrate as N	7.114	6.898	0.216	2740	0.04286	0.043
T 7 DCA	8.385	8.372	0.013	97393	4.66256	4.7

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513MB2.D

Date : 26-NOV-2013 10:10

Client ID: 112513MB2

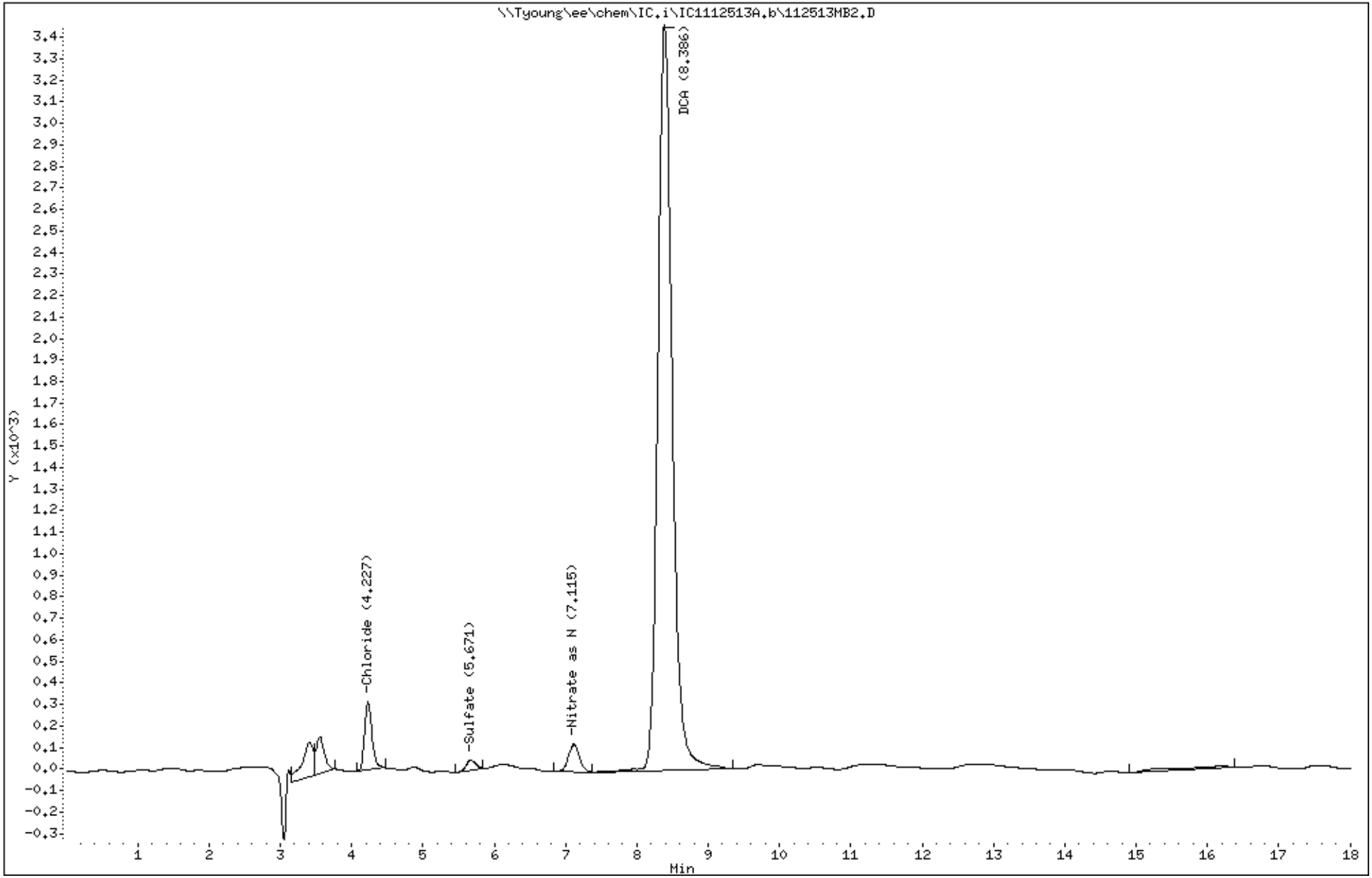
Instrument: IC.i

Sample Info: 112513MB2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCS2.D
Lab Smp Id: 112513LCS2 Client Smp ID: 112513LCS2
Inj Date : 26-NOV-2013 12:17
Operator : TR Inst ID: IC.i
Smp Info : 112513LCS2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.317	3.325	-0.008	981405	8.58250	8.6
T 2 Chloride	4.221	4.194	0.027	686765	8.94655	8.9
T 3 Nitrite as N	4.825	4.785	0.040	191140	1.02328	1.0
T 4 Sulfate	5.595	5.444	0.151	488556	8.73476	8.7
T 5 Bromide	6.201	6.075	0.126	294727	8.69452	8.7
T 6 Nitrate as N	7.056	6.898	0.158	219091	1.13343	1.1
T 7 DCA	8.334	8.372	-0.038	98685	4.72292	4.7
T 8 Phosphate as P	9.465	9.308	0.157	400630	5.42761	5.4

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCS2.D

Date : 26-NOV-2013 12:17

Client ID: 112513LCS2

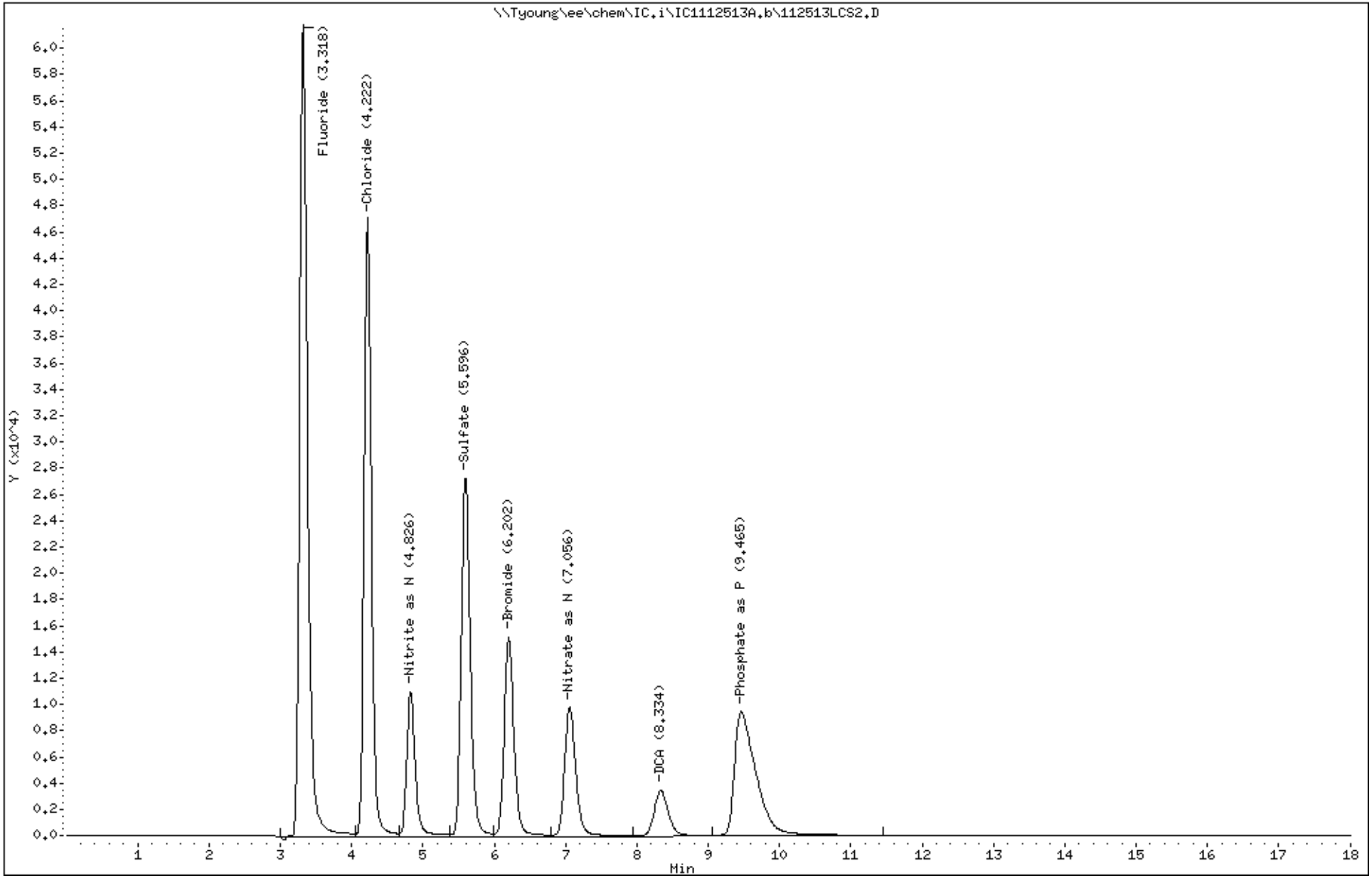
Instrument: IC.i

Sample Info: 112513LCS2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCSD2.D
Lab Smp Id: 112513LCSD2 Client Smp ID: 112513LCSD2
Inj Date : 26-NOV-2013 12:39
Operator : TR Inst ID: IC.i
Smp Info : 112513LCSD2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.320	3.325	-0.005	952658	8.32138	8.3
T 2 Chloride	4.218	4.194	0.024	667399	8.70732	8.7
T 3 Nitrite as N	4.818	4.785	0.033	187295	1.00269	1.0
T 4 Sulfate	5.562	5.444	0.118	472351	8.45965	8.4
T 5 Bromide	6.184	6.075	0.109	286983	8.47219	8.5
T 6 Nitrate as N	7.040	6.898	0.142	213666	1.10608	1.1
T 7 DCA	8.323	8.372	-0.049	98014	4.69157	4.7
T 8 Phosphate as P	9.465	9.308	0.157	391999	5.31188	5.3

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513LCSD2.D

Date : 26-NOV-2013 12:39

Client ID: 112513LCSD2

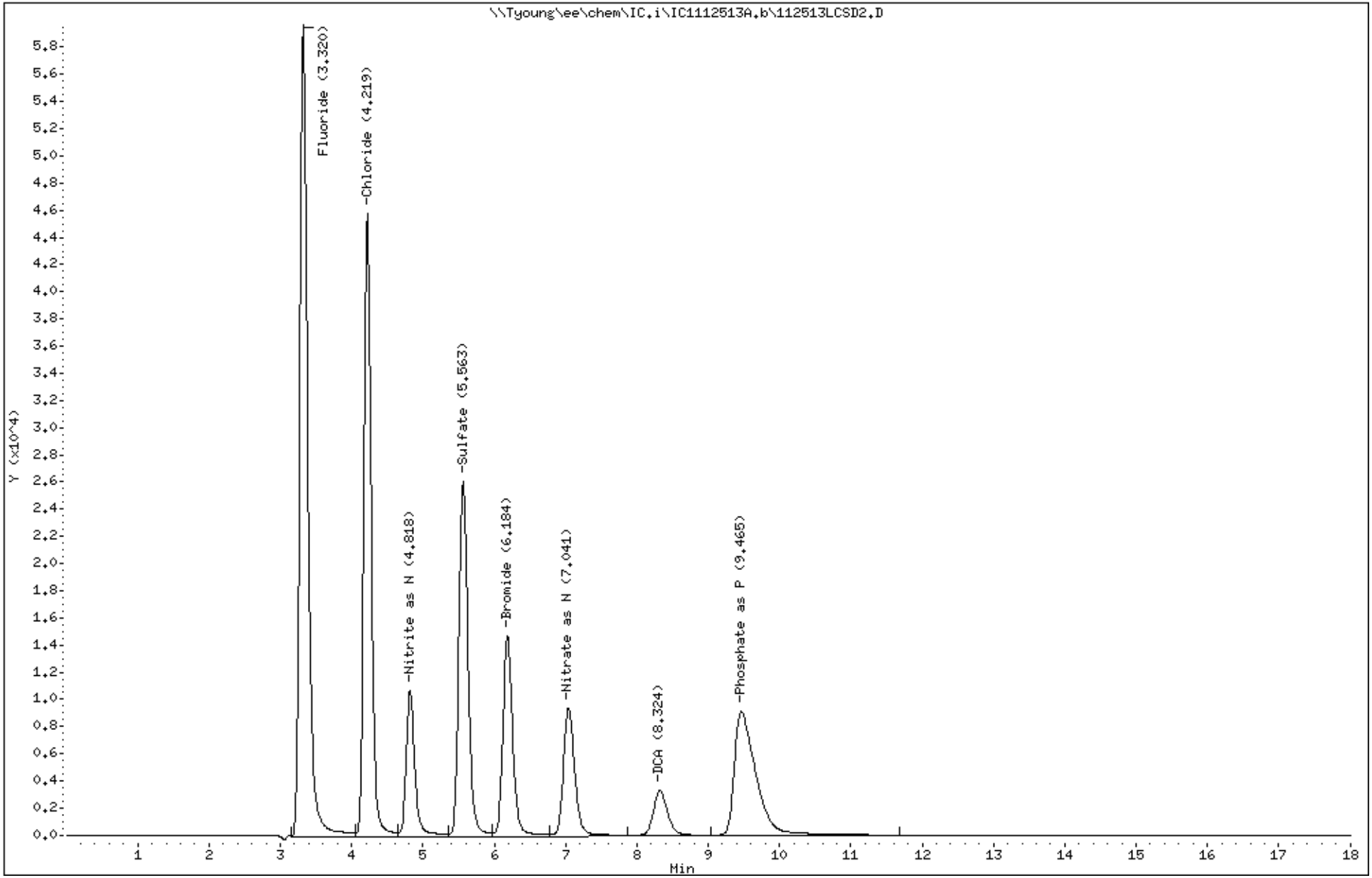
Instrument: IC.i

Sample Info: 112513LCSD2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV5.D
Lab Smp Id: 112513CCV5 Client Smp ID: 112513CCV5
Inj Date : 26-NOV-2013 14:51
Operator : TR Inst ID: IC.i
Smp Info : 112513CCV5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.308	3.325	-0.017	958971	8.37872	8.4(M)
T 2 Chloride	4.200	4.194	0.006	667971	8.71438	8.7(M)
T 3 Nitrite as N	4.783	4.785	-0.002	172733	0.92474	0.92(M)
T 4 Sulfate	5.483	5.444	0.039	475619	8.51513	8.5(M)
T 5 Bromide	6.150	6.075	0.075	278182	8.21951	8.2(M)
T 6 Nitrate as N	7.000	6.898	0.102	207793	1.07648	1.1(M)
T 7 DCA	8.283	8.372	-0.089	98092	4.69522	4.7(M)
T 8 Phosphate as P	9.387	9.308	0.079	400686	5.42836	5.4

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV5.D

Date : 26-NOV-2013 14:51

Client ID: 112513CCV5

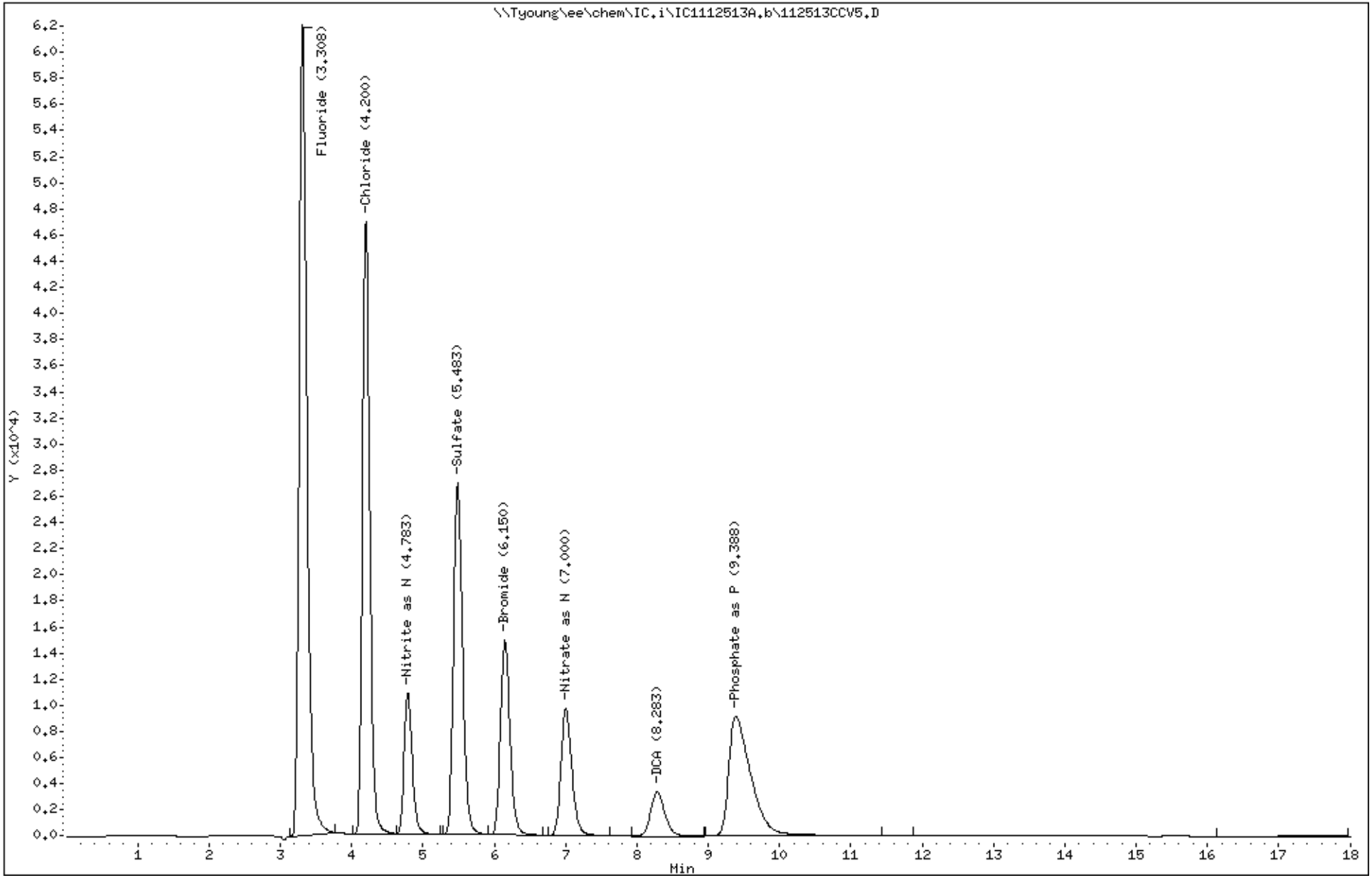
Instrument: IC.i

Sample Info: 112513CCV5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB5.D
Lab Smp Id: 112513CCB5 Client Smp ID: 112513CCB5
Inj Date : 26-NOV-2013 15:13
Operator : TR Inst ID: IC.i
Smp Info : 112513CCB5
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.216	4.194	0.022	4528	0.51856	0.52
T 3 Nitrite as N	4.845	4.785	0.060	1268	0.00679	0.0068
T 4 Sulfate	5.560	5.444	0.116	818	0.45439	0.45
T 6 Nitrate as N	7.050	6.898	0.152	2864	0.04348	0.043
T 7 DCA	8.281	8.372	-0.091	97000	4.64420	4.6

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB5.D

Date : 26-NOV-2013 15:13

Client ID: 112513CCB5

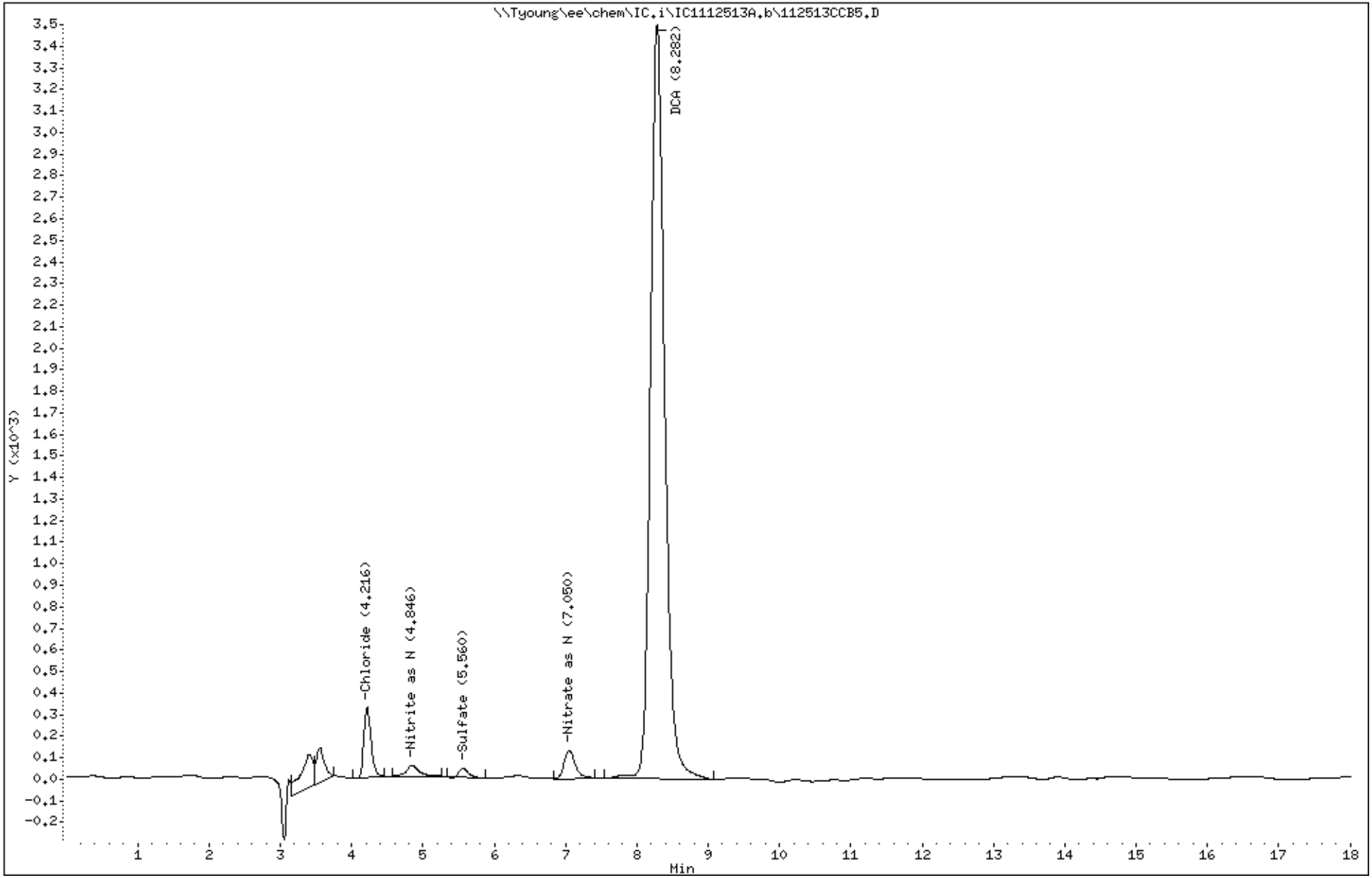
Instrument: IC.i

Sample Info: 112513CCB5

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101201DL1.D
Lab Smp Id: 351101201DL1 Client Smp ID: SMSMW12A
Inj Date : 26-NOV-2013 17:02
Operator : TR Inst ID: IC.i
Smp Info : 351101201DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 10.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.208	4.194	0.014	2697845	33.7904	338(M)
T 3 Nitrite as N	4.812	4.785	0.027	22616	0.12108	1.2
T 4 Sulfate	5.558	5.444	0.114	1271097	22.0200	220(M)
T 6 Nitrate as N	7.041	6.898	0.143	418422	2.13821	21.4(M)
T 7 DCA	8.336	8.372	-0.036	95660	4.58160	45.8

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101201DL1.D

Date : 26-NOV-2013 17:02

Client ID: SMSMW12A

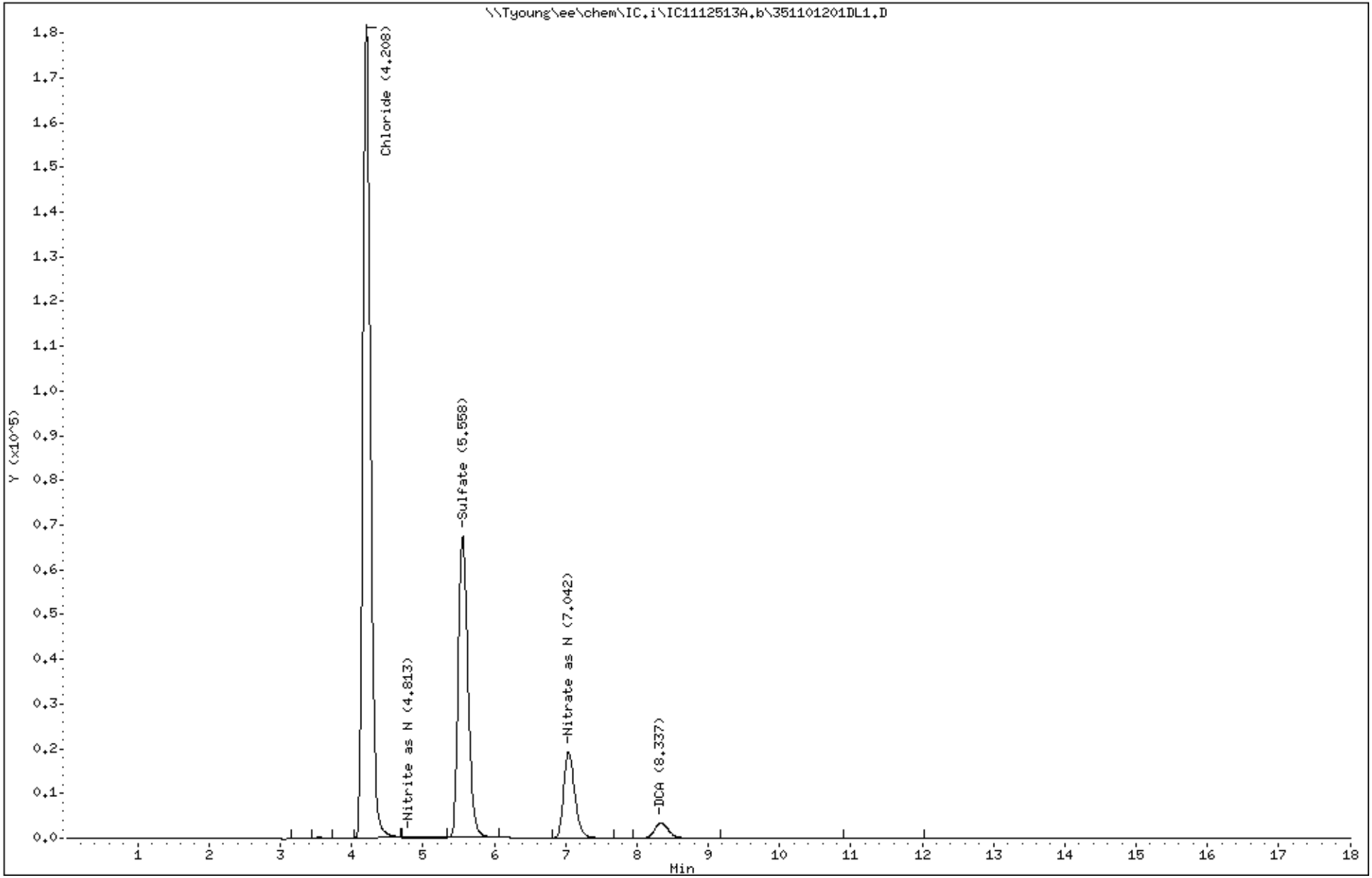
Instrument: IC.i

Sample Info: 351101201DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101202DL1.D
Lab Smp Id: 351101202DL1 Client Smp ID: SMSMW01A
Inj Date : 26-NOV-2013 17:24
Operator : TR Inst ID: IC.i
Smp Info : 351101202DL1
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 25.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.293	3.325	-0.032	44563	0.07292	1.8
T 2 Chloride	4.200	4.194	0.006	57003613	704.655	17600(AM)
T 4 Sulfate	5.550	5.444	0.106	2094315	35.9959	900(M)
T 5 Bromide	6.192	6.075	0.117	4672	0.36702	9.2
T 6 Nitrate as N	7.017	6.898	0.119	767703	3.89884	97.5
T 7 DCA	8.341	8.372	-0.031	104664	5.00225	125(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101202DL1.D

Date : 26-NOV-2013 17:24

Client ID: SMSMW01A

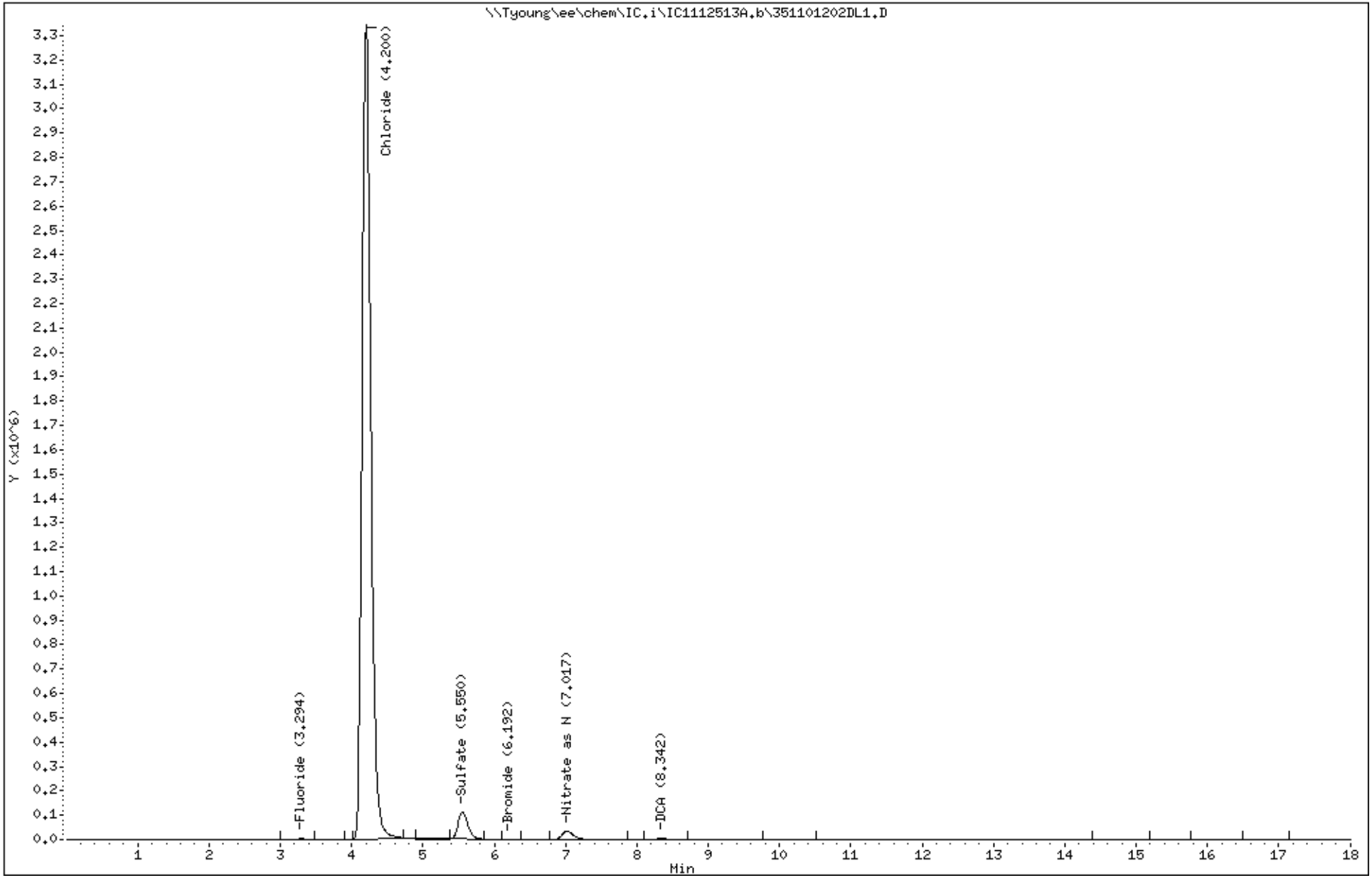
Instrument: IC.i

Sample Info: 351101202DL1

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101202DL2.D
Lab Smp Id: 351101202DL2 Client Smp ID: SMSMW01A
Inj Date : 26-NOV-2013 17:46
Operator : TR Inst ID: IC.i
Smp Info : 351101202DL2
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6
Dil Factor: 500.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Concentration Formula: Amt * DF * CpndVariable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.208	4.194	0.014	3203185	40.0331	20000(M)
T 4 Sulfate	5.602	5.444	0.158	114055	2.37683	1190
T 6 Nitrate as N	7.075	6.898	0.177	38343	0.22232	111
T 7 DCA	8.341	8.372	-0.031	99537	4.76273	2380(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\351101202DL2.D

Date : 26-NOV-2013 17:46

Client ID: SMSMW01A

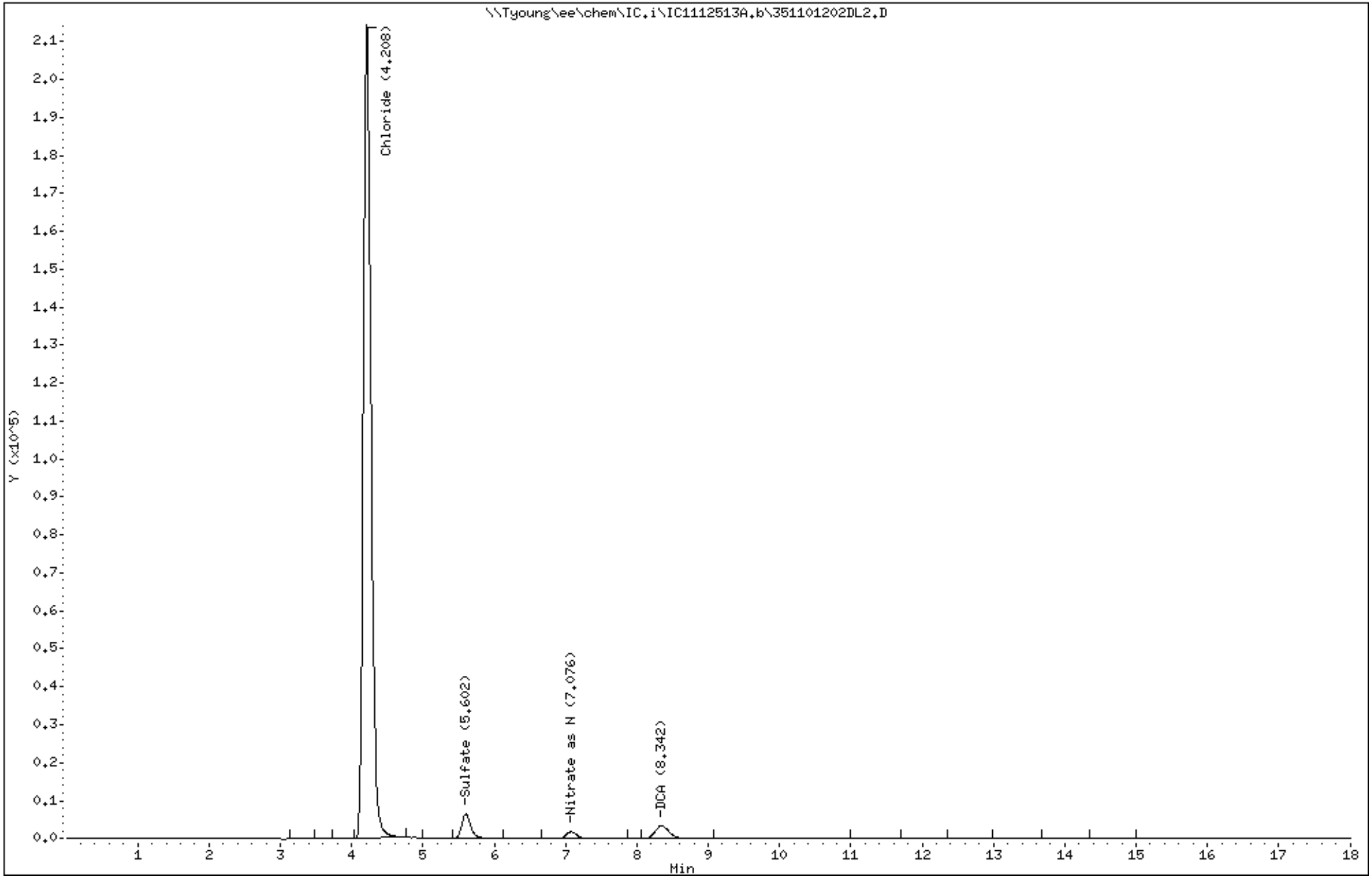
Instrument: IC.i

Sample Info: 351101202DL2

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV6.D
Lab Smp Id: 112513CCV6 Client Smp ID: 112513CCV6
Inj Date : 26-NOV-2013 19:14
Operator : TR Inst ID: IC.i
Smp Info : 112513CCV6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCV
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 1 Fluoride	3.308	3.325	-0.017	970747	8.48569	8.5
T 2 Chloride	4.208	4.194	0.014	666829	8.70027	8.7(M)
T 3 Nitrite as N	4.812	4.785	0.027	185625	0.99375	0.99
T 4 Sulfate	5.564	5.444	0.120	484047	8.65821	8.6
T 5 Bromide	6.177	6.075	0.102	289047	8.53145	8.5
T 6 Nitrate as N	7.033	6.898	0.135	202843	1.05153	1.0(M)
T 7 DCA	8.315	8.372	-0.057	94354	4.52059	4.5
T 8 Phosphate as P	9.479	9.308	0.171	394071	5.33966	5.3

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCV6.D

Date : 26-NOV-2013 19:14

Client ID: 112513CCV6

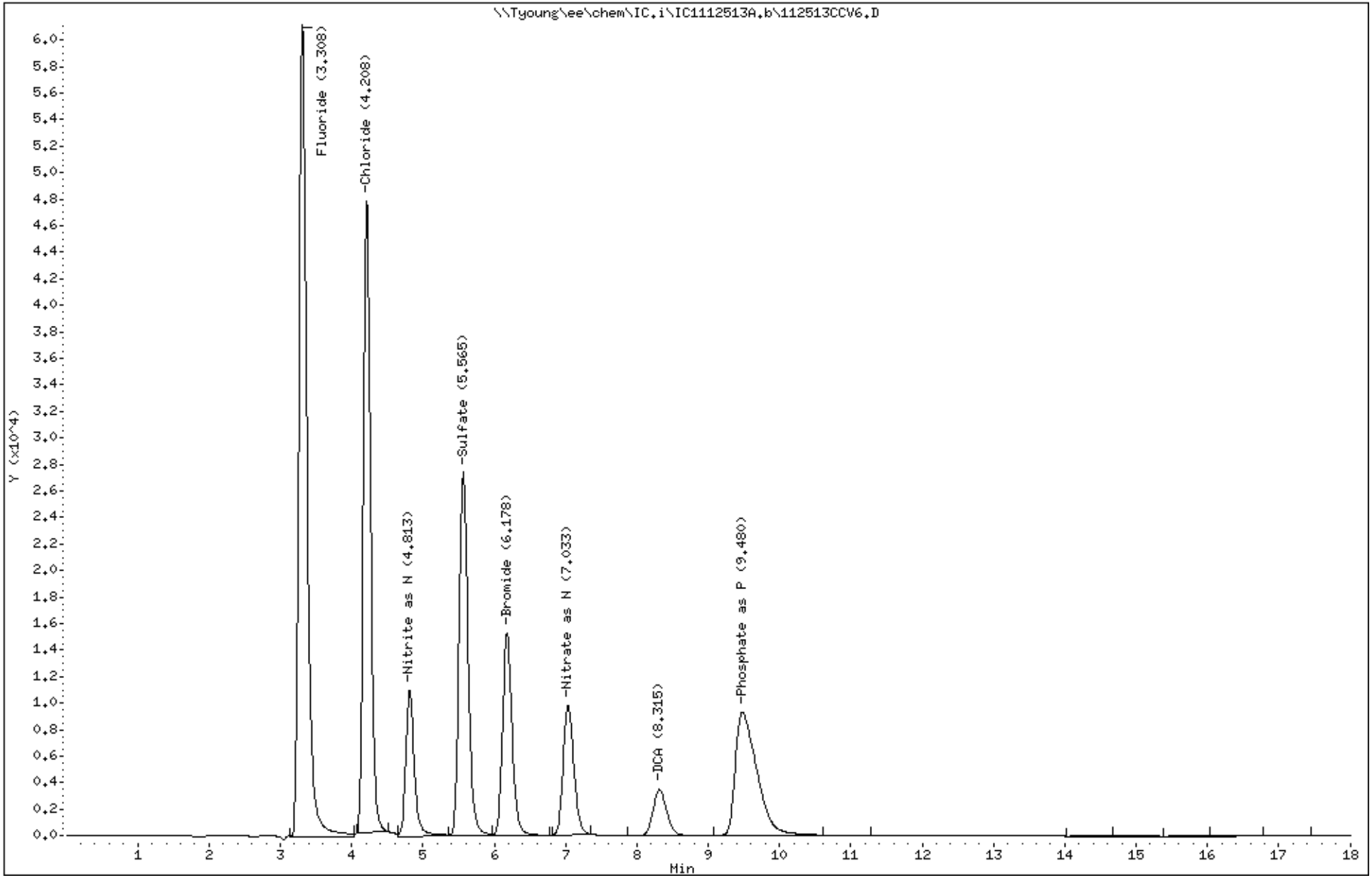
Instrument: IC.i

Sample Info: 112513CCV6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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3511012

PEL Laboratories, Inc.

Data file : \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB6.D
Lab Smp Id: 112513CCB6 Client Smp ID: 112513CCB6
Inj Date : 26-NOV-2013 19:36
Operator : TR Inst ID: IC.i
Smp Info : 112513CCB6
Misc Info : None
Comment :
Method : \\Tyoung\ee\chem\IC.i\IC1112513A.b\IC1300.m
Meth Date : 04-Dec-2013 09:00 troberts Quant Type: ESTD
Cal Date : 25-NOV-2013 16:03 Cal File: CAL7.D
Als bottle: 6 QC Sample: CCB
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 4.14
Processing Host: WCHEM2

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (mg/L)
T 2 Chloride	4.209	4.194	0.015	5610	0.53192	0.53
T 4 Sulfate	5.583	5.444	0.139	1056	0.45843	0.46
T 6 Nitrate as N	7.064	6.898	0.166	3801	0.04821	0.048
T 7 DCA	8.332	8.372	-0.040	98255	4.70283	4.7
T 8 Phosphate as P	9.662	9.308	0.354	2037	0.08283	0.083

Data File: \\Tyoung\ee\chem\IC.i\IC1112513A.b\112513CCB6.D

Date : 26-NOV-2013 19:36

Client ID: 112513CCB6

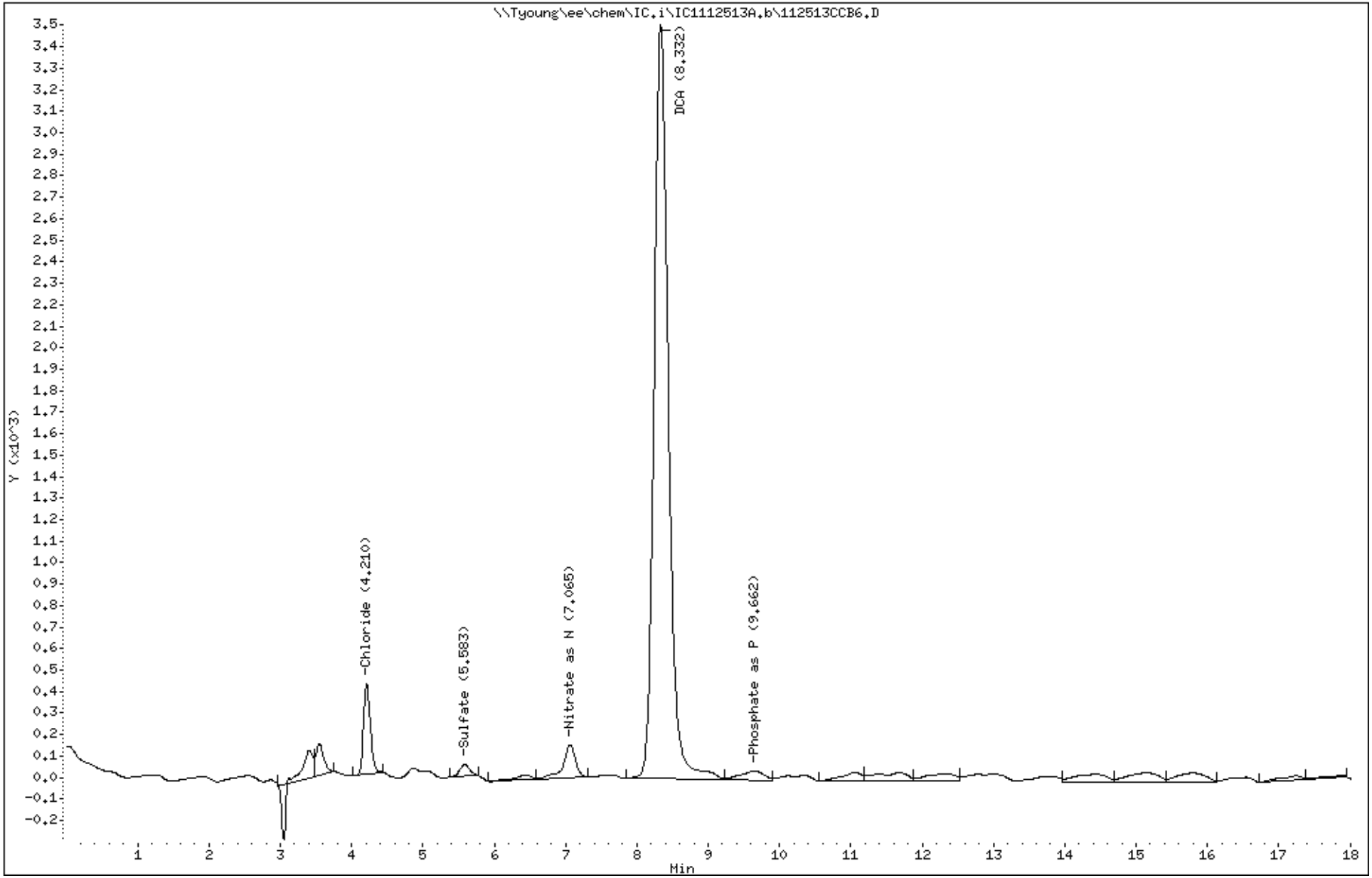
Instrument: IC.i

Sample Info: 112513CCB6

Operator: TR

Column phase: AS18

Column diameter: 4.00



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Raw Data Inorganics/Wet Chemistry

TDS

Analyst twolf **Units** mg/L **QCStandard:** **QC TV:**

APGL **temp** 103 **LCSStandard:** 52449 **LCS TV:** 250

BATCH_NUMBER 16252 **Method** 160.1 **DateTime** 11/20/2013 9:03:04

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	Initial Weight	Final Weight #1	Final Weight #2	Res Weight	Filt Res	RPD	Perc Rec	Dil_F	Final Wt Diff
1	206800MB	206800MB	MB	09:06 AM	50	79.8865	79.8865	79.8865	0	0			1	0
2	206801LCS	206801LCS	LCS	09:09 AM	50	80.1203	80.1349	80.1349	0.01460000	14.6000		116.8	1	292.0000
3	206802LCSD	206802LCSD	LCSD	09:12 AM	50	81.3209	81.335	81.335	0.0141	14.1	3.484	112.8	1	282
4	351099301	SMSMW03B	SAMPLE	09:15 AM	2	80.1242	80.3176	80.3176	0.1934	193.4			1	96700
5	206803SAMDUP	SMSMW03BSAMDUP	SAMDUP	09:18 AM	2	81.3291	81.5173	81.5173	0.18820000	188.200	2.725		1	94100.00
6	351099302	SMSMW04A	SAMPLE	09:21 AM	5	85.9094	86.0256	86.0256	0.1162	116.2			1	23240
7	351099303	SMSSW03	SAMPLE	09:24 AM	50	87.7479	87.8036	87.8036	0.05570000	55.7000			1	1114.000
8	351099304	SMSSW13	SAMPLE	09:27 AM	50	84.5231	84.5519	84.5519	0.02880000	28.8000			1	576.0000
9	351100901	SMSMW02A	SAMPLE	09:30 AM	25	86.2423	86.3895	86.3895	0.1472	147.2			1	5888
10	351100902	SMSMW07A	SAMPLE	09:33 AM	2	79.6914	79.8223	79.8223	0.1309	130.9			1	65450
11	351100903	SMSMW07B	SAMPLE	09:36 AM	5	80.7036	80.8726	80.8726	0.16900000	169.000			1	33800.00
12	351100904	SMSMW08A	SAMPLE	09:39 AM	25	81.7979	81.9122	81.9122	0.1143	114.3			1	4572
13	351100905	SMSSW11	SAMPLE	09:42 AM	50	80.4248	80.4448	80.4448	0.02	20			1	400
14	206804MB	206804MB	MB	09:45 AM	50	85.3315	85.3315	85.3315	0	0			1	0
15	351100906	SMSSW14	SAMPLE	09:48 AM	50	81.2648	81.2895	81.2895	0.02470000	24.7000			1	494.0000
16	351101201	SMSMW12A	SAMPLE	09:51 AM	50	78.1359	78.2087	78.2087	0.0728	72.8			1	1456
17	351101202	SMSMW01A	SAMPLE	09:54 AM	5	80.1558	80.3164	80.3164	0.16060000	160.600			1	32120.00
18	206805SAMDUP	SMSMW01ASAMDUP	SAMDUP	09:57 AM	5	88.075	88.2383	88.2383	0.1633	163.3	1.667		1	32660
19	206806MB	206806MB	MB	10:00 AM	50	87.0156	87.0156	87.0156	0	0			1	0

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STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
44474	Residue, TSS/TDS	NSI	111811	12/31/2014	1 G	1/6/2012	ddthompson

500 MG/G: Residue, Filterable (TDS), Total Suspended Solids

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52449	Residue Solution			12/11/2013	1000 ML	11/14/2013	twolf

250 MG/L: Residue, Filterable (TDS), Total Suspended Solids

COMPOSED OF:

44474: 0.5 G 49005: 1000 ML

Alkalinity

PH Calibration		True Val	Read	Expires
IS	48258	4	4.01	5/31/2015
IS	47071	7	7	6/30/2014
IS	48542	10	10.01	6/30/2014

Analyst twolf

Date Time 11/27/2013 1:15:00 PM

pH Meter 1353764

Reagents:

Titrant: Sulfuric Acid(0.02N)

IS	51144	Exp	6/30/2014

Spike Used

QC	IS	52254	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
LCS	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml DI Water = 50 ppm)
MS / MSD	IS	52255	Exp	12/31/2013	(2.0ml (spike) into 100ml sample =50 ppm)

BATCH_NUMBER 16332 **Method** 310.1 / SM2320B **Units** mg/L

POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
1	207072CB	207072CB	CB	01:15 PM	1	100	7.11	4.3	0	0.05	0.05	0.5	0	0
2	207073QC	207073QC	QC	01:19 PM	1	100	9.36	4.41	0.05	4.9	4.85	48.5	50	97
3	207074MB	207074MB	MB	01:23 PM	1	100	6.88	4.3	4.9	4.95	0.05	0.5	0	0
4	207075LCS	207075LCS	LCS	01:27 PM	1	100	8.96	4.32	4.95	9.75	4.8	48	50	96
5	207076LCSD	207076LCSD	LCSD	01:31 PM	1	100	9.01	4.3	9.8	14.7	4.9	49	50	98
6	351099301	SMSMW03B	SAMPLE	01:34 PM	2	100	6.83	4.37	0	22.8	22.8	456	0	0
7	351099302	SMSMW04A	SAMPLE	01:37 PM	5	100	6.55	4.3	22.8	25.6	2.8	140	0	0
8	351099303	SMSSW03	SAMPLE	01:40 PM	5	100	7.41	4.35	25.6	30.7	5.1	255	0	0
9	351099304	SMSSW13	SAMPLE	01:43 PM	5	100	7.86	4.44	30.7	34.5	3.8	190	0	0

POS	HSN	Sample ID	Sample Type	Time	DilF	Vol	PH (Init)	PH (Final)	Tit (Initial)	Tit (Final)	Change	Conc	Spike	Perc Rec
10	351100901	SMSMW02A	SAMPLE	01:46 PM	10	100	9.45	4.46	36.5	47	10.5	1050	0	0
11	351100902	SMSMW07A	SAMPLE	01:49 PM	10	100	6.81	4.48	9.9	21	11.1	1110	0	0
12	351100903	SMSMW07B	SAMPLE	01:52 PM	10	100	7	4.43	21	32.4	11.4	1140	0	0
13	351100904	SMSMW08A	SAMPLE	01:55 PM	20	100	8.4	4.39	32.4	36.5	4.1	820	0	0
14	351100905	SMSSW11	SAMPLE	01:58 PM	20	100	7.06	4.34	36.5	37.6	1.1	220	0	0
15	351100906	SMSSW14	SAMPLE	02:01 PM	5	100	7.49	4.3	37.6	41.5	3.9	195	0	0
16	207260CCB	207260CCB	CCB	02:04 PM	1	100	7.02	4.3	41.5	41.55	0.05	0.5	0	0
17	351101201	SMSMW12A	SAMPLE	02:07 PM	10	100	7.1	4.48	0	2.3	2.3	230	0	0
18	351101202	SMSMW01A	SAMPLE	02:10 PM	5	100	7.14	4.47	2.3	15	12.7	635	0	0
19	207261CCB	207261CCB	CCB	02:13 PM	1	100	7.09	4.3	15	15.05	0.0500	0.5000	0	0

351101201

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28506	Na2CO3_STK	VWR CAT BDH02	48337915	4/30/2014	500 G	4/30/2009	pconklin
1000 MG/G: sodium carbonate							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
32490	Na2CO3_STK	Fisher	094498	1/7/2015	500 G	1/7/2010	pconklin
1000 MG/G: Alkalinity (Total)							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47071	Buf_Soln7_STK	HACH	A2156	6/30/2014	4 L	7/19/2012	twolf
7 pH: pH							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48258	Buf_Soln4_STK	HACH	A1126	5/31/2015	4 L	5/23/2011	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52254	Sodium Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: sodium carbonate

COMPOSED OF:

28506: 2.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52255	Sodium_Carbonate			12/31/2013	1000 ML	11/1/2013	twolf

2500 MG/L: Alkalinity (Total)

COMPOSED OF:

32490: 2.5 G 49005: 10000 ML

Original Run Filename: OM_11-22-2013_12-21-57PM.OMN Created: 11/22/2013 12:21:57 PM
Original Run Author's Signature: [twolf]
Current Run Filename: OM_11-22-2013_12-21-57PM.OMN Last Modified: 11/22/2013 1:31:26 PM
Current Run Author's Signature: [twolf]
Description: Digestion Start Time 8:01 AM Digestion End Time: 8:31 AM
Ammonia by 4500-NH3-G / 350.1 Oven Temp: 120°C
ICV = 50545 Trapping Solution - 51144
CCV = 28547 Borate Buffer - 52466
Sodium Nitroprusside - 52471 Sodium EDTA Buffer - 52467
Sodium Phenolate - 51676 Sodium Hypochlorite - 52544
Ammonia Carrier - 52470
Analyst = TW

Sample	Rep.	Cup No.	Channel 1 NH3-N Conc. (mg/L NH3-N)	Area (V.s)	Height (V)	Detection Time	ADF	MDF	Weight	Description
CalStd 20	1	S1	20.0	27.1	2.86	11/22/2013@12:23:30 PM				
CalStd 8	1	S1	8.00	11.4	1.19	11/22/2013@12:26:15 PM	2.50			
CalStd 2	1	S1	2.00	2.87	0.301	11/22/2013@12:28:48 PM	10.00			
CalStd 1	1	S1	1.00	1.42	0.149	11/22/2013@12:31:20 PM	20.00			
CalStd 0.4	1	S1	0.400	0.546	0.0596	11/22/2013@12:33:48 PM	50.00			
CalStd 0.2	1	S1	0.200	0.319	0.0315	11/22/2013@12:36:18 PM	100.00			
CalStd 0	1	3	0.00	0.0744	2.15e-3	11/22/2013@12:37:28 PM				
ICV 8.0	1	1	8.03	11.3	1.17	11/22/2013@12:38:37 PM				
	Known Conc:		8.00							
DQM Test: > + Percent Relative Difference										
	Result:		0.4 < 10.0							
	Message		Pass							
	Action									
DQM Test: < - Percent Relative Difference										
	Result:		0.4 > -10.0							
	Message		Pass							
	Action									
	Calibration:		Table/Fig. : 1							
ICB	1	2	3.56e-3	0.0399	1.38e-3	11/22/2013@12:41:44 PM				
	Known Conc:		0.00							
DQM Test: > + Concentration Limit										
	Result:		3.56e-3 < 0.200							
	Message		Pass							
	Action									
DQM Test: < - Concentration Limit										
	Result:		3.56e-3 > -0.200							
	Message		Pass							
	Action									
MB	1	3	-0.0168	0.0108	1.31e-3	11/22/2013@12:42:53 PM				
	Known Conc:		0.00							
DQM Test: > + Concentration Limit										

		Result:	-0.0168 < 0.200			
		Message	Pass			
		Action				
		DQM Test: < - Concentration Limit				
		Result:	-0.0168 > -0.200			
		Message	Pass			
		Action				
LCS 8.0	1	4	8.07	11.3	1.18	11/22/2013@12:44:02 PM
		Known Conc:	8.00			
		DQM Test: > + Percent Relative Difference				
		Result:	0.8 < 10.0			
		Message	Pass			
		Action				
		DQM Test: < - Percent Relative Difference				
		Result:	0.8 > -10.0			
		Message	Pass			
		Action				
LCSD 8.0	1	5	8.04	11.3	1.19	11/22/2013@12:45:11 PM
		Known Conc:	8.00			
		DQM Test: > + Percent Relative Difference				
		Result:	0.4 < 10.0			
		Message	Pass			
		Action				
		DQM Test: < - Percent Relative Difference				
		Result:	0.4 > -10.0			
		Message	Pass			
		Action				
351101303	1	6	14.0	19.4	2.03	11/22/2013@12:46:20 PM
351101303MS	1	7	22.2	30.0	3.10	11/22/2013@12:47:29 PM
351101303MSD	1	8	21.9	29.6	3.07	11/22/2013@12:48:37 PM
351101306	1	9	2.98	4.26	0.450	11/22/2013@12:49:46 PM
351084004	1	10	6.60	9.32	0.987	11/22/2013@12:50:53 PM
CCV	1	11	8.32	11.7	1.20	11/22/2013@12:52:02 PM
		Known Conc:	8.00			
		DQM Test: > + Percent Relative Difference				
		Result:	4.0 < 10.0			
		Message	Pass			
		Action				
		DQM Test: < - Percent Relative Difference				
		Result:	4.0 > -10.0			
		Message	Pass			
		Action				
CCB	1	12	9.02e-3	0.0478	8.59e-3	11/22/2013@12:55:07 PM
		Known Conc:	0.00			
		DQM Test: > + Concentration Limit				
		Result:	9.02e-3 < 0.200			
		Message	Pass			
		Action				
		DQM Test: < - Concentration Limit				

		Result:	9.02e-3 > -0.200							
		Message	Pass							
		Action								
351101201	1	13	0.0557	0.115	0.0109	11/22/2013@12:56:14 PM				
351101202	1	14	149	161	10.4	11/22/2013@12:57:22 PM				
351097601	1	15	-0.170	-0.209	0.0241	11/22/2013@12:58:30 PM				
351097602	1	16	85.6	102	9.07	11/22/2013@12:59:39 PM				
351097603	1	17	90.0	106	9.31	11/22/2013@1:00:49 PM				
351097604	1	18	0.382	0.582	0.0596	11/22/2013@1:01:59 PM				
351097605	1	19	0.0832	0.154	0.0117	11/22/2013@1:03:07 PM				
351097606	1	20	0.0550	0.114	8.58e-3	11/22/2013@1:04:16 PM				
351097607	1	21	0.0769	0.145	0.0113	11/22/2013@1:05:26 PM				
351097608	1	22	0.0822	0.153	0.0130	11/22/2013@1:06:34 PM				
CCV	1	23	8.12	11.4	1.19	11/22/2013@1:07:43 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	1.5 < 10.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	1.5 > -10.0							
		Message	Pass							
		Action								
CCB	1	24	-0.0339	-0.0137	8.15e-4	11/22/2013@1:10:48 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.0339 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	-0.0339 > -0.200							
		Message	Pass							
		Action								
351097609	1	25	0.142	0.238	0.0228	11/22/2013@1:11:58 PM				
351097610	1	26	0.0496	0.106	9.39e-3	11/22/2013@1:13:05 PM				
351097611	1	27	0.0658	0.129	0.0108	11/22/2013@1:14:13 PM				
351097612	1	28	0.0677	0.132	0.0129	11/22/2013@1:15:22 PM				
351101202	1	14	263	18.2	1.88	11/22/2013@1:17:54 PM	20.00			
351097602	1	16	88.2	12.4	1.28	11/22/2013@1:20:31 PM	10.00			
351097603	1	17	99.1	13.8	1.39	11/22/2013@1:23:07 PM	10.00			
CCV	1	29	8.26	11.6	1.17	11/22/2013@1:26:10 PM				
		Known Conc:	8.00							
DQM Test: > + Percent Relative Difference										
		Result:	3.3 < 10.0							
		Message	Pass							
		Action								
DQM Test: < - Percent Relative Difference										
		Result:	3.3 > -10.0							
		Message	Pass							

		Action								
CCB	1	30	-0.0283	-5.83e-3	-6.81e-4	11/22/2013@1:29:15 PM				
		Known Conc:	0.00							
DQM Test: > + Concentration Limit										
		Result:	-0.0283 < 0.200							
		Message	Pass							
		Action								
DQM Test: < - Concentration Limit										
		Result:	-0.0283 > -0.200							
		Message	Pass							
		Action								

Analyte Properties Table for : OM_11-22-2013_12-21-57PM.OMN

Property	Channel 1 NH3-N
Concentration Units	mg/L NH3-N
Calibration Fit Type	Second Order
Clear Calibration	Yes
Force through Zero	No
Calibration Weighting	1/x
Auto Dilution Trigger	Yes
% of High Standard	100
Quik Chem Method	10-107-06-1-C
Chemistry	Direct/Bipolar
Calibration by Height	No
Inject to Peak Start	18
Peak Base Width	64

Author: twolf

SPECTRUM ANALYTICAL

Date : 11/22/2013

Channel 1 - Current View

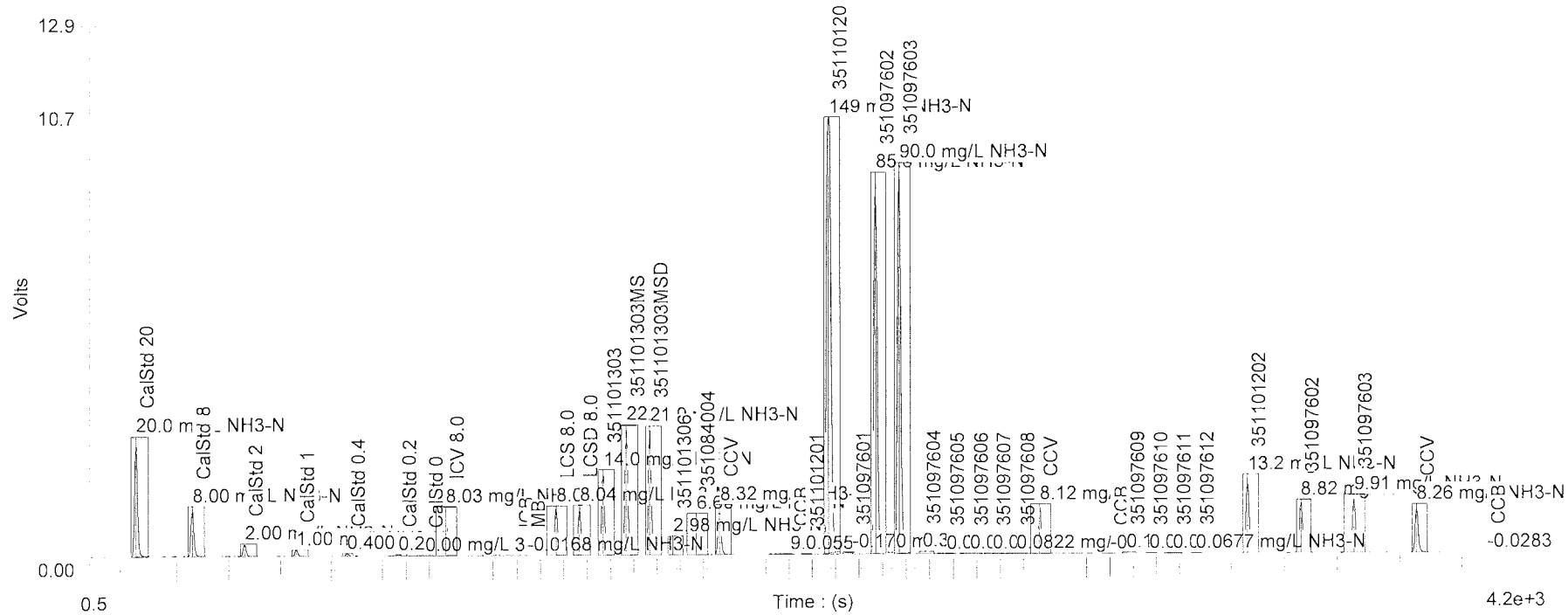
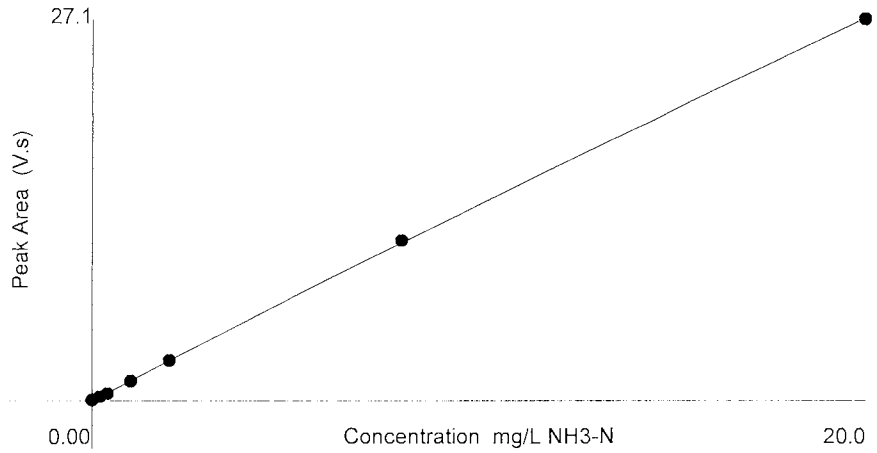


Table : 1 (NH3-N)

	Known Conc. (mg/L NH3-N)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L NH3-N)	Detection Date	Detection Time
1	20.0	1	27.1	2.86	0.0	0.2	19.9	11/22/2013	12:23:30 PM
2	8.00	1	11.4	1.19	0.0	-1.6	8.12	11/22/2013	12:26:15 PM
3	2.00	1	2.87	0.301	0.0	0.3	1.99	11/22/2013	12:28:48 PM
4	1.00	1	1.42	0.149	0.0	2.6	0.971	11/22/2013	12:31:20 PM
5	0.400	1	0.546	0.0596	0.0	10.1	0.357	11/22/2013	12:33:48 PM
6	0.200	1	0.319	0.0315	0.0	0.9	0.198	11/22/2013	12:36:18 PM
7	0.00	1	0.0744	2.15e-3			0.0276	11/22/2013	12:37:28 PM

Author: twolf SPECTRUM ANALYTICAL Date : 11/22/2013

Figure : 1 (NH3-N)



Area = - 3.54e-3 * Conc^2 + 1.43 * Conc + 0.0362
Conc = 1.43e-3 * Area^2 + 0.697 * Area - 0.0243
Correlation Coefficient (r) = 0.99998

Weighting : 1/x

3511012 185

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28547	Nit_Std_STK	HACH	A9091	4/30/2014	1 L	5/4/2009	pconklin
1 MG/ML: Ammonia, Total Kjeldahl Nitrogen							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
28551	Na_Nitr_STK	JTBAKER	G41608	5/4/2014	500 G	5/4/2009	pconklin

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
46081	EDTA_Di_STK	RICCA	2203007	1/31/2017	500 G	4/20/2012	ddthompson

3511012

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
47083	Bleach	Clorox	5813GA1	7/26/2014	16.14 L	7/26/2012	ddthompson

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49846	Phenol	ACROS	A0318606	11/16/2014	100 G	3/20/2013	jbowman
: Phenol							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50280	H2SO4_0.02N	RICCA	1303887	2/28/2015	4 L	4/24/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50545	Nit_Std_STK	RICCA	2303D90	9/30/2014	120 ML	5/15/2013	twolf

1 MG/ML: Ammonia, Total Kjeldahl Nitrogen

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50598	NaOH	EMD	B0847769	8/31/2015	2.5 KG	5/21/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51144	H2SO4_0.02N	RICCA	2306764	6/30/2015	4 L	7/11/2013	twolf

3511012

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51676	Sodium Phenolate - Am			12/31/2013	1000 ML	8/28/2013	twolf

UG/L: Phenol

COMPOSED OF:

49005: 1000 ML 49846: 83 G 50598: 32 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51899	Borax	20 Mule Team	1	9/30/2014	2.15 KG	9/24/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52466	Sodium Borate Buffer - A			12/31/2013	500 ML	11/15/2013	twolf

COMPOSED OF:

49005: 482 G 50598: 11 G 51899: 2.5 G

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52467	Sodium EDTA Buffer - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

46081: 50 G 49005: 1000 ML 50598: 5.5 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52470	0.003M H2SO4 - Ammon			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

49005: 700 ML 50280: 300 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52471	Sodium Nitroprusside - A			12/31/2013	1000 ML	11/15/2013	twolf

COMPOSED OF:

28551: 3.5 G 49005: 1000 ML

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52544	Sodium Hypochlorite - A			11/23/2013	500 ML	11/22/2013	twolf

COMPOSED OF:

47083: 47 ML 49005: 500 ML

Sulfide

Analyst	twolf	**MB**	0	**IODINE**	0.025	**QC IS**	52489	**Exp**	11/20/2013
Units	mg/L	**SPIKE**	5	**TITRANT**	0.025	**LCS IS**	52490	**Exp**	11/20/2013

BATCH_NUMBER 16266 **Method** 376.1 / SM4500-S F **Run Date** 11/20/2013

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
1	206395QC	206395QC	QC	12:13	100	1	2	0.05	0	0.7	0.7	0.0175	5.2098	104.2	
2	206396MB	206396MB	MB	12:16	100	1	1	0.025	0.7	1.7	1	0.025	0		
3	206397LCS	206397LCS	LCS	12:19	100	1	2	0.05	1.7	2.4	0.7	0.0175	5.2098	104.2	
4	206398LCSD	206398LCSD	LCSD	12:22	100	1	2	0.05	2.4	3.21	0.81	0.02025	4.7689	95.379	8.835
5	351099301	SMSMW03B	SAMPLE	12:25	100	1	1	0.025	0	0.75	0.75	0.01875	1.0019		
6	351099302	SMSMW04A	SAMPLE	12:28	100	1	1	0.025	0.75	1.75	1	0.025	0		
7	351099303	SMSSW03	SAMPLE	12:31	100	1	1	0.025	1.75	2.75	1	0.025	0		
8	351099304	SMSSW13	SAMPLE	12:34	100	1	1	0.025	2.8	3.8	1	0.025	0		
9	351100901	SMSMW02A	SAMPLE	12:37	100	1	1	0.025	3.8	4.6	0.8	0.02	0.8015		
10	351100902	SMSMW07A	SAMPLE	12:40	100	2	1	0.025	5.6	6.6	1	0.025	0		
11	351100903	SMSMW07B	SAMPLE	12:43	100	1	1	0.025	6.6	7.6	1	0.025	0		
12	351100904	SMSMW08A	SAMPLE	12:46	100	1	1	0.025	7.65	8.6	0.95	0.02375	0.2004		
13	351100905	SMSSW11	SAMPLE	12:49	100	1	1	0.025	8.65	9.6	0.95	0.02375	0.2004		
14	351100906	SMSSW14	SAMPLE	12:52	100	1	1	0.025	0	0.9	0.9	0.0225	0.4008		

POS	HSN	SAMPLE ID	SAMPLE TYPE	Time	Vol	dil factor	mls Iodine	mmol iodine	Init vol	Fin vol	vol titrant	mmol titrant	conc	Perc Rec	Perc RPD
15	206399MB	206399MB	MB	12:55	100	1	1	0.025	0.9	1.9	1	0.025	6E-16		
16	351101201	SMSMW12A	SAMPLE	12:58	100	1	1	0.025	1.9	2.85	0.95	0.02375	0.2004		
17	351101202	SMSMW01A	SAMPLE	13:01	100	1	1	0.025	3	3.98	0.975	0.024375	0.1002		
18	206400MB	206400MB	MB	13:04	100	1	1	0.025	4	5	1	0.025	0		

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48098	Na_Sul_STK	ACROS	A0313853	10/17/2015	25 G	10/17/2012	ddthompson
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
48605	HCl	RICCA	1210514	4/30/2014	1 L	11/19/2012	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore DI - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
50171	Na_Sul_STK	EMD	UI23BZEMS	4/1/2015	500 G	4/1/2013	twolf
133.333 MG/G: Sulfide							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51842	Strch_Ind_STK	BDH	3041134	4/30/2014	1 L	9/1/2013	twolf
: Chloroform							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51944	Na2S2O3_STK	RICCA	4308A47	2/20/2015	4 L	9/30/2013	twolf

STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
51945	I_Soln_STK	RICCA	2307A99	7/30/2014	1 L	10/1/2013	twolf

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52489	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

49005: 250 ML 50171: 1.875 G

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52490	Na_Sul_STK_wk			11/20/2013	250 ML	11/18/2013	twolf

1000 MG/L: Sulfide

COMPOSED OF:

48098: 1.875 G 49005: 250 ML

Instr.Information

System	TOC
Instrument Options	TOC/ASI/IC Unit/
Catalyst	Regular Sensitivity

Control Sample

Sample Name:	RINSE
Sample ID:	RINSE - DI H2O - IS# 45611
Method:	RINSE - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.02512 / Control within range!

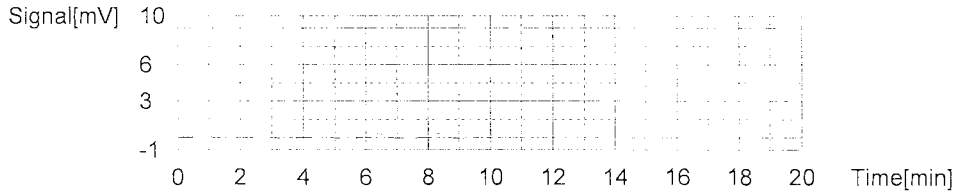
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.02512ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9668	0.02110ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:31:09 AM
2	0.8059	-0.02269ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:33:14 AM
3	0.7141	-0.04767ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:35:19 AM
4	0.6914	-0.05385ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:37:24 AM
5	0.8067	-0.02247ppm	50uL	1		NPOC 10ppm.2012_09_27_09_33_59.cal	12/2/2013 8:39:29 AM

Mean Area	0.7970
Mean Conc.	-0.02512ppm



Cal. Curve

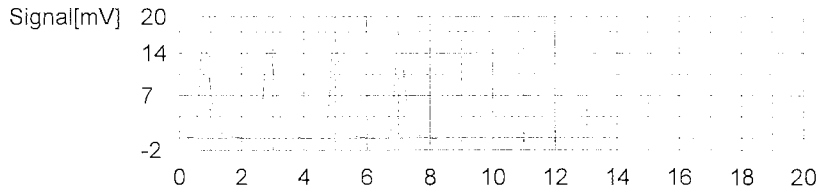
Sample Name:	10PPM
Sample ID:	10PPM - IS# 49986
Cal. Curve:	NPOC 10ppm.2013_12_01_14_34_46.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 10.00ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	39.68	50uL	1	*******		12/1/2013 2:44:28 PM
2	39.65	50uL	1	*******		12/1/2013 2:46:49 PM
3	39.31	50uL	1	*******		12/1/2013 2:49:02 PM
4	39.00	50uL	1	*******		12/1/2013 2:51:11 PM

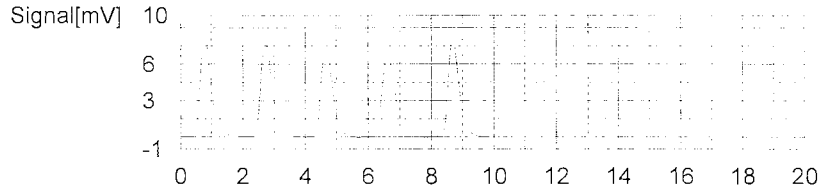
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 39.41



Conc: 5.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	20.46	50uL	2	*******	E	12/1/2013 3:00:05 PM
2	20.13	50uL	2	*******		12/1/2013 3:02:12 PM
3	19.57	50uL	2	*******		12/1/2013 3:04:18 PM
4	19.60	50uL	2	*******		12/1/2013 3:06:37 PM
5	19.84	50uL	2	*******		12/1/2013 3:08:53 PM

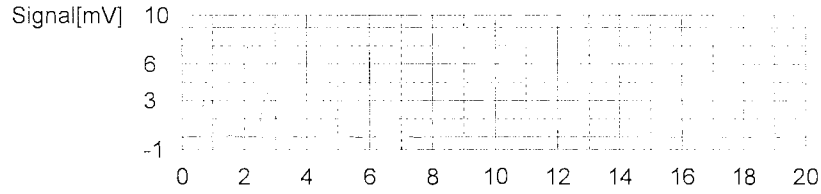
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 19.79



Conc: 2.500ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.28	50uL	4	*******		12/1/2013 3:17:43 PM
2	10.21	50uL	4	*******		12/1/2013 3:19:49 PM
3	9.934	50uL	4	*******		12/1/2013 3:21:54 PM
4	10.06	50uL	4	*******		12/1/2013 3:24:01 PM

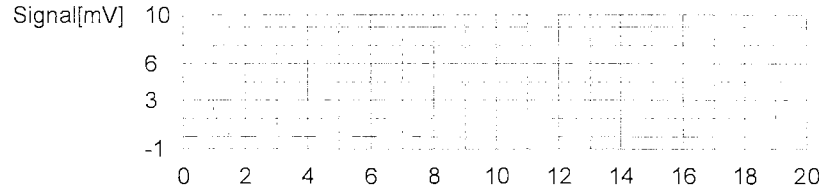
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 10.12



Conc: 2.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.270	50uL	5	*******		12/1/2013 3:32:55 PM
2	8.186	50uL	5	*******		12/1/2013 3:34:59 PM
3	7.986	50uL	5	*******		12/1/2013 3:37:04 PM
4	7.969	50uL	5	*******		12/1/2013 3:39:09 PM

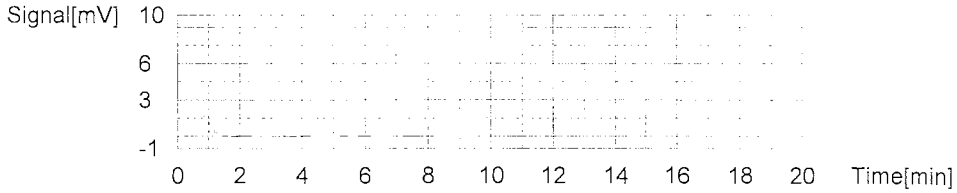
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 8.103



Conc: 1.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.475	50uL	10	*******		12/1/2013 3:48:04 PM
2	4.351	50uL	10	*******		12/1/2013 3:50:09 PM
3	4.360	50uL	10	*******		12/1/2013 3:52:14 PM
4	4.311	50uL	10	*******		12/1/2013 3:54:19 PM

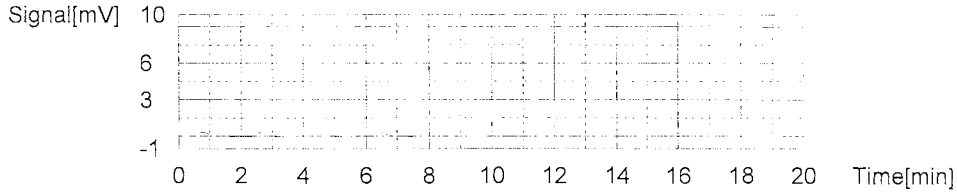
Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 4.374



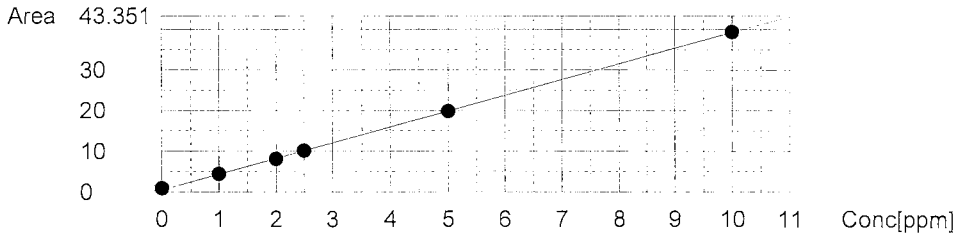
Conc: 0.000ppm

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.8250	50uL	1	*******		12/1/2013 4:01:56 PM
2	0.7695	50uL	1	*******		12/1/2013 4:04:01 PM
3	0.7396	50uL	1	*******		12/1/2013 4:06:06 PM
4	0.6782	50uL	1	*******		12/1/2013 4:08:11 PM

Acid Add. 0.000%
Sp. Time 150.0sec
Mean Area 0.7531



Slope: 3.880
Intercept 0.5017
r^2 0.9999
r 0.9999
Zero Shift No



Control Sample

Sample Name: ICV
Sample ID: ICV - IS# 52578
Method: ICV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.376 / Control within range!

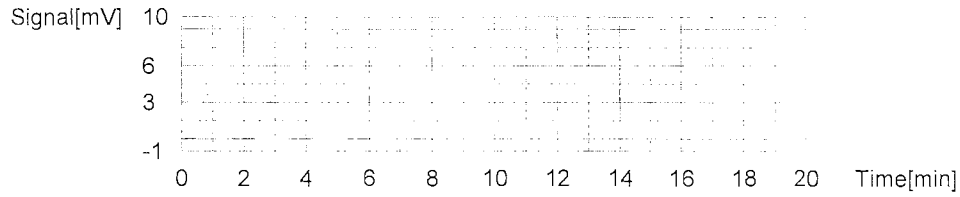
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.376ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.03	2.415ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:48:49 AM
2	9.911	2.385ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:50:54 AM
3	9.763	2.349ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:53:01 AM
4	9.784	2.354ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 8:55:06 AM

Mean Area 9.872
Mean Conc. 2.376ppm



Control Sample

Sample Name:	ICB
Sample ID:	ICB
Method:	ICB - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.02803 / Control within range!

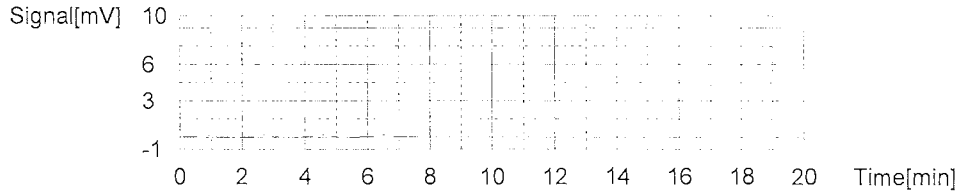
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.02803ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4273	-0.01918ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:04:26 AM
2	0.4038	-0.02524ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:06:31 AM
3	0.3761	-0.03238ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:08:36 AM
4	0.3647	-0.03531ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:10:41 AM

Mean Area 0.3930
Mean Conc. -0.02803ppm



Control Sample

Sample Name:	MB
Sample ID:	MB
Method:	MB - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: -0.03169 / Control within range!

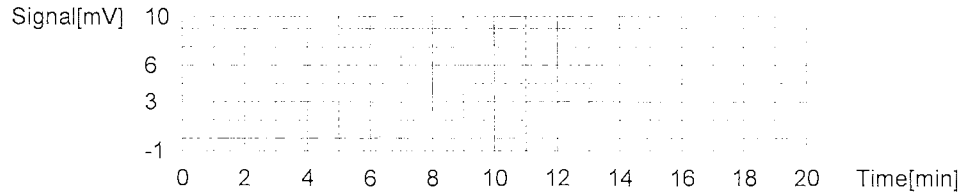
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03169ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4343	-0.01737ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:20:01 AM
2	0.3505	-0.03897ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:22:06 AM
3	0.3606	-0.03637ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:24:11 AM
4	0.3696	-0.03405ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:26:16 AM

Mean Area 0.3788
Mean Conc. -0.03169ppm



Control Sample

Sample Name:	LCS
Sample ID:	LCS - IS# 52578
Method:	LCS - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 2.401 / Control within range!

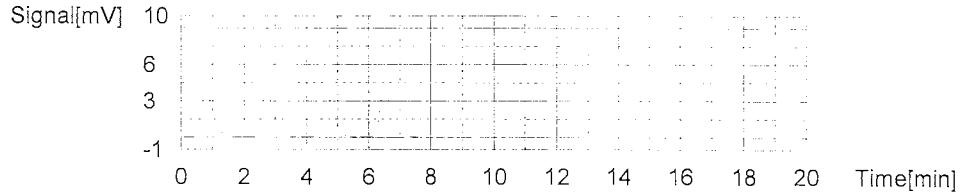
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.401ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.893	2.421ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:35:36 AM
2	9.942	2.433ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:37:41 AM
3	9.638	2.355ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:39:46 AM
4	9.790	2.394ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 9:41:51 AM

Mean Area 9.816
Mean Conc. 2.401ppm



Control Sample

Sample Name:	LCSD
Sample ID:	LCSD - IS# 52578
Method:	LCS - TOC by 415.1-9060-SM5310B.tpl
Status	Completed
Chk. Result	Control value: 2.249 / Control within range!

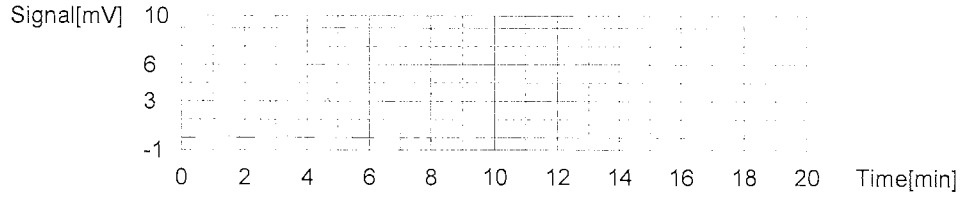
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.249ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.500	2.283ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:51:11 AM
2	9.324	2.239ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:53:16 AM
3	9.228	2.215ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:55:21 AM
4	9.406	2.260ppm	50uL	1		NPOC 10ppm.2013_10_12_01_06_11.cal	12/2/2013 9:57:26 AM

Mean Area 9.364
Mean Conc. 2.249ppm



Sample

Sample Name: 351100901 50x
Sample ID: 351100901
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

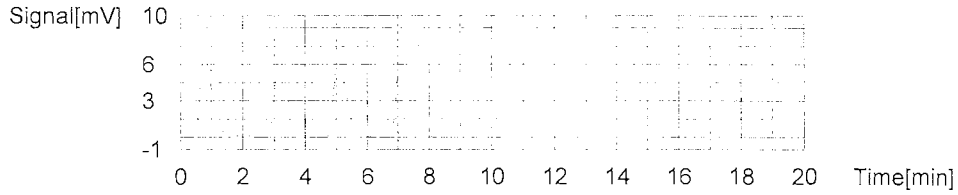
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:232.8ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.79	235.7ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:47:41 AM
2	18.65	233.9ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:49:47 AM
3	18.33	229.8ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:52:00 AM
4	18.49	231.8ppm	50uL	50		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 11:54:13 AM

Mean Area 18.56
Mean Conc. 232.8ppm



Sample

Sample Name: 351100902 5x
Sample ID: 351100902
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

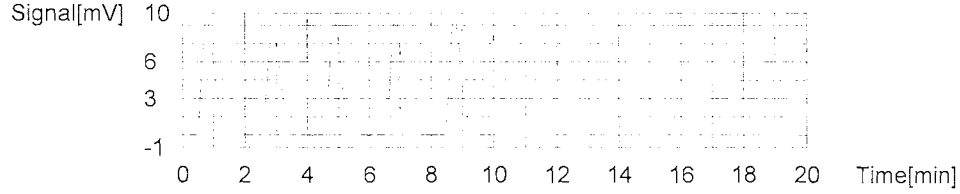
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.12ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.38	34.64ppm	50uL	5	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:04:46 PM
2	24.79	31.30ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:06:58 PM
3	24.30	30.67ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:09:08 PM
4	24.75	31.25ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:11:13 PM
5	24.77	31.28ppm	50uL	5		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:13:18 PM

Mean Area 24.65
Mean Conc. 31.12ppm



Sample

Sample Name: 351100903 3x
Sample ID: 351100903
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

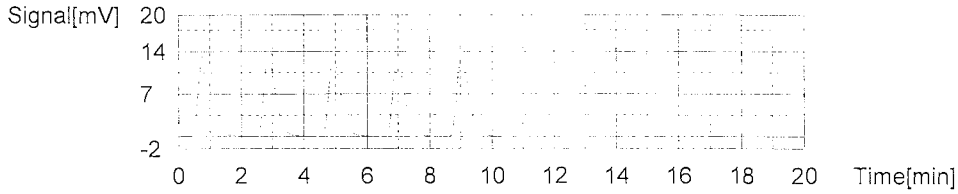
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.28ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.36	28.50ppm	50uL	3	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:23:48 PM
2	35.13	26.78ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:26:04 PM
3	34.17	26.03ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:28:16 PM
4	34.32	26.15ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:30:30 PM
5	34.33	26.16ppm	50uL	3		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 12:32:43 PM

Mean Area 34.49
Mean Conc. 26.28ppm



Sample

Sample Name: 351100904 2x
Sample ID: 351100904
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

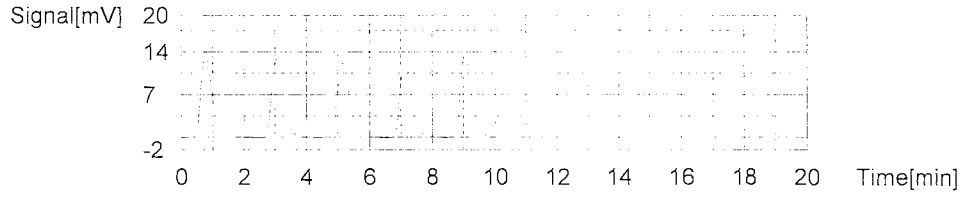
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.81ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.65	17.60ppm	50uL	2	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:00:29 PM
2	32.84	16.67ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:02:45 PM
3	33.07	16.79ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:04:56 PM
4	33.02	16.76ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:07:03 PM
5	33.48	17.00ppm	50uL	2		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:09:11 PM

Mean Area 33.10
Mean Conc. 16.81ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.237 / Control exceeds range!

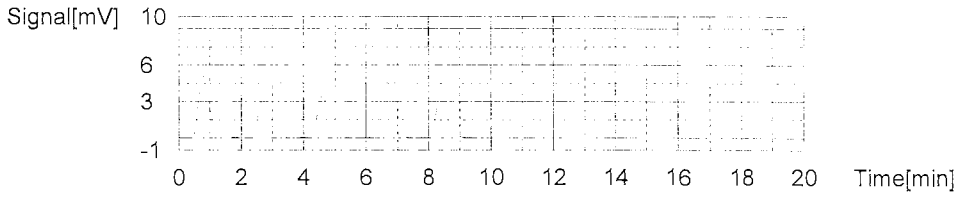
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.237ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.17	3.007ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:20:05 PM
2	9.713	2.374ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:22:10 PM
3	9.176	2.236ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:24:15 PM
4	8.976	2.184ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:26:20 PM
5	8.854	2.153ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:28:25 PM

Mean Area 9.180
Mean Conc. 2.237ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.00795 / Control within range!

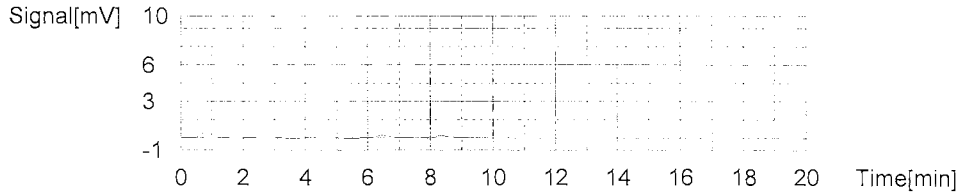
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00795ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8670	0.09415ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:39:13 PM
2	0.5145	0.00330ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:41:18 PM
3	0.4873	-0.00371ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:43:23 PM
4	0.4553	-0.01196ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:45:28 PM
5	0.4263	-0.01944ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 1:47:33 PM

Mean Area 0.4708
Mean Conc. -0.00795ppm



Sample

Sample Name: 351101102
Sample ID: 351101102
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

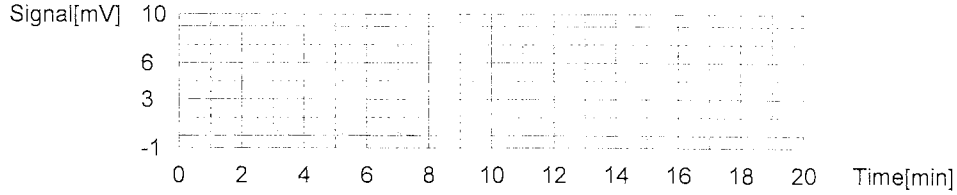
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.753ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.430	1.786ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:15:25 PM
2	7.307	1.754ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:17:30 PM
3	7.236	1.736ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:19:35 PM
4	7.234	1.735ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:21:40 PM

Mean Area 7.302
Mean Conc. 1.753ppm



Sample

Sample Name: 351101103
Sample ID: 351101103
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

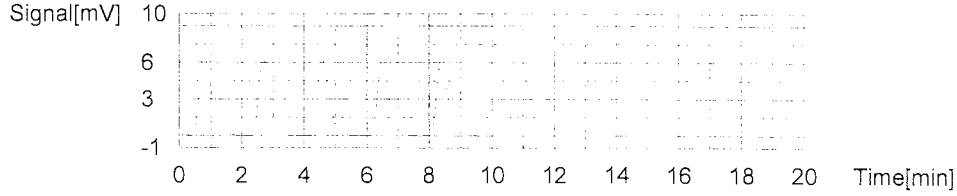
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.939ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.22	4.309ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:30:57 PM
2	15.96	3.984ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:33:02 PM
3	15.69	3.915ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:35:07 PM
4	15.61	3.894ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:37:12 PM
5	15.87	3.961ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:39:17 PM

Mean Area 15.78
Mean Conc. 3.939ppm



Sample

Sample Name: 351101104
Sample ID: 351101104
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

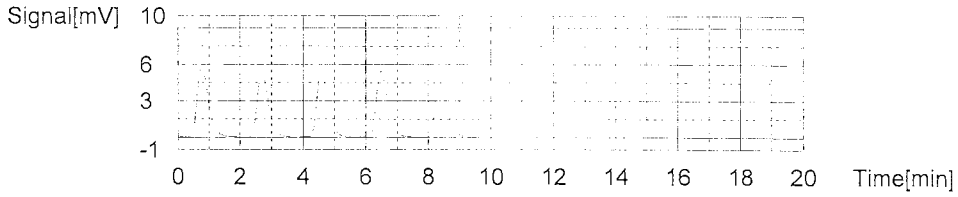
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.305ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.51	3.611ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:48:29 PM
2	13.58	3.371ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:50:34 PM
3	13.07	3.239ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:52:39 PM
4	13.33	3.306ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:54:44 PM
5	13.32	3.304ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 3:56:49 PM

Mean Area 13.32
Mean Conc. 3.305ppm



Sample

Sample Name: 351101106
Sample ID: 351101106
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

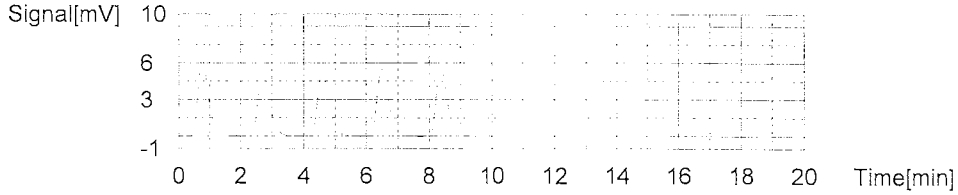
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.408ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.83	3.693ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:06:01 PM
2	13.93	3.461ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:08:06 PM
3	13.37	3.317ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:10:11 PM
4	13.72	3.407ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:12:16 PM
5	13.87	3.446ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:14:21 PM

Mean Area 13.72
Mean Conc. 3.408ppm



Sample

Sample Name: 351101107
Sample ID: 351101107
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

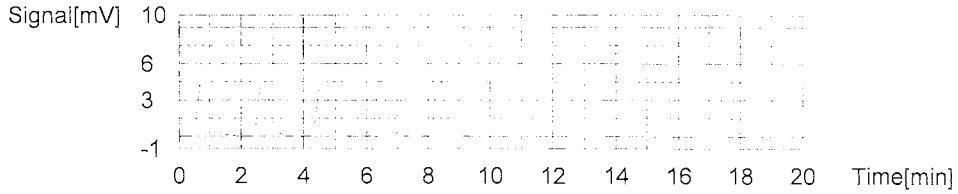
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.949ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.35	3.312ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:23:33 PM
2	12.02	2.969ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:25:38 PM
3	11.93	2.946ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:27:43 PM
4	11.96	2.953ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:29:48 PM
5	11.86	2.928ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:31:53 PM

Mean Area 11.94
Mean Conc. 2.949ppm



Sample

Sample Name: 351101108
Sample ID: 351101108
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

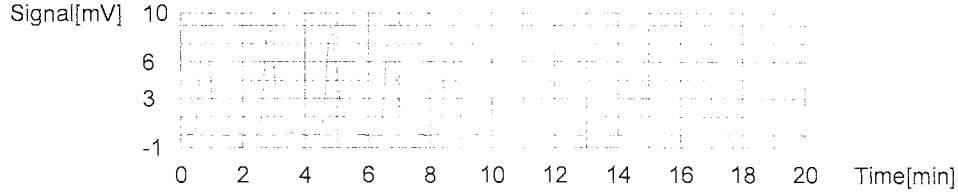
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.472ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.76	5.737ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:41:14 PM
2	21.89	5.513ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:43:23 PM
3	21.48	5.407ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:45:28 PM
4	21.64	5.448ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:47:33 PM
5	21.92	5.520ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:49:39 PM

Mean Area 21.73
Mean Conc. 5.472ppm



Sample

Sample Name: 351101109
Sample ID: 351101109
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

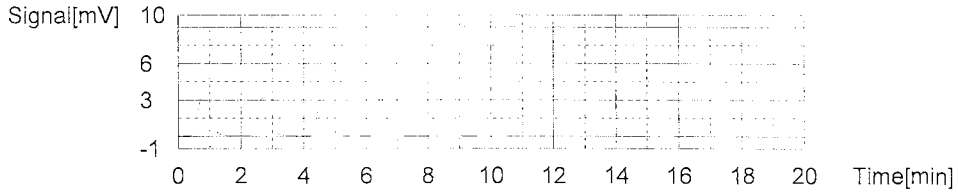
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.764ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.616	2.091ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 4:58:51 PM
2	7.513	1.807ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:00:56 PM
3	7.272	1.745ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:03:01 PM
4	7.341	1.763ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:05:06 PM
5	7.255	1.741ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:07:11 PM

Mean Area 7.345
Mean Conc. 1.764ppm



Sample

Sample Name: 351101110
Sample ID: 351101110
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

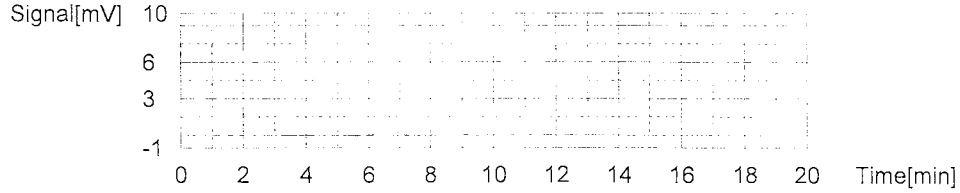
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.550ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.207	1.728ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:16:23 PM
2	6.554	1.560ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:18:28 PM
3	6.466	1.537ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:20:33 PM
4	6.456	1.535ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:22:38 PM
5	6.593	1.570ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:24:43 PM

Mean Area 6.517
Mean Conc. 1.550ppm



Sample

Sample Name: 351101201
Sample ID: 351101201
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

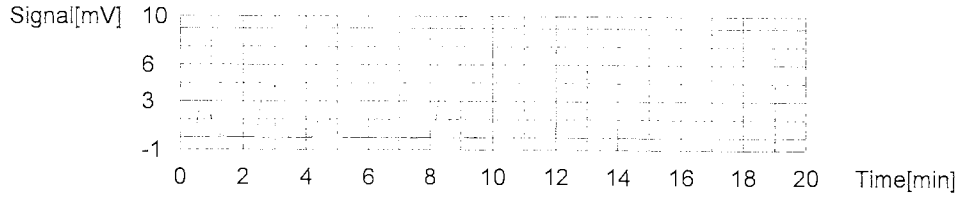
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.109ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.376	2.287ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:33:55 PM
2	8.614	2.091ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:36:00 PM
3	8.494	2.060ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:38:05 PM
4	8.781	2.134ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:40:10 PM
5	8.846	2.151ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 5:42:15 PM

Mean Area 8.684
Mean Conc. 2.109ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.739 / Control within range!

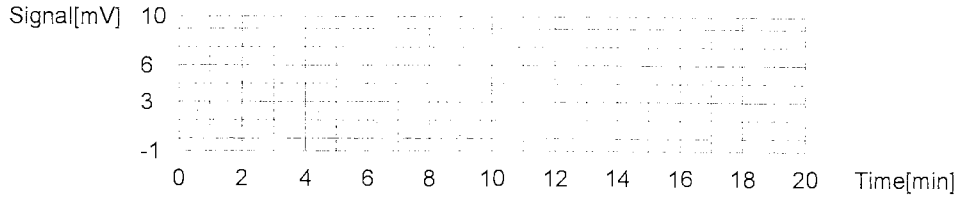
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.739ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.17	3.007ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:10:38 PM
2	11.48	2.830ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:12:43 PM
3	10.93	2.688ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:14:48 PM
4	10.94	2.690ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:16:53 PM
5	11.16	2.747ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:18:58 PM

Mean Area 11.13
Mean Conc. 2.739ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: -0.00293 / Control within range!

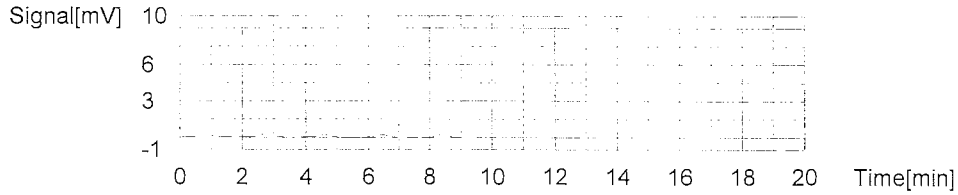
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00293ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7194	0.05611ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:29:43 PM
2	0.5526	0.01312ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:31:48 PM
3	0.5041	0.00062ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:33:53 PM
4	0.4181	-0.02155ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:35:58 PM
5	0.4866	-0.00389ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:38:03 PM

Mean Area 0.4904
Mean Conc. -0.00293ppm



Sample

Sample Name: 351101201MS
Sample ID: 351101201MS
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

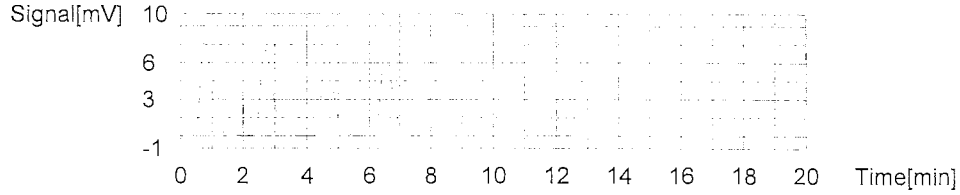
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.664ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.90	4.742ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:47:16 PM
2	18.57	4.657ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:49:22 PM
3	18.35	4.600ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:51:27 PM
4	18.57	4.657ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 6:53:32 PM

Mean Area 18.60
Mean Conc. 4.664ppm



Sample

Sample Name: 351101201MSD
Sample ID: 351101201MSD
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

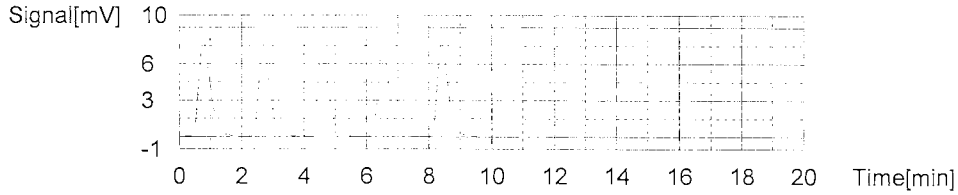
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.636ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.21	5.080ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:02:49 PM
2	18.74	4.701ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:04:54 PM
3	18.24	4.572ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:07:01 PM
4	18.34	4.598ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:09:06 PM
5	18.63	4.672ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:11:11 PM

Mean Area 18.49
Mean Conc. 4.636ppm



Sample

Sample Name: 351101202
Sample ID: 351101202
Origin: TOC by 415.1-9060-SM5310B.met
Status Completed
Chk. Result

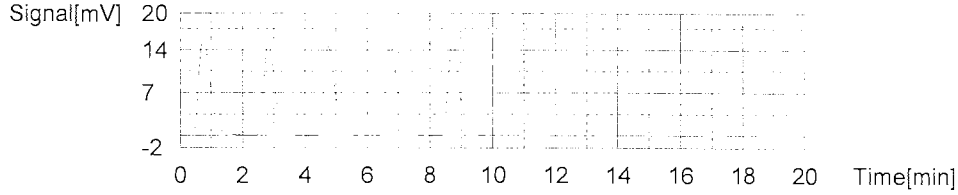
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.503ppm

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.77	10.38ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:25:25 PM
2	37.90	9.639ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:27:32 PM
3	36.44	9.263ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:29:42 PM
4	37.32	9.490ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:31:53 PM
5	37.83	9.621ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:34:01 PM

Mean Area 37.37
Mean Conc. 9.503ppm



Control Sample

Sample Name: CCV
Sample ID: CCV - IS# 49986
Method: CCV - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 2.567 / Control within range!

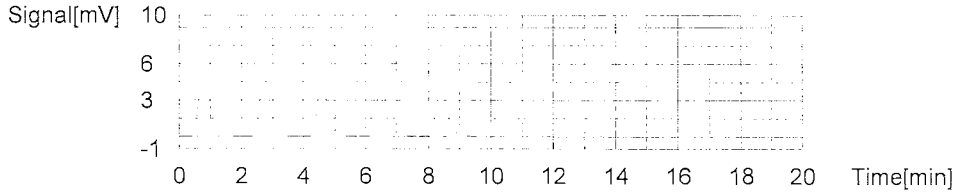
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:2.567ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.61	3.379ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:44:46 PM
2	11.01	2.708ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:46:51 PM
3	10.32	2.531ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:48:56 PM
4	10.24	2.510ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:51:01 PM
5	10.28	2.520ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 7:53:06 PM

Mean Area 10.46
Mean Conc. 2.567ppm



Control Sample

Sample Name: CCB
Sample ID: CCB
Method: CCB - TOC by 415.1-9060-SM5310B.tpl
Status Completed
Chk. Result Control value: 0.1625 / Control within range!

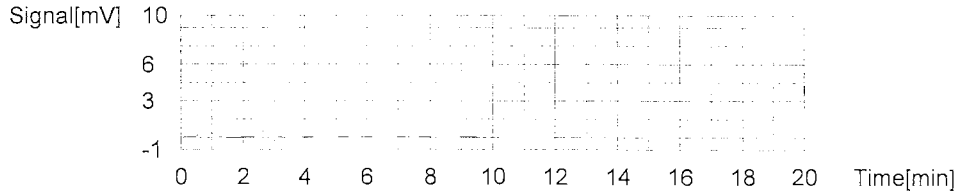
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1625ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.680	0.3037ppm	50uL	1	E	NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:03:51 PM
2	1.212	0.1831ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:05:56 PM
3	1.061	0.1442ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:08:01 PM
4	1.105	0.1555ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:10:06 PM
5	1.151	0.1674ppm	50uL	1		NPOC 10ppm.2013_12_01_14_34_46.cal	12/2/2013 8:12:11 PM

Mean Area 1.132
Mean Conc. 0.1625ppm



STANDARDS LOG

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49005	Millipore Dt - Inorg			12/31/2013	1000 ML	1/2/2013	troberts

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
49986	C_Std_STK	Ultra Scientific	R00176	3/31/2015	500 ML	4/2/2013	twolf
1000 MG/L: TOC							

Standard ID	Type	Manufacturer	Mfg Lot	Expires	Volume	Created on	Created by
52578	C_Std_STK	RICCA	2310A81	10/20/2014	500 ML	11/21/2013	twolf
1000 MG/L: TOC							

End Of Report

091213 1231

ANALYTICAL REPORT

Job Number: 140-1594-1

Job Description: Smokey Mountain Smelter

For:
J.M. Waller Associates, Inc.
100 Hartsfield Centre Parkway, Ste 610
Atlanta, GA 30354

Attention: Janice D. Austin

Approved for release.
Jamie A McKinney
Senior Project Manager
7/7/2014 11:17 AM

Designee for
Terry Walker Wasmund, Project Manager II
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
terry.wasmund@testamericainc.com
07/07/2014

cc: Linda Nyland

The test results in this report meet all 2003 NELAC and 2003 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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)

Job Narrative
140-1594-1

Comments
No additional comments.

Receipt
The samples were received on 6/26/2014 10:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 14A, TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Method(s) TO 15 LL, TO-15: Can Certification Comments:
Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

Method(s) TO 15 LL, TO-15: This report includes canister certification data for the batch certified and/or individually certified canisters used to collect samples as well as for any canisters used for dilution of those samples. All of the canisters used for sample collection or sample dilution for this job were certified to be clean to the levels listed on the results page. Please note that results for individually certified canisters that were not used for sample collection or sample dilution may also be included in the report because these canisters were in the same cleaning batch as the canisters used for this project. Since these canisters were not used for this job, the results have no bearing on the sample results.

Method(s) TO-15: Canister certification 1437 for several analytes is shown as above the reporting limit for a low-level analysis, however, the result is less than the reporting limit required for this project.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Client Sample ID: SMSSV14 — Lab Sample ID: 140-1594-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	2.4		2.0		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	10		8.7		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV15D — Lab Sample ID: 140-1594-2

No Detections.

Client Sample ID: SMSSV15 — Lab Sample ID: 140-1594-3

No Detections.

Client Sample ID: SMSSV16 — Lab Sample ID: 140-1594-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	18		2.0		ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	2.2		2.0		ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	2.5		2.0		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	56		6.4		ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	9.4		8.7		ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	13		9.8		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV AMBIENT — Lab Sample ID: 140-1594-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	0.20		0.20		ppb v/v	1		TO-15	Total/NA
Toluene	0.27		0.20		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.27		0.20		ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.26		0.20		ppb v/v	1		TO-15	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	0.24		0.20		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	0.85		0.87		ug/m3	1		TO-15	Total/NA
Toluene	1.0		0.75		ug/m3	1		TO-15	Total/NA
Trichloroethene	1.5		1.1		ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.5		1.1		ug/m3	1		TO-15	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8		1.5		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV10-20 — Lab Sample ID: 140-1594-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	9.7		2.0		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	6.0		2.0		ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	20		2.0		ppb v/v	1		TO-15	Total/NA
o-Xylene	6.7		2.0		ppb v/v	1		TO-15	Total/NA
Toluene	37		2.0		ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	6.3		2.0		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	31		6.4		ug/m3	1		TO-15	Total/NA
Ethylbenzene	26		8.7		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Client Sample ID: SMSSV10-20 (Continued) — Lab Sample ID: 140-1594-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	88		8.7		ug/m3	1		TO-15	Total/NA
o-Xylene	29		8.7		ug/m3	1		TO-15	Total/NA
Toluene	140		7.5		ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	31		9.8		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV8-15 — Lab Sample ID: 140-1594-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	8.1		2.0		ppb v/v	4.55		TO-15	Total/NA
Ethylbenzene	4.6		2.0		ppb v/v	4.55		TO-15	Total/NA
m-Xylene & p-Xylene	16		2.0		ppb v/v	4.55		TO-15	Total/NA
o-Xylene	5.2		2.0		ppb v/v	4.55		TO-15	Total/NA
Toluene	30		2.0		ppb v/v	4.55		TO-15	Total/NA
1,2,4-Trimethylbenzene	3.8		2.0		ppb v/v	4.55		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	26		6.4		ug/m3	4.55		TO-15	Total/NA
Ethylbenzene	20		8.7		ug/m3	4.55		TO-15	Total/NA
m-Xylene & p-Xylene	67		8.7		ug/m3	4.55		TO-15	Total/NA
o-Xylene	23		8.7		ug/m3	4.55		TO-15	Total/NA
Toluene	110		7.5		ug/m3	4.55		TO-15	Total/NA
1,2,4-Trimethylbenzene	19		9.8		ug/m3	4.55		TO-15	Total/NA

Client Sample ID: SMSSV13-11 — Lab Sample ID: 140-1594-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.5		2.0		ppb v/v	2.3		TO-15	Total/NA
m-Xylene & p-Xylene	3.4		2.0		ppb v/v	2.3		TO-15	Total/NA
Toluene	7.3		2.0		ppb v/v	2.3		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	24		6.4		ug/m3	2.3		TO-15	Total/NA
m-Xylene & p-Xylene	15		8.7		ug/m3	2.3		TO-15	Total/NA
Toluene	27		7.5		ug/m3	2.3		TO-15	Total/NA

Client Sample ID: SMSSV11-11 — Lab Sample ID: 140-1594-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.8		2.0		ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	2.5		2.0		ppb v/v	1		TO-15	Total/NA
Toluene	5.9		2.0		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	15		6.4		ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	11		8.7		ug/m3	1		TO-15	Total/NA
Toluene	22		7.5		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV9-10 — Lab Sample ID: 140-1594-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	4.0		2.0		ppb v/v	1		TO-15	Total/NA
Toluene	4.8		2.0		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SMSSV9-10 (Continued) — Lab Sample ID: 140-1594-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	17		8.7		ug/m3	1		TO-15	Total/NA
Toluene	18		7.5		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV4-15 — Lab Sample ID: 140-1594-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.3		2.0		ppb v/v	1		TO-15	Total/NA
Chloroform	2.5		2.0		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	31		2.0		ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	73		2.0		ppb v/v	1		TO-15	Total/NA
o-Xylene	19		2.0		ppb v/v	1		TO-15	Total/NA
Toluene	36		2.0		ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		6.4		ug/m3	1		TO-15	Total/NA
Chloroform	12		9.8		ug/m3	1		TO-15	Total/NA
Ethylbenzene	130		8.7		ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	320		8.7		ug/m3	1		TO-15	Total/NA
o-Xylene	81		8.7		ug/m3	1		TO-15	Total/NA
Toluene	140		7.5		ug/m3	1		TO-15	Total/NA

Client Sample ID: SMSSV3-10 — Lab Sample ID: 140-1594-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	5000		560		ppb v/v	111.09		TO-15	Total/NA
1,1-Dichloroethane	450		220		ppb v/v	111.09		TO-15	Total/NA
1,2-Dichloroethane	930		220		ppb v/v	111.09		TO-15	Total/NA
Toluene	540		220		ppb v/v	111.09		TO-15	Total/NA
Trichlorofluoromethane	12000		220		ppb v/v	111.09		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	10000		1100		ug/m3	111.09		TO-15	Total/NA
1,1-Dichloroethane	1800		900		ug/m3	111.09		TO-15	Total/NA
1,2-Dichloroethane	3800		900		ug/m3	111.09		TO-15	Total/NA
Toluene	2000		840		ug/m3	111.09		TO-15	Total/NA
Trichlorofluoromethane	69000		1200		ug/m3	111.09		TO-15	Total/NA

Client Sample ID: SMSSV3D-10 — Lab Sample ID: 140-1594-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	4100		550		ppb v/v	109.8		TO-15	Total/NA
1,1-Dichloroethane	360		220		ppb v/v	109.8		TO-15	Total/NA
1,2-Dichloroethane	720		220		ppb v/v	109.8		TO-15	Total/NA
Toluene	430		220		ppb v/v	109.8		TO-15	Total/NA
Trichlorofluoromethane	9700		220		ppb v/v	109.8		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	8400		1100		ug/m3	109.8		TO-15	Total/NA
1,1-Dichloroethane	1400		890		ug/m3	109.8		TO-15	Total/NA
1,2-Dichloroethane	2900		890		ug/m3	109.8		TO-15	Total/NA
Toluene	1600		830		ug/m3	109.8		TO-15	Total/NA
Trichlorofluoromethane	55000		1200		ug/m3	109.8		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Client Sample ID: SMSSV14

Lab Sample ID: 140-1594-1

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ppb v/v			06/27/14 20:14	1
Benzyl chloride	ND		4.0		ppb v/v			06/27/14 20:14	1
Bromomethane	ND		2.0		ppb v/v			06/27/14 20:14	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/27/14 20:14	1
Chlorobenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
Chloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
Chloroform	ND		2.0		ppb v/v			06/27/14 20:14	1
Chloromethane	ND		5.0		ppb v/v			06/27/14 20:14	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/27/14 20:14	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
Ethylbenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
Hexachlorobutadiene	ND		10		ppb v/v			06/27/14 20:14	1
Methylene Chloride	ND		5.0		ppb v/v			06/27/14 20:14	1
m-Xylene & p-Xylene	**2.4**		2.0		ppb v/v			06/27/14 20:14	1
o-Xylene	ND		2.0		ppb v/v			06/27/14 20:14	1
Styrene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
Tetrachloroethene	ND		2.0		ppb v/v			06/27/14 20:14	1
Toluene	ND		2.0		ppb v/v			06/27/14 20:14	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/27/14 20:14	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
Trichloroethene	ND		2.0		ppb v/v			06/27/14 20:14	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/27/14 20:14	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 20:14	1
Vinyl chloride	ND		2.0		ppb v/v			06/27/14 20:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/m3			06/27/14 20:14	1
Benzyl chloride	ND		21		ug/m3			06/27/14 20:14	1
Bromomethane	ND		7.8		ug/m3			06/27/14 20:14	1
Carbon tetrachloride	ND		13		ug/m3			06/27/14 20:14	1
Chlorobenzene	ND		9.2		ug/m3			06/27/14 20:14	1
Chloroethane	ND		5.3		ug/m3			06/27/14 20:14	1
Chloroform	ND		9.8		ug/m3			06/27/14 20:14	1
Chloromethane	ND		10		ug/m3			06/27/14 20:14	1

Client Sample ID: SMSSV14

Lab Sample ID: 140-1594-1

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/27/14 20:14	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 20:14	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/27/14 20:14	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/27/14 20:14	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/27/14 20:14	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/27/14 20:14	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/27/14 20:14	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/27/14 20:14	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/27/14 20:14	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/27/14 20:14	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/27/14 20:14	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/27/14 20:14	1
Ethylbenzene	ND		8.7		ug/m3			06/27/14 20:14	1
Hexachlorobutadiene	ND		110		ug/m3			06/27/14 20:14	1
Methylene Chloride	ND		17		ug/m3			06/27/14 20:14	1
m-Xylene & p-Xylene	**10**		8.7		ug/m3			06/27/14 20:14	1
o-Xylene	ND		8.7		ug/m3			06/27/14 20:14	1
Styrene	ND		8.5		ug/m3			06/27/14 20:14	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/27/14 20:14	1
Tetrachloroethene	ND		14		ug/m3			06/27/14 20:14	1
Toluene	ND		7.5		ug/m3			06/27/14 20:14	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 20:14	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/27/14 20:14	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/27/14 20:14	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/27/14 20:14	1
Trichloroethene	ND		11		ug/m3			06/27/14 20:14	1
Trichlorofluoromethane	ND		11		ug/m3			06/27/14 20:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/27/14 20:14	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 20:14	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 20:14	1
Vinyl chloride	ND		5.1		ug/m3			06/27/14 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/27/14 20:14*	*1*

Client Sample ID: SMSSV15D

Lab Sample ID: 140-1594-2

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ppb v/v			06/27/14 21:07	1
Benzyl chloride	ND		4.0		ppb v/v			06/27/14 21:07	1
Bromomethane	ND		2.0		ppb v/v			06/27/14 21:07	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/27/14 21:07	1
Chlorobenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
Chloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
Chloroform	ND		2.0		ppb v/v			06/27/14 21:07	1

Client Sample ID: SMSSV15D

Lab Sample ID: 140-1594-2

Date Collected: 06/25/14 16:10
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ppb v/v			06/27/14 21:07	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/27/14 21:07	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
Ethylbenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
Hexachlorobutadiene	ND		10		ppb v/v			06/27/14 21:07	1
Methylene Chloride	ND		5.0		ppb v/v			06/27/14 21:07	1
m-Xylene & p-Xylene	ND		2.0		ppb v/v			06/27/14 21:07	1
o-Xylene	ND		2.0		ppb v/v			06/27/14 21:07	1
Styrene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
Tetrachloroethene	ND		2.0		ppb v/v			06/27/14 21:07	1
Toluene	ND		2.0		ppb v/v			06/27/14 21:07	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/27/14 21:07	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
Trichloroethene	ND		2.0		ppb v/v			06/27/14 21:07	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/27/14 21:07	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 21:07	1
Vinyl chloride	ND		2.0		ppb v/v			06/27/14 21:07	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/m3			06/27/14 21:07	1
Benzyl chloride	ND		21		ug/m3			06/27/14 21:07	1
Bromomethane	ND		7.8		ug/m3			06/27/14 21:07	1
Carbon tetrachloride	ND		13		ug/m3			06/27/14 21:07	1
Chlorobenzene	ND		9.2		ug/m3			06/27/14 21:07	1
Chloroethane	ND		5.3		ug/m3			06/27/14 21:07	1
Chloroform	ND		9.8		ug/m3			06/27/14 21:07	1
Chloromethane	ND		10		ug/m3			06/27/14 21:07	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/27/14 21:07	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 21:07	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/27/14 21:07	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:07	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:07	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:07	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/27/14 21:07	1

Client Sample ID: SMSSV15D

Lab Sample ID: 140-1594-2

Date Collected: 06/25/14 16:10

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		8.1		ug/m3			06/27/14 21:07	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/27/14 21:07	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/27/14 21:07	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/27/14 21:07	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/27/14 21:07	1
Ethylbenzene	ND		8.7		ug/m3			06/27/14 21:07	1
Hexachlorobutadiene	ND		110		ug/m3			06/27/14 21:07	1
Methylene Chloride	ND		17		ug/m3			06/27/14 21:07	1
m-Xylene & p-Xylene	ND		8.7		ug/m3			06/27/14 21:07	1
o-Xylene	ND		8.7		ug/m3			06/27/14 21:07	1
Styrene	ND		8.5		ug/m3			06/27/14 21:07	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/27/14 21:07	1
Tetrachloroethene	ND		14		ug/m3			06/27/14 21:07	1
Toluene	ND		7.5		ug/m3			06/27/14 21:07	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 21:07	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/27/14 21:07	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/27/14 21:07	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/27/14 21:07	1
Trichloroethene	ND		11		ug/m3			06/27/14 21:07	1
Trichlorofluoromethane	ND		11		ug/m3			06/27/14 21:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/27/14 21:07	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 21:07	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 21:07	1
Vinyl chloride	ND		5.1		ug/m3			06/27/14 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*		*06/27/14 21:07*	*1*

Client Sample ID: SMSSV15

Lab Sample ID: 140-1594-3

Date Collected: 06/25/14 16:10

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ppb v/v			06/27/14 21:58	1
Benzyl chloride	ND		4.0		ppb v/v			06/27/14 21:58	1
Bromomethane	ND		2.0		ppb v/v			06/27/14 21:58	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/27/14 21:58	1
Chlorobenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
Chloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
Chloroform	ND		2.0		ppb v/v			06/27/14 21:58	1
Chloromethane	ND		5.0		ppb v/v			06/27/14 21:58	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/27/14 21:58	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 21:58	1

Client Sample ID: SMSSV15

Lab Sample ID: 140-1594-3

Date Collected: 06/25/14 16:10
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
Ethylbenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
Hexachlorobutadiene	ND		10		ppb v/v			06/27/14 21:58	1
Methylene Chloride	ND		5.0		ppb v/v			06/27/14 21:58	1
m-Xylene & p-Xylene	ND		2.0		ppb v/v			06/27/14 21:58	1
o-Xylene	ND		2.0		ppb v/v			06/27/14 21:58	1
Styrene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
Tetrachloroethene	ND		2.0		ppb v/v			06/27/14 21:58	1
Toluene	ND		2.0		ppb v/v			06/27/14 21:58	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/27/14 21:58	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
Trichloroethene	ND		2.0		ppb v/v			06/27/14 21:58	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/27/14 21:58	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 21:58	1
Vinyl chloride	ND		2.0		ppb v/v			06/27/14 21:58	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/m3			06/27/14 21:58	1
Benzyl chloride	ND		21		ug/m3			06/27/14 21:58	1
Bromomethane	ND		7.8		ug/m3			06/27/14 21:58	1
Carbon tetrachloride	ND		13		ug/m3			06/27/14 21:58	1
Chlorobenzene	ND		9.2		ug/m3			06/27/14 21:58	1
Chloroethane	ND		5.3		ug/m3			06/27/14 21:58	1
Chloroform	ND		9.8		ug/m3			06/27/14 21:58	1
Chloromethane	ND		10		ug/m3			06/27/14 21:58	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/27/14 21:58	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 21:58	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/27/14 21:58	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:58	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:58	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/27/14 21:58	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/27/14 21:58	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/27/14 21:58	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/27/14 21:58	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/27/14 21:58	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/27/14 21:58	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/27/14 21:58	1
Ethylbenzene	ND		8.7		ug/m3			06/27/14 21:58	1
Hexachlorobutadiene	ND		110		ug/m3			06/27/14 21:58	1

Client Sample ID: SMSSV15

Lab Sample ID: 140-1594-3

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		17		ug/m3			06/27/14 21:58	1
m-Xylene & p-Xylene	ND		8.7		ug/m3			06/27/14 21:58	1
o-Xylene	ND		8.7		ug/m3			06/27/14 21:58	1
Styrene	ND		8.5		ug/m3			06/27/14 21:58	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/27/14 21:58	1
Tetrachloroethene	ND		14		ug/m3			06/27/14 21:58	1
Toluene	ND		7.5		ug/m3			06/27/14 21:58	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 21:58	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/27/14 21:58	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/27/14 21:58	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/27/14 21:58	1
Trichloroethene	ND		11		ug/m3			06/27/14 21:58	1
Trichlorofluoromethane	ND		11		ug/m3			06/27/14 21:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/27/14 21:58	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 21:58	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 21:58	1
Vinyl chloride	ND		5.1		ug/m3			06/27/14 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/27/14 21:58*	*1*

Client Sample ID: SMSSV16

Lab Sample ID: 140-1594-4

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**18**		2.0		ppb v/v			06/27/14 22:49	1
Benzyl chloride	ND		4.0		ppb v/v			06/27/14 22:49	1
Bromomethane	ND		2.0		ppb v/v			06/27/14 22:49	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/27/14 22:49	1
Chlorobenzene	ND		2.0		ppb v/v			06/27/14 22:49	1
Chloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
Chloroform	ND		2.0		ppb v/v			06/27/14 22:49	1
Chloromethane	ND		5.0		ppb v/v			06/27/14 22:49	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/27/14 22:49	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/27/14 22:49	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
Ethylbenzene	ND		2.0		ppb v/v			06/27/14 22:49	1

Client Sample ID: SMSSV16

Lab Sample ID: 140-1594-4

Date Collected: 06/25/14 16:10

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		10		ppb v/v			06/27/14 22:49	1
Methylene Chloride	ND		5.0		ppb v/v			06/27/14 22:49	1
m-Xylene & p-Xylene	**2.2**		2.0		ppb v/v			06/27/14 22:49	1
o-Xylene	ND		2.0		ppb v/v			06/27/14 22:49	1
Styrene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
Tetrachloroethene	ND		2.0		ppb v/v			06/27/14 22:49	1
Toluene	ND		2.0		ppb v/v			06/27/14 22:49	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/27/14 22:49	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
Trichloroethene	ND		2.0		ppb v/v			06/27/14 22:49	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/27/14 22:49	1
1,2,4-Trimethylbenzene	**2.5**		2.0		ppb v/v			06/27/14 22:49	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/27/14 22:49	1
Vinyl chloride	ND		2.0		ppb v/v			06/27/14 22:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**56**		6.4		ug/m3			06/27/14 22:49	1
Benzyl chloride	ND		21		ug/m3			06/27/14 22:49	1
Bromomethane	ND		7.8		ug/m3			06/27/14 22:49	1
Carbon tetrachloride	ND		13		ug/m3			06/27/14 22:49	1
Chlorobenzene	ND		9.2		ug/m3			06/27/14 22:49	1
Chloroethane	ND		5.3		ug/m3			06/27/14 22:49	1
Chloroform	ND		9.8		ug/m3			06/27/14 22:49	1
Chloromethane	ND		10		ug/m3			06/27/14 22:49	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/27/14 22:49	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 22:49	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/27/14 22:49	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/27/14 22:49	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/27/14 22:49	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/27/14 22:49	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/27/14 22:49	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/27/14 22:49	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/27/14 22:49	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/27/14 22:49	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/27/14 22:49	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/27/14 22:49	1
Ethylbenzene	ND		8.7		ug/m3			06/27/14 22:49	1
Hexachlorobutadiene	ND		110		ug/m3			06/27/14 22:49	1
Methylene Chloride	ND		17		ug/m3			06/27/14 22:49	1
m-Xylene & p-Xylene	**9.4**		8.7		ug/m3			06/27/14 22:49	1
o-Xylene	ND		8.7		ug/m3			06/27/14 22:49	1
Styrene	ND		8.5		ug/m3			06/27/14 22:49	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/27/14 22:49	1
Tetrachloroethene	ND		14		ug/m3			06/27/14 22:49	1
Toluene	ND		7.5		ug/m3			06/27/14 22:49	1

Client Sample ID: SMSSV16

Lab Sample ID: 140-1594-4

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/27/14 22:49	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/27/14 22:49	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/27/14 22:49	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/27/14 22:49	1
Trichloroethene	ND		11		ug/m3			06/27/14 22:49	1
Trichlorofluoromethane	ND		11		ug/m3			06/27/14 22:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/27/14 22:49	1
1,2,4-Trimethylbenzene	**13**		9.8		ug/m3			06/27/14 22:49	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/27/14 22:49	1
Vinyl chloride	ND		5.1		ug/m3			06/27/14 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/27/14 22:49*	*1*

Client Sample ID: SMSSV AMBIENT

Lab Sample ID: 140-1594-5

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20		ppb v/v			06/27/14 23:43	1
Benzyl chloride	ND		0.40		ppb v/v			06/27/14 23:43	1
Bromomethane	ND		0.20		ppb v/v			06/27/14 23:43	1
Carbon tetrachloride	ND		0.20		ppb v/v			06/27/14 23:43	1
Chlorobenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
Chloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
Chloroform	ND		0.20		ppb v/v			06/27/14 23:43	1
Chloromethane	ND		0.50		ppb v/v			06/27/14 23:43	1
cis-1,2-Dichloroethene	ND		0.20		ppb v/v			06/27/14 23:43	1
cis-1,3-Dichloropropene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2-Dibromoethane (EDB)	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,3-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,4-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
Dichlorodifluoromethane	ND		0.20		ppb v/v			06/27/14 23:43	1
1,1-Dichloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2-Dichloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
1,1-Dichloroethene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2-Dichloropropane	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
Ethylbenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
Hexachlorobutadiene	ND		1.0		ppb v/v			06/27/14 23:43	1
Methylene Chloride	ND		0.50		ppb v/v			06/27/14 23:43	1
m-Xylene & p-Xylene	**0.20**		0.20		ppb v/v			06/27/14 23:43	1
o-Xylene	ND		0.20		ppb v/v			06/27/14 23:43	1
Styrene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,1,2,2-Tetrachloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
Tetrachloroethene	ND		0.20		ppb v/v			06/27/14 23:43	1

Client Sample ID: SMSSV AMBIENT

Lab Sample ID: 140-1594-5

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**0.27**		0.20		ppb v/v			06/27/14 23:43	1
trans-1,3-Dichloropropene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,2,4-Trichlorobenzene	ND		1.0		ppb v/v			06/27/14 23:43	1
1,1,1-Trichloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
1,1,2-Trichloroethane	ND		0.20		ppb v/v			06/27/14 23:43	1
Trichloroethene	**0.27**		0.20		ppb v/v			06/27/14 23:43	1
Trichlorofluoromethane	**0.26**		0.20		ppb v/v			06/27/14 23:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.24**		0.20		ppb v/v			06/27/14 23:43	1
1,2,4-Trimethylbenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
1,3,5-Trimethylbenzene	ND		0.20		ppb v/v			06/27/14 23:43	1
Vinyl chloride	ND		0.20		ppb v/v			06/27/14 23:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64		ug/m3			06/27/14 23:43	1
Benzyl chloride	ND		2.1		ug/m3			06/27/14 23:43	1
Bromomethane	ND		0.78		ug/m3			06/27/14 23:43	1
Carbon tetrachloride	ND		1.3		ug/m3			06/27/14 23:43	1
Chlorobenzene	ND		0.92		ug/m3			06/27/14 23:43	1
Chloroethane	ND		0.53		ug/m3			06/27/14 23:43	1
Chloroform	ND		0.98		ug/m3			06/27/14 23:43	1
Chloromethane	ND		1.0		ug/m3			06/27/14 23:43	1
cis-1,2-Dichloroethene	ND		0.79		ug/m3			06/27/14 23:43	1
cis-1,3-Dichloropropene	ND		0.91		ug/m3			06/27/14 23:43	1
1,2-Dibromoethane (EDB)	ND		1.5		ug/m3			06/27/14 23:43	1
1,2-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 23:43	1
1,3-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 23:43	1
1,4-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 23:43	1
Dichlorodifluoromethane	ND		0.99		ug/m3			06/27/14 23:43	1
1,1-Dichloroethane	ND		0.81		ug/m3			06/27/14 23:43	1
1,2-Dichloroethane	ND		0.81		ug/m3			06/27/14 23:43	1
1,1-Dichloroethene	ND		0.79		ug/m3			06/27/14 23:43	1
1,2-Dichloropropane	ND		0.92		ug/m3			06/27/14 23:43	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4		ug/m3			06/27/14 23:43	1
Ethylbenzene	ND		0.87		ug/m3			06/27/14 23:43	1
Hexachlorobutadiene	ND		11		ug/m3			06/27/14 23:43	1
Methylene Chloride	ND		1.7		ug/m3			06/27/14 23:43	1
m-Xylene & p-Xylene	**0.85**		0.87		ug/m3			06/27/14 23:43	1
o-Xylene	ND		0.87		ug/m3			06/27/14 23:43	1
Styrene	ND		0.85		ug/m3			06/27/14 23:43	1
1,1,2,2-Tetrachloroethane	ND		1.4		ug/m3			06/27/14 23:43	1
Tetrachloroethene	ND		1.4		ug/m3			06/27/14 23:43	1
Toluene	**1.0**		0.75		ug/m3			06/27/14 23:43	1
trans-1,3-Dichloropropene	ND		0.91		ug/m3			06/27/14 23:43	1
1,2,4-Trichlorobenzene	ND		7.4		ug/m3			06/27/14 23:43	1
1,1,1-Trichloroethane	ND		1.1		ug/m3			06/27/14 23:43	1
1,1,2-Trichloroethane	ND		1.1		ug/m3			06/27/14 23:43	1
Trichloroethene	**1.5**		1.1		ug/m3			06/27/14 23:43	1
Trichlorofluoromethane	**1.5**		1.1		ug/m3			06/27/14 23:43	1

Client Sample ID: SMSSV AMBIENT

Lab Sample ID: 140-1594-5

Date Collected: 06/25/14 16:10
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.8**		1.5		ug/m3			06/27/14 23:43	1
1,2,4-Trimethylbenzene	ND		0.98		ug/m3			06/27/14 23:43	1
1,3,5-Trimethylbenzene	ND		0.98		ug/m3			06/27/14 23:43	1
Vinyl chloride	ND		0.51		ug/m3			06/27/14 23:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*60 - 140*		*06/27/14 23:43*	*1*

Client Sample ID: SMSSV10-20

Lab Sample ID: 140-1594-6

Date Collected: 06/24/14 17:00
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.7**		2.0		ppb v/v			06/28/14 00:35	1
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 00:35	1
Bromomethane	ND		2.0		ppb v/v			06/28/14 00:35	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 00:35	1
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 00:35	1
Chloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
Chloroform	ND		2.0		ppb v/v			06/28/14 00:35	1
Chloromethane	ND		5.0		ppb v/v			06/28/14 00:35	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 00:35	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 00:35	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
Ethylbenzene	**6.0**		2.0		ppb v/v			06/28/14 00:35	1
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 00:35	1
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 00:35	1
m-Xylene & p-Xylene	**20**		2.0		ppb v/v			06/28/14 00:35	1
o-Xylene	**6.7**		2.0		ppb v/v			06/28/14 00:35	1
Styrene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 00:35	1
Toluene	**37**		2.0		ppb v/v			06/28/14 00:35	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 00:35	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 00:35	1

Client Sample ID: SMSSV10-20

Lab Sample ID: 140-1594-6

Date Collected: 06/24/14 17:00
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		2.0		ppb v/v			06/28/14 00:35	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 00:35	1
1,2,4-Trimethylbenzene	**6.3**		2.0		ppb v/v			06/28/14 00:35	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 00:35	1
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 00:35	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**31**		6.4		ug/m3			06/28/14 00:35	1
Benzyl chloride	ND		21		ug/m3			06/28/14 00:35	1
Bromomethane	ND		7.8		ug/m3			06/28/14 00:35	1
Carbon tetrachloride	ND		13		ug/m3			06/28/14 00:35	1
Chlorobenzene	ND		9.2		ug/m3			06/28/14 00:35	1
Chloroethane	ND		5.3		ug/m3			06/28/14 00:35	1
Chloroform	ND		9.8		ug/m3			06/28/14 00:35	1
Chloromethane	ND		10		ug/m3			06/28/14 00:35	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 00:35	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 00:35	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 00:35	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 00:35	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 00:35	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 00:35	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 00:35	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 00:35	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 00:35	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 00:35	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 00:35	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 00:35	1
Ethylbenzene	**26**		8.7		ug/m3			06/28/14 00:35	1
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 00:35	1
Methylene Chloride	ND		17		ug/m3			06/28/14 00:35	1
m-Xylene & p-Xylene	**88**		8.7		ug/m3			06/28/14 00:35	1
o-Xylene	**29**		8.7		ug/m3			06/28/14 00:35	1
Styrene	ND		8.5		ug/m3			06/28/14 00:35	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 00:35	1
Tetrachloroethene	ND		14		ug/m3			06/28/14 00:35	1
Toluene	**140**		7.5		ug/m3			06/28/14 00:35	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 00:35	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 00:35	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 00:35	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 00:35	1
Trichloroethene	ND		11		ug/m3			06/28/14 00:35	1
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 00:35	1
1,2,4-Trimethylbenzene	**31**		9.8		ug/m3			06/28/14 00:35	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 00:35	1
Vinyl chloride	ND		5.1		ug/m3			06/28/14 00:35	1

Client Sample ID: SMSSV10-20

Lab Sample ID: 140-1594-6

Date Collected: 06/24/14 17:00
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*60 - 140*		*06/28/14 00:35*	*1*

Client Sample ID: SMSSV8-15

Lab Sample ID: 140-1594-7

Date Collected: 06/25/14 11:15
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**8.1**		2.0		ppb v/v			06/28/14 01:28	4.55
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 01:28	4.55
Bromomethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Chloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Chloroform	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Chloromethane	ND		5.0		ppb v/v			06/28/14 01:28	4.55
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Ethylbenzene	**4.6**		2.0		ppb v/v			06/28/14 01:28	4.55
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 01:28	4.55
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 01:28	4.55
m-Xylene & p-Xylene	**16**		2.0		ppb v/v			06/28/14 01:28	4.55
o-Xylene	**5.2**		2.0		ppb v/v			06/28/14 01:28	4.55
Styrene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Toluene	**30**		2.0		ppb v/v			06/28/14 01:28	4.55
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 01:28	4.55
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Trichloroethene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 01:28	4.55
1,2,4-Trimethylbenzene	**3.8**		2.0		ppb v/v			06/28/14 01:28	4.55
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 01:28	4.55
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 01:28	4.55

Client Sample Results

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Client Sample ID: SMSSV8-15

Lab Sample ID: 140-1594-7

Date Collected: 06/25/14 11:15
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**26**		6.4		ug/m3			06/28/14 01:28	4.55
Benzyl chloride	ND		21		ug/m3			06/28/14 01:28	4.55
Bromomethane	ND		7.8		ug/m3			06/28/14 01:28	4.55
Carbon tetrachloride	ND		13		ug/m3			06/28/14 01:28	4.55
Chlorobenzene	ND		9.2		ug/m3			06/28/14 01:28	4.55
Chloroethane	ND		5.3		ug/m3			06/28/14 01:28	4.55
Chloroform	ND		9.8		ug/m3			06/28/14 01:28	4.55
Chloromethane	ND		10		ug/m3			06/28/14 01:28	4.55
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 01:28	4.55
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 01:28	4.55
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 01:28	4.55
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 01:28	4.55
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 01:28	4.55
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 01:28	4.55
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 01:28	4.55
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 01:28	4.55
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 01:28	4.55
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 01:28	4.55
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 01:28	4.55
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 01:28	4.55
Ethylbenzene	**20**		8.7		ug/m3			06/28/14 01:28	4.55
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 01:28	4.55
Methylene Chloride	ND		17		ug/m3			06/28/14 01:28	4.55
m-Xylene & p-Xylene	**67**		8.7		ug/m3			06/28/14 01:28	4.55
o-Xylene	**23**		8.7		ug/m3			06/28/14 01:28	4.55
Styrene	ND		8.5		ug/m3			06/28/14 01:28	4.55
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 01:28	4.55
Tetrachloroethene	ND		14		ug/m3			06/28/14 01:28	4.55
Toluene	**110**		7.5		ug/m3			06/28/14 01:28	4.55
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 01:28	4.55
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 01:28	4.55
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 01:28	4.55
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 01:28	4.55
Trichloroethene	ND		11		ug/m3			06/28/14 01:28	4.55
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 01:28	4.55
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 01:28	4.55
1,2,4-Trimethylbenzene	**19**		9.8		ug/m3			06/28/14 01:28	4.55
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 01:28	4.55
Vinyl chloride	ND		5.1		ug/m3			06/28/14 01:28	4.55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*06/28/14 01:28*	*4.55*

Client Sample ID: SMSSV13-11

Lab Sample ID: 140-1594-8

Date Collected: 06/25/14 12:57
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**7.5**		2.0		ppb v/v			06/28/14 02:20	2.3
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 02:20	2.3
Bromomethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Chloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Chloroform	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Chloromethane	ND		5.0		ppb v/v			06/28/14 02:20	2.3
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Ethylbenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 02:20	2.3
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 02:20	2.3
m-Xylene & p-Xylene	**3.4**		2.0		ppb v/v			06/28/14 02:20	2.3
o-Xylene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Styrene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Toluene	**7.3**		2.0		ppb v/v			06/28/14 02:20	2.3
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 02:20	2.3
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Trichloroethene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 02:20	2.3
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 02:20	2.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**24**		6.4		ug/m3			06/28/14 02:20	2.3
Benzyl chloride	ND		21		ug/m3			06/28/14 02:20	2.3
Bromomethane	ND		7.8		ug/m3			06/28/14 02:20	2.3
Carbon tetrachloride	ND		13		ug/m3			06/28/14 02:20	2.3
Chlorobenzene	ND		9.2		ug/m3			06/28/14 02:20	2.3
Chloroethane	ND		5.3		ug/m3			06/28/14 02:20	2.3
Chloroform	ND		9.8		ug/m3			06/28/14 02:20	2.3
Chloromethane	ND		10		ug/m3			06/28/14 02:20	2.3

Client Sample ID: SMSSV13-11

Lab Sample ID: 140-1594-8

Date Collected: 06/25/14 12:57

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 02:20	2.3
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 02:20	2.3
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 02:20	2.3
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 02:20	2.3
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 02:20	2.3
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 02:20	2.3
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 02:20	2.3
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 02:20	2.3
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 02:20	2.3
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 02:20	2.3
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 02:20	2.3
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 02:20	2.3
Ethylbenzene	ND		8.7		ug/m3			06/28/14 02:20	2.3
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 02:20	2.3
Methylene Chloride	ND		17		ug/m3			06/28/14 02:20	2.3
m-Xylene & p-Xylene	**15**		8.7		ug/m3			06/28/14 02:20	2.3
o-Xylene	ND		8.7		ug/m3			06/28/14 02:20	2.3
Styrene	ND		8.5		ug/m3			06/28/14 02:20	2.3
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 02:20	2.3
Tetrachloroethene	ND		14		ug/m3			06/28/14 02:20	2.3
Toluene	**27**		7.5		ug/m3			06/28/14 02:20	2.3
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 02:20	2.3
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 02:20	2.3
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 02:20	2.3
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 02:20	2.3
Trichloroethene	ND		11		ug/m3			06/28/14 02:20	2.3
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 02:20	2.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 02:20	2.3
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 02:20	2.3
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 02:20	2.3
Vinyl chloride	ND		5.1		ug/m3			06/28/14 02:20	2.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*06/28/14 02:20*	*2.3*

Client Sample ID: SMSSV11-11

Lab Sample ID: 140-1594-9

Date Collected: 06/25/14 13:49

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.8**		2.0		ppb v/v			06/28/14 03:12	1
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 03:12	1
Bromomethane	ND		2.0		ppb v/v			06/28/14 03:12	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 03:12	1
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
Chloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
Chloroform	ND		2.0		ppb v/v			06/28/14 03:12	1

Client Sample ID: SMSSV11-11

Lab Sample ID: 140-1594-9

Date Collected: 06/25/14 13:49
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ppb v/v			06/28/14 03:12	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 03:12	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
Ethylbenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 03:12	1
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 03:12	1
m-Xylene & p-Xylene	**2.5**		2.0		ppb v/v			06/28/14 03:12	1
o-Xylene	ND		2.0		ppb v/v			06/28/14 03:12	1
Styrene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 03:12	1
Toluene	**5.9**		2.0		ppb v/v			06/28/14 03:12	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 03:12	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
Trichloroethene	ND		2.0		ppb v/v			06/28/14 03:12	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 03:12	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 03:12	1
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 03:12	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**15**		6.4		ug/m3			06/28/14 03:12	1
Benzyl chloride	ND		21		ug/m3			06/28/14 03:12	1
Bromomethane	ND		7.8		ug/m3			06/28/14 03:12	1
Carbon tetrachloride	ND		13		ug/m3			06/28/14 03:12	1
Chlorobenzene	ND		9.2		ug/m3			06/28/14 03:12	1
Chloroethane	ND		5.3		ug/m3			06/28/14 03:12	1
Chloroform	ND		9.8		ug/m3			06/28/14 03:12	1
Chloromethane	ND		10		ug/m3			06/28/14 03:12	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 03:12	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 03:12	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 03:12	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 03:12	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 03:12	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 03:12	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 03:12	1

Client Sample ID: SMSSV11-11

Lab Sample ID: 140-1594-9

Date Collected: 06/25/14 13:49

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 03:12	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 03:12	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 03:12	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 03:12	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 03:12	1
Ethylbenzene	ND		8.7		ug/m3			06/28/14 03:12	1
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 03:12	1
Methylene Chloride	ND		17		ug/m3			06/28/14 03:12	1
m-Xylene & p-Xylene	**11**		8.7		ug/m3			06/28/14 03:12	1
o-Xylene	ND		8.7		ug/m3			06/28/14 03:12	1
Styrene	ND		8.5		ug/m3			06/28/14 03:12	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 03:12	1
Tetrachloroethene	ND		14		ug/m3			06/28/14 03:12	1
Toluene	**22**		7.5		ug/m3			06/28/14 03:12	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 03:12	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 03:12	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 03:12	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 03:12	1
Trichloroethene	ND		11		ug/m3			06/28/14 03:12	1
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 03:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 03:12	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 03:12	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 03:12	1
Vinyl chloride	ND		5.1		ug/m3			06/28/14 03:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*06/28/14 03:12*	*1*

Client Sample ID: SMSSV9-10

Lab Sample ID: 140-1594-10

Date Collected: 06/25/14 14:45

Matrix: Air

Date Received: 06/26/14 10:55

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ppb v/v			06/28/14 04:05	1
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 04:05	1
Bromomethane	ND		2.0		ppb v/v			06/28/14 04:05	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 04:05	1
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
Chloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
Chloroform	ND		2.0		ppb v/v			06/28/14 04:05	1
Chloromethane	ND		5.0		ppb v/v			06/28/14 04:05	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 04:05	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:05	1

Client Sample ID: SMSSV9-10

Lab Sample ID: 140-1594-10

Date Collected: 06/25/14 14:45
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
Ethylbenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 04:05	1
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 04:05	1
m-Xylene & p-Xylene	**4.0**		2.0		ppb v/v			06/28/14 04:05	1
o-Xylene	ND		2.0		ppb v/v			06/28/14 04:05	1
Styrene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 04:05	1
Toluene	**4.8**		2.0		ppb v/v			06/28/14 04:05	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 04:05	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
Trichloroethene	ND		2.0		ppb v/v			06/28/14 04:05	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 04:05	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 04:05	1
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 04:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		6.4		ug/m3			06/28/14 04:05	1
Benzyl chloride	ND		21		ug/m3			06/28/14 04:05	1
Bromomethane	ND		7.8		ug/m3			06/28/14 04:05	1
Carbon tetrachloride	ND		13		ug/m3			06/28/14 04:05	1
Chlorobenzene	ND		9.2		ug/m3			06/28/14 04:05	1
Chloroethane	ND		5.3		ug/m3			06/28/14 04:05	1
Chloroform	ND		9.8		ug/m3			06/28/14 04:05	1
Chloromethane	ND		10		ug/m3			06/28/14 04:05	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 04:05	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 04:05	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 04:05	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:05	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:05	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:05	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 04:05	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 04:05	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 04:05	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 04:05	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 04:05	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 04:05	1
Ethylbenzene	ND		8.7		ug/m3			06/28/14 04:05	1
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 04:05	1

Client Sample ID: SMSSV9-10

Lab Sample ID: 140-1594-10

Date Collected: 06/25/14 14:45
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		17		ug/m3			06/28/14 04:05	1
m-Xylene & p-Xylene	**17**		8.7		ug/m3			06/28/14 04:05	1
o-Xylene	ND		8.7		ug/m3			06/28/14 04:05	1
Styrene	ND		8.5		ug/m3			06/28/14 04:05	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 04:05	1
Tetrachloroethene	ND		14		ug/m3			06/28/14 04:05	1
Toluene	**18**		7.5		ug/m3			06/28/14 04:05	1
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 04:05	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 04:05	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 04:05	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 04:05	1
Trichloroethene	ND		11		ug/m3			06/28/14 04:05	1
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 04:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 04:05	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 04:05	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 04:05	1
Vinyl chloride	ND		5.1		ug/m3			06/28/14 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*60 - 140*		*06/28/14 04:05*	*1*

Client Sample ID: SMSSV4-15

Lab Sample ID: 140-1594-11

Date Collected: 06/25/14 15:58
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**4.3**		2.0		ppb v/v			06/28/14 04:57	1
Benzyl chloride	ND		4.0		ppb v/v			06/28/14 04:57	1
Bromomethane	ND		2.0		ppb v/v			06/28/14 04:57	1
Carbon tetrachloride	ND		2.0		ppb v/v			06/28/14 04:57	1
Chlorobenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
Chloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
Chloroform	**2.5**		2.0		ppb v/v			06/28/14 04:57	1
Chloromethane	ND		5.0		ppb v/v			06/28/14 04:57	1
cis-1,2-Dichloroethene	ND		2.0		ppb v/v			06/28/14 04:57	1
cis-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2-Dibromoethane (EDB)	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,3-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,4-Dichlorobenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
Dichlorodifluoromethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,1-Dichloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2-Dichloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,1-Dichloroethene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2-Dichloropropane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
Ethylbenzene	**31**		2.0		ppb v/v			06/28/14 04:57	1

Client Sample ID: SMSSV4-15

Lab Sample ID: 140-1594-11

Date Collected: 06/25/14 15:58
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		10		ppb v/v			06/28/14 04:57	1
Methylene Chloride	ND		5.0		ppb v/v			06/28/14 04:57	1
m-Xylene & p-Xylene	**73**		2.0		ppb v/v			06/28/14 04:57	1
o-Xylene	**19**		2.0		ppb v/v			06/28/14 04:57	1
Styrene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,1,2,2-Tetrachloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
Tetrachloroethene	ND		2.0		ppb v/v			06/28/14 04:57	1
Toluene	**36**		2.0		ppb v/v			06/28/14 04:57	1
trans-1,3-Dichloropropene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2,4-Trichlorobenzene	ND		10		ppb v/v			06/28/14 04:57	1
1,1,1-Trichloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,1,2-Trichloroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
Trichloroethene	ND		2.0		ppb v/v			06/28/14 04:57	1
Trichlorofluoromethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0		ppb v/v			06/28/14 04:57	1
1,2,4-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
1,3,5-Trimethylbenzene	ND		2.0		ppb v/v			06/28/14 04:57	1
Vinyl chloride	ND		2.0		ppb v/v			06/28/14 04:57	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**14**		6.4		ug/m3			06/28/14 04:57	1
Benzyl chloride	ND		21		ug/m3			06/28/14 04:57	1
Bromomethane	ND		7.8		ug/m3			06/28/14 04:57	1
Carbon tetrachloride	ND		13		ug/m3			06/28/14 04:57	1
Chlorobenzene	ND		9.2		ug/m3			06/28/14 04:57	1
Chloroethane	ND		5.3		ug/m3			06/28/14 04:57	1
Chloroform	**12**		9.8		ug/m3			06/28/14 04:57	1
Chloromethane	ND		10		ug/m3			06/28/14 04:57	1
cis-1,2-Dichloroethene	ND		7.9		ug/m3			06/28/14 04:57	1
cis-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 04:57	1
1,2-Dibromoethane (EDB)	ND		15		ug/m3			06/28/14 04:57	1
1,2-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:57	1
1,3-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:57	1
1,4-Dichlorobenzene	ND		12		ug/m3			06/28/14 04:57	1
Dichlorodifluoromethane	ND		9.9		ug/m3			06/28/14 04:57	1
1,1-Dichloroethane	ND		8.1		ug/m3			06/28/14 04:57	1
1,2-Dichloroethane	ND		8.1		ug/m3			06/28/14 04:57	1
1,1-Dichloroethene	ND		7.9		ug/m3			06/28/14 04:57	1
1,2-Dichloropropane	ND		9.2		ug/m3			06/28/14 04:57	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		14		ug/m3			06/28/14 04:57	1
Ethylbenzene	**130**		8.7		ug/m3			06/28/14 04:57	1
Hexachlorobutadiene	ND		110		ug/m3			06/28/14 04:57	1
Methylene Chloride	ND		17		ug/m3			06/28/14 04:57	1
m-Xylene & p-Xylene	**320**		8.7		ug/m3			06/28/14 04:57	1
o-Xylene	**81**		8.7		ug/m3			06/28/14 04:57	1
Styrene	ND		8.5		ug/m3			06/28/14 04:57	1
1,1,2,2-Tetrachloroethane	ND		14		ug/m3			06/28/14 04:57	1
Tetrachloroethene	ND		14		ug/m3			06/28/14 04:57	1
Toluene	**140**		7.5		ug/m3			06/28/14 04:57	1

Client Sample ID: SMSSV4-15

Lab Sample ID: 140-1594-11

Date Collected: 06/25/14 15:58
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		9.1		ug/m3			06/28/14 04:57	1
1,2,4-Trichlorobenzene	ND		74		ug/m3			06/28/14 04:57	1
1,1,1-Trichloroethane	ND		11		ug/m3			06/28/14 04:57	1
1,1,2-Trichloroethane	ND		11		ug/m3			06/28/14 04:57	1
Trichloroethene	ND		11		ug/m3			06/28/14 04:57	1
Trichlorofluoromethane	ND		11		ug/m3			06/28/14 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		15		ug/m3			06/28/14 04:57	1
1,2,4-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 04:57	1
1,3,5-Trimethylbenzene	ND		9.8		ug/m3			06/28/14 04:57	1
Vinyl chloride	ND		5.1		ug/m3			06/28/14 04:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*60 - 140*		*06/28/14 04:57*	*1*

Client Sample ID: SMSSV3-10

Lab Sample ID: 140-1594-12

Date Collected: 06/25/14 16:44
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		220		ppb v/v			06/28/14 05:50	111.09
Benzyl chloride	ND		440		ppb v/v			06/28/14 05:50	111.09
Bromomethane	ND		220		ppb v/v			06/28/14 05:50	111.09
Carbon tetrachloride	ND		220		ppb v/v			06/28/14 05:50	111.09
Chlorobenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
Chloroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
Chloroform	ND		220		ppb v/v			06/28/14 05:50	111.09
Chloromethane	**5000**		560		ppb v/v			06/28/14 05:50	111.09
cis-1,2-Dichloroethene	ND		220		ppb v/v			06/28/14 05:50	111.09
cis-1,3-Dichloropropene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2-Dibromoethane (EDB)	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2-Dichlorobenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,3-Dichlorobenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,4-Dichlorobenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
Dichlorodifluoromethane	ND		220		ppb v/v			06/28/14 05:50	111.09
1,1-Dichloroethane	**450**		220		ppb v/v			06/28/14 05:50	111.09
1,2-Dichloroethane	**930**		220		ppb v/v			06/28/14 05:50	111.09
1,1-Dichloroethene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2-Dichloropropane	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
Ethylbenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
Hexachlorobutadiene	ND		1100		ppb v/v			06/28/14 05:50	111.09
Methylene Chloride	ND		560		ppb v/v			06/28/14 05:50	111.09
m-Xylene & p-Xylene	ND		220		ppb v/v			06/28/14 05:50	111.09
o-Xylene	ND		220		ppb v/v			06/28/14 05:50	111.09
Styrene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,1,2,2-Tetrachloroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
Tetrachloroethene	ND		220		ppb v/v			06/28/14 05:50	111.09

Client Sample ID: SMSSV3-10

Lab Sample ID: 140-1594-12

Date Collected: 06/25/14 16:44
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	**540**		220		ppb v/v			06/28/14 05:50	111.09
trans-1,3-Dichloropropene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2,4-Trichlorobenzene	ND		1100		ppb v/v			06/28/14 05:50	111.09
1,1,1-Trichloroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
1,1,2-Trichloroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
Trichloroethene	ND		220		ppb v/v			06/28/14 05:50	111.09
Trichlorofluoromethane	**12000**		220		ppb v/v			06/28/14 05:50	111.09
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		220		ppb v/v			06/28/14 05:50	111.09
1,2,4-Trimethylbenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
1,3,5-Trimethylbenzene	ND		220		ppb v/v			06/28/14 05:50	111.09
Vinyl chloride	ND		220		ppb v/v			06/28/14 05:50	111.09

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		710		ug/m3			06/28/14 05:50	111.09
Benzyl chloride	ND		2300		ug/m3			06/28/14 05:50	111.09
Bromomethane	ND		860		ug/m3			06/28/14 05:50	111.09
Carbon tetrachloride	ND		1400		ug/m3			06/28/14 05:50	111.09
Chlorobenzene	ND		1000		ug/m3			06/28/14 05:50	111.09
Chloroethane	ND		590		ug/m3			06/28/14 05:50	111.09
Chloroform	ND		1100		ug/m3			06/28/14 05:50	111.09
Chloromethane	**10000**		1100		ug/m3			06/28/14 05:50	111.09
cis-1,2-Dichloroethene	ND		880		ug/m3			06/28/14 05:50	111.09
cis-1,3-Dichloropropene	ND		1000		ug/m3			06/28/14 05:50	111.09
1,2-Dibromoethane (EDB)	ND		1700		ug/m3			06/28/14 05:50	111.09
1,2-Dichlorobenzene	ND		1300		ug/m3			06/28/14 05:50	111.09
1,3-Dichlorobenzene	ND		1300		ug/m3			06/28/14 05:50	111.09
1,4-Dichlorobenzene	ND		1300		ug/m3			06/28/14 05:50	111.09
Dichlorodifluoromethane	ND		1100		ug/m3			06/28/14 05:50	111.09
1,1-Dichloroethane	**1800**		900		ug/m3			06/28/14 05:50	111.09
1,2-Dichloroethane	**3800**		900		ug/m3			06/28/14 05:50	111.09
1,1-Dichloroethene	ND		880		ug/m3			06/28/14 05:50	111.09
1,2-Dichloropropane	ND		1000		ug/m3			06/28/14 05:50	111.09
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1600		ug/m3			06/28/14 05:50	111.09
Ethylbenzene	ND		960		ug/m3			06/28/14 05:50	111.09
Hexachlorobutadiene	ND		12000		ug/m3			06/28/14 05:50	111.09
Methylene Chloride	ND		1900		ug/m3			06/28/14 05:50	111.09
m-Xylene & p-Xylene	ND		960		ug/m3			06/28/14 05:50	111.09
o-Xylene	ND		960		ug/m3			06/28/14 05:50	111.09
Styrene	ND		950		ug/m3			06/28/14 05:50	111.09
1,1,2,2-Tetrachloroethane	ND		1500		ug/m3			06/28/14 05:50	111.09
Tetrachloroethene	ND		1500		ug/m3			06/28/14 05:50	111.09
Toluene	**2000**		840		ug/m3			06/28/14 05:50	111.09
trans-1,3-Dichloropropene	ND		1000		ug/m3			06/28/14 05:50	111.09
1,2,4-Trichlorobenzene	ND		8200		ug/m3			06/28/14 05:50	111.09
1,1,1-Trichloroethane	ND		1200		ug/m3			06/28/14 05:50	111.09
1,1,2-Trichloroethane	ND		1200		ug/m3			06/28/14 05:50	111.09
Trichloroethene	ND		1200		ug/m3			06/28/14 05:50	111.09
Trichlorofluoromethane	**69000**		1200		ug/m3			06/28/14 05:50	111.09
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1700		ug/m3			06/28/14 05:50	111.09

Client Sample ID: SMSSV3-10

Lab Sample ID: 140-1594-12

Date Collected: 06/25/14 16:44
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		1100		ug/m3			06/28/14 05:50	111.09
1,3,5-Trimethylbenzene	ND		1100		ug/m3			06/28/14 05:50	111.09
Vinyl chloride	ND		570		ug/m3			06/28/14 05:50	111.09

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*		*06/28/14 05:50*	*111.09*

Client Sample ID: SMSSV3D-10

Lab Sample ID: 140-1594-13

Date Collected: 06/25/14 16:44
Matrix: Air
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		220		ppb v/v			06/28/14 06:43	109.8
Benzyl chloride	ND		440		ppb v/v			06/28/14 06:43	109.8
Bromomethane	ND		220		ppb v/v			06/28/14 06:43	109.8
Carbon tetrachloride	ND		220		ppb v/v			06/28/14 06:43	109.8
Chlorobenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
Chloroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
Chloroform	ND		220		ppb v/v			06/28/14 06:43	109.8
Chloromethane	**4100**		550		ppb v/v			06/28/14 06:43	109.8
cis-1,2-Dichloroethene	ND		220		ppb v/v			06/28/14 06:43	109.8
cis-1,3-Dichloropropene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2-Dibromoethane (EDB)	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2-Dichlorobenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,3-Dichlorobenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,4-Dichlorobenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
Dichlorodifluoromethane	ND		220		ppb v/v			06/28/14 06:43	109.8
1,1-Dichloroethane	**360**		220		ppb v/v			06/28/14 06:43	109.8
1,2-Dichloroethane	**720**		220		ppb v/v			06/28/14 06:43	109.8
1,1-Dichloroethene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2-Dichloropropane	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
Ethylbenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
Hexachlorobutadiene	ND		1100		ppb v/v			06/28/14 06:43	109.8
Methylene Chloride	ND		550		ppb v/v			06/28/14 06:43	109.8
m-Xylene & p-Xylene	ND		220		ppb v/v			06/28/14 06:43	109.8
o-Xylene	ND		220		ppb v/v			06/28/14 06:43	109.8
Styrene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,1,2,2-Tetrachloroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
Tetrachloroethene	ND		220		ppb v/v			06/28/14 06:43	109.8
Toluene	**430**		220		ppb v/v			06/28/14 06:43	109.8
trans-1,3-Dichloropropene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2,4-Trichlorobenzene	ND		1100		ppb v/v			06/28/14 06:43	109.8
1,1,1-Trichloroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
1,1,2-Trichloroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
Trichloroethene	ND		220		ppb v/v			06/28/14 06:43	109.8
Trichlorofluoromethane	**9700**		220		ppb v/v			06/28/14 06:43	109.8

Client Sample ID: SMSSV3D-10

Lab Sample ID: 140-1594-13

Date Collected: 06/25/14 16:44
Date Received: 06/26/14 10:55
Sample Container: Summa Canister 1L

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		220		ppb v/v			06/28/14 06:43	109.8
1,2,4-Trimethylbenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
1,3,5-Trimethylbenzene	ND		220		ppb v/v			06/28/14 06:43	109.8
Vinyl chloride	ND		220		ppb v/v			06/28/14 06:43	109.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		700		ug/m3			06/28/14 06:43	109.8
Benzyl chloride	ND		2300		ug/m3			06/28/14 06:43	109.8
Bromomethane	ND		850		ug/m3			06/28/14 06:43	109.8
Carbon tetrachloride	ND		1400		ug/m3			06/28/14 06:43	109.8
Chlorobenzene	ND		1000		ug/m3			06/28/14 06:43	109.8
Chloroethane	ND		580		ug/m3			06/28/14 06:43	109.8
Chloroform	ND		1100		ug/m3			06/28/14 06:43	109.8
Chloromethane	**8400**		1100		ug/m3			06/28/14 06:43	109.8
cis-1,2-Dichloroethene	ND		870		ug/m3			06/28/14 06:43	109.8
cis-1,3-Dichloropropene	ND		1000		ug/m3			06/28/14 06:43	109.8
1,2-Dibromoethane (EDB)	ND		1700		ug/m3			06/28/14 06:43	109.8
1,2-Dichlorobenzene	ND		1300		ug/m3			06/28/14 06:43	109.8
1,3-Dichlorobenzene	ND		1300		ug/m3			06/28/14 06:43	109.8
1,4-Dichlorobenzene	ND		1300		ug/m3			06/28/14 06:43	109.8
Dichlorodifluoromethane	ND		1100		ug/m3			06/28/14 06:43	109.8
1,1-Dichloroethane	**1400**		890		ug/m3			06/28/14 06:43	109.8
1,2-Dichloroethane	**2900**		890		ug/m3			06/28/14 06:43	109.8
1,1-Dichloroethene	ND		870		ug/m3			06/28/14 06:43	109.8
1,2-Dichloropropane	ND		1000		ug/m3			06/28/14 06:43	109.8
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1500		ug/m3			06/28/14 06:43	109.8
Ethylbenzene	ND		950		ug/m3			06/28/14 06:43	109.8
Hexachlorobutadiene	ND		12000		ug/m3			06/28/14 06:43	109.8
Methylene Chloride	ND		1900		ug/m3			06/28/14 06:43	109.8
m-Xylene & p-Xylene	ND		950		ug/m3			06/28/14 06:43	109.8
o-Xylene	ND		950		ug/m3			06/28/14 06:43	109.8
Styrene	ND		940		ug/m3			06/28/14 06:43	109.8
1,1,2,2-Tetrachloroethane	ND		1500		ug/m3			06/28/14 06:43	109.8
Tetrachloroethene	ND		1500		ug/m3			06/28/14 06:43	109.8
Toluene	**1600**		830		ug/m3			06/28/14 06:43	109.8
trans-1,3-Dichloropropene	ND		1000		ug/m3			06/28/14 06:43	109.8
1,2,4-Trichlorobenzene	ND		8100		ug/m3			06/28/14 06:43	109.8
1,1,1-Trichloroethane	ND		1200		ug/m3			06/28/14 06:43	109.8
1,1,2-Trichloroethane	ND		1200		ug/m3			06/28/14 06:43	109.8
Trichloroethene	ND		1200		ug/m3			06/28/14 06:43	109.8
Trichlorofluoromethane	**55000**		1200		ug/m3			06/28/14 06:43	109.8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1700		ug/m3			06/28/14 06:43	109.8
1,2,4-Trimethylbenzene	ND		1100		ug/m3			06/28/14 06:43	109.8
1,3,5-Trimethylbenzene	ND		1100		ug/m3			06/28/14 06:43	109.8
Vinyl chloride	ND		560		ug/m3			06/28/14 06:43	109.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*60 - 140*		*06/28/14 06:43*	*109.8*

Default Detection Limits

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.030	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.16	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.061	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.42	ug/m3	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	0.20	0.031	ppb v/v	TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	0.24	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.054	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.29	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	1.0	0.098	ppb v/v	TO-15
1,2,4-Trichlorobenzene	7.4	0.73	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.063	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.31	ug/m3	TO-15
1,2-Dibromoethane (EDB)	0.20	0.044	ppb v/v	TO-15
1,2-Dibromoethane (EDB)	1.5	0.34	ug/m3	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.20	0.032	ppb v/v	TO-15
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	0.22	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.070	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.42	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.047	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.19	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.052	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.24	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.065	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.32	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.064	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.38	ug/m3	TO-15
Benzene	0.20	0.056	ppb v/v	TO-15
Benzene	0.64	0.18	ug/m3	TO-15
Benzyl chloride	0.40	0.078	ppb v/v	TO-15
Benzyl chloride	2.1	0.40	ug/m3	TO-15
Bromomethane	0.20	0.032	ppb v/v	TO-15
Bromomethane	0.78	0.12	ug/m3	TO-15
Carbon tetrachloride	0.20	0.038	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.24	ug/m3	TO-15
Chlorobenzene	0.20	0.049	ppb v/v	TO-15
Chlorobenzene	0.92	0.23	ug/m3	TO-15
Chloroethane	0.20	0.035	ppb v/v	TO-15
Chloroethane	0.53	0.092	ug/m3	TO-15
Chloroform	0.20	0.038	ppb v/v	TO-15
Chloroform	0.98	0.19	ug/m3	TO-15
Chloromethane	0.50	0.16	ppb v/v	TO-15
Chloromethane	1.0	0.33	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.060	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.24	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.074	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.34	ug/m3	TO-15

Default Detection Limits

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Dichlorodifluoromethane	0.20	0.068	ppb v/v	TO-15
Dichlorodifluoromethane	0.99	0.34	ug/m3	TO-15
Ethylbenzene	0.20	0.068	ppb v/v	TO-15
Ethylbenzene	0.87	0.30	ug/m3	TO-15
Hexachlorobutadiene	1.0	0.078	ppb v/v	TO-15
Hexachlorobutadiene	11	0.83	ug/m3	TO-15
Methylene Chloride	0.50	0.13	ppb v/v	TO-15
Methylene Chloride	1.7	0.45	ug/m3	TO-15
m-Xylene & p-Xylene	0.20	0.12	ppb v/v	TO-15
m-Xylene & p-Xylene	0.87	0.52	ug/m3	TO-15
o-Xylene	0.20	0.061	ppb v/v	TO-15
o-Xylene	0.87	0.26	ug/m3	TO-15
Styrene	0.20	0.058	ppb v/v	TO-15
Styrene	0.85	0.25	ug/m3	TO-15
Tetrachloroethene	0.20	0.040	ppb v/v	TO-15
Tetrachloroethene	1.4	0.27	ug/m3	TO-15
Toluene	0.20	0.12	ppb v/v	TO-15
Toluene	0.75	0.45	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.048	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.22	ug/m3	TO-15
Trichloroethene	0.20	0.036	ppb v/v	TO-15
Trichloroethene	1.1	0.19	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.024	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.13	ug/m3	TO-15
Vinyl chloride	0.20	0.071	ppb v/v	TO-15
Vinyl chloride	0.51	0.18	ug/m3	TO-15

Surrogate Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	**Client Sample ID**	**BFB (60-140)**							
140-1594-1	SMSSV14	113							
140-1594-2	SMSSV15D	108							
140-1594-3	SMSSV15	113							
140-1594-4	SMSSV16	113							
140-1594-5	SMSSV AMBIENT	113							
140-1594-6	SMSSV10-20	115							
140-1594-7	SMSSV8-15	110							
140-1594-8	SMSSV13-11	109							
140-1594-9	SMSSV11-11	109							
140-1594-10	SMSSV9-10	109							
140-1594-11	SMSSV4-15	110							
140-1594-12	SMSSV3-10	108							
140-1594-13	SMSSV3D-10	108							
LCS 140-1390/1002	Lab Control Sample	102							
MB 140-1390/4	Method Blank	105							

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-1390/4
Matrix: Air
Analysis Batch: 1390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.20		ppb v/v			06/27/14 13:47	1
Benzyl chloride	ND		0.40		ppb v/v			06/27/14 13:47	1
Bromomethane	ND		0.20		ppb v/v			06/27/14 13:47	1
Carbon tetrachloride	ND		0.20		ppb v/v			06/27/14 13:47	1
Chlorobenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
Chloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
Chloroform	ND		0.20		ppb v/v			06/27/14 13:47	1
Chloromethane	ND		0.50		ppb v/v			06/27/14 13:47	1
cis-1,2-Dichloroethene	ND		0.20		ppb v/v			06/27/14 13:47	1
cis-1,3-Dichloropropene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2-Dibromoethane (EDB)	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,3-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,4-Dichlorobenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
Dichlorodifluoromethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,1-Dichloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2-Dichloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,1-Dichloroethene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2-Dichloropropane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
Ethylbenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
Hexachlorobutadiene	ND		1.0		ppb v/v			06/27/14 13:47	1
Methylene Chloride	ND		0.50		ppb v/v			06/27/14 13:47	1
m-Xylene & p-Xylene	ND		0.20		ppb v/v			06/27/14 13:47	1
o-Xylene	ND		0.20		ppb v/v			06/27/14 13:47	1
Styrene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,1,2,2-Tetrachloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
Tetrachloroethene	ND		0.20		ppb v/v			06/27/14 13:47	1
Toluene	ND		0.20		ppb v/v			06/27/14 13:47	1
trans-1,3-Dichloropropene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2,4-Trichlorobenzene	ND		1.0		ppb v/v			06/27/14 13:47	1
1,1,1-Trichloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,1,2-Trichloroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
Trichloroethene	ND		0.20		ppb v/v			06/27/14 13:47	1
Trichlorofluoromethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.20		ppb v/v			06/27/14 13:47	1
1,2,4-Trimethylbenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
1,3,5-Trimethylbenzene	ND		0.20		ppb v/v			06/27/14 13:47	1
Vinyl chloride	ND		0.20		ppb v/v			06/27/14 13:47	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.64		ug/m3			06/27/14 13:47	1
Benzyl chloride	ND		2.1		ug/m3			06/27/14 13:47	1
Bromomethane	ND		0.78		ug/m3			06/27/14 13:47	1
Carbon tetrachloride	ND		1.3		ug/m3			06/27/14 13:47	1
Chlorobenzene	ND		0.92		ug/m3			06/27/14 13:47	1
Chloroethane	ND		0.53		ug/m3			06/27/14 13:47	1
Chloroform	ND		0.98		ug/m3			06/27/14 13:47	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-1390/4
Matrix: Air
Analysis Batch: 1390

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0		ug/m3			06/27/14 13:47	1
cis-1,2-Dichloroethene	ND		0.79		ug/m3			06/27/14 13:47	1
cis-1,3-Dichloropropene	ND		0.91		ug/m3			06/27/14 13:47	1
1,2-Dibromoethane (EDB)	ND		1.5		ug/m3			06/27/14 13:47	1
1,2-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 13:47	1
1,3-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 13:47	1
1,4-Dichlorobenzene	ND		1.2		ug/m3			06/27/14 13:47	1
Dichlorodifluoromethane	ND		0.99		ug/m3			06/27/14 13:47	1
1,1-Dichloroethane	ND		0.81		ug/m3			06/27/14 13:47	1
1,2-Dichloroethane	ND		0.81		ug/m3			06/27/14 13:47	1
1,1-Dichloroethene	ND		0.79		ug/m3			06/27/14 13:47	1
1,2-Dichloropropane	ND		0.92		ug/m3			06/27/14 13:47	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4		ug/m3			06/27/14 13:47	1
Ethylbenzene	ND		0.87		ug/m3			06/27/14 13:47	1
Hexachlorobutadiene	ND		11		ug/m3			06/27/14 13:47	1
Methylene Chloride	ND		1.7		ug/m3			06/27/14 13:47	1
m-Xylene & p-Xylene	ND		0.87		ug/m3			06/27/14 13:47	1
o-Xylene	ND		0.87		ug/m3			06/27/14 13:47	1
Styrene	ND		0.85		ug/m3			06/27/14 13:47	1
1,1,2,2-Tetrachloroethane	ND		1.4		ug/m3			06/27/14 13:47	1
Tetrachloroethene	ND		1.4		ug/m3			06/27/14 13:47	1
Toluene	ND		0.75		ug/m3			06/27/14 13:47	1
trans-1,3-Dichloropropene	ND		0.91		ug/m3			06/27/14 13:47	1
1,2,4-Trichlorobenzene	ND		7.4		ug/m3			06/27/14 13:47	1
1,1,1-Trichloroethane	ND		1.1		ug/m3			06/27/14 13:47	1
1,1,2-Trichloroethane	ND		1.1		ug/m3			06/27/14 13:47	1
Trichloroethene	ND		1.1		ug/m3			06/27/14 13:47	1
Trichlorofluoromethane	ND		1.1		ug/m3			06/27/14 13:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5		ug/m3			06/27/14 13:47	1
1,2,4-Trimethylbenzene	ND		0.98		ug/m3			06/27/14 13:47	1
1,3,5-Trimethylbenzene	ND		0.98		ug/m3			06/27/14 13:47	1
Vinyl chloride	ND		0.51		ug/m3			06/27/14 13:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*60 - 140*		*06/27/14 13:47*	*1*

Lab Sample ID: LCS 140-1390/1002
Matrix: Air
Analysis Batch: 1390

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.98	2.21		ppb v/v		111	70 - 130
Benzyl chloride	1.98	2.41		ppb v/v		122	70 - 130
Bromomethane	1.98	1.63		ppb v/v		82	70 - 130
Carbon tetrachloride	1.98	2.43		ppb v/v		123	70 - 130
Chlorobenzene	1.98	2.22		ppb v/v		112	70 - 130
Chloroethane	1.98	1.67		ppb v/v		85	70 - 130
Chloroform	1.98	2.46		ppb v/v		124	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-1390/1002
Matrix: Air
Analysis Batch: 1390

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.98	1.54		ppb v/v		78	60 - 140
cis-1,2-Dichloroethene	1.98	2.35		ppb v/v		119	70 - 130
cis-1,3-Dichloropropene	1.98	2.38		ppb v/v		120	70 - 130
1,2-Dibromoethane (EDB)	1.98	2.22		ppb v/v		112	70 - 130
1,2-Dichlorobenzene	1.98	2.00		ppb v/v		101	70 - 130
1,3-Dichlorobenzene	1.98	2.06		ppb v/v		104	70 - 130
1,4-Dichlorobenzene	1.98	2.07		ppb v/v		105	70 - 130
Dichlorodifluoromethane	1.98	1.78		ppb v/v		90	60 - 140
1,1-Dichloroethane	1.98	2.40		ppb v/v		121	70 - 130
1,2-Dichloroethane	1.98	2.37		ppb v/v		120	70 - 130
1,1-Dichloroethene	1.98	2.48		ppb v/v		125	70 - 130
1,2-Dichloropropane	1.98	2.18		ppb v/v		110	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.98	1.75		ppb v/v		88	60 - 140
Ethylbenzene	1.98	2.37		ppb v/v		120	70 - 130
Hexachlorobutadiene	1.98	1.70		ppb v/v		86	60 - 140
Methylene Chloride	1.98	2.39		ppb v/v		121	70 - 130
m-Xylene & p-Xylene	3.96	4.66		ppb v/v		118	70 - 130
o-Xylene	1.98	2.31		ppb v/v		117	70 - 130
Styrene	1.98	2.41		ppb v/v		122	70 - 130
1,1,2,2-Tetrachloroethane	1.98	2.31		ppb v/v		117	70 - 130
Tetrachloroethene	1.98	2.17		ppb v/v		109	70 - 130
Toluene	1.98	2.26		ppb v/v		114	70 - 130
trans-1,3-Dichloropropene	1.98	2.45		ppb v/v		124	70 - 130
1,2,4-Trichlorobenzene	1.98	1.89		ppb v/v		96	60 - 140
1,1,1-Trichloroethane	1.98	2.52		ppb v/v		127	70 - 130
1,1,2-Trichloroethane	1.98	2.19		ppb v/v		111	70 - 130
Trichloroethene	1.98	2.15		ppb v/v		109	70 - 130
Trichlorofluoromethane	1.98	2.29		ppb v/v		116	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	1.98	2.55		ppb v/v		129	70 - 130
1,2,4-Trimethylbenzene	1.98	2.17		ppb v/v		110	70 - 130
1,3,5-Trimethylbenzene	1.98	2.19		ppb v/v		111	70 - 130
Vinyl chloride	1.98	1.60		ppb v/v		81	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.3	7.05		ug/m3		111	70 - 130
Benzyl chloride	10	12.5		ug/m3		122	70 - 130
Bromomethane	7.7	6.33		ug/m3		82	70 - 130
Carbon tetrachloride	12	15.3		ug/m3		123	70 - 130
Chlorobenzene	9.1	10.2		ug/m3		112	70 - 130
Chloroethane	5.2	4.42		ug/m3		85	70 - 130
Chloroform	9.7	12.0		ug/m3		124	70 - 130
Chloromethane	4.1	3.18		ug/m3		78	60 - 140
cis-1,2-Dichloroethene	7.9	9.32		ug/m3		119	70 - 130
cis-1,3-Dichloropropene	9.0	10.8		ug/m3		120	70 - 130
1,2-Dibromoethane (EDB)	15	17.1		ug/m3		112	70 - 130
1,2-Dichlorobenzene	12	12.0		ug/m3		101	70 - 130
1,3-Dichlorobenzene	12	12.4		ug/m3		104	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-1390/1002
Matrix: Air
Analysis Batch: 1390

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	12	12.5		ug/m3		105	70 - 130
Dichlorodifluoromethane	9.8	8.82		ug/m3		90	60 - 140
1,1-Dichloroethane	8.0	9.73		ug/m3		121	70 - 130
1,2-Dichloroethane	8.0	9.59		ug/m3		120	70 - 130
1,1-Dichloroethene	7.9	9.81		ug/m3		125	70 - 130
1,2-Dichloropropane	9.2	10.1		ug/m3		110	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	12.2		ug/m3		88	60 - 140
Ethylbenzene	8.6	10.3		ug/m3		120	70 - 130
Hexachlorobutadiene	21	18.1		ug/m3		86	60 - 140
Methylene Chloride	6.9	8.31		ug/m3		121	70 - 130
m-Xylene & p-Xylene	17	20.2		ug/m3		118	70 - 130
o-Xylene	8.6	10.0		ug/m3		117	70 - 130
Styrene	8.4	10.3		ug/m3		122	70 - 130
1,1,2,2-Tetrachloroethane	14	15.9		ug/m3		117	70 - 130
Tetrachloroethene	13	14.7		ug/m3		109	70 - 130
Toluene	7.5	8.51		ug/m3		114	70 - 130
trans-1,3-Dichloropropene	9.0	11.1		ug/m3		124	70 - 130
1,2,4-Trichlorobenzene	15	14.0		ug/m3		96	60 - 140
1,1,1-Trichloroethane	11	13.8		ug/m3		127	70 - 130
1,1,2-Trichloroethane	11	11.9		ug/m3		111	70 - 130
Trichloroethene	11	11.6		ug/m3		109	70 - 130
Trichlorofluoromethane	11	12.9		ug/m3		116	60 - 140
1,1,2-Trichloro-1,2,2-trifluoroethane	15	19.5		ug/m3		129	70 - 130
1,2,4-Trimethylbenzene	9.7	10.7		ug/m3		110	70 - 130
1,3,5-Trimethylbenzene	9.7	10.8		ug/m3		111	70 - 130
Vinyl chloride	5.1	4.08		ug/m3		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*

QC Association Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Air - GC/MS VOA

Analysis Batch: 1390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-1594-1	SMSSV14	Total/NA	Air	TO-15	
140-1594-2	SMSSV15D	Total/NA	Air	TO-15	
140-1594-3	SMSSV15	Total/NA	Air	TO-15	
140-1594-4	SMSSV16	Total/NA	Air	TO-15	
140-1594-5	SMSSV AMBIENT	Total/NA	Air	TO-15	
140-1594-6	SMSSV10-20	Total/NA	Air	TO-15	
140-1594-7	SMSSV8-15	Total/NA	Air	TO-15	
140-1594-8	SMSSV13-11	Total/NA	Air	TO-15	
140-1594-9	SMSSV11-11	Total/NA	Air	TO-15	
140-1594-10	SMSSV9-10	Total/NA	Air	TO-15	
140-1594-11	SMSSV4-15	Total/NA	Air	TO-15	
140-1594-12	SMSSV3-10	Total/NA	Air	TO-15	
140-1594-13	SMSSV3D-10	Total/NA	Air	TO-15	
LCS 140-1390/1002	Lab Control Sample	Total/NA	Air	TO-15	
MB 140-1390/4	Method Blank	Total/NA	Air	TO-15	

Client Sample ID: SMSSV14 — Lab Sample ID: 140-1594-1

Date Collected: 06/25/14 16:10 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/27/14 20:14	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV15D — Lab Sample ID: 140-1594-2

Date Collected: 06/25/14 16:10 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/27/14 21:07	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV15 — Lab Sample ID: 140-1594-3

Date Collected: 06/25/14 16:10 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/27/14 21:58	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV16 — Lab Sample ID: 140-1594-4

Date Collected: 06/25/14 16:10 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/27/14 22:49	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV AMBIENT — Lab Sample ID: 140-1594-5

Date Collected: 06/25/14 16:10 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	1390	06/27/14 23:43	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV10-20 — Lab Sample ID: 140-1594-6

Date Collected: 06/24/14 17:00 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/28/14 00:35	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV8-15 — Lab Sample ID: 140-1594-7

Date Collected: 06/25/14 11:15 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		4.55	91 mL	500 mL	1390	06/28/14 01:28	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV13-11 — Lab Sample ID: 140-1594-8

Date Collected: 06/25/14 12:57 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		2.3	46 mL	500 mL	1390	06/28/14 02:20	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV11-11 — Lab Sample ID: 140-1594-9

Date Collected: 06/25/14 13:49 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/28/14 03:12	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV9-10 — Lab Sample ID: 140-1594-10

Date Collected: 06/25/14 14:45 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/28/14 04:05	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV4-15 — Lab Sample ID: 140-1594-11

Date Collected: 06/25/14 15:58 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	20 mL	500 mL	1390	06/28/14 04:57	AFB	TAL KNX
	Instrument ID: MR									

Client Sample ID: SMSSV3-10 — Lab Sample ID: 140-1594-12

Date Collected: 06/25/14 16:44 — **Matrix: Air**
Date Received: 06/26/14 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		111.09	20 mL	500 mL	1390	06/28/14 05:50	AFB	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Client Sample ID: SMSSV3D-10

Date Collected: 06/25/14 16:44
Date Received: 06/26/14 10:55

Lab Sample ID: 140-1594-13

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		109.8	20 mL	500 mL	1390	06/28/14 06:43	AFB	TAL KNX
	Instrument ID: MR									

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Laboratory: TestAmerica Knoxville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		N/A	
Arkansas DEQ	State Program	6	88-0688	06-17-15
California	State Program	9	2423	06-30-16
Colorado	State Program	8	N/A	02-28-15
Connecticut	State Program	1	PH-0223	09-30-15
Florida	NELAP	4	E87177	06-30-15
Georgia	State Program	4	906	06-13-14 *
Hawaii	State Program	9	N/A	04-13-15
Iowa	State Program	7	375	08-01-14
Kansas	NELAP	7	E-10349	10-31-14
Kentucky (DW)	State Program	4	90101	12-31-14
L-A-B	DoD ELAP		L2311	02-13-16
Louisiana	NELAP	6	LA110001	12-31-14
Maryland	State Program	3	277	03-31-15
Michigan	State Program	5	9933	04-13-17
Nevada	State Program	9	TN00009	07-31-14
New Jersey	NELAP	2	TN001	06-30-15
New York	NELAP	2	10781	03-31-15
North Carolina (DW)	State Program	4	21705	07-31-14
North Carolina (WW/SW)	State Program	4	64	12-31-14
Ohio VAP	State Program	5	CL0059	03-26-15
Oklahoma	State Program	6	9415	08-31-14
Pennsylvania	NELAP	3	68-00576	12-31-14
South Carolina	State Program	4	84001	06-30-14 *
Tennessee	State Program	4	2014	04-13-17
Texas	NELAP	6	T104704380-TX	08-31-14
USDA	Federal		P330-13-00260	08-29-16
Utah	NELAP	8	QUAN3	07-31-14
Virginia	NELAP	3	460176	09-14-14
Virginia	State Program	3	165	06-30-15
Washington	State Program	10	C593	01-19-15
West Virginia (DW)	State Program	3	9955C	12-31-14
West Virginia DEP	State Program	3	345	04-30-15
Wisconsin	State Program	5	998044300	08-31-14

* Certification renewal pending - certification considered valid.

Method Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: J.M. Waller Associates, Inc.
Project/Site: Smokey Mountain Smelter

TestAmerica Job ID: 140-1594-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-1594-1	SMSSV14	Air	06/25/14 16:10	06/26/14 10:55
140-1594-2	SMSSV15D	Air	06/25/14 16:10	06/26/14 10:55
140-1594-3	SMSSV15	Air	06/25/14 16:10	06/26/14 10:55
140-1594-4	SMSSV16	Air	06/25/14 16:10	06/26/14 10:55
140-1594-5	SMSSV AMBIENT	Air	06/25/14 16:10	06/26/14 10:55
140-1594-6	SMSSV10-20	Air	06/24/14 17:00	06/26/14 10:55
140-1594-7	SMSSV8-15	Air	06/25/14 11:15	06/26/14 10:55
140-1594-8	SMSSV13-11	Air	06/25/14 12:57	06/26/14 10:55
140-1594-9	SMSSV11-11	Air	06/25/14 13:49	06/26/14 10:55
140-1594-10	SMSSV9-10	Air	06/25/14 14:45	06/26/14 10:55
140-1594-11	SMSSV4-15	Air	06/25/14 15:58	06/26/14 10:55
140-1594-12	SMSSV3-10	Air	06/25/14 16:44	06/26/14 10:55
140-1594-13	SMSSV3D-10	Air	06/25/14 16:44	06/26/14 10:55

Method TO15

Volatile Organic Compounds (GC/MS) by Method TO15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Matrix: Air Level: Low

GC Column (1): RTX-5 ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	BFB #
SMSSV14	140-1594-1	113
SMSSV15D	140-1594-2	108
SMSSV15	140-1594-3	113
SMSSV16	140-1594-4	113
SMSSV AMBIENT	140-1594-5	113
SMSSV10-20	140-1594-6	115
SMSSV8-15	140-1594-7	110
SMSSV13-11	140-1594-8	109
SMSSV11-11	140-1594-9	109
SMSSV9-10	140-1594-10	109
SMSSV4-15	140-1594-11	110
SMSSV3-10	140-1594-12	108
SMSSV3D-10	140-1594-13	108
	MB 140-1390/4	105
	LCS 140-1390/1002	102

	QC LIMITS
BFB = 4-Bromofluorobenzene (Surr)	60-140

Column to be used to flag recovery values

FORM II TO-15

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Matrix: Air Level: Low Lab File ID: RCCVF27-LCS.d

Lab ID: LCS 140-1390/1002 Client ID:

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Benzene	1.98	2.21	111	70-130	
Benzyl chloride	1.98	2.41	122	70-130	
Bromomethane	1.98	1.63	82	70-130	
Carbon tetrachloride	1.98	2.43	123	70-130	
Chlorobenzene	1.98	2.22	112	70-130	
Chloroethane	1.98	1.67	85	70-130	
Chloroform	1.98	2.46	124	70-130	
Chloromethane	1.98	1.54	78	60-140	
cis-1,2-Dichloroethene	1.98	2.35	119	70-130	
cis-1,3-Dichloropropene	1.98	2.38	120	70-130	
1,2-Dibromoethane (EDB)	1.98	2.22	112	70-130	
1,2-Dichlorobenzene	1.98	2.00	101	70-130	
1,3-Dichlorobenzene	1.98	2.06	104	70-130	
1,4-Dichlorobenzene	1.98	2.07	105	70-130	
Dichlorodifluoromethane	1.98	1.78	90	60-140	
1,1-Dichloroethane	1.98	2.40	121	70-130	
1,2-Dichloroethane	1.98	2.37	120	70-130	
1,1-Dichloroethene	1.98	2.48	125	70-130	
1,2-Dichloropropane	1.98	2.18	110	70-130	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.98	1.75	88	60-140	
Ethylbenzene	1.98	2.37	120	70-130	
Hexachlorobutadiene	1.98	1.70	86	60-140	
Methylene Chloride	1.98	2.39	121	70-130	
m-Xylene & p-Xylene	3.96	4.66	118	70-130	
o-Xylene	1.98	2.31	117	70-130	
Styrene	1.98	2.41	122	70-130	
1,1,2,2-Tetrachloroethane	1.98	2.31	117	70-130	
Tetrachloroethene	1.98	2.17	109	70-130	
Toluene	1.98	2.26	114	70-130	
trans-1,3-Dichloropropene	1.98	2.45	124	70-130	
1,2,4-Trichlorobenzene	1.98	1.89	96	60-140	
1,1,1-Trichloroethane	1.98	2.52	127	70-130	
1,1,2-Trichloroethane	1.98	2.19	111	70-130	
Trichloroethene	1.98	2.15	109	70-130	
Trichlorofluoromethane	1.98	2.29	116	60-140	
1,1,2-Trichloro-1,2,2-trifluoroethane	1.98	2.55	129	70-130	
1,2,4-Trimethylbenzene	1.98	2.17	110	70-130	
1,3,5-Trimethylbenzene	1.98	2.19	111	70-130	
Vinyl chloride	1.98	1.60	81	70-130	

Column to be used to flag recovery and RPD values

FORM III TO-15

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab File ID: RBLKF27.D Lab Sample ID: MB 140-1390/4

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

Instrument ID: MR Date Analyzed: 06/27/2014 13:47

GC Column: RTX-5 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-1390/1002	RCCVF27-LCS .d	06/27/2014 11:04
SMSSV14	140-1594-1	RF27P105.D	06/27/2014 20:14
SMSSV15D	140-1594-2	RF27P106.D	06/27/2014 21:07
SMSSV15	140-1594-3	RF27P107.D	06/27/2014 21:58
SMSSV16	140-1594-4	RF27P108.D	06/27/2014 22:49
SMSSV AMBIENT	140-1594-5	RF27P109.D	06/27/2014 23:43
SMSSV10-20	140-1594-6	RF27P110.D	06/28/2014 00:35
SMSSV8-15	140-1594-7	RF27P111.D	06/28/2014 01:28
SMSSV13-11	140-1594-8	RF27P112.D	06/28/2014 02:20
SMSSV11-11	140-1594-9	RF27P113.D	06/28/2014 03:12
SMSSV9-10	140-1594-10	RF27P114.D	06/28/2014 04:05
SMSSV4-15	140-1594-11	RF27P115.D	06/28/2014 04:57
SMSSV3-10	140-1594-12	RF27P201.D	06/28/2014 05:50
SMSSV3D-10	140-1594-13	RF27P202.D	06/28/2014 06:43

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab File ID: 140-0000372-001.D BFB Injection Date: 01/21/2014

Instrument ID: MR BFB Injection Time: 17:09

Analysis Batch No.: 722

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.5	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	6.0	(7.4)1
176	95.0 - 101.0 % of mass 174	77.5	(95.9)1
177	5.0 - 9.0 % of mass 176	4.9	(6.4)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
	IC 140-722/2	140-0000372-002.D	01/21/2014	17:35
	IC 140-722/3	140-0000372-003.D	01/21/2014	18:23
	IC 140-722/4	140-0000372-004.D	01/21/2014	19:12
	IC 140-722/5	140-0000372-005.D	01/21/2014	20:00
	IC 140-722/6	140-0000372-006.D	01/21/2014	20:48
	IC 140-722/7	140-0000372-007.D	01/21/2014	21:36
	IC 140-722/8	140-0000372-008.D	01/21/2014	22:24
	IC 140-722/9	140-0000372-009.D	01/21/2014	23:13
	IC 140-722/10	140-0000372-010.D	01/22/2014	00:00

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab File ID: RBFBA24a.D BFB Injection Date: 01/24/2014

Instrument ID: MR BFB Injection Time: 09:38

Analysis Batch No.: 722

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.2	
75	30.0 - 60.0 % of mass 95	51.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	80.3	
175	5.0 - 9.0 % of mass 174	6.1	(7.6)1
176	95.0 - 101.0 % of mass 174	77.4	(96.4)1
177	5.0 - 9.0 % of mass 176	5.0	(6.4)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
	ICV 140-722/16	RICVA24a.D	01/24/2014	11:35

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab File ID: RBFBF27.D BFB Injection Date: 06/27/2014

Instrument ID: MR BFB Injection Time: 10:37

Analysis Batch No.: 1390

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.1	
75	30.0 - 60.0 % of mass 95	53.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	73.3	
175	5.0 - 9.0 % of mass 174	5.4	(7.3)1
176	95.0 - 101.0 % of mass 174	70.9	(96.8)1
177	5.0 - 9.0 % of mass 176	4.6	(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
	CCVIS 140-1390/2	RCCVF27.D	06/27/2014	11:04
	LCS 140-1390/1002	RCCVF27-LCS.d	06/27/2014	11:04
	MB 140-1390/4	RBLKF27.D	06/27/2014	13:47
SMSSV14	140-1594-1	RF27P105.D	06/27/2014	20:14
SMSSV15D	140-1594-2	RF27P106.D	06/27/2014	21:07
SMSSV15	140-1594-3	RF27P107.D	06/27/2014	21:58
SMSSV16	140-1594-4	RF27P108.D	06/27/2014	22:49
SMSSV AMBIENT	140-1594-5	RF27P109.D	06/27/2014	23:43
SMSSV10-20	140-1594-6	RF27P110.D	06/28/2014	00:35
SMSSV8-15	140-1594-7	RF27P111.D	06/28/2014	01:28
SMSSV13-11	140-1594-8	RF27P112.D	06/28/2014	02:20
SMSSV11-11	140-1594-9	RF27P113.D	06/28/2014	03:12
SMSSV9-10	140-1594-10	RF27P114.D	06/28/2014	04:05
SMSSV4-15	140-1594-11	RF27P115.D	06/28/2014	04:57
SMSSV3-10	140-1594-12	RF27P201.D	06/28/2014	05:50
SMSSV3D-10	140-1594-13	RF27P202.D	06/28/2014	06:43

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

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Sample No.: IC 140-722/7 Date Analyzed: 01/21/2014 21:36

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): 140-0000372-007.D Heated Purge: (Y/N) N

Calibration ID: 111

		CBM		DFB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		430788	8.53	2214255	10.82	1832420	17.16
UPPER LIMIT		603103	8.86	3099957	11.15	2565388	17.49
LOWER LIMIT		258473	8.20	1328553	10.49	1099452	16.83
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-722/16		477903	8.52	2450029	10.82	2027022	17.17

CBM = Chlorobromomethane (IS)
DFB = 1,4-Difluorobenzene
CBZ = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO-15

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

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Sample No.: CCVIS 140-1390/2 Date Analyzed: 06/27/2014 11:04

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm)

Lab File ID (Standard): RCCVF27.D Heated Purge: (Y/N) N

Calibration ID: 111

		CBM		DFB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		312705	8.42	1668736	10.71	1400584	17.03
UPPER LIMIT		437787	8.75	2336230	11.04	1960818	17.36
LOWER LIMIT		187623	8.09	1001242	10.38	840350	16.70
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 140-1390/1002		312705	8.42	1668736	10.71	1400584	17.03
MB 140-1390/4		327304	8.41	1739624	10.70	1458897	17.02
140-1594-1	SMSSV14	280998	8.42	1435283	10.71	1227057	17.02
140-1594-2	SMSSV15D	293448	8.41	1552859	10.71	1252552	17.02
140-1594-3	SMSSV15	290655	8.41	1512884	10.71	1201294	17.02
140-1594-4	SMSSV16	272077	8.42	1406972	10.71	1157764	17.02
140-1594-5	SMSSV AMBIENT	262662	8.41	1388658	10.71	1127519	17.02
140-1594-6	SMSSV10-20	241338	8.42	1238046	10.72	1169599	17.02
140-1594-7	SMSSV8-15	306615	8.42	1635806	10.71	1336344	17.02
140-1594-8	SMSSV13-11	308128	8.42	1636895	10.71	1396166	17.02
140-1594-9	SMSSV11-11	311432	8.45	1654720	10.73	1350779	17.02
140-1594-10	SMSSV9-10	298140	8.42	1581467	10.71	1334855	17.02
140-1594-11	SMSSV4-15	306822	8.43	1645448	10.71	1390129	17.02
140-1594-12	SMSSV3-10	296859	8.42	1575862	10.71	1344550	17.02
140-1594-13	SMSSV3D-10	317451	8.43	1693431	10.72	1423788	17.02

CBM = Chlorobromomethane (IS)
DFB = 1,4-Difluorobenzene
CBZ = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII TO-15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV14 | Lab Sample ID: 140-1594-1

Matrix: Air | Lab File ID: RF27P105.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 20:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	2.4		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	ND		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV14 Lab Sample ID: 140-1594-1

Matrix: Air Lab File ID: RF27P105.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) Date Analyzed: 06/27/2014 20:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV14 | Lab Sample ID: 140-1594-1

Matrix: Air | Lab File ID: RF27P105.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 20:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	10		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	ND		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV14 | Lab Sample ID: 140-1594-1

Matrix: Air | Lab File ID: RF27P105.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 20:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P105.D				
Lims ID:	140-1594-A-1	Lab Sample ID:	140-1594-1		
Client ID:	SMSSV14				
Sample Type:	Client				
Inject. Date:	27-Jun-2014 20:14:30	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-1				
Misc. Info.:	R062714,TO15,140-0000780-010				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:50:42	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:10:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	96	280998	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	96	1435283	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1227057	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	85	1087826	4.50	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	68	3533	0.0127	
56 Trichloroethene	130	11.531	11.526	0.005	85	5509	0.0407	
65 Toluene	91	14.152	14.147	0.005	91	27220	0.0717	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	98	35960	0.0958	
82 o-Xylene	91	18.730	18.746	-0.016	93	20970	0.0541	
93 1,2,4-Trimethylbenzene	105	22.009	22.019	-0.010	92	27462	0.0545	

Reagents:

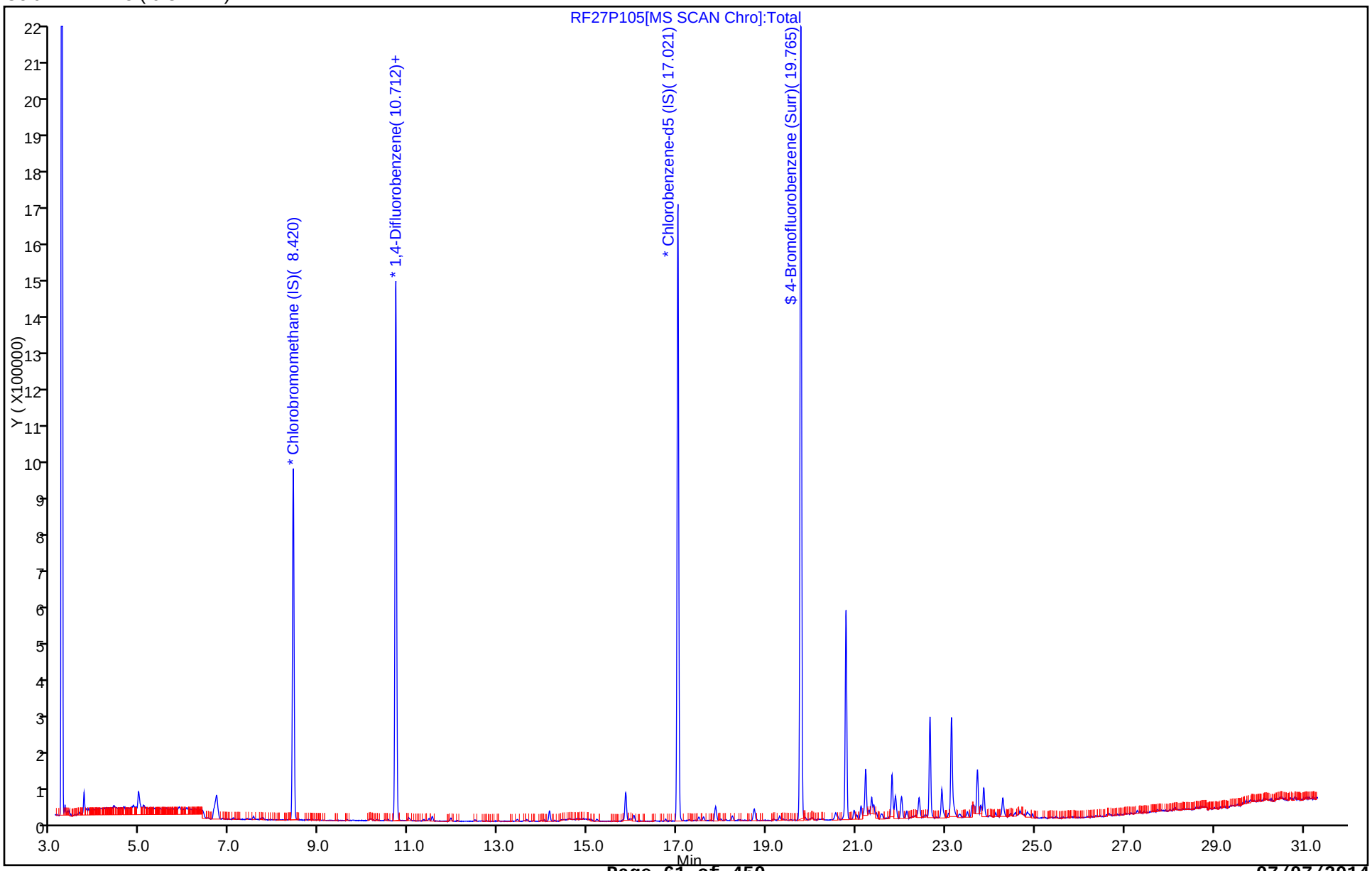
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:10:51 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P105.D				
Injection Date:	27-Jun-2014 20:14:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-1	Lab Sample ID:	140-1594-1	Worklist Smp#:	10
Client ID:	SMSSV14				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

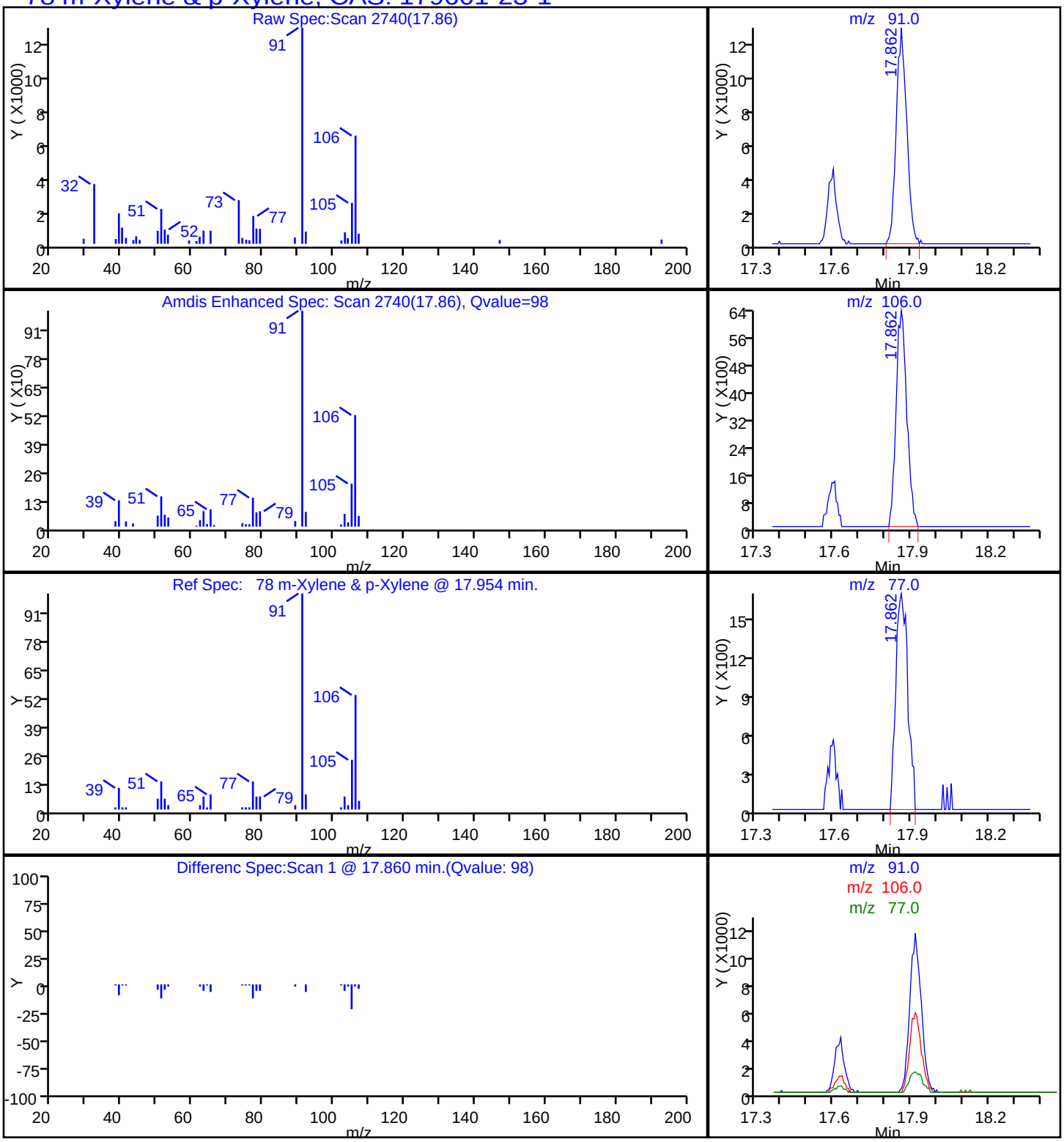


Report Date: 30-Jun-2014 11:10:52 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P105.D				
Injection Date:	27-Jun-2014 20:14:30	Instrument ID:	MR		
Lims ID:	140-1594-A-1	Lab Sample ID:	140-1594-1		
Client ID:	SMSSV14				
Operator ID:	7126	ALS Bottle#:	5	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15D | Lab Sample ID: 140-1594-2

Matrix: Air | Lab File ID: RF27P106.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	ND		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15D | Lab Sample ID: 140-1594-2

Matrix: Air | Lab File ID: RF27P106.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15D | Lab Sample ID: 140-1594-2

Matrix: Air | Lab File ID: RF27P106.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	ND		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15D | Lab Sample ID: 140-1594-2

Matrix: Air | Lab File ID: RF27P106.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P106.D				
Lims ID:	140-1594-A-2	Lab Sample ID:	140-1594-2		
Client ID:	SMSSV15D				
Sample Type:	Client				
Inject. Date:	27-Jun-2014 21:07:30	ALS Bottle#:	6	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-2				
Misc. Info.:	R062714,TO15,140-0000780-011				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:50:42	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:11:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.414	8.420	-0.006	95	293448	4.00	
* 2 1,4-Difluorobenzene	114	10.706	10.712	-0.006	97	1552859	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1252552	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.765	19.782	-0.017	84	1066734	4.32	
20 Trichlorofluoromethane	101	4.845	4.839	0.006	64	2835	0.009743	
43 Chloroform	83	8.447	8.452	-0.005	31	7740	0.0354	
93 1,2,4-Trimethylbenzene	105	22.014	22.019	-0.005	91	27177	0.0528	

Reagents:

MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:11:06 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P106.D				
Injection Date:	27-Jun-2014 21:07:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-2	Lab Sample ID:	140-1594-2	Worklist Smp#:	11
Client ID:	SMSSV15D				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15 | Lab Sample ID: 140-1594-3

Matrix: Air | Lab File ID: RF27P107.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	ND		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15 | Lab Sample ID: 140-1594-3

Matrix: Air | Lab File ID: RF27P107.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15 | Lab Sample ID: 140-1594-3

Matrix: Air | Lab File ID: RF27P107.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 21:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	ND		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV15 Lab Sample ID: 140-1594-3

Matrix: Air Lab File ID: RF27P107.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) Date Analyzed: 06/27/2014 21:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P107.D				
Lims ID:	140-1594-A-3	Lab Sample ID:	140-1594-3		
Client ID:	SMSSV15				
Sample Type:	Client				
Inject. Date:	27-Jun-2014 21:58:30	ALS Bottle#:	7	Worklist Smp#:	12
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-3				
Misc. Info.:	R062714,TO15,140-0000780-012				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:50:42	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:11:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.414	8.420	-0.006	95	290655	4.00	
* 2 1,4-Difluorobenzene	114	10.706	10.712	-0.006	97	1512884	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1201294	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	84	1069090	4.52	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	77	3933	0.0136	
43 Chloroform	83	8.447	8.452	-0.005	31	8223	0.0380	
73 Tetrachloroethene	129	15.786	15.780	0.006	80	4347	0.0342	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	93	17966	0.0489	
82 o-Xylene	91	18.725	18.746	-0.021	78	10100	0.0266	
93 1,2,4-Trimethylbenzene	105	22.014	22.019	-0.005	94	29881	0.0606	

Reagents:

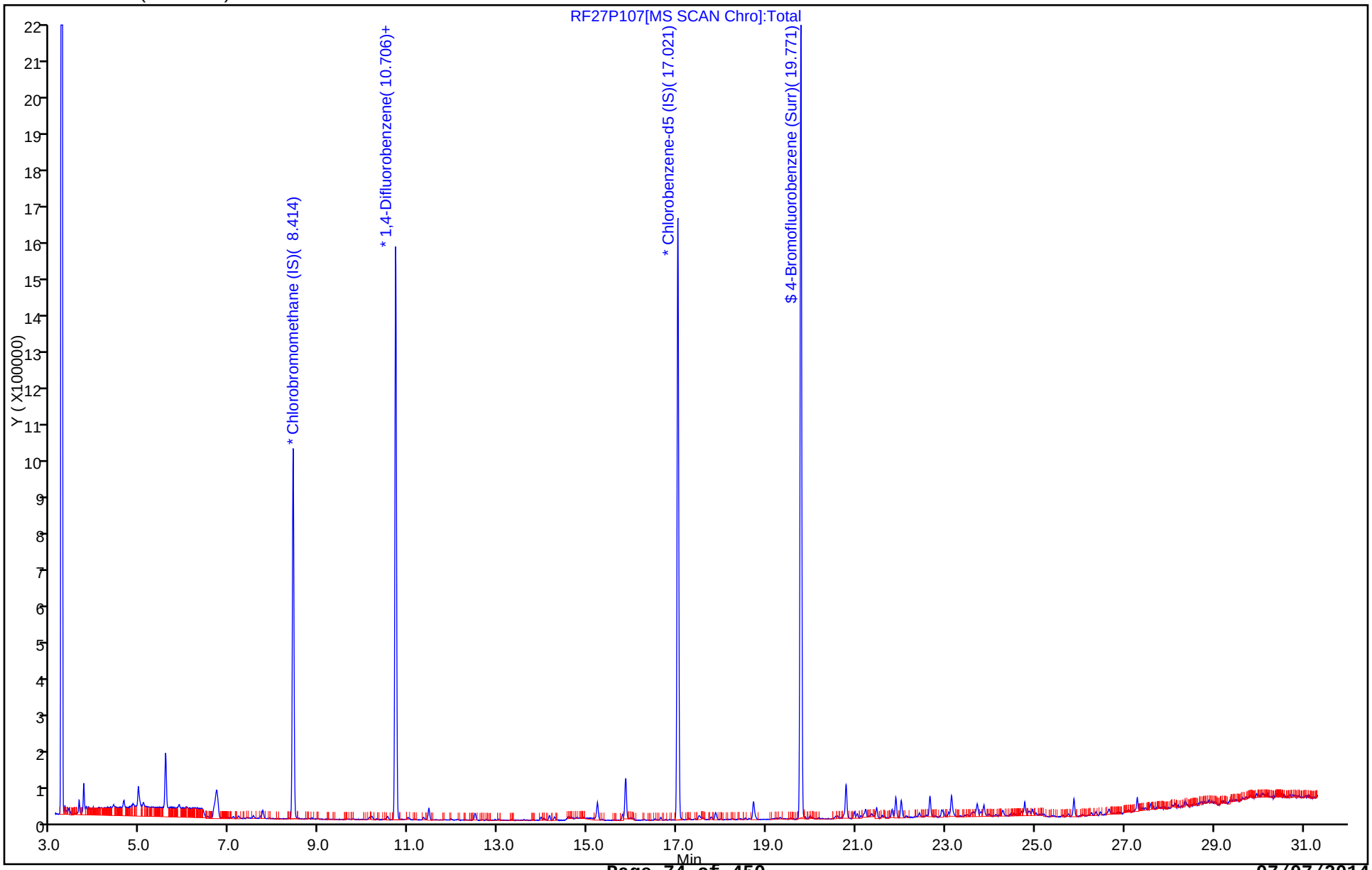
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:11:28 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P107.D				
Injection Date:	27-Jun-2014 21:58:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-3	Lab Sample ID:	140-1594-3	Worklist Smp#:	12
Client ID:	SMSSV15				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV16 | Lab Sample ID: 140-1594-4

Matrix: Air | Lab File ID: RF27P108.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 22:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	18		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	2.2		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	ND		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV16 | Lab Sample ID: 140-1594-4

Matrix: Air | Lab File ID: RF27P108.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 22:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.5		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV16 | Lab Sample ID: 140-1594-4

Matrix: Air | Lab File ID: RF27P108.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) | Date Analyzed: 06/27/2014 22:49

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	56		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	9.4		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	ND		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV16 Lab Sample ID: 140-1594-4

Matrix: Air Lab File ID: RF27P108.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:10

Sample wt/vol: 20(mL) Date Analyzed: 06/27/2014 22:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	13		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P108.D				
Lims ID:	140-1594-A-4	Lab Sample ID:	140-1594-4		
Client ID:	SMSSV16				
Sample Type:	Client				
Inject. Date:	27-Jun-2014 22:49:30	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-4				
Misc. Info.:	R062714,TO15,140-0000780-013				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:50:42	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:12:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	95	272077	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	96	1406972	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.015	17.031	-0.016	91	1157764	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.766	19.782	-0.016	87	1027666	4.51	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	54	2826	0.0105	
47 Benzene	78	10.113	10.113	0.000	98	217788	0.7020	
65 Toluene	91	14.152	14.147	0.005	90	24803	0.0692	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	96	30628	0.0865	
82 o-Xylene	91	18.730	18.746	-0.016	92	18477	0.0505	
93 1,2,4-Trimethylbenzene	105	22.009	22.019	-0.010	97	48400	0.1018	

Reagents:

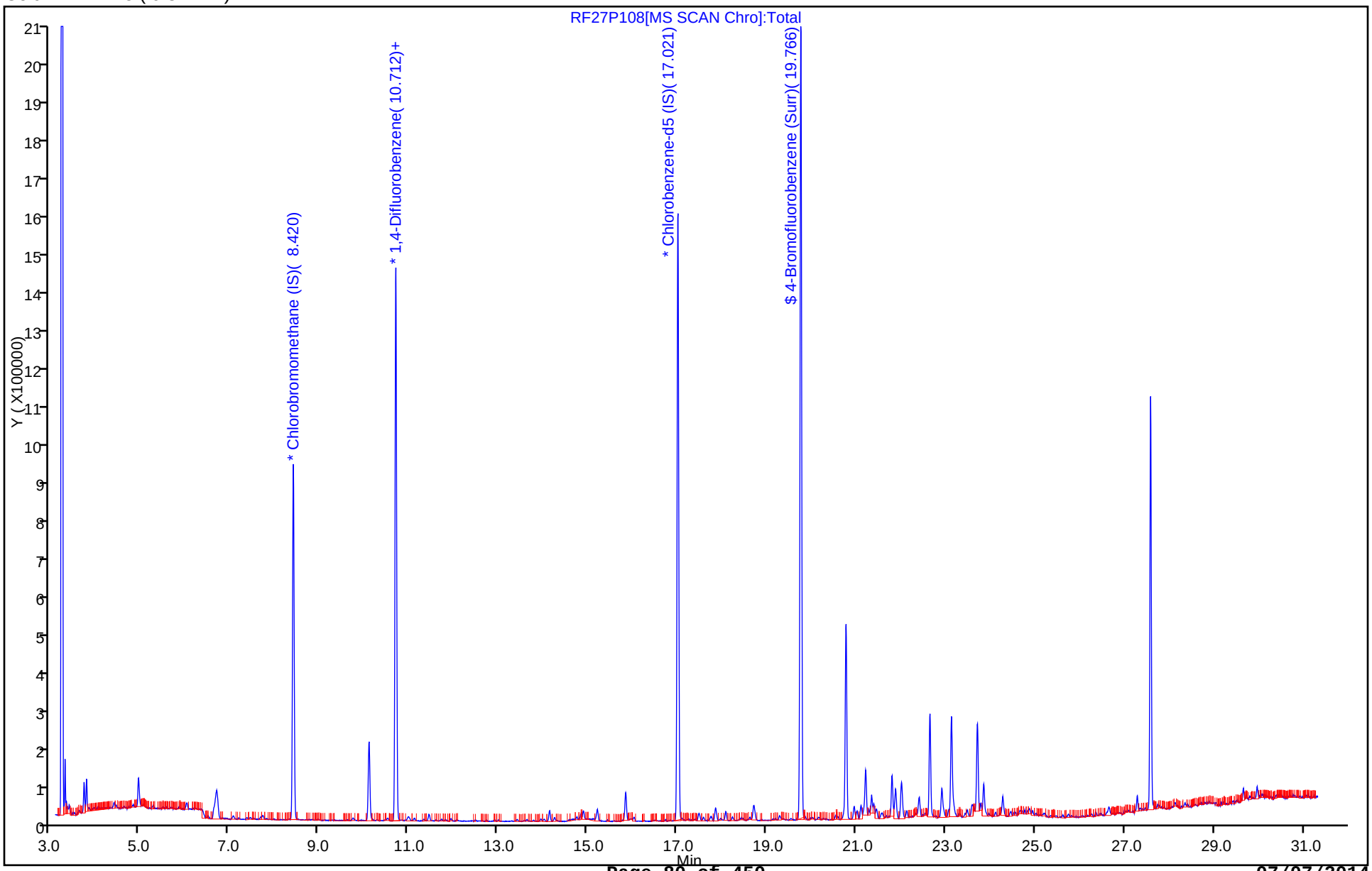
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:12:10 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P108.D				
Injection Date:	27-Jun-2014 22:49:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-4	Lab Sample ID:	140-1594-4	Worklist Smp#:	13
Client ID:	SMSSV16				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

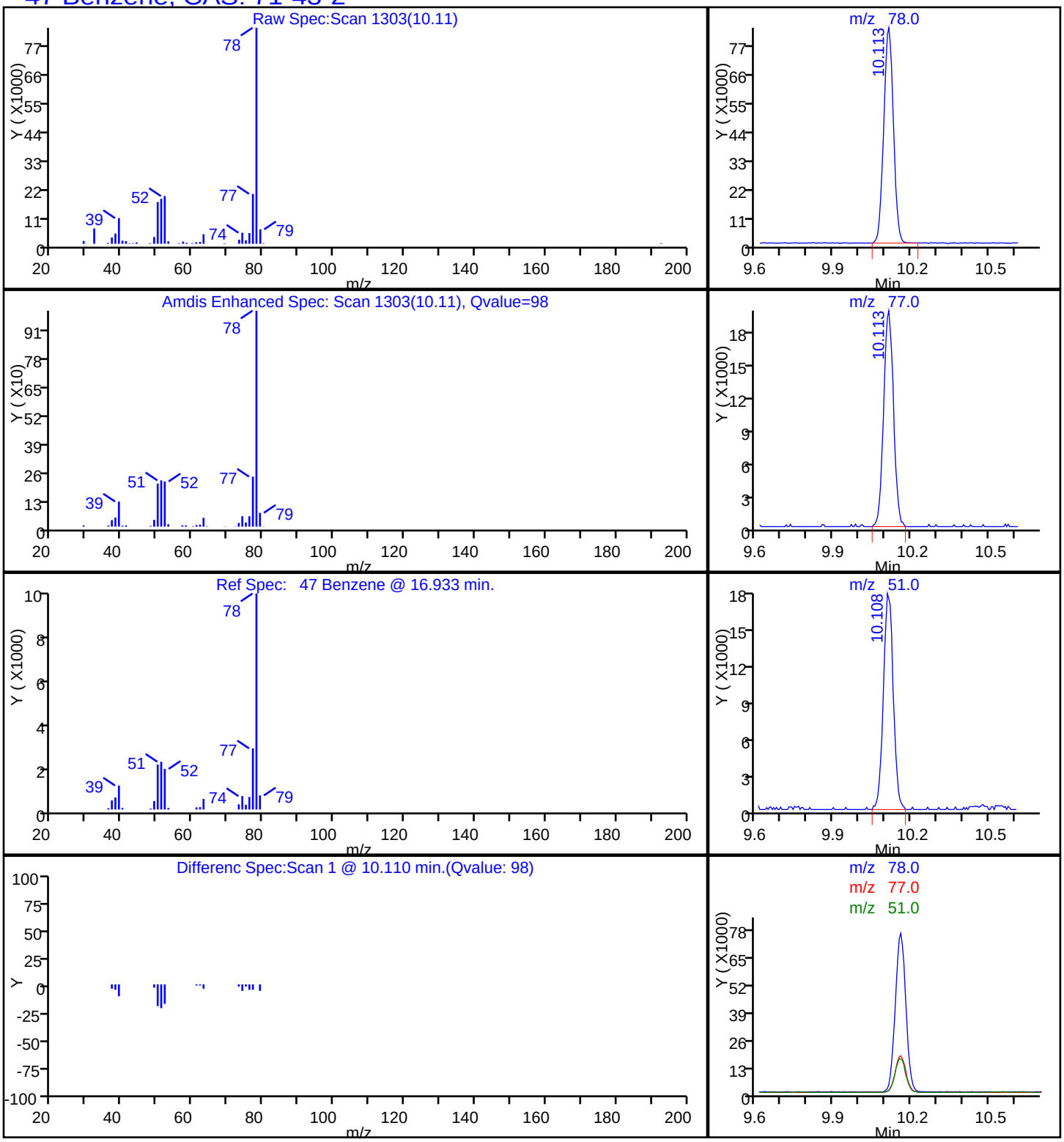


Report Date: 30-Jun-2014 11:12:10 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P108.D				
Injection Date:	27-Jun-2014 22:49:30	Instrument ID:	MR		
Lims ID:	140-1594-A-4	Lab Sample ID:	140-1594-4		
Client ID:	SMSSV16				
Operator ID:	7126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

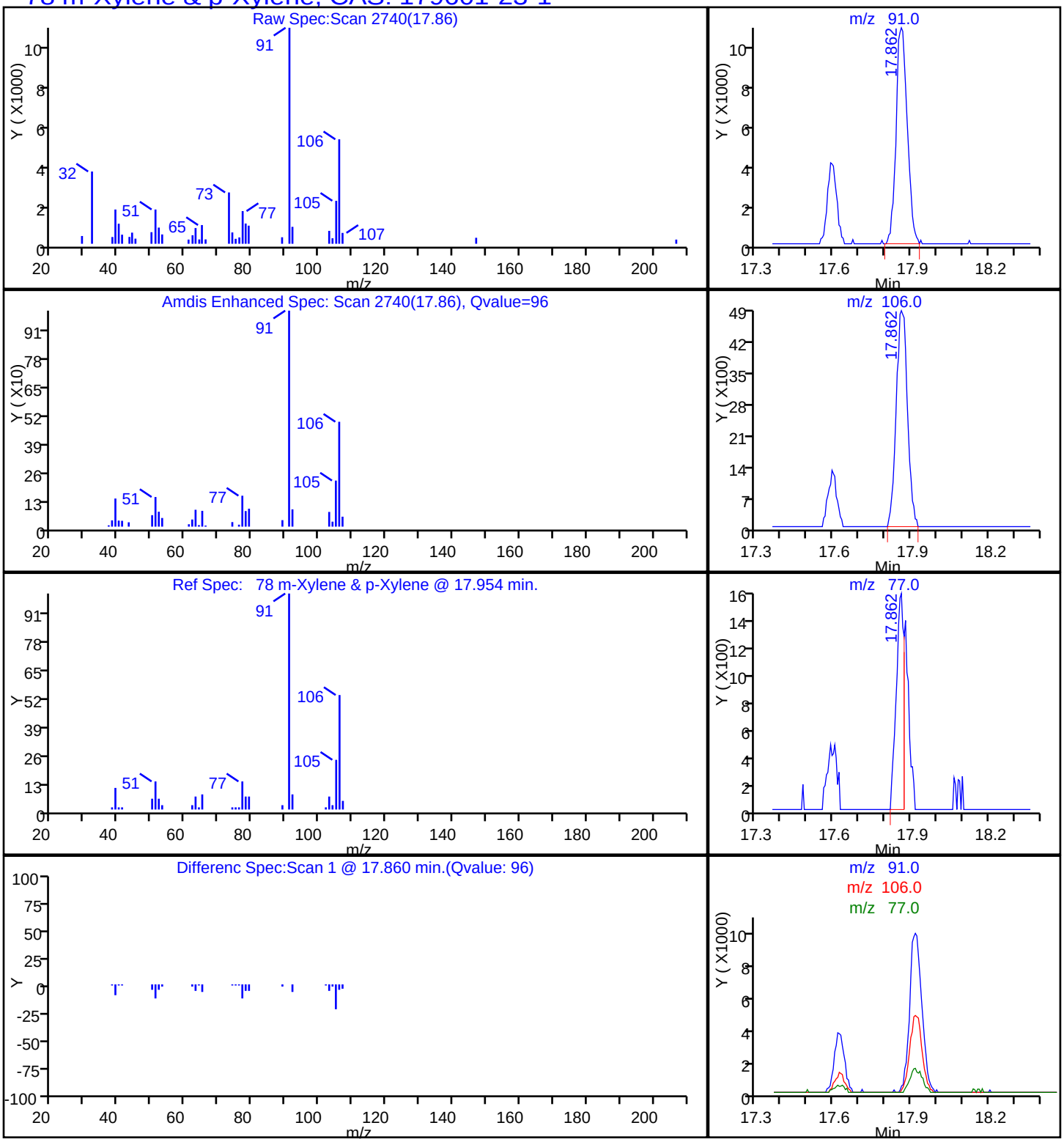


Report Date: 30-Jun-2014 11:12:10 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P108.D				
Injection Date:	27-Jun-2014 22:49:30	Instrument ID:	MR		
Lims ID:	140-1594-A-4	Lab Sample ID:	140-1594-4		
Client ID:	SMSSV16				
Operator ID:	7126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

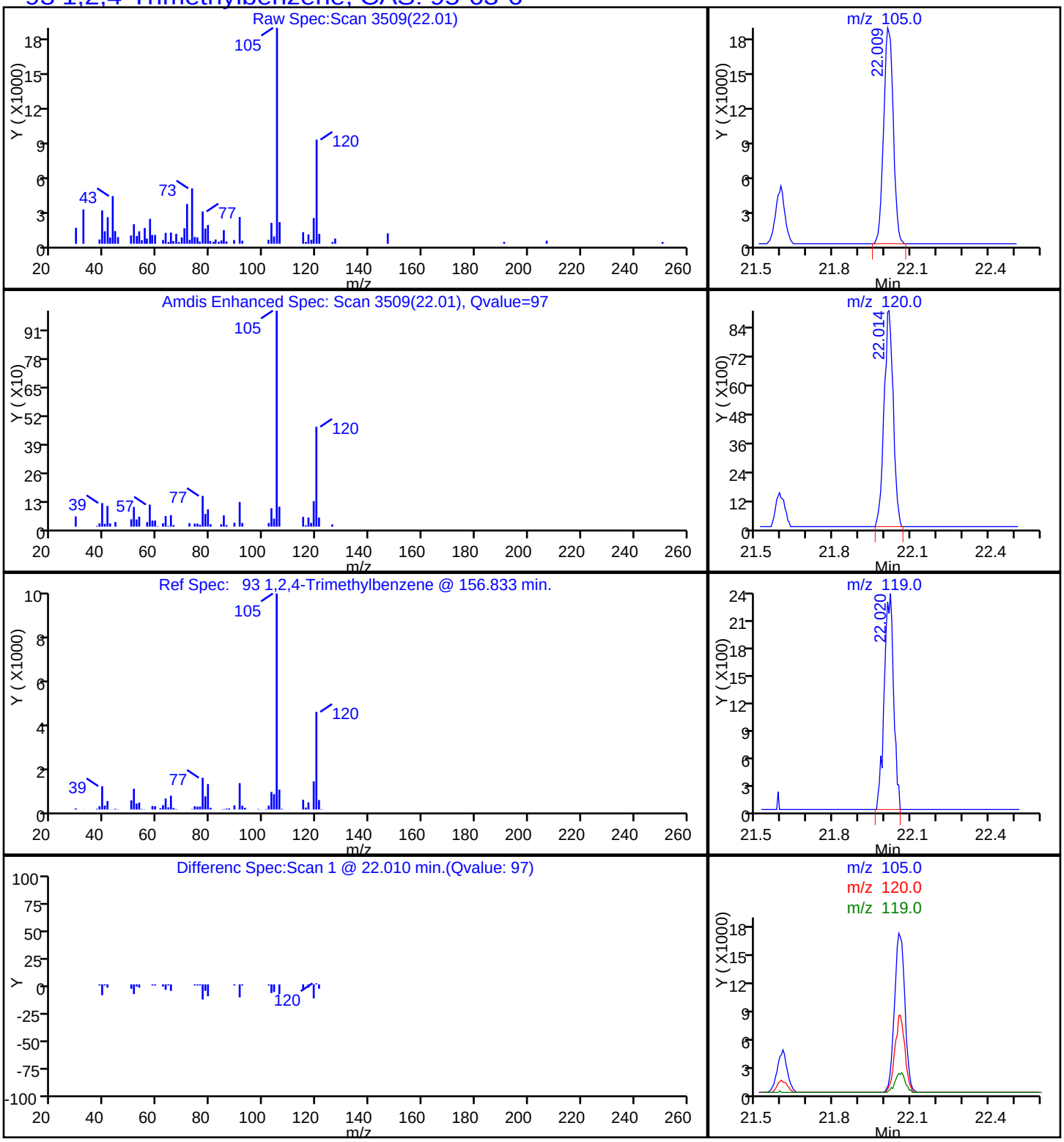


Report Date: 30-Jun-2014 11:12:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P108.D				
Injection Date:	27-Jun-2014 22:49:30	Instrument ID:	MR		
Lims ID:	140-1594-A-4	Lab Sample ID:	140-1594-4		
Client ID:	SMSSV16				
Operator ID:	7126	ALS Bottle#:	8	Worklist Smp#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

93 1,2,4-Trimethylbenzene, CAS: 95-63-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV AMBIENT | Lab Sample ID: 140-1594-5

Matrix: Air | Lab File ID: RF27P109.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 23:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		0.20	
100-44-7	Benzyl chloride	126.58	ND		0.40	
74-83-9	Bromomethane	94.94	ND		0.20	
56-23-5	Carbon tetrachloride	153.81	ND		0.20	
108-90-7	Chlorobenzene	112.56	ND		0.20	
75-00-3	Chloroethane	64.52	ND		0.20	
67-66-3	Chloroform	119.38	ND		0.20	
74-87-3	Chloromethane	50.49	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.20	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.20	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.20	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.20	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.20	
75-34-3	1,1-Dichloroethane	98.96	ND		0.20	
107-06-2	1,2-Dichloroethane	98.96	ND		0.20	
75-35-4	1,1-Dichloroethene	96.94	ND		0.20	
78-87-5	1,2-Dichloropropane	112.99	ND		0.20	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.20	
100-41-4	Ethylbenzene	106.17	ND		0.20	
87-68-3	Hexachlorobutadiene	260.76	ND		1.0	
75-09-2	Methylene Chloride	84.93	ND		0.50	
179601-23-1	m-Xylene & p-Xylene	106.17	0.20		0.20	
95-47-6	o-Xylene	106.17	ND		0.20	
100-42-5	Styrene	104.15	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.20	
127-18-4	Tetrachloroethene	165.83	ND		0.20	
108-88-3	Toluene	92.14	0.27		0.20	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.0	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.20	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.20	
79-01-6	Trichloroethene	131.39	0.27		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV AMBIENT Lab Sample ID: 140-1594-5

Matrix: Air Lab File ID: RF27P109.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:10

Sample wt/vol: 200(mL) Date Analyzed: 06/27/2014 23:43

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	0.26		0.20	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	0.24		0.20	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.20	
75-01-4	Vinyl chloride	62.50	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV AMBIENT | Lab Sample ID: 140-1594-5

Matrix: Air | Lab File ID: RF27P109.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 23:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		0.64	
100-44-7	Benzyl chloride	126.58	ND		2.1	
74-83-9	Bromomethane	94.94	ND		0.78	
56-23-5	Carbon tetrachloride	153.81	ND		1.3	
108-90-7	Chlorobenzene	112.56	ND		0.92	
75-00-3	Chloroethane	64.52	ND		0.53	
67-66-3	Chloroform	119.38	ND		0.98	
74-87-3	Chloromethane	50.49	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.79	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.91	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		1.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.2	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.2	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.2	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.99	
75-34-3	1,1-Dichloroethane	98.96	ND		0.81	
107-06-2	1,2-Dichloroethane	98.96	ND		0.81	
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	
78-87-5	1,2-Dichloropropane	112.99	ND		0.92	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		1.4	
100-41-4	Ethylbenzene	106.17	ND		0.87	
87-68-3	Hexachlorobutadiene	260.76	ND		11	
75-09-2	Methylene Chloride	84.93	ND		1.7	
179601-23-1	m-Xylene & p-Xylene	106.17	0.85		0.87	
95-47-6	o-Xylene	106.17	ND		0.87	
100-42-5	Styrene	104.15	ND		0.85	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.4	
127-18-4	Tetrachloroethene	165.83	ND		1.4	
108-88-3	Toluene	92.14	1.0		0.75	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.91	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		7.4	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.1	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.1	
79-01-6	Trichloroethene	131.39	1.5		1.1	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV AMBIENT | Lab Sample ID: 140-1594-5

Matrix: Air | Lab File ID: RF27P109.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:10

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 23:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	1.5		1.1	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	1.8		1.5	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.98	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.98	
75-01-4	Vinyl chloride	62.50	ND		0.51	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	113		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Sample Type:	Client				
Inject. Date:	27-Jun-2014 23:43:30	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-5				
Misc. Info.:	R062714,TO15,140-0000780-014				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:50:42	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:12:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.414	8.420	-0.006	96	262662	4.00	
* 2 1,4-Difluorobenzene	114	10.706	10.712	-0.006	96	1388658	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.015	17.031	-0.016	91	1127519	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.765	19.782	-0.017	84	1005580	4.53	
8 Dichlorodifluoromethane	85	3.437	3.443	-0.006	99	20523	0.0777	
9 Chloromethane	52	3.588	3.594	-0.006	100	7682	0.1973	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	95	27211	0.1045	
30 1,1,2-Trichloro-1,2,2-trif	101	5.729	5.729	0.000	89	16904	0.0960	
31 Methylene Chloride	84	5.858	5.869	-0.011	93	15241	0.1849	
50 Carbon tetrachloride	117	10.145	10.151	-0.006	89	6531	0.0319	
56 Trichloroethene	130	11.526	11.526	0.000	90	14355	0.1095	
65 Toluene	91	14.146	14.147	-0.001	89	37989	0.1088	
73 Tetrachloroethene	129	15.775	15.780	-0.005	60	3000	0.0251	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	98	26996	0.0783	
82 o-Xylene	91	18.730	18.746	-0.016	85	9159	0.0257	

Reagents:

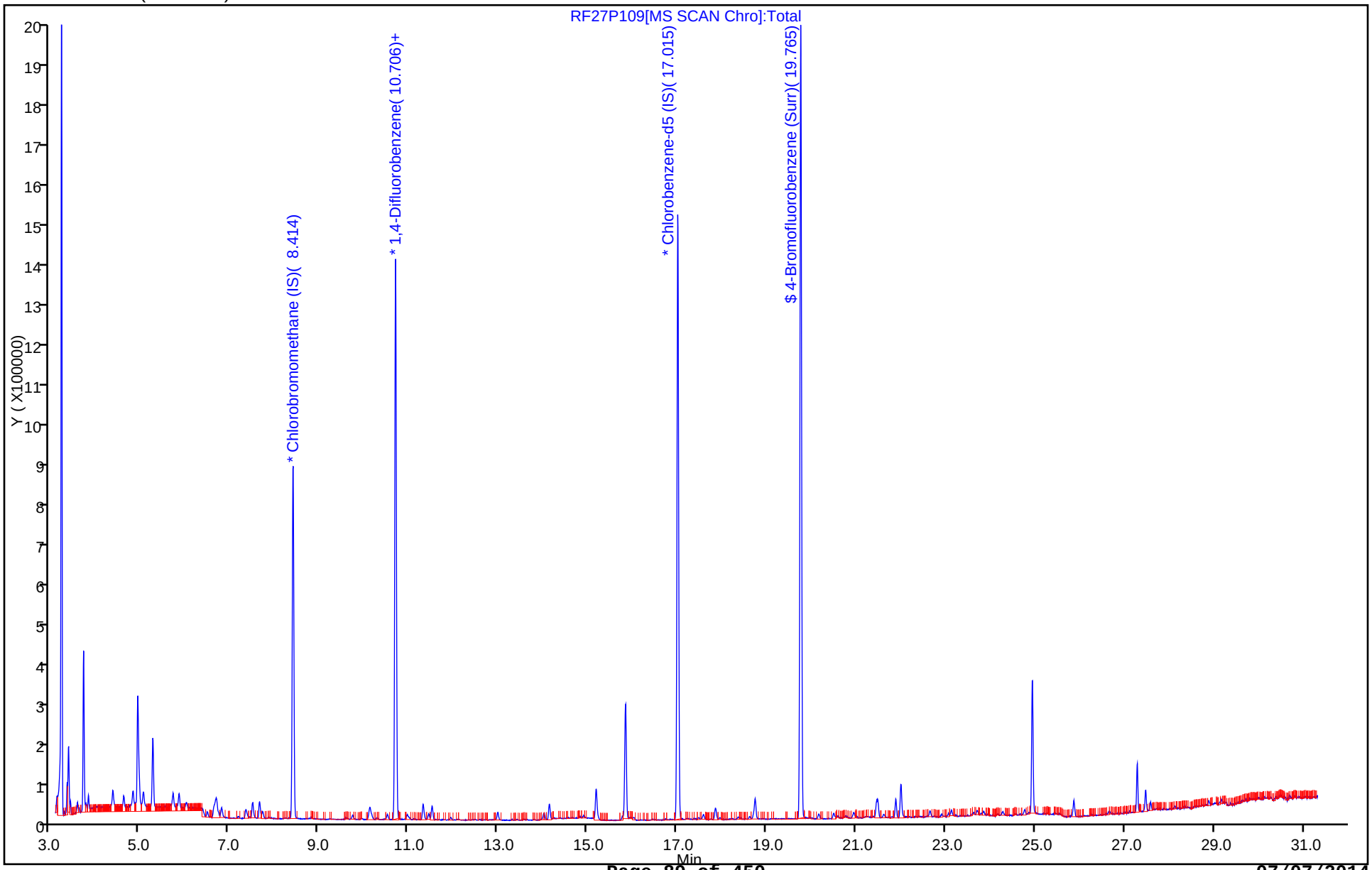
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5	Worklist Smp#:	14
Client ID:	SMSSV AMBIENT				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

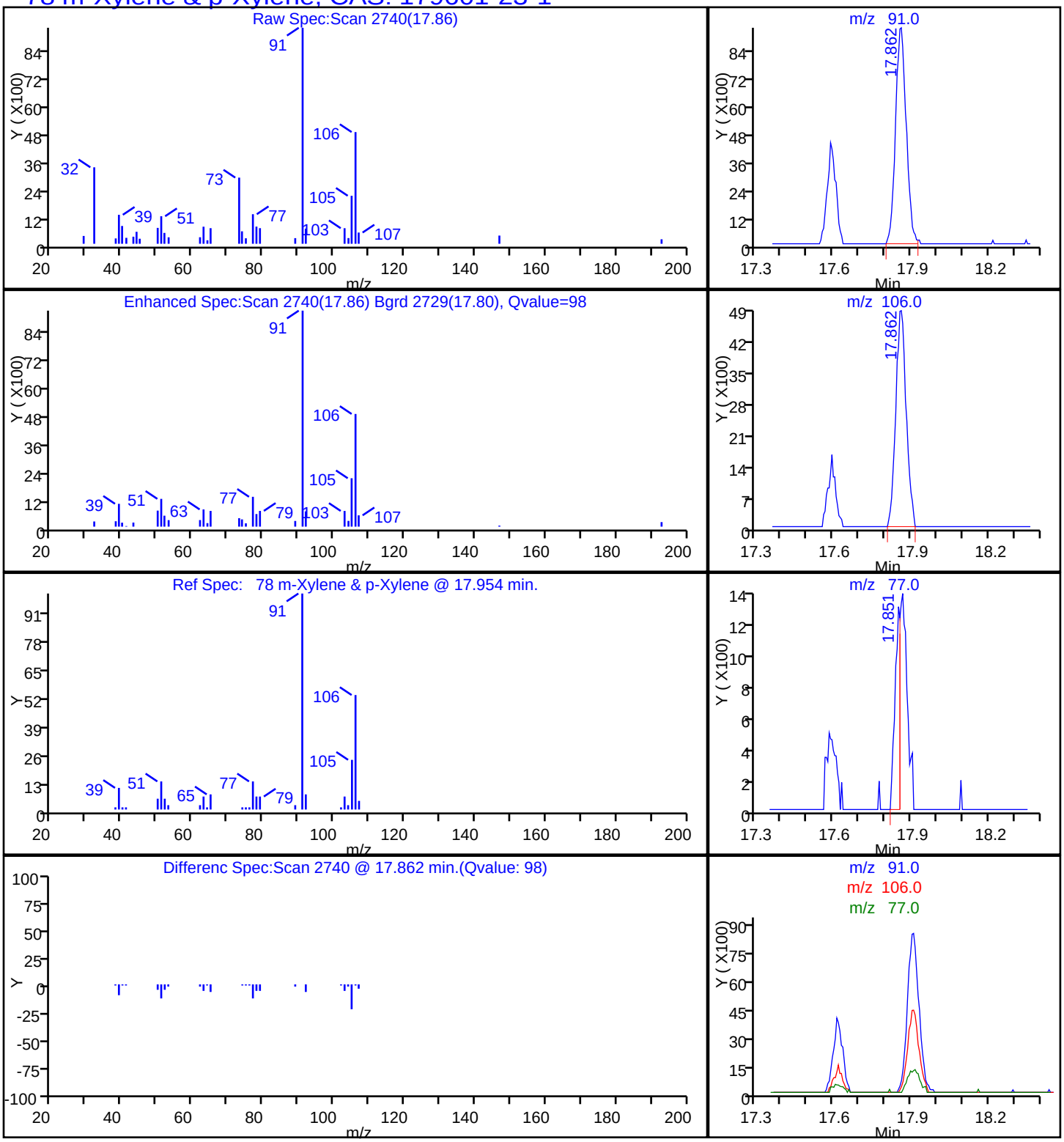


Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

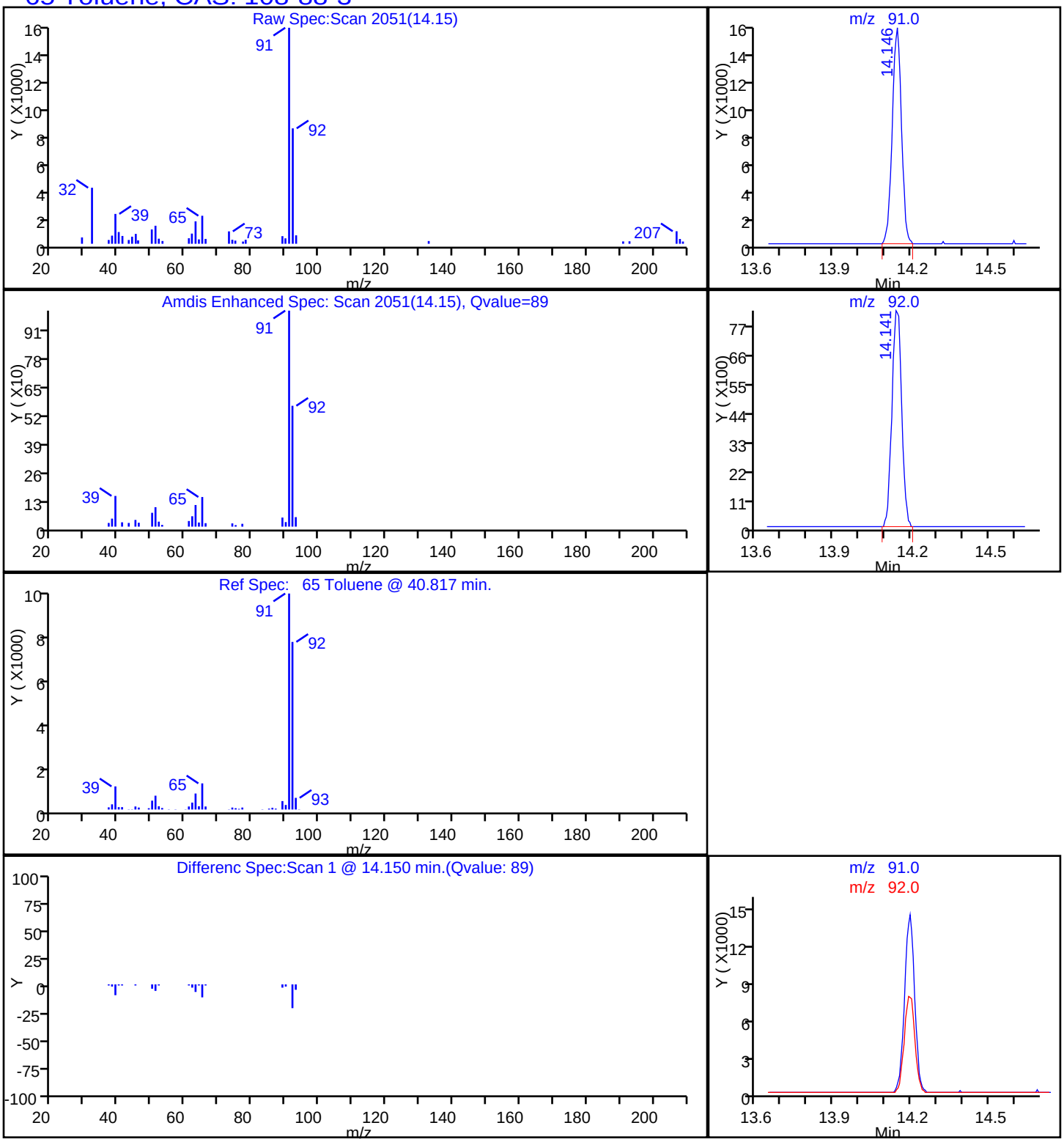


Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

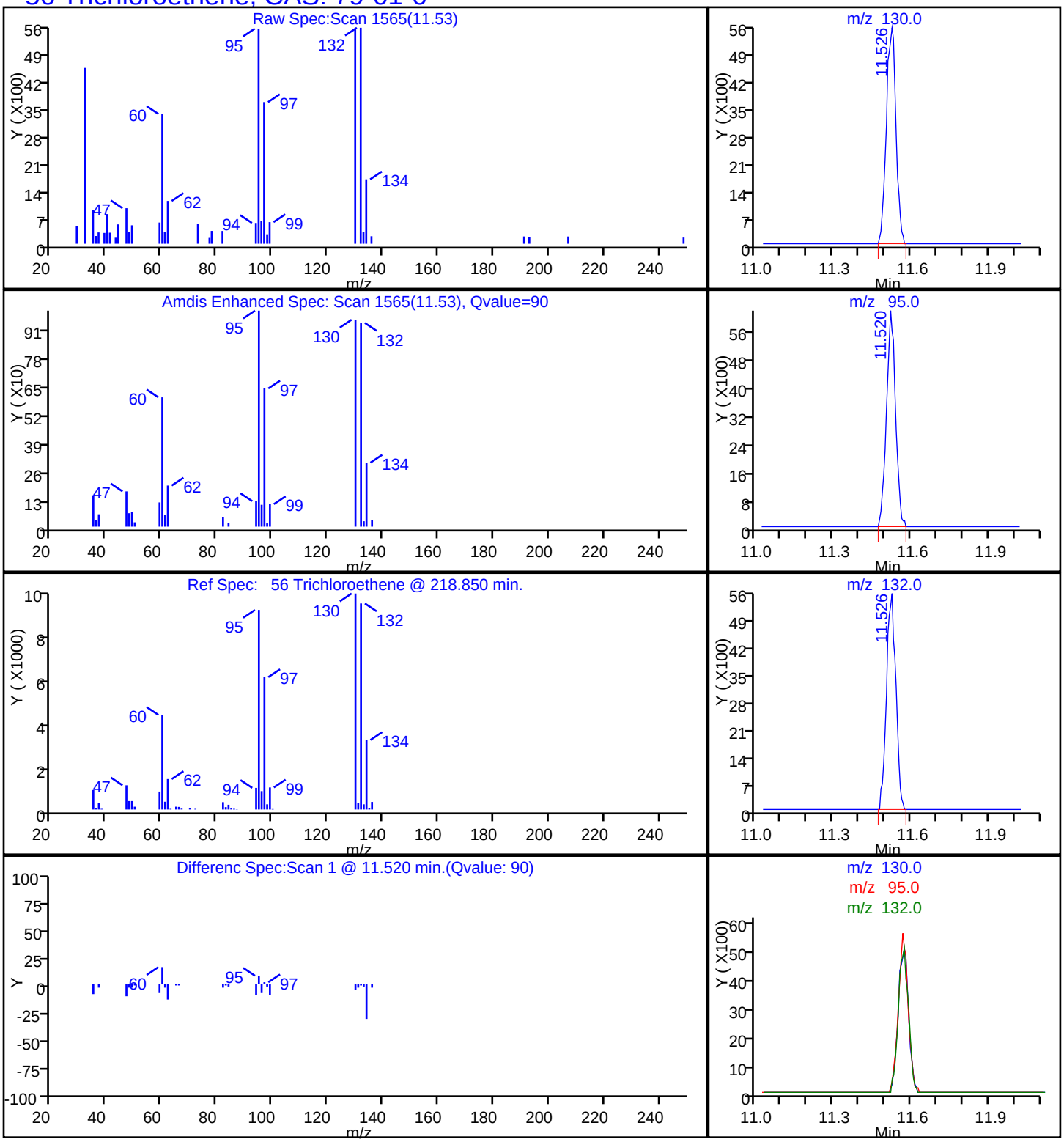


Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6

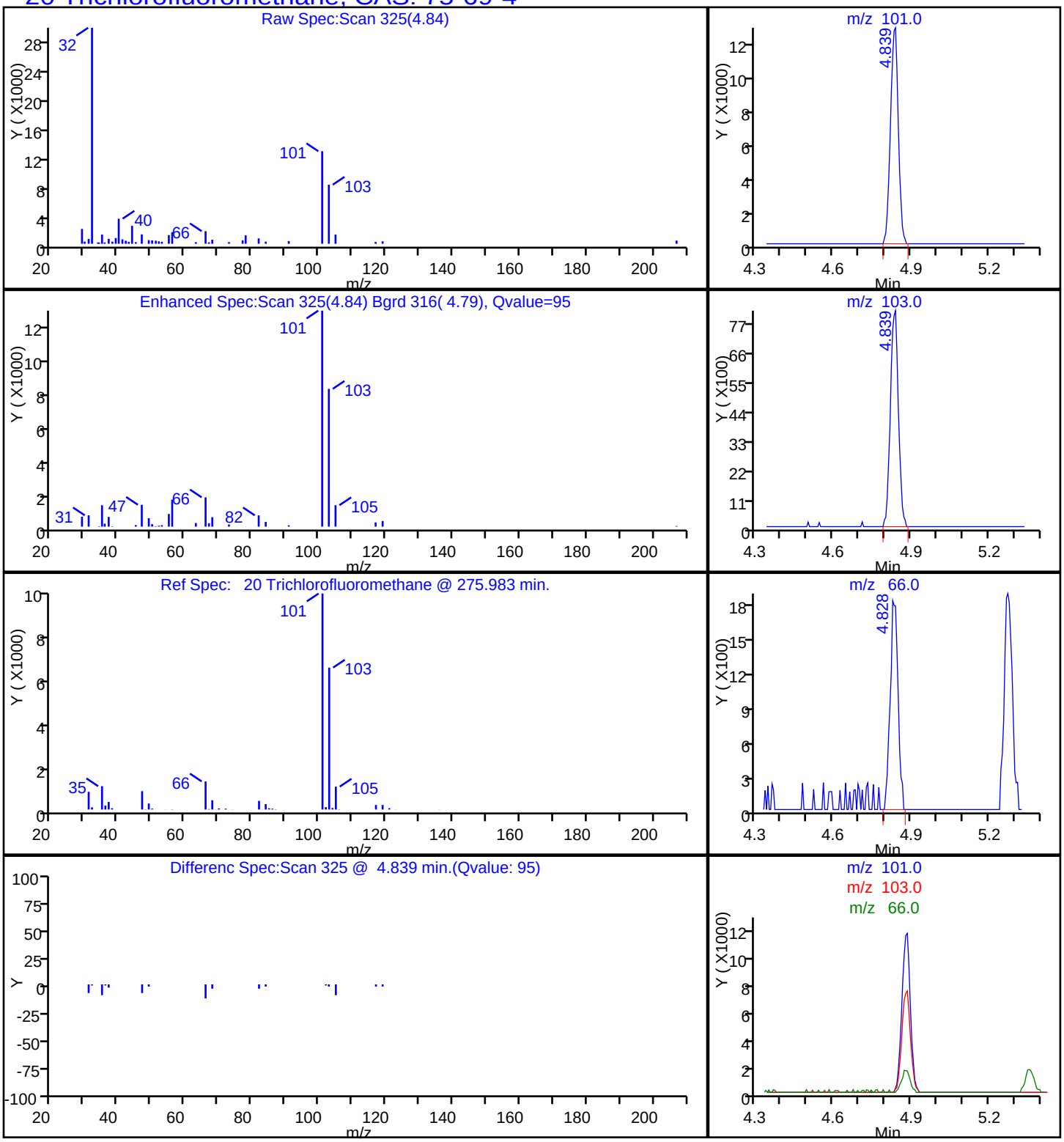


Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

20 Trichlorofluoromethane, CAS: 75-69-4

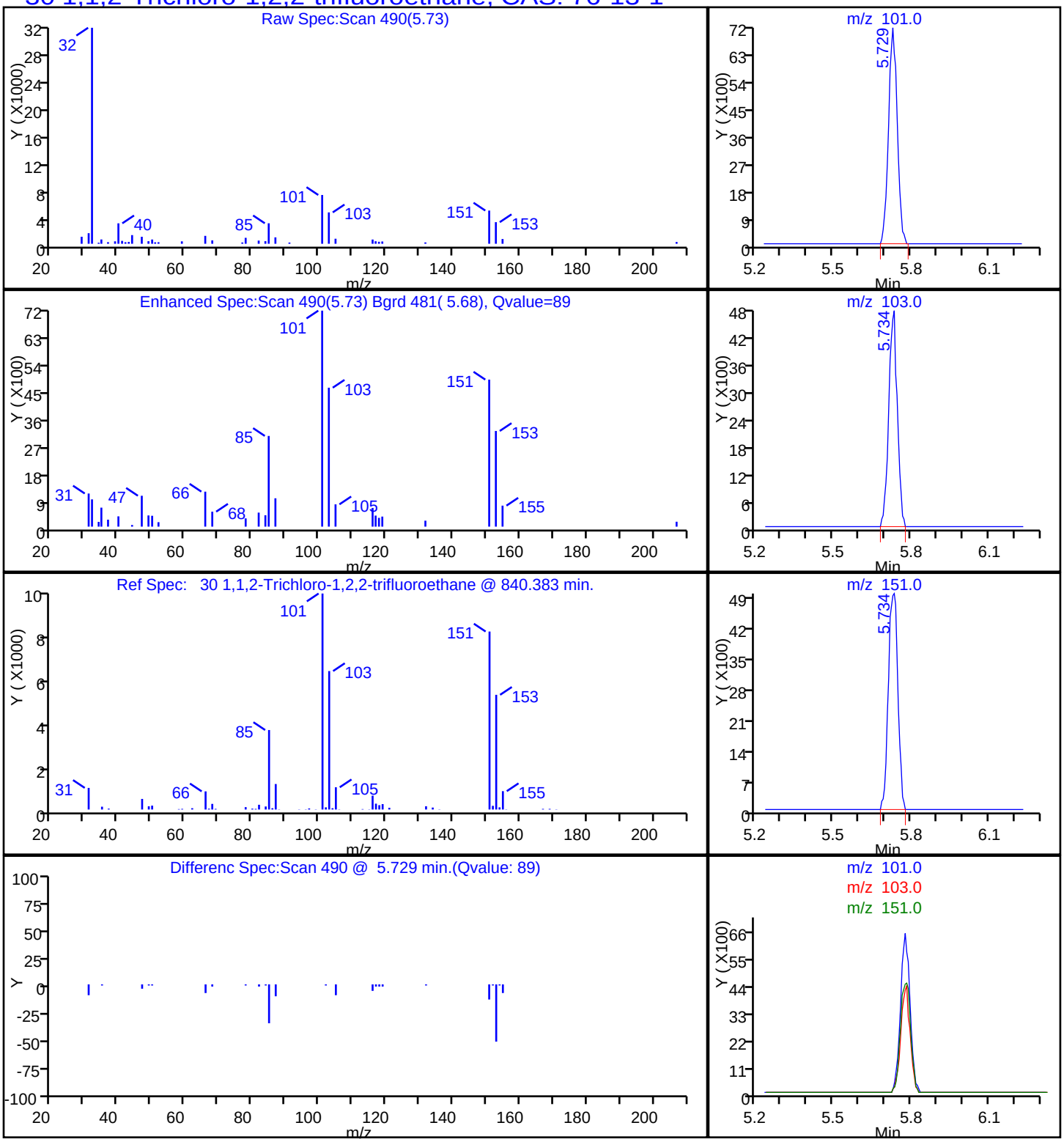


Report Date: 30-Jun-2014 11:12:38 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P109.D				
Injection Date:	27-Jun-2014 23:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-5	Lab Sample ID:	140-1594-5		
Client ID:	SMSSV AMBIENT				
Operator ID:	7126	ALS Bottle#:	9	Worklist Smp#:	14
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

30 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV10-20 | Lab Sample ID: 140-1594-6

Matrix: Air | Lab File ID: RF27P110.D

Analysis Method: TO-15 | Date Collected: 06/24/2014 17:00

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 00:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	9.7		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	6.0		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	20		2.0	
95-47-6	o-Xylene	106.17	6.7		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	37		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV10-20 Lab Sample ID: 140-1594-6

Matrix: Air Lab File ID: RF27P110.D

Analysis Method: TO-15 Date Collected: 06/24/2014 17:00

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 00:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	6.3		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	115		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV10-20 | Lab Sample ID: 140-1594-6

Matrix: Air | Lab File ID: RF27P110.D

Analysis Method: TO-15 | Date Collected: 06/24/2014 17:00

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 00:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	31		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	26		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	88		8.7	
95-47-6	o-Xylene	106.17	29		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	140		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV10-20 Lab Sample ID: 140-1594-6

Matrix: Air Lab File ID: RF27P110.D

Analysis Method: TO-15 Date Collected: 06/24/2014 17:00

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 00:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	31		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	115		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 00:35:30	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-6				
Misc. Info.:	R062714,TO15,140-0000780-015				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:14:58	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:14:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	95	241338	4.00	
* 2 1,4-Difluorobenzene	114	10.717	10.712	0.005	96	1238046	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1169599	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	85	1060747	4.60	
8 Dichlorodifluoromethane	85	3.443	3.443	0.000	22	7044	0.0290	
30 1,1,2-Trichloro-1,2,2-trif	101	5.735	5.729	0.006	10	2332	0.0144	
31 Methylene Chloride	84	5.875	5.869	0.006	55	6540	0.0863	
47 Benzene	78	10.119	10.113	0.006	98	106120	0.3887	
65 Toluene	91	14.147	14.147	0.000	93	542670	1.50	
76 Ethylbenzene	91	17.592	17.614	-0.022	99	107596	0.2386	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	99	291101	0.8136	
80 Styrene	104	18.628	18.644	-0.016	80	7175	0.0285	
82 o-Xylene	91	18.730	18.746	-0.016	98	99335	0.2690	
89 1,3,5-Trimethylbenzene	120	21.178	21.189	-0.011	84	13703	0.0529	
93 1,2,4-Trimethylbenzene	105	22.014	22.019	-0.005	98	120433	0.2507	

Reagents:

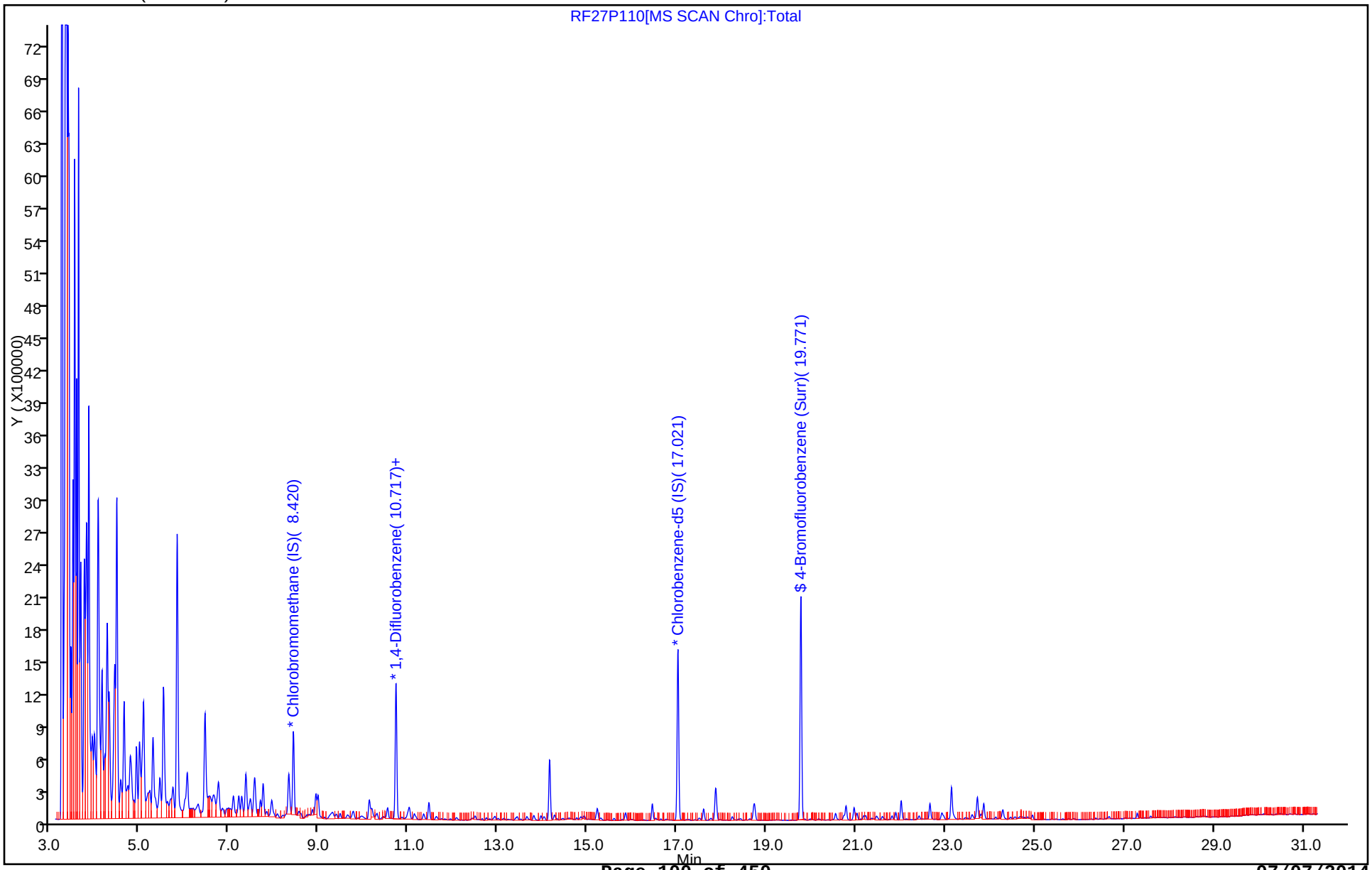
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:14:58 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6	Worklist Smp#:	15
Client ID:	SMSSV10-20				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

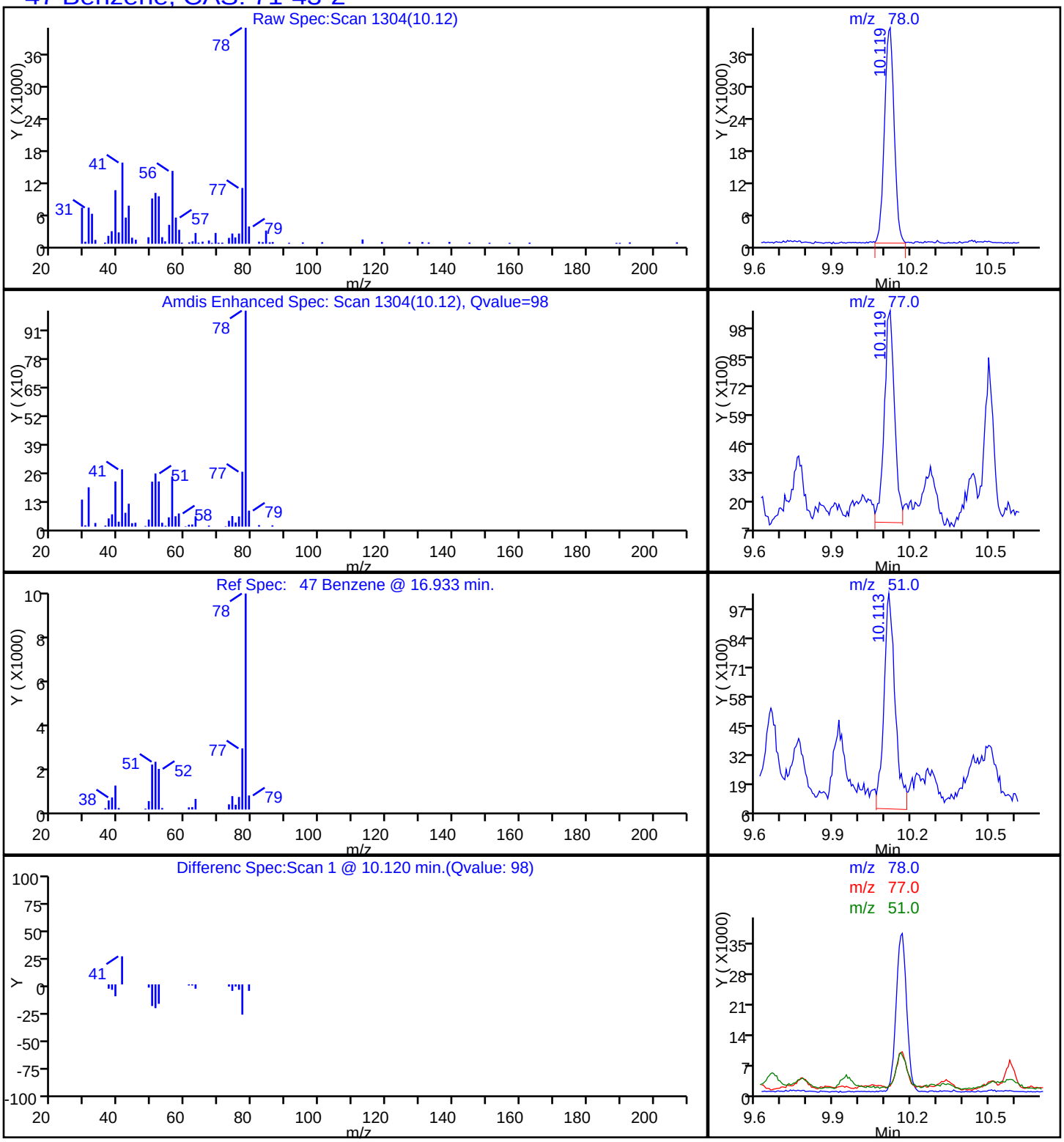


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

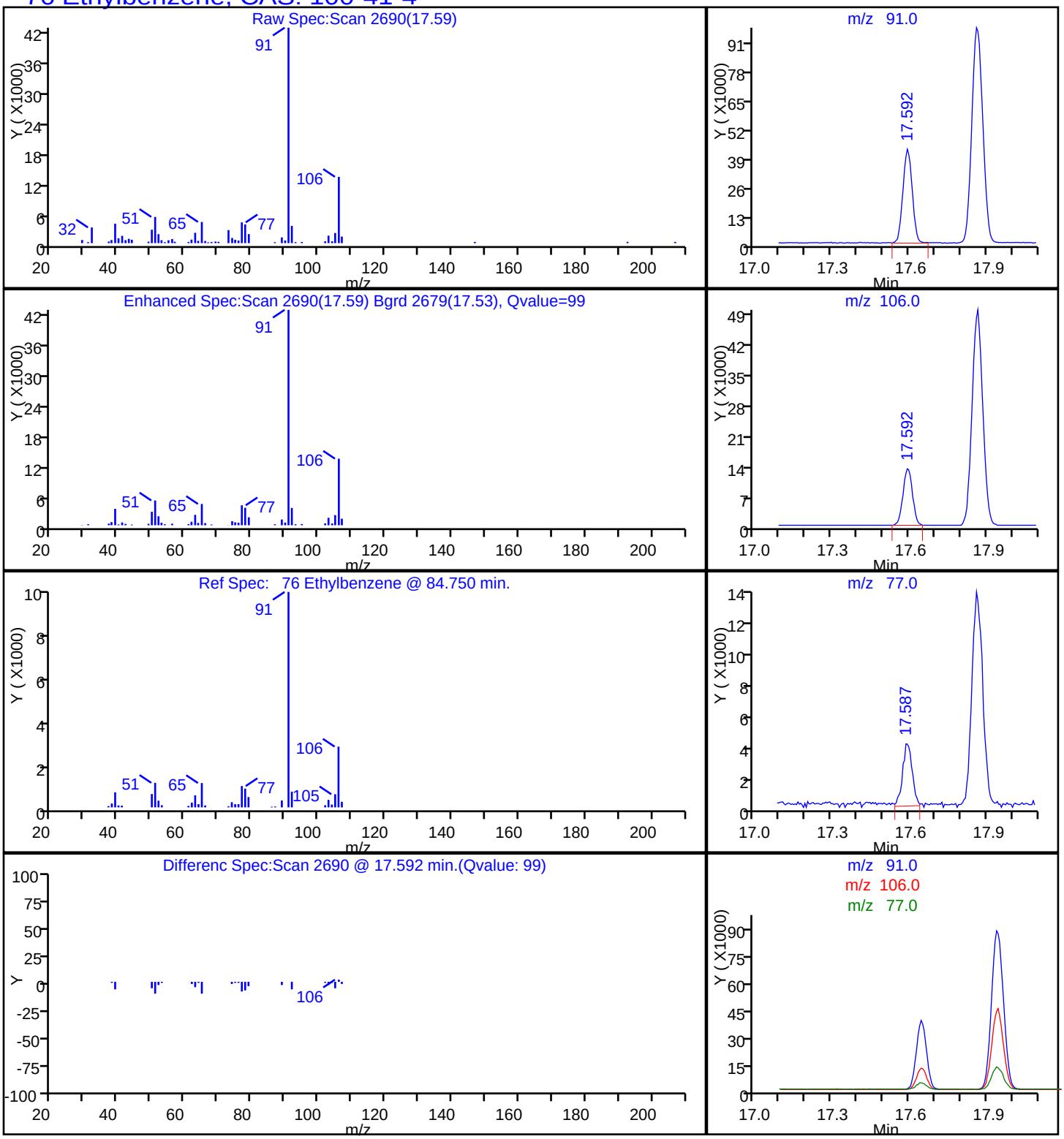


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

76 Ethylbenzene, CAS: 100-41-4

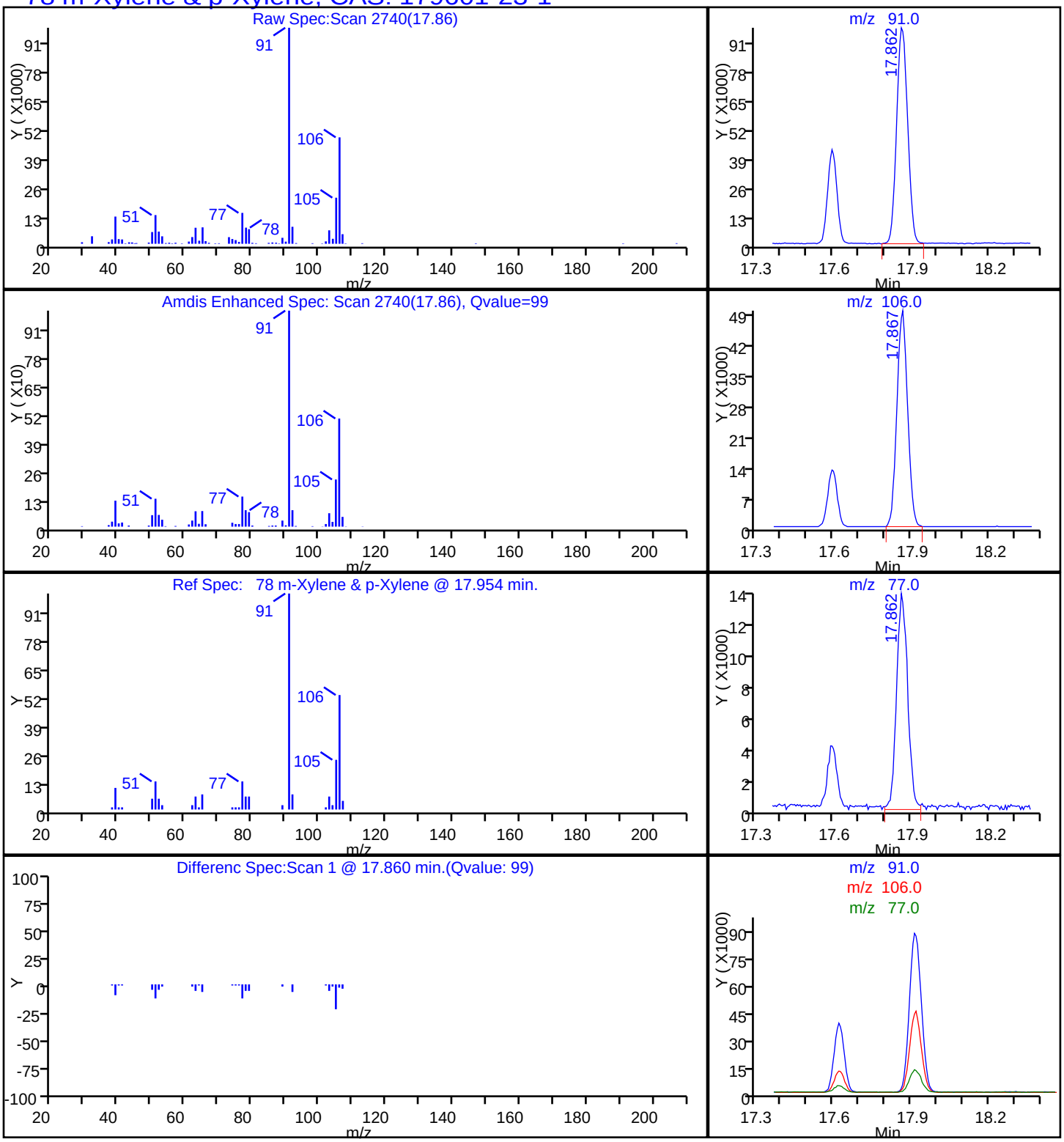


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

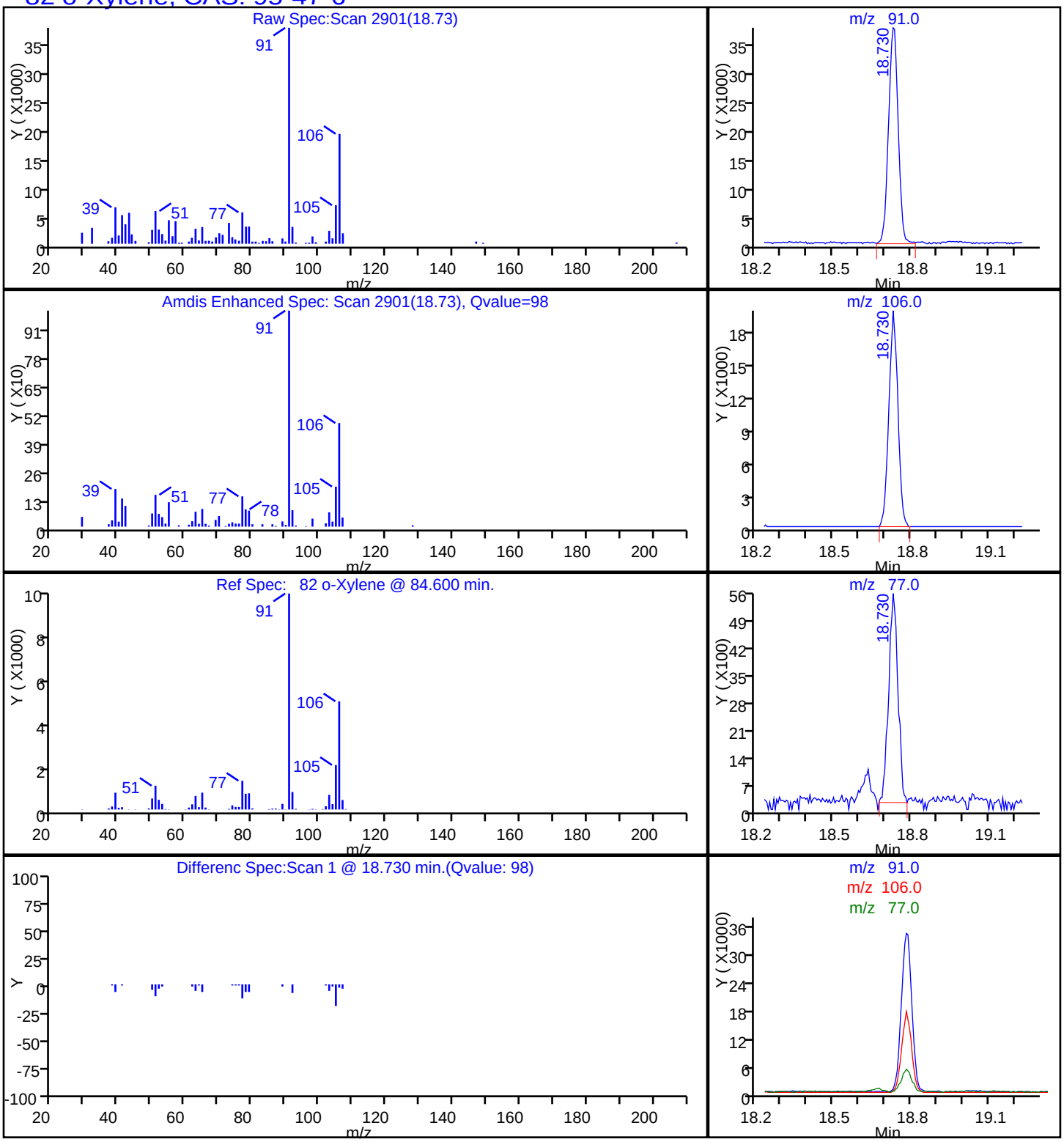


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

82 o-Xylene, CAS: 95-47-6

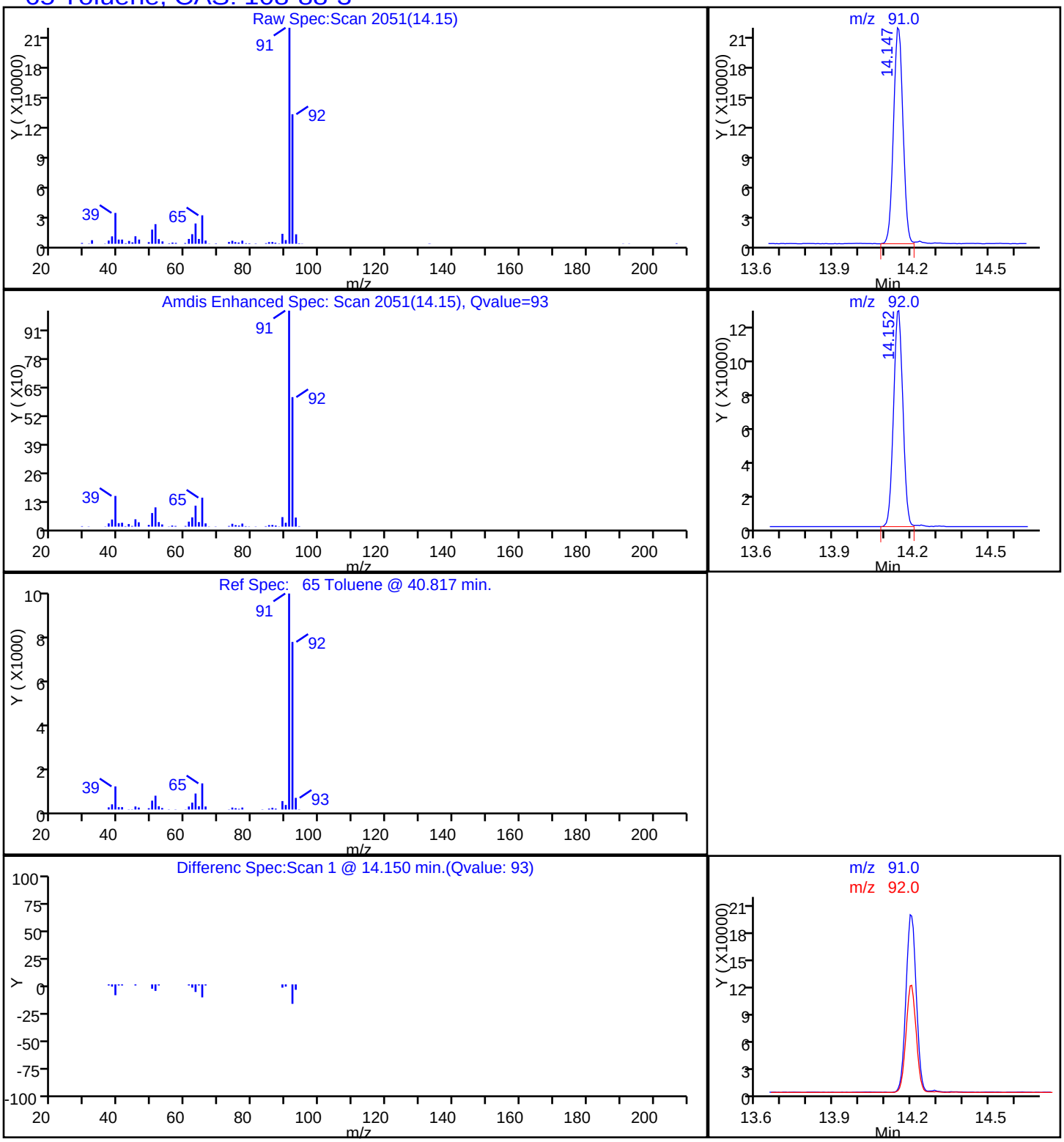


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

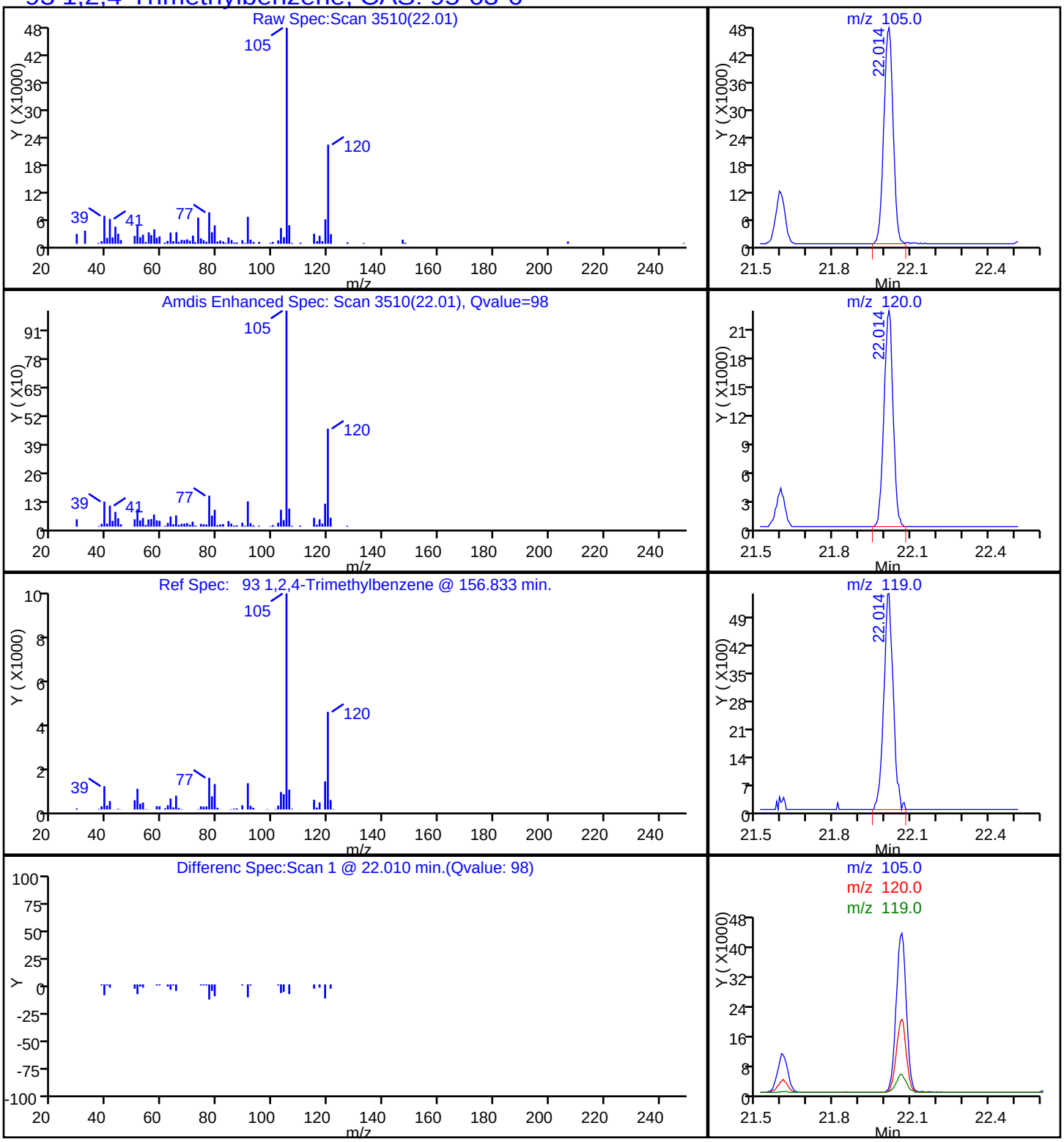


Report Date: 30-Jun-2014 11:14:59 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P110.D				
Injection Date:	28-Jun-2014 00:35:30	Instrument ID:	MR		
Lims ID:	140-1594-A-6	Lab Sample ID:	140-1594-6		
Client ID:	SMSSV10-20				
Operator ID:	7126	ALS Bottle#:	10	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

93 1,2,4-Trimethylbenzene, CAS: 95-63-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV8-15 | Lab Sample ID: 140-1594-7

Matrix: Air | Lab File ID: RF27P111.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 11:15

Sample wt/vol: 91(mL) | Date Analyzed: 06/28/2014 01:28

Soil Aliquot Vol: | Dilution Factor: 4.55

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	8.1		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	4.6		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	16		2.0	
95-47-6	o-Xylene	106.17	5.2		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	30		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV8-15 | Lab Sample ID: 140-1594-7

Matrix: Air | Lab File ID: RF27P111.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 11:15

Sample wt/vol: 91(mL) | Date Analyzed: 06/28/2014 01:28

Soil Aliquot Vol: | Dilution Factor: 4.55

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	3.8		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	110		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV8-15 | Lab Sample ID: 140-1594-7

Matrix: Air | Lab File ID: RF27P111.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 11:15

Sample wt/vol: 91(mL) | Date Analyzed: 06/28/2014 01:28

Soil Aliquot Vol: | Dilution Factor: 4.55

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	26		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	20		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	67		8.7	
95-47-6	o-Xylene	106.17	23		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	110		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV8-15 Lab Sample ID: 140-1594-7

Matrix: Air Lab File ID: RF27P111.D

Analysis Method: TO-15 Date Collected: 06/25/2014 11:15

Sample wt/vol: 91(mL) Date Analyzed: 06/28/2014 01:28

Soil Aliquot Vol: Dilution Factor: 4.55

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	19		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	110		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 01:28:30	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Sample Info:	140-1594-a-7@4.55				
Misc. Info.:	R062714,TO15,140-0000780-016				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:28:10	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:17:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	96	306615	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	96	1635806	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1336344	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.766	19.782	-0.016	95	1154375	4.38	
20 Trichlorofluoromethane	101	4.834	4.834	-0.005	38	6715	0.0221	M
30 1,1,2-Trichloro-1,2,2-trif	101	5.745	5.729	0.016	30	3962	0.0193	
31 Methylene Chloride	84	5.869	5.869	0.000	88	8609	0.0895	
47 Benzene	78	10.119	10.113	0.006	98	116744	0.3237	
56 Trichloroethene	130	11.521	11.526	-0.005	80	2360	0.0153	
65 Toluene	91	14.147	14.147	0.000	93	500458	1.21	
76 Ethylbenzene	91	17.598	17.614	-0.016	99	95216	0.1848	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	99	254179	0.6218	
82 o-Xylene	91	18.730	18.746	-0.016	98	87992	0.2085	
89 1,3,5-Trimethylbenzene	120	21.178	21.189	-0.011	91	8018	0.0271	
93 1,2,4-Trimethylbenzene	105	22.014	22.019	-0.005	98	83376	0.1519	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

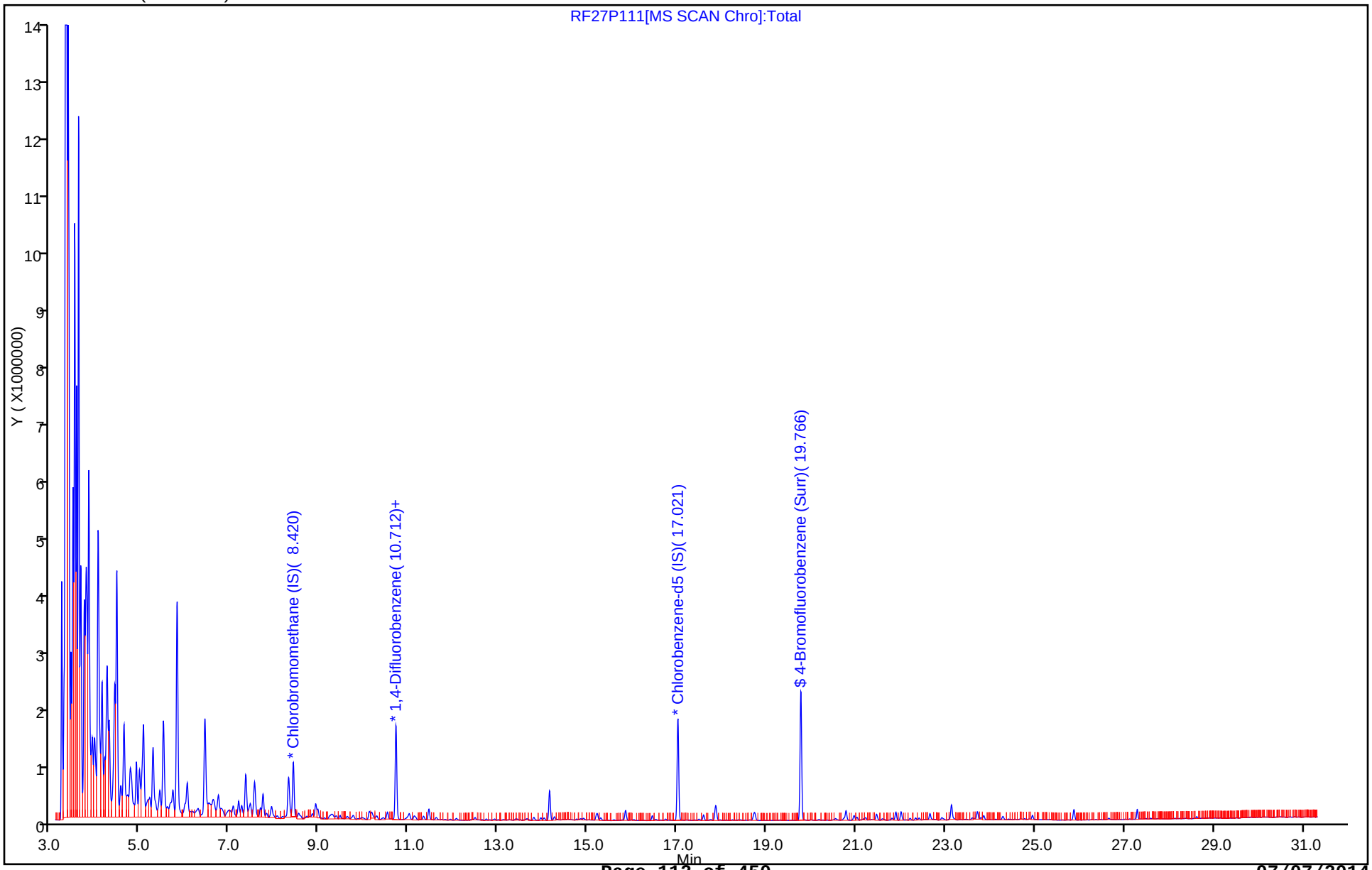
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7	Worklist Smp#:	16
Client ID:	SMSSV8-15				
Purge Vol:	500.000 mL	Dil. Factor:	4.5500	ALS Bottle#:	11
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

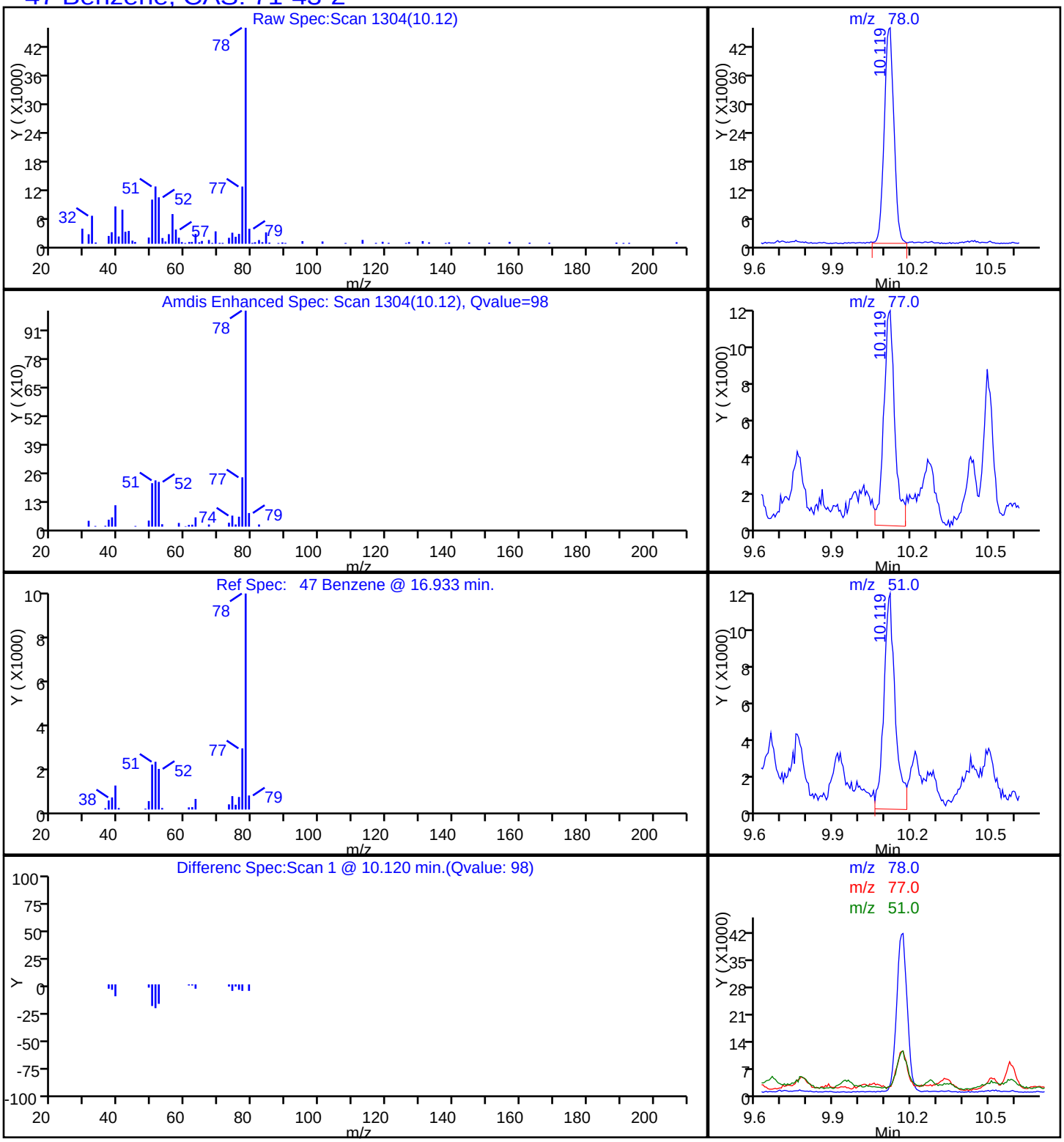


Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

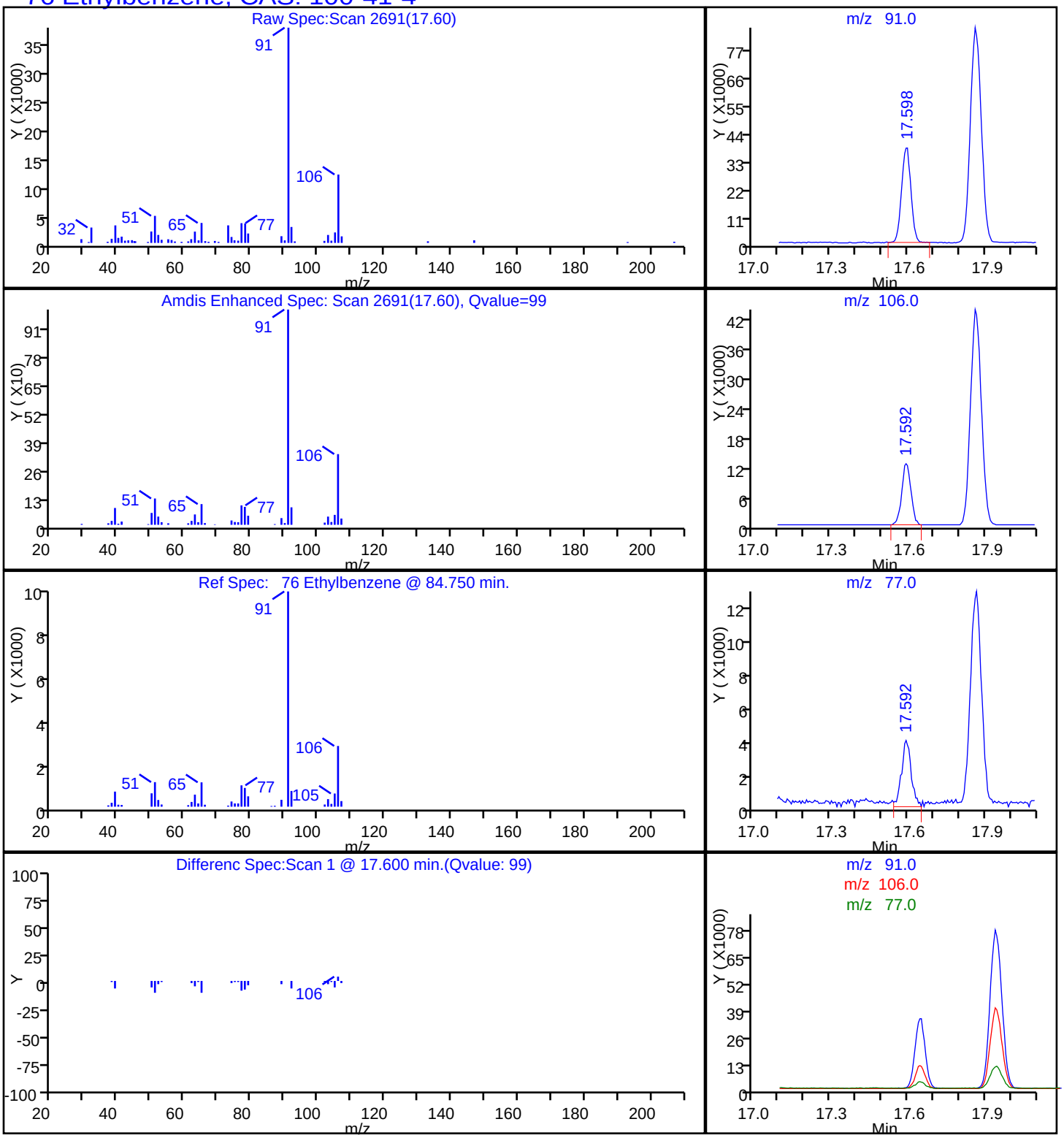


Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

76 Ethylbenzene, CAS: 100-41-4

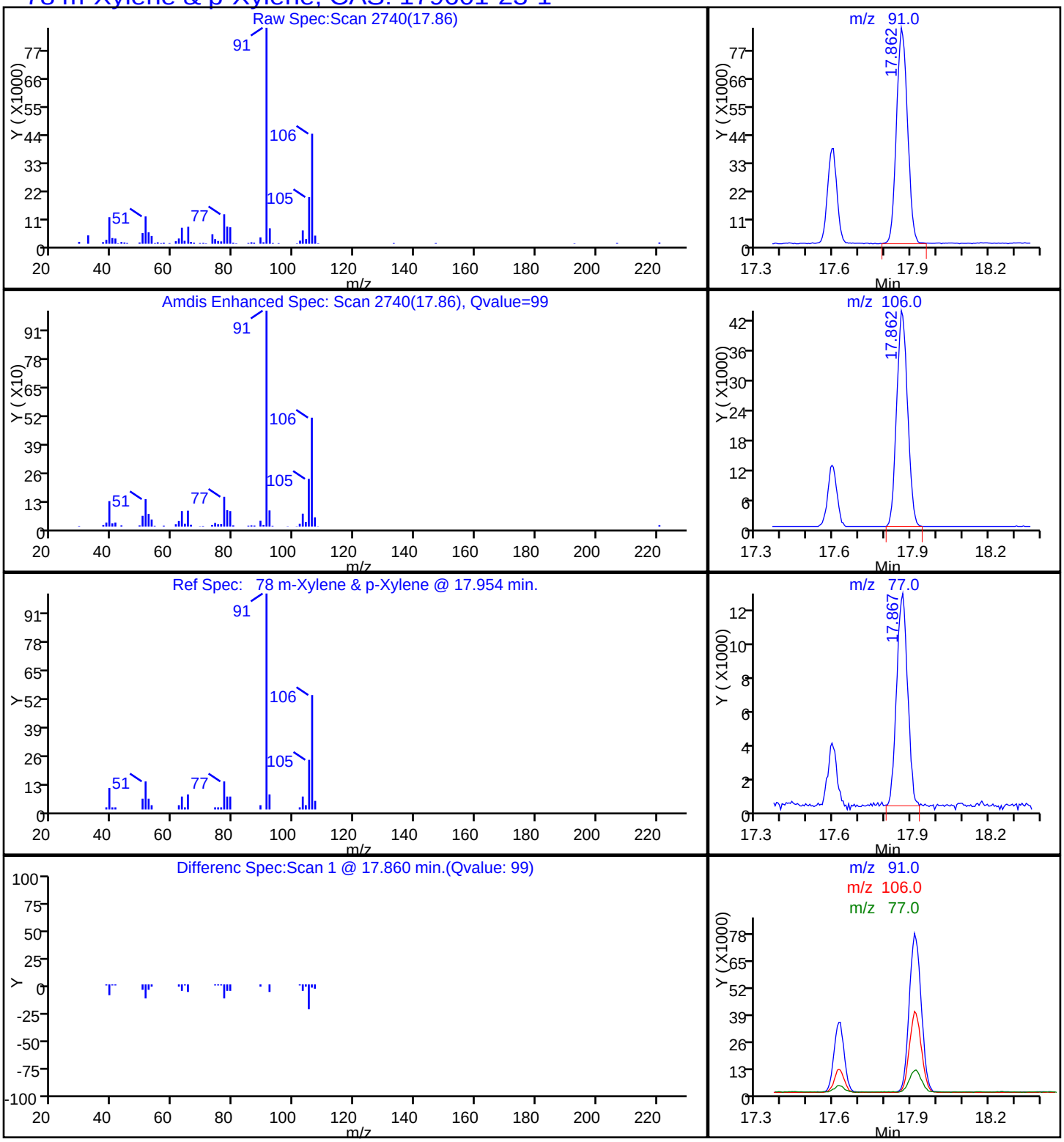


Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

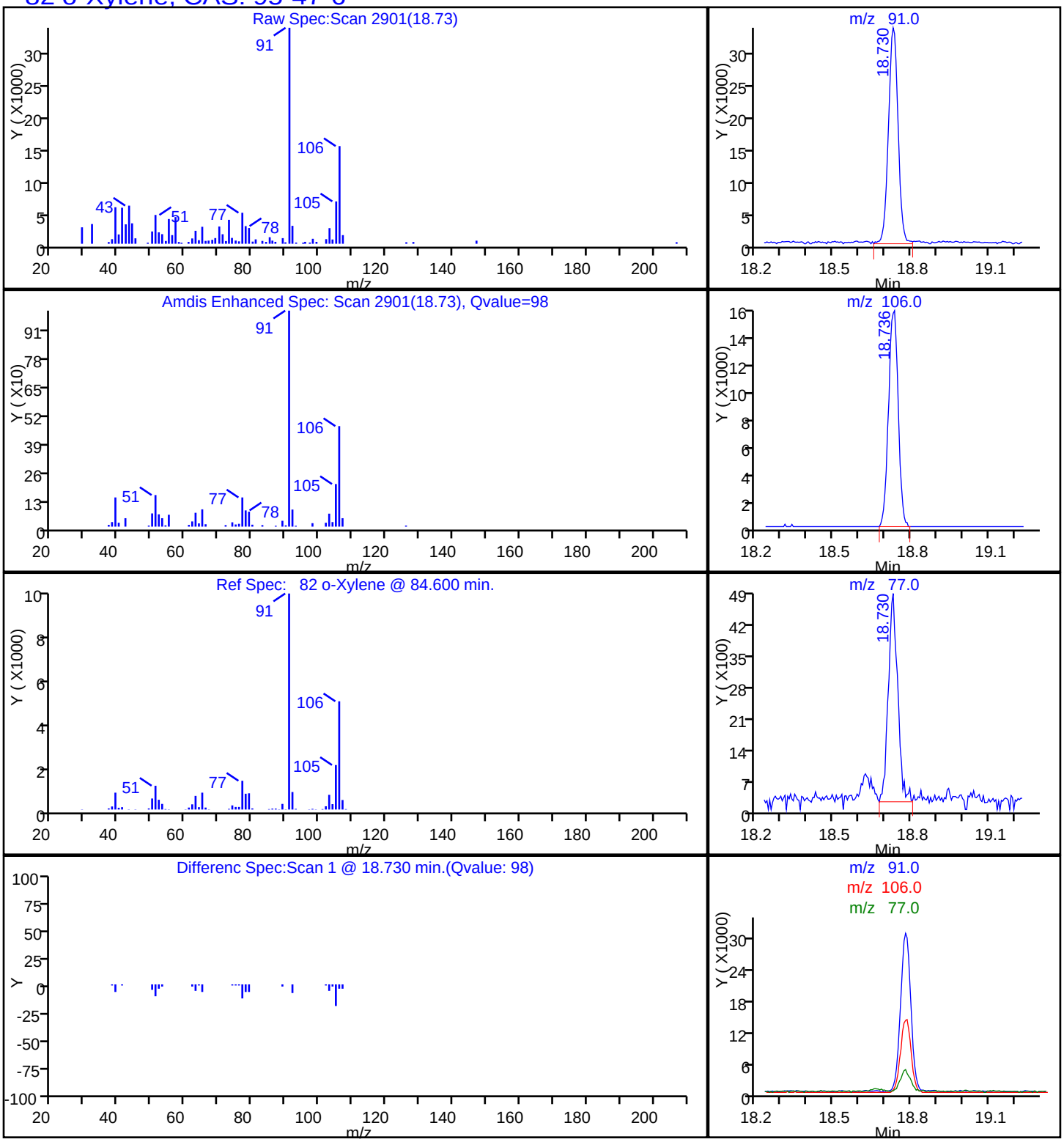


Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

82 o-Xylene, CAS: 95-47-6

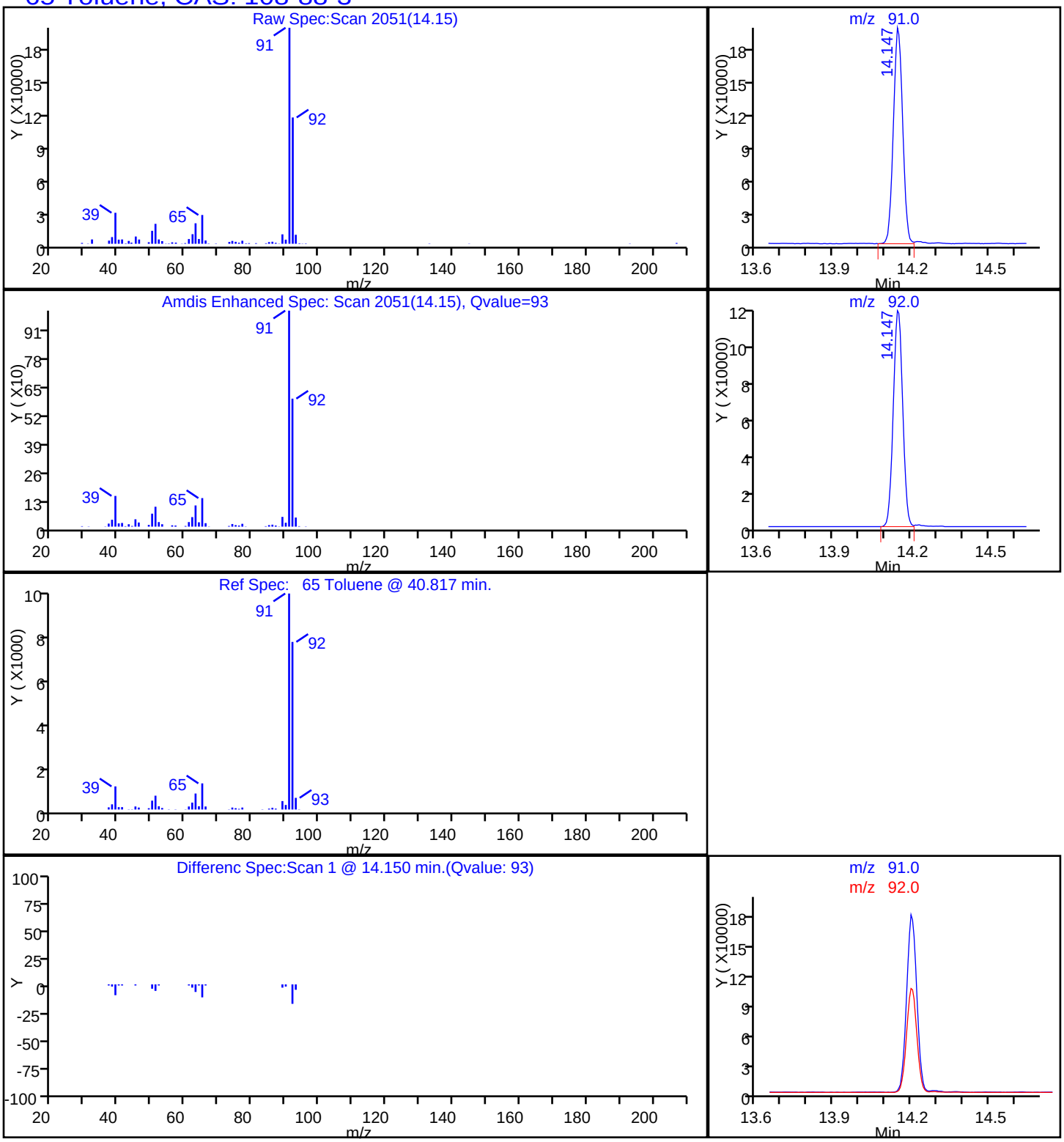


Report Date: 30-Jun-2014 11:28:11 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

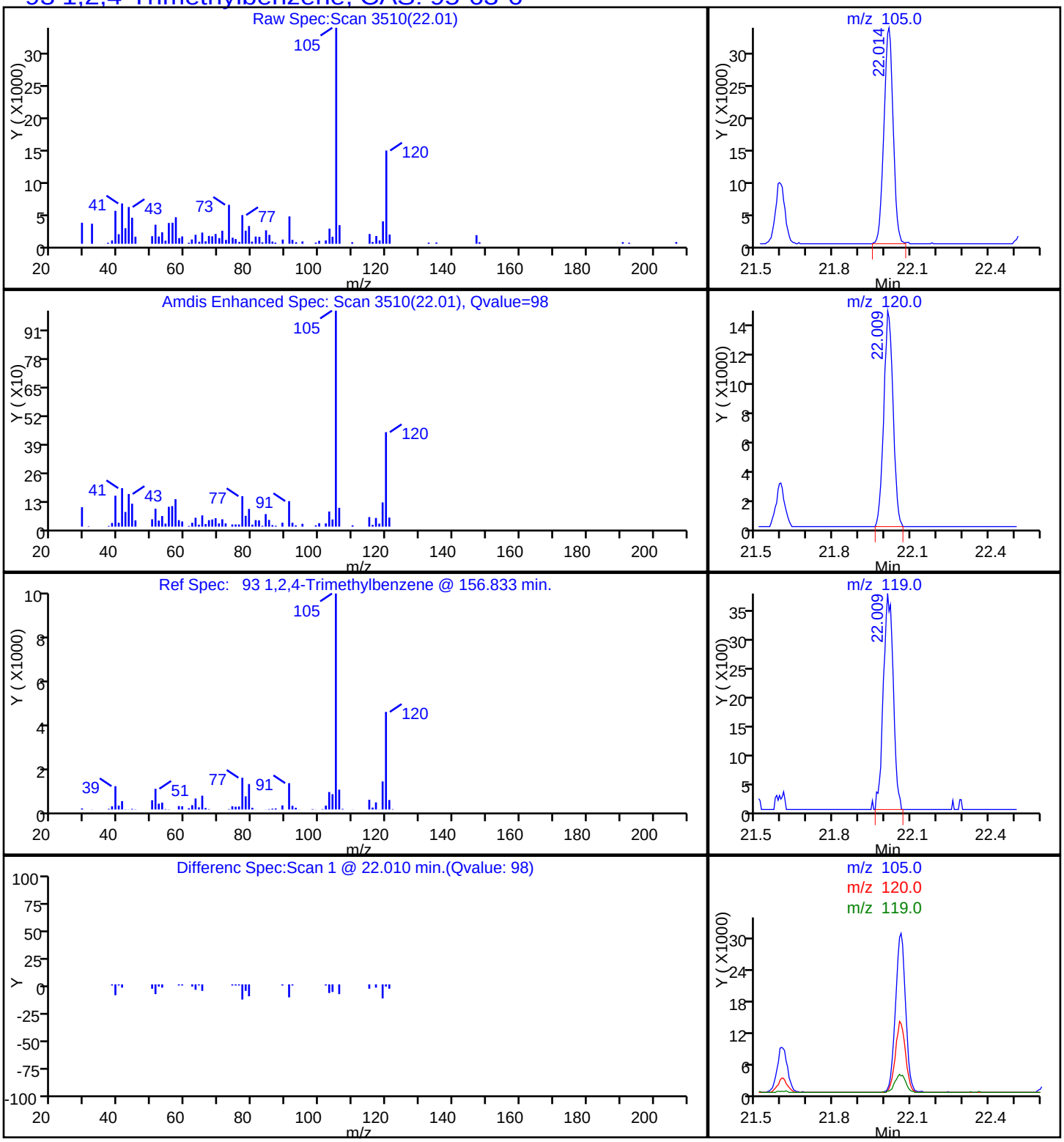


Report Date: 30-Jun-2014 11:28:12 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

93 1,2,4-Trimethylbenzene, CAS: 95-63-6



Manual Integration/User Assign Peak Report

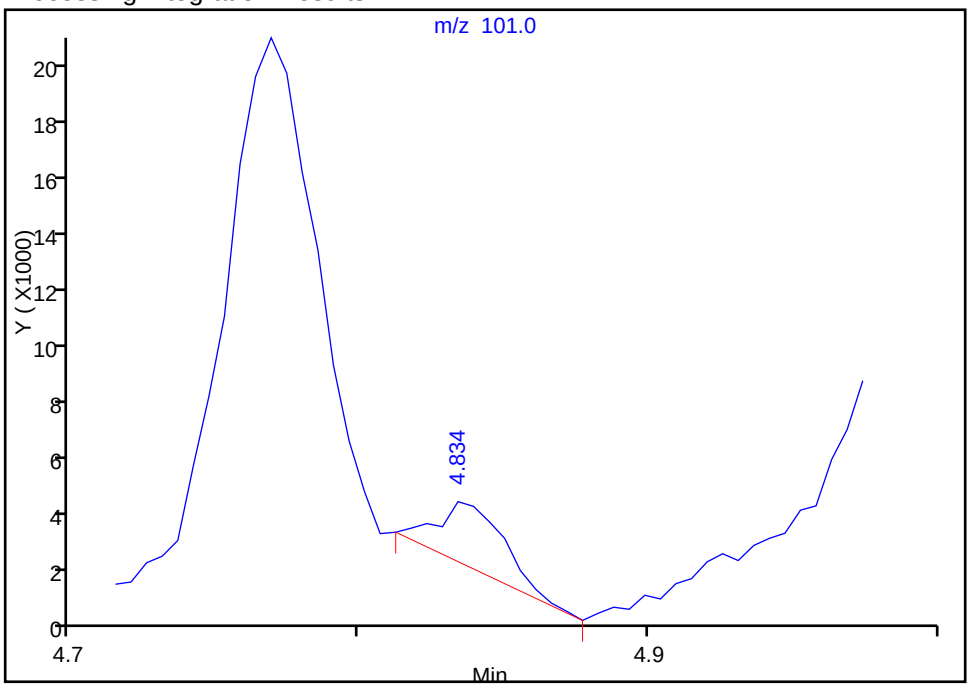
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P111.D				
Injection Date:	28-Jun-2014 01:28:30	Instrument ID:	MR		
Lims ID:	140-1594-A-7	Lab Sample ID:	140-1594-7		
Client ID:	SMSSV8-15				
Operator ID:	7126	ALS Bottle#:	11	Worklist Smp#:	16
Purge Vol:	500.000 mL	Dil. Factor:	4.5500		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

20 Trichlorofluoromethane, CAS: 75-69-4

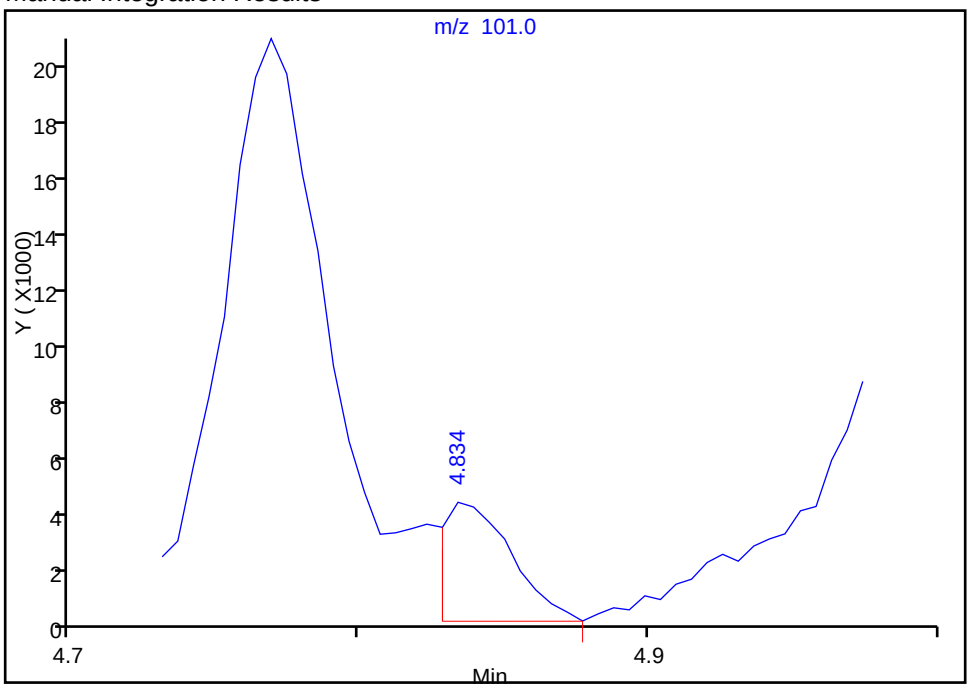
Processing Integration Results

RT: 4.83
Response: 3466
Amount: 0.011400



Manual Integration Results

RT: 4.83
Response: 6715
Amount: 0.022087



Reviewer: barlozhetskayaa, 30-Jun-2014 11:28:10
Audit Action: Assigned New Baseline
Audit Reason: Baseline

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV13-11 | Lab Sample ID: 140-1594-8

Matrix: Air | Lab File ID: RF27P112.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 12:57

Sample wt/vol: 46(mL) | Date Analyzed: 06/28/2014 02:20

Soil Aliquot Vol: | Dilution Factor: 2.3

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	7.5		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	3.4		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	7.3		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV13-11 | Lab Sample ID: 140-1594-8

Matrix: Air | Lab File ID: RF27P112.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 12:57

Sample wt/vol: 46(mL) | Date Analyzed: 06/28/2014 02:20

Soil Aliquot Vol: | Dilution Factor: 2.3

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV13-11 | Lab Sample ID: 140-1594-8

Matrix: Air | Lab File ID: RF27P112.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 12:57

Sample wt/vol: 46(mL) | Date Analyzed: 06/28/2014 02:20

Soil Aliquot Vol: | Dilution Factor: 2.3

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	24		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	15		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	27		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV13-11 | Lab Sample ID: 140-1594-8

Matrix: Air | Lab File ID: RF27P112.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 12:57

Sample wt/vol: 46(mL) | Date Analyzed: 06/28/2014 02:20

Soil Aliquot Vol: | Dilution Factor: 2.3

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P112.D				
Lims ID:	140-1594-A-8	Lab Sample ID:	140-1594-8		
Client ID:	SMSSV13-11				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 02:20:30	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	2.3000		
Sample Info:	140-1594-a-8@2.30				
Misc. Info.:	R062714,TO15,140-0000780-017				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:19:12	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:19:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	96	308128	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	96	1636895	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1396166	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.766	19.782	-0.016	86	1196634	4.35	
20 Trichlorofluoromethane	101	4.845	4.839	0.006	39	3206	0.0105	
31 Methylene Chloride	84	5.880	5.869	0.011	58	5594	0.0578	
43 Chloroform	83	8.452	8.452	0.000	14	4088	0.0178	
47 Benzene	78	10.113	10.113	0.000	99	108506	0.3006	
65 Toluene	91	14.152	14.147	0.005	93	125860	0.2912	
76 Ethylbenzene	91	17.592	17.614	-0.022	90	25554	0.0475	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	99	58320	0.1365	
82 o-Xylene	91	18.725	18.746	-0.021	92	21131	0.0479	
93 1,2,4-Trimethylbenzene	105	22.009	22.019	-0.010	89	25804	0.0450	

Reagents:

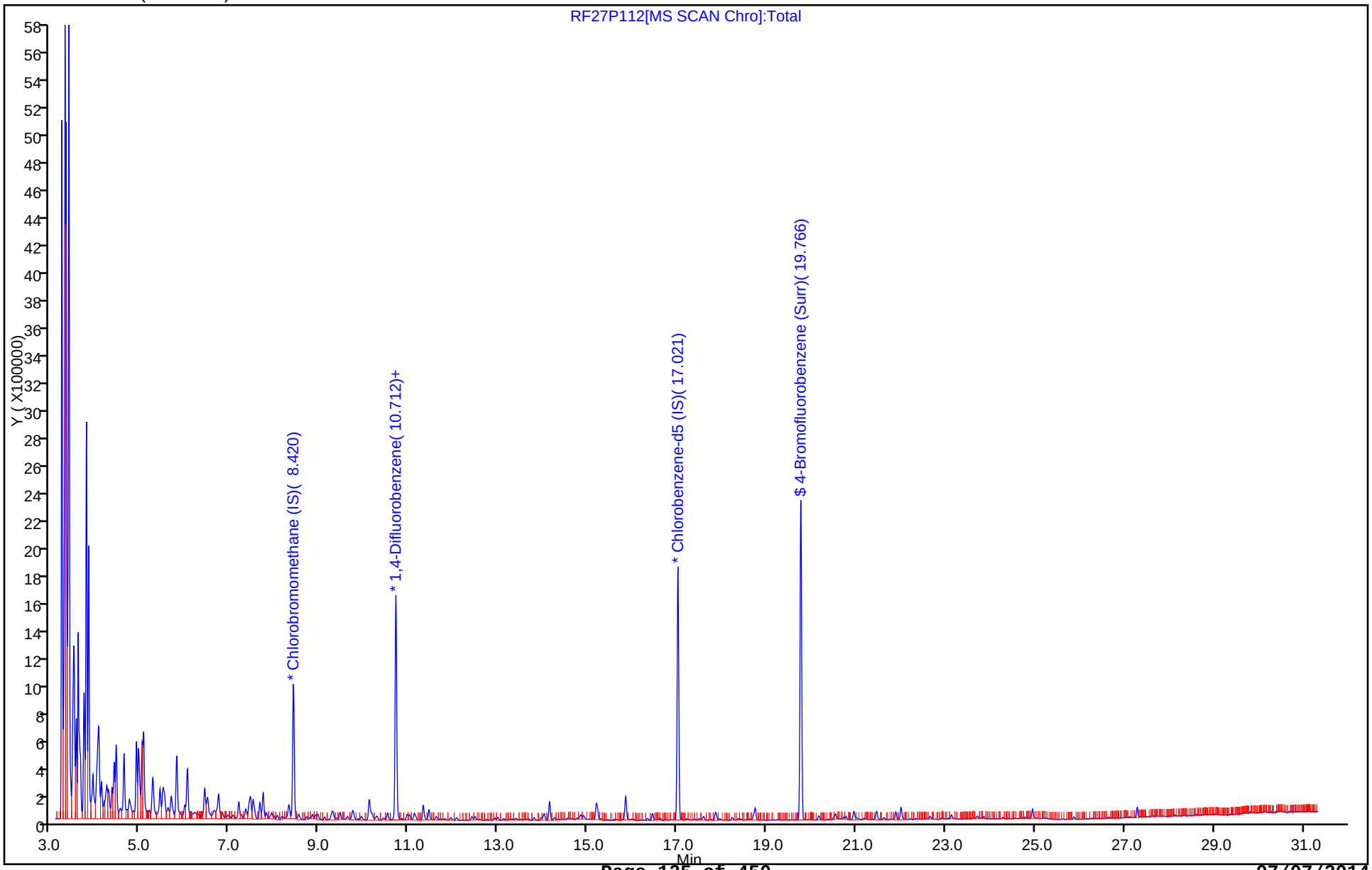
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:19:13 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P112.D				
Injection Date:	28-Jun-2014 02:20:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-8	Lab Sample ID:	140-1594-8	Worklist Smp#:	17
Client ID:	SMSSV13-11				
Purge Vol:	500.000 mL	Dil. Factor:	2.3000	ALS Bottle#:	12
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

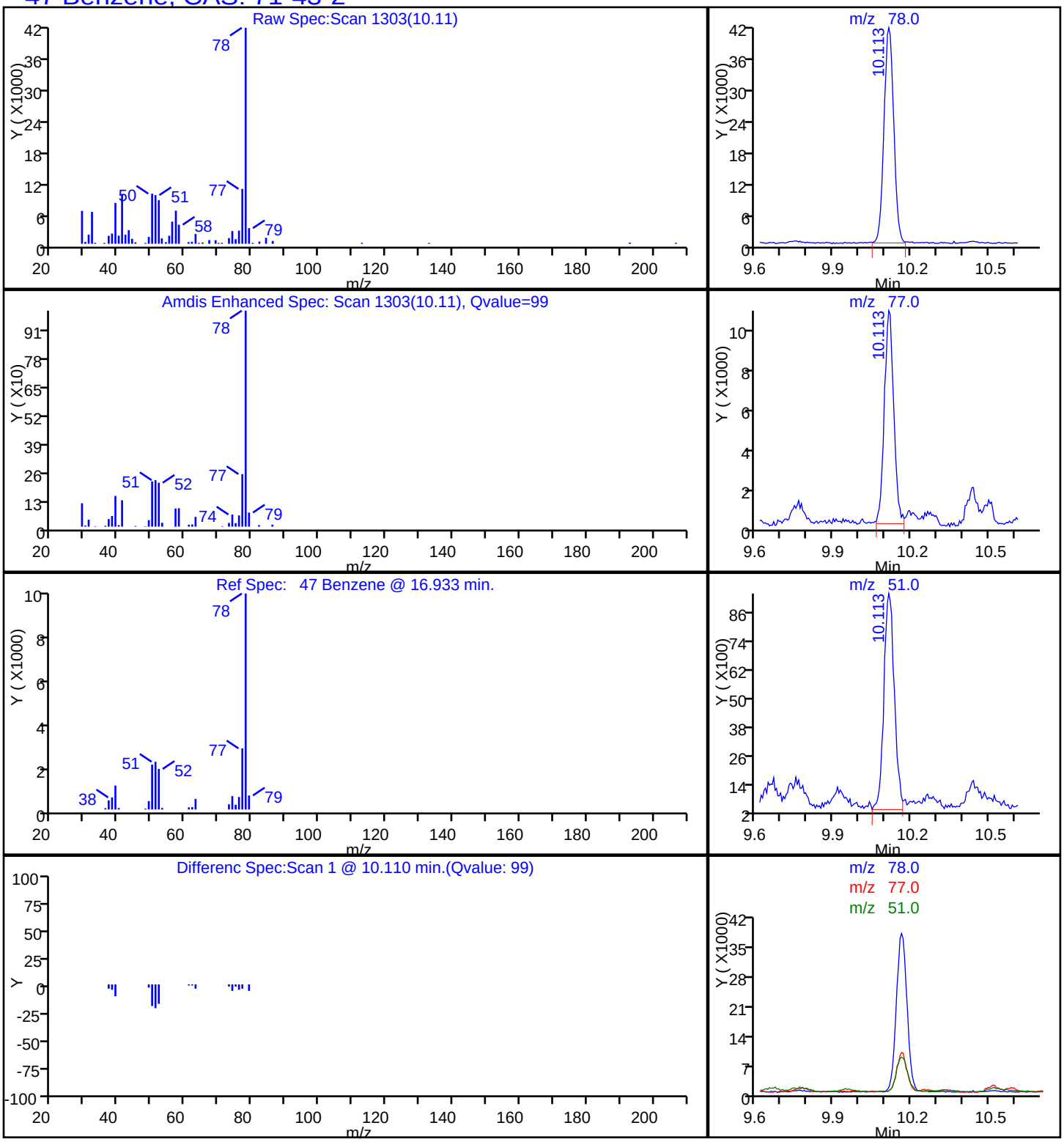


Report Date: 30-Jun-2014 11:19:13 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P112.D				
Injection Date:	28-Jun-2014 02:20:30	Instrument ID:	MR		
Lims ID:	140-1594-A-8	Lab Sample ID:	140-1594-8		
Client ID:	SMSSV13-11				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	2.3000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

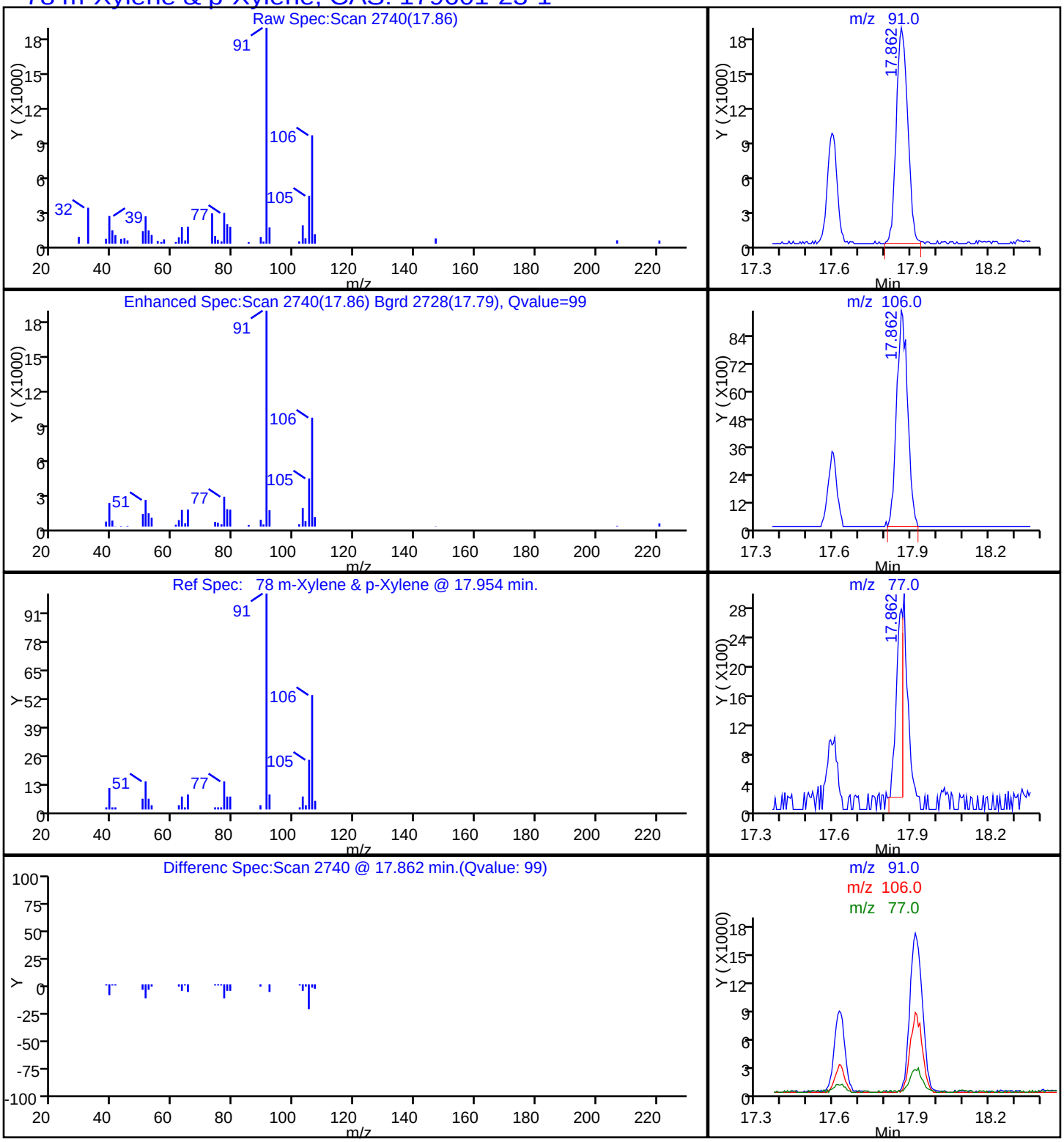


Report Date: 30-Jun-2014 11:19:13 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P112.D				
Injection Date:	28-Jun-2014 02:20:30	Instrument ID:	MR		
Lims ID:	140-1594-A-8	Lab Sample ID:	140-1594-8		
Client ID:	SMSSV13-11				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	2.3000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

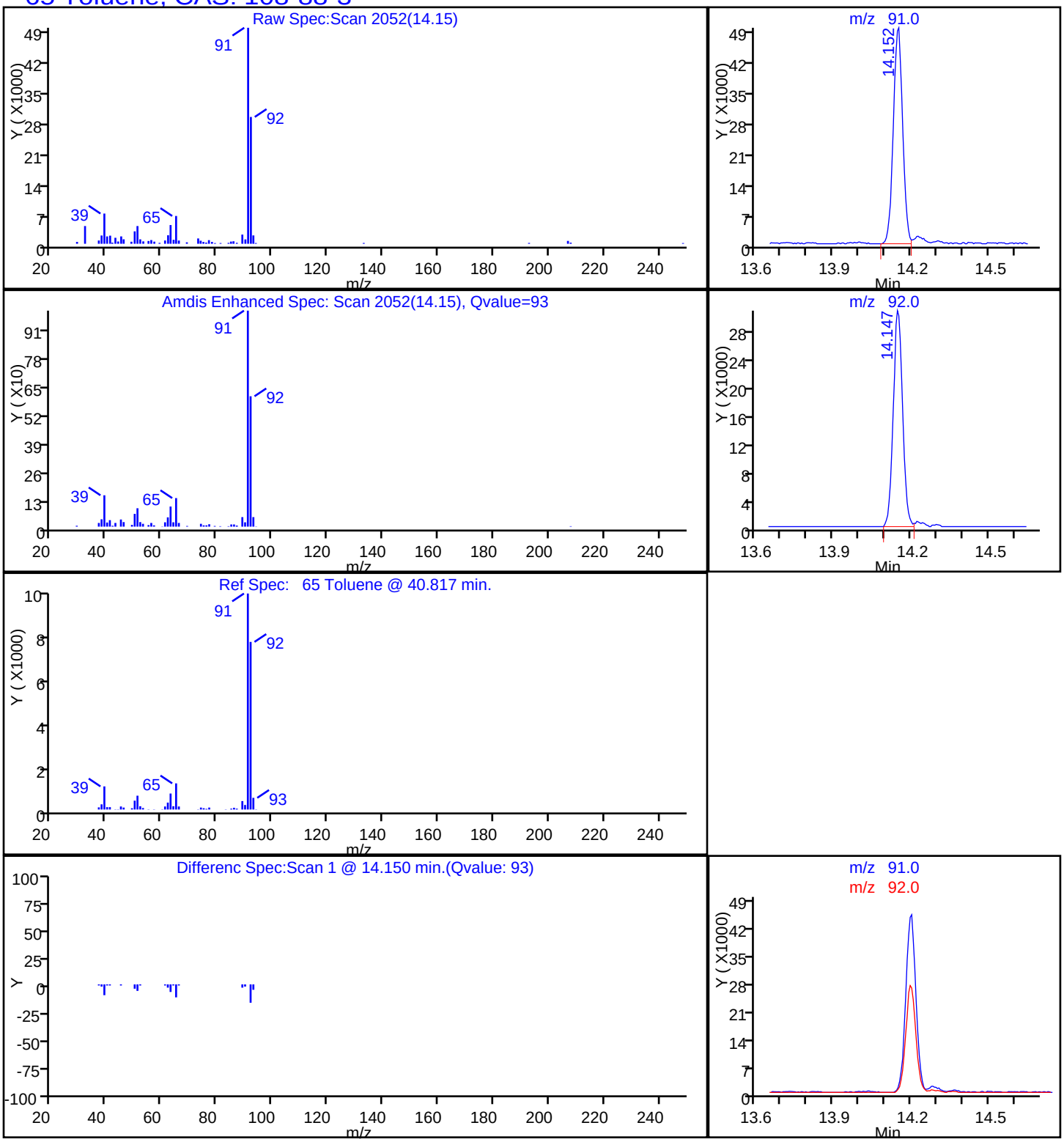


Report Date: 30-Jun-2014 11:19:13 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P112.D				
Injection Date:	28-Jun-2014 02:20:30	Instrument ID:	MR		
Lims ID:	140-1594-A-8	Lab Sample ID:	140-1594-8		
Client ID:	SMSSV13-11				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	2.3000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV11-11 | Lab Sample ID: 140-1594-9

Matrix: Air | Lab File ID: RF27P113.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 13:49

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 03:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	4.8		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	2.5		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	5.9		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV11-11 Lab Sample ID: 140-1594-9

Matrix: Air Lab File ID: RF27P113.D

Analysis Method: TO-15 Date Collected: 06/25/2014 13:49

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 03:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV11-11 | Lab Sample ID: 140-1594-9

Matrix: Air | Lab File ID: RF27P113.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 13:49

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 03:12

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	15		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	11		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	22		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV11-11 Lab Sample ID: 140-1594-9

Matrix: Air Lab File ID: RF27P113.D

Analysis Method: TO-15 Date Collected: 06/25/2014 13:49

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 03:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P113.D				
Lims ID:	140-1594-A-9	Lab Sample ID:	140-1594-9		
Client ID:	SMSSV11-11				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 03:12:30	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-9				
Misc. Info.:	R062714,TO15,140-0000780-018				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:29:15	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:59:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.452	8.420	0.032	96	311432	4.00	
* 2 1,4-Difluorobenzene	114	10.728	10.712	0.016	96	1654720	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	90	1350779	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	86	1162608	4.37	
20 Trichlorofluoromethane	101	4.872	4.839	0.033	12	3517	0.0114	
47 Benzene	78	10.135	10.113	0.022	97	70015	0.1919	
65 Toluene	91	14.157	14.147	0.010	93	97988	0.2344	
73 Tetrachloroethene	129	15.791	15.780	0.011	81	3510	0.0246	
76 Ethylbenzene	91	17.598	17.614	-0.016	88	20578	0.0395	
78 m-Xylene & p-Xylene	91	17.867	17.889	-0.022	98	41758	0.1011	
82 o-Xylene	91	18.725	18.746	-0.021	89	16555	0.0388	
93 1,2,4-Trimethylbenzene	105	22.014	22.019	-0.005	84	19557	0.0353	

Reagents:

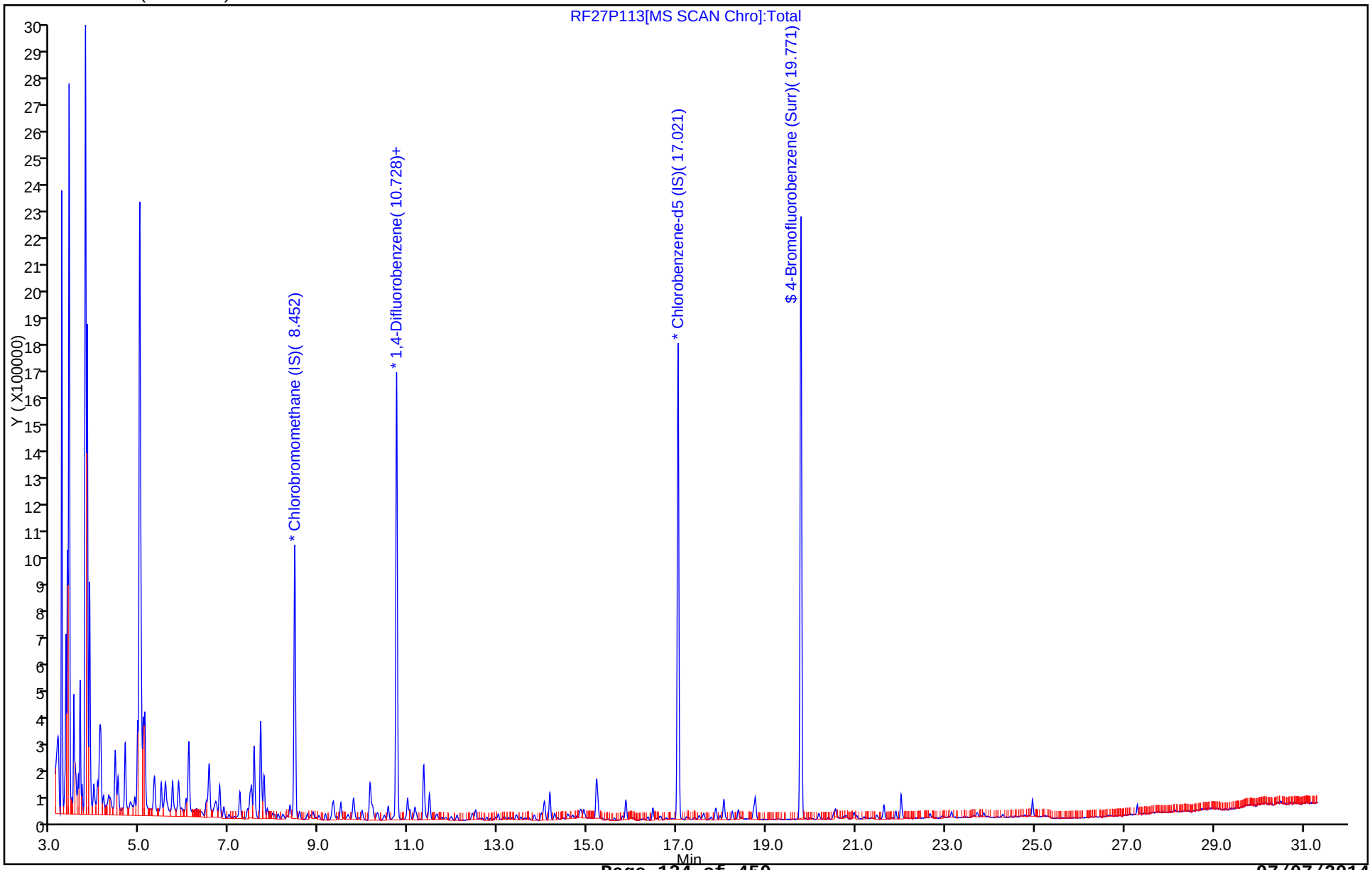
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:59:19 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P113.D				
Injection Date:	28-Jun-2014 03:12:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-9	Lab Sample ID:	140-1594-9	Worklist Smp#:	18
Client ID:	SMSSV11-11				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

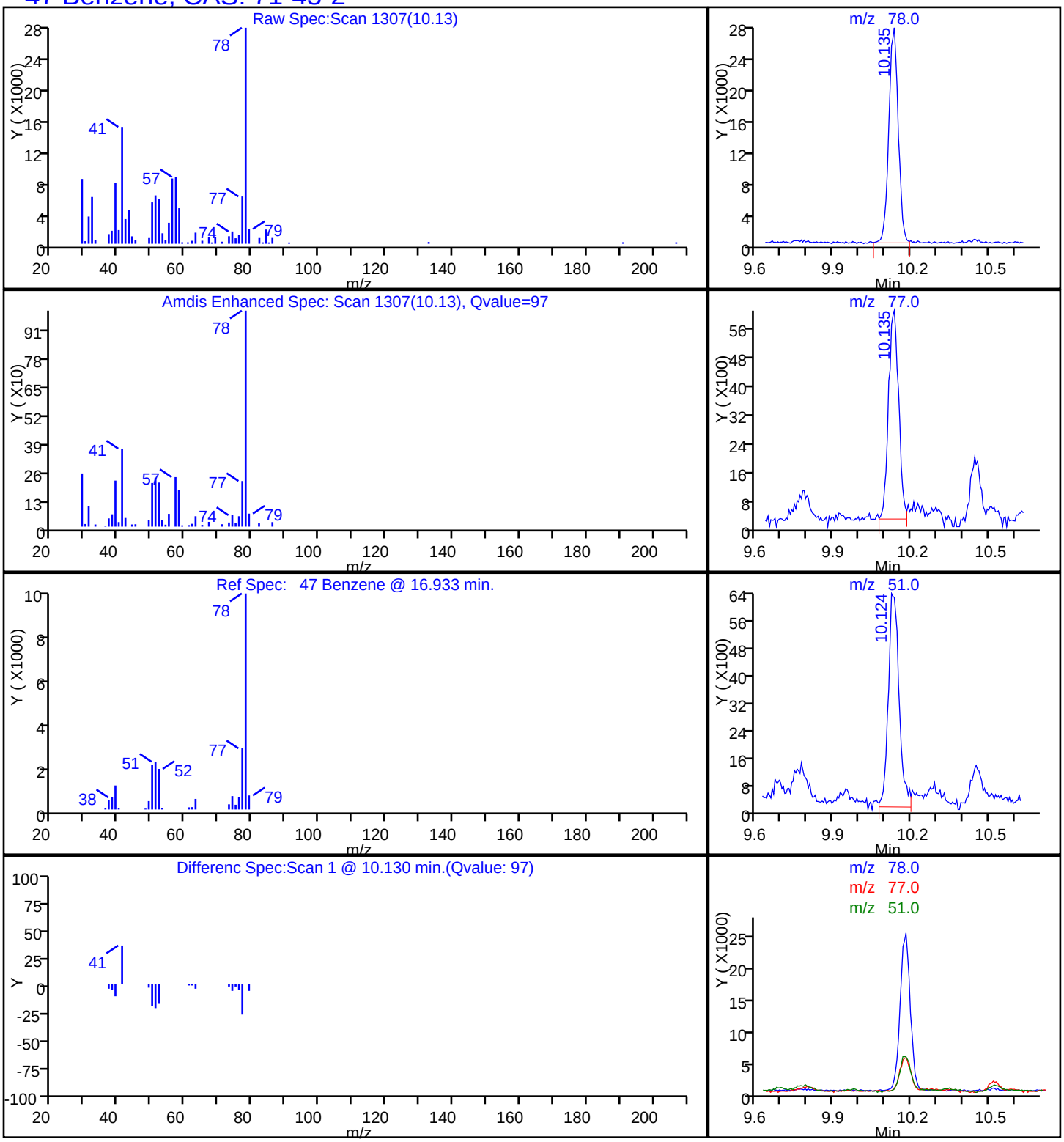


Report Date: 30-Jun-2014 11:59:19 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P113.D				
Injection Date:	28-Jun-2014 03:12:30	Instrument ID:	MR		
Lims ID:	140-1594-A-9	Lab Sample ID:	140-1594-9		
Client ID:	SMSSV11-11				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

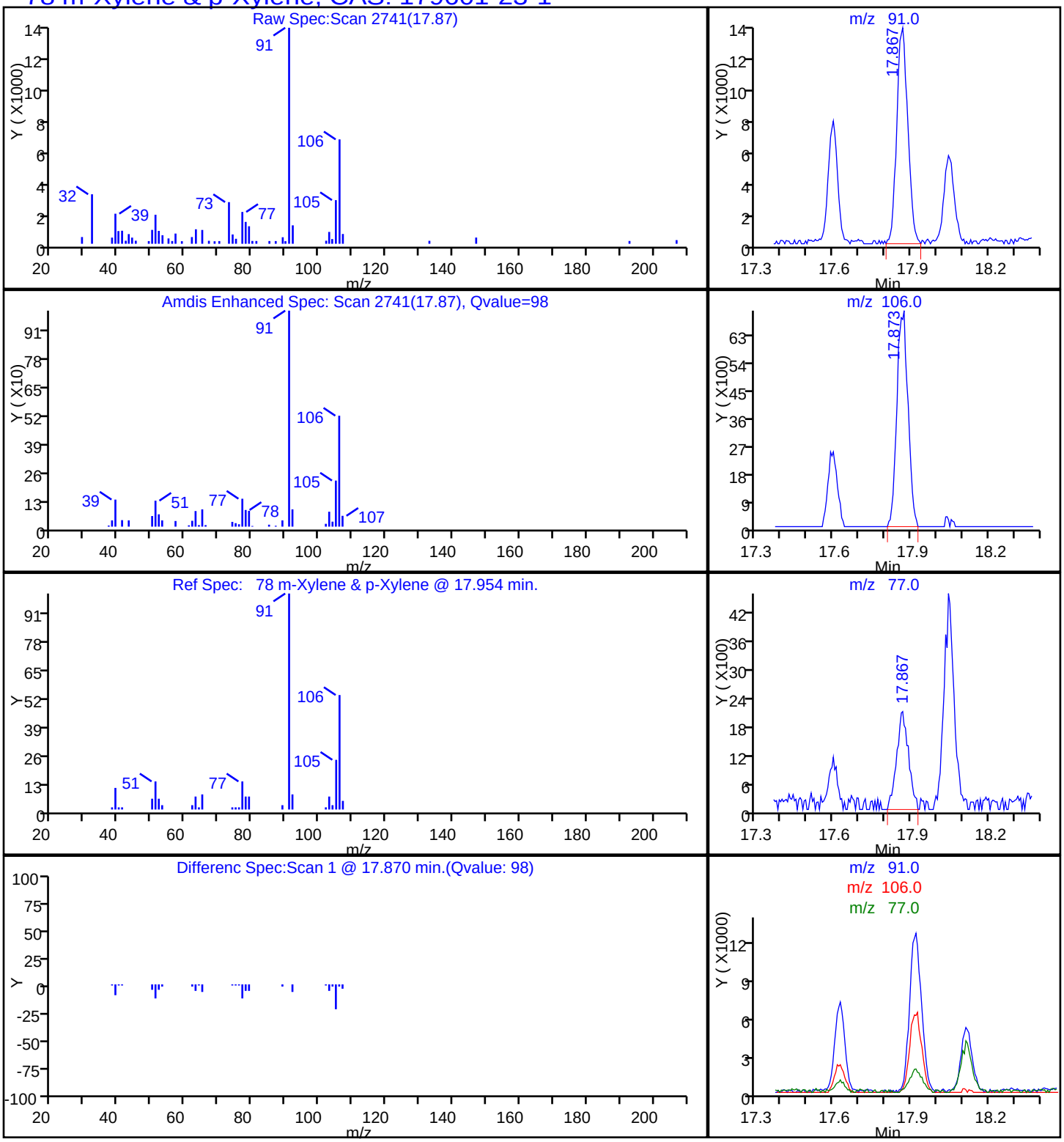


Report Date: 30-Jun-2014 11:59:19 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P113.D				
Injection Date:	28-Jun-2014 03:12:30	Instrument ID:	MR		
Lims ID:	140-1594-A-9	Lab Sample ID:	140-1594-9		
Client ID:	SMSSV11-11				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

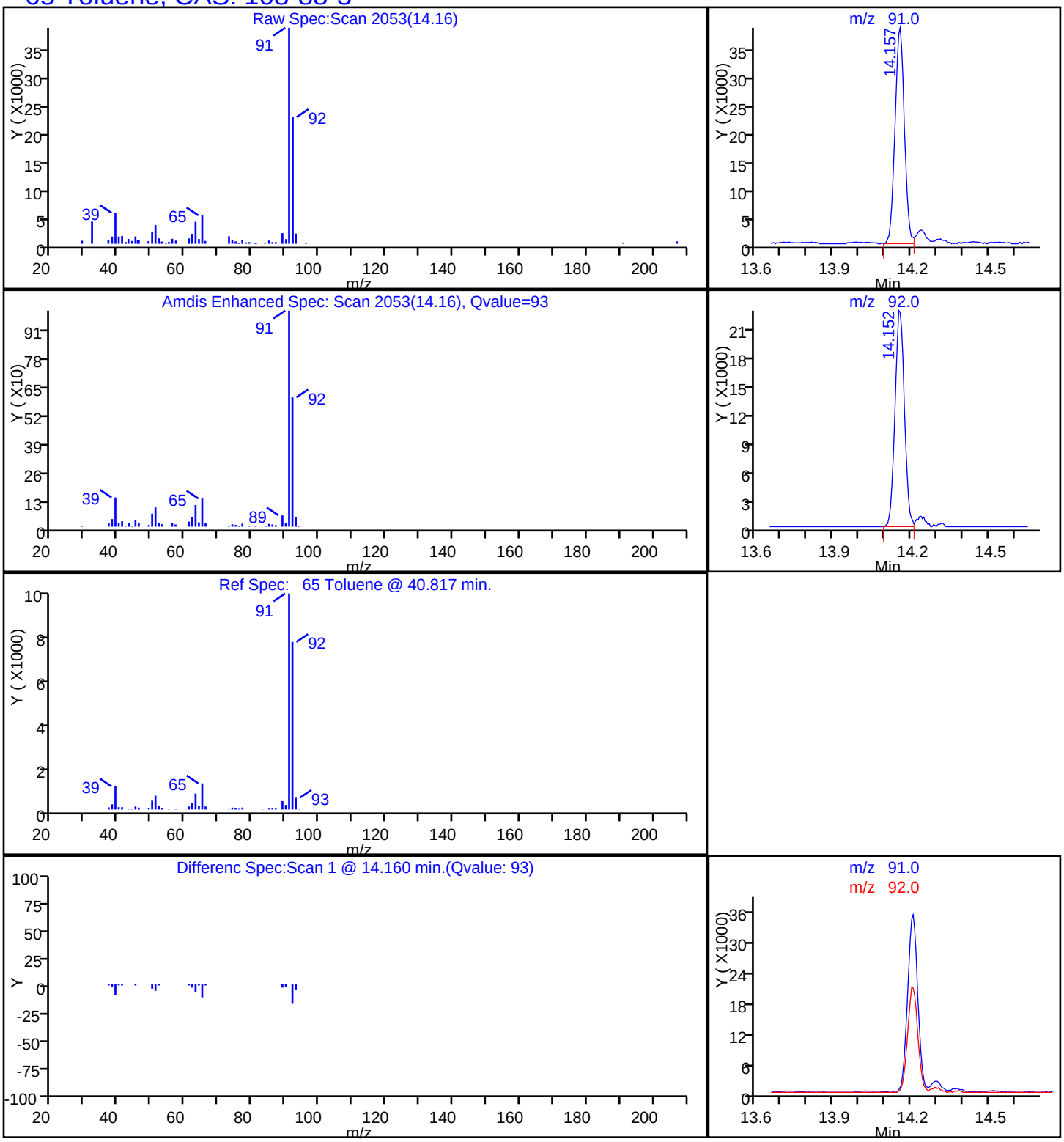


Report Date: 30-Jun-2014 11:59:19 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P113.D				
Injection Date:	28-Jun-2014 03:12:30	Instrument ID:	MR		
Lims ID:	140-1594-A-9	Lab Sample ID:	140-1594-9		
Client ID:	SMSSV11-11				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV9-10 | Lab Sample ID: 140-1594-10

Matrix: Air | Lab File ID: RF27P114.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 14:45

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 04:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	ND		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	4.0		2.0	
95-47-6	o-Xylene	106.17	ND		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	4.8		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV9-10 Lab Sample ID: 140-1594-10

Matrix: Air Lab File ID: RF27P114.D

Analysis Method: TO-15 Date Collected: 06/25/2014 14:45

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV9-10 | Lab Sample ID: 140-1594-10

Matrix: Air | Lab File ID: RF27P114.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 14:45

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 04:05

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	ND		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	ND		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	17		8.7	
95-47-6	o-Xylene	106.17	ND		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	18		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV9-10 Lab Sample ID: 140-1594-10

Matrix: Air Lab File ID: RF27P114.D

Analysis Method: TO-15 Date Collected: 06/25/2014 14:45

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 04:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	109		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P114.D				
Lims ID:	140-1594-A-10	Lab Sample ID:	140-1594-10		
Client ID:	SMSSV9-10				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 04:05:30	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	140-1594-a-10				
Misc. Info.:	R062714,TO15,140-0000780-019				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:29:15	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 11:59:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	96	298140	4.00	
* 2 1,4-Difluorobenzene	114	10.706	10.712	-0.006	96	1581467	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	90	1334855	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	86	1141341	4.34	
20 Trichlorofluoromethane	101	4.834	4.839	-0.005	52	3920	0.0133	
47 Benzene	78	10.108	10.113	-0.005	95	21963	0.0630	
65 Toluene	91	14.147	14.147	0.000	94	79061	0.1913	
73 Tetrachloroethene	129	15.781	15.780	0.001	82	3250	0.0230	
76 Ethylbenzene	91	17.598	17.614	-0.016	91	29953	0.0582	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	98	64753	0.1586	
82 o-Xylene	91	18.725	18.746	-0.021	93	20972	0.0498	
93 1,2,4-Trimethylbenzene	105	22.009	22.019	-0.010	83	15323	0.0279	

Reagents:

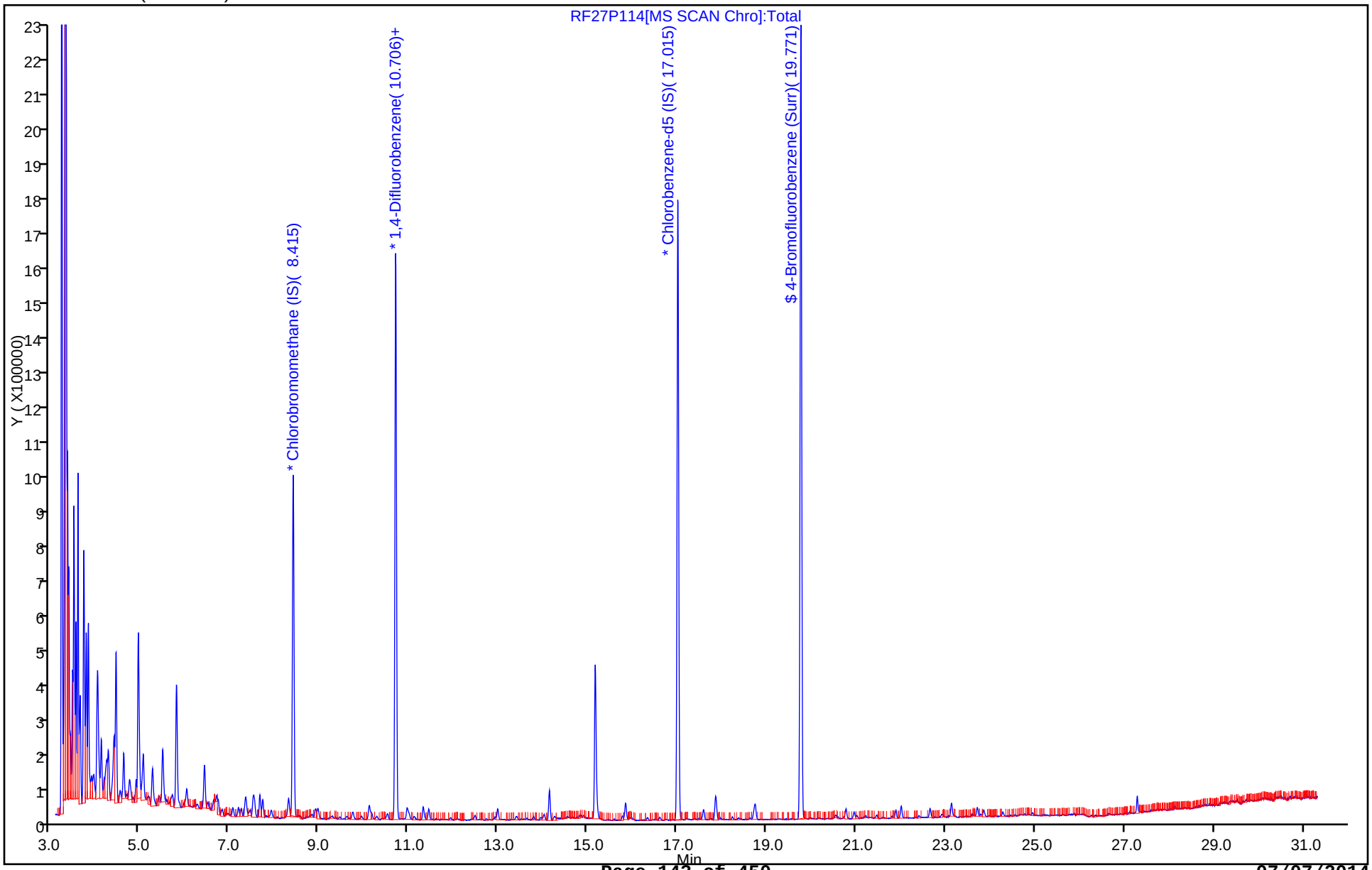
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 11:59:35 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P114.D				
Injection Date:	28-Jun-2014 04:05:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-10	Lab Sample ID:	140-1594-10	Worklist Smp#:	19
Client ID:	SMSSV9-10				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

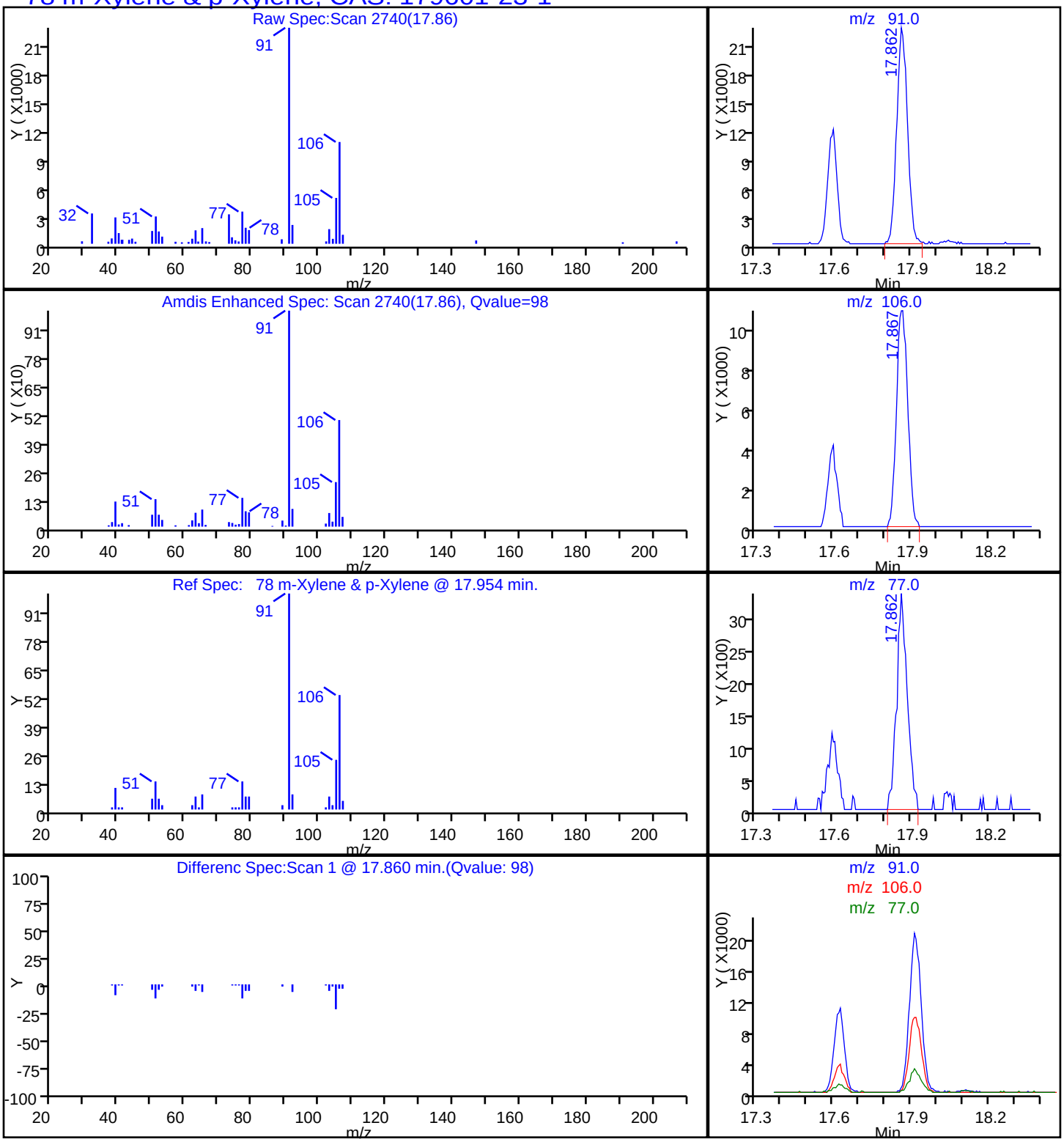


Report Date: 30-Jun-2014 11:59:35 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P114.D				
Injection Date:	28-Jun-2014 04:05:30	Instrument ID:	MR		
Lims ID:	140-1594-A-10	Lab Sample ID:	140-1594-10		
Client ID:	SMSSV9-10				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

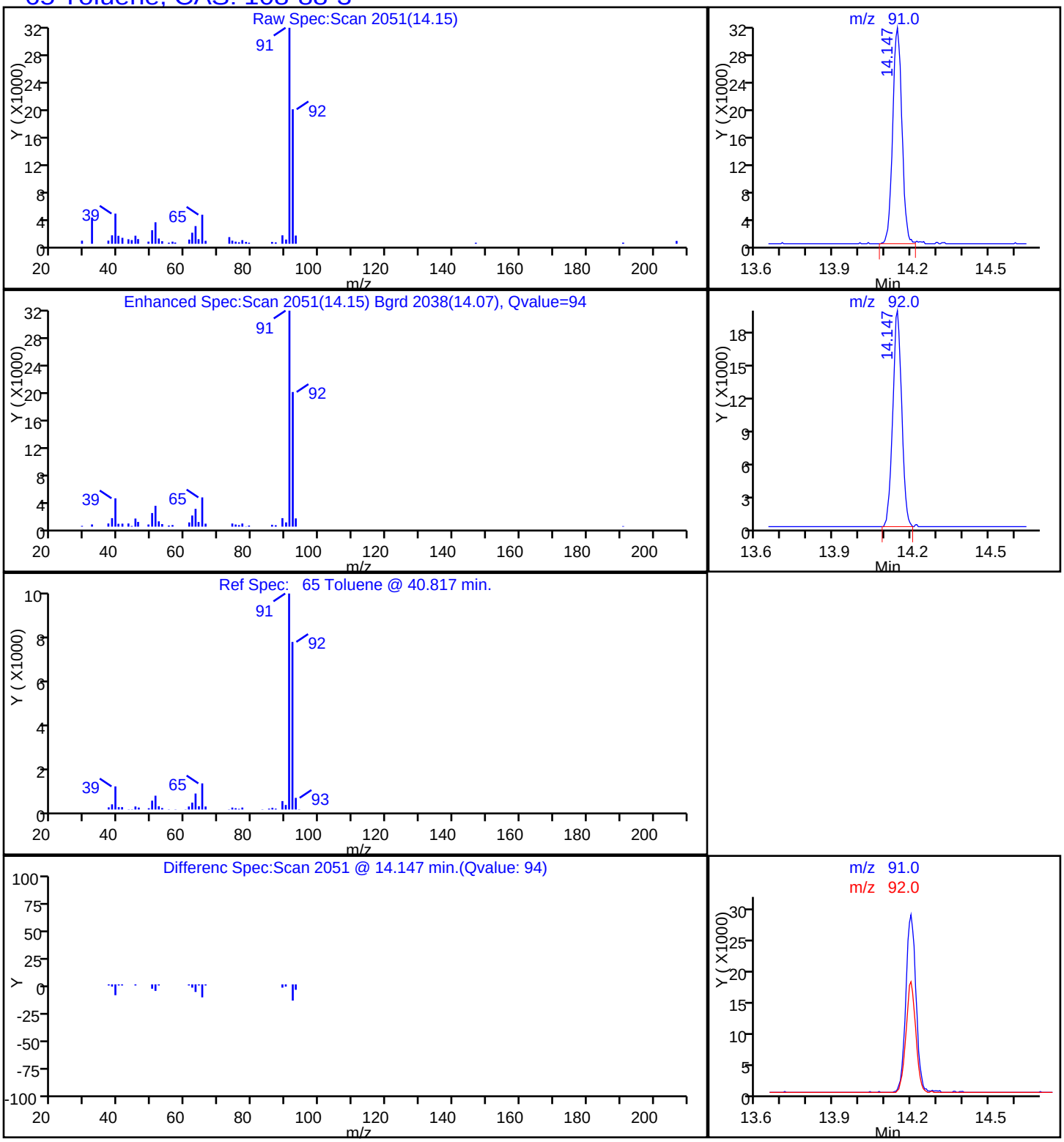


Report Date: 30-Jun-2014 11:59:35 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P114.D				
Injection Date:	28-Jun-2014 04:05:30	Instrument ID:	MR		
Lims ID:	140-1594-A-10	Lab Sample ID:	140-1594-10		
Client ID:	SMSSV9-10				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV4-15 | Lab Sample ID: 140-1594-11

Matrix: Air | Lab File ID: RF27P115.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 15:58

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 04:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	4.3		2.0	
100-44-7	Benzyl chloride	126.58	ND		4.0	
74-83-9	Bromomethane	94.94	ND		2.0	
56-23-5	Carbon tetrachloride	153.81	ND		2.0	
108-90-7	Chlorobenzene	112.56	ND		2.0	
75-00-3	Chloroethane	64.52	ND		2.0	
67-66-3	Chloroform	119.38	2.5		2.0	
74-87-3	Chloromethane	50.49	ND		5.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.0	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		2.0	
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.0	
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.0	
75-71-8	Dichlorodifluoromethane	120.91	ND		2.0	
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.0	
75-35-4	1,1-Dichloroethene	96.94	ND		2.0	
78-87-5	1,2-Dichloropropane	112.99	ND		2.0	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.0	
100-41-4	Ethylbenzene	106.17	31		2.0	
87-68-3	Hexachlorobutadiene	260.76	ND		10	
75-09-2	Methylene Chloride	84.93	ND		5.0	
179601-23-1	m-Xylene & p-Xylene	106.17	73		2.0	
95-47-6	o-Xylene	106.17	19		2.0	
100-42-5	Styrene	104.15	ND		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.0	
127-18-4	Tetrachloroethene	165.83	ND		2.0	
108-88-3	Toluene	92.14	36		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		10	
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.0	
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.0	
79-01-6	Trichloroethene	131.39	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV4-15 Lab Sample ID: 140-1594-11

Matrix: Air Lab File ID: RF27P115.D

Analysis Method: TO-15 Date Collected: 06/25/2014 15:58

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 04:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		2.0	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		2.0	
75-01-4	Vinyl chloride	62.50	ND		2.0	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	110		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV4-15 | Lab Sample ID: 140-1594-11

Matrix: Air | Lab File ID: RF27P115.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 15:58

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 04:57

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	14		6.4	
100-44-7	Benzyl chloride	126.58	ND		21	
74-83-9	Bromomethane	94.94	ND		7.8	
56-23-5	Carbon tetrachloride	153.81	ND		13	
108-90-7	Chlorobenzene	112.56	ND		9.2	
75-00-3	Chloroethane	64.52	ND		5.3	
67-66-3	Chloroform	119.38	12		9.8	
74-87-3	Chloromethane	50.49	ND		10	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		7.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		9.1	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		15	
95-50-1	1,2-Dichlorobenzene	147.00	ND		12	
541-73-1	1,3-Dichlorobenzene	147.00	ND		12	
106-46-7	1,4-Dichlorobenzene	147.00	ND		12	
75-71-8	Dichlorodifluoromethane	120.91	ND		9.9	
75-34-3	1,1-Dichloroethane	98.96	ND		8.1	
107-06-2	1,2-Dichloroethane	98.96	ND		8.1	
75-35-4	1,1-Dichloroethene	96.94	ND		7.9	
78-87-5	1,2-Dichloropropane	112.99	ND		9.2	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		14	
100-41-4	Ethylbenzene	106.17	130		8.7	
87-68-3	Hexachlorobutadiene	260.76	ND		110	
75-09-2	Methylene Chloride	84.93	ND		17	
179601-23-1	m-Xylene & p-Xylene	106.17	320		8.7	
95-47-6	o-Xylene	106.17	81		8.7	
100-42-5	Styrene	104.15	ND		8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		14	
127-18-4	Tetrachloroethene	165.83	ND		14	
108-88-3	Toluene	92.14	140		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		9.1	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		74	
71-55-6	1,1,1-Trichloroethane	133.41	ND		11	
79-00-5	1,1,2-Trichloroethane	133.41	ND		11	
79-01-6	Trichloroethene	131.39	ND		11	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV4-15 Lab Sample ID: 140-1594-11

Matrix: Air Lab File ID: RF27P115.D

Analysis Method: TO-15 Date Collected: 06/25/2014 15:58

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 04:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		11	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		15	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		9.8	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		9.8	
75-01-4	Vinyl chloride	62.50	ND		5.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	110		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D
Lims ID: 140-1594-A-11 Lab Sample ID: 140-1594-11
Client ID: SMSSV4-15
Sample Type: Client
Inject. Date: 28-Jun-2014 04:57:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-1594-a-11
Misc. Info.: R062714,TO15,140-0000780-020
Operator ID: 7126 Instrument ID: MR

Method: \\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 30-Jun-2014 12:03:17 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 12:03:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.425	8.420	0.005	96	306822	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	96	1645448	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	90	1390129	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.765	19.782	-0.017	85	1202598	4.39	
9 Chloromethane	52	3.599	3.599	0.005	92	2696	0.0593	7M
31 Methylene Chloride	84	5.885	5.869	0.016	89	7894	0.0820	
43 Chloroform	83	8.458	8.452	0.006	77	22931	0.1004	
47 Benzene	78	10.113	10.113	0.000	96	62368	0.1719	
65 Toluene	91	14.147	14.147	0.000	93	623256	1.45	
73 Tetrachloroethene	129	15.775	15.780	-0.005	62	2447	0.0166	
76 Ethylbenzene	91	17.592	17.614	-0.022	99	661192	1.23	
78 m-Xylene & p-Xylene	91	17.862	17.889	-0.027	99	1240543	2.92	
80 Styrene	104	18.628	18.644	-0.016	89	12134	0.0405	
82 o-Xylene	91	18.725	18.746	-0.021	98	329270	0.7502	
93 1,2,4-Trimethylbenzene	105	22.009	22.019	-0.010	86	20305	0.0356	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated

Reagents:

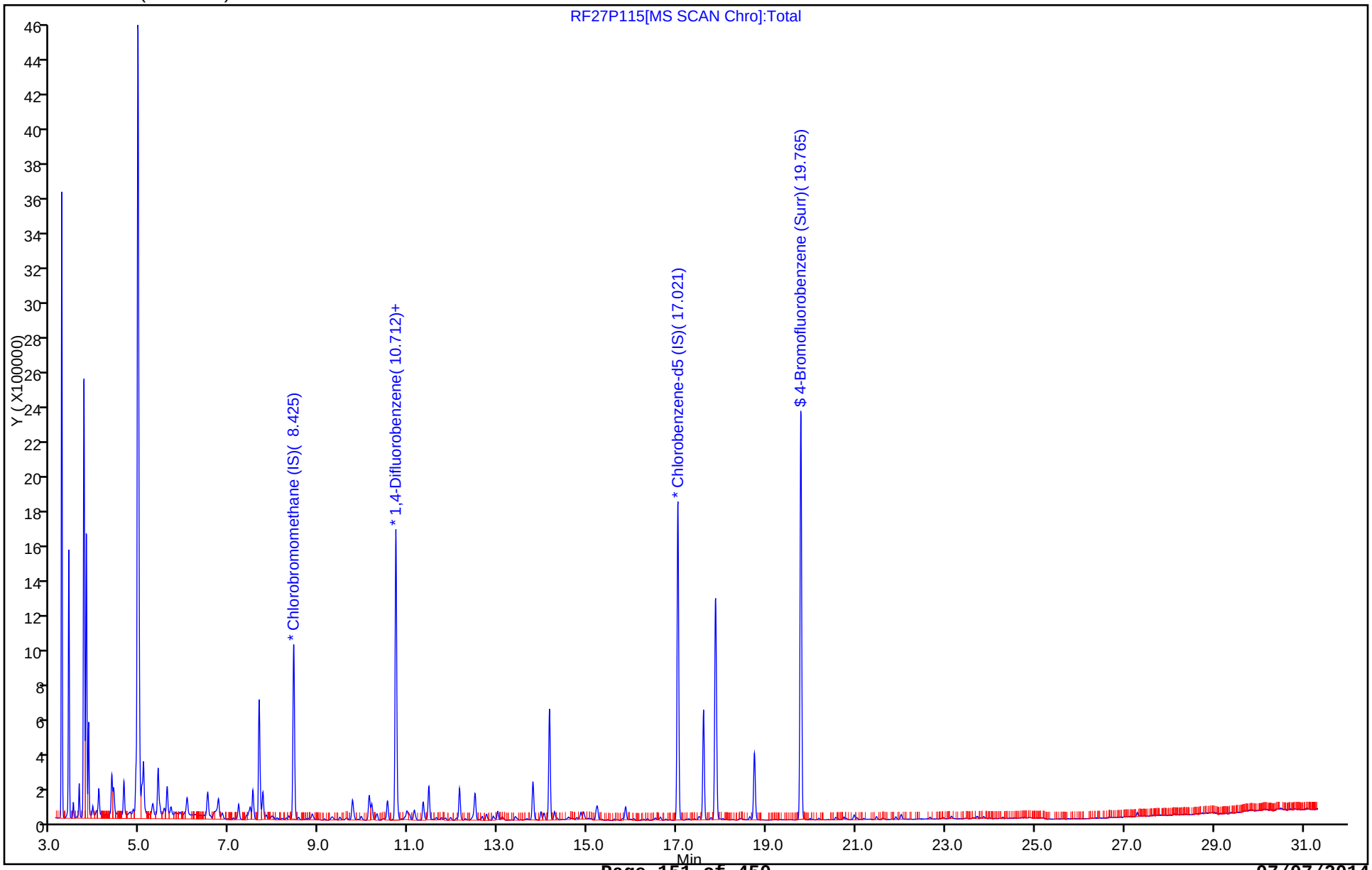
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11	Worklist Smp#:	20
Client ID:	SMSSV4-15				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

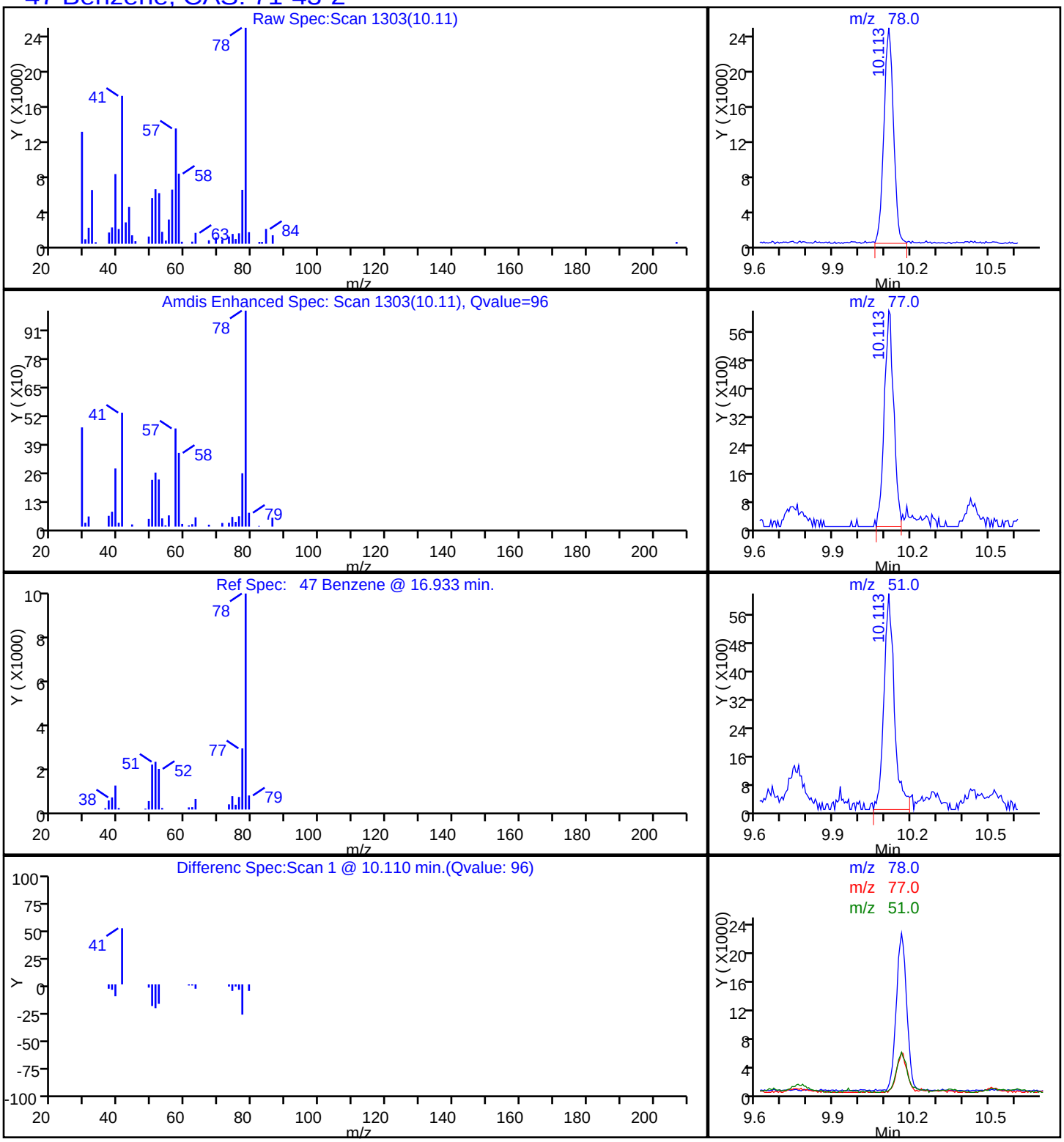


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 Benzene, CAS: 71-43-2

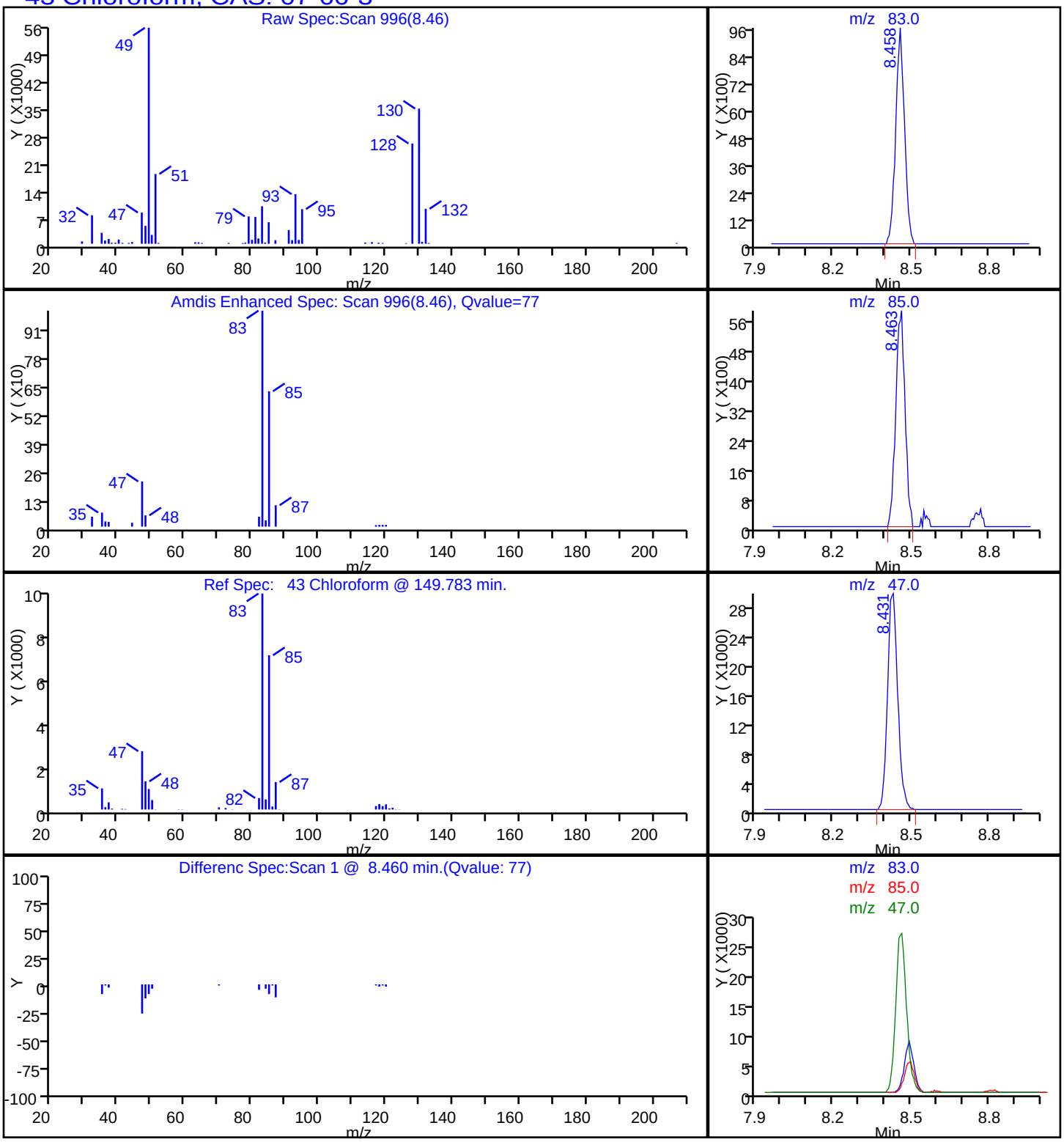


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

43 Chloroform, CAS: 67-66-3

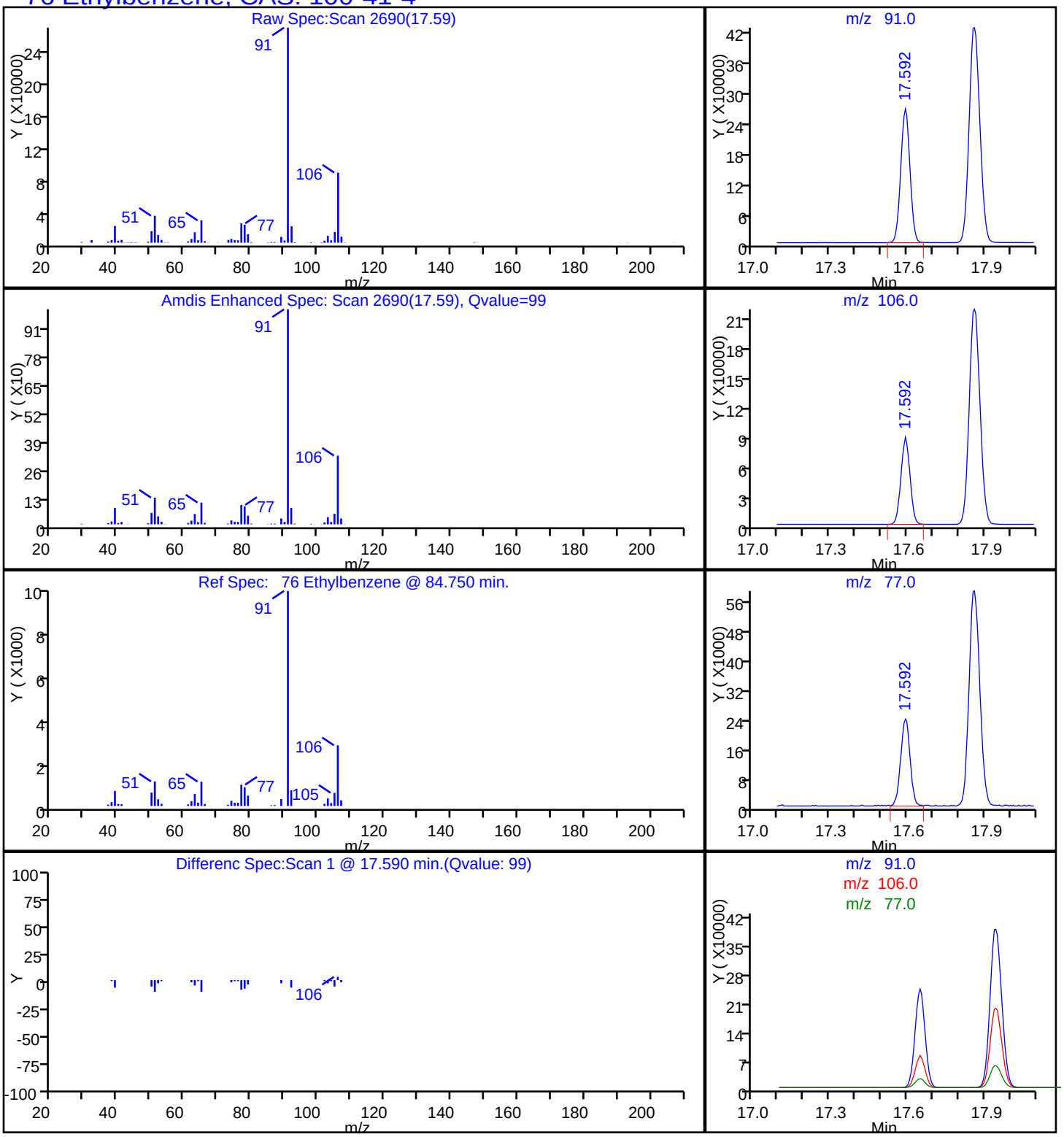


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

76 Ethylbenzene, CAS: 100-41-4

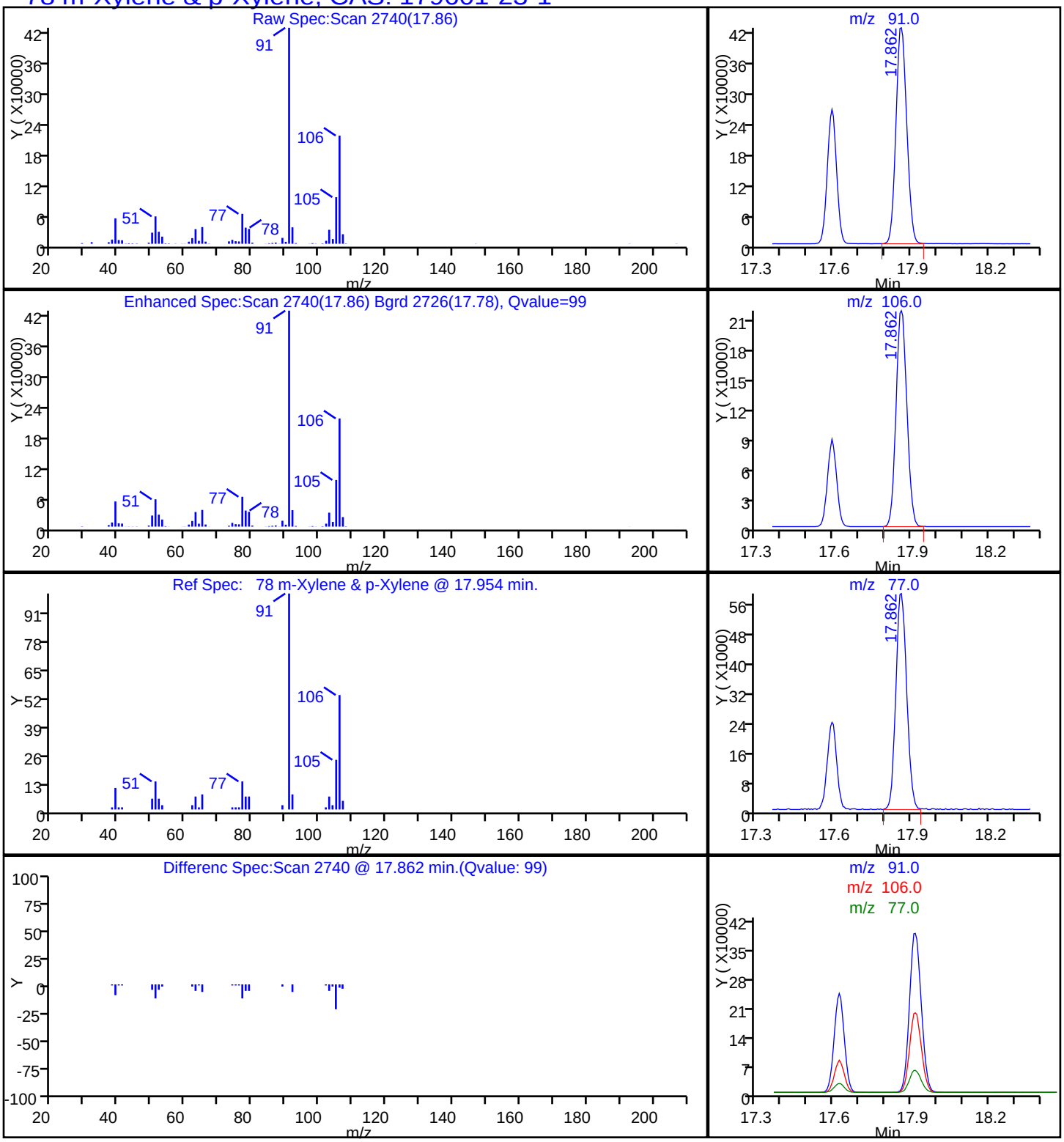


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1

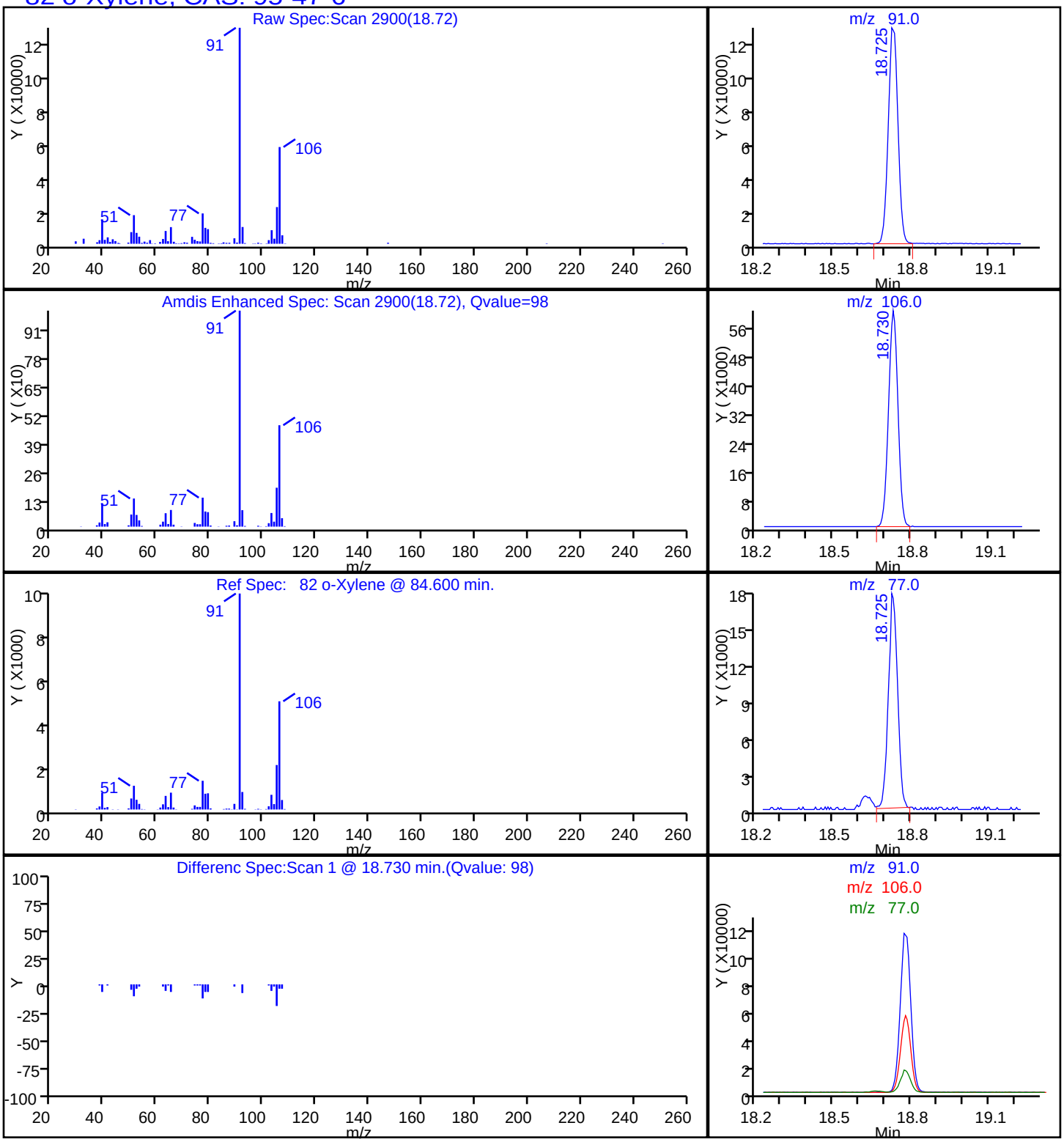


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

82 o-Xylene, CAS: 95-47-6

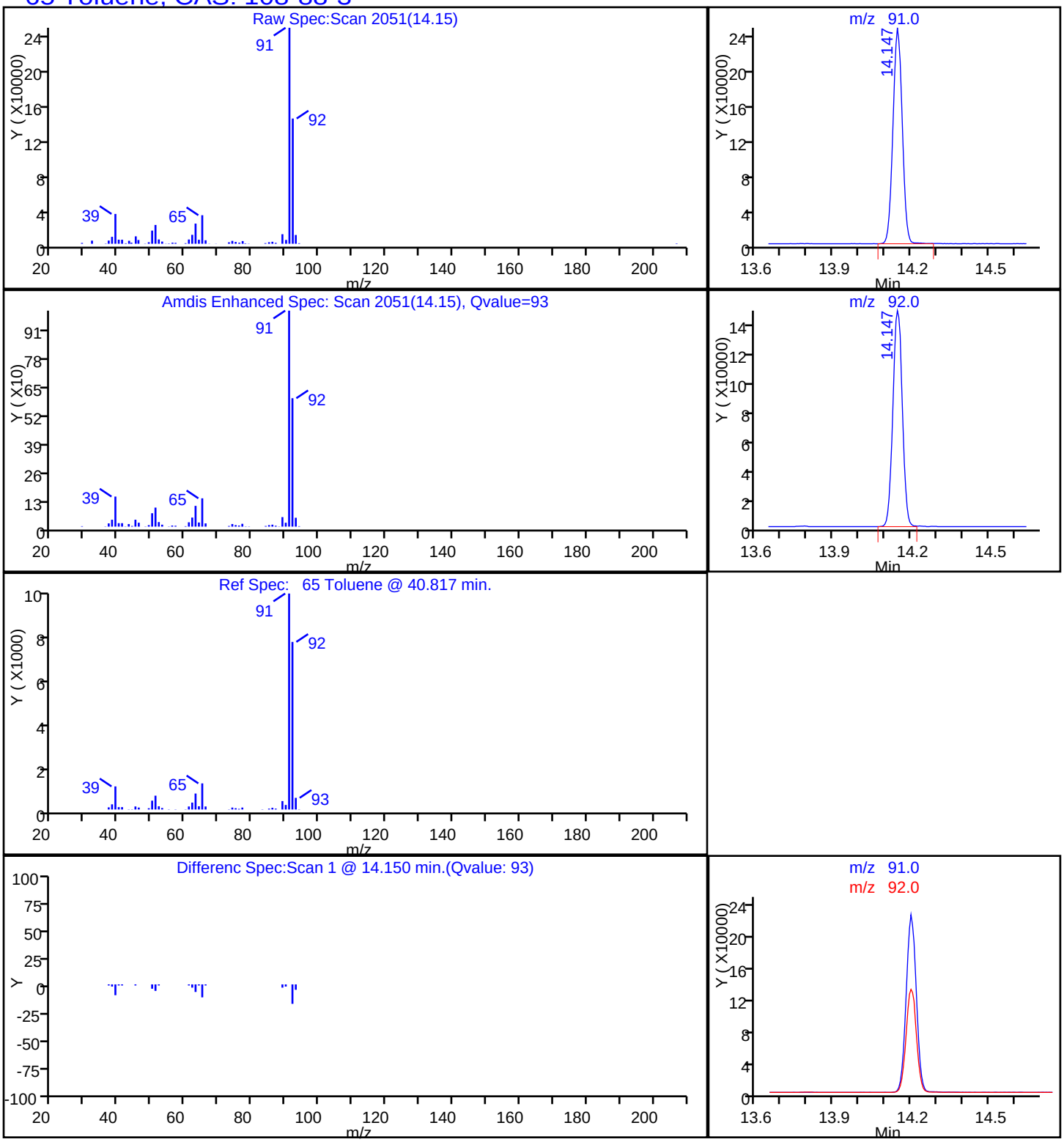


Report Date: 30-Jun-2014 12:03:18 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3



Manual Integration/User Assign Peak Report

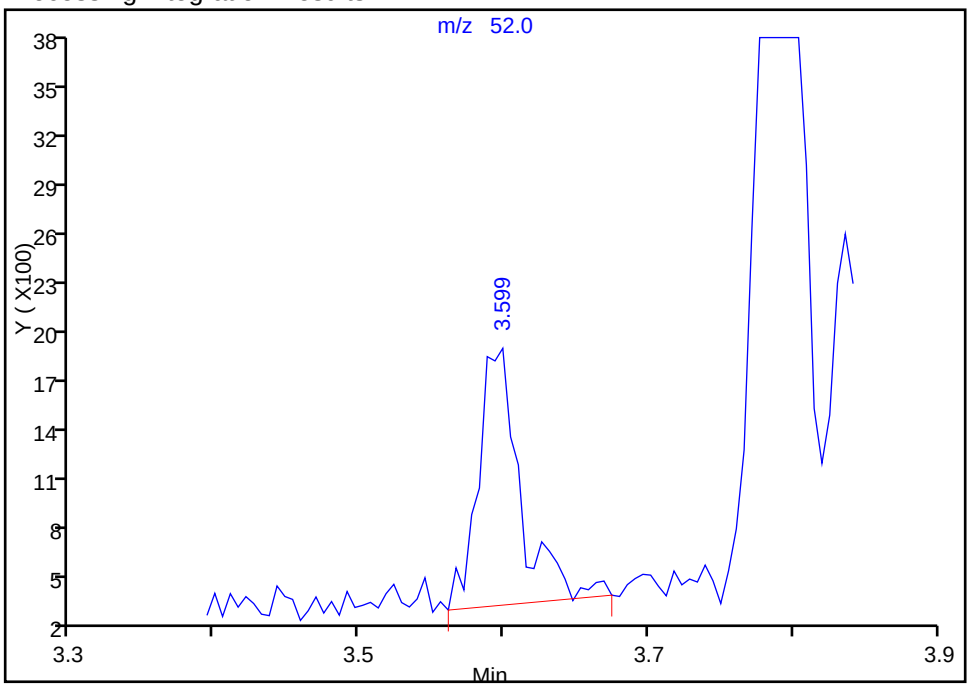
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P115.D				
Injection Date:	28-Jun-2014 04:57:30	Instrument ID:	MR		
Lims ID:	140-1594-A-11	Lab Sample ID:	140-1594-11		
Client ID:	SMSSV4-15				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

9 Chloromethane, CAS: 74-87-3

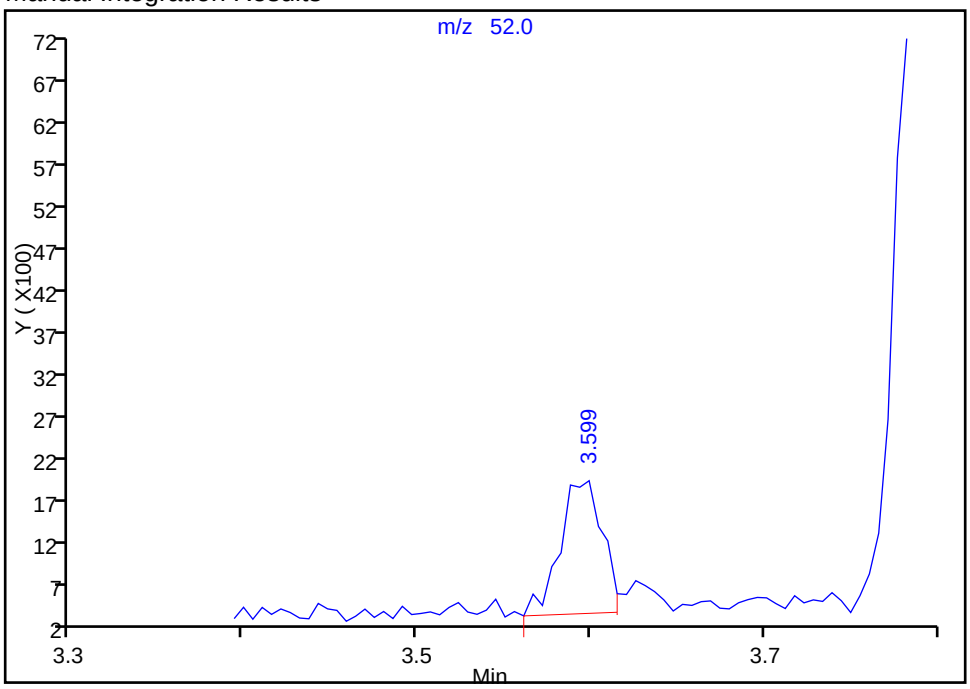
Processing Integration Results

RT: 3.60
Response: 3179
Amount: 0.069887



Manual Integration Results

RT: 3.60
Response: 2696
Amount: 0.059269



Reviewer: barlozhetskayaa, 30-Jun-2014 12:03:17
Audit Action: Split an Integrated Peak
Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3-10 | Lab Sample ID: 140-1594-12

Matrix: Air | Lab File ID: RF27P201.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 05:50

Soil Aliquot Vol: | Dilution Factor: 111.09

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		220	
100-44-7	Benzyl chloride	126.58	ND		440	
74-83-9	Bromomethane	94.94	ND		220	
56-23-5	Carbon tetrachloride	153.81	ND		220	
108-90-7	Chlorobenzene	112.56	ND		220	
75-00-3	Chloroethane	64.52	ND		220	
67-66-3	Chloroform	119.38	ND		220	
74-87-3	Chloromethane	50.49	5000		560	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		220	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		220	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		220	
95-50-1	1,2-Dichlorobenzene	147.00	ND		220	
541-73-1	1,3-Dichlorobenzene	147.00	ND		220	
106-46-7	1,4-Dichlorobenzene	147.00	ND		220	
75-71-8	Dichlorodifluoromethane	120.91	ND		220	
75-34-3	1,1-Dichloroethane	98.96	450		220	
107-06-2	1,2-Dichloroethane	98.96	930		220	
75-35-4	1,1-Dichloroethene	96.94	ND		220	
78-87-5	1,2-Dichloropropane	112.99	ND		220	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		220	
100-41-4	Ethylbenzene	106.17	ND		220	
87-68-3	Hexachlorobutadiene	260.76	ND		1100	
75-09-2	Methylene Chloride	84.93	ND		560	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		220	
95-47-6	o-Xylene	106.17	ND		220	
100-42-5	Styrene	104.15	ND		220	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		220	
127-18-4	Tetrachloroethene	165.83	ND		220	
108-88-3	Toluene	92.14	540		220	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		220	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1100	
71-55-6	1,1,1-Trichloroethane	133.41	ND		220	
79-00-5	1,1,2-Trichloroethane	133.41	ND		220	
79-01-6	Trichloroethene	131.39	ND		220	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3-10 Lab Sample ID: 140-1594-12

Matrix: Air Lab File ID: RF27P201.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 05:50

Soil Aliquot Vol: Dilution Factor: 111.09

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	12000		220	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		220	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		220	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		220	
75-01-4	Vinyl chloride	62.50	ND		220	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3-10 | Lab Sample ID: 140-1594-12

Matrix: Air | Lab File ID: RF27P201.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 05:50

Soil Aliquot Vol: | Dilution Factor: 111.09

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		710	
100-44-7	Benzyl chloride	126.58	ND		2300	
74-83-9	Bromomethane	94.94	ND		860	
56-23-5	Carbon tetrachloride	153.81	ND		1400	
108-90-7	Chlorobenzene	112.56	ND		1000	
75-00-3	Chloroethane	64.52	ND		590	
67-66-3	Chloroform	119.38	ND		1100	
74-87-3	Chloromethane	50.49	10000		1100	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		880	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1000	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		1700	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1300	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1300	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1300	
75-71-8	Dichlorodifluoromethane	120.91	ND		1100	
75-34-3	1,1-Dichloroethane	98.96	1800		900	
107-06-2	1,2-Dichloroethane	98.96	3800		900	
75-35-4	1,1-Dichloroethene	96.94	ND		880	
78-87-5	1,2-Dichloropropane	112.99	ND		1000	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		1600	
100-41-4	Ethylbenzene	106.17	ND		960	
87-68-3	Hexachlorobutadiene	260.76	ND		12000	
75-09-2	Methylene Chloride	84.93	ND		1900	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		960	
95-47-6	o-Xylene	106.17	ND		960	
100-42-5	Styrene	104.15	ND		950	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1500	
127-18-4	Tetrachloroethene	165.83	ND		1500	
108-88-3	Toluene	92.14	2000		840	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1000	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		8200	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1200	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1200	
79-01-6	Trichloroethene	131.39	ND		1200	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3-10 Lab Sample ID: 140-1594-12

Matrix: Air Lab File ID: RF27P201.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 05:50

Soil Aliquot Vol: Dilution Factor: 111.09

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	69000		1200	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		1700	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1100	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1100	
75-01-4	Vinyl chloride	62.50	ND		570	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 05:50:30	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Sample Info:	140-1594-a-12				
Misc. Info.:	R062714,TO15,140-0000780-021				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 11:29:15	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 12:00:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	97	296859	4.00	
* 2 1,4-Difluorobenzene	114	10.706	10.712	-0.006	96	1575862	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.015	17.031	-0.016	90	1344550	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.765	19.782	-0.017	85	1141736	4.31	
9 Chloromethane	52	3.594	3.594	0.000	100	78507	1.78	
16 Chloroethane	64	4.273	4.273	0.000	70	3466	0.0509	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	99	1305122	4.43	
31 Methylene Chloride	84	5.869	5.869	0.000	87	10537	0.1131	
37 1,1-Dichloroethane	63	7.099	7.104	-0.005	95	33881	0.1609	
43 Chloroform	83	8.447	8.452	-0.005	36	9668	0.0438	
46 1,2-Dichloroethane	62	9.579	9.579	0.000	95	58137	0.3348	
47 Benzene	78	10.108	10.113	-0.005	77	12071	0.0347	
65 Toluene	91	14.147	14.147	0.000	93	80524	0.1935	
73 Tetrachloroethene	129	15.786	15.780	0.006	75	2683	0.0189	

Reagents:

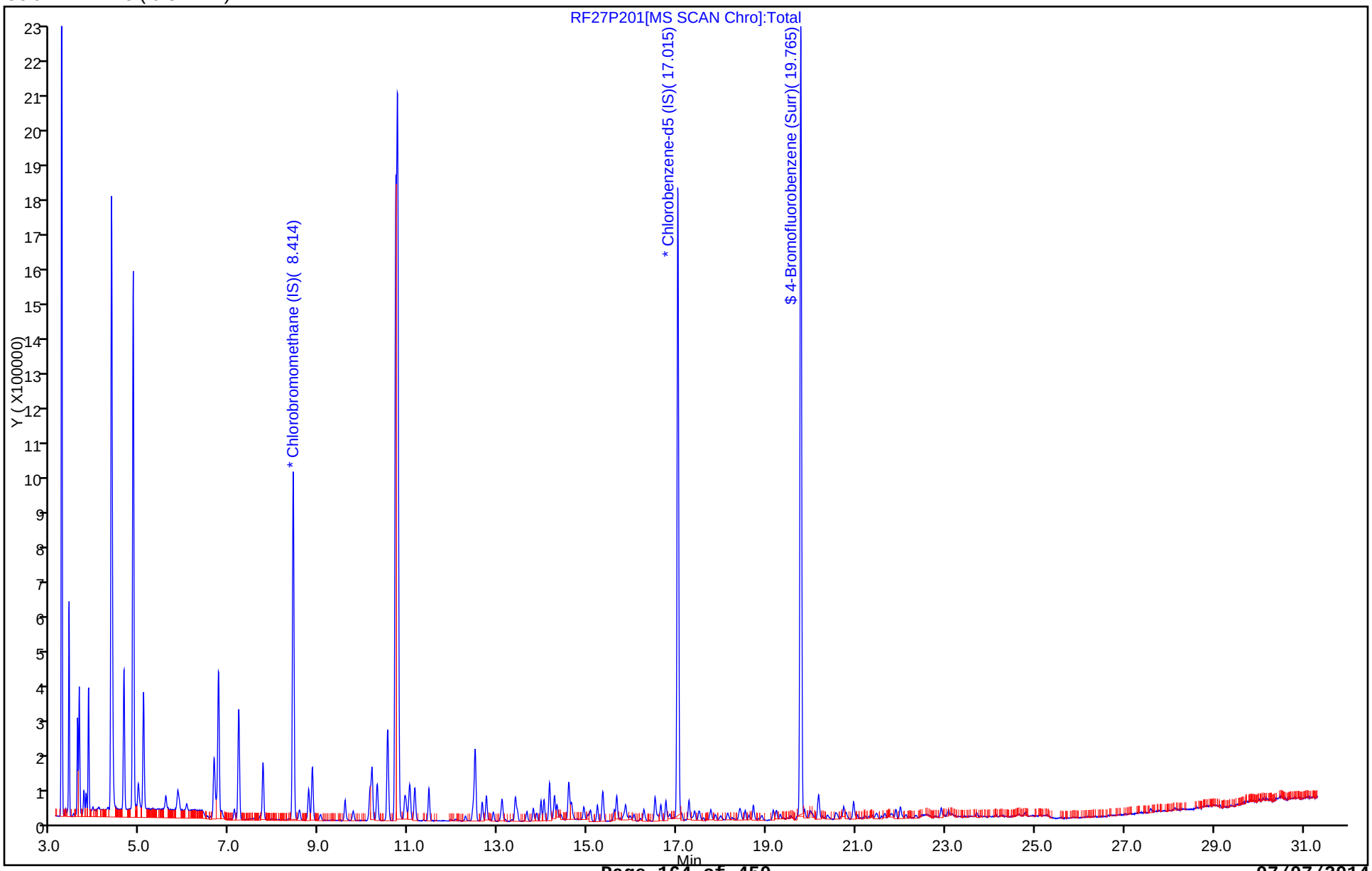
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12	Worklist Smp#:	21
Client ID:	SMSSV3-10				
Purge Vol:	500.000 mL	Dil. Factor:	111.0900	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

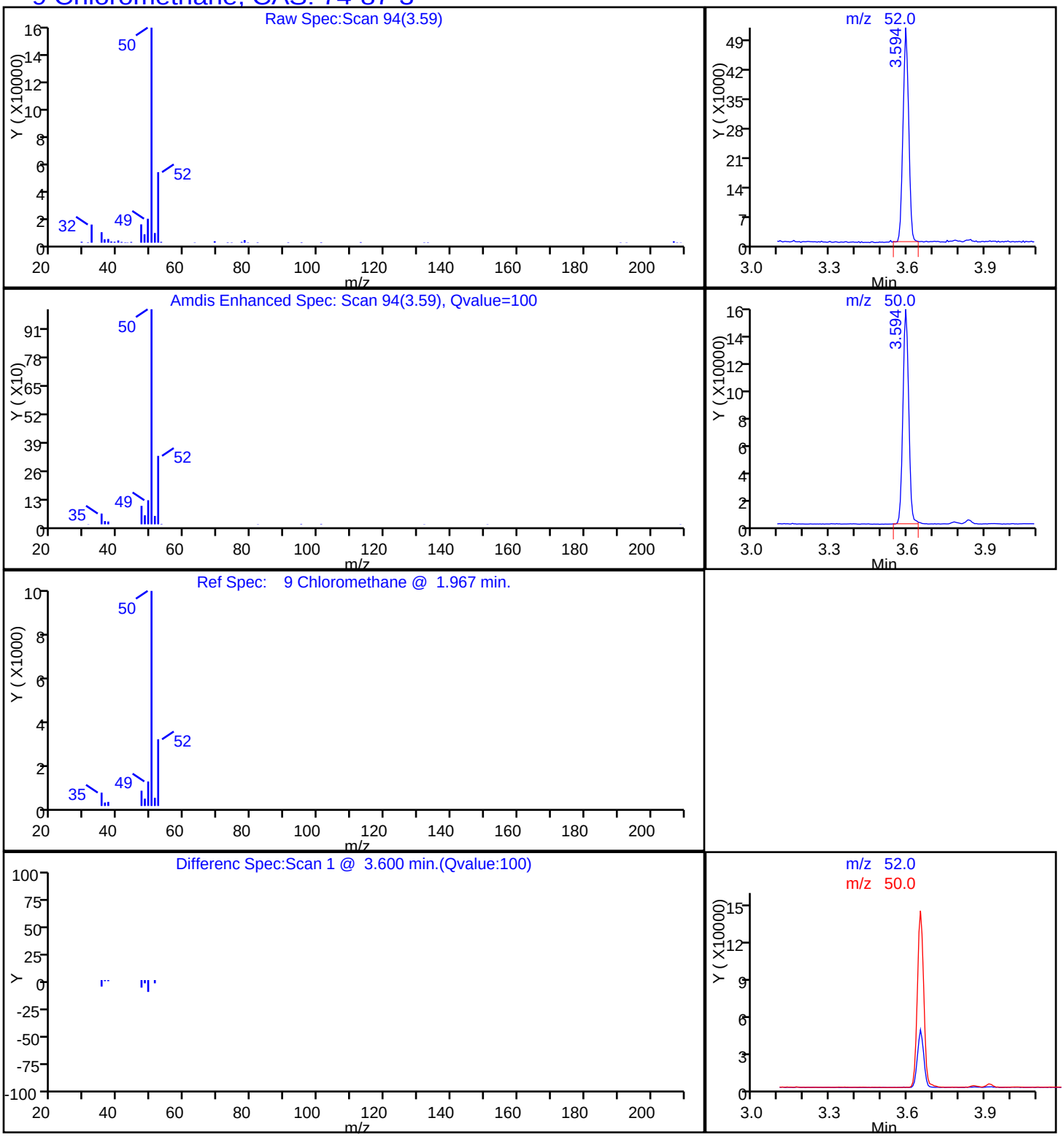


Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR		
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

9 Chloromethane, CAS: 74-87-3

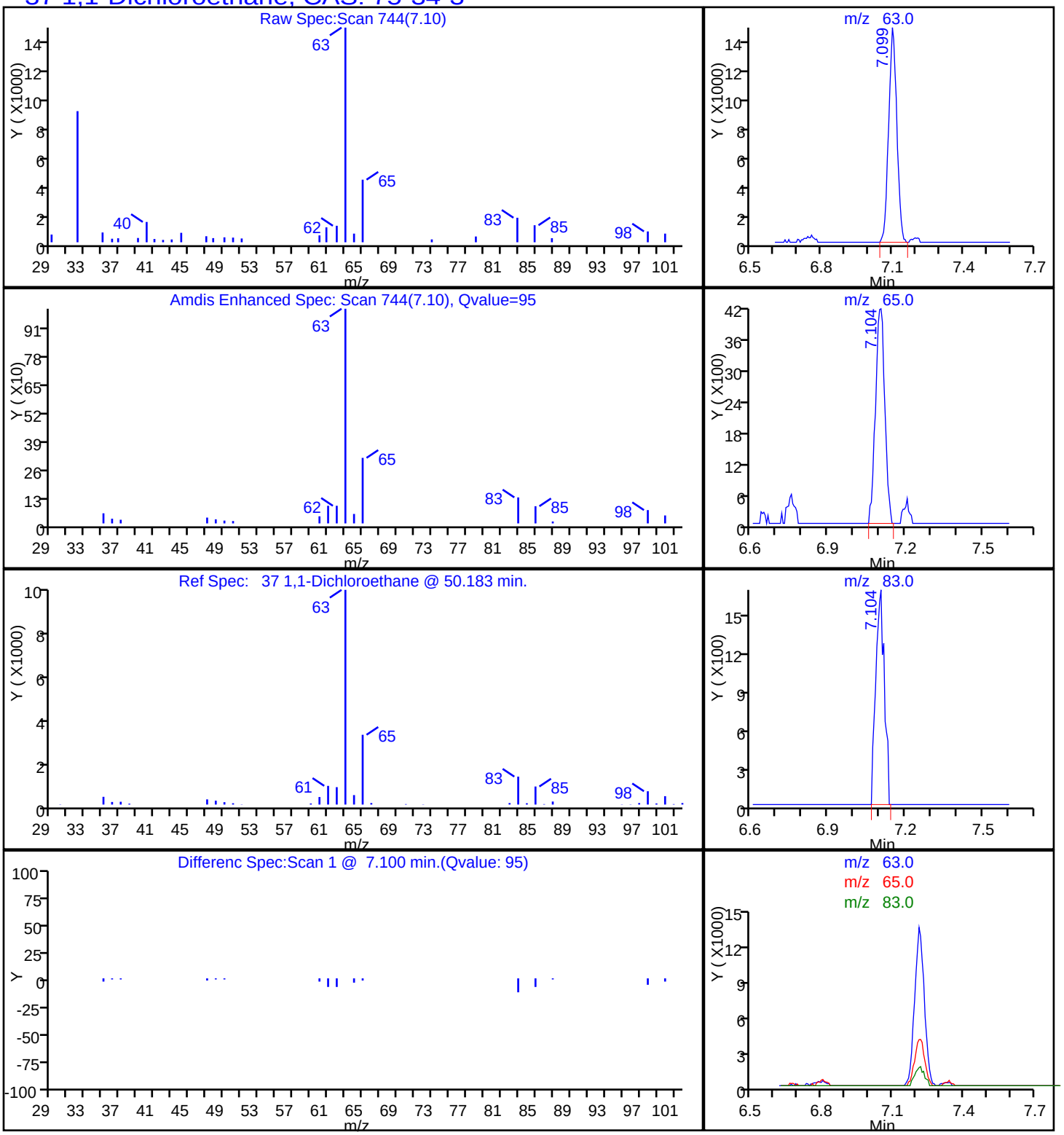


Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR		
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

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

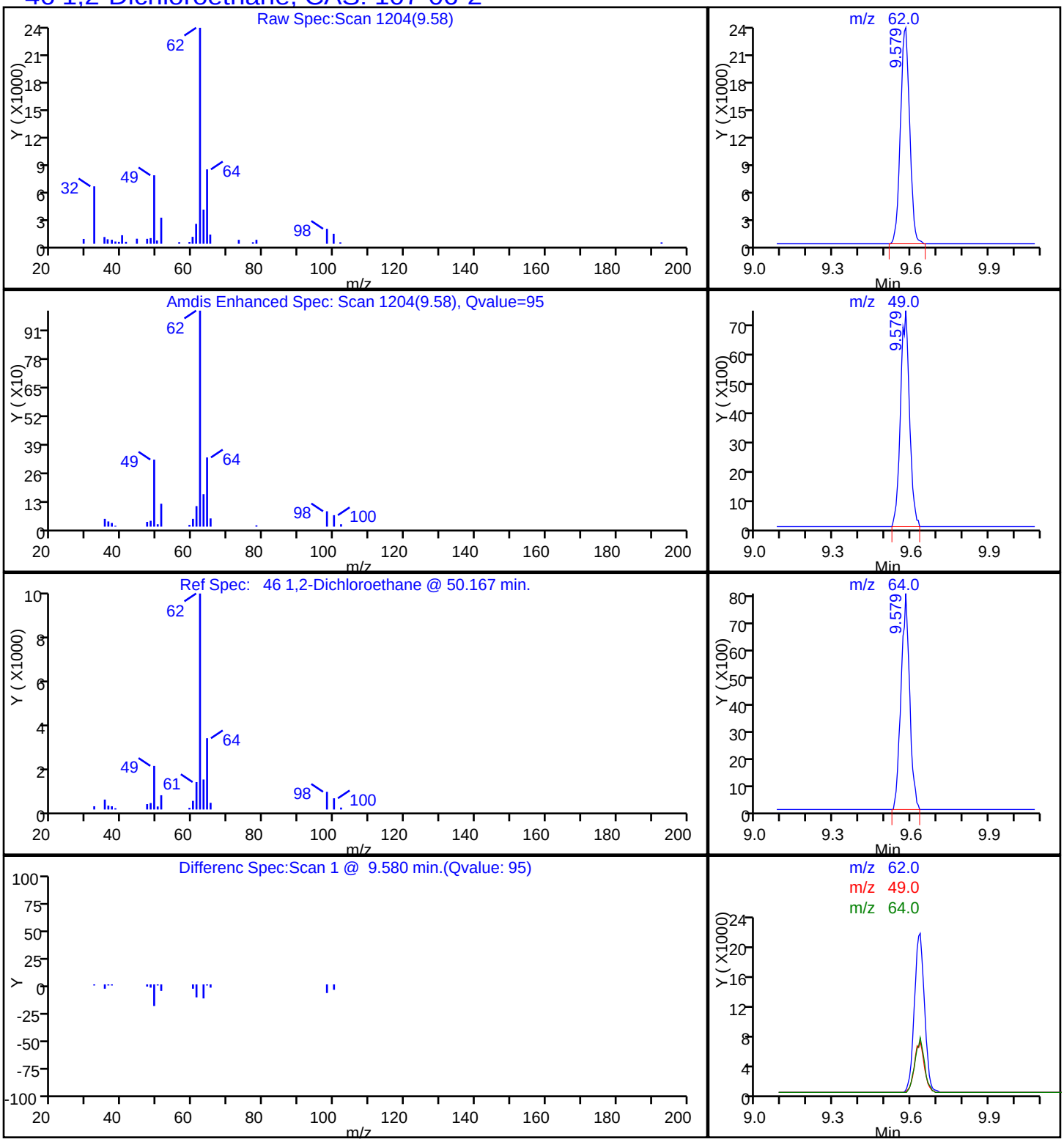


Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR		
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

46 1,2-Dichloroethane, CAS: 107-06-2

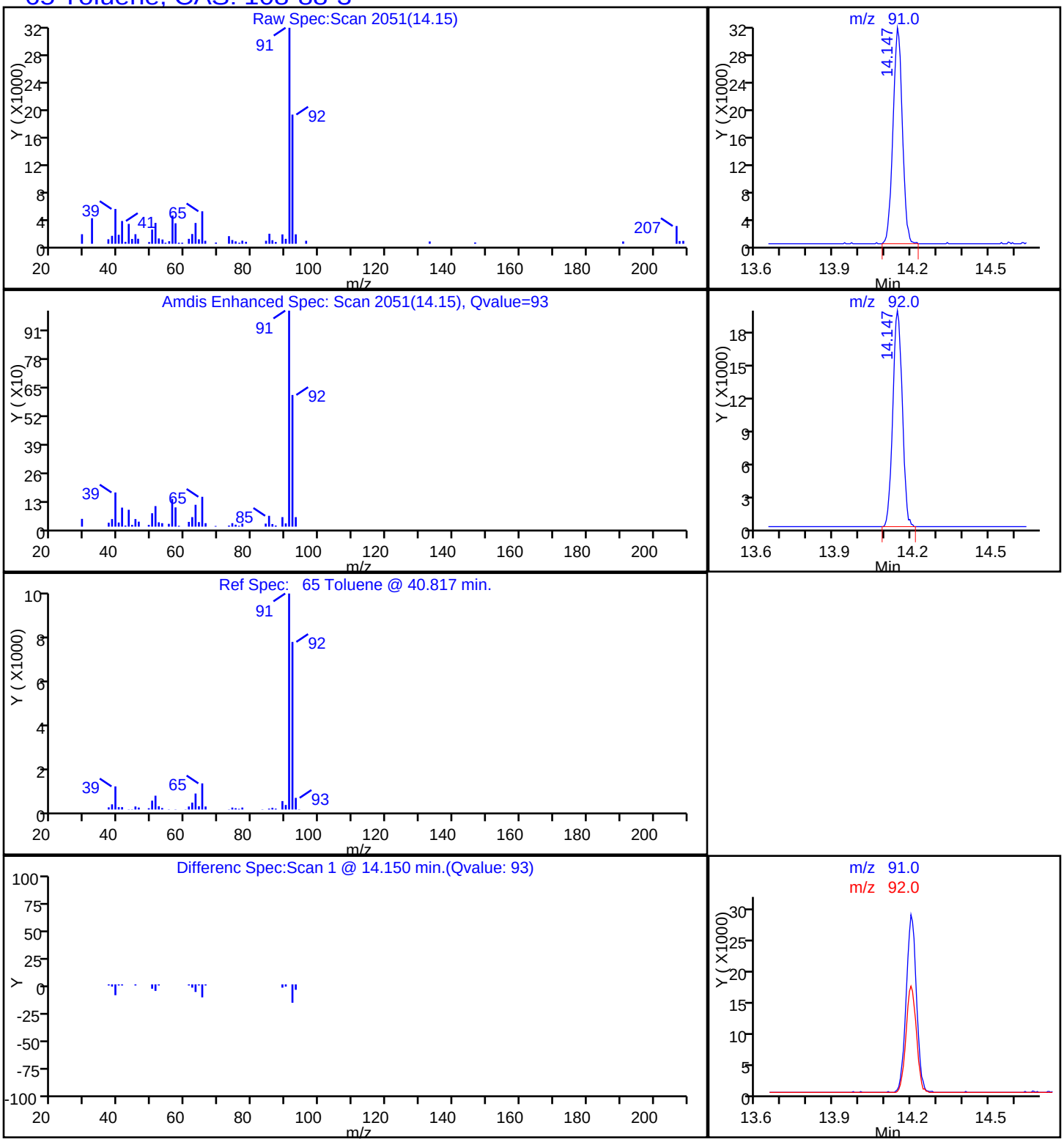


Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR		
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

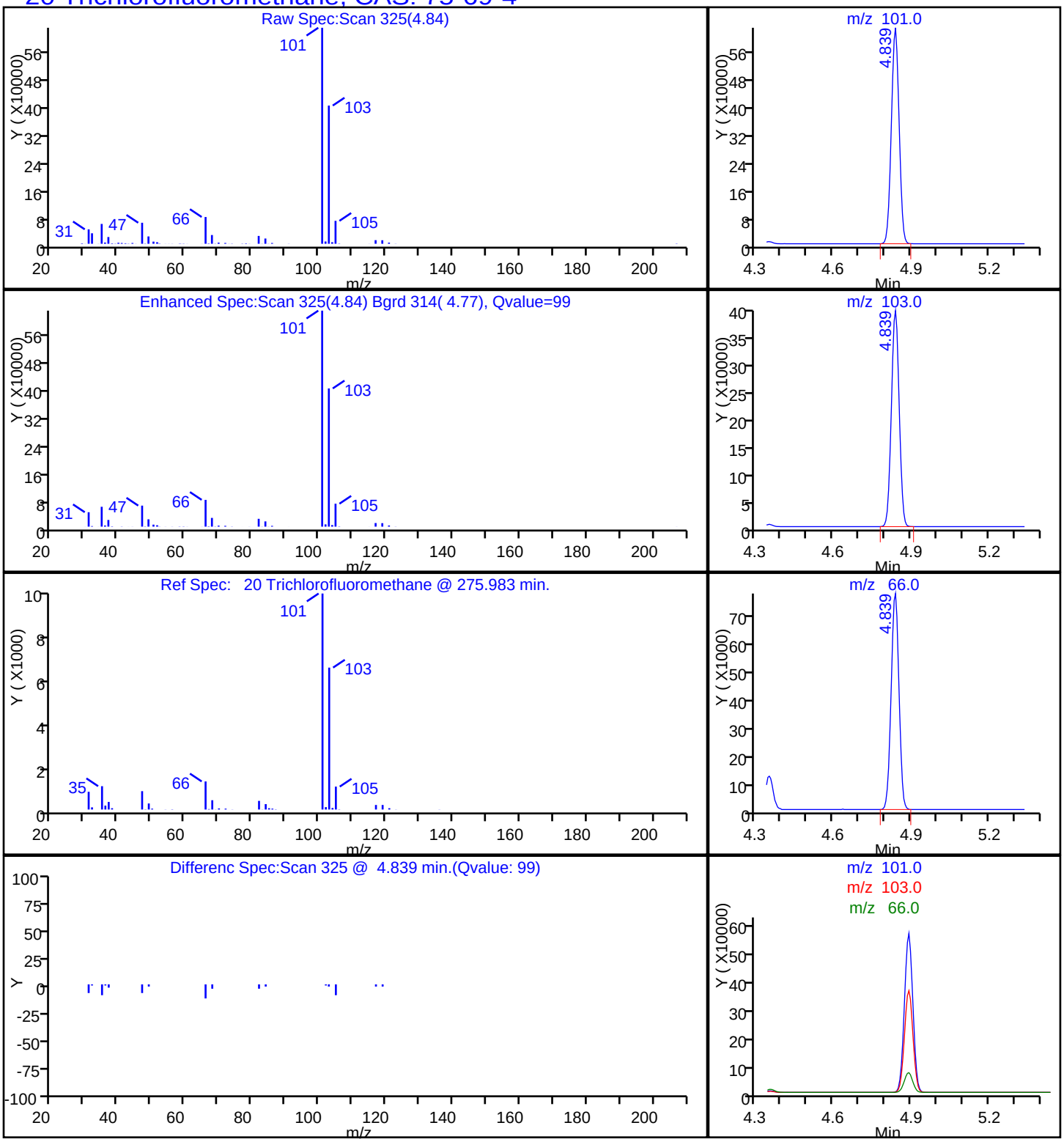


Report Date: 30-Jun-2014 12:00:03 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P201.D				
Injection Date:	28-Jun-2014 05:50:30	Instrument ID:	MR		
Lims ID:	140-1594-A-12	Lab Sample ID:	140-1594-12		
Client ID:	SMSSV3-10				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	111.0900		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

20 Trichlorofluoromethane, CAS: 75-69-4



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3D-10 | Lab Sample ID: 140-1594-13

Matrix: Air | Lab File ID: RF27P202.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 06:43

Soil Aliquot Vol: | Dilution Factor: 109.8

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		220	
100-44-7	Benzyl chloride	126.58	ND		440	
74-83-9	Bromomethane	94.94	ND		220	
56-23-5	Carbon tetrachloride	153.81	ND		220	
108-90-7	Chlorobenzene	112.56	ND		220	
75-00-3	Chloroethane	64.52	ND		220	
67-66-3	Chloroform	119.38	ND		220	
74-87-3	Chloromethane	50.49	4100		550	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		220	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		220	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		220	
95-50-1	1,2-Dichlorobenzene	147.00	ND		220	
541-73-1	1,3-Dichlorobenzene	147.00	ND		220	
106-46-7	1,4-Dichlorobenzene	147.00	ND		220	
75-71-8	Dichlorodifluoromethane	120.91	ND		220	
75-34-3	1,1-Dichloroethane	98.96	360		220	
107-06-2	1,2-Dichloroethane	98.96	720		220	
75-35-4	1,1-Dichloroethene	96.94	ND		220	
78-87-5	1,2-Dichloropropane	112.99	ND		220	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		220	
100-41-4	Ethylbenzene	106.17	ND		220	
87-68-3	Hexachlorobutadiene	260.76	ND		1100	
75-09-2	Methylene Chloride	84.93	ND		550	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		220	
95-47-6	o-Xylene	106.17	ND		220	
100-42-5	Styrene	104.15	ND		220	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		220	
127-18-4	Tetrachloroethene	165.83	ND		220	
108-88-3	Toluene	92.14	430		220	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		220	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1100	
71-55-6	1,1,1-Trichloroethane	133.41	ND		220	
79-00-5	1,1,2-Trichloroethane	133.41	ND		220	
79-01-6	Trichloroethene	131.39	ND		220	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3D-10 Lab Sample ID: 140-1594-13

Matrix: Air Lab File ID: RF27P202.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 06:43

Soil Aliquot Vol: Dilution Factor: 109.8

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	9700		220	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		220	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		220	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		220	
75-01-4	Vinyl chloride	62.50	ND		220	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3D-10 | Lab Sample ID: 140-1594-13

Matrix: Air | Lab File ID: RF27P202.D

Analysis Method: TO-15 | Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) | Date Analyzed: 06/28/2014 06:43

Soil Aliquot Vol: | Dilution Factor: 109.8

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		700	
100-44-7	Benzyl chloride	126.58	ND		2300	
74-83-9	Bromomethane	94.94	ND		850	
56-23-5	Carbon tetrachloride	153.81	ND		1400	
108-90-7	Chlorobenzene	112.56	ND		1000	
75-00-3	Chloroethane	64.52	ND		580	
67-66-3	Chloroform	119.38	ND		1100	
74-87-3	Chloromethane	50.49	8400		1100	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		870	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1000	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		1700	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1300	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1300	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1300	
75-71-8	Dichlorodifluoromethane	120.91	ND		1100	
75-34-3	1,1-Dichloroethane	98.96	1400		890	
107-06-2	1,2-Dichloroethane	98.96	2900		890	
75-35-4	1,1-Dichloroethene	96.94	ND		870	
78-87-5	1,2-Dichloropropane	112.99	ND		1000	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		1500	
100-41-4	Ethylbenzene	106.17	ND		950	
87-68-3	Hexachlorobutadiene	260.76	ND		12000	
75-09-2	Methylene Chloride	84.93	ND		1900	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		950	
95-47-6	o-Xylene	106.17	ND		950	
100-42-5	Styrene	104.15	ND		940	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1500	
127-18-4	Tetrachloroethene	165.83	ND		1500	
108-88-3	Toluene	92.14	1600		830	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1000	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		8100	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1200	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1200	
79-01-6	Trichloroethene	131.39	ND		1200	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Client Sample ID: SMSSV3D-10 Lab Sample ID: 140-1594-13

Matrix: Air Lab File ID: RF27P202.D

Analysis Method: TO-15 Date Collected: 06/25/2014 16:44

Sample wt/vol: 20(mL) Date Analyzed: 06/28/2014 06:43

Soil Aliquot Vol: Dilution Factor: 109.8

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1390 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	55000		1200	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		1700	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1100	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1100	
75-01-4	Vinyl chloride	62.50	ND		560	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Sample Type:	Client				
Inject. Date:	28-Jun-2014 06:43:30	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Sample Info:	140-1594-a-13				
Misc. Info.:	R062714,TO15,140-0000780-022				
Operator ID:	7126	Instrument ID:	MR		

Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	30-Jun-2014 10:48:18	Calib Date:	22-Jan-2014 00:00:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK048	

First Level Reviewer: barlozhetskayaa Date: 30-Jun-2014 10:50:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.431	8.420	0.011	96	317451	4.00	
* 2 1,4-Difluorobenzene	114	10.717	10.712	0.005	96	1693431	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.021	17.031	-0.010	91	1423788	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.771	19.782	-0.011	85	1210210	4.31	
9 Chloromethane	52	3.599	3.594	0.005	100	69577	1.48	
16 Chloroethane	64	4.273	4.273	0.000	68	2927	0.0402	
20 Trichlorofluoromethane	101	4.845	4.839	0.006	99	1113628	3.54	
31 Methylene Chloride	84	5.891	5.869	0.022	90	9675	0.0971	
37 1,1-Dichloroethane	63	7.115	7.104	0.011	95	29140	0.1294	
43 Chloroform	83	8.463	8.452	0.011	44	8422	0.0357	
46 1,2-Dichloroethane	62	9.585	9.579	0.006	96	49049	0.2629	
47 Benzene	78	10.118	10.113	0.005	93	10690	0.0286	
65 Toluene	91	14.157	14.147	0.010	93	69076	0.1567	
73 Tetrachloroethene	129	15.775	15.780	-0.005	64	2428	0.0161	

Reagents:

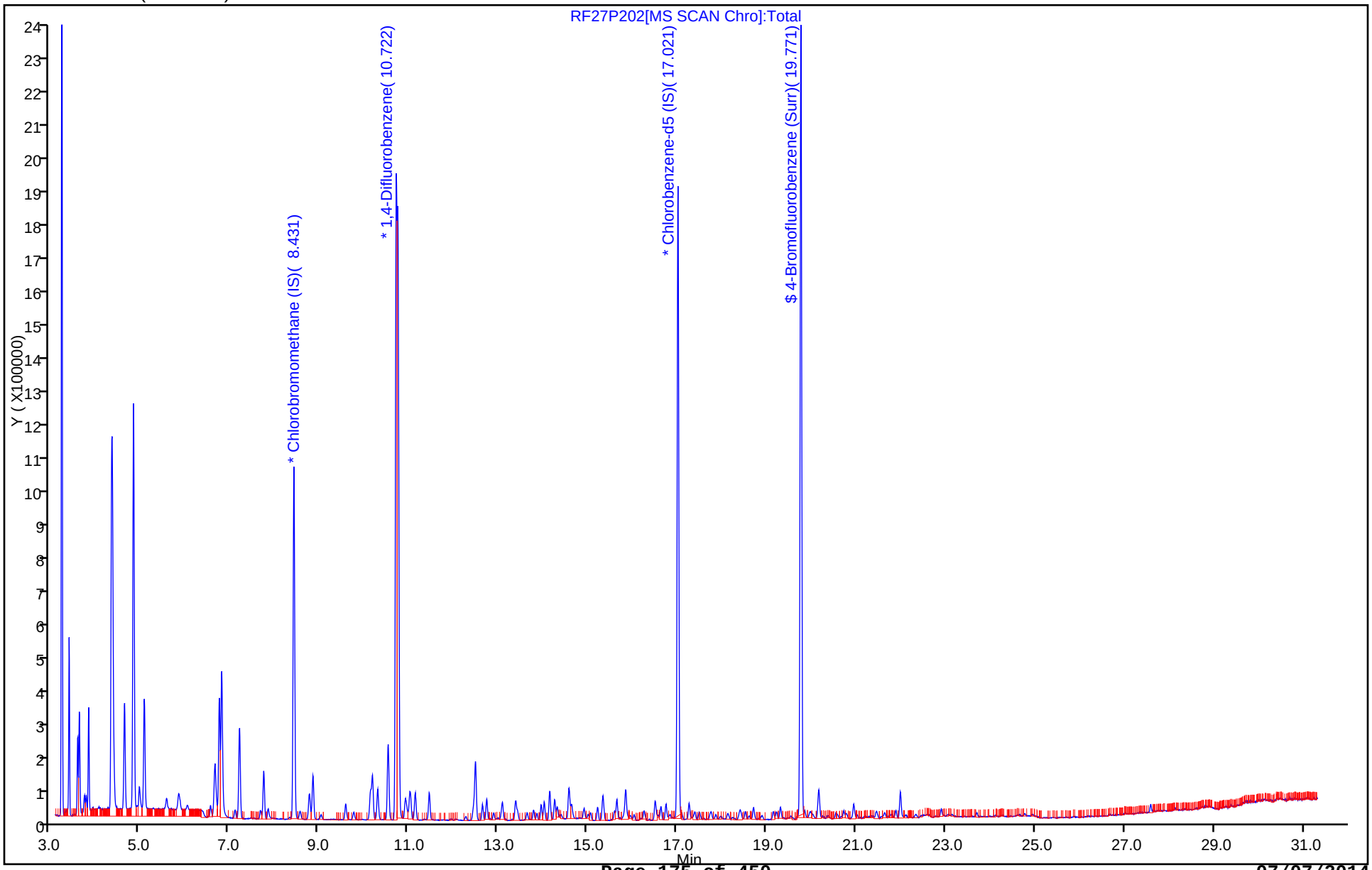
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13	Worklist Smp#:	22
Client ID:	SMSSV3D-10				
Purge Vol:	500.000 mL	Dil. Factor:	109.8000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

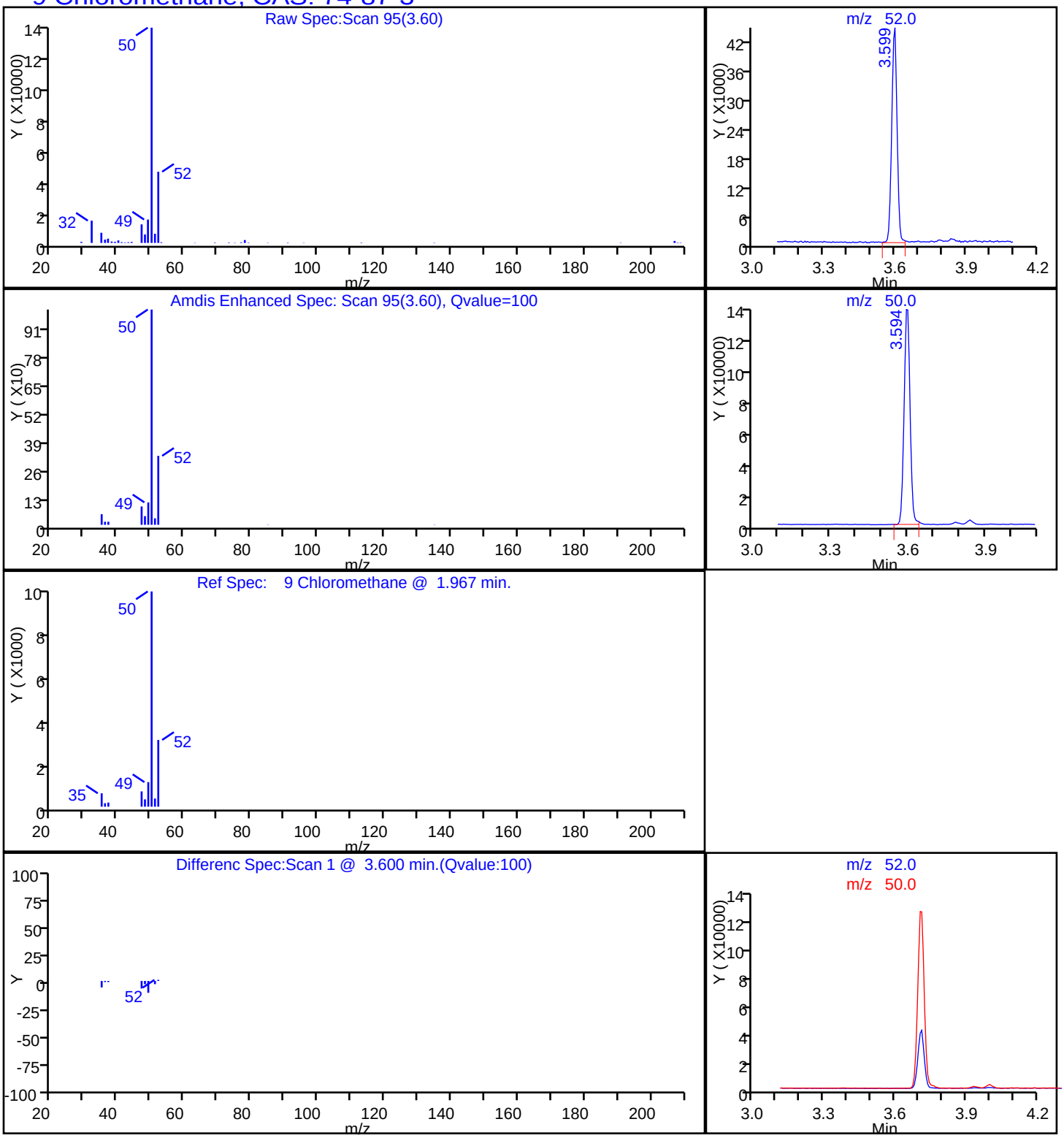


Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

9 Chloromethane, CAS: 74-87-3

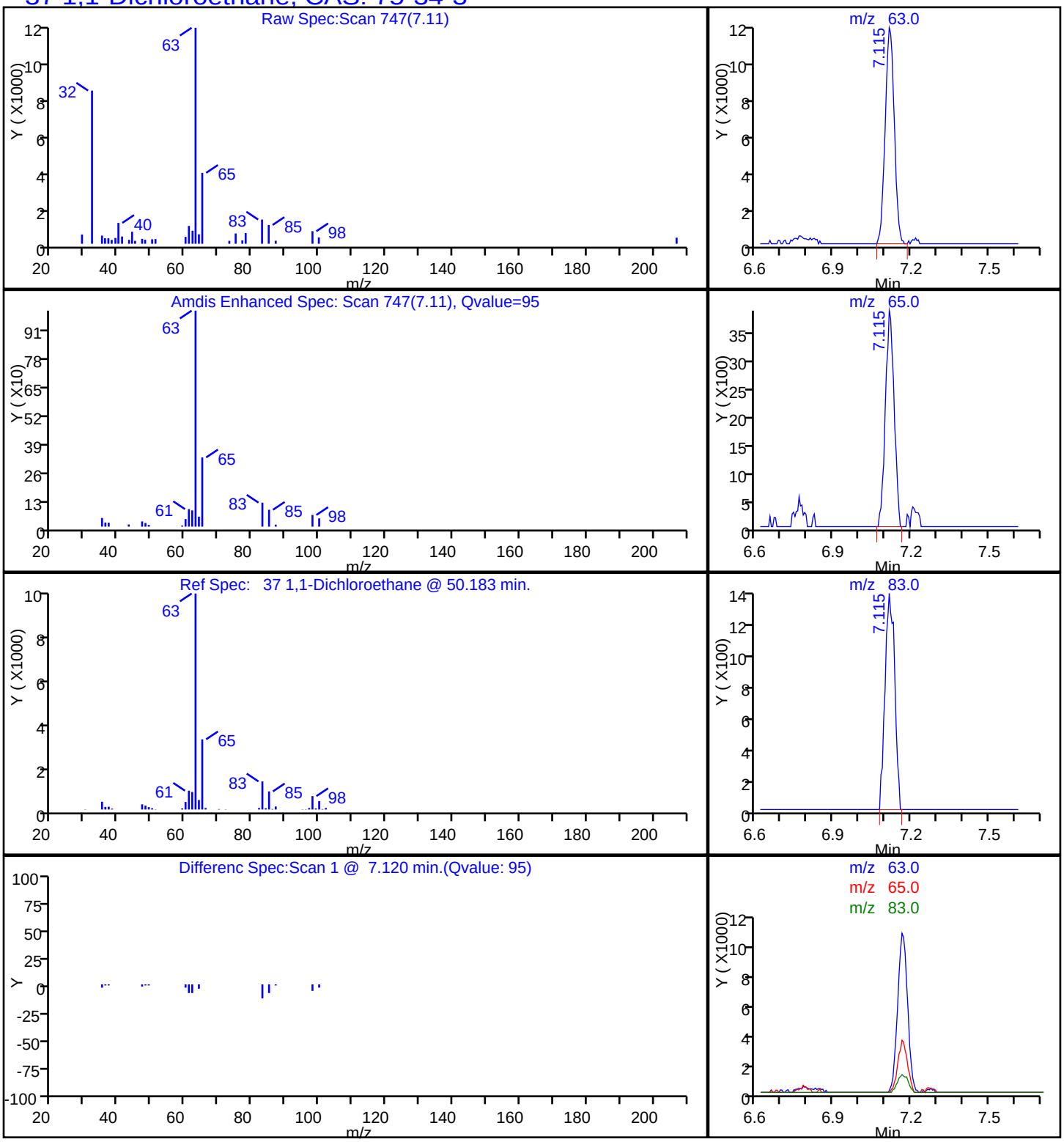


Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

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

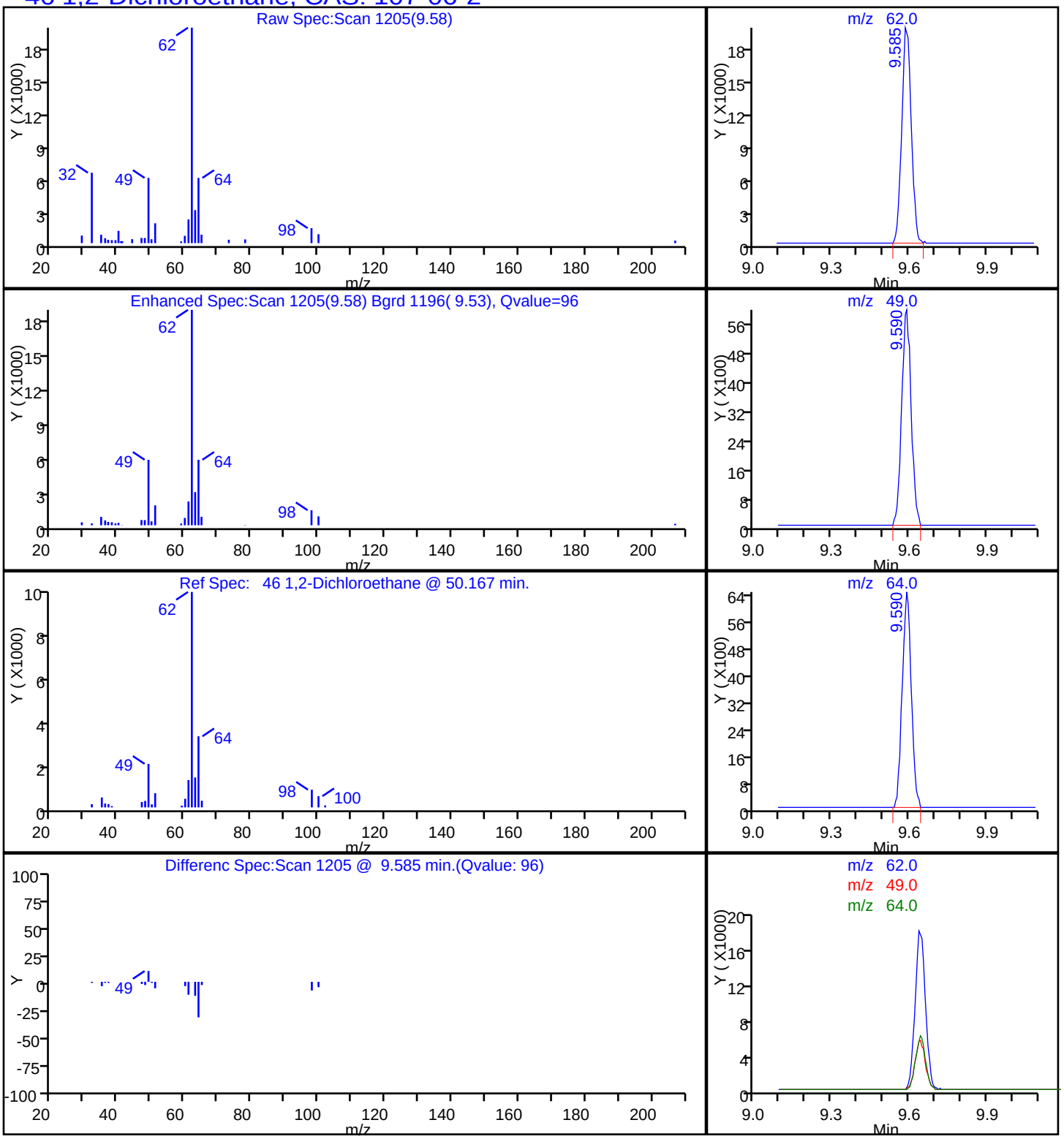


Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

46 1,2-Dichloroethane, CAS: 107-06-2

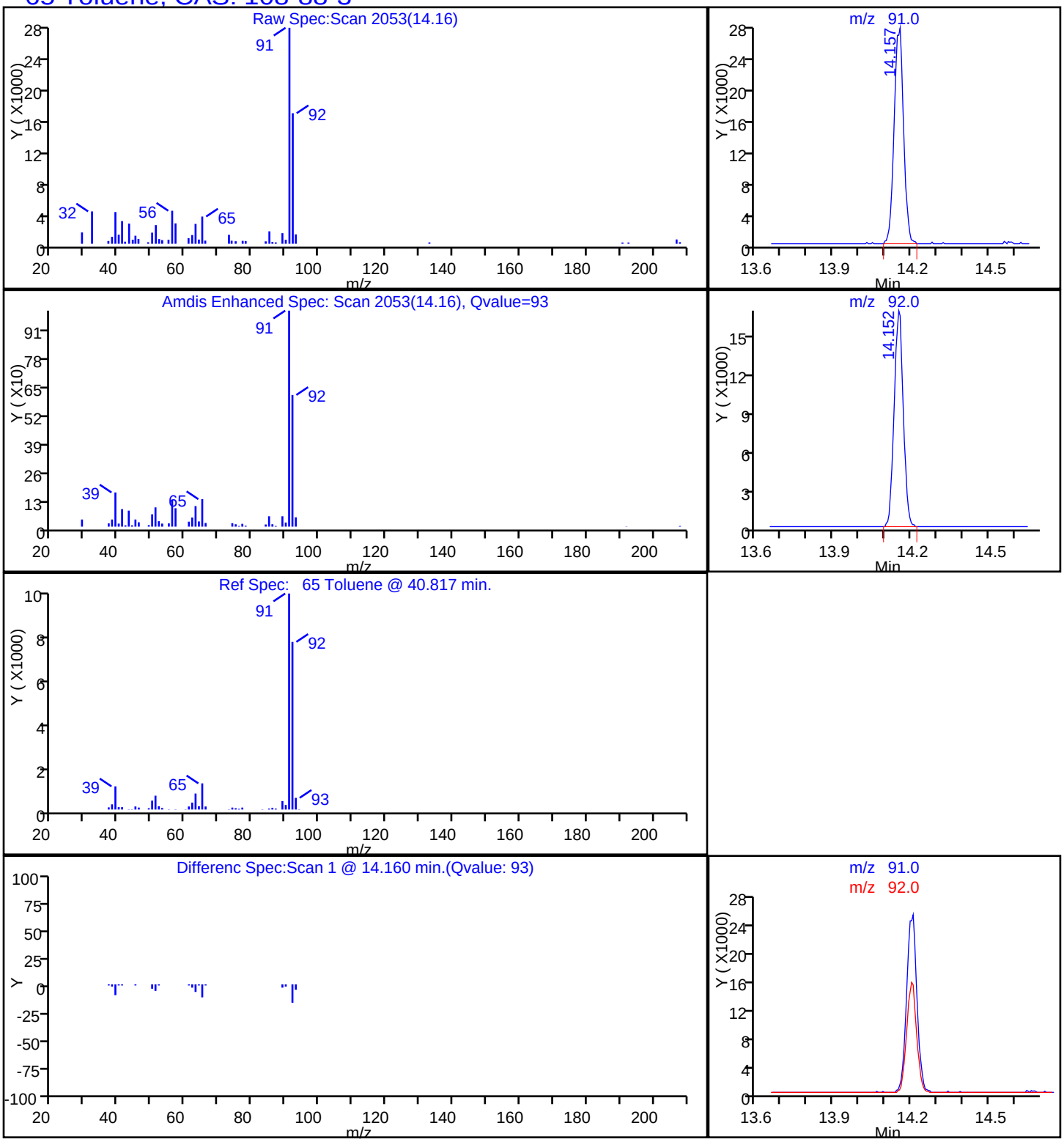


Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

65 Toluene, CAS: 108-88-3

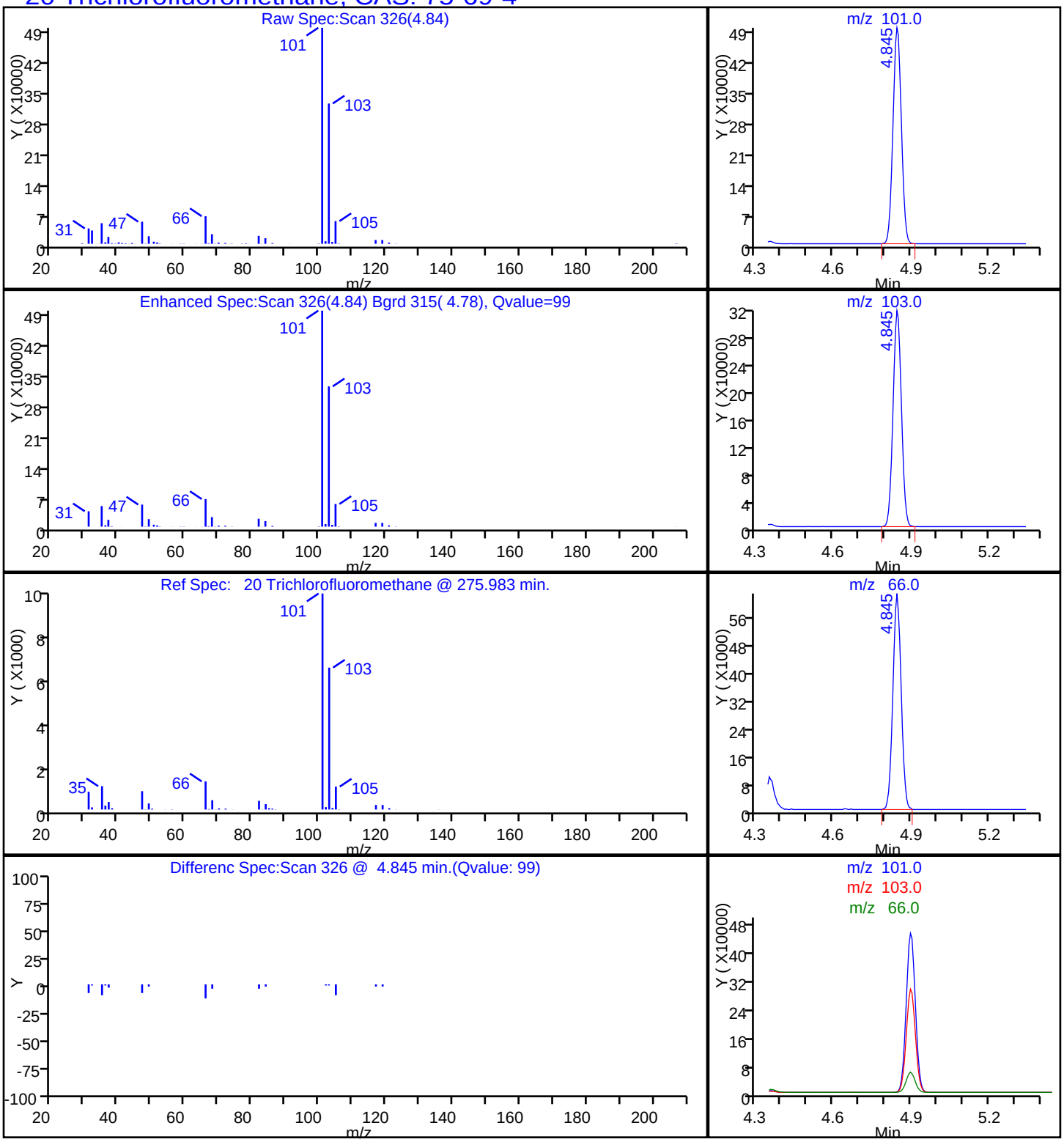


Report Date: 30-Jun-2014 10:50:02 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RF27P202.D				
Injection Date:	28-Jun-2014 06:43:30	Instrument ID:	MR		
Lims ID:	140-1594-A-13	Lab Sample ID:	140-1594-13		
Client ID:	SMSSV3D-10				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	109.8000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

20 Trichlorofluoromethane, CAS: 75-69-4



FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-722/2	140-0000372-002.D
Level 2	IC 140-722/3	140-0000372-003.D
Level 3	IC 140-722/4	140-0000372-004.D
Level 4	IC 140-722/5	140-0000372-005.D
Level 5	IC 140-722/6	140-0000372-006.D
Level 6	IC 140-722/7	140-0000372-007.D
Level 7	IC 140-722/8	140-0000372-008.D
Level 8	IC 140-722/9	140-0000372-009.D
Level 9	IC 140-722/10	140-0000372-010.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 9	LVL 5		B	M1	M2								
Chlorodifluoromethane	0.5120 0.4210	0.5305 0.3818	0.4697 0.3698	0.4490 0.3135	0.4248	Ave		0.4302				16.0		30.0			
Propene	+++++ 1.6295	+++++ 1.3657	1.9568 1.3376	2.5792 1.0572	1.8267	Ave		1.6789				30.0		30.0			
Dichlorodifluoromethane	4.6478 3.8790	4.6109 3.6381	4.3640 3.5301	4.2702 3.1616	4.0772	Ave		4.0199				13.0		30.0			
Chloromethane	+++++ 0.6061	0.7264 0.5375	0.6873 0.5191	0.6534 0.4160	0.5985	Ave		0.5930				17.0		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	3.0737 2.9631	3.1686 2.6888	3.1057 2.6403	3.0977 2.2336	2.9427	Ave		2.8793				11.0		30.0			
Acetaldehyde	4.1846 1.0756	3.9510 0.6865	1.6550 0.6266	2.4492 0.4701	1.3507	Ave		1.8277				77.0	*	40.0			
Vinyl chloride	2.0539 1.8553	2.0642 1.6612	1.9464 1.6110	1.9619 1.3487	1.8405	Ave		1.8159				13.0		30.0			
1,3-Butadiene	1.8270 1.5252	1.7690 1.3769	1.6545 1.3284	1.6126 1.1242	1.5287	Ave		1.5274				15.0		30.0			
Butane	3.6031 3.0734	3.4352 2.6512	3.3616 2.5330	3.4048 2.1180	2.9971	Ave		3.0197				16.0		30.0			
Bromomethane	1.8886 1.5037	1.7591 1.3602	1.6649 1.3508	1.5609 1.1561	1.4635	Ave		1.5231				15.0		30.0			
Chloroethane	1.1061 0.9103	1.0275 0.8416	0.9618 0.8232	0.9871 0.7004	0.9037	Ave		0.9180				13.0		30.0			
Ethanol	+++++ 0.7285	+++++ 0.6158	0.7918 0.5762	0.8252 0.4452	0.7475	Ave		0.6757				20.0		40.0			
Vinyl bromide	1.7079 1.4962	1.5812 1.3791	1.5295 1.3750	1.5148 1.1799	1.4757	Ave		1.4710				10.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
2-Methylbutane	+++++ 2.3899	2.6151 2.1489	2.5394 2.0784	2.5371 1.7423	2.3334	Ave		2.2981				13.0		30.0			
Acrolein	+++++ 0.8261	+++++ 0.7459	0.9664 0.8075	0.8935 0.6755	0.8145	Ave		0.8185				12.0		30.0			
Trichlorofluoromethane	4.1646 4.0291	4.2697 3.7832	4.1449 3.8811	4.0456 3.4236	3.9546	Ave		3.9663				6.4		30.0			
Acetonitrile	+++++ 0.8381	0.7182 0.7541	0.6777 0.7998	0.8552 0.6693	0.8270	Ave		0.7674				9.5		30.0			
Acetone	12.814 2.4572	12.732 1.2215	3.9869 1.0696	7.2630 0.7621	3.2201	Ave		5.0585				95.0	*	30.0			
Pentane	0.3659 0.3248	0.3653 0.3078	0.3218 0.3114	0.3368 0.2770	0.3149	Ave		0.3251				8.7		30.0			
Isopropyl alcohol	+++++ 3.2468	+++++ 2.8790	3.4054 2.8946	3.6984 2.3886	3.1661	Ave		3.0970				14.0		30.0			
Ethyl ether	2.3860 2.2145	2.3267 2.0266	2.2513 2.1237	2.1599 1.8103	2.1166	Ave		2.1573				7.9		30.0			
1,1-Dichloroethene	1.4853 1.2790	1.3624 1.2034	1.3136 1.2332	1.2785 1.1016	1.2605	Ave		1.2797				8.3		30.0			
Acrylonitrile	1.4468 1.4475	1.4500 1.3659	1.5036 1.4712	1.4206 1.2834	1.4229	Ave		1.4235				4.5		30.0			
tert-Butyl alcohol	+++++ 3.2796	+++++ 3.1652	3.2088 3.2273	3.1658 2.7489	3.2791	Ave		3.1535				5.8		30.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9024 2.7291	2.8438 2.5587	2.7008 2.6646	2.7129 2.3668	2.6565	Ave		2.6817				5.8		30.0			
Methylene Chloride	+++++ 1.2430	1.5520 1.1467	1.4364 1.1716	1.2475 1.0407	1.2059	Ave		1.2555				13.0		30.0			
3-Chloropropene	1.5103 1.5139	1.6360 1.4342	1.5121 1.4662	1.4637 1.2539	1.4815	Ave		1.4746				6.8		30.0			
Carbon disulfide	4.6696 4.4658	4.4653 4.2253	4.4450 4.3473	4.3608 3.8681	4.3452	Ave		4.3547				5.0		30.0			
trans-1,2-Dichloroethene	1.8203 1.5575	1.7174 1.4689	1.6943 1.5166	1.5562 1.3474	1.5207	Ave		1.5777				9.1		30.0			
2-Methylpentane	4.7612 4.5314	4.6508 4.2871	4.5562 4.3876	4.4761 3.8057	4.3381	Ave		4.4216				6.2		40.0			
Methyl tert-butyl ether	4.7266 4.4038	4.5128 4.0916	4.3589 4.2996	4.2040 3.7585	4.1664	Ave		4.2803				6.4		30.0			
1,1-Dichloroethane	3.1689 2.8670	2.9691 2.7384	2.9269 2.8171	2.8493 2.4723	2.7347	Ave		2.8382				6.7		30.0			
Vinyl acetate	4.5168 4.8376	4.6376 4.5830	4.6503 5.0173	4.4728 4.3602	4.5327	Ave		4.6232				4.3		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
2-Butanone (MEK)	+++++ 0.9648	+++++ 0.7651	0.9081 0.7731	1.3964 0.6555	0.9601	Ave		0.9176				26.0		30.0			
Hexane	1.7986 1.5763	1.7448 1.4904	1.6200 1.5523	1.5695 1.3644	1.4892	Ave		1.5784				8.4		30.0			
C6 Range	+++++ 2.6644	3.1809 2.4828	4.3857 2.6258	2.7174 3.3277	2.6018	Ave		2.9983				21.0		30.0			
cis-1,2-Dichloroethene	1.5655 1.4636	1.5593 1.3876	1.5034 1.4579	1.4675 1.2865	1.4394	Ave		1.4589				5.9		30.0			
Ethyl acetate	4.5617 4.4228	4.2600 4.1846	4.1833 4.3323	4.0481 3.6901	4.1348	Ave		4.2020				5.9		30.0			
Chloroform	3.2587 3.0183	3.1757 2.8618	3.0074 2.9800	2.9485 2.6271	2.9111	Ave		2.9765				6.1		30.0			
Tetrahydrofuran	2.6328 2.3460	2.3694 2.1586	2.4129 2.2595	2.2622 1.9013	2.2194	Ave		2.2847				8.7		30.0			
1,1,1-Trichloroethane	3.0636 2.9739	2.9500 2.8443	2.9472 2.9835	2.9087 2.6343	2.8520	Ave		2.9064				4.2		30.0			
1,2-Dichloroethane	0.4403 0.4505	0.4733 0.4284	0.4389 0.4518	0.4493 0.3979	0.4362	Ave		0.4407				4.7		30.0			
1-Butanol	+++++ 0.1355	+++++ 0.1322	0.1110 0.1386	0.1402 0.1149	0.1262	Ave		0.1284				9.0		30.0			
Benzene	0.9537 0.8778	0.9084 0.8434	0.9294 0.9003	0.8714 0.7937	0.8599	Ave		0.8820				5.4		30.0			
Cyclohexane	0.1763 0.1477	0.1612 0.1416	0.1473 0.1498	0.1464 0.1306	0.1400	Ave		0.1490				8.8		30.0			
Carbon tetrachloride	0.6076 0.5939	0.5927 0.5882	0.5722 0.6262	0.5710 0.5687	0.5856	Ave		0.5896				3.2		30.0			
2,3-Dimethylpentane	0.1882 0.1961	0.1975 0.1860	0.1991 0.1987	0.1920 0.1781	0.1917	Ave		0.1919				3.6		40.0			
Thiophene	0.5334 0.5396	0.5451 0.5147	0.5444 0.5455	0.5295 0.4900	0.5172	Ave		0.5288				3.5		40.0			
2,2,4-Trimethylpentane	1.9424 1.8213	1.8222 1.7283	1.8150 1.8559	1.7847 1.6443	1.7484	Ave		1.7958				4.7		30.0			
Heptane	0.3931 0.3314	0.3700 0.3156	0.3304 0.3407	0.3284 0.3022	0.3226	Ave		0.3372				8.3		30.0			
1,2-Dichloropropane	0.3748 0.3655	0.3830 0.3464	0.3563 0.3750	0.3537 0.3313	0.3469	Ave		0.3592				4.7		30.0			
Trichloroethene	0.3921 0.3786	0.4034 0.3590	0.3889 0.3819	0.3843 0.3450	0.3656	Ave		0.3777				4.8		30.0			
Dibromomethane	0.3747 0.3483	0.3516 0.3354	0.3416 0.3631	0.3377 0.3262	0.3402	Ave		0.3465				4.3		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
Bromodichloromethane	0.6007 0.6549	0.5964 0.6360	0.6006 0.6976	0.6130 0.6276	0.6194	Ave		0.6274				5.2		30.0			
1,4-Dioxane	+++++ 0.1495	+++++ 0.1405	0.1302 0.1455	0.1407 0.1221	0.1427	Ave		0.1387				6.8		30.0			
Methyl methacrylate	0.6069 0.5493	0.4862 0.5310	0.4735 0.5613	0.4810 0.4834	0.5023	Ave		0.5194				8.8		30.0			
Methylcyclohexane	0.5714 0.5456	0.5644 0.5252	0.5533 0.5573	0.5474 0.5007	0.5304	Ave		0.5440				4.0		40.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.9411	+++++ 0.9002	1.1060 0.9525	0.8741 0.8386	0.8897	Ave		0.9289				9.4		30.0			
cis-1,3-Dichloropropene	0.4713 0.4937	0.4558 0.4739	0.4698 0.5247	0.4672 0.4729	0.4682	Ave		0.4775				4.2		30.0			
trans-1,3-Dichloropropene	0.5365 0.6042	0.5468 0.5767	0.5409 0.6509	0.5344 0.5817	0.5505	Ave		0.5692				6.8		30.0			
Toluene	1.2859 1.2787	1.2777 1.1818	1.2250 1.3112	1.2271 1.1670	1.1888	Ave		1.2382				4.2		30.0			
Toluene Range	+++++ 4.7581	2.8246 4.4378	4.9404 4.9069	2.7061 +++++	2.6363	Ave		3.8872				28.0		30.0			
1,1,2-Trichloroethane	0.3789 0.3742	0.3558 0.3530	0.3550 0.3927	0.3607 0.3483	0.3527	Ave		0.3635				4.1		30.0			
2-Methylthiophene	1.0758 1.0928	1.0337 1.0277	1.0365 1.1419	1.0385 1.0094	1.0223	Ave		1.0532				4.0		40.0			
3-Methylthiophene	1.0508 1.1168	1.0881 1.0409	1.0592 1.1657	1.0628 1.0352	1.0463	Ave		1.0740				4.0		40.0			
2-Hexanone	+++++ 0.5675	0.4661 0.5526	0.4500 0.5905	0.4886 0.5209	0.5066	Ave		0.5179				9.6		30.0			
Dibromochloromethane	0.5873 0.7322	0.5922 0.7068	0.5839 0.8030	0.6254 0.7160	0.6580	Ave		0.6672				12.0		30.0			
Octane	0.5654 0.4295	0.5394 0.4004	0.4283 0.4455	0.4161 0.3830	0.4123	Ave		0.4467				14.0		30.0			
C8 Range	+++++ 5.9259	+++++ 5.6210	6.9776 6.0035	6.1779 5.0956	6.0169	Ave		5.9741				9.5		30.0			
1,2-Dibromoethane (EDB)	0.6070 0.6684	0.6233 0.6380	0.6151 0.7142	0.6235 0.6470	0.6232	Ave		0.6400				5.2		30.0			
Tetrachloroethene	0.4345 0.4355	0.4343 0.4065	0.4238 0.4451	0.4225 0.3940	0.4135	Ave		0.4233				3.8		30.0			
Chlorobenzene	1.0745 0.9841	1.0459 0.9088	1.0349 0.9979	1.0031 0.8956	0.9642	Ave		0.9899				6.1		30.0			
2,3-Dimethylheptane	1.6345 1.5807	1.5942 1.4765	1.5264 1.5824	1.4916 1.3585	1.4787	Ave		1.5248				5.5		40.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
Ethylbenzene	1.6094 1.5643	1.6073 1.4490	1.5814 1.5597	1.5562 1.4222	1.5291	Ave		1.5421				4.3		30.0			
2-Ethylthiophene	1.1864 1.2042	1.2121 1.1257	1.1683 1.2184	1.1719 1.1113	1.1649	Ave		1.1737				3.1		40.0			
m-Xylene & p-Xylene	1.2564 1.2605	1.2484 1.1727	1.2368 1.2563	1.2265 1.1351	1.2200	Ave		1.2236				3.5		30.0			
Bromoform	0.5103 0.6978	0.5264 0.6944	0.5342 0.7768	0.5754 0.7584	0.6409	Ave		0.6350				16.0		30.0			
Styrene	0.7241 0.9710	0.7603 0.8937	0.7908 0.9620	0.8528 0.8965	0.9013	Ave		0.8614				10.0		30.0			
Nonane	1.0944 1.0960	1.1028 1.0210	1.0064 1.0732	1.0055 0.9481	1.0145	Ave		1.0402				5.1		30.0			
o-Xylene	1.3157 1.3068	1.3079 1.1910	1.2885 1.2607	1.2769 1.1598	1.2590	Ave		1.2629				4.3		30.0			
1,1,2,2-Tetrachloroethane	0.8656 1.0434	0.9198 0.9828	0.9103 1.0512	0.9087 0.9314	0.9464	Ave		0.9511				6.6		30.0			
1,2,3-Trichloropropane	0.3071 0.3133	0.3047 0.2891	0.2810 0.3030	0.2829 0.2672	0.2863	Ave		0.2927				5.1		30.0			
Isopropylbenzene	2.0633 2.0441	2.0172 1.8525	1.9934 1.9251	1.9181 1.7417	1.9014	Ave		1.9396				5.3		30.0			
Propylbenzene	0.5395 0.5660	0.5270 0.5192	0.5157 0.5446	0.5227 0.4909	0.5253	Ave		0.5279				4.0		30.0			
2-Chlorotoluene	0.4801 0.4782	0.4680 0.4262	0.4630 0.4446	0.4676 0.4101	0.4545	Ave		0.4547				5.2		30.0			
4-Ethyltoluene	2.0387 2.1221	2.0569 1.9614	1.9257 2.0861	1.9163 1.8562	1.9498	Ave		1.9904				4.5		30.0			
1,3,5-Trimethylbenzene	0.8711 0.9394	0.8798 0.8864	0.8771 0.9488	0.8574 0.8433	0.8683	Ave		0.8857				4.0		30.0			
Alpha Methyl Styrene	0.5583 0.8300	0.5703 0.8019	0.5638 0.8816	0.6239 0.8002	0.7145	Ave		0.7049				18.0		30.0			
Decane	1.7710 1.4450	1.7824 1.3736	1.2209 1.4727	1.2487 1.2697	1.3062	Ave		1.4323				15.0		30.0			
tert-Butylbenzene	1.7050 1.8173	1.7329 1.7219	1.7054 1.8574	1.6719 1.6204	1.6881	Ave		1.7245				4.2		30.0			
1,2,4-Trimethylbenzene	1.6229 1.7557	1.6427 1.6631	1.5655 1.7837	1.5830 1.5627	1.6063	Ave		1.6429				4.8		30.0			
1,3-Dichlorobenzene	1.1772 1.1601	1.1167 1.0764	1.0728 1.1630	1.0539 1.0456	1.0778	Ave		1.1048				4.6		30.0			
sec-Butylbenzene	2.3958 2.6107	2.4265 2.4727	2.3240 2.6451	2.3383 +++++	2.3939	Ave		2.4509				4.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
Benzyl chloride	1.1360 1.5538	1.0735 1.5419	1.0852 1.6867	1.1936 1.4910	1.3493	Ave		1.3457				17.0		30.0			
1,4-Dichlorobenzene	1.1345 1.1728	1.1019 1.0963	1.0999 1.1871	1.0670 1.0694	1.0906	Ave		1.1133				3.8		30.0			
4-Isopropyltoluene	2.0607 2.2606	1.9287 2.1455	2.0446 2.3132	2.0070 2.0159	2.0969	Ave		2.0970				5.9		30.0			
1,2,3-Trimethylbenzene	1.4569 1.5858	1.4400 1.4986	1.4410 1.5989	1.4260 1.4137	1.4577	Ave		1.4798				4.6		40.0			
Butylcyclohexane	1.3177 1.4072	1.3175 1.3323	1.2640 1.4244	1.2722 1.2422	1.3000	Ave		1.3197				4.7		40.0			
1,2-Dichlorobenzene	1.1040 1.1227	1.0599 1.0553	1.0453 1.1336	1.0236 1.0071	1.0504	Ave		1.0669				4.1		30.0			
Indane	1.4865 1.6022	1.4853 1.4901	1.4411 1.5946	1.4394 1.4189	1.4721	Ave		1.4922				4.4		40.0			
Indene	1.2383 1.6509	1.3155 1.5767	1.3103 1.7276	1.3550 1.5418	1.4780	Ave		1.4660				12.0		40.0			
Butylbenzene	1.8568 2.1239	1.8739 2.0123	1.8608 2.1456	1.8469 1.8503	1.9601	Ave		1.9478				6.2		30.0			
1,2-Dimethyl-4-Ethylbenzene	1.9403 2.1379	1.8931 2.0225	1.8350 2.1658	1.8594 1.8787	1.9815	Ave		1.9682				6.1		40.0			
Undecane	1.4660 1.7525	1.4886 1.6755	1.3960 1.7536	1.4232 1.4621	1.6220	Ave		1.5599				9.1		30.0			
1,2,4,5-Tetramethylbenzene	1.8821 2.2567	2.0176 2.1261	1.9303 2.2510	1.9641 1.9448	2.1072	Ave		2.0533				6.8		40.0			
1,2,3,5-Tetramethylbenzene	1.1975 1.4098	1.2660 1.3122	1.2387 1.3866	1.2324 1.2197	1.3237	Ave		1.2874				5.8		40.0			
1,2,3,4-Tetramethylbenzene	1.5175 1.9023	1.7490 1.7688	1.6205 1.8741	1.6053 1.6114	1.8034	Ave		1.7169				7.8		40.0			
Dodecane	1.3749 1.7701	1.4075 1.6041	1.2544 1.6752	1.3052 1.3617	1.6760	Ave		1.4921				13.0		30.0			
1,2,4-Trichlorobenzene	0.8901 0.9856	0.8867 0.9168	0.8042 0.9860	0.8036 0.8802	0.9294	Ave		0.8981				7.4		30.0			
Naphthalene	1.9090 2.2386	1.9293 2.0654	1.7819 2.1846	1.7876 1.8759	2.0861	Ave		1.9843				8.4		30.0			
Benzo(b)thiophene	1.4789 1.7807	1.4535 1.6475	1.4043 1.7364	1.4345 1.5256	1.6280	Ave		1.5655				8.8		40.0			
Hexachlorobutadiene	0.9294 0.8879	0.8897 0.8313	0.7557 0.9060	0.7405 0.8169	0.8535	Ave		0.8457				7.8		30.0			
1,2,3-Trichlorobenzene	0.8492 0.9492	0.8337 0.8684	0.7779 0.9141	0.7607 0.8143	0.9010	Ave		0.8521				7.4		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

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 9	LVL 5		B	M1	M2								
2-Methylnaphthalene	+++++ 0.1950	0.1096 0.1683	0.1119 0.1777	0.1160 0.1534	0.1726	Ave		0.1506				22.0		40.0			
1-Methylnaphthalene	+++++ 0.1629	0.0994 0.1380	0.1014 0.1417	0.0988 0.1202	0.1480	Ave		0.1263				20.0		40.0			
4-Bromofluorobenzene (Surr)	0.7603 0.8151	0.7722 0.8029	0.7772 0.7692	0.7951 0.7958	0.8043	Ave		0.7880				2.4		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-722/2	140-0000372-002.D
Level 2	IC 140-722/3	140-0000372-003.D
Level 3	IC 140-722/4	140-0000372-004.D
Level 4	IC 140-722/5	140-0000372-005.D
Level 5	IC 140-722/6	140-0000372-006.D
Level 6	IC 140-722/7	140-0000372-007.D
Level 7	IC 140-722/8	140-0000372-008.D
Level 8	IC 140-722/9	140-0000372-009.D
Level 9	IC 140-722/10	140-0000372-010.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Chlorodifluoromethane	CBM	Ave	2236 90674	4427 189525	7749 383917	18538 775758	44642	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Propene	CBM	Ave	+++++ 350979	+++++ 677975	32280 1388816	106482 2615684	191972	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Dichlorodifluoromethane	CBM	Ave	20296 835511	38474 1806104	71991 3665312	176297 7822702	428480	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Chloromethane	CBM	Ave	+++++ 130558	6061 266829	11338 538957	26974 1029235	62894	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	CBM	Ave	13422 638229	26439 1334827	51233 2741426	127891 5526469	309246	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Acetaldehyde	CBM	Ave	91366 1158429	164839 1704135	136513 3252841	505581 5815631	709734	0.200 10.0	0.400 20.0	0.800 40.0	2.00 80.0	5.00
Vinyl chloride	CBM	Ave	8969 399618	17224 824704	32109 1672679	80999 3337115	193424	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,3-Butadiene	CBM	Ave	7978 328529	14761 683582	27293 1379269	66578 2781510	160652	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Butane	CBM	Ave	15734 661996	28664 1316164	55456 2629992	140570 5240628	314967	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Bromomethane	CBM	Ave	8247 323886	14678 675275	27466 1402517	64442 2860449	153803	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Chloroethane	CBM	Ave	4830 196082	8574 417815	15867 854738	40753 1732990	94970	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Ethanol	CBM	Ave	+++++ 784581	+++++ 1528437	65313 2991357	170340 5507650	392779	+++++ 10.0	+++++ 20.0	0.800 40.0	2.00 80.0	5.00
Vinyl bromide	CBM	Ave	7458 322276	13194 684664	25232 1427658	62540 2919357	155079	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Methylbutane	CBM	Ave	+++++ 514765	21821 1066827	41891 2158036	104747 4310850	245218	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Acrolein	CBM	Ave	+++++ 177945	+++++ 370297	15943 838433	36889 1671381	85600	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Trichlorofluoromethane	CBM	Ave	18186 867834	35627 1878183	68377 4029712	167025 8470940	415588	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Acetonitrile	CBM	Ave	+++++ 180511	5993 374364	11179 830375	35309 1655942	86908	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Acetone	CBM	Ave	55956 529274	106240 606426	65770 1110514	299859 1885545	338403	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Pentane	CBM	Ave	1598 69956	3048 152828	5308 323363	13903 685375	33095	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Isopropyl alcohol	CBM	Ave	+++++ 699342	+++++ 1429277	56178 3005473	152691 5909935	332729	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Ethyl ether	CBM	Ave	10419 476998	19414 1006103	37139 2205019	89171 4479274	222435	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,1-Dichloroethene	CBM	Ave	6486 275491	11368 597429	21670 1280379	52782 2725763	132463	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Acrylonitrile	CBM	Ave	6318 311786	12099 678084	24804 1527509	58649 3175446	149537	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
tert-Butyl alcohol	CBM	Ave	+++++ 706407	+++++ 1571340	52935 3350917	130701 6801594	344604	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
1,1,2-Trichloro-1,2,2-trifluoroetha ne	CBM	Ave	12674 587842	23729 1270272	44554 2766619	112003 5856167	279175	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Methylene Chloride	CBM	Ave	+++++ 267733	12950 569295	23696 1216512	51504 2574915	126726	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
3-Chloropropene	CBM	Ave	6595 326087	13651 712008	24945 1522318	60429 3102495	155687	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Carbon disulfide	CBM	Ave	20391 961912	37259 2097643	73327 4513764	180040 9570753	456645	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
trans-1,2-Dichloroethene	CBM	Ave	7949 335466	14330 729234	27951 1574684	64249 3333749	159809	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Methylpentane	CBM	Ave	20791 976040	38807 2128321	75162 4555648	184798 9416462	455895	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Methyl tert-butyl ether	CBM	Ave	20640 948548	37656 2031281	71908 4464258	173563 9299623	437854	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,1-Dichloroethane	CBM	Ave	13838 617533	24775 1359487	48284 2924949	117636 6117161	287393	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Vinyl acetate	CBM	Ave	19724 1041984	38697 2275234	76715 5209443	184664 10788310	476346	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Butanone (MEK)	CBM	Ave	+++++ 207821	+++++ 379816	14981 802740	57652 1621811	100901	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Hexane	CBM	Ave	7854 339532	14559 739901	26724 1611707	64798 3375887	156497	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
C6 Range	DFB	Ave	+++++ 2949803	135790 6312165	370756 13738196	572761 40834449	1395991	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
cis-1,2-Dichloroethene	CBM	Ave	6836 315244	13011 688848	24801 1513772	60585 3183069	151268	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Ethyl acetate	CBM	Ave	19920 952640	35546 2077434	69011 4498244	167127 9130416	434533	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Chloroform	CBM	Ave	14230 650118	26499 1420734	49612 3094108	121732 6500051	305925	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Tetrahydrofuran	CBM	Ave	11497 505316	19771 1071644	39805 2345980	93395 4704300	233243	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,1,1-Trichloroethane	CBM	Ave	13378 640561	24615 1412036	48619 3097796	120087 6517986	299716	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2-Dichloroethane	DFB	Ave	9807 498800	20204 1089031	37103 2363643	94692 4882126	234065	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1-Butanol	DFB	Ave	+++++ 150003	+++++ 336131	9383 725123	29548 1409619	67708	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Benzene	DFB	Ave	21242 971870	38778 2144154	78571 4710334	183665 9738908	461399	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Cyclohexane	DFB	Ave	3926 163496	6882 359921	12454 783531	30854 1602009	75112	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Carbon tetrachloride	DFB	Ave	13532 657577	25301 1495437	48370 3276213	120345 6979069	314218	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2,3-Dimethylpentane	DFB	Ave	4191 217125	8432 472890	16830 1039504	40459 2185934	102833	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Thiophene	DFB	Ave	11881 597411	23272 1308649	46019 2854257	111598 6012656	277486	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2,2,4-Trimethylpentane	DFB	Ave	43264 2016394	77787 4394059	153435 9709733	376181 20177035	938098	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Heptane	DFB	Ave	8756 366853	15797 802412	27927 1782688	69218 3708139	173112	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2-Dichloropropane	DFB	Ave	8349 404601	16351 880711	30123 1962116	74558 4065194	186154	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Trichloroethene	DFB	Ave	8734 419202	17223 912599	32873 1998232	81001 4233917	196138	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Dibromomethane	DFB	Ave	8346 385560	15011 852648	28881 1899946	71181 4002957	182520	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Bromodichloromethane	DFB	Ave	13379 725095	25461 1616845	50774 3649717	129215 7701142	332341	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,4-Dioxane	DFB	Ave	+++++ 165474	+++++ 357320	11009 761008	29658 1498523	76579	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
Methyl methacrylate	DFB	Ave	13518 608107	20756 1350095	40025 2936848	101382 5931448	269520	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Methylcyclohexane	DFB	Ave	12726 603999	24095 1335281	46778 2915820	115385 6144345	284608	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
4-Methyl-2-pentanone (MIBK)	DFB	Ave	+++++ 1041928	+++++ 2288723	93494 4983522	184247 10290598	477366	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
cis-1,3-Dichloropropene	DFB	Ave	10498 546637	19459 1204706	39712 2744994	98483 5802900	251229	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
trans-1,3-Dichloropropene	CBZ	Ave	10408 553565	20341 1217479	39901 2805549	97853 5975743	255303	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Toluene	CBZ	Ave	24946 1171582	47533 2494959	90374 5651797	224715 11988079	551274	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Toluene Range	DFB	Ave	+++++ 5267866	120583 11282453	417650 25672347	570376 +++++	1414507	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 +++++	1.00
1,1,2-Trichloroethane	CBZ	Ave	7351 342867	13236 745194	26192 1692689	66054 3578266	163559	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Methylthiophene	CBZ	Ave	20870 1001201	38456 2169550	76465 4922137	190168 10368724	474075	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
3-Methylthiophene	CBZ	Ave	20384 1023230	40478 2197601	78138 5024667	194617 10634076	485192	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Hexanone	CBZ	Ave	+++++ 519953	17340 1166727	33199 2545403	89476 5351334	234939	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Dibromochloromethane	CBZ	Ave	11393 670836	22029 1492161	43079 3461156	114534 7355570	305144	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Octane	CBZ	Ave	10968 393543	20065 845267	31600 1920092	76203 3934135	191218	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
C8 Range	DFB	Ave	+++++ 6560765	+++++ 14290611	589870 31410019	1302162 62527603	3228381	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0	1.00
1,2-Dibromoethane (EDB)	CBZ	Ave	11776 612371	23189 1347021	45379 3078496	114178 6645921	289002	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Tetrachloroethene	CBZ	Ave	8428 399049	16155 858234	31265 1918467	77374 4047132	191753	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Chlorobenzene	CBZ	Ave	20844 901687	38909 1918625	76350 4301423	183684 9200516	447119	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2,3-Dimethylheptane	CBZ	Ave	31708 1448264	59307 3117038	112604 6820807	273156 13954704	685723	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Ethylbenzene	CBZ	Ave	31221 1433185	59792 3059129	116666 6722784	284977 14609775	709098	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Ethylthiophene	CBZ	Ave	23014 1103288	45091 2376566	86191 5251689	214597 11415890	540205	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
m-Xylene & p-Xylene	CBZ	Ave	48744 2309781	92885 4951594	182476 10830154	449205 23321274	1131471	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0	2.00
Bromoform	CBZ	Ave	9899 639375	19581 1466031	39409 3348355	105362 7790500	297208	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Styrene	CBZ	Ave	14046 889678	28286 1886727	58339 4146450	156170 9208954	417974	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Nonane	CBZ	Ave	21231 1004153	41024 2155419	74246 4625808	184125 9739462	470450	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
o-Xylene	CBZ	Ave	25524 1197268	48657 2514471	95057 5434192	233827 11913857	583811	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,1,2,2-Tetrachloroethane	CBZ	Ave	16791 955942	34218 2074761	67156 4530909	166412 9567653	438860	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,3-Trichloropropane	CBZ	Ave	5957 287030	11336 610443	20731 1306041	51807 2744920	132761	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Isopropylbenzene	CBZ	Ave	40026 1872860	75044 3910860	147054 8297948	351248 17891050	881723	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Propylbenzene	CBZ	Ave	10466 518603	19604 1096085	38044 2347273	95717 5042282	243598	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Chlorotoluene	CBZ	Ave	9314 438172	17412 899846	34154 1916410	85634 4212857	210762	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
4-Ethyltoluene	CBZ	Ave	39549 1944259	76521 4140876	142064 8991959	350918 19067307	904168	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,3,5-Trimethylbenzene	CBZ	Ave	16899 860708	32728 1871245	64709 4089459	157020 8662363	402663	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Alpha Methyl Styrene	CBZ	Ave	10831 760476	21215 1692897	41590 3799806	114245 8219777	331323	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Decane	CBZ	Ave	34356 1323961	66308 2899818	90067 6347936	228662 13043205	605736	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
tert-Butylbenzene	CBZ	Ave	33076 1665008	64467 3635174	125814 8006175	306161 16645407	782809	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,4-Trimethylbenzene	CBZ	Ave	31483 1608599	61112 3511155	115491 7688505	289894 16052420	744894	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,3-Dichlorobenzene	CBZ	Ave	22836 1062910	41541 2272436	79143 5013130	192989 10741126	499795	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
sec-Butylbenzene	CBZ	Ave	46476 2391954	90270 5220359	171448 11401367	428195 +++++	1110128	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 +++++	1.00
Benzyl chloride	CBZ	Ave	22037 1423581	39936 3255258	80058 7270056	218576 15316291	625714	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,4-Dichlorobenzene	CBZ	Ave	22008 1074571	40993 2314541	81142 5116956	195399 10985109	505725	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
4-Isopropyltoluene	CBZ	Ave	39976 2071212	71751 4529433	150833 9970812	367535 20707754	972406	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,3-Trimethylbenzene	CBZ	Ave	28263 1452957	53569 3163809	106309 6891651	261128 14521699	675966	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Butylcyclohexane	CBZ	Ave	25561 1289254	49013 2812741	93249 6139848	232973 12760868	602849	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1 Analy Batch No.: 722

SDG No.:

Instrument ID: MR GC Column: RTX-5 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/21/2014 17:35 Calibration End Date: 01/22/2014 00:00 Calibration ID: 111

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dichlorobenzene	CBZ	Ave	21416 1028637	39428 2227883	77115 4886017	187442 10345234	487103	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Indane	CBZ	Ave	28837 1467917	55255 3145786	106311 6873229	263593 14575794	682649	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Indene	CBZ	Ave	24022 1512569	48937 3328692	96666 7446713	248136 15838377	685376	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Butylbenzene	CBZ	Ave	36020 1945915	69712 4248256	137273 9248468	338206 19007349	908939	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2-Dimethyl-4-Ethylbenzene	CBZ	Ave	37640 1958756	70425 4269771	135374 9335313	340495 19298881	918856	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Undecane	CBZ	Ave	28438 1605688	55378 3537200	102988 7558659	260625 15019730	752163	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,4,5-Tetramethylbenzene	CBZ	Ave	36510 2067651	75057 4488609	142400 9702773	359669 19977929	977181	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,3,5-Tetramethylbenzene	CBZ	Ave	23230 1291670	47098 2770367	91383 5976665	225678 12528997	613817	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,3,4-Tetramethylbenzene	CBZ	Ave	29438 1742871	65065 3734329	119545 8077878	293973 16552608	836308	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Dodecane	CBZ	Ave	26671 1621814	52359 3386466	92539 7220626	239023 13988502	777210	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,4-Trichlorobenzene	CBZ	Ave	17266 902985	32985 1935485	59329 4249934	147167 9042073	430967	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Naphthalene	CBZ	Ave	37032 2051032	71774 4360329	131452 9416429	327361 19269667	967369	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Benzo(b)thiophene	CBZ	Ave	28690 1631470	54073 3478243	103601 7484531	262687 15671829	754949	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
Hexachlorobutadiene	CBZ	Ave	18030 813463	33097 1755059	55748 3905184	135606 8391233	395796	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
1,2,3-Trichlorobenzene	CBZ	Ave	16474 869630	31015 1833316	57391 3940017	139301 8365157	417833	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0	1.00
2-Methylnaphthalene	CBZ	Ave	+++++ 1116999	25491 2220866	51583 4787031	132723 9847978	500309	+++++ 12.5	0.500 25.0	1.00 50.0	2.50 100	6.25
1-Methylnaphthalene	CBZ	Ave	+++++ 933096	23104 1820779	46763 3816871	113104 7720465	428902	+++++ 12.5	0.500 25.0	1.00 50.0	2.50 100	6.25
4-Bromofluorobenzene (Surr)	CBZ	Ave	1474851 1493637	1436259 1695064	1433419 1657672	1456070 2043832	1491821	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00

Curve Type Legend:
Ave = Average ISTD

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D
Lims ID: IC L1 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Jan-2014 17:35:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l1
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:02 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.512	8.527	-0.015	96	436679	4.00	
* 2 1,4-Difluorobenzene	114	10.809	10.819	-0.010	96	2227297	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.150	17.156	-0.006	89	1939890	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.922	19.925	-0.003	89	1474851	3.86	
6 Chlorodifluoromethane	67	3.410	3.407	0.003	92	2236	0.0476	
7 Propene	41	3.416	3.417	-0.001	98	12229	0.0667	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	98	20296	0.0462	
9 Chloromethane	52	3.621	3.622	-0.001	99	3629	0.0561	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.632	3.634	-0.002	92	13422	0.0427	
11 Acetaldehyde	44	3.766	3.766	0.0	95	91366	0.4579	
12 Vinyl chloride	62	3.782	3.784	-0.002	87	8969	0.0452	
14 Butadiene	54	3.869	3.871	-0.002	60	7978	0.0478	
13 Butane	43	3.874	3.872	0.002	81	15734	0.0477	
15 Bromomethane	94	4.176	4.178	-0.002	89	8247	0.0496	
16 Chloroethane	64	4.316	4.319	-0.003	81	4830	0.0482	
17 Ethanol	31	4.419	4.437	-0.018	94	24209	0.3282	
18 Vinyl bromide	106	4.618	4.621	-0.003	94	7458	0.0464	
19 2-Methylbutane	43	4.678	4.682	-0.004	89	15828	0.0631	
21 Acrolein	56	4.883	4.893	-0.010	16	6055	0.0678	
20 Trichlorofluoromethane	101	4.893	4.898	-0.005	94	18186	0.0420	
22 Acetonitrile	40	4.942	4.955	-0.013	96	4366	0.0521	
23 Acetone	58	5.023	5.018	0.005	90	55956	0.1013	
24 Pentane	72	5.131	5.131	0.0	93	1598	0.0450	
25 Isopropyl alcohol	45	5.125	5.132	-0.007	68	28541	0.0844	
26 Ethyl ether	31	5.303	5.298	0.005	89	10419	0.0442	
27 1,1-Dichloroethene	96	5.605	5.610	-0.005	88	6486	0.0464	
28 Acrylonitrile	53	5.686	5.699	-0.013	87	6318	0.0407	
29 2-Methyl-2-propanol	59	5.745	5.736	0.009	65	6488	0.0188	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.794	5.805	-0.011	87	12674	0.0433	
31 Methylene Chloride	84	5.945	5.951	-0.006	93	8370	0.0611	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.966	5.972	-0.006	91	6595	0.0410	
33 Carbon disulfide	76	6.112	6.114	-0.002	98	20391	0.0429	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	91	7949	0.0462	
35 2-Methylpentane	43	6.824	6.828	-0.004	88	20791	0.0431	
36 Methyl tert-butyl ether	73	6.948	6.935	0.013	94	20640	0.0442	
37 1,1-Dichloroethane	63	7.190	7.199	-0.009	87	13838	0.0447	
38 Vinyl acetate	43	7.315	7.320	-0.006	99	19724	0.0391	
39 2-Butanone (MEK)	72	7.762	7.763	-0.001	98	13150	0.1313	
40 Hexane	56	7.821	7.830	-0.009	78	7854	0.0456	
41 cis-1,2-Dichloroethene	96	8.193	8.201	-0.008	88	6836	0.0429	
42 Ethyl acetate	43	8.415	8.410	0.005	93	19920	0.0434	
43 Chloroform	83	8.544	8.555	-0.011	47	14230	0.0438	
44 Tetrahydrofuran	42	8.981	8.967	0.014	82	11497	0.0461	
45 1,1,1-Trichloroethane	97	9.590	9.603	-0.013	86	13378	0.0422	
46 1,2-Dichloroethane	62	9.687	9.691	-0.004	88	9807	0.0400	
49 n-Butanol	31	10.216	10.210	0.006	64	5402	0.0756	
47 Benzene	78	10.210	10.220	-0.010	90	21242	0.0433	
48 Cyclohexane	69	10.237	10.239	-0.002	80	3926	0.0473	
50 Carbon tetrachloride	117	10.248	10.255	-0.007	92	13532	0.0412	
51 2,3-Dimethylpentane	71	10.383	10.393	-0.010	85	4191	0.0392	
52 Thiophene	84	10.491	10.504	-0.013	81	11881	0.0403	
53 Isooctane	57	11.111	11.110	0.001	86	43264	0.0433	
54 n-Heptane	71	11.542	11.550	-0.008	92	8756	0.0466	
55 1,2-Dichloropropane	63	11.569	11.576	-0.007	64	8349	0.0417	
56 Trichloroethene	130	11.628	11.636	-0.008	80	8734	0.0415	
57 Dibromomethane	93	11.688	11.702	-0.014	87	8346	0.0433	
58 Dichlorobromomethane	83	11.887	11.895	-0.008	84	13379	0.0383	
60 Methyl methacrylate	41	12.038	12.045	-0.007	81	13518	0.0467	
61 Methylcyclohexane	83	12.588	12.594	-0.006	83	12726	0.0420	
62 4-Methyl-2-pentanone (MIBK)	43	13.101	13.106	-0.005	1	4525	0.008749	M
63 cis-1,3-Dichloropropene	75	13.154	13.159	-0.005	82	10498	0.0395	
64 trans-1,3-Dichloropropene	75	14.087	14.092	-0.005	83	10408	0.0377	
65 Toluene	91	14.265	14.269	-0.004	88	24946	0.0415	
66 1,1,2-Trichloroethane	83	14.346	14.354	-0.008	86	7351	0.0417	
67 2-Methylthiophene	97	14.465	14.472	-0.007	89	20870	0.0409	
68 3-Methylthiophene	97	14.745	14.754	-0.009	86	20384	0.0391	
69 2-Hexanone	58	14.945	14.940	0.005	82	14475	0.0576	
71 Chlorodibromomethane	129	15.328	15.334	-0.006	43	11393	0.0352	
70 n-Octane	85	15.333	15.335	-0.002	81	10968	0.0506	
72 Ethylene Dibromide	107	15.743	15.750	-0.007	80	11776	0.0379	
73 Tetrachloroethene	129	15.905	15.910	-0.005	88	8428	0.0411	
74 Chlorobenzene	112	17.231	17.232	-0.001	63	20844	0.0434	
75 2,3-Dimethylheptane	43	17.387	17.390	-0.003	93	31708	0.0429	
76 Ethylbenzene	91	17.727	17.734	-0.007	94	31221	0.0417	
77 2-Ethylthiophene	97	17.884	17.891	-0.007	84	23014	0.0404	
78 m-Xylene & p-Xylene	91	18.008	18.011	-0.003	98	48744	0.0821	
79 Bromoform	173	18.655	18.662	-0.007	84	9899	0.0321	
80 Styrene	104	18.779	18.776	0.003	89	14046	0.0336	
81 n-Nonane	57	18.843	18.845	-0.002	90	21231	0.0421	
82 o-Xylene	91	18.881	18.879	0.002	95	25524	0.0417	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	89	16791	0.0364	
84 1,2,3-Trichloropropane	110	19.679	19.688	-0.009	85	5957	0.0420	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
85 Isopropylbenzene	105	19.911	19.919	-0.008	45	40026	0.0426	
86 N-Propylbenzene	120	20.887	20.891	-0.004	96	10466	0.0409	
87 2-Chlorotoluene	126	20.909	20.915	-0.006	84	9314	0.0422	
88 4-Ethyltoluene	105	21.178	21.182	-0.004	95	39549	0.0410	
89 1,3,5-Trimethylbenzene	120	21.335	21.337	-0.002	90	16899	0.0393	
90 Alpha Methyl Styrene	118	21.761	21.770	-0.009	83	10831	0.0317	
91 n-Decane	57	22.046	22.050	-0.004	87	34356	0.0495	
92 tert-Butylbenzene	119	22.144	22.149	-0.005	85	33076	0.0395	
93 1,2,4-Trimethylbenzene	105	22.176	22.179	-0.003	91	31483	0.0395	
94 1,3-Dichlorobenzene	146	22.661	22.660	0.001	91	22836	0.0426	
95 sec-Butylbenzene	105	22.704	22.710	-0.006	94	46476	0.0391	
96 Benzyl chloride	91	22.828	22.831	-0.003	92	22037	0.0338	
97 1,4-Dichlorobenzene	146	22.845	22.847	-0.002	90	22008	0.0408	
98 4-Isopropyltoluene	119	23.082	23.081	0.001	80	39976	0.0393	M
99 1,2,3-Trimethylbenzene	105	23.136	23.134	0.002	89	28263	0.0394	
100 Butylcyclohexane	83	23.319	23.327	-0.008	86	25561	0.0399	
101 1,2-Dichlorobenzene	146	23.594	23.598	-0.004	90	21416	0.0414	
102 2,3-Dihydroindene	117	23.621	23.625	-0.004	92	28837	0.0398	
103 Indene	116	23.896	23.898	-0.002	88	24022	0.0338	
104 n-Butylbenzene	91	24.025	24.031	-0.006	94	36020	0.0381	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	82	37640	0.0394	
106 Undecane	57	24.942	24.950	-0.008	95	28438	0.0376	
107 1,2,4,5-Tetramethylbenzene	119	25.810	25.814	-0.004	92	36510	0.0367	
108 1,2,3,5-Tetramethylbenzene	119	25.934	25.942	-0.008	89	23230	0.0372	
109 1,2,3,4-Tetramethylbenzene	119	26.829	26.837	-0.008	90	29438	0.0354	
110 Dodecane	57	27.450	27.451	-0.001	89	26671	0.0369	
111 1,2,4-Trichlorobenzene	180	27.520	27.524	-0.004	86	17266	0.0396	
112 Naphthalene	128	27.757	27.760	-0.003	97	37032	0.0385	
113 Benzo(b)thiophene	134	27.946	27.953	-0.007	93	28690	0.0378	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	76	18030	0.0440	
115 1,2,3-Trichlorobenzene	180	28.329	28.333	-0.004	84	16474	0.0399	
116 2-Methylnaphthalene	142	29.806	29.812	-0.006	69	7890	0.1081	
117 1-Methylnaphthalene	142	30.119	30.124	-0.005	77	9223	0.1506	
A 118 C6 Range	1	7.840	7.778 -	7.875	0	78785	0.0472	
A 119 Toluene Range	1	14.252	14.206 -	14.314	0	59447	0.0275	
A 120 C8 Range	1	15.333	15.284 -	15.381	0	511272	0.1537	
S 124 Xylenes, Total	100				0		0.1238	

QC Flag Legend

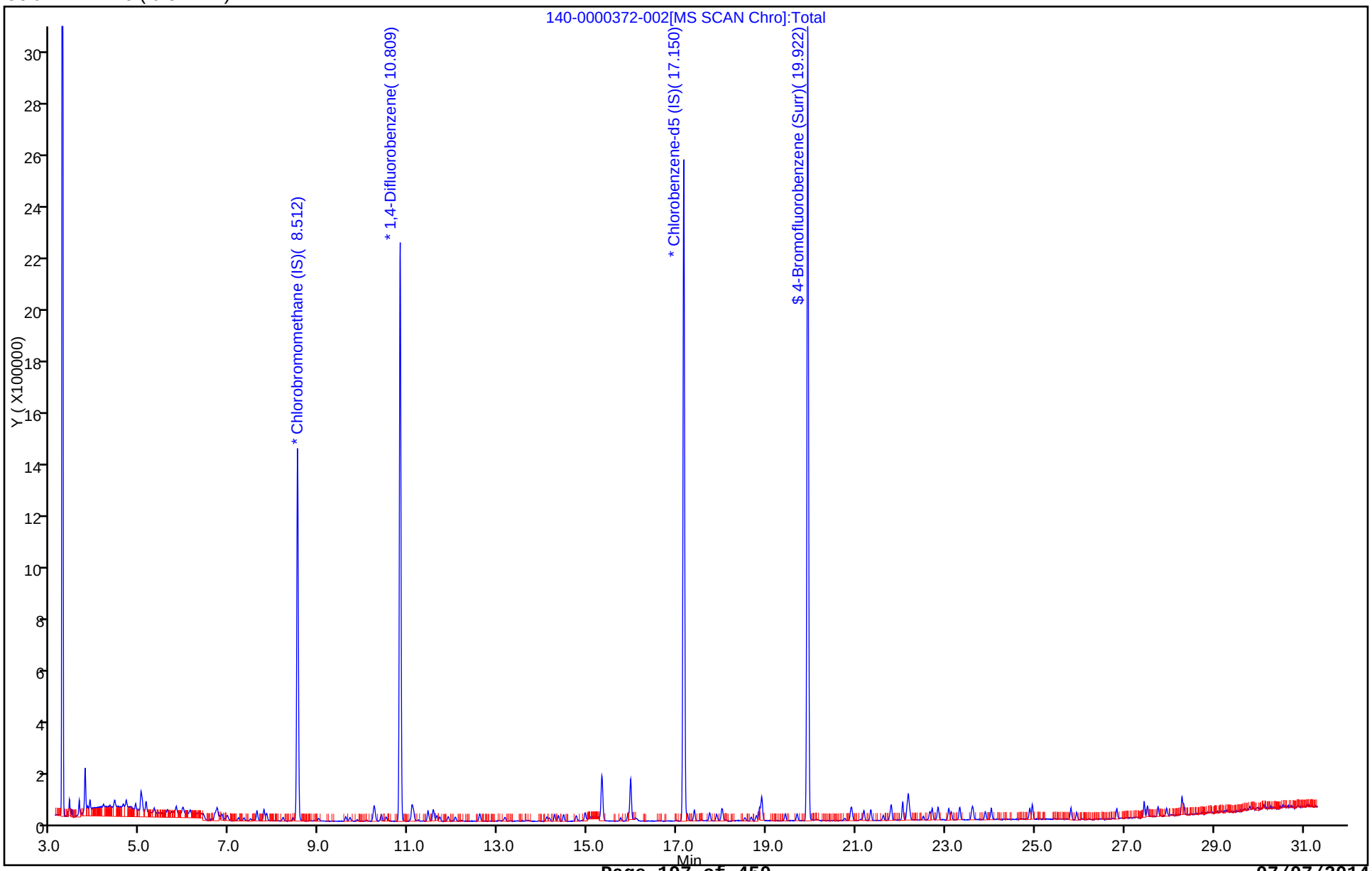
Review Flags
M - Manually Integrated

Report Date: 23-Jan-2014 16:19:03 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L1	Lab Sample ID:		Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

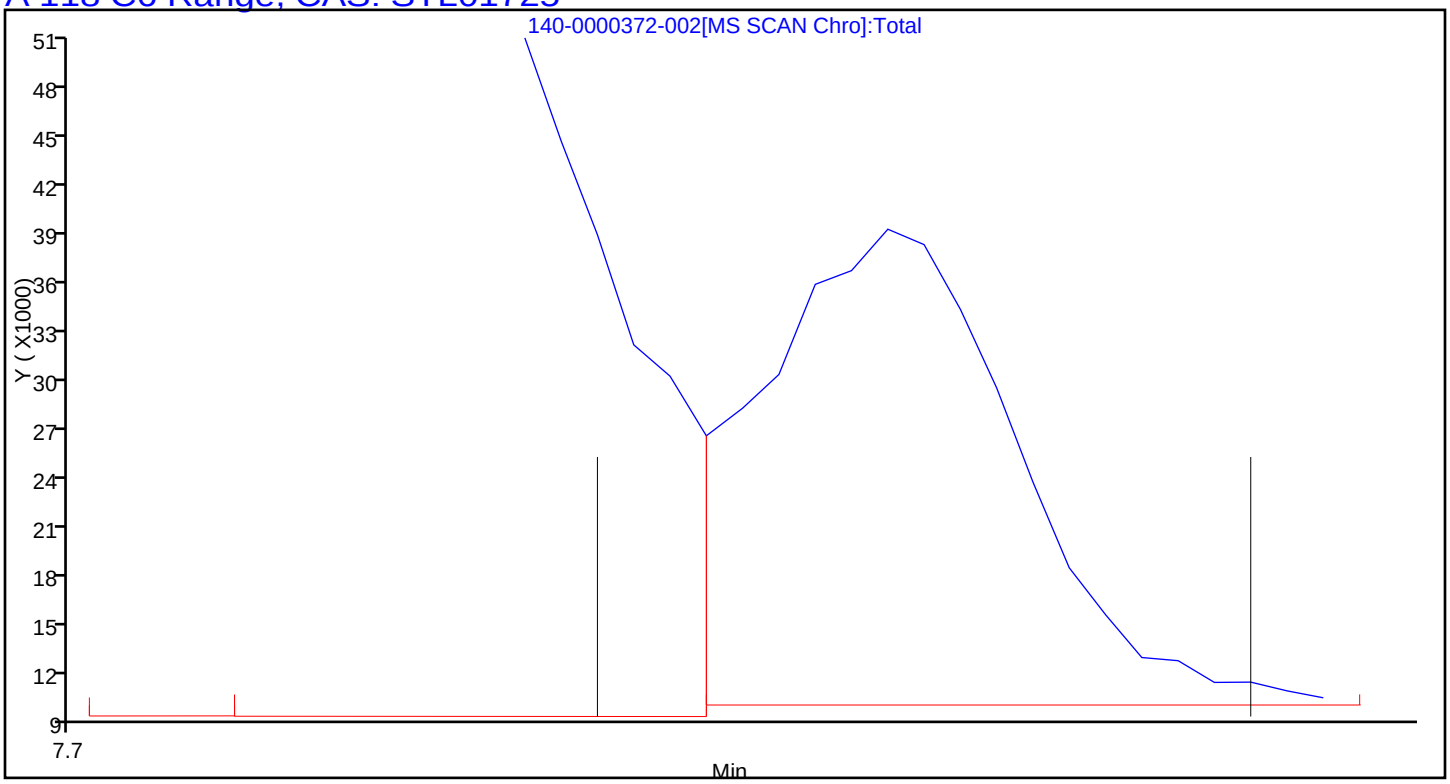


Report Date: 23-Jan-2014 16:19:03 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR		
Lims ID:	IC L1	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

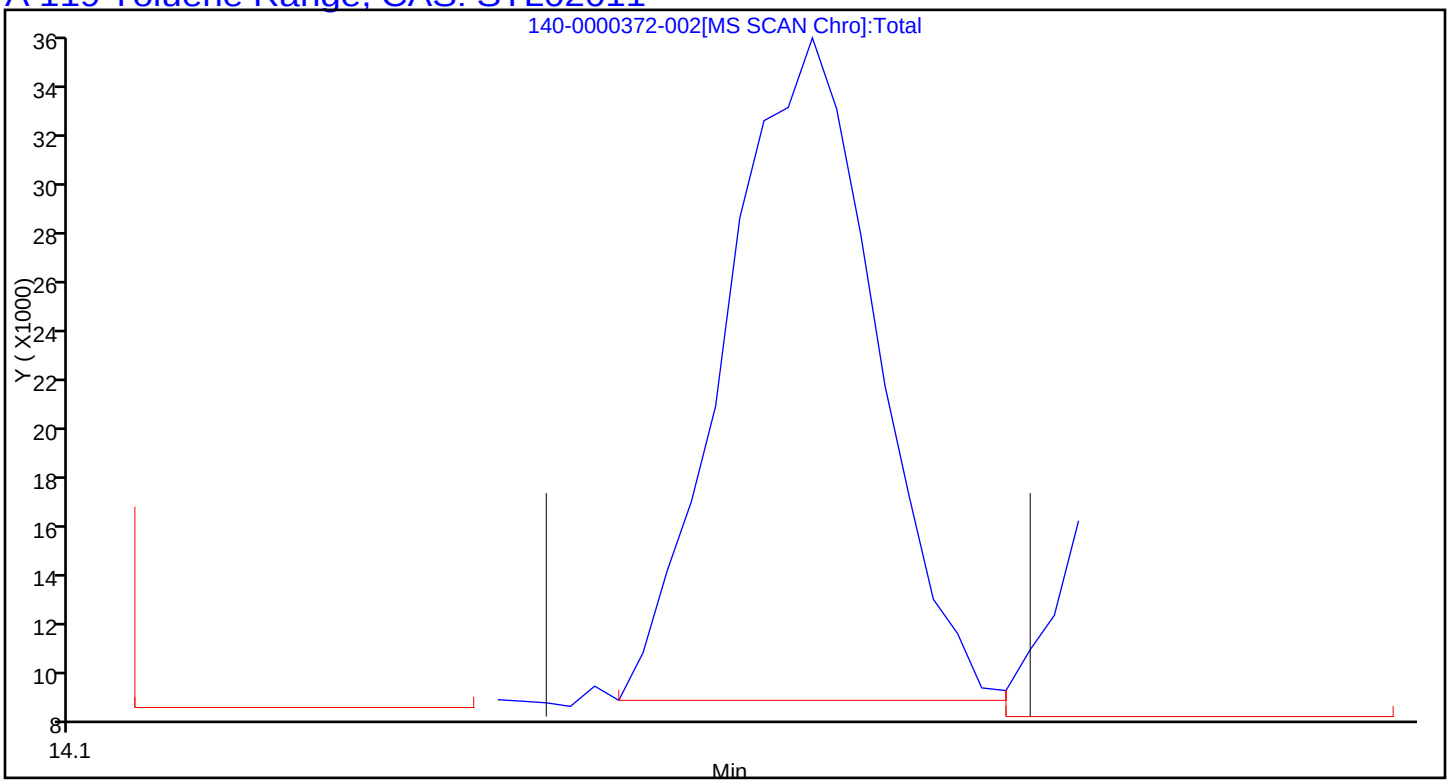


Report Date: 23-Jan-2014 16:19:03 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR		
Lims ID:	IC L1	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

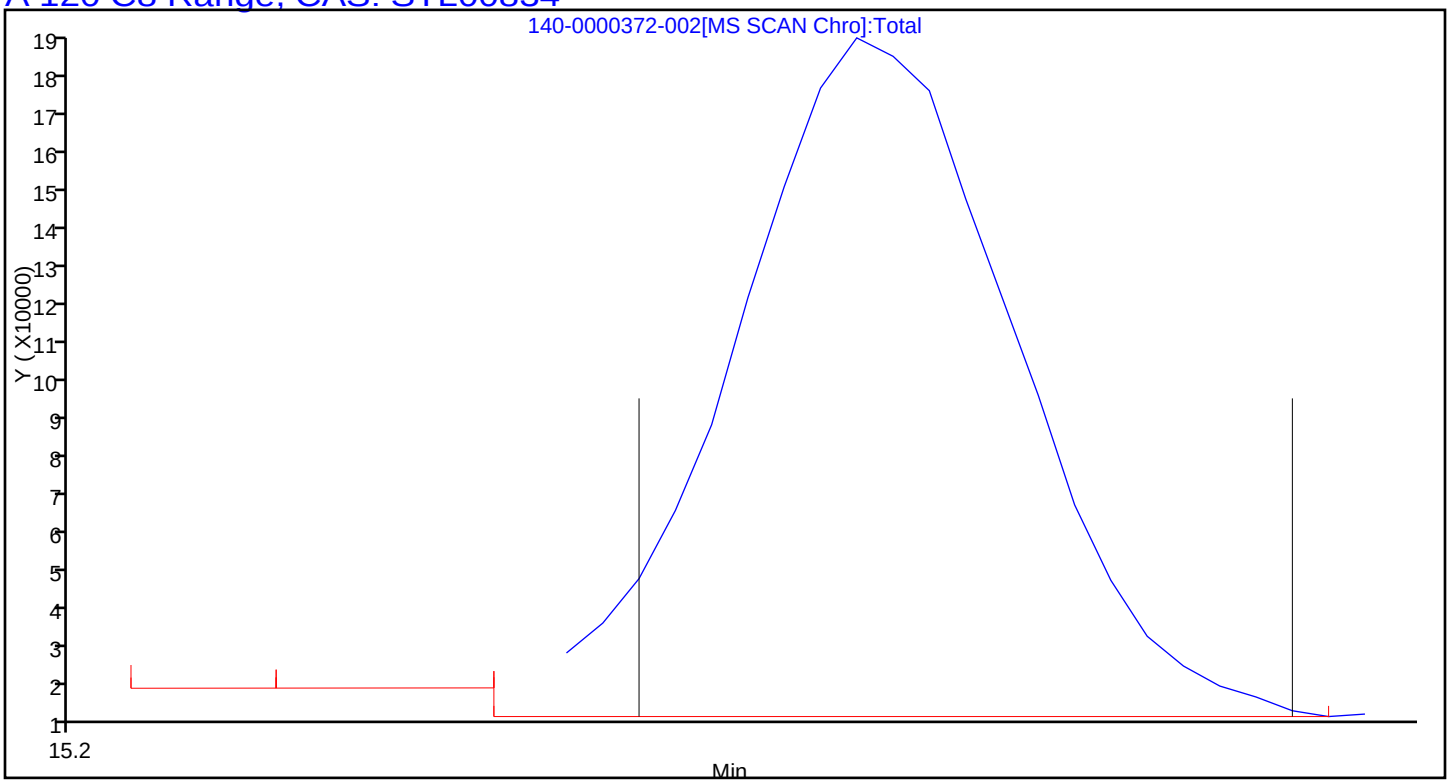


Report Date: 23-Jan-2014 16:19:03 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR		
Lims ID:	IC L1	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



Manual Integration/User Assign Peak Report

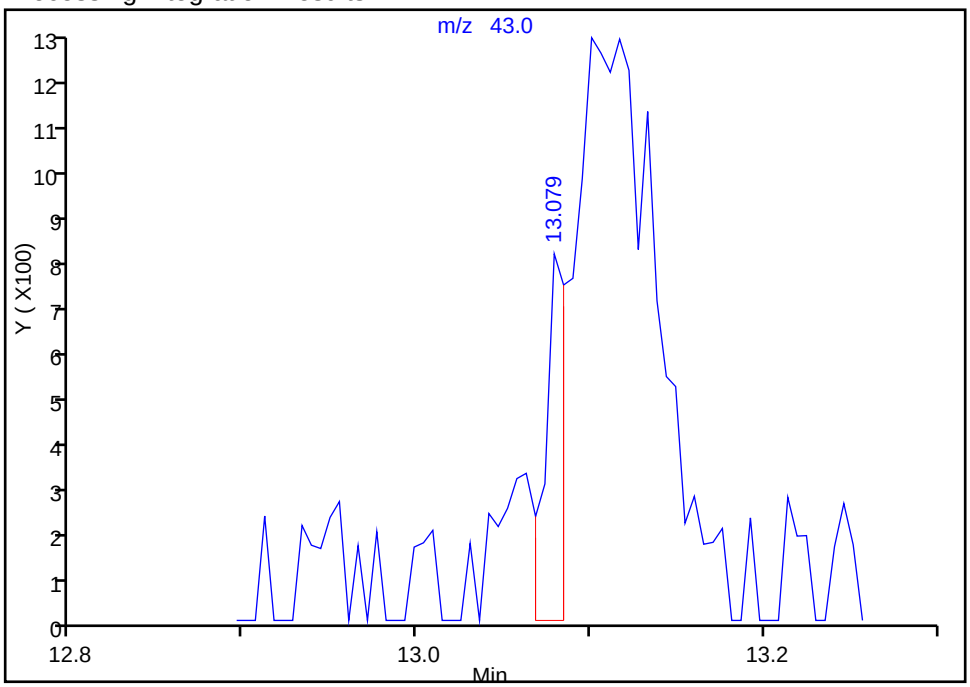
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR		
Lims ID:	IC L1	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

62 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

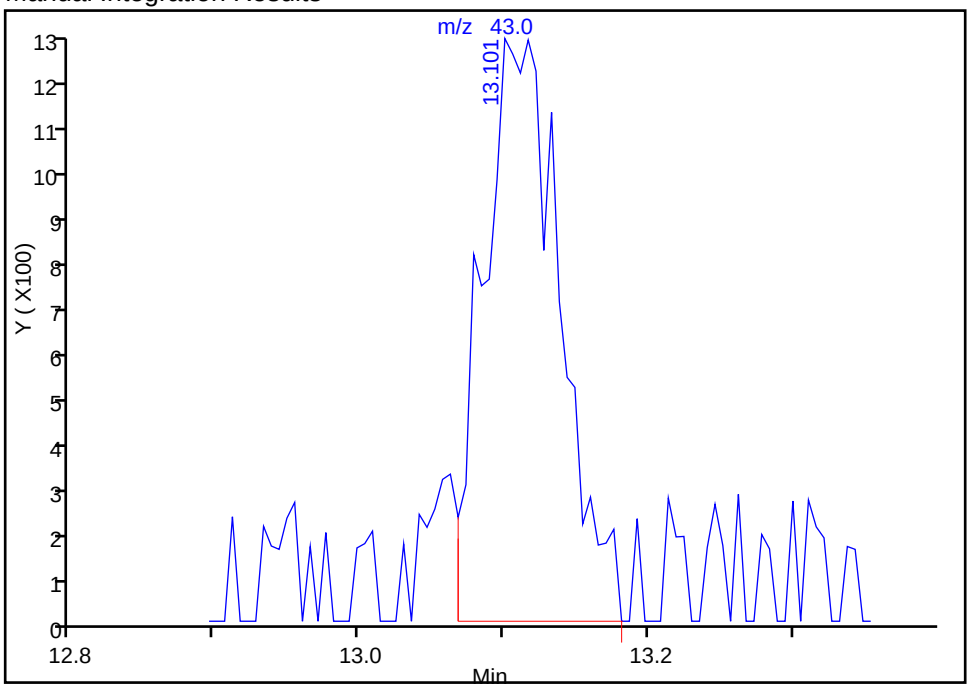
Processing Integration Results

RT: 13.08
Response: 637
Amount: 0.001232



Manual Integration Results

RT: 13.10
Response: 4525
Amount: 0.008749



Reviewer: barlozhetskayaa, 22-Jan-2014 16:07:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

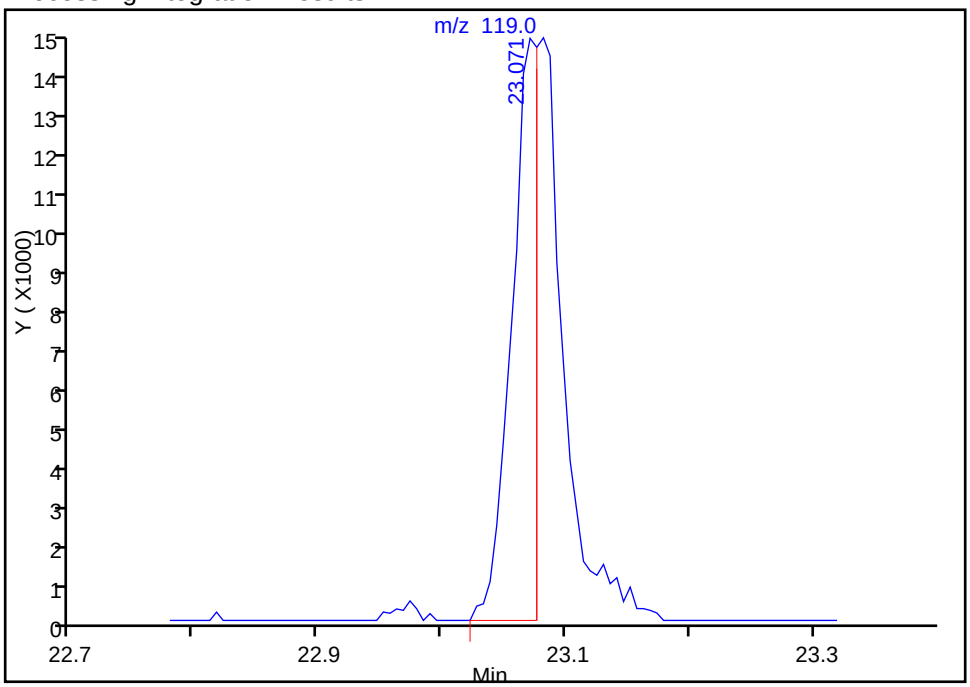
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-002.D				
Injection Date:	21-Jan-2014 17:35:30	Instrument ID:	MR		
Lims ID:	IC L1	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	2
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

98 4-Isopropyltoluene, CAS: 99-87-6

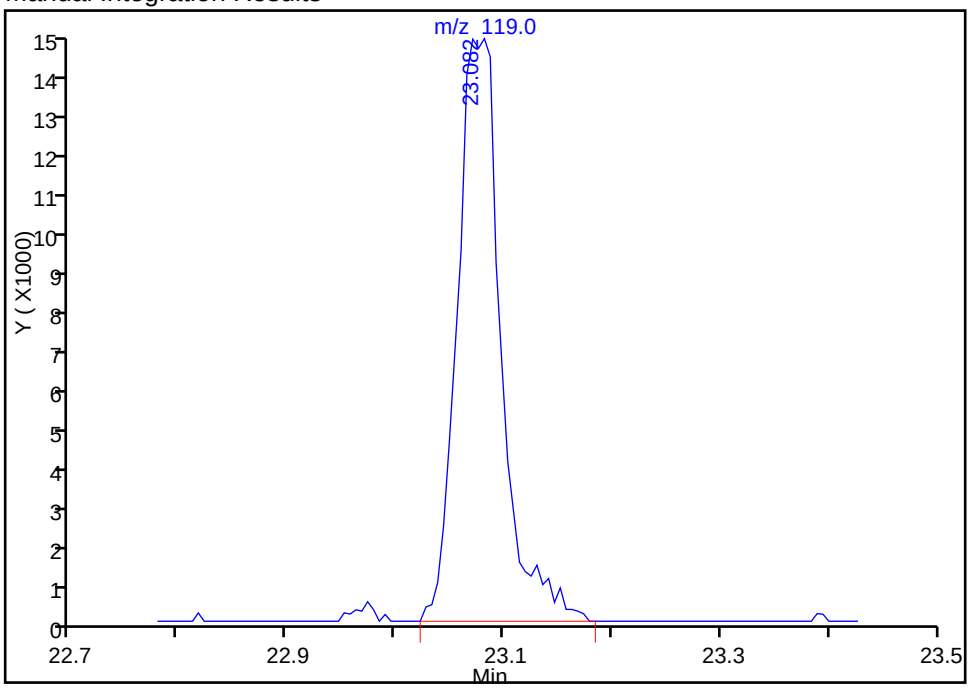
Processing Integration Results

RT: 23.07
Response: 21077
Amount: 0.021853



Manual Integration Results

RT: 23.08
Response: 39976
Amount: 0.039308



Reviewer: barlozhetskayaa, 22-Jan-2014 16:07:51
Audit Action: Manually Integrated
Audit Reason: Split Peak

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-003.D
Lims ID: IC L2 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Jan-2014 18:23:30 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l2
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:16 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.527	-0.005	97	417209	4.00	
* 2 1,4-Difluorobenzene	114	10.814	10.819	-0.005	96	2134478	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.155	17.156	-0.001	90	1860065	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.922	19.925	-0.003	91	1436259	3.92	
6 Chlorodifluoromethane	67	3.410	3.407	0.003	94	4427	0.0987	
7 Propene	41	3.421	3.417	0.004	97	22419	0.1280	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	99	38474	0.0918	
9 Chloromethane	52	3.626	3.622	0.004	86	6061	0.0980	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	94	26439	0.0880	
11 Acetaldehyde	44	3.766	3.766	0.0	98	164839	0.8647	
12 Vinyl chloride	62	3.788	3.784	0.004	96	17224	0.0909	
14 Butadiene	54	3.874	3.871	0.003	64	14761	0.0927	
13 Butane	43	3.874	3.872	0.002	86	28664	0.0910	
15 Bromomethane	94	4.181	4.178	0.003	96	14678	0.0924	
16 Chloroethane	64	4.316	4.319	-0.003	98	8574	0.0895	
17 Ethanol	31	4.429	4.437	-0.008	90	43611	0.6188	
18 Vinyl bromide	106	4.624	4.621	0.003	95	13194	0.0860	
19 2-Methylbutane	43	4.683	4.682	0.001	91	21821	0.0910	
21 Acrolein	56	4.899	4.893	0.006	23	11303	0.1324	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	96	35627	0.0861	
22 Acetonitrile	40	4.958	4.955	0.003	98	5993	0.0749	
23 Acetone	58	5.023	5.018	0.005	90	106240	0.2014	
24 Pentane	72	5.136	5.131	0.005	93	3048	0.0899	
25 Isopropyl alcohol	45	5.136	5.132	0.004	64	41426	0.1282	
26 Ethyl ether	31	5.308	5.298	0.010	91	19414	0.0863	
27 1,1-Dichloroethene	96	5.616	5.610	0.006	92	11368	0.0852	
28 Acrylonitrile	53	5.702	5.699	0.003	95	12099	0.0815	
29 2-Methyl-2-propanol	59	5.751	5.736	0.015	91	35014	0.1065	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.804	5.805	-0.001	92	23729	0.0848	
31 Methylene Chloride	84	5.945	5.951	-0.006	93	12950	0.0989	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.966	5.972	-0.006	87	13651	0.0888	
33 Carbon disulfide	76	6.112	6.114	-0.002	99	37259	0.0820	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.004	94	14330	0.0871	
35 2-Methylpentane	43	6.824	6.828	-0.004	94	38807	0.0841	
36 Methyl tert-butyl ether	73	6.942	6.935	0.007	94	37656	0.0843	
37 1,1-Dichloroethane	63	7.190	7.199	-0.009	93	24775	0.0837	
38 Vinyl acetate	43	7.320	7.320	0.0	99	38697	0.0802	
39 2-Butanone (MEK)	72	7.762	7.763	-0.001	98	16569	0.1731	
40 Hexane	56	7.827	7.830	-0.003	83	14559	0.0884	
41 cis-1,2-Dichloroethene	96	8.199	8.201	-0.002	93	13011	0.0855	
42 Ethyl acetate	43	8.414	8.410	0.004	94	35546	0.0811	
43 Chloroform	83	8.544	8.555	-0.011	76	26499	0.0854	
44 Tetrahydrofuran	42	8.981	8.967	0.014	92	19771	0.0830	
45 1,1,1-Trichloroethane	97	9.595	9.603	-0.008	92	24615	0.0812	
46 1,2-Dichloroethane	62	9.687	9.691	-0.004	92	20204	0.0859	
49 n-Butanol	31	10.226	10.210	0.016	66	7678	0.1121	
47 Benzene	78	10.210	10.220	-0.010	96	38778	0.0824	
48 Cyclohexane	69	10.237	10.239	-0.002	85	6882	0.0866	
50 Carbon tetrachloride	117	10.248	10.255	-0.007	94	25301	0.0804	
51 2,3-Dimethylpentane	71	10.388	10.393	-0.005	90	8432	0.0823	
52 Thiophene	84	10.496	10.504	-0.008	93	23272	0.0825	
53 Isooctane	57	11.105	11.110	-0.005	93	77787	0.0812	
54 n-Heptane	71	11.547	11.550	-0.003	91	15797	0.0878	
55 1,2-Dichloropropane	63	11.574	11.576	-0.002	76	16351	0.0853	
56 Trichloroethene	130	11.628	11.636	-0.008	91	17223	0.0855	
57 Dibromomethane	93	11.693	11.702	-0.009	90	15011	0.0812	
58 Dichlorobromomethane	83	11.892	11.895	-0.003	92	25461	0.0761	
60 Methyl methacrylate	41	12.043	12.045	-0.002	87	20756	0.0749	
61 Methylcyclohexane	83	12.588	12.594	-0.006	87	24095	0.0830	
62 4-Methyl-2-pentanone (MIBK)	43	13.117	13.106	0.011	92	26329	0.0531	
63 cis-1,3-Dichloropropene	75	13.154	13.159	-0.005	89	19459	0.0764	
64 trans-1,3-Dichloropropene	75	14.082	14.092	-0.010	89	20341	0.0769	
65 Toluene	91	14.265	14.269	-0.004	90	47533	0.0826	
66 1,1,2-Trichloroethane	83	14.351	14.354	-0.003	94	13236	0.0783	
67 2-Methylthiophene	97	14.470	14.472	-0.002	94	38456	0.0785	
68 3-Methylthiophene	97	14.750	14.754	-0.004	95	40478	0.0811	
69 2-Hexanone	58	14.945	14.940	0.005	88	17340	0.0720	
71 Chlorodibromomethane	129	15.327	15.334	-0.007	55	22029	0.0710	
70 n-Octane	85	15.333	15.335	-0.002	91	20065	0.0966	
72 Ethylene Dibromide	107	15.743	15.750	-0.007	92	23189	0.0779	
73 Tetrachloroethene	129	15.904	15.910	-0.006	93	16155	0.0821	
74 Chlorobenzene	112	17.231	17.232	-0.001	84	38909	0.0845	
75 2,3-Dimethylheptane	43	17.387	17.390	-0.003	94	59307	0.0836	
76 Ethylbenzene	91	17.732	17.734	-0.002	98	59792	0.0834	
77 2-Ethylthiophene	97	17.889	17.891	-0.002	94	45091	0.0826	
78 m-Xylene & p-Xylene	91	18.007	18.011	-0.004	98	92885	0.1632	
79 Bromoform	173	18.660	18.662	-0.002	94	19581	0.0663	
80 Styrene	104	18.768	18.776	-0.008	94	28286	0.0706	
81 n-Nonane	57	18.838	18.845	-0.007	91	41024	0.0848	
82 o-Xylene	91	18.876	18.879	-0.003	97	48657	0.0829	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	95	34218	0.0774	
84 1,2,3-Trichloropropane	110	19.684	19.688	-0.004	90	11336	0.0833	

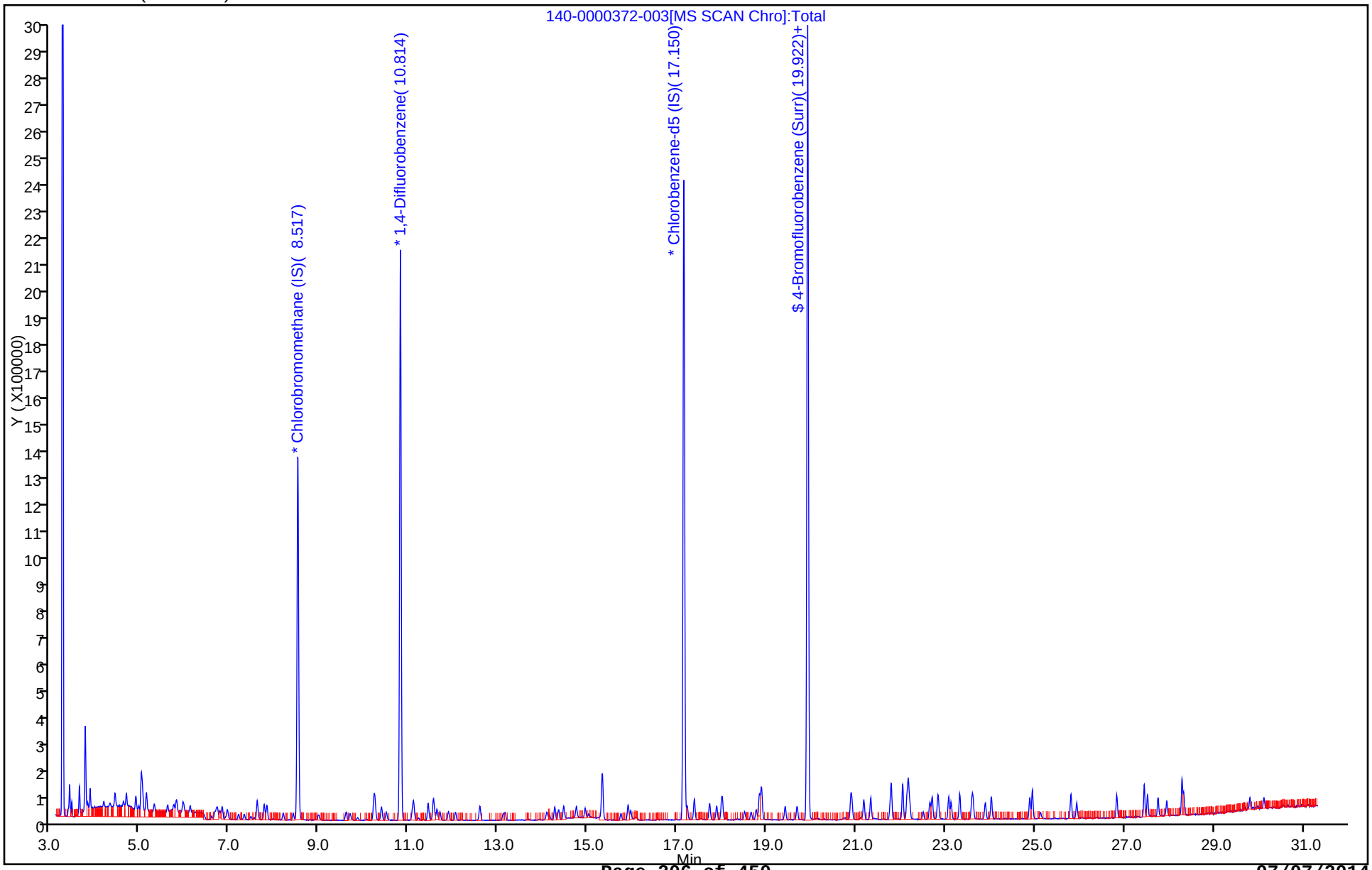
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
85 Isopropylbenzene	105	19.916	19.919	-0.003	83	75044	0.0832	
86 N-Propylbenzene	120	20.887	20.891	-0.004	97	19604	0.0799	
87 2-Chlorotoluene	126	20.909	20.915	-0.007	94	17412	0.0823	
88 4-Ethyltoluene	105	21.178	21.182	-0.004	96	76521	0.0827	
89 1,3,5-Trimethylbenzene	120	21.329	21.337	-0.008	94	32728	0.0795	
90 Alpha Methyl Styrene	118	21.761	21.770	-0.010	87	21215	0.0647	
91 n-Decane	57	22.041	22.050	-0.009	87	66308	0.0996	
92 tert-Butylbenzene	119	22.138	22.149	-0.011	88	64467	0.0804	
93 1,2,4-Trimethylbenzene	105	22.170	22.179	-0.009	94	61112	0.0800	
94 1,3-Dichlorobenzene	146	22.656	22.660	-0.004	96	41541	0.0809	
95 sec-Butylbenzene	105	22.704	22.710	-0.006	96	90270	0.0792	
96 Benzyl chloride	91	22.817	22.831	-0.014	94	39936	0.0638	
97 1,4-Dichlorobenzene	146	22.839	22.847	-0.008	92	40993	0.0792	
98 4-Isopropyltoluene	119	23.076	23.081	-0.005	79	71751	0.0736	
99 1,2,3-Trimethylbenzene	105	23.125	23.134	-0.009	84	53569	0.0778	
100 Butylcyclohexane	83	23.319	23.327	-0.008	90	49013	0.0799	
101 1,2-Dichlorobenzene	146	23.594	23.598	-0.004	92	39428	0.0795	
102 2,3-Dihydroindene	117	23.621	23.625	-0.004	93	55255	0.0796	
103 Indene	116	23.890	23.898	-0.008	89	48937	0.0718	
104 n-Butylbenzene	91	24.025	24.031	-0.006	96	69712	0.0770	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.888	24.892	-0.004	85	70425	0.0769	
106 Undecane	57	24.947	24.950	-0.003	94	55378	0.0763	
107 1,2,4,5-Tetramethylbenzene	119	25.810	25.814	-0.004	96	75057	0.0786	
108 1,2,3,5-Tetramethylbenzene	119	25.940	25.942	-0.002	94	47098	0.0787	
109 1,2,3,4-Tetramethylbenzene	119	26.829	26.837	-0.008	96	65065	0.0815	
110 Dodecane	57	27.444	27.451	-0.007	93	52359	0.0755	
111 1,2,4-Trichlorobenzene	180	27.520	27.524	-0.004	90	32985	0.0790	
112 Naphthalene	128	27.757	27.760	-0.003	98	71774	0.0778	
113 Benzo(b)thiophene	134	27.946	27.953	-0.007	95	54073	0.0743	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	81	33097	0.0842	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	89	31015	0.0783	
116 2-Methylnaphthalene	142	29.811	29.812	-0.001	93	25491	0.3641	
117 1-Methylnaphthalene	142	30.119	30.124	-0.005	91	23104	0.3934	
A 118 C6 Range	1	7.842	7.778 -	7.875	0	135790	0.0849	
A 119 Toluene Range	1	14.252	14.206 -	14.324	0	120583	0.0581	
A 120 C8 Range	1	15.333	15.279 -	15.387	0	511876	0.1606	
S 124 Xylenes, Total	100				0		0.2461	

Report Date: 23-Jan-2014 16:19:17 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-003.D				
Injection Date:	21-Jan-2014 18:23:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L2	Lab Sample ID:		Worklist Smp#:	3
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

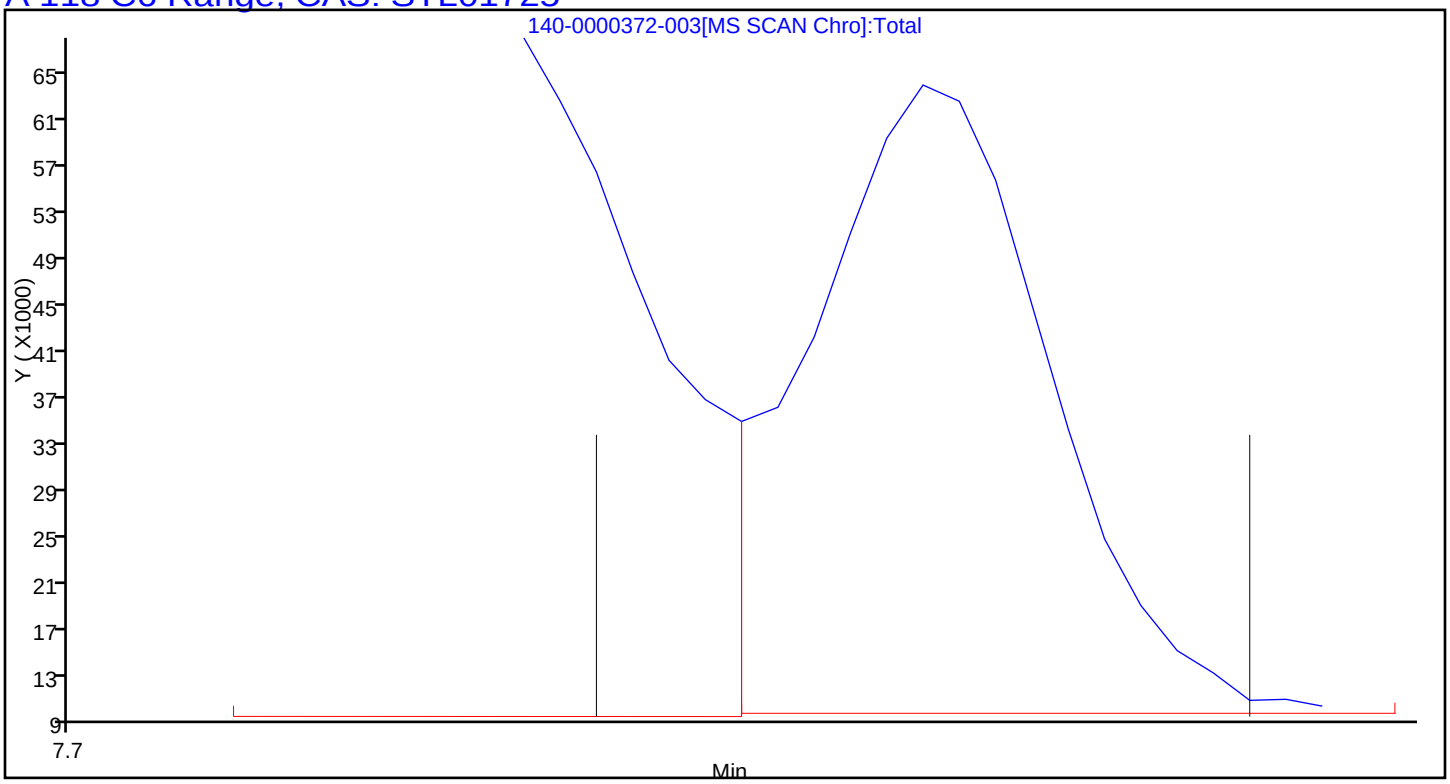


Report Date: 23-Jan-2014 16:19:17 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-003.D				
Injection Date:	21-Jan-2014 18:23:30	Instrument ID:	MR		
Lims ID:	IC L2	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

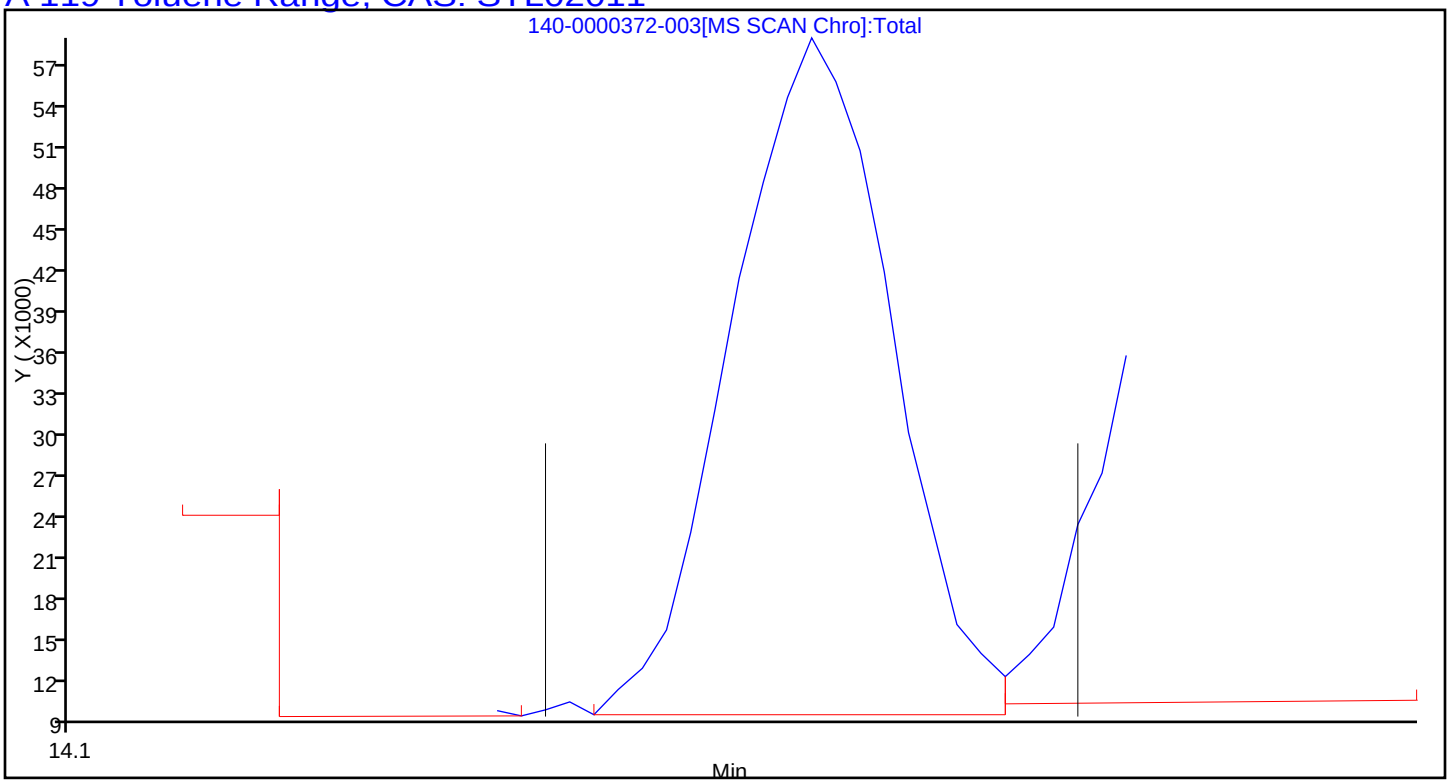


Report Date: 23-Jan-2014 16:19:17 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-003.D				
Injection Date:	21-Jan-2014 18:23:30	Instrument ID:	MR		
Lims ID:	IC L2	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

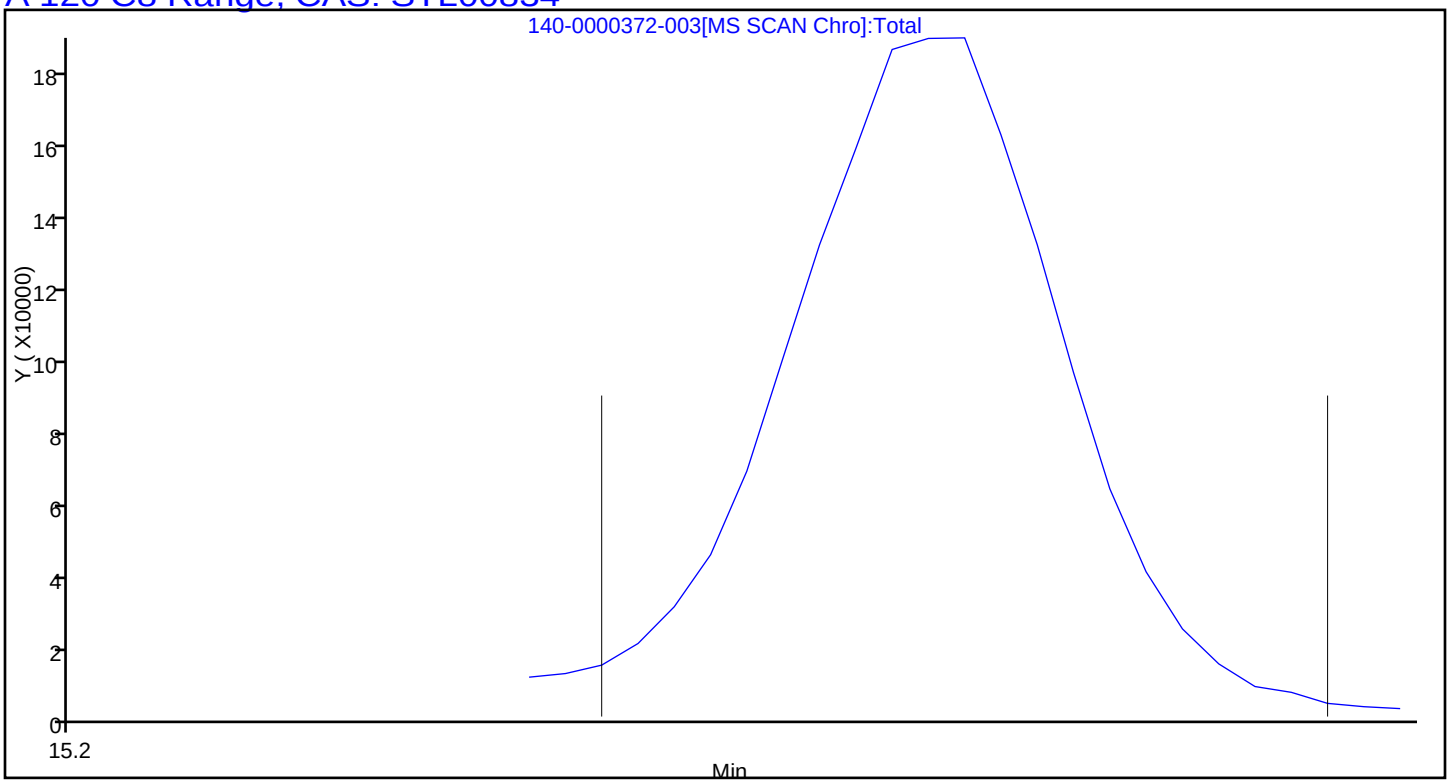


Report Date: 23-Jan-2014 16:19:17 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-003.D				
Injection Date:	21-Jan-2014 18:23:30	Instrument ID:	MR		
Lims ID:	IC L2	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	1	Worklist Smp#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-004.D
Lims ID: IC L3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Jan-2014 19:12:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l3
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:25 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.527	-0.005	97	412417	4.00	
* 2 1,4-Difluorobenzene	114	10.814	10.819	-0.005	96	2113431	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.155	17.156	-0.001	90	1844303	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.922	19.925	-0.003	90	1433419	3.95	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	95	7749	0.1747	
7 Propene	41	3.421	3.417	0.004	97	32280	0.1865	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	99	71991	0.1737	
9 Chloromethane	52	3.626	3.622	0.004	80	11338	0.1854	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	93	51233	0.1726	
11 Acetaldehyde	44	3.766	3.766	0.0	97	136513	0.7244	
12 Vinyl chloride	62	3.788	3.784	0.004	97	32109	0.1715	
14 Butadiene	54	3.874	3.871	0.003	65	27293	0.1733	
13 Butane	43	3.874	3.872	0.002	85	55456	0.1781	
15 Bromomethane	94	4.181	4.178	0.003	95	27466	0.1749	
16 Chloroethane	64	4.322	4.319	0.003	95	15867	0.1676	
17 Ethanol	31	4.429	4.437	-0.008	93	65313	0.9374	
18 Vinyl bromide	106	4.618	4.621	-0.003	98	25232	0.1664	
19 2-Methylbutane	43	4.683	4.682	0.001	91	41891	0.1768	
21 Acrolein	56	4.899	4.893	0.006	28	15943	0.1889	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	97	68377	0.1672	
22 Acetonitrile	40	4.958	4.955	0.003	94	11179	0.1413	
23 Acetone	58	5.023	5.018	0.005	85	65770	0.1261	
24 Pentane	72	5.130	5.131	-0.001	95	5308	0.1584	
25 Isopropyl alcohol	45	5.136	5.132	0.004	50	56178	0.1759	
26 Ethyl ether	31	5.303	5.298	0.005	93	37139	0.1670	
27 1,1-Dichloroethene	96	5.610	5.610	0.0	95	21670	0.1642	
28 Acrylonitrile	53	5.697	5.699	-0.002	94	24804	0.1690	
29 2-Methyl-2-propanol	59	5.740	5.736	0.004	94	52935	0.1628	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.805	5.805	0.0	95	44554	0.1611	
31 Methylene Chloride	84	5.950	5.951	-0.001	94	23696	0.1831	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.972	5.972	0.0	91	24945	0.1641	
33 Carbon disulfide	76	6.112	6.114	-0.002	99	73327	0.1633	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	95	27951	0.1718	
35 2-Methylpentane	43	6.824	6.828	-0.004	97	75162	0.1649	
36 Methyl tert-butyl ether	73	6.942	6.935	0.007	96	71908	0.1629	
37 1,1-Dichloroethane	63	7.196	7.199	-0.003	98	48284	0.1650	
38 Vinyl acetate	43	7.320	7.320	0.0	99	76715	0.1609	
39 2-Butanone (MEK)	72	7.767	7.763	0.004	96	14981	0.1583	
40 Hexane	56	7.827	7.830	-0.003	84	26724	0.1642	
41 cis-1,2-Dichloroethene	96	8.193	8.201	-0.008	96	24801	0.1649	
42 Ethyl acetate	43	8.414	8.410	0.004	96	69011	0.1593	
43 Chloroform	83	8.549	8.555	-0.006	81	49612	0.1617	
44 Tetrahydrofuran	42	8.975	8.967	0.008	92	39805	0.1690	
45 1,1,1-Trichloroethane	97	9.601	9.603	-0.002	95	48619	0.1622	
46 1,2-Dichloroethane	62	9.687	9.691	-0.004	94	37103	0.1593	
49 n-Butanol	31	10.221	10.210	0.011	65	9383	0.1383	
47 Benzene	78	10.215	10.220	-0.005	97	78571	0.1686	
48 Cyclohexane	69	10.232	10.239	-0.007	88	12454	0.1582	
50 Carbon tetrachloride	117	10.248	10.255	-0.007	91	48370	0.1553	
51 2,3-Dimethylpentane	71	10.393	10.393	0.0	89	16830	0.1660	
52 Thiophene	84	10.501	10.504	-0.003	95	46019	0.1647	
53 Isooctane	57	11.105	11.110	-0.005	97	153435	0.1617	
54 n-Heptane	71	11.547	11.550	-0.003	93	27927	0.1568	
55 1,2-Dichloropropane	63	11.574	11.576	-0.002	81	30123	0.1587	
56 Trichloroethene	130	11.628	11.636	-0.008	88	32873	0.1647	
57 Dibromomethane	93	11.704	11.702	0.002	93	28881	0.1577	
58 Dichlorobromomethane	83	11.893	11.895	-0.002	96	50774	0.1532	
59 1,4-Dioxane	88	11.930	11.918	0.012	83	11009	0.1502	
60 Methyl methacrylate	41	12.044	12.045	-0.001	91	40025	0.1458	
61 Methylcyclohexane	83	12.594	12.594	0.0	91	46778	0.1628	
62 4-Methyl-2-pentanone (MIBK)	43	13.111	13.106	0.005	96	93494	0.1905	
63 cis-1,3-Dichloropropene	75	13.154	13.159	-0.005	95	39712	0.1574	
64 trans-1,3-Dichloropropene	75	14.093	14.092	0.001	95	39901	0.1520	
65 Toluene	91	14.260	14.269	-0.009	93	90374	0.1583	
66 1,1,2-Trichloroethane	83	14.351	14.354	-0.003	93	26192	0.1563	
67 2-Methylthiophene	97	14.465	14.472	-0.007	97	76465	0.1575	
68 3-Methylthiophene	97	14.750	14.754	-0.004	98	78138	0.1578	
69 2-Hexanone	58	14.945	14.940	0.005	89	33199	0.1390	
71 Chlorodibromomethane	129	15.333	15.334	-0.001	63	43079	0.1400	
70 n-Octane	85	15.333	15.335	-0.002	96	31600	0.1534	
72 Ethylene Dibromide	107	15.743	15.750	-0.007	98	45379	0.1538	
73 Tetrachloroethene	129	15.910	15.910	0.0	94	31265	0.1602	
74 Chlorobenzene	112	17.231	17.232	-0.001	92	76350	0.1673	
75 2,3-Dimethylheptane	43	17.387	17.390	-0.003	95	112604	0.1602	
76 Ethylbenzene	91	17.732	17.734	-0.002	98	116666	0.1641	
77 2-Ethylthiophene	97	17.889	17.891	-0.002	97	86191	0.1593	
78 m-Xylene & p-Xylene	91	18.007	18.011	-0.004	98	182476	0.3234	
79 Bromoform	173	18.660	18.662	-0.002	94	39409	0.1346	
80 Styrene	104	18.773	18.776	-0.003	96	58339	0.1469	
81 n-Nonane	57	18.843	18.845	-0.002	95	74246	0.1548	
82 o-Xylene	91	18.876	18.879	-0.003	97	95057	0.1632	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	98	67156	0.1531	

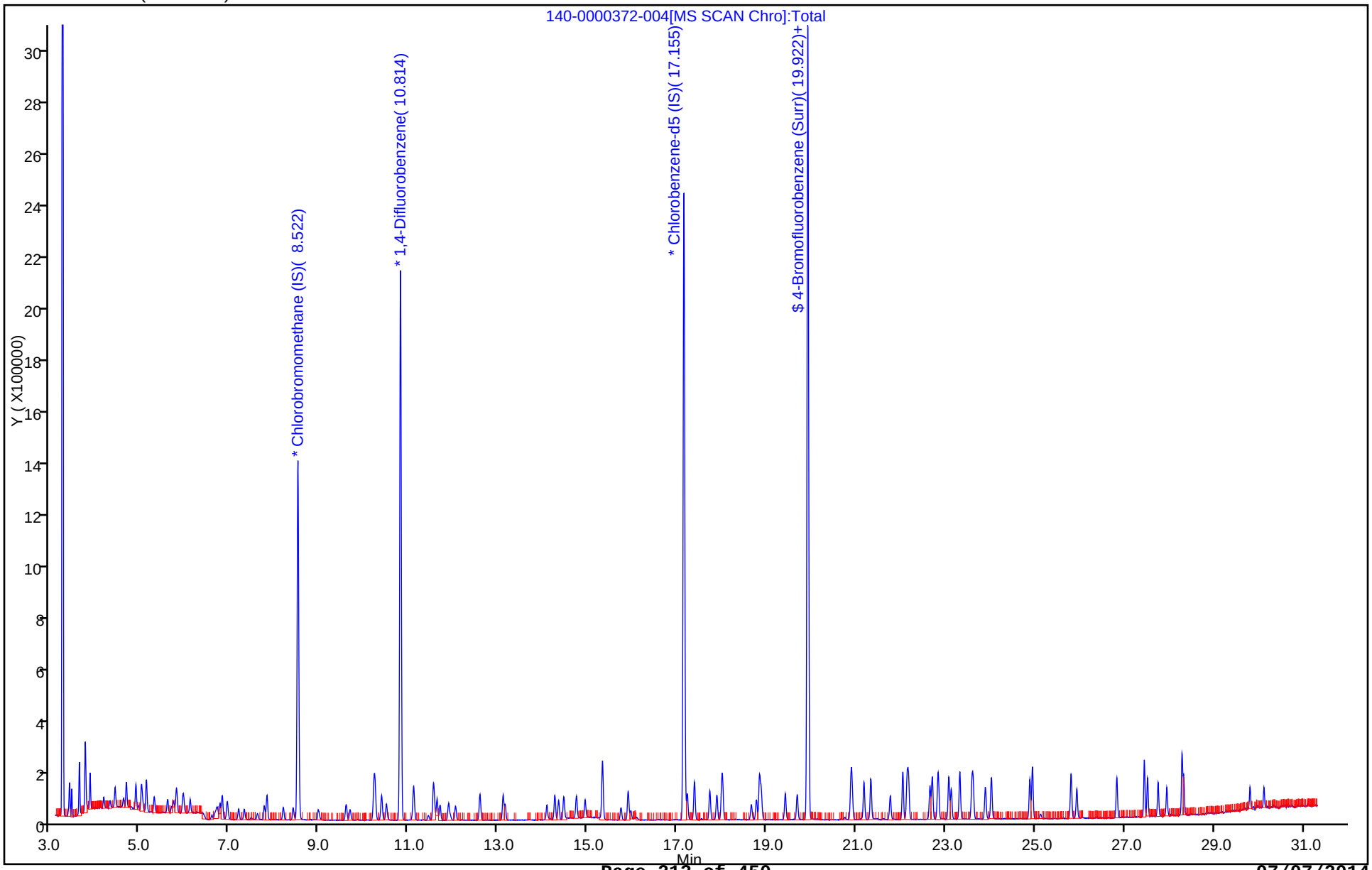
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.690	19.688	0.002	92	20731	0.1536	
85 Isopropylbenzene	105	19.922	19.919	0.003	95	147054	0.1644	
86 N-Propylbenzene	120	20.887	20.891	-0.004	98	38044	0.1563	
87 2-Chlorotoluene	126	20.914	20.915	-0.001	95	34154	0.1629	
88 4-Ethyltoluene	105	21.178	21.182	-0.004	98	142064	0.1548	
89 1,3,5-Trimethylbenzene	120	21.329	21.337	-0.008	92	64709	0.1584	
90 Alpha Methyl Styrene	118	21.771	21.770	0.001	86	41590	0.1280	
91 n-Decane	57	22.046	22.050	-0.004	87	90067	0.1364	
92 tert-Butylbenzene	119	22.149	22.149	0.0	86	125814	0.1582	
93 1,2,4-Trimethylbenzene	105	22.176	22.179	-0.003	95	115491	0.1525	
94 1,3-Dichlorobenzene	146	22.656	22.660	-0.004	95	79143	0.1554	
95 sec-Butylbenzene	105	22.710	22.710	0.0	95	171448	0.1517	
96 Benzyl chloride	91	22.828	22.831	-0.003	96	80058	0.1290	
97 1,4-Dichlorobenzene	146	22.844	22.847	-0.003	93	81142	0.1581	
98 4-Isopropyltoluene	119	23.082	23.081	0.001	88	150833	0.1560	
99 1,2,3-Trimethylbenzene	105	23.130	23.134	-0.004	98	106309	0.1558	
100 Butylcyclohexane	83	23.324	23.327	-0.003	88	93249	0.1532	
101 1,2-Dichlorobenzene	146	23.594	23.598	-0.004	93	77115	0.1568	
102 2,3-Dihydroindene	117	23.621	23.625	-0.004	91	106311	0.1545	
103 Indene	116	23.896	23.898	-0.002	88	96666	0.1430	
104 n-Butylbenzene	91	24.031	24.031	0.0	97	137273	0.1528	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.888	24.892	-0.004	88	135374	0.1492	
106 Undecane	57	24.947	24.950	-0.003	95	102988	0.1432	
107 1,2,4,5-Tetramethylbenzene	119	25.810	25.814	-0.004	97	142400	0.1504	
108 1,2,3,5-Tetramethylbenzene	119	25.940	25.942	-0.002	94	91383	0.1540	
109 1,2,3,4-Tetramethylbenzene	119	26.835	26.837	-0.002	97	119545	0.1510	
110 Dodecane	57	27.450	27.451	-0.001	92	92539	0.1345	
111 1,2,4-Trichlorobenzene	180	27.525	27.524	0.001	93	59329	0.1433	
112 Naphthalene	128	27.757	27.760	-0.003	99	131452	0.1437	
113 Benzo(b)thiophene	134	27.951	27.953	-0.002	98	103601	0.1435	
114 Hexachlorobutadiene	225	28.291	28.296	-0.005	82	55748	0.1430	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	91	57391	0.1461	
116 2-Methylnaphthalene	142	29.811	29.812	-0.001	96	51583	0.7431	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	97	46763	0.8031	
A 118 C6 Range	1	7.827	7.767 -	7.886	0	370756	0.2340	
A 119 Toluene Range	1	14.286	14.206 -	14.357	0	417650	0.2034	
A 120 C8 Range	1	15.338	15.284 -	15.392	0	589870	0.1869	
S 124 Xylenes, Total	100				0		0.4867	

Report Date: 23-Jan-2014 16:19:25 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-004.D				
Injection Date:	21-Jan-2014 19:12:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L3	Lab Sample ID:		Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

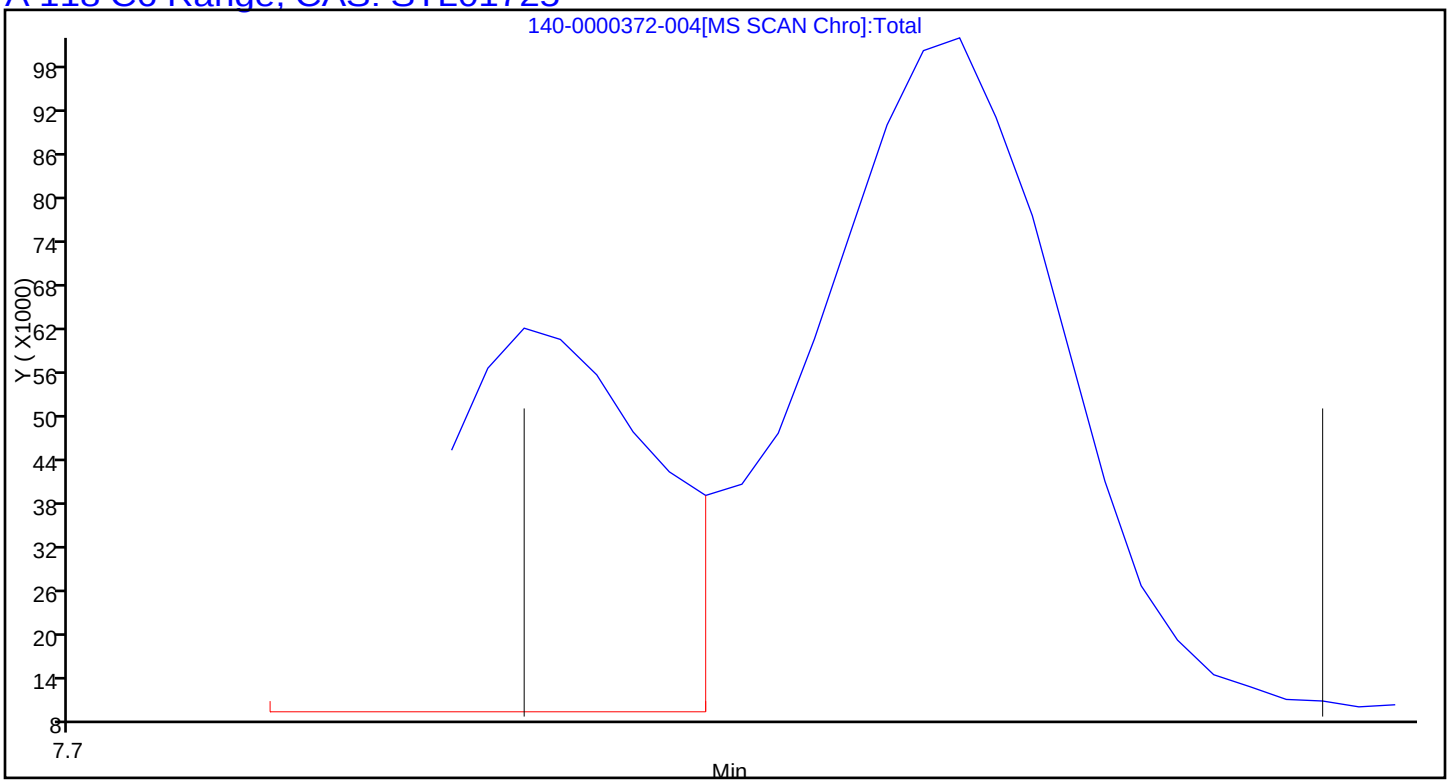


Report Date: 23-Jan-2014 16:19:25 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-004.D				
Injection Date:	21-Jan-2014 19:12:30	Instrument ID:	MR		
Lims ID:	IC L3	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

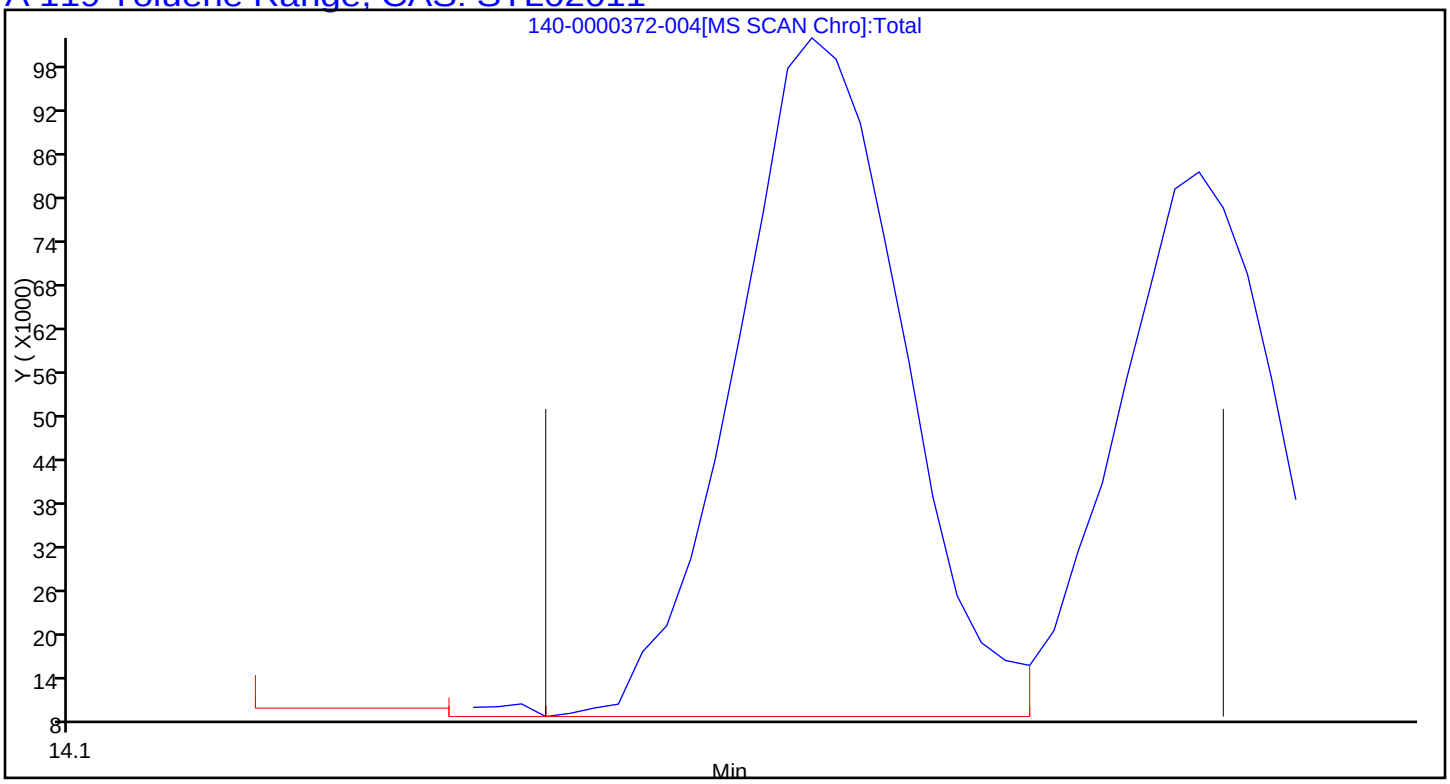


Report Date: 23-Jan-2014 16:19:25 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-004.D				
Injection Date:	21-Jan-2014 19:12:30	Instrument ID:	MR		
Lims ID:	IC L3	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

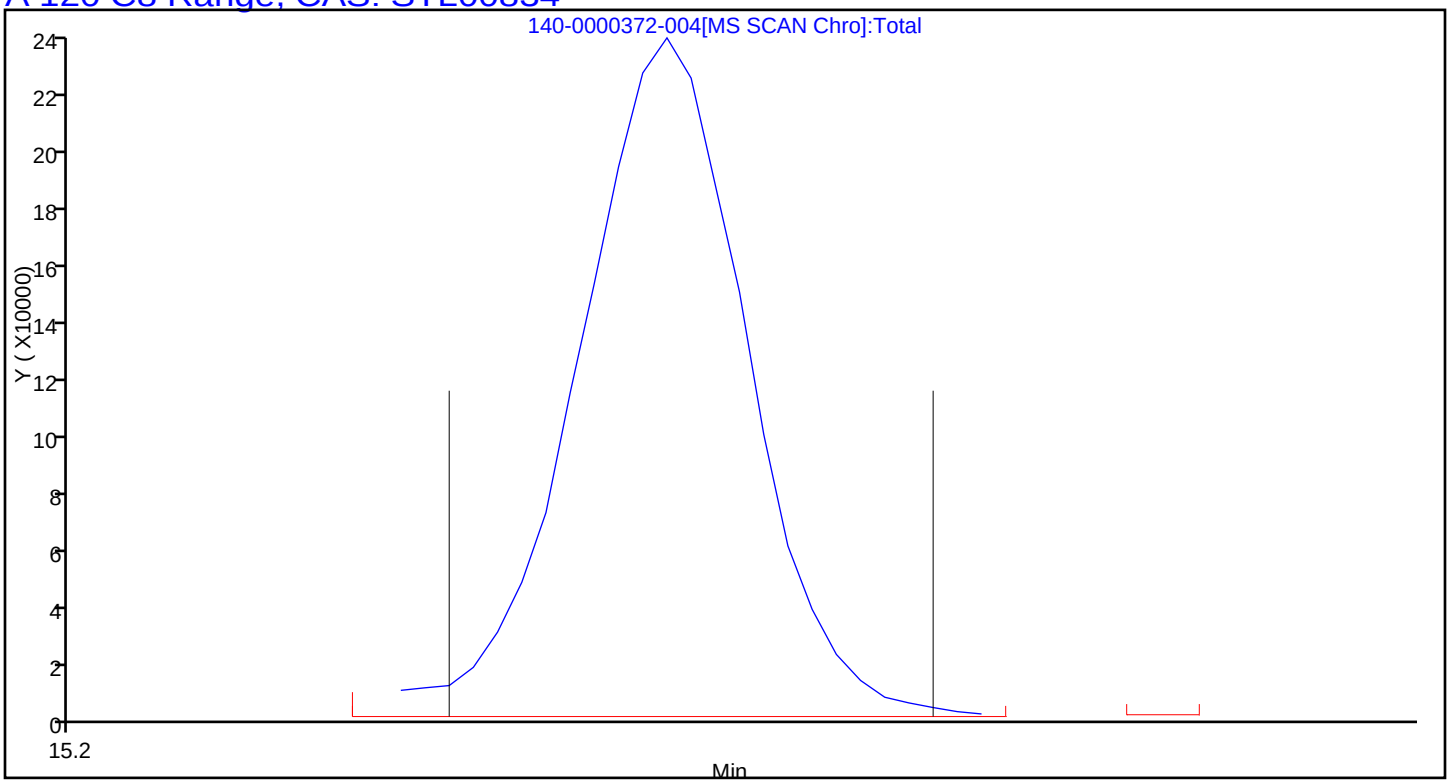


Report Date: 23-Jan-2014 16:19:25 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-004.D				
Injection Date:	21-Jan-2014 19:12:30	Instrument ID:	MR		
Lims ID:	IC L3	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	2	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-005.D
Lims ID: IC L4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 21-Jan-2014 20:00:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l4
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:33 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.527	-0.005	97	412856	4.00	
* 2 1,4-Difluorobenzene	114	10.814	10.819	-0.005	96	2107765	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.150	17.156	-0.006	90	1831247	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.922	19.925	-0.003	92	1456070	4.04	
6 Chlorodifluoromethane	67	3.410	3.407	0.003	94	18538	0.4175	
7 Propene	41	3.416	3.417	-0.001	98	106482	0.6145	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	100	176297	0.4249	
9 Chloromethane	52	3.626	3.622	0.004	99	26974	0.4407	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	93	127891	0.4303	
11 Acetaldehyde	44	3.766	3.766	0.0	97	505581	2.68	
12 Vinyl chloride	62	3.782	3.784	-0.002	98	80999	0.4322	
14 Butadiene	54	3.874	3.871	0.003	97	66578	0.4223	
13 Butane	43	3.874	3.872	0.002	89	140570	0.4510	
15 Bromomethane	94	4.182	4.178	0.004	98	64442	0.4099	
16 Chloroethane	64	4.322	4.319	0.003	98	40753	0.4301	
17 Ethanol	31	4.430	4.437	-0.007	92	170340	2.44	
18 Vinyl bromide	106	4.618	4.621	-0.003	97	62540	0.4119	
19 2-Methylbutane	43	4.683	4.682	0.001	91	104747	0.4416	
21 Acrolein	56	4.888	4.893	-0.005	92	36889	0.4367	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	98	167025	0.4080	
22 Acetonitrile	40	4.953	4.955	-0.002	100	35309	0.4458	
23 Acetone	58	5.012	5.018	-0.006	91	299859	0.5743	
24 Pentane	72	5.131	5.131	0.0	96	13903	0.4144	
25 Isopropyl alcohol	45	5.120	5.132	-0.012	73	152691	0.4777	
26 Ethyl ether	31	5.298	5.298	0.0	92	89171	0.4005	
27 1,1-Dichloroethene	96	5.605	5.610	-0.005	96	52782	0.3996	
28 Acrylonitrile	53	5.697	5.699	-0.002	96	58649	0.3992	
29 2-Methyl-2-propanol	59	5.729	5.736	-0.007	96	130701	0.4016	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.805	5.805	0.0	96	112003	0.4046	
31 Methylene Chloride	84	5.945	5.951	-0.006	93	51504	0.3975	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.972	5.972	0.0	92	60429	0.3970	
33 Carbon disulfide	76	6.112	6.114	-0.002	100	180040	0.4006	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	94	64249	0.3946	
35 2-Methylpentane	43	6.829	6.828	0.001	96	184798	0.4049	
36 Methyl tert-butyl ether	73	6.932	6.935	-0.003	95	173563	0.3929	
37 1,1-Dichloroethane	63	7.196	7.199	-0.003	99	117636	0.4016	
38 Vinyl acetate	43	7.320	7.320	0.0	100	184664	0.3870	
39 2-Butanone (MEK)	72	7.762	7.763	-0.001	98	57652	0.6087	
40 Hexane	56	7.827	7.830	-0.003	86	64798	0.3978	
41 cis-1,2-Dichloroethene	96	8.193	8.201	-0.008	98	60585	0.4023	
42 Ethyl acetate	43	8.404	8.410	-0.006	98	167127	0.3853	
43 Chloroform	83	8.549	8.555	-0.006	88	121732	0.3962	
44 Tetrahydrofuran	42	8.965	8.967	-0.002	94	93395	0.3961	
45 1,1,1-Trichloroethane	97	9.601	9.603	-0.002	96	120087	0.4003	
46 1,2-Dichloroethane	62	9.687	9.691	-0.004	94	94692	0.4077	
49 n-Butanol	31	10.210	10.210	0.0	64	29548	0.4368	
47 Benzene	78	10.216	10.220	-0.004	97	183665	0.3952	
48 Cyclohexane	69	10.237	10.239	-0.002	90	30854	0.3931	
50 Carbon tetrachloride	117	10.253	10.255	-0.002	96	120345	0.3874	
51 2,3-Dimethylpentane	71	10.394	10.393	0.001	90	40459	0.4001	
52 Thiophene	84	10.501	10.504	-0.003	97	111598	0.4005	
53 Isooctane	57	11.105	11.110	-0.005	98	376181	0.3975	
54 n-Heptane	71	11.548	11.550	-0.002	93	69218	0.3896	
55 1,2-Dichloropropane	63	11.574	11.576	-0.002	81	74558	0.3939	
56 Trichloroethene	130	11.634	11.636	-0.002	95	81001	0.4070	
57 Dibromomethane	93	11.698	11.702	-0.004	94	71181	0.3898	
58 Dichlorobromomethane	83	11.893	11.895	-0.002	98	129215	0.3909	
59 1,4-Dioxane	88	11.920	11.918	0.002	92	29658	0.4056	
60 Methyl methacrylate	41	12.044	12.045	-0.001	94	101382	0.3704	
61 Methylcyclohexane	83	12.594	12.594	0.0	92	115385	0.4025	
62 4-Methyl-2-pentanone (MIBK)	43	13.106	13.106	0.0	98	184247	0.3764	
63 cis-1,3-Dichloropropene	75	13.154	13.159	-0.005	96	98483	0.3914	
64 trans-1,3-Dichloropropene	75	14.093	14.092	0.001	97	97853	0.3755	
65 Toluene	91	14.265	14.269	-0.004	93	224715	0.3964	
66 1,1,2-Trichloroethane	83	14.352	14.354	-0.002	97	66054	0.3969	
67 2-Methylthiophene	97	14.470	14.472	-0.002	98	190168	0.3944	
68 3-Methylthiophene	97	14.751	14.754	-0.003	99	194617	0.3958	
69 2-Hexanone	58	14.939	14.940	-0.001	92	89476	0.3774	
71 Chlorodibromomethane	129	15.333	15.334	-0.001	91	114534	0.3750	
70 n-Octane	85	15.333	15.335	-0.002	97	76203	0.3727	
72 Ethylene Dibromide	107	15.748	15.750	-0.002	98	114178	0.3897	
73 Tetrachloroethene	129	15.905	15.910	-0.005	94	77374	0.3993	
74 Chlorobenzene	112	17.231	17.232	-0.001	92	183684	0.4053	
75 2,3-Dimethylheptane	43	17.387	17.390	-0.003	95	273156	0.3913	
76 Ethylbenzene	91	17.727	17.734	-0.007	98	284977	0.4037	
77 2-Ethylthiophene	97	17.889	17.891	-0.002	98	214597	0.3994	
78 m-Xylene & p-Xylene	91	18.002	18.011	-0.009	97	449205	0.8019	
79 Bromoform	173	18.655	18.662	-0.007	95	105362	0.3625	
80 Styrene	104	18.773	18.776	-0.003	97	156170	0.3960	
81 n-Nonane	57	18.838	18.845	-0.007	95	184125	0.3866	
82 o-Xylene	91	18.876	18.879	-0.003	97	233827	0.4044	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	99	166412	0.3822	

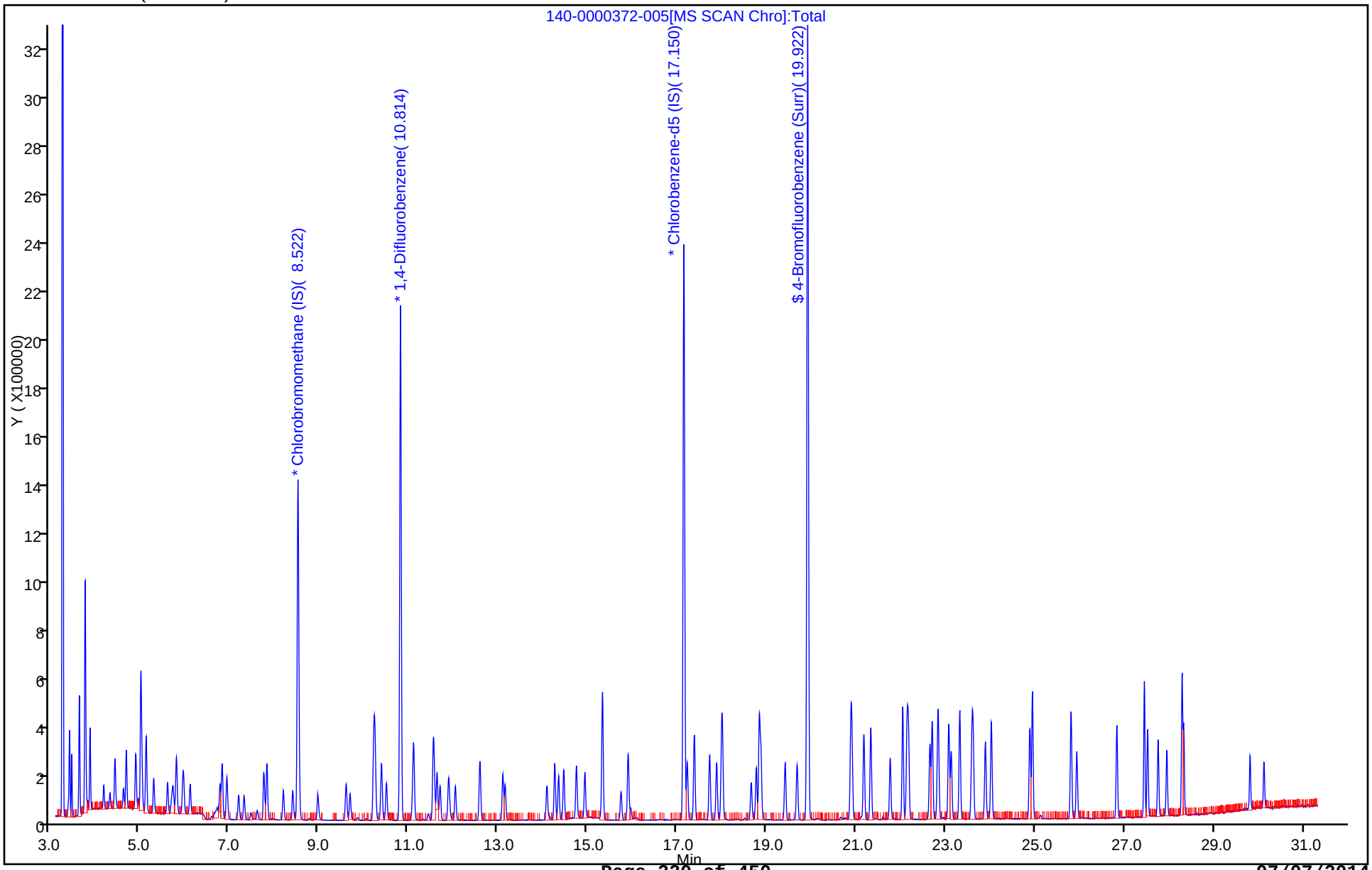
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.679	19.688	-0.009	94	51807	0.3866	
85 Isopropylbenzene	105	19.911	19.919	-0.008	96	351248	0.3956	
86 N-Propylbenzene	120	20.887	20.891	-0.004	98	95717	0.3961	
87 2-Chlorotoluene	126	20.914	20.915	-0.001	94	85634	0.4114	
88 4-Ethyltoluene	105	21.178	21.182	-0.004	99	350918	0.3851	
89 1,3,5-Trimethylbenzene	120	21.335	21.337	-0.002	92	157020	0.3872	
90 Alpha Methyl Styrene	118	21.766	21.770	-0.004	87	114245	0.3540	
91 n-Decane	57	22.046	22.050	-0.004	88	228662	0.3487	
92 tert-Butylbenzene	119	22.149	22.149	0.0	91	306161	0.3878	
93 1,2,4-Trimethylbenzene	105	22.176	22.179	-0.003	96	289894	0.3854	
94 1,3-Dichlorobenzene	146	22.656	22.660	-0.004	97	192989	0.3815	
95 sec-Butylbenzene	105	22.704	22.710	-0.006	98	428195	0.3816	
96 Benzyl chloride	91	22.828	22.831	-0.003	97	218576	0.3548	
97 1,4-Dichlorobenzene	146	22.845	22.847	-0.002	93	195399	0.3834	
98 4-Isopropyltoluene	119	23.076	23.081	-0.005	89	367535	0.3828	
99 1,2,3-Trimethylbenzene	105	23.130	23.134	-0.004	99	261128	0.3854	
100 Butylcyclohexane	83	23.324	23.327	-0.003	91	232973	0.3856	
101 1,2-Dichlorobenzene	146	23.594	23.598	-0.004	95	187442	0.3838	
102 2,3-Dihydroindene	117	23.621	23.625	-0.004	91	263593	0.3858	
103 Indene	116	23.896	23.898	-0.002	87	248136	0.3697	
104 n-Butylbenzene	91	24.025	24.031	-0.006	98	338206	0.3793	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.888	24.892	-0.004	88	340495	0.3779	
106 Undecane	57	24.948	24.950	-0.002	95	260625	0.3649	
107 1,2,4,5-Tetramethylbenzene	119	25.810	25.814	-0.004	98	359669	0.3826	
108 1,2,3,5-Tetramethylbenzene	119	25.940	25.942	-0.002	96	225678	0.3829	
109 1,2,3,4-Tetramethylbenzene	119	26.835	26.837	-0.002	97	293973	0.3740	
110 Dodecane	57	27.450	27.451	-0.001	93	239023	0.3499	
111 1,2,4-Trichlorobenzene	180	27.520	27.524	-0.004	93	147167	0.3579	
112 Naphthalene	128	27.757	27.760	-0.003	99	327361	0.3604	
113 Benzo(b)thiophene	134	27.951	27.953	-0.002	99	262687	0.3665	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	83	135606	0.3503	
115 1,2,3-Trichlorobenzene	180	28.329	28.333	-0.004	90	139301	0.3571	
116 2-Methylnaphthalene	142	29.811	29.812	-0.001	99	132723	1.93	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	98	113104	1.96	
A 118 C6 Range	1	7.851	7.778 -	7.897	0	572761	0.3625	
A 119 Toluene Range	1	14.252	14.206 -	14.346	0	570376	0.2785	
A 120 C8 Range	1	15.333	15.274 -	15.392	0	1302162	0.4136	
S 124 Xylenes, Total	100				0		1.21	

Report Date: 23-Jan-2014 16:19:34 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-005.D				
Injection Date:	21-Jan-2014 20:00:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L4	Lab Sample ID:		Worklist Smp#:	5
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

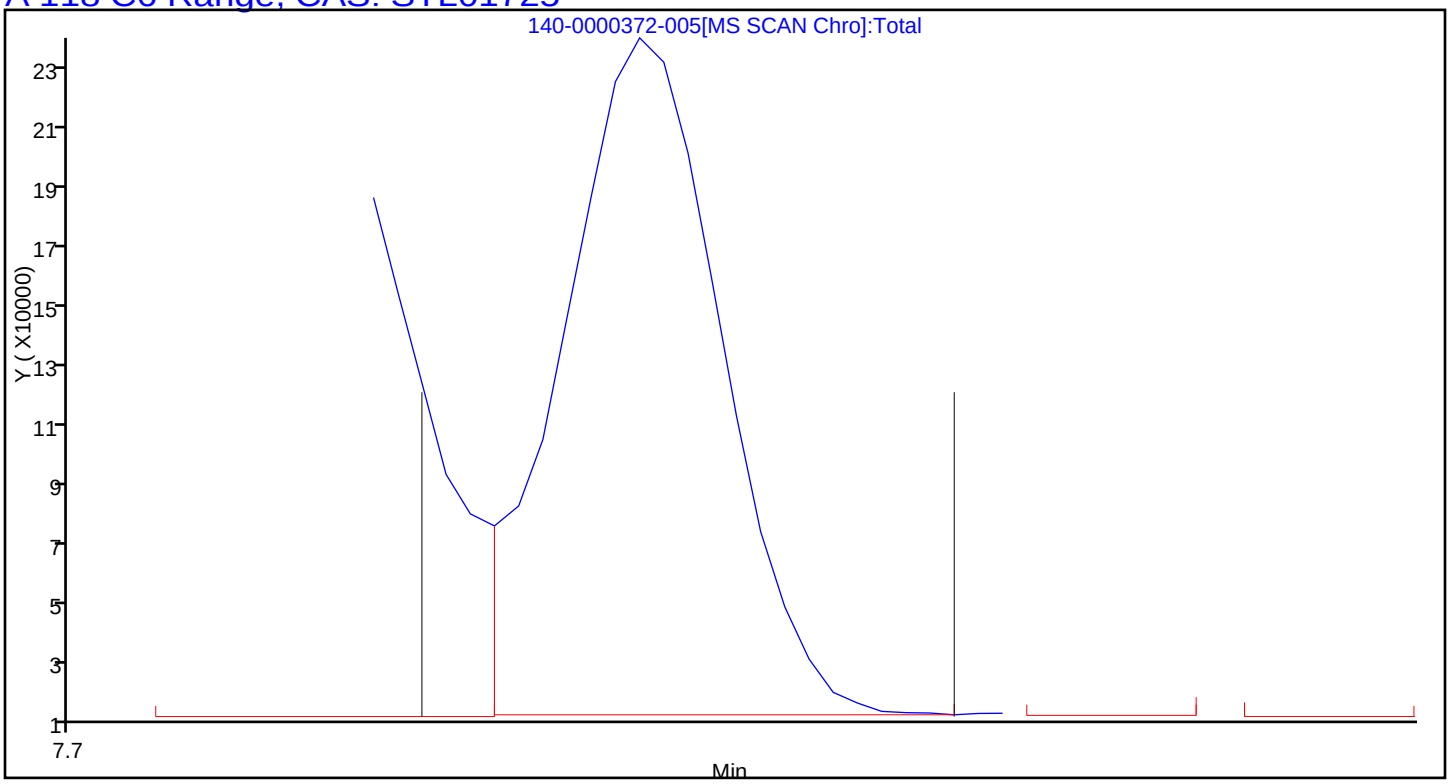


Report Date: 23-Jan-2014 16:19:34 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-005.D				
Injection Date:	21-Jan-2014 20:00:30	Instrument ID:	MR		
Lims ID:	IC L4	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

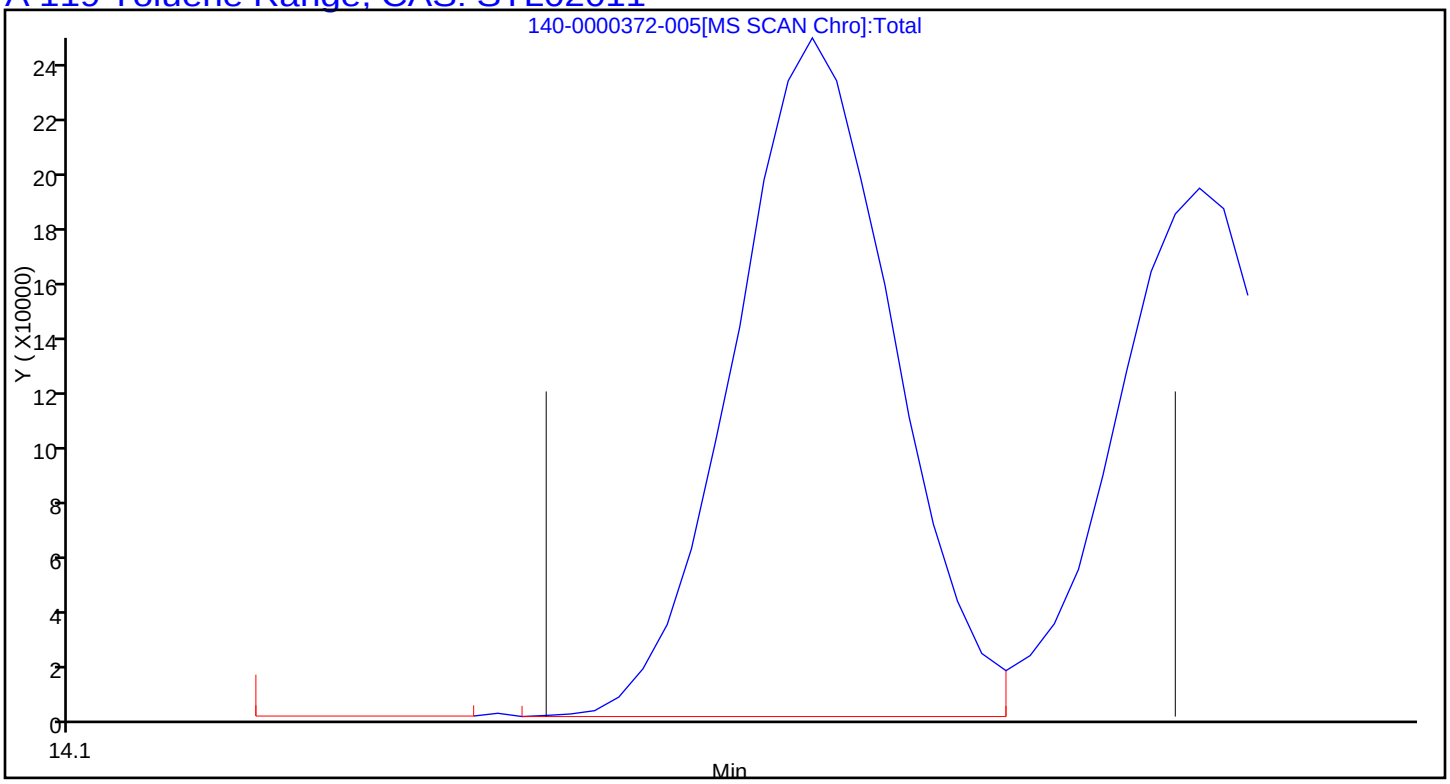


Report Date: 23-Jan-2014 16:19:34 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-005.D				
Injection Date:	21-Jan-2014 20:00:30	Instrument ID:	MR		
Lims ID:	IC L4	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

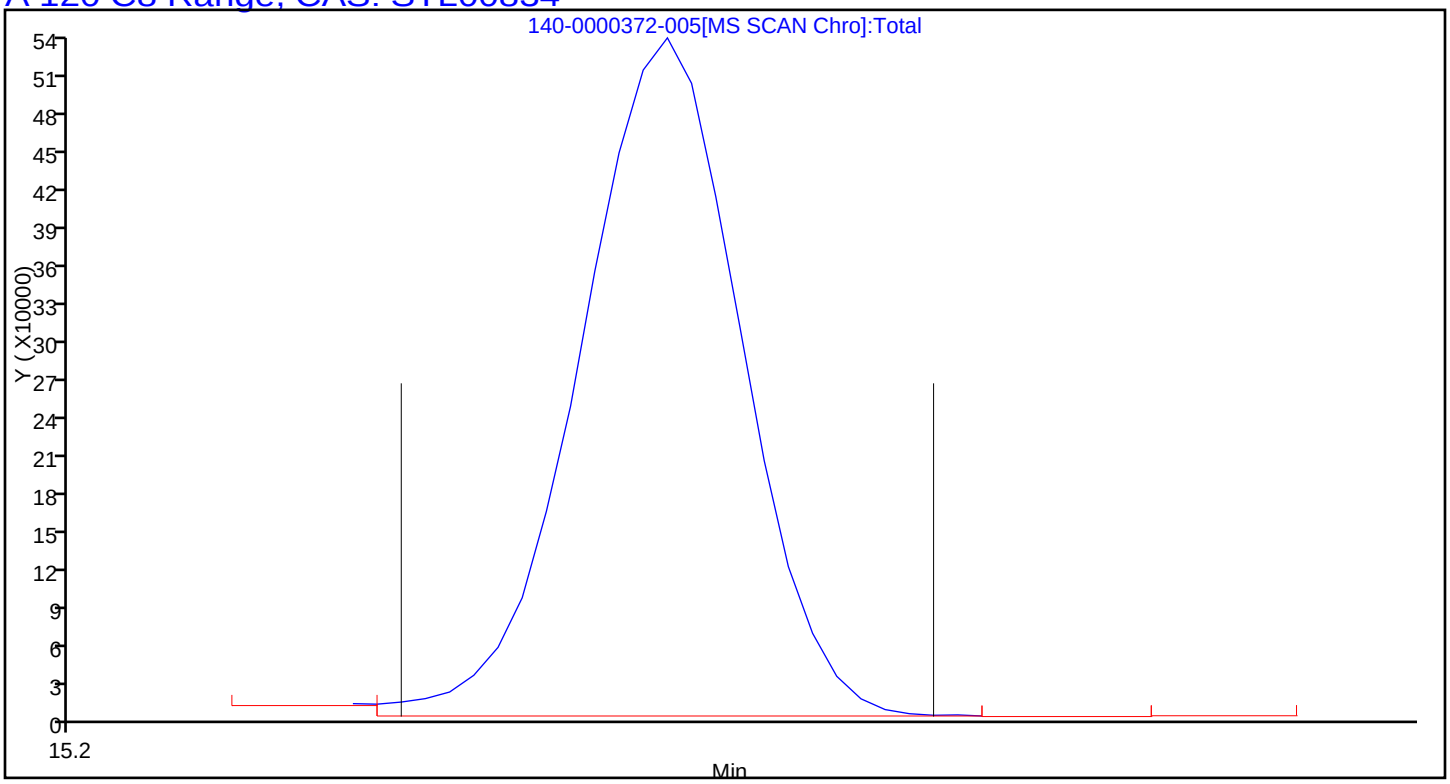


Report Date: 23-Jan-2014 16:19:34 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-005.D				
Injection Date:	21-Jan-2014 20:00:30	Instrument ID:	MR		
Lims ID:	IC L4	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	3	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-006.D
Lims ID: IC L5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Jan-2014 20:48:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l5
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:40 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.527	-0.005	97	420363	4.00	
* 2 1,4-Difluorobenzene	114	10.814	10.819	-0.005	96	2146211	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.156	17.156	0.0	90	1854911	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.922	19.925	-0.003	91	1491821	4.08	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	96	44642	0.9873	
7 Propene	41	3.416	3.417	-0.001	99	191972	1.09	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	100	428480	1.01	
9 Chloromethane	52	3.621	3.622	-0.001	98	62894	1.01	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	94	309246	1.02	
11 Acetaldehyde	44	3.761	3.766	-0.005	96	709734	3.70	
12 Vinyl chloride	62	3.782	3.784	-0.002	99	193424	1.01	
14 Butadiene	54	3.869	3.871	-0.002	96	160652	1.00	
13 Butane	43	3.874	3.872	0.002	89	314967	0.99	
15 Bromomethane	94	4.176	4.178	-0.002	98	153803	0.9609	
16 Chloroethane	64	4.316	4.319	-0.003	96	94970	0.9844	
17 Ethanol	31	4.430	4.437	-0.007	92	392779	5.53	
18 Vinyl bromide	106	4.618	4.621	-0.003	97	155079	1.00	
19 2-Methylbutane	43	4.683	4.682	0.001	92	245218	1.02	
21 Acrolein	56	4.888	4.893	-0.005	92	85600	1.00	
20 Trichlorofluoromethane	101	4.893	4.898	-0.005	98	415588	1.00	
22 Acetonitrile	40	4.953	4.955	-0.002	100	86908	1.08	
23 Acetone	58	5.012	5.018	-0.006	90	338403	0.6366	
24 Pentane	72	5.125	5.131	-0.006	95	33095	0.9687	
25 Isopropyl alcohol	45	5.120	5.132	-0.012	57	332729	1.02	
26 Ethyl ether	31	5.292	5.298	-0.006	93	222435	0.9811	
27 1,1-Dichloroethene	96	5.605	5.610	-0.005	95	132463	0.9850	
28 Acrylonitrile	53	5.697	5.699	-0.002	94	149537	1.00	
29 2-Methyl-2-propanol	59	5.718	5.736	-0.018	96	344604	1.04	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.805	5.805	0.0	96	279175	0.99	
31 Methylene Chloride	84	5.950	5.951	-0.001	93	126726	0.9605	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.966	5.972	-0.006	90	155687	1.00	
33 Carbon disulfide	76	6.112	6.114	-0.002	99	456645	1.00	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	94	159809	0.9639	
35 2-Methylpentane	43	6.824	6.828	-0.004	96	455895	0.9811	
36 Methyl tert-butyl ether	73	6.926	6.935	-0.009	97	437854	0.9734	
37 1,1-Dichloroethane	63	7.196	7.199	-0.003	100	287393	0.9635	
38 Vinyl acetate	43	7.314	7.320	-0.006	100	476346	0.9804	
39 2-Butanone (MEK)	72	7.757	7.763	-0.006	98	100901	1.05	
40 Hexane	56	7.827	7.830	-0.003	87	156497	0.9435	
41 cis-1,2-Dichloroethene	96	8.199	8.201	-0.002	97	151268	0.9866	
42 Ethyl acetate	43	8.404	8.410	-0.006	98	434533	0.9840	
43 Chloroform	83	8.555	8.555	0.0	90	305925	0.9780	
44 Tetrahydrofuran	42	8.959	8.967	-0.008	93	233243	0.9714	
45 1,1,1-Trichloroethane	97	9.601	9.603	-0.002	97	299716	0.9813	
46 1,2-Dichloroethane	62	9.687	9.691	-0.004	96	234065	0.9898	
49 n-Butanol	31	10.205	10.210	-0.005	58	67708	0.9831	
47 Benzene	78	10.221	10.220	0.001	97	461399	0.9750	
48 Cyclohexane	69	10.237	10.239	-0.002	93	75112	0.9397	
50 Carbon tetrachloride	117	10.253	10.255	-0.002	94	314218	0.99	
51 2,3-Dimethylpentane	71	10.388	10.393	-0.005	90	102833	1.00	
52 Thiophene	84	10.507	10.504	0.003	98	277486	0.9779	
53 Isooctane	57	11.111	11.110	0.001	98	938098	0.9736	
54 n-Heptane	71	11.547	11.550	-0.003	95	173112	0.9569	
55 1,2-Dichloropropane	63	11.569	11.576	-0.007	81	186154	0.9658	
56 Trichloroethene	130	11.634	11.636	-0.002	87	196138	0.9680	
57 Dibromomethane	93	11.698	11.702	-0.004	94	182520	0.9816	
58 Dichlorobromomethane	83	11.893	11.895	-0.002	98	332341	0.9873	
59 1,4-Dioxane	88	11.909	11.918	-0.009	95	76579	1.03	
60 Methyl methacrylate	41	12.044	12.045	-0.001	95	269520	0.9670	
61 Methylcyclohexane	83	12.594	12.594	0.0	89	284608	0.9751	
62 4-Methyl-2-pentanone (MIBK)	43	13.100	13.106	-0.006	97	477366	0.9578	
63 cis-1,3-Dichloropropene	75	13.154	13.159	-0.005	97	251229	0.9806	
64 trans-1,3-Dichloropropene	75	14.087	14.092	-0.005	97	255303	0.9673	
65 Toluene	91	14.265	14.269	-0.004	93	551274	0.9601	
66 1,1,2-Trichloroethane	83	14.351	14.354	-0.003	98	163559	0.9703	
67 2-Methylthiophene	97	14.470	14.472	-0.002	98	474075	0.9707	
68 3-Methylthiophene	97	14.751	14.754	-0.004	99	485192	0.9742	
69 2-Hexanone	58	14.934	14.940	-0.006	92	234939	0.9783	
71 Chlorodibromomethane	129	15.333	15.334	-0.001	90	305144	0.9862	
70 n-Octane	85	15.333	15.335	-0.002	96	191218	0.9232	
72 Ethylene Dibromide	107	15.748	15.750	-0.002	98	289002	0.9738	
73 Tetrachloroethene	129	15.910	15.910	0.0	96	191753	0.9769	
74 Chlorobenzene	112	17.231	17.232	-0.001	91	447119	0.9740	
75 2,3-Dimethylheptane	43	17.387	17.390	-0.003	95	685723	0.9698	
76 Ethylbenzene	91	17.732	17.734	-0.002	98	709098	0.99	
77 2-Ethylthiophene	97	17.889	17.891	-0.002	98	540205	0.99	
78 m-Xylene & p-Xylene	91	18.008	18.011	-0.003	98	1131471	1.99	
79 Bromoform	173	18.660	18.662	-0.002	95	297208	1.01	
80 Styrene	104	18.773	18.776	-0.003	97	417974	1.05	
81 n-Nonane	57	18.843	18.845	-0.002	95	470450	0.9753	
82 o-Xylene	91	18.876	18.879	-0.003	97	583811	1.00	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	99	438860	1.00	

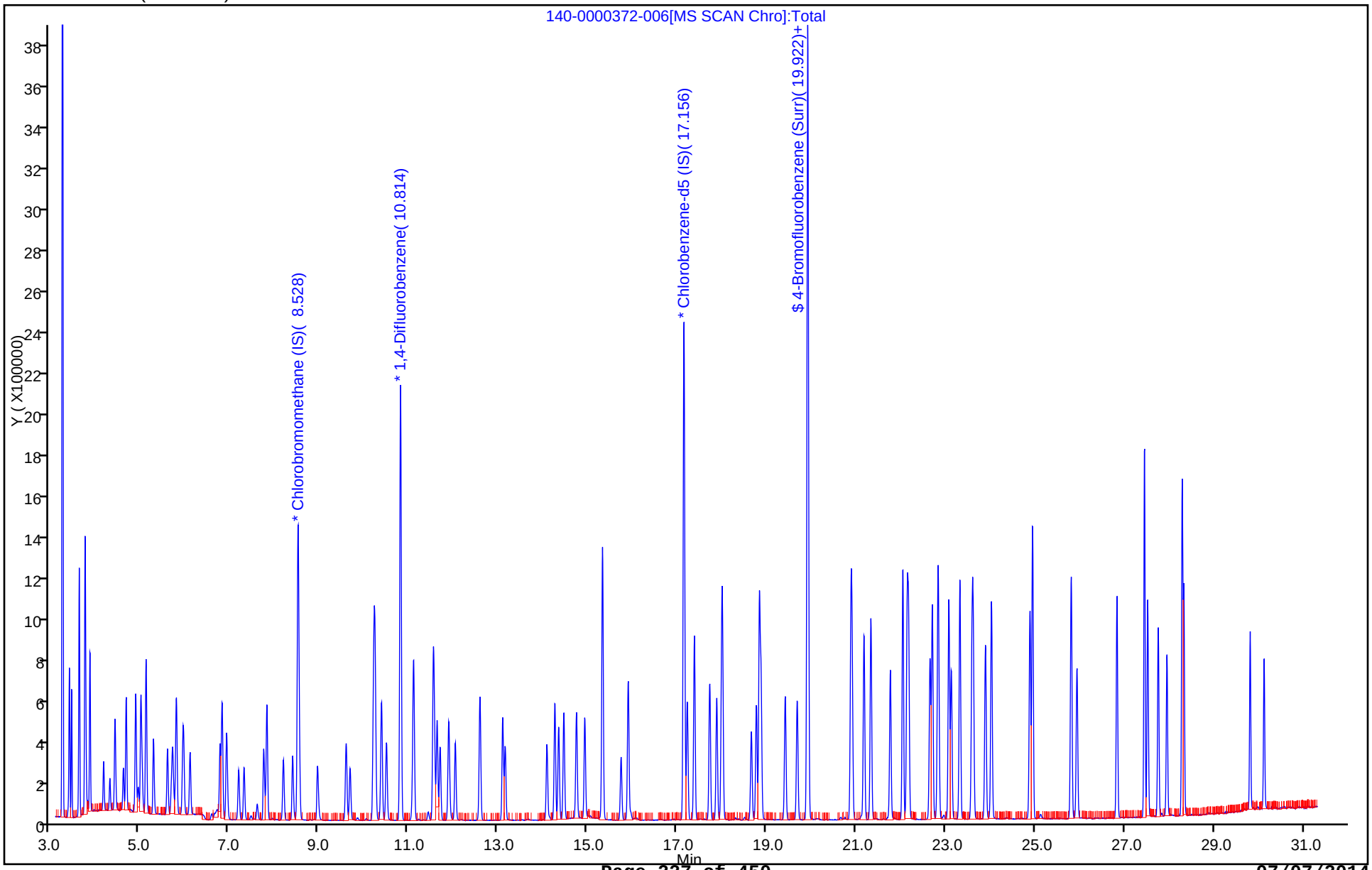
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.690	19.688	0.002	94	132761	0.9780	
85 Isopropylbenzene	105	19.916	19.919	-0.003	97	881723	0.9803	
86 N-Propylbenzene	120	20.887	20.891	-0.004	97	243598	1.00	
87 2-Chlorotoluene	126	20.914	20.915	-0.001	94	210762	1.00	
88 4-Ethyltoluene	105	21.184	21.182	0.002	99	904168	0.9796	
89 1,3,5-Trimethylbenzene	120	21.335	21.337	-0.002	92	402663	0.9803	
90 Alpha Methyl Styrene	118	21.771	21.770	0.001	87	331323	1.01	
91 n-Decane	57	22.046	22.050	-0.004	88	605736	0.9120	
92 tert-Butylbenzene	119	22.149	22.149	0.0	89	782809	0.9789	
93 1,2,4-Trimethylbenzene	105	22.176	22.179	-0.003	96	744894	0.9778	
94 1,3-Dichlorobenzene	146	22.656	22.660	-0.004	98	499795	0.9755	
95 sec-Butylbenzene	105	22.710	22.710	0.0	95	1110128	0.9768	
96 Benzyl chloride	91	22.828	22.831	-0.003	98	625714	1.00	
97 1,4-Dichlorobenzene	146	22.844	22.847	-0.003	93	505725	0.9796	
98 4-Isopropyltoluene	119	23.076	23.081	-0.005	90	972406	1.00	
99 1,2,3-Trimethylbenzene	105	23.136	23.134	0.002	99	675966	0.9850	
100 Butylcyclohexane	83	23.324	23.327	-0.003	90	602849	0.9851	
101 1,2-Dichlorobenzene	146	23.594	23.598	-0.004	94	487103	0.9846	
102 2,3-Dihydroindene	117	23.626	23.625	0.001	91	682649	0.9865	
103 Indene	116	23.896	23.898	-0.002	88	685376	1.01	
104 n-Butylbenzene	91	24.031	24.031	0.0	98	908939	1.01	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	98	918856	1.01	
106 Undecane	57	24.953	24.950	0.003	95	752163	1.04	
107 1,2,4,5-Tetramethylbenzene	119	25.816	25.814	0.002	98	977181	1.03	
108 1,2,3,5-Tetramethylbenzene	119	25.945	25.942	0.003	95	613817	1.03	
109 1,2,3,4-Tetramethylbenzene	119	26.840	26.837	0.003	98	836308	1.05	
110 Dodecane	57	27.455	27.451	0.004	93	777210	1.12	
111 1,2,4-Trichlorobenzene	180	27.525	27.524	0.001	94	430967	1.03	
112 Naphthalene	128	27.762	27.760	0.002	99	967369	1.05	
113 Benzo(b)thiophene	134	27.956	27.953	0.003	99	754949	1.04	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	84	395796	1.01	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	92	417833	1.06	
116 2-Methylnaphthalene	142	29.817	29.812	0.005	99	500309	7.17	
117 1-Methylnaphthalene	142	30.130	30.124	0.006	100	428902	7.32	
A 118 C6 Range	1	7.848	7.778 -	7.908	0	1395991	0.8677	
A 119 Toluene Range	1	14.260	14.195 -	14.335	0	1414507	0.6782	
A 120 C8 Range	1	15.333	15.268 -	15.398	0	3228381	1.01	
S 124 Xylenes, Total	100				0		2.99	

Report Date: 23-Jan-2014 16:19:41 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-006.D				
Injection Date:	21-Jan-2014 20:48:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L5	Lab Sample ID:		Worklist Smp#:	6
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



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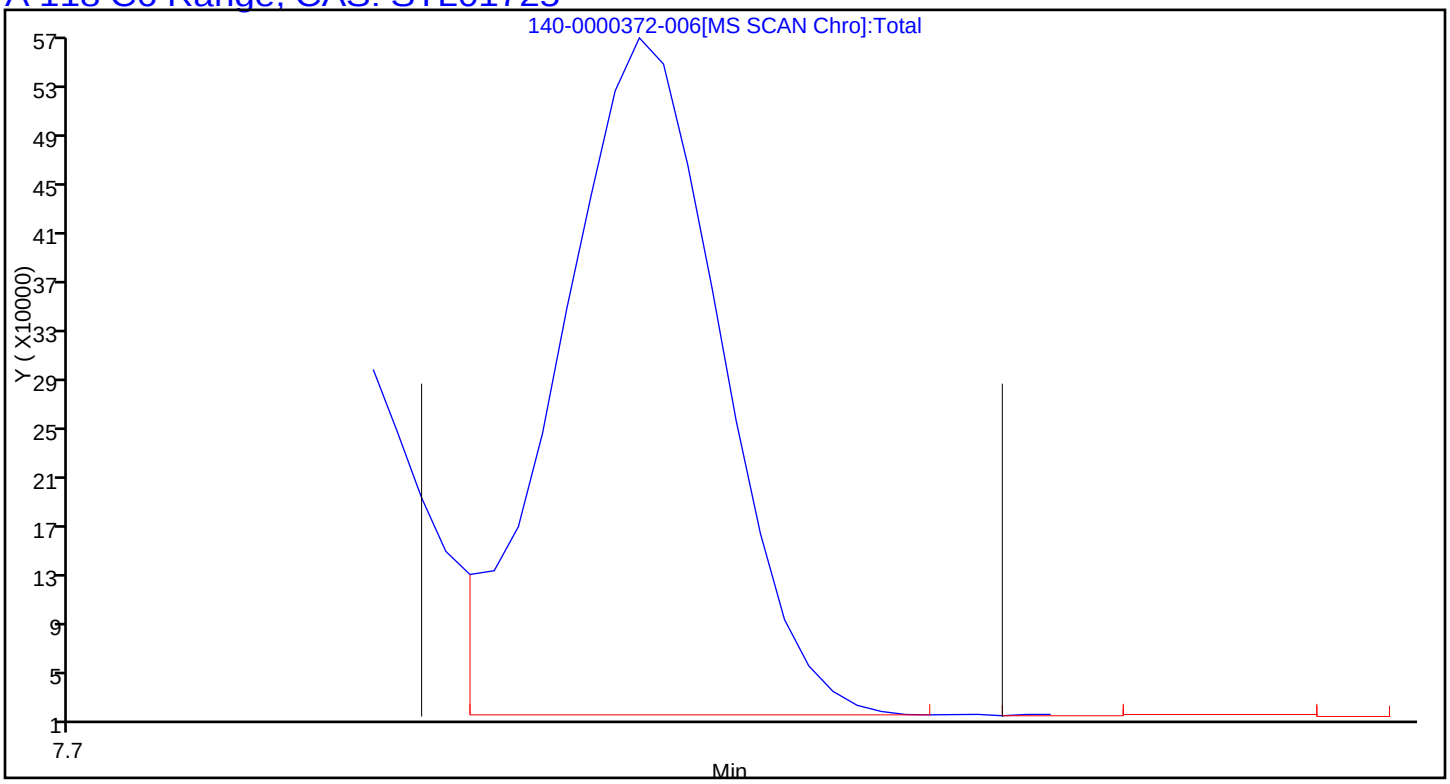
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-006.D				
Injection Date:	21-Jan-2014 20:48:30	Instrument ID:	MR		
Lims ID:	IC L5	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

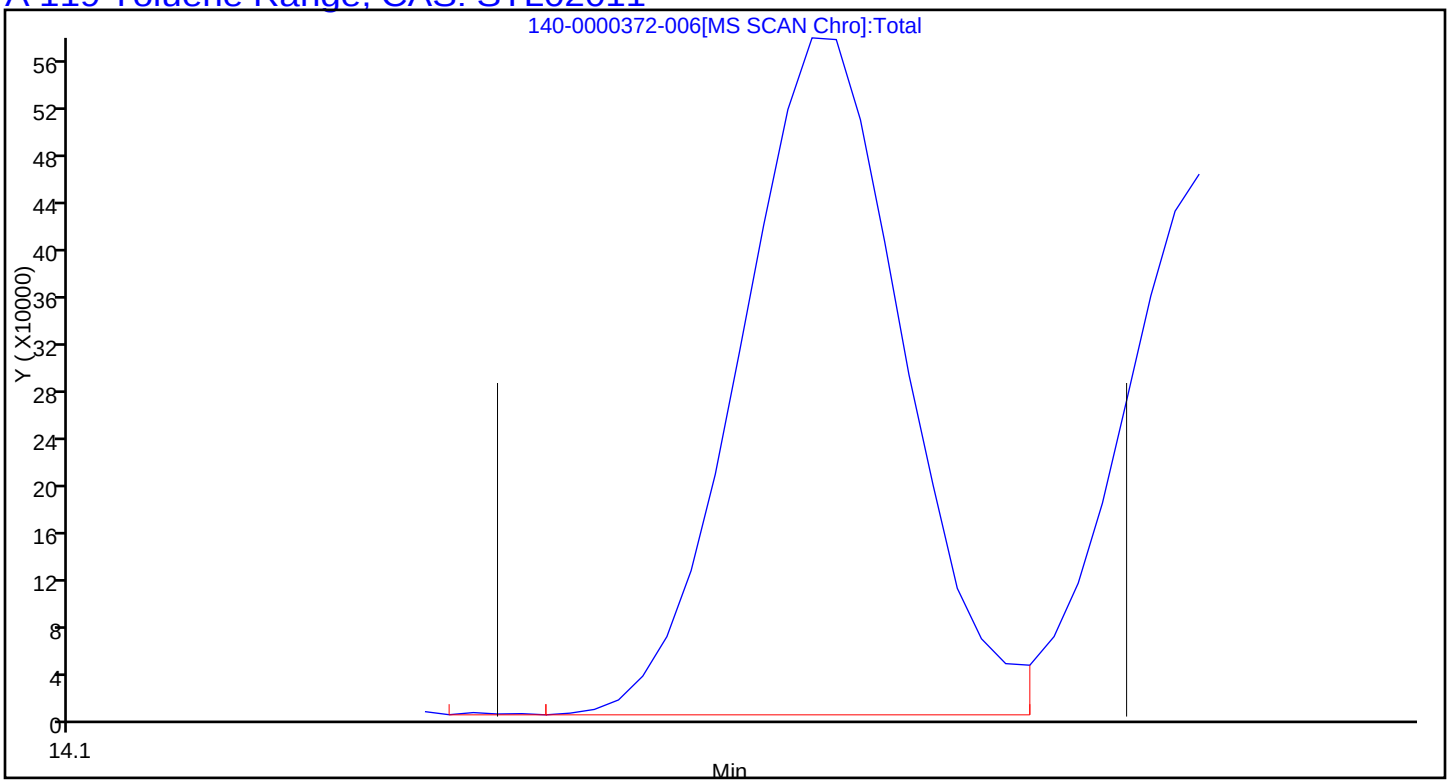


Report Date: 23-Jan-2014 16:19:41 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-006.D				
Injection Date:	21-Jan-2014 20:48:30	Instrument ID:	MR		
Lims ID:	IC L5	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

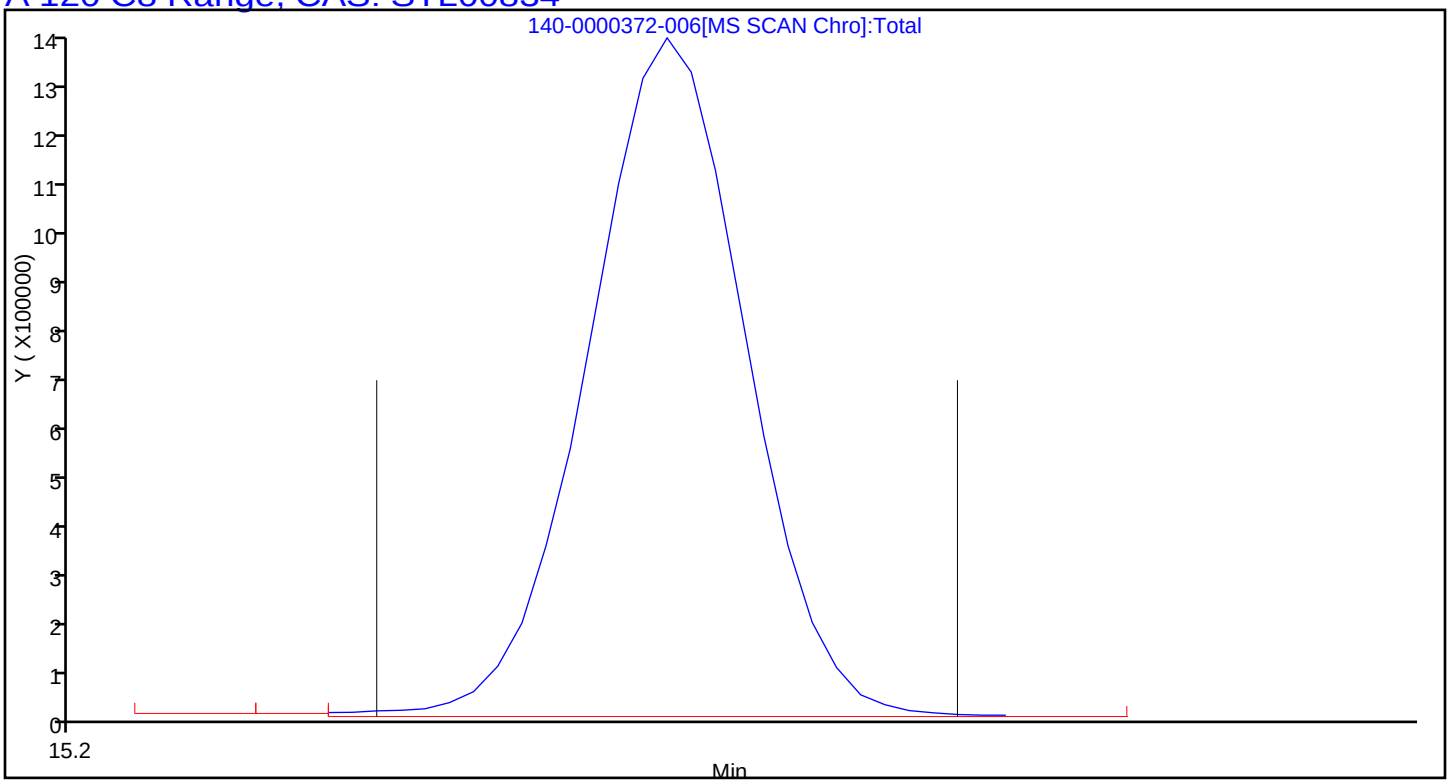


Report Date: 23-Jan-2014 16:19:41 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-006.D				
Injection Date:	21-Jan-2014 20:48:30	Instrument ID:	MR		
Lims ID:	IC L5	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-007.D
Lims ID: IC L6 Lab Sample ID:
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 21-Jan-2014 21:36:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l6
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:48 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.528	8.527	0.001	96	430788	4.00	
* 2 1,4-Difluorobenzene	114	10.820	10.819	0.001	96	2214255	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.156	17.156	0.0	89	1832420	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.927	19.925	0.002	90	1493637	4.14	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	96	90674	1.96	
7 Propene	41	3.416	3.417	-0.001	98	350979	1.94	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	100	835511	1.93	
9 Chloromethane	52	3.621	3.622	-0.001	99	130558	2.04	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.632	3.634	-0.002	93	638229	2.06	
11 Acetaldehyde	44	3.761	3.766	-0.005	96	1158429	5.89	
12 Vinyl chloride	62	3.783	3.784	-0.001	98	399618	2.04	
14 Butadiene	54	3.869	3.871	-0.002	97	328529	2.00	
13 Butane	43	3.869	3.872	-0.003	89	661996	2.04	
15 Bromomethane	94	4.176	4.178	-0.002	99	323886	1.97	
16 Chloroethane	64	4.316	4.319	-0.003	97	196082	1.98	
17 Ethanol	31	4.435	4.437	-0.002	92	784581	10.8	
18 Vinyl bromide	106	4.618	4.621	-0.003	97	322276	2.03	
19 2-Methylbutane	43	4.678	4.682	-0.004	92	514765	2.08	
21 Acrolein	56	4.888	4.893	-0.005	93	177945	2.02	
20 Trichlorofluoromethane	101	4.893	4.898	-0.005	99	867834	2.03	
22 Acetonitrile	40	4.953	4.955	-0.002	100	180511	2.18	
23 Acetone	58	5.012	5.018	-0.006	90	529274	0.9715	
24 Pentane	72	5.125	5.131	-0.006	95	69956	2.00	
25 Isopropyl alcohol	45	5.125	5.132	-0.007	64	699342	2.10	
26 Ethyl ether	31	5.287	5.298	-0.011	94	476998	2.05	
27 1,1-Dichloroethene	96	5.605	5.610	-0.005	95	275491	2.00	
28 Acrylonitrile	53	5.697	5.699	-0.002	94	311786	2.03	
29 2-Methyl-2-propanol	59	5.724	5.736	-0.012	96	706407	2.08	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.799	5.805	-0.006	95	587842	2.04	
31 Methylene Chloride	84	5.950	5.951	-0.001	93	267733	1.98	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.972	5.972	0.0	92	326087	2.05	
33 Carbon disulfide	76	6.112	6.114	-0.002	100	961912	2.05	
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	94	335466	1.97	
35 2-Methylpentane	43	6.824	6.828	-0.004	96	976040	2.05	
36 Methyl tert-butyl ether	73	6.926	6.935	-0.009	98	948548	2.06	
37 1,1-Dichloroethane	63	7.196	7.199	-0.003	99	617533	2.02	
38 Vinyl acetate	43	7.315	7.320	-0.005	100	1041984	2.09	
39 2-Butanone (MEK)	72	7.757	7.763	-0.006	98	207821	2.10	
40 Hexane	56	7.827	7.830	-0.003	88	339532	2.00	
41 cis-1,2-Dichloroethene	96	8.199	8.201	-0.002	98	315244	2.01	
42 Ethyl acetate	43	8.404	8.410	-0.006	98	952640	2.11	
43 Chloroform	83	8.555	8.555	0.0	96	650118	2.03	
44 Tetrahydrofuran	42	8.954	8.967	-0.013	93	505316	2.05	
45 1,1,1-Trichloroethane	97	9.601	9.603	-0.002	96	640561	2.05	
46 1,2-Dichloroethane	62	9.693	9.691	0.002	95	498800	2.04	
49 n-Butanol	31	10.200	10.210	-0.010	60	150003	2.11	
47 Benzene	78	10.221	10.220	0.001	97	971870	1.99	
48 Cyclohexane	69	10.237	10.239	-0.002	93	163496	1.98	
50 Carbon tetrachloride	117	10.253	10.255	-0.002	96	657577	2.01	
51 2,3-Dimethylpentane	71	10.394	10.393	0.001	91	217125	2.04	
52 Thiophene	84	10.501	10.504	-0.003	98	597411	2.04	
53 Isooctane	57	11.105	11.110	-0.005	99	2016394	2.03	
54 n-Heptane	71	11.548	11.550	-0.002	95	366853	1.97	
55 1,2-Dichloropropane	63	11.575	11.576	-0.001	83	404601	2.03	
56 Trichloroethene	130	11.634	11.636	-0.002	87	419202	2.01	
57 Dibromomethane	93	11.704	11.702	0.002	94	385560	2.01	
58 Dichlorobromomethane	83	11.893	11.895	-0.002	98	725095	2.09	
59 1,4-Dioxane	88	11.914	11.918	-0.004	95	165474	2.15	
60 Methyl methacrylate	41	12.044	12.045	-0.001	95	608107	2.11	
61 Methylcyclohexane	83	12.594	12.594	0.0	89	603999	2.01	
62 4-Methyl-2-pentanone (MIBK)	43	13.101	13.106	-0.005	98	1041928	2.03	
63 cis-1,3-Dichloropropene	75	13.160	13.159	0.001	98	546637	2.07	
64 trans-1,3-Dichloropropene	75	14.093	14.092	0.001	97	553565	2.12	
65 Toluene	91	14.265	14.269	-0.004	93	1171582	2.07	
66 1,1,2-Trichloroethane	83	14.352	14.354	-0.002	98	342867	2.06	
67 2-Methylthiophene	97	14.470	14.472	-0.002	98	1001201	2.08	
68 3-Methylthiophene	97	14.751	14.754	-0.003	99	1023230	2.08	
69 2-Hexanone	58	14.934	14.940	-0.006	92	519953	2.19	
71 Chlorodibromomethane	129	15.333	15.334	-0.001	93	670836	2.19	
70 n-Octane	85	15.333	15.335	-0.002	96	393543	1.92	
72 Ethylene Dibromide	107	15.748	15.750	-0.002	98	612371	2.09	
73 Tetrachloroethene	129	15.910	15.910	0.0	95	399049	2.06	
74 Chlorobenzene	112	17.231	17.232	-0.001	91	901687	1.99	
75 2,3-Dimethylheptane	43	17.393	17.390	0.003	95	1448264	2.07	
76 Ethylbenzene	91	17.733	17.734	-0.001	99	1433185	2.03	
77 2-Ethylthiophene	97	17.894	17.891	0.003	98	1103288	2.05	
78 m-Xylene & p-Xylene	91	18.013	18.011	0.002	98	2309781	4.12	
79 Bromoform	173	18.666	18.662	0.004	95	639375	2.20	
80 Styrene	104	18.779	18.776	0.003	98	889678	2.25	
81 n-Nonane	57	18.849	18.845	0.004	95	1004153	2.11	
82 o-Xylene	91	18.881	18.879	0.002	97	1197268	2.07	
83 1,1,2,2-Tetrachloroethane	83	19.426	19.422	0.004	99	955942	2.19	

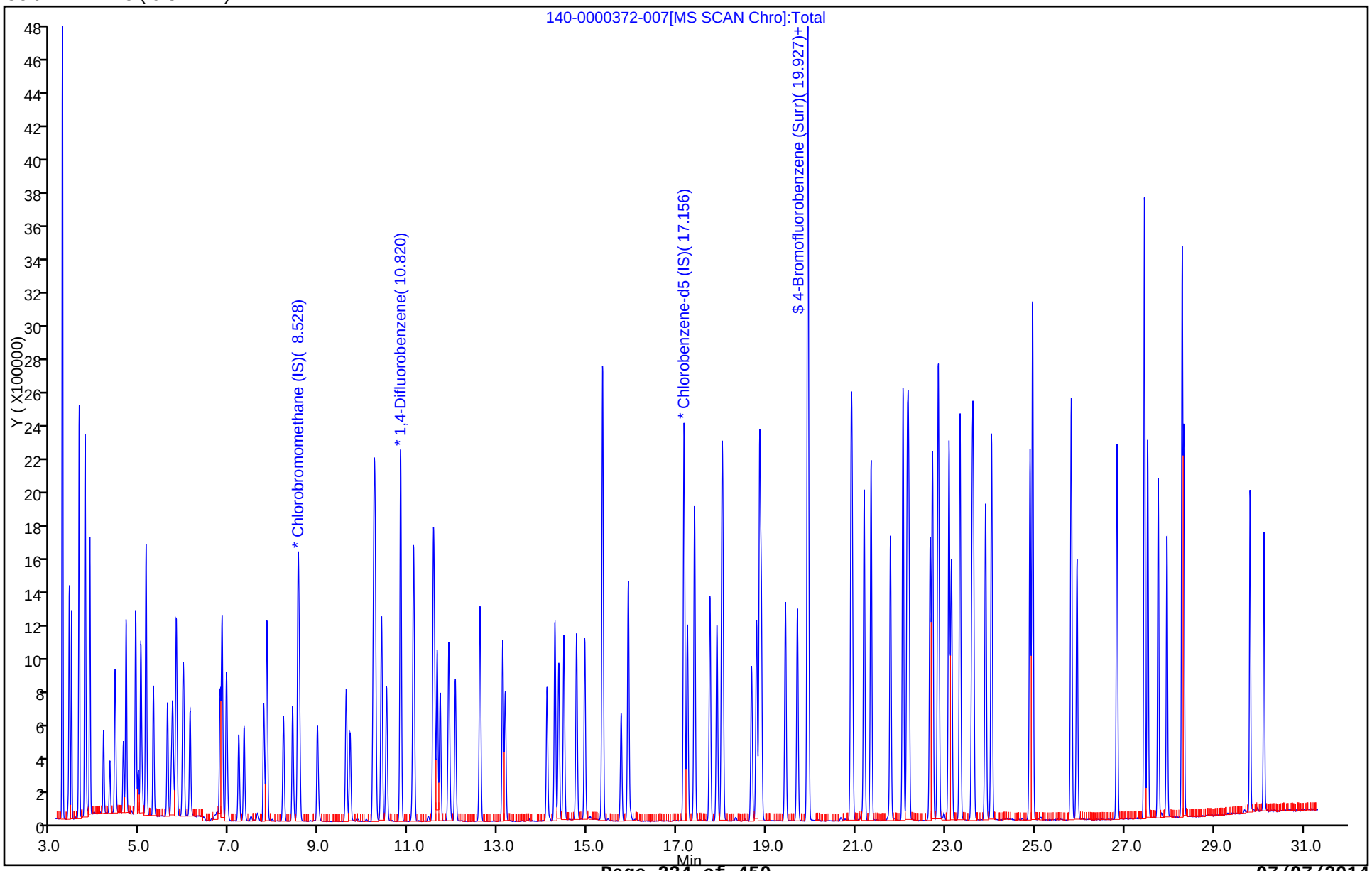
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.690	19.688	0.002	95	287030	2.14	
85 Isopropylbenzene	105	19.922	19.919	0.003	97	1872860	2.11	
86 N-Propylbenzene	120	20.893	20.891	0.002	98	518603	2.14	
87 2-Chlorotoluene	126	20.920	20.915	0.005	94	438172	2.10	
88 4-Ethyltoluene	105	21.184	21.182	0.002	99	1944259	2.13	
89 1,3,5-Trimethylbenzene	120	21.340	21.337	0.003	92	860708	2.12	
90 Alpha Methyl Styrene	118	21.772	21.770	0.002	86	760476	2.35	
91 n-Decane	57	22.052	22.050	0.002	88	1323961	2.02	
92 tert-Butylbenzene	119	22.149	22.149	0.0	89	1665008	2.11	
93 1,2,4-Trimethylbenzene	105	22.181	22.179	0.002	96	1608599	2.14	
94 1,3-Dichlorobenzene	146	22.661	22.660	0.001	98	1062910	2.10	
95 sec-Butylbenzene	105	22.710	22.710	0.0	98	2391954	2.13	
96 Benzyl chloride	91	22.834	22.831	0.003	97	1423581	2.31	
97 1,4-Dichlorobenzene	146	22.850	22.847	0.003	93	1074571	2.11	
98 4-Isopropyltoluene	119	23.082	23.081	0.001	93	2071212	2.16	
99 1,2,3-Trimethylbenzene	105	23.136	23.134	0.002	99	1452957	2.14	
100 Butylcyclohexane	83	23.330	23.327	0.003	89	1289254	2.13	
101 1,2-Dichlorobenzene	146	23.600	23.598	0.002	94	1028637	2.10	
102 2,3-Dihydroindene	117	23.627	23.625	0.001	90	1467917	2.15	
103 Indene	116	23.902	23.898	0.004	88	1512569	2.25	
104 n-Butylbenzene	91	24.031	24.031	0.0	98	1945915	2.18	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	95	1958756	2.17	
106 Undecane	57	24.953	24.950	0.003	96	1605688	2.25	
107 1,2,4,5-Tetramethylbenzene	119	25.816	25.814	0.002	97	2067651	2.20	
108 1,2,3,5-Tetramethylbenzene	119	25.945	25.942	0.003	96	1291670	2.19	
109 1,2,3,4-Tetramethylbenzene	119	26.840	26.837	0.003	97	1742871	2.22	
110 Dodecane	57	27.450	27.451	-0.001	93	1621814	2.37	
111 1,2,4-Trichlorobenzene	180	27.525	27.524	0.001	93	902985	2.19	
112 Naphthalene	128	27.762	27.760	0.002	99	2051032	2.26	
113 Benzo(b)thiophene	134	27.957	27.953	0.004	99	1631470	2.27	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	84	813463	2.10	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	94	869630	2.23	
116 2-Methylnaphthalene	142	29.812	29.812	0.0	100	1116999	16.2	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	100	933096	16.1	
A 118 C6 Range	1	7.845	7.762 -	7.892	0	2949803	1.78	
A 119 Toluene Range	1	14.292	14.195 -	14.379	0	5267866	2.45	
A 120 C8 Range	1	15.333	15.268 -	15.398	0	6560765	1.98	
S 124 Xylenes, Total	100				0		6.19	

Report Date: 23-Jan-2014 16:19:50 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-007.D				
Injection Date:	21-Jan-2014 21:36:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L6	Lab Sample ID:		Worklist Smp#:	7
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

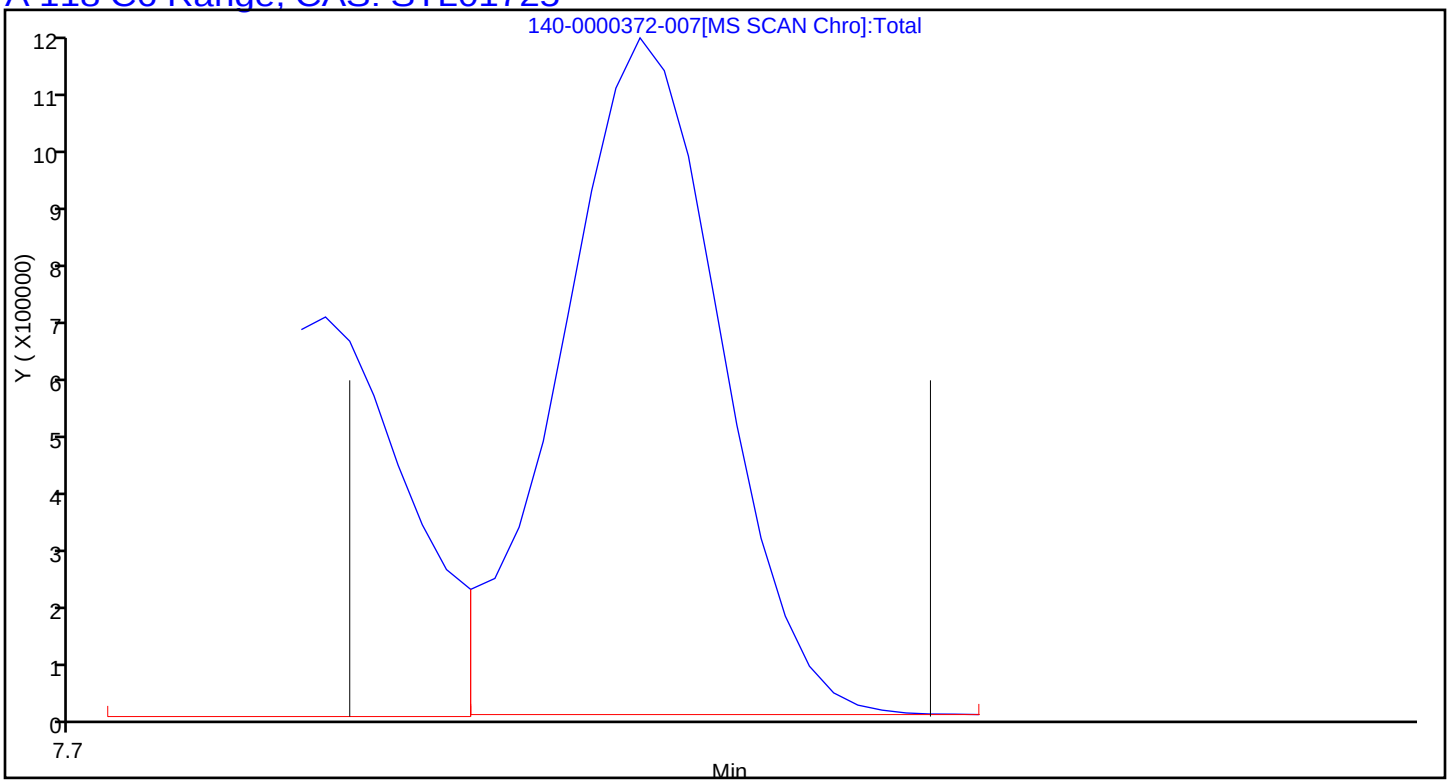


Report Date: 23-Jan-2014 16:19:50 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-007.D				
Injection Date:	21-Jan-2014 21:36:30	Instrument ID:	MR		
Lims ID:	IC L6	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

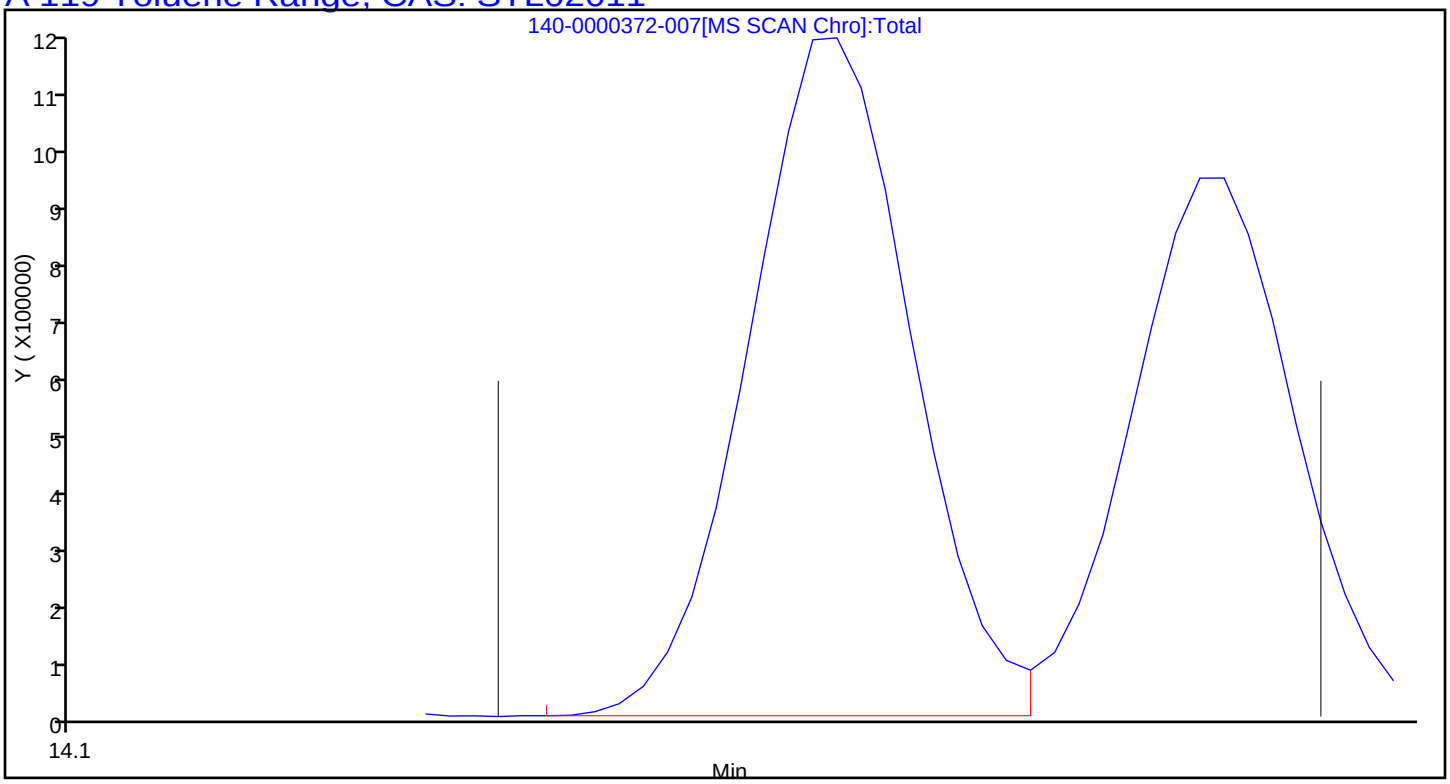


Report Date: 23-Jan-2014 16:19:50 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-007.D				
Injection Date:	21-Jan-2014 21:36:30	Instrument ID:	MR		
Lims ID:	IC L6	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

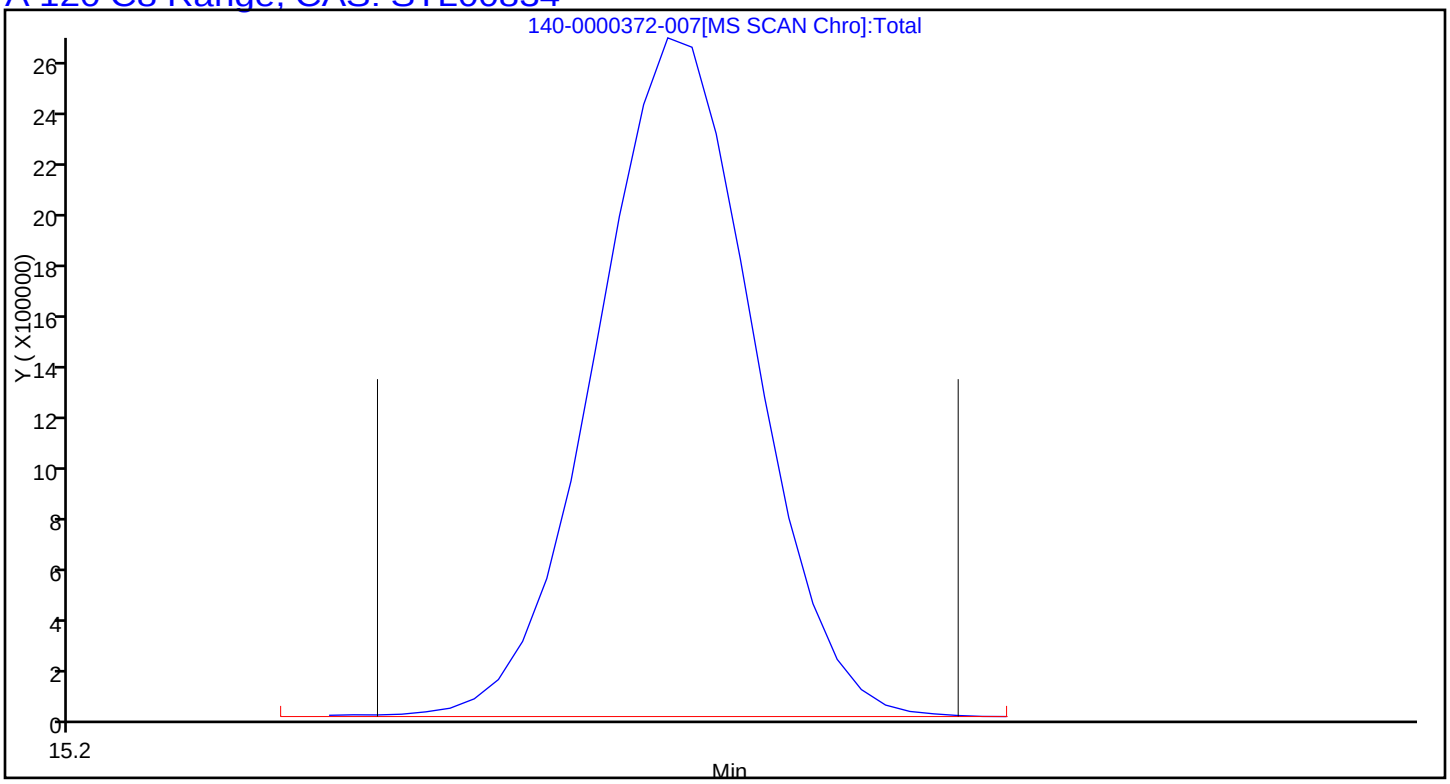


Report Date: 23-Jan-2014 16:19:50 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-007.D				
Injection Date:	21-Jan-2014 21:36:30	Instrument ID:	MR		
Lims ID:	IC L6	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	5	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-008.D
Lims ID: IC L7 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 21-Jan-2014 22:24:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l7
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:19:58 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:19:58

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.533	8.527	0.006	95	496447	4.00	
* 2 1,4-Difluorobenzene	114	10.825	10.819	0.006	96	2542377	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.161	17.156	0.005	90	2111167	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.927	19.925	0.002	90	1695064	4.08	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	93	189525	3.55	
7 Propene	41	3.416	3.417	-0.001	99	677975	3.25	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	100	1806104	3.62	
9 Chloromethane	52	3.621	3.622	-0.001	99	266829	3.63	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.631	3.634	-0.003	93	1334827	3.74	
11 Acetaldehyde	44	3.766	3.766	0.0	95	1704135	7.51	
12 Vinyl chloride	62	3.782	3.784	-0.002	99	824704	3.66	
14 Butadiene	54	3.869	3.871	-0.002	97	683582	3.61	
13 Butane	43	3.869	3.872	-0.003	88	1316164	3.51	
15 Bromomethane	94	4.176	4.178	-0.002	99	675275	3.57	
16 Chloroethane	64	4.316	4.319	-0.003	99	417815	3.67	
17 Ethanol	31	4.446	4.437	0.009	91	1528437	18.2	
18 Vinyl bromide	106	4.624	4.621	0.003	98	684664	3.75	
19 2-Methylbutane	43	4.683	4.682	0.001	92	1066827	3.74	
21 Acrolein	56	4.893	4.893	0.0	92	370297	3.65	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	99	1878183	3.82	
22 Acetonitrile	40	4.953	4.955	-0.002	100	374364	3.93	
23 Acetone	58	5.017	5.018	-0.001	84	606426	0.9659	
24 Pentane	72	5.130	5.131	-0.001	95	152828	3.79	
25 Isopropyl alcohol	45	5.130	5.132	-0.002	52	1429277	3.72	
26 Ethyl ether	31	5.292	5.298	-0.006	94	1006103	3.76	
27 1,1-Dichloroethene	96	5.610	5.610	0.0	94	597429	3.76	
28 Acrylonitrile	53	5.697	5.699	-0.002	95	678084	3.84	
29 2-Methyl-2-propanol	59	5.729	5.736	-0.007	93	1571340	4.01	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.805	5.805	0.0	95	1270272	3.82	
31 Methylene Chloride	84	5.950	5.951	-0.001	93	569295	3.65	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.972	5.972	0.0	91	712008	3.89	
33 Carbon disulfide	76	6.112	6.114	-0.002	99	2097643	3.88	
34 trans-1,2-Dichloroethene	96	6.786	6.784	0.002	95	729234	3.72	
35 2-Methylpentane	43	6.829	6.828	0.001	97	2128321	3.88	
36 Methyl tert-butyl ether	73	6.926	6.935	-0.009	98	2031281	3.82	
37 1,1-Dichloroethane	63	7.201	7.199	0.002	99	1359487	3.86	
38 Vinyl acetate	43	7.320	7.320	0.0	100	2275234	3.97	
39 2-Butanone (MEK)	72	7.762	7.763	-0.001	98	379816	3.34	
40 Hexane	56	7.832	7.830	0.002	88	739901	3.78	
41 cis-1,2-Dichloroethene	96	8.204	8.201	0.003	98	688848	3.80	
42 Ethyl acetate	43	8.404	8.410	-0.006	98	2077434	3.98	
43 Chloroform	83	8.560	8.555	0.005	94	1420734	3.85	
44 Tetrahydrofuran	42	8.959	8.967	-0.008	94	1071644	3.78	
45 1,1,1-Trichloroethane	97	9.606	9.603	0.003	96	1412036	3.91	
46 1,2-Dichloroethane	62	9.692	9.691	0.001	95	1089031	3.89	
49 n-Butanol	31	10.199	10.210	-0.011	62	336131	4.12	
47 Benzene	78	10.226	10.220	0.006	97	2144154	3.82	
48 Cyclohexane	69	10.242	10.239	0.003	93	359921	3.80	
50 Carbon tetrachloride	117	10.259	10.255	0.004	94	1495437	3.99	
51 2,3-Dimethylpentane	71	10.399	10.393	0.006	90	472890	3.88	
52 Thiophene	84	10.512	10.504	0.008	98	1308649	3.89	
53 Isooctane	57	11.111	11.110	0.001	98	4394059	3.85	
54 n-Heptane	71	11.553	11.550	0.003	94	802412	3.74	
55 1,2-Dichloropropane	63	11.580	11.576	0.004	83	880711	3.86	
56 Trichloroethene	130	11.639	11.636	0.003	95	912599	3.80	
57 Dibromomethane	93	11.704	11.702	0.002	94	852648	3.87	
58 Dichlorobromomethane	83	11.898	11.895	0.003	98	1616845	4.05	
59 1,4-Dioxane	88	11.914	11.918	-0.004	94	357320	4.05	
60 Methyl methacrylate	41	12.044	12.045	-0.001	95	1350095	4.09	
61 Methylcyclohexane	83	12.594	12.594	0.0	90	1335281	3.86	
62 4-Methyl-2-pentanone (MIBK)	43	13.100	13.106	-0.006	98	2288723	3.88	
63 cis-1,3-Dichloropropene	75	13.160	13.159	0.001	96	1204706	3.97	
64 trans-1,3-Dichloropropene	75	14.093	14.092	0.001	98	1217479	4.05	
65 Toluene	91	14.276	14.269	0.007	93	2494959	3.82	
66 1,1,2-Trichloroethane	83	14.357	14.354	0.003	98	745194	3.88	
67 2-Methylthiophene	97	14.475	14.472	0.003	98	2169550	3.90	
68 3-Methylthiophene	97	14.756	14.754	0.002	99	2197601	3.88	
69 2-Hexanone	58	14.939	14.940	-0.001	92	1166727	4.27	
71 Chlorodibromomethane	129	15.338	15.334	0.004	76	1492161	4.24	
70 n-Octane	85	15.338	15.335	0.003	96	845267	3.59	
72 Ethylene Dibromide	107	15.753	15.750	0.003	98	1347021	3.99	
73 Tetrachloroethene	129	15.910	15.910	0.0	95	858234	3.84	
74 Chlorobenzene	112	17.231	17.232	-0.001	91	1918625	3.67	
75 2,3-Dimethylheptane	43	17.393	17.390	0.003	95	3117038	3.87	
76 Ethylbenzene	91	17.738	17.734	0.004	99	3059129	3.76	
77 2-Ethylthiophene	97	17.894	17.891	0.003	99	2376566	3.84	
78 m-Xylene & p-Xylene	91	18.013	18.011	0.002	98	4951594	7.67	
79 Bromoform	173	18.665	18.662	0.003	96	1466031	4.37	
80 Styrene	104	18.779	18.776	0.003	97	1886727	4.15	
81 n-Nonane	57	18.849	18.845	0.004	95	2155419	3.93	
82 o-Xylene	91	18.881	18.879	0.002	97	2514471	3.77	
83 1,1,2,2-Tetrachloroethane	83	19.420	19.422	-0.002	99	2074761	4.13	

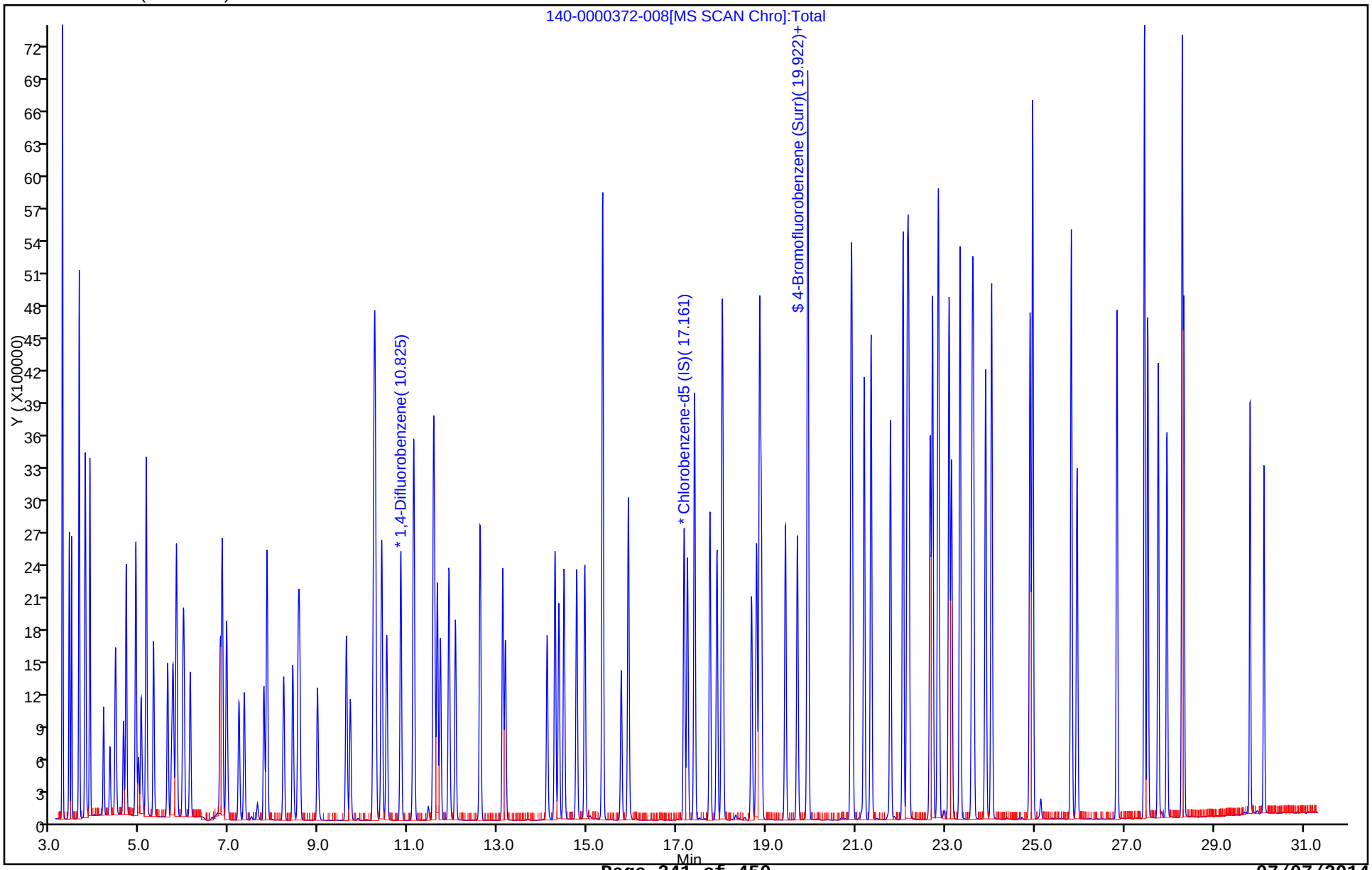
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.690	19.688	0.002	95	610443	3.95	
85 Isopropylbenzene	105	19.922	19.919	0.003	97	3910860	3.82	
86 N-Propylbenzene	120	20.892	20.891	0.001	97	1096085	3.93	
87 2-Chlorotoluene	126	20.914	20.915	-0.001	92	899846	3.75	
88 4-Ethyltoluene	105	21.184	21.182	0.002	98	4140876	3.94	
89 1,3,5-Trimethylbenzene	120	21.340	21.337	0.003	92	1871245	4.00	
90 Alpha Methyl Styrene	118	21.771	21.770	0.001	86	1692897	4.55	
91 n-Decane	57	22.057	22.050	0.007	88	2899818	3.84	
92 tert-Butylbenzene	119	22.154	22.149	0.005	89	3635174	3.99	
93 1,2,4-Trimethylbenzene	105	22.181	22.179	0.002	96	3511155	4.05	
94 1,3-Dichlorobenzene	146	22.661	22.660	0.001	98	2272436	3.90	
95 sec-Butylbenzene	105	22.715	22.710	0.005	99	5220359	4.04	
96 Benzyl chloride	91	22.834	22.831	0.003	97	3255258	4.58	
97 1,4-Dichlorobenzene	146	22.850	22.847	0.003	92	2314541	3.94	
98 4-Isopropyltoluene	119	23.082	23.081	0.001	95	4529433	4.09	
99 1,2,3-Trimethylbenzene	105	23.136	23.134	0.002	99	3163809	4.05	
100 Butylcyclohexane	83	23.330	23.327	0.003	90	2812741	4.04	
101 1,2-Dichlorobenzene	146	23.599	23.598	0.001	94	2227883	3.96	
102 2,3-Dihydroindene	117	23.626	23.625	0.001	90	3145786	3.99	
103 Indene	116	23.901	23.898	0.003	88	3328692	4.30	
104 n-Butylbenzene	91	24.036	24.031	0.005	98	4248256	4.13	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	98	4269771	4.11	
106 Undecane	57	24.953	24.950	0.003	96	3537200	4.30	
107 1,2,4,5-Tetramethylbenzene	119	25.816	25.814	0.002	97	4488609	4.14	
108 1,2,3,5-Tetramethylbenzene	119	25.945	25.942	0.003	95	2770367	4.08	
109 1,2,3,4-Tetramethylbenzene	119	26.840	26.837	0.003	97	3734329	4.12	
110 Dodecane	57	27.455	27.451	0.004	94	3386466	4.30	
111 1,2,4-Trichlorobenzene	180	27.525	27.524	0.001	91	1935485	4.08	
112 Naphthalene	128	27.762	27.760	0.002	99	4360329	4.16	
113 Benzo(b)thiophene	134	27.956	27.953	0.003	99	3478243	4.21	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	85	1755059	3.93	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	90	1833316	4.08	
116 2-Methylnaphthalene	142	29.817	29.812	0.005	100	2220866	27.9	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	100	1820779	27.3	
A 118 C6 Range	1	7.853	7.773 -	7.902	0	6312165	3.31	
A 119 Toluene Range	1	14.297	14.195 -	14.389	0	11282453	4.57	
A 120 C8 Range	1	15.344	15.268 -	15.419	0	14290611	3.76	
S 124 Xylenes, Total	100				0		11.4	

Report Date: 23-Jan-2014 16:19:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-008.D				
Injection Date:	21-Jan-2014 22:24:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L7	Lab Sample ID:		Worklist Smp#:	8
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

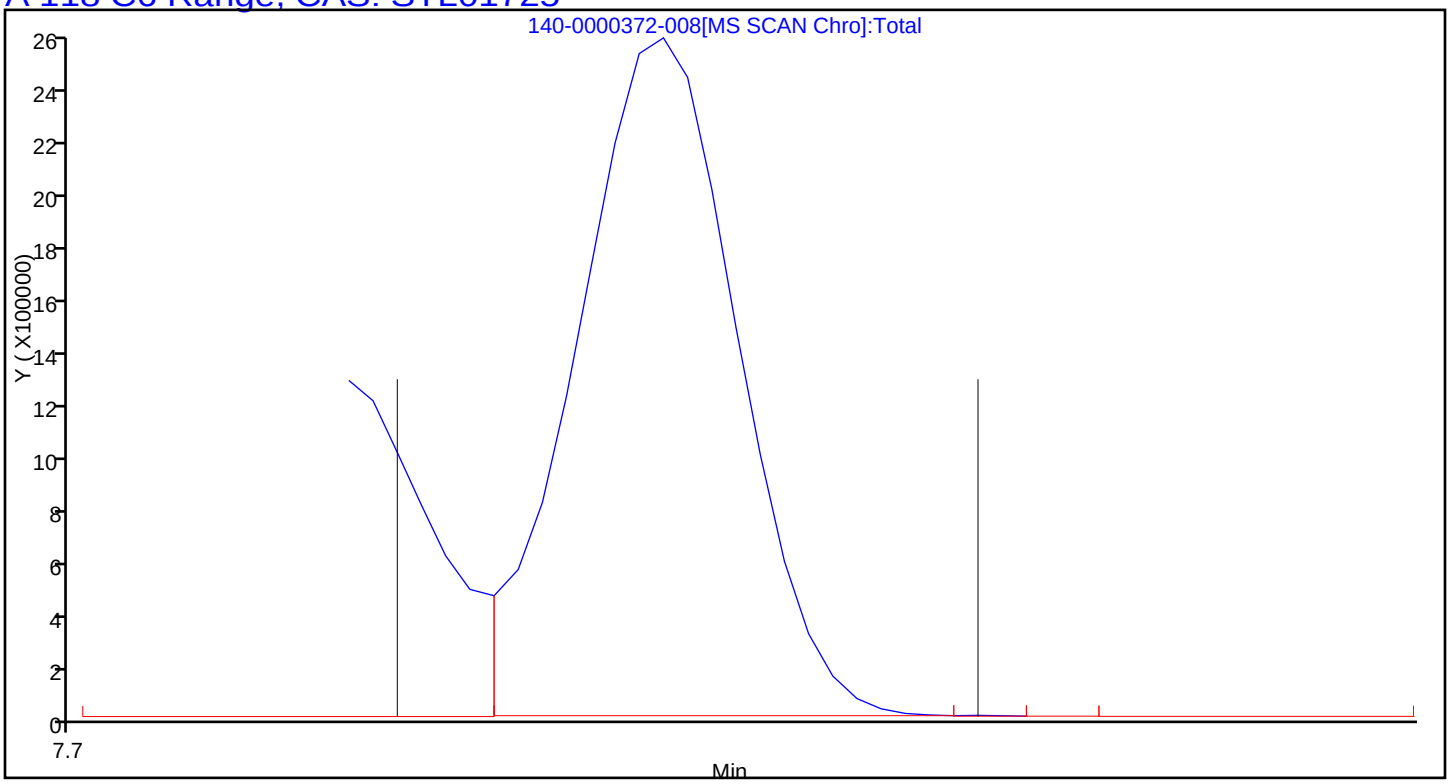


Report Date: 23-Jan-2014 16:19:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-008.D				
Injection Date:	21-Jan-2014 22:24:30	Instrument ID:	MR		
Lims ID:	IC L7	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

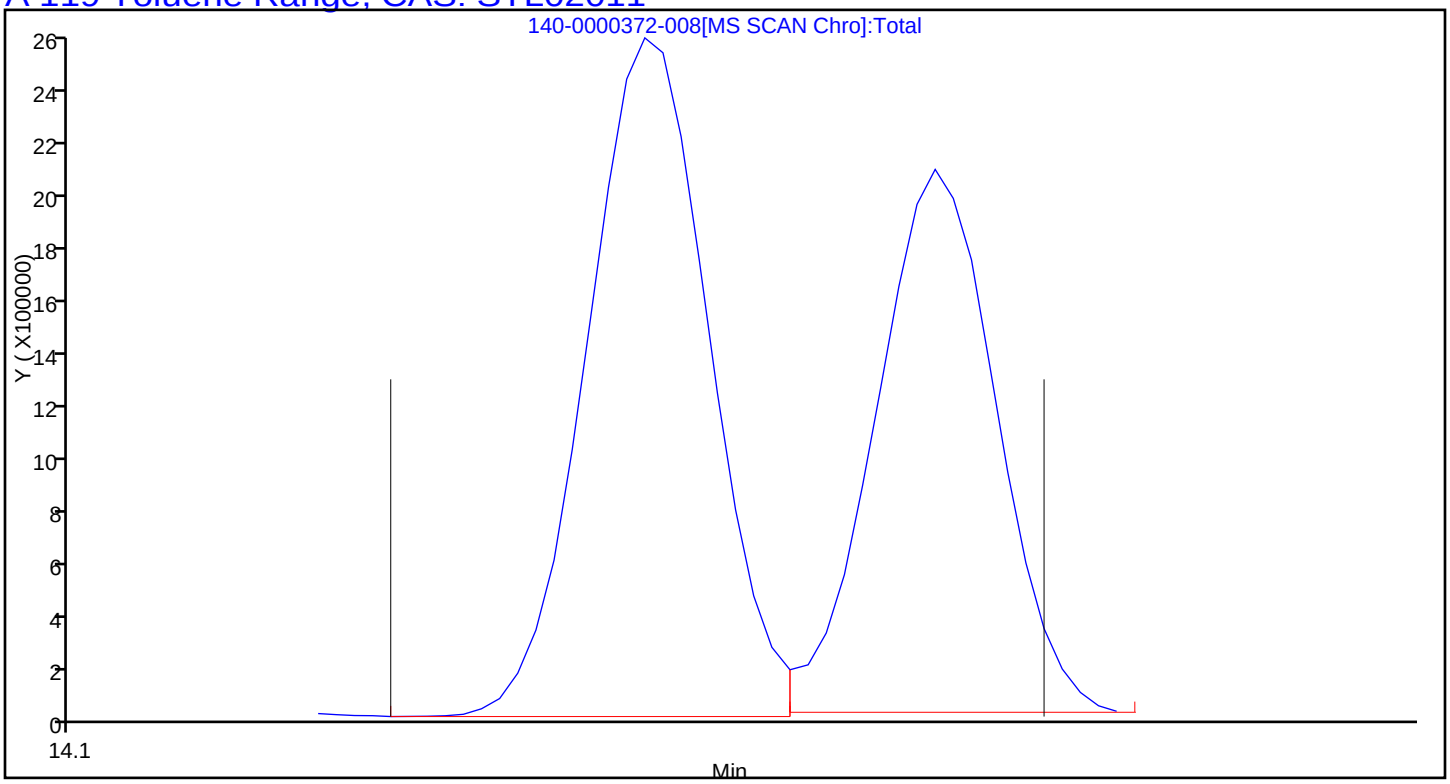


Report Date: 23-Jan-2014 16:19:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-008.D				
Injection Date:	21-Jan-2014 22:24:30	Instrument ID:	MR		
Lims ID:	IC L7	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

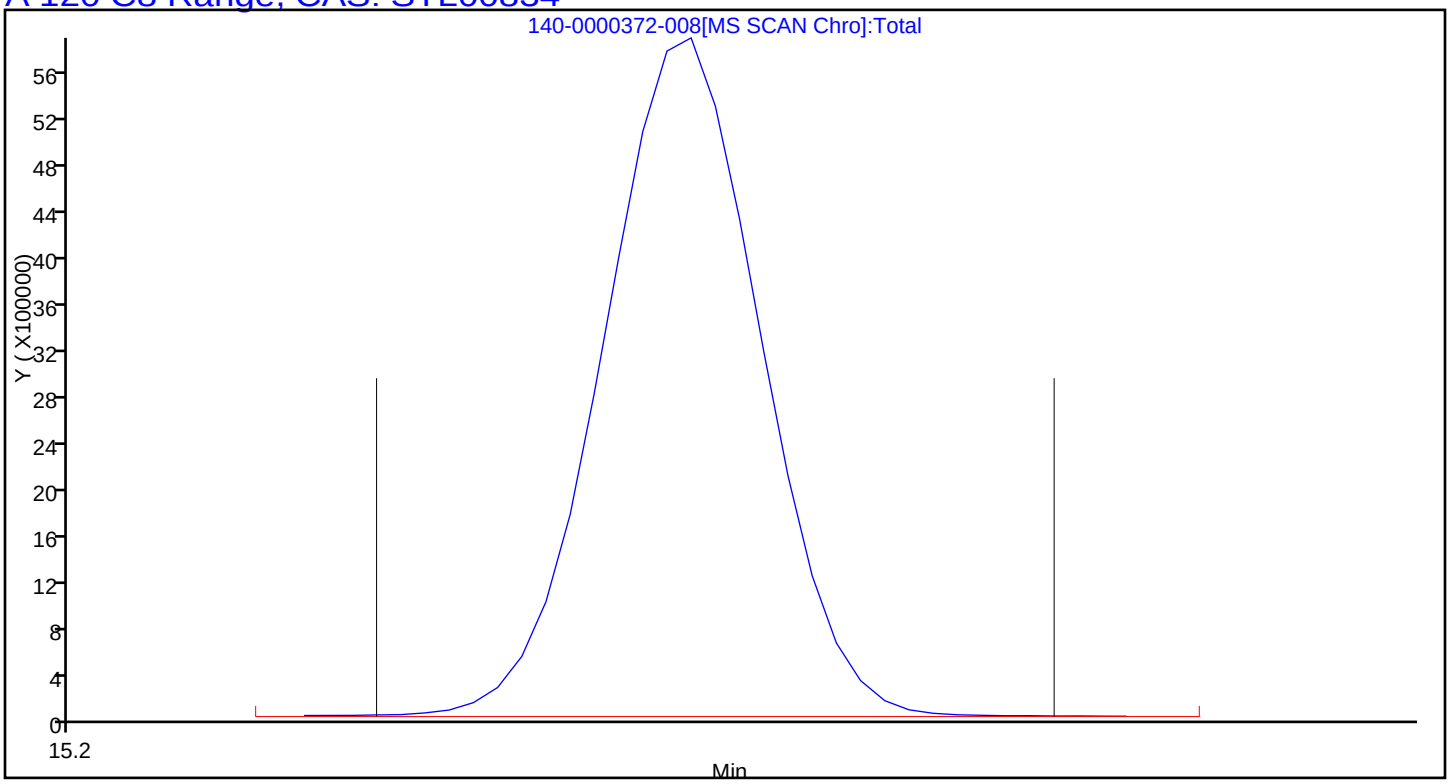


Report Date: 23-Jan-2014 16:19:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-008.D				
Injection Date:	21-Jan-2014 22:24:30	Instrument ID:	MR		
Lims ID:	IC L7	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-009.D
Lims ID: IC L8 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 21-Jan-2014 23:13:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l8
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:20:07 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:20:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.539	8.527	0.012	93	519146	4.00	
* 2 1,4-Difluorobenzene	114	10.825	10.819	0.006	96	2615959	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.161	17.156	0.005	86	2155167	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.927	19.925	0.002	88	1657672	3.90	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	93	383917	6.88	
7 Propene	41	3.416	3.417	-0.001	98	1388816	6.37	
8 Dichlorodifluoromethane	85	3.459	3.461	-0.002	100	3665312	7.03	
9 Chloromethane	52	3.621	3.622	-0.001	99	538957	7.00	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.632	3.634	-0.002	93	2741426	7.34	
11 Acetaldehyde	44	3.766	3.766	0.0	93	3252841	13.7	
12 Vinyl chloride	62	3.783	3.784	-0.002	99	1672679	7.10	
14 Butadiene	54	3.869	3.871	-0.002	97	1379269	6.96	
13 Butane	43	3.869	3.872	-0.003	89	2629992	6.71	
15 Bromomethane	94	4.176	4.178	-0.002	99	1402517	7.10	
16 Chloroethane	64	4.322	4.319	0.003	99	854738	7.17	
17 Ethanol	31	4.451	4.437	0.014	91	2991357	34.1	
18 Vinyl bromide	106	4.624	4.621	0.003	98	1427658	7.48	
19 2-Methylbutane	43	4.683	4.682	0.001	91	2158036	7.24	
21 Acrolein	56	4.899	4.893	0.006	87	838433	7.89	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	99	4029712	7.83	
22 Acetonitrile	40	4.958	4.955	0.003	100	830375	8.34	
23 Acetone	58	5.017	5.018	-0.001	84	1110514	1.69	
24 Pentane	72	5.131	5.131	0.0	96	323363	7.66	
25 Isopropyl alcohol	45	5.141	5.132	0.009	72	3005473	7.48	
26 Ethyl ether	31	5.292	5.298	-0.006	94	2205019	7.88	
27 1,1-Dichloroethene	96	5.611	5.610	0.001	94	1280379	7.71	
28 Acrylonitrile	53	5.708	5.699	0.009	95	1527509	8.27	
29 2-Methyl-2-propanol	59	5.735	5.736	-0.001	95	3350917	8.19	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.810	5.805	0.005	96	2766619	7.95	
31 Methylene Chloride	84	5.956	5.951	0.005	93	1216512	7.47	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.977	5.972	0.005	91	1522318	7.95	
33 Carbon disulfide	76	6.117	6.114	0.003	99	4513764	7.99	
34 trans-1,2-Dichloroethene	96	6.791	6.784	0.007	95	1574684	7.69	
35 2-Methylpentane	43	6.835	6.828	0.007	96	4555648	7.94	
36 Methyl tert-butyl ether	73	6.932	6.935	-0.003	97	4464258	8.04	
37 1,1-Dichloroethane	63	7.207	7.199	0.008	99	2924949	7.94	
38 Vinyl acetate	43	7.325	7.320	0.005	100	5209443	8.68	
39 2-Butanone (MEK)	72	7.762	7.763	-0.001	98	802740	6.74	
40 Hexane	56	7.838	7.830	0.008	87	1611707	7.87	
41 cis-1,2-Dichloroethene	96	8.210	8.201	0.009	98	1513772	7.99	
42 Ethyl acetate	43	8.409	8.410	-0.001	98	4498244	8.25	
43 Chloroform	83	8.566	8.555	0.011	96	3094108	8.01	
44 Tetrahydrofuran	42	8.959	8.967	-0.008	94	2345980	7.91	
45 1,1,1-Trichloroethane	97	9.612	9.603	0.009	97	3097796	8.21	
46 1,2-Dichloroethane	62	9.698	9.691	0.007	95	2363643	8.20	
49 n-Butanol	31	10.205	10.210	-0.005	60	725123	8.64	
47 Benzene	78	10.226	10.220	0.006	97	4710334	8.17	
48 Cyclohexane	69	10.243	10.239	0.004	93	783531	8.04	
50 Carbon tetrachloride	117	10.264	10.255	0.009	94	3276213	8.50	
51 2,3-Dimethylpentane	71	10.399	10.393	0.006	90	1039504	8.28	
52 Thiophene	84	10.512	10.504	0.008	98	2854257	8.25	
53 Isooctane	57	11.116	11.110	0.006	99	9709733	8.27	
54 n-Heptane	71	11.558	11.550	0.008	93	1782688	8.08	
55 1,2-Dichloropropane	63	11.580	11.576	0.004	84	1962116	8.35	
56 Trichloroethene	130	11.645	11.636	0.009	88	1998232	8.09	
57 Dibromomethane	93	11.709	11.702	0.007	94	1899946	8.38	
58 Dichlorobromomethane	83	11.898	11.895	0.003	98	3649717	8.90	
59 1,4-Dioxane	88	11.914	11.918	-0.004	95	761008	8.39	
60 Methyl methacrylate	41	12.049	12.045	0.004	96	2936848	8.65	
61 Methylcyclohexane	83	12.599	12.594	0.005	91	2915820	8.20	
62 4-Methyl-2-pentanone (MIBK)	43	13.106	13.106	0.0	98	4983522	8.20	
63 cis-1,3-Dichloropropene	75	13.165	13.159	0.006	95	2744994	8.79	
64 trans-1,3-Dichloropropene	75	14.098	14.092	0.006	98	2805549	9.15	
65 Toluene	91	14.276	14.269	0.007	93	5651797	8.47	
66 1,1,2-Trichloroethane	83	14.362	14.354	0.008	98	1692689	8.64	
67 2-Methylthiophene	97	14.476	14.472	0.004	98	4922137	8.67	
68 3-Methylthiophene	97	14.761	14.754	0.007	100	5024667	8.68	
69 2-Hexanone	58	14.939	14.940	-0.001	92	2545403	9.12	
71 Chlorodibromomethane	129	15.338	15.334	0.004	78	3461156	9.63	
70 n-Octane	85	15.338	15.335	0.003	94	1920092	7.98	
72 Ethylene Dibromide	107	15.759	15.750	0.009	98	3078496	8.93	
73 Tetrachloroethene	129	15.915	15.910	0.005	96	1918467	8.41	
74 Chlorobenzene	112	17.236	17.232	0.004	92	4301423	8.06	
75 2,3-Dimethylheptane	43	17.393	17.390	0.003	95	6820807	8.30	
76 Ethylbenzene	91	17.738	17.734	0.004	99	6722784	8.09	
77 2-Ethylthiophene	97	17.894	17.891	0.003	98	5251689	8.30	
78 m-Xylene & p-Xylene	91	18.018	18.011	0.007	98	10830154	16.4	
79 Bromoform	173	18.671	18.662	0.009	96	3348355	9.79	
80 Styrene	104	18.779	18.776	0.003	98	4146450	8.93	
81 n-Nonane	57	18.849	18.845	0.004	95	4625808	8.25	
82 o-Xylene	91	18.881	18.879	0.002	97	5434192	7.99	
83 1,1,2,2-Tetrachloroethane	83	19.426	19.422	0.004	99	4530909	8.84	

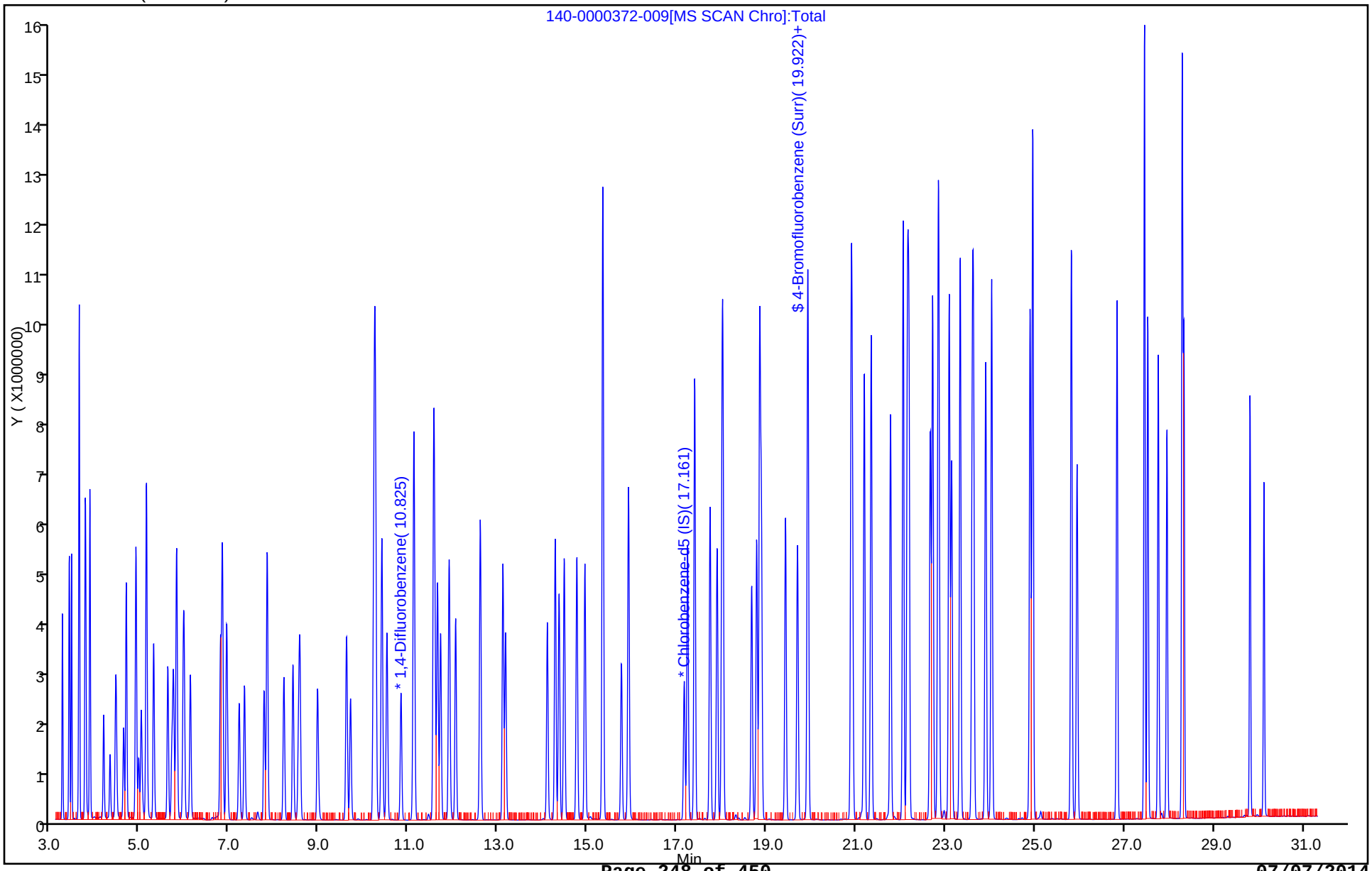
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.695	19.688	0.007	96	1306041	8.28	
85 Isopropylbenzene	105	19.922	19.919	0.003	96	8297948	7.94	
86 N-Propylbenzene	120	20.898	20.891	0.007	97	2347273	8.25	
87 2-Chlorotoluene	126	20.919	20.915	0.004	93	1916410	7.82	
88 4-Ethyltoluene	105	21.189	21.182	0.007	99	8991959	8.38	
89 1,3,5-Trimethylbenzene	120	21.345	21.337	0.008	92	4089459	8.57	
90 Alpha Methyl Styrene	118	21.777	21.770	0.007	86	3799806	10.0	
91 n-Decane	57	22.057	22.050	0.007	88	6347936	8.23	
92 tert-Butylbenzene	119	22.154	22.149	0.005	88	8006175	8.62	
93 1,2,4-Trimethylbenzene	105	22.187	22.179	0.008	96	7688505	8.69	
94 1,3-Dichlorobenzene	146	22.667	22.660	0.007	98	5013130	8.42	
95 sec-Butylbenzene	105	22.715	22.710	0.005	98	11401367	8.63	
96 Benzyl chloride	91	22.839	22.831	0.008	97	7270056	10.0	
97 1,4-Dichlorobenzene	146	22.855	22.847	0.008	93	5116956	8.53	
98 4-Isopropyltoluene	119	23.087	23.081	0.006	97	9970812	8.82	
99 1,2,3-Trimethylbenzene	105	23.141	23.134	0.007	99	6891651	8.64	
100 Butylcyclohexane	83	23.335	23.327	0.008	91	6139848	8.63	
101 1,2-Dichlorobenzene	146	23.605	23.598	0.007	94	4886017	8.50	
102 2,3-Dihydroindene	117	23.626	23.625	0.001	90	6873229	8.55	
103 Indene	116	23.901	23.898	0.003	88	7446713	9.43	
104 n-Butylbenzene	91	24.036	24.031	0.005	98	9248468	8.81	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	97	9335313	8.80	
106 Undecane	57	24.953	24.950	0.003	96	7558659	8.99	
107 1,2,4,5-Tetramethylbenzene	119	25.821	25.814	0.007	97	9702773	8.77	
108 1,2,3,5-Tetramethylbenzene	119	25.945	25.942	0.003	95	5976665	8.62	
109 1,2,3,4-Tetramethylbenzene	119	26.840	26.837	0.003	97	8077878	8.73	
110 Dodecane	57	27.455	27.451	0.004	95	7220626	8.98	
111 1,2,4-Trichlorobenzene	180	27.525	27.524	0.001	94	4249934	8.78	
112 Naphthalene	128	27.762	27.760	0.002	99	9416429	8.81	
113 Benzo(b)thiophene	134	27.957	27.953	0.003	99	7484531	8.87	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	85	3905184	8.57	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	91	3940017	8.58	
116 2-Methylnaphthalene	142	29.811	29.812	-0.001	100	4787031	59.0	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	100	3816871	56.1	
A 118 C6 Range	1	7.853	7.773 -	7.902	0	13738196	7.01	
A 119 Toluene Range	1	14.286	14.201 -	14.362	0	25672347	10.1	
A 120 C8 Range	1	15.338	15.274 -	15.403	0	31410019	8.04	
S 124 Xylenes, Total	100				0		24.4	

Report Date: 23-Jan-2014 16:20:08 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-009.D				
Injection Date:	21-Jan-2014 23:13:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L8	Lab Sample ID:		Worklist Smp#:	9
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

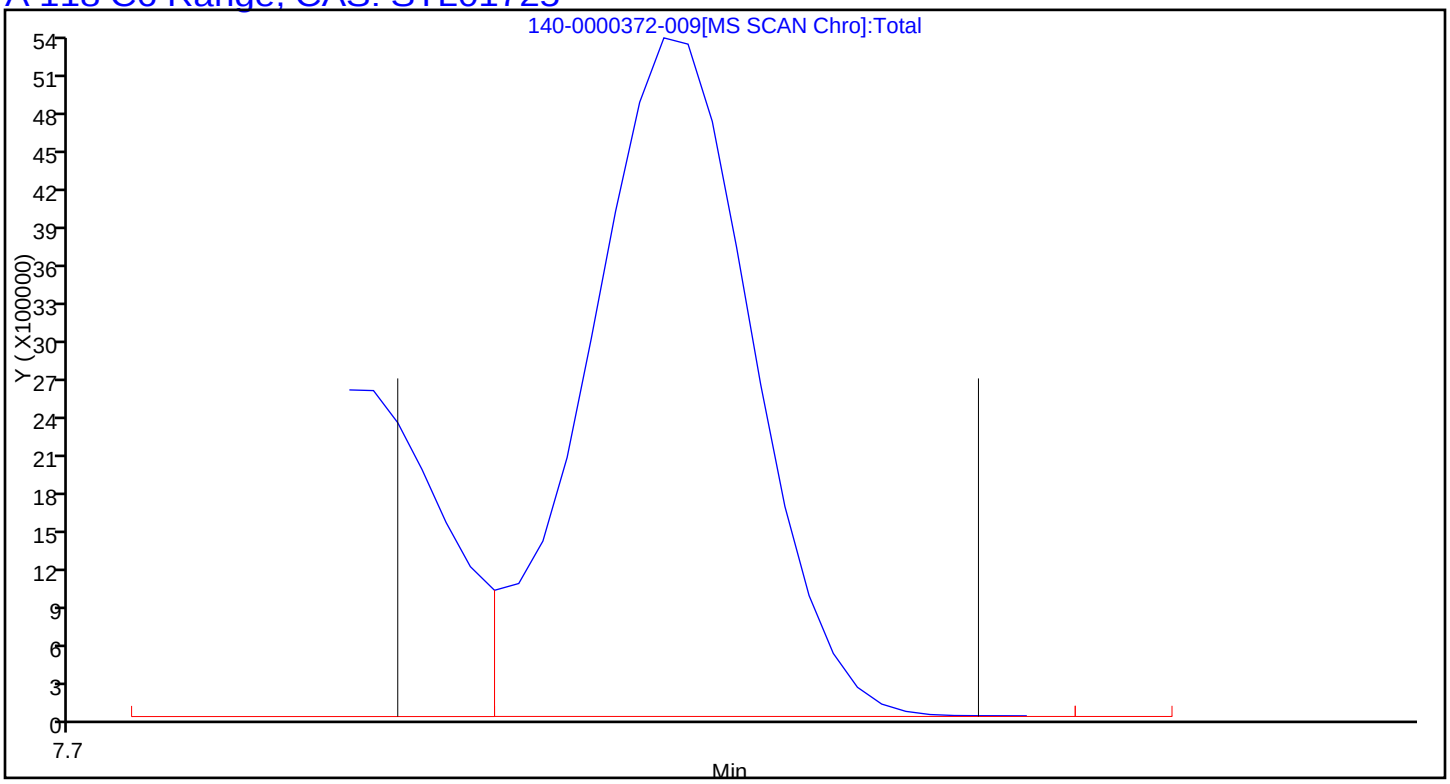


Report Date: 23-Jan-2014 16:20:08 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-009.D				
Injection Date:	21-Jan-2014 23:13:30	Instrument ID:	MR		
Lims ID:	IC L8	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725



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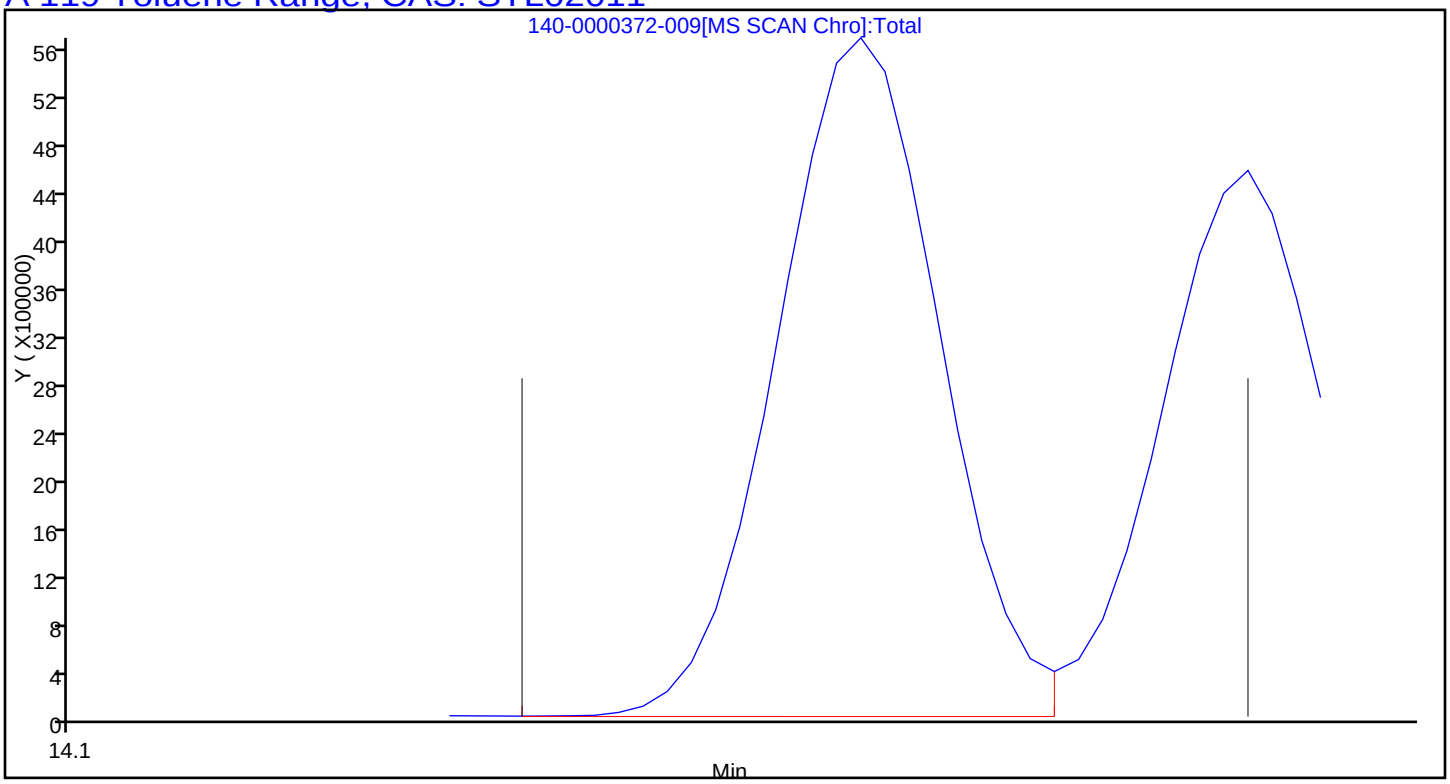
TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-009.D				
Injection Date:	21-Jan-2014 23:13:30	Instrument ID:	MR		
Lims ID:	IC L8	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

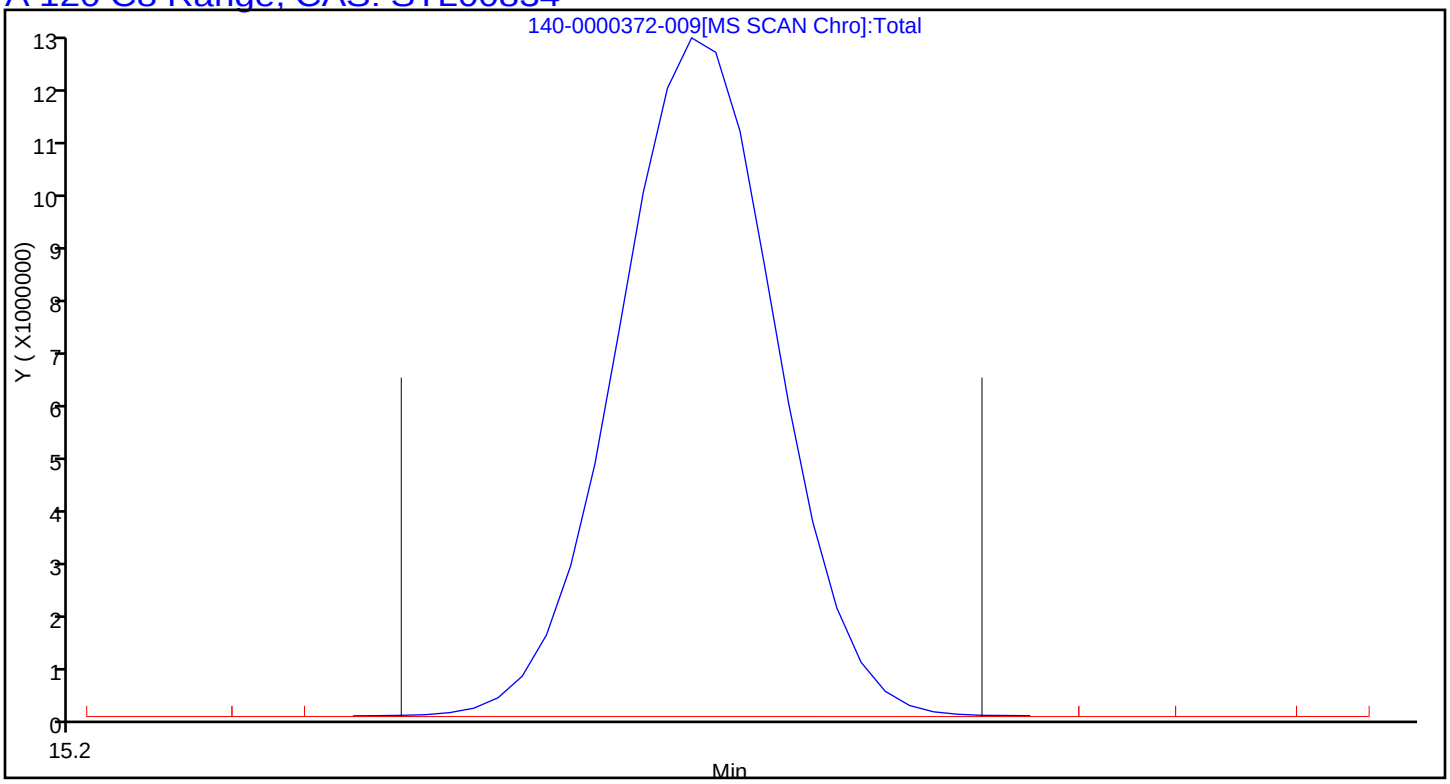


Report Date: 23-Jan-2014 16:20:08 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-009.D				
Injection Date:	21-Jan-2014 23:13:30	Instrument ID:	MR		
Lims ID:	IC L8	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D
Lims ID: IC L9 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 22-Jan-2014 00:00:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ic l9
Misc. Info.: R012114I,
Operator ID: 403648 Instrument ID: MR
Sublist: chrom-MR_TO15*sub2

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 23-Jan-2014 16:20:36 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: barlozhetskayaa Date: 23-Jan-2014 16:20:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.544	8.527	0.017	91	618569	4.00	
* 2 1,4-Difluorobenzene	114	10.836	10.819	0.017	96	3067740	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.161	17.156	0.005	85	2568116	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.933	19.925	0.008	91	2043832	4.04	
6 Chlorodifluoromethane	67	3.405	3.407	-0.002	96	775758	11.7	
7 Propene	41	3.416	3.417	-0.001	98	2615684	10.1	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	100	7822702	12.6	
9 Chloromethane	52	3.621	3.622	-0.001	99	1029235	11.2	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	92	5526469	12.4	
11 Acetaldehyde	44	3.772	3.766	0.006	92	5815631	20.6	
12 Vinyl chloride	62	3.788	3.784	0.004	99	3337115	11.9	
14 Butadiene	54	3.874	3.871	0.003	97	2781510	11.8	
13 Butane	43	3.874	3.872	0.002	88	5240628	11.2	
15 Bromomethane	94	4.181	4.178	0.003	99	2860449	12.1	
16 Chloroethane	64	4.327	4.319	0.008	99	1732990	12.2	
17 Ethanol	31	4.462	4.437	0.025	91	5507650	52.7	
18 Vinyl bromide	106	4.629	4.621	0.008	98	2919357	12.8	
19 2-Methylbutane	43	4.688	4.682	0.006	91	4310850	12.1	
21 Acrolein	56	4.904	4.893	0.011	82	1671381	13.2	
20 Trichlorofluoromethane	101	4.909	4.898	0.011	98	8470940	13.8	
22 Acetonitrile	40	4.969	4.955	0.014	100	1655942	14.0	
23 Acetone	58	5.028	5.018	0.010	90	1885545	2.41	
24 Pentane	72	5.136	5.131	0.005	96	685375	13.6	
25 Isopropyl alcohol	45	5.157	5.132	0.025	79	5909935	12.3	
26 Ethyl ether	31	5.303	5.298	0.005	95	4479274	13.4	
27 1,1-Dichloroethene	96	5.621	5.610	0.011	94	2725763	13.8	
28 Acrylonitrile	53	5.713	5.699	0.014	95	3175446	14.4	
29 2-Methyl-2-propanol	59	5.751	5.736	0.015	94	6801594	13.9	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.815	5.805	0.010	96	5856167	14.1	
31 Methylene Chloride	84	5.966	5.951	0.015	93	2574915	13.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.988	5.972	0.016	91	3102495	13.6	
33 Carbon disulfide	76	6.123	6.114	0.009	99	9570753	14.2	
34 trans-1,2-Dichloroethene	96	6.797	6.784	0.013	95	3333749	13.7	
35 2-Methylpentane	43	6.840	6.828	0.012	96	9416462	13.8	
36 Methyl tert-butyl ether	73	6.937	6.935	0.002	97	9299623	14.0	
37 1,1-Dichloroethane	63	7.217	7.199	0.018	99	6117161	13.9	
38 Vinyl acetate	43	7.336	7.320	0.016	100	10788310	15.1	
39 2-Butanone (MEK)	72	7.773	7.763	0.010	98	1621811	11.4	
40 Hexane	56	7.843	7.830	0.013	90	3375887	13.8	
41 cis-1,2-Dichloroethene	96	8.215	8.201	0.014	97	3183069	14.1	
42 Ethyl acetate	43	8.420	8.410	0.010	98	9130416	14.1	
43 Chloroform	83	8.571	8.555	0.016	96	6500051	14.1	
44 Tetrahydrofuran	42	8.970	8.967	0.003	95	4704300	13.3	
45 1,1,1-Trichloroethane	97	9.617	9.603	0.014	97	6517986	14.5	
46 1,2-Dichloroethane	62	9.703	9.691	0.012	96	4882126	14.4	
49 n-Butanol	31	10.210	10.210	0.0	60	1409619	14.3	
47 Benzene	78	10.237	10.220	0.017	97	9738908	14.4	
48 Cyclohexane	69	10.248	10.239	0.009	96	1602009	14.0	
50 Carbon tetrachloride	117	10.269	10.255	0.014	99	6979069	15.4	
51 2,3-Dimethylpentane	71	10.404	10.393	0.011	90	2185934	14.9	
52 Thiophene	84	10.517	10.504	0.013	98	6012656	14.8	
53 Isooctane	57	11.121	11.110	0.011	99	20177035	14.6	
54 n-Heptane	71	11.564	11.550	0.014	92	3708139	14.3	
55 1,2-Dichloropropane	63	11.591	11.576	0.015	85	4065194	14.8	
56 Trichloroethene	130	11.650	11.636	0.014	93	4233917	14.6	
57 Dibromomethane	93	11.720	11.702	0.018	93	4002957	15.1	
58 Dichlorobromomethane	83	11.909	11.895	0.014	98	7701142	16.0	
59 1,4-Dioxane	88	11.925	11.918	0.007	92	1498523	14.1	
60 Methyl methacrylate	41	12.054	12.045	0.009	96	5931448	14.9	
61 Methylcyclohexane	83	12.604	12.594	0.010	91	6144345	14.7	
62 4-Methyl-2-pentanone (MIBK)	43	13.117	13.106	0.011	97	10290598	14.4	
63 cis-1,3-Dichloropropene	75	13.170	13.159	0.011	94	5802900	15.8	
64 trans-1,3-Dichloropropene	75	14.103	14.092	0.011	99	5975743	16.4	
65 Toluene	91	14.281	14.269	0.012	94	11988079	15.1	
66 1,1,2-Trichloroethane	83	14.368	14.354	0.014	99	3578266	15.3	
67 2-Methylthiophene	97	14.486	14.472	0.014	98	10368724	15.3	
68 3-Methylthiophene	97	14.767	14.754	0.013	100	10634076	15.4	
69 2-Hexanone	58	14.945	14.940	0.005	93	5351334	16.1	
71 Chlorodibromomethane	129	15.344	15.334	0.010	91	7355570	17.2	
70 n-Octane	85	15.344	15.335	0.009	93	3934135	13.7	
72 Ethylene Dibromide	107	15.764	15.750	0.014	98	6645921	16.2	
73 Tetrachloroethene	129	15.921	15.910	0.011	96	4047132	14.9	
74 Chlorobenzene	112	17.236	17.232	0.004	92	9200516	14.5	
75 2,3-Dimethylheptane	43	17.398	17.390	0.008	96	13954704	14.3	
76 Ethylbenzene	91	17.743	17.734	0.009	98	14609775	14.8	
77 2-Ethylthiophene	97	17.894	17.891	0.003	98	11415890	15.1	
78 m-Xylene & p-Xylene	91	18.018	18.011	0.007	98	23321274	29.7	
79 Bromoform	173	18.671	18.662	0.009	97	7790500	19.1	
80 Styrene	104	18.784	18.776	0.008	98	9208954	16.7	
81 n-Nonane	57	18.849	18.845	0.004	93	9739462	14.6	
82 o-Xylene	91	18.886	18.879	0.007	97	11913857	14.7	
83 1,1,2,2-Tetrachloroethane	83	19.426	19.422	0.004	99	9567653	15.7	

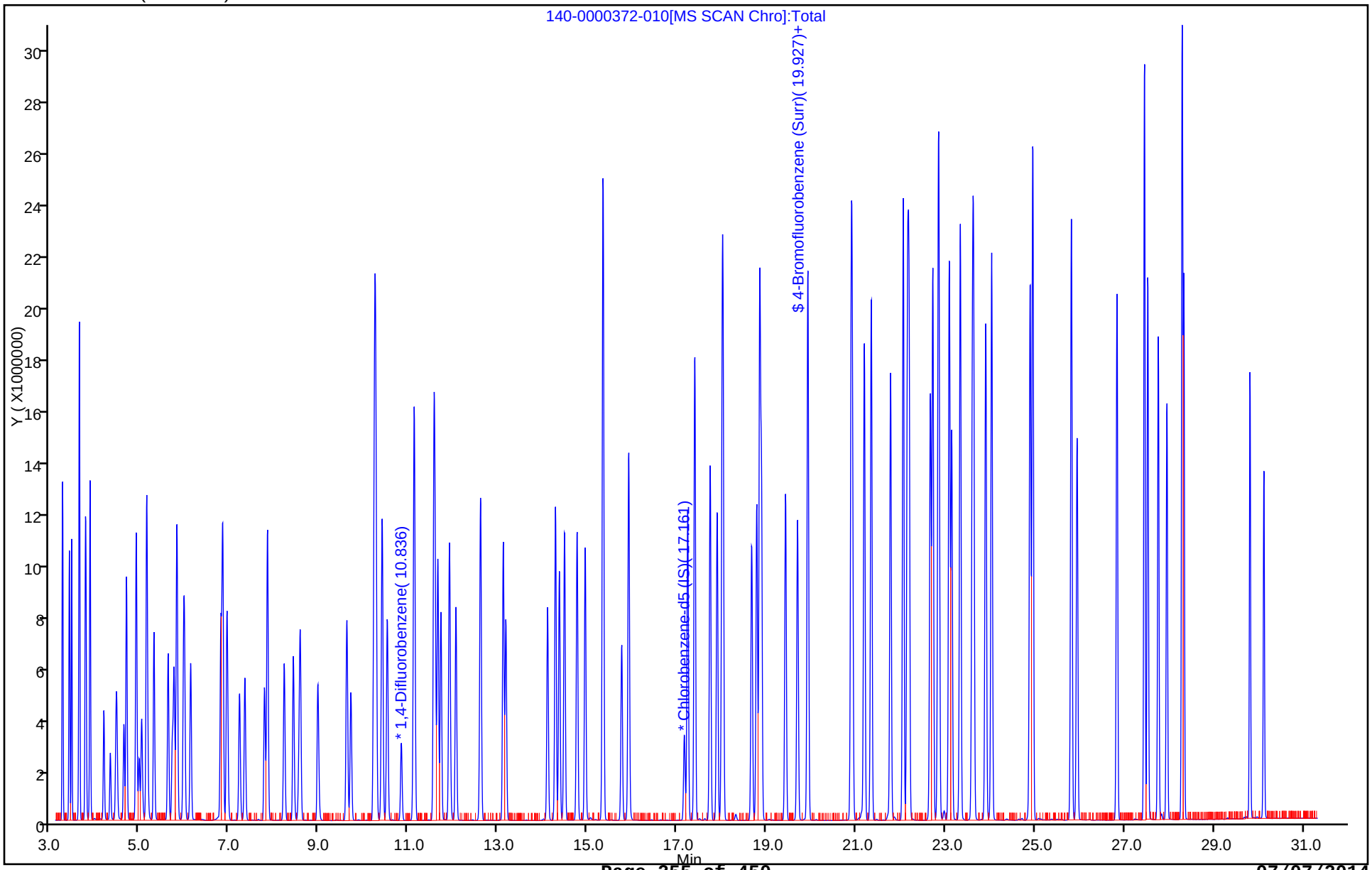
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
84 1,2,3-Trichloropropane	110	19.695	19.688	0.007	96	2744920	14.6	
85 Isopropylbenzene	105	19.927	19.919	0.008	96	17891050	14.4	
86 N-Propylbenzene	120	20.898	20.891	0.007	98	5042282	14.9	
87 2-Chlorotoluene	126	20.919	20.915	0.004	93	4212857	14.4	
88 4-Ethyltoluene	105	21.189	21.182	0.007	98	19067307	14.9	
89 1,3,5-Trimethylbenzene	120	21.345	21.337	0.008	92	8662363	15.2	
90 Alpha Methyl Styrene	118	21.777	21.770	0.007	87	8219777	18.2	
91 n-Decane	57	22.057	22.050	0.007	88	13043205	14.2	
92 tert-Butylbenzene	119	22.154	22.149	0.005	89	16645407	15.0	
93 1,2,4-Trimethylbenzene	105	22.187	22.179	0.008	92	16052420	15.2	
94 1,3-Dichlorobenzene	146	22.666	22.660	0.006	98	10741126	15.1	
95 sec-Butylbenzene	105	22.715	22.710	0.005	97	23068168	14.7	
96 Benzyl chloride	91	22.839	22.831	0.008	98	15316291	17.7	
97 1,4-Dichlorobenzene	146	22.855	22.847	0.008	94	10985109	15.4	
98 4-Isopropyltoluene	119	23.087	23.081	0.006	95	20707754	15.4	
99 1,2,3-Trimethylbenzene	105	23.141	23.134	0.007	99	14521699	15.3	
100 Butylcyclohexane	83	23.335	23.327	0.008	91	12760868	15.1	
101 1,2-Dichlorobenzene	146	23.605	23.598	0.007	95	10345234	15.1	
102 2,3-Dihydroindene	117	23.632	23.625	0.007	90	14575794	15.2	
103 Indene	116	23.901	23.898	0.003	89	15838377	16.8	
104 n-Butylbenzene	91	24.036	24.031	0.005	98	19007349	15.2	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.899	24.892	0.007	97	19298881	15.3	
106 Undecane	57	24.953	24.950	0.003	95	15019730	15.0	
107 1,2,4,5-Tetramethylbenzene	119	25.821	25.814	0.007	97	19977929	15.2	
108 1,2,3,5-Tetramethylbenzene	119	25.945	25.942	0.003	95	12528997	15.2	
109 1,2,3,4-Tetramethylbenzene	119	26.840	26.837	0.003	97	16552608	15.0	
110 Dodecane	57	27.455	27.451	0.004	96	13988502	14.6	
111 1,2,4-Trichlorobenzene	180	27.530	27.524	0.006	91	9042073	15.7	
112 Naphthalene	128	27.762	27.760	0.002	98	19269667	15.1	
113 Benzo(b)thiophene	134	27.956	27.953	0.003	99	15671829	15.6	
114 Hexachlorobutadiene	225	28.296	28.296	0.0	85	8391233	15.5	
115 1,2,3-Trichlorobenzene	180	28.334	28.333	0.001	90	8365157	15.3	
116 2-Methylnaphthalene	142	29.811	29.812	-0.001	100	9847978	101.9	
117 1-Methylnaphthalene	142	30.124	30.124	0.0	100	7720465	95.2	
A 118 C6 Range	1	7.821	7.730 -	7.913	0	40834449	17.8	
A 119 Toluene Range	1	14.265	14.200 -	14.362	0	29802249	10.0	
A 120 C8 Range	1	15.344	15.274 -	15.414	0	62527603	13.6	
S 124 Xylenes, Total	100				0		44.4	

Report Date: 23-Jan-2014 16:20:37 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Injection Date:	22-Jan-2014 00:00:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	IC L9	Lab Sample ID:		Worklist Smp#:	10
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

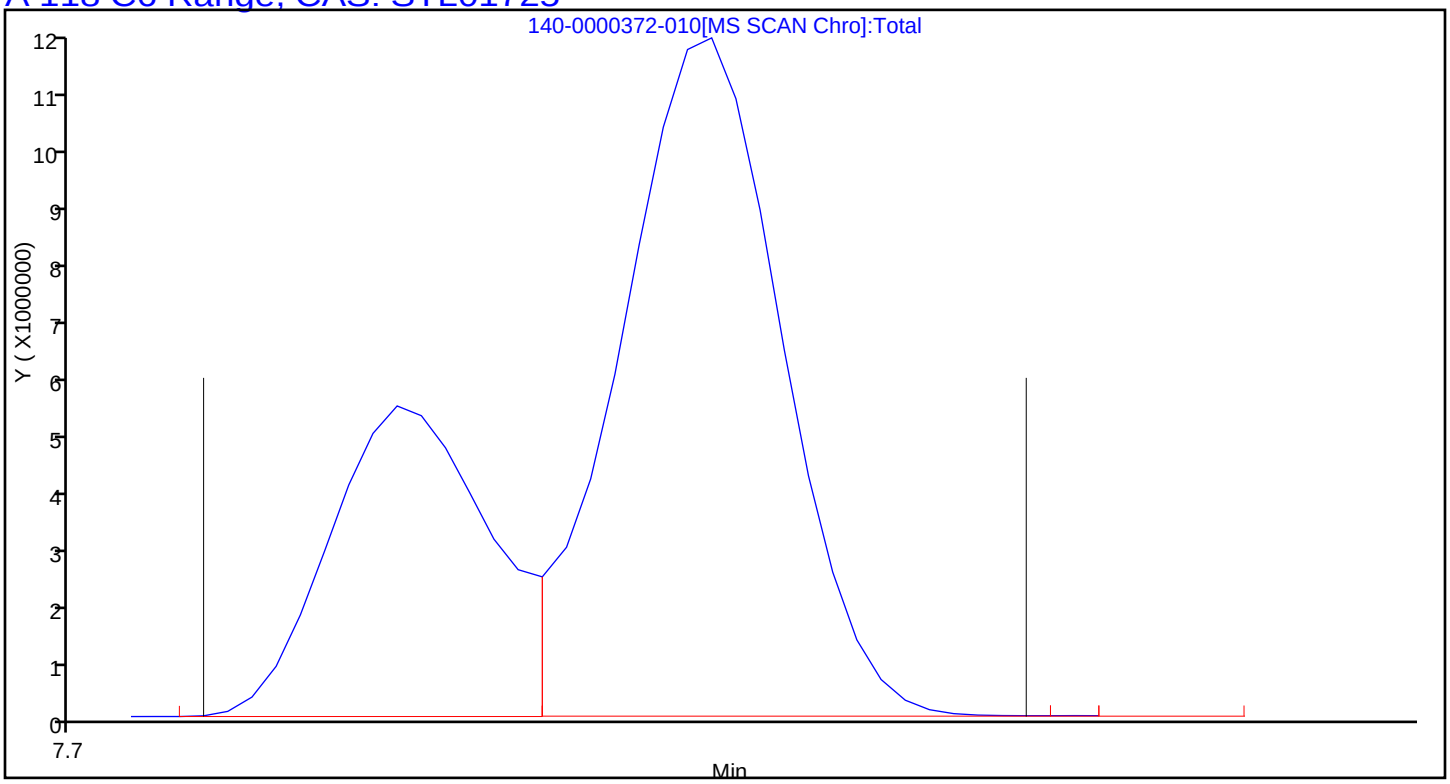


Report Date: 23-Jan-2014 16:20:37 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Injection Date:	22-Jan-2014 00:00:30	Instrument ID:	MR		
Lims ID:	IC L9	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 118 C6 Range, CAS: STL01725

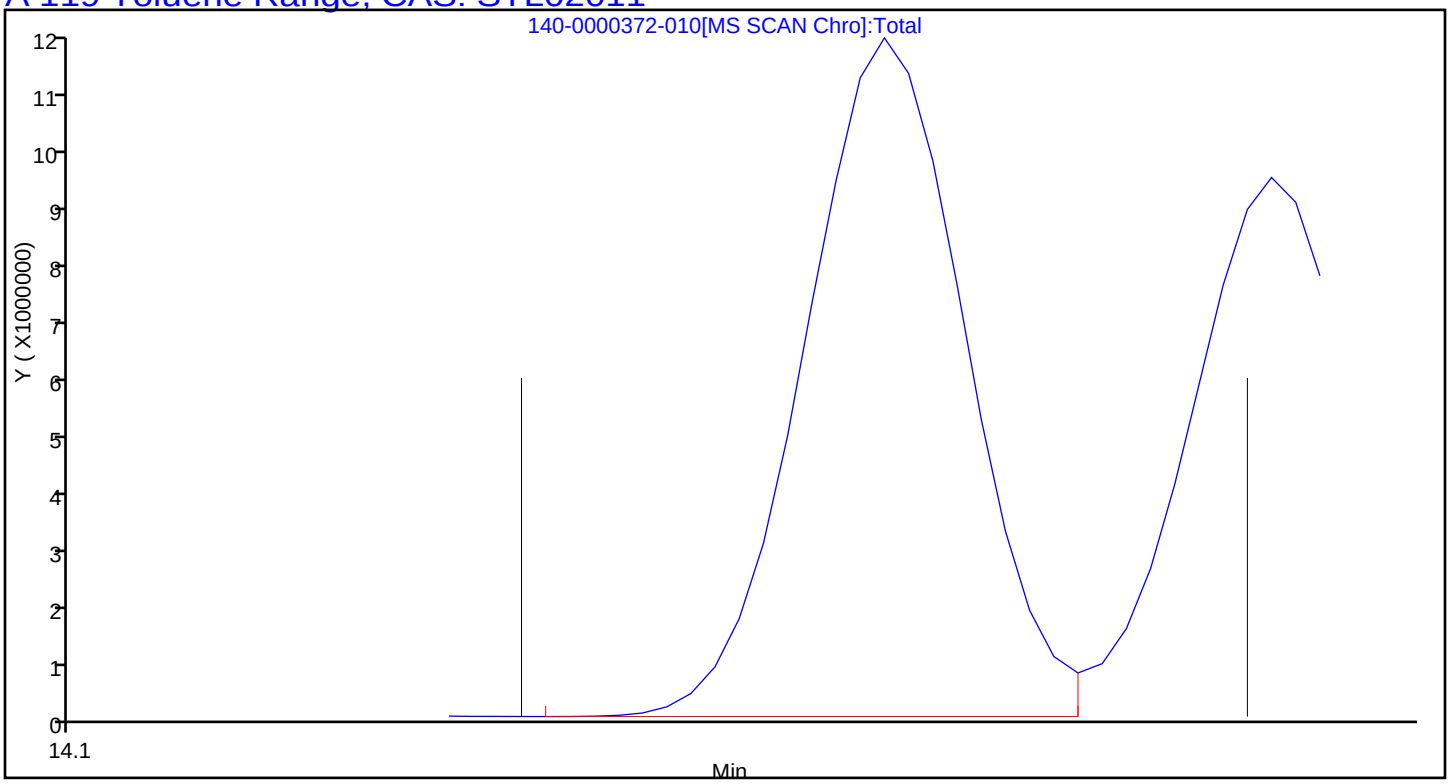


Report Date: 23-Jan-2014 16:20:37 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Injection Date:	22-Jan-2014 00:00:30	Instrument ID:	MR		
Lims ID:	IC L9	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 119 Toluene Range, CAS: STL02011

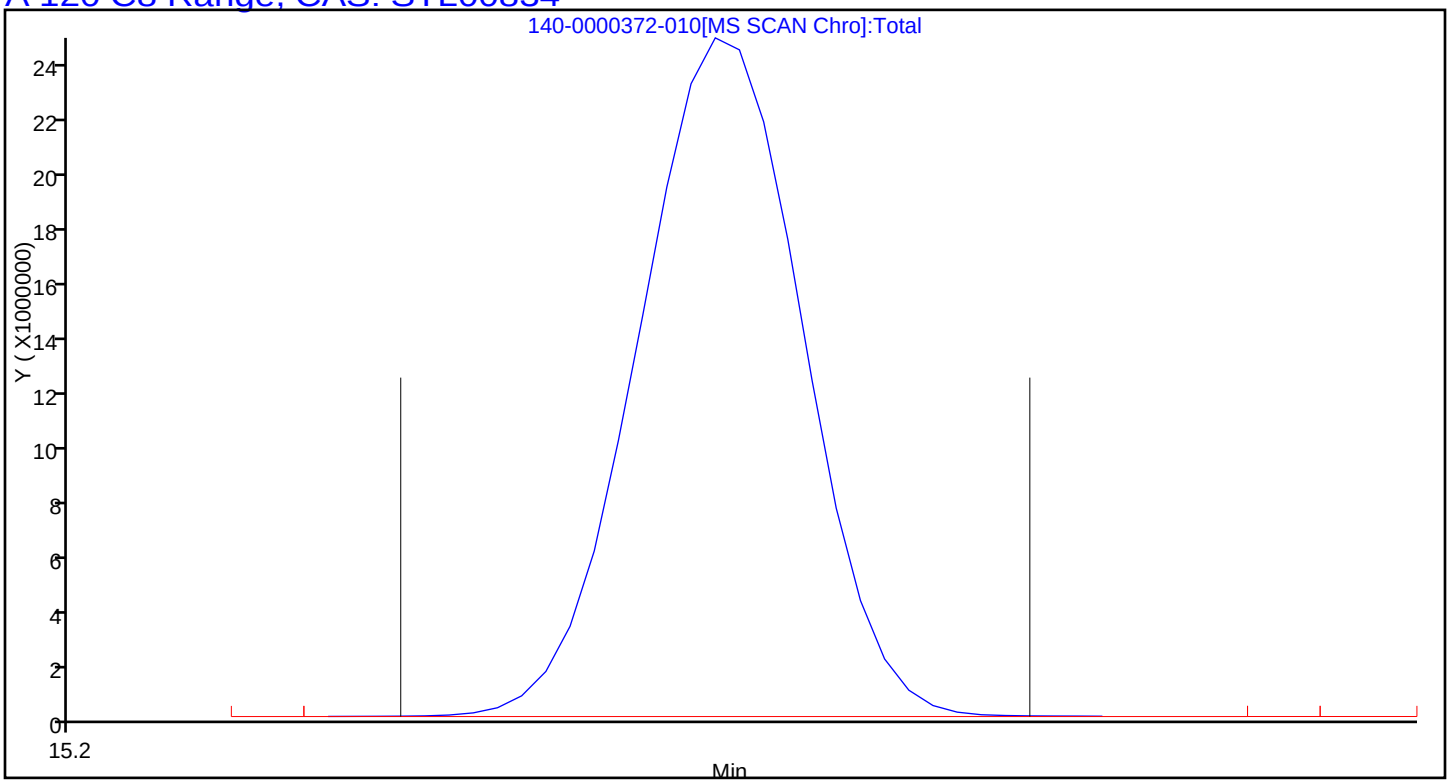


Report Date: 23-Jan-2014 16:20:37 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Injection Date:	22-Jan-2014 00:00:30	Instrument ID:	MR		
Lims ID:	IC L9	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

A 120 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: ICV 140-722/16 Calibration Date: 01/24/2014 11:35

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RICVA24a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.4302	0.4431		2.06	2.00	3.0	35.0
Propene	Ave	1.679	1.515		1.80	2.00	-9.8	35.0
Dichlorodifluoromethane	Ave	4.020	4.358		2.17	2.00	8.4	35.0
Chloromethane	Ave	0.5930	0.6228		2.10	2.00	5.0	35.0
1,2-Dichloro-1,1,2,2-tetrafl uoroethane	Ave	2.879	3.024		2.10	2.00	5.0	35.0
Vinyl chloride	Ave	1.816	1.887		2.08	2.00	3.9	35.0
1,3-Butadiene	Ave	1.527	1.610		2.11	2.00	5.4	35.0
Butane	Ave	3.020	3.010		1.99	2.00	-0.3	35.0
Bromomethane	Ave	1.523	1.468		1.93	2.00	-3.6	35.0
Chloroethane	Ave	0.9180	0.9168		2.00	2.00	-0.1	35.0
Ethanol	Ave	0.6757	0.5849		8.65	10.0	-13.5	80.0
Vinyl bromide	Ave	1.471	1.583		2.15	2.00	7.6	35.0
2-Methylbutane	Ave	2.298	2.348		2.04	2.00	2.2	35.0
Acrolein	Ave	0.8185	0.6600		1.61	2.00	-19.4	35.0
Trichlorofluoromethane	Ave	3.966	4.046		2.04	2.00	2.0	35.0
Acetonitrile	Ave	0.7674	0.7356		1.92	2.00	-4.1	35.0
Isopropyl alcohol	Ave	3.097	2.650		1.71	2.00	-14.4	35.0
Pentane	Ave	0.3251	0.3221		1.98	2.00	-0.9	35.0
Ethyl ether	Ave	2.157	1.928		1.79	2.00	-10.6	35.0
1,1-Dichloroethene	Ave	1.280	1.516		2.37	2.00	18.5	35.0
Acrylonitrile	Ave	1.424	1.411		1.98	2.00	-0.9	35.0
tert-Butyl alcohol	Ave	3.154	2.981		1.89	2.00	-5.5	35.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	2.682	3.168		2.36	2.00	18.1	35.0
Methylene Chloride	Ave	1.255	1.395		2.22	2.00	11.1	35.0
3-Chloropropene	Ave	1.475	1.471		2.00	2.00	-0.2	35.0
Carbon disulfide	Ave	4.355	4.578		2.10	2.00	5.1	35.0
trans-1,2-Dichloroethene	Ave	1.578	1.577		2.00	2.00	-0.0	35.0
2-Methylpentane	Ave	4.422	4.524		2.05	2.00	2.3	80.0
Methyl tert-butyl ether	Ave	4.280	4.041		1.89	2.00	-5.6	35.0
1,1-Dichloroethane	Ave	2.838	3.074		2.17	2.00	8.3	35.0
Vinyl acetate	Ave	4.623	4.582		1.98	2.00	-0.9	35.0
2-Butanone (MEK)	Ave	0.9176	0.7002		1.53	2.00	-23.7	35.0
Hexane	Ave	1.578	1.569		1.99	2.00	-0.6	35.0
cis-1,2-Dichloroethene	Ave	1.459	1.612		2.21	2.00	10.5	35.0
Ethyl acetate	Ave	4.202	3.884		1.85	2.00	-7.6	35.0
Chloroform	Ave	2.977	3.200		2.15	2.00	7.5	35.0
Tetrahydrofuran	Ave	2.285	2.084		1.82	2.00	-8.8	35.0
1,1,1-Trichloroethane	Ave	2.906	3.158		2.17	2.00	8.7	35.0
1,2-Dichloroethane	Ave	0.4407	0.4697		2.13	2.00	6.6	35.0
1-Butanol	Ave	0.1284	0.1144		1.78	2.00	-10.9	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: ICV 140-722/16 Calibration Date: 01/24/2014 11:35

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RICVA24a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzene	Ave	0.8820	0.9245		2.10	2.00	4.8	35.0
Cyclohexane	Ave	0.1490	0.1472		1.98	2.00	-1.2	35.0
Carbon tetrachloride	Ave	0.5896	0.6422		2.18	2.00	8.9	35.0
2,3-Dimethylpentane	Ave	0.1919	0.1975		2.06	2.00	2.9	80.0
Thiophene	Ave	0.5288	0.5486		2.07	2.00	3.7	80.0
2,2,4-Trimethylpentane	Ave	1.796	1.772		1.97	2.00	-1.3	35.0
Heptane	Ave	0.3372	0.3280		1.95	2.00	-2.7	35.0
1,2-Dichloropropane	Ave	0.3592	0.3655		2.03	2.00	1.7	35.0
Trichloroethene	Ave	0.3777	0.3966		2.10	2.00	5.0	35.0
Dibromomethane	Ave	0.3465	0.3431		1.98	2.00	-1.0	35.0
Bromodichloromethane	Ave	0.6274	0.6475		2.06	2.00	3.2	35.0
1,4-Dioxane	Ave	0.1387	0.1253		1.81	2.00	-9.7	35.0
Methyl methacrylate	Ave	0.5194	0.4705		1.81	2.00	-9.4	35.0
Methylcyclohexane	Ave	0.5440	0.5503		2.02	2.00	1.2	80.0
4-Methyl-2-pentanone (MIBK)	Ave	0.9289	0.8474		1.82	2.00	-8.8	35.0
cis-1,3-Dichloropropene	Ave	0.4775	0.4905		2.05	2.00	2.7	35.0
trans-1,3-Dichloropropene	Ave	0.5692	0.6034		2.12	2.00	6.0	35.0
Toluene	Ave	1.238	1.277		2.06	2.00	3.1	35.0
1,1,2-Trichloroethane	Ave	0.3635	0.3594		1.98	2.00	-1.1	35.0
2-Methylthiophene	Ave	1.053	1.092		2.07	2.00	3.7	80.0
3-Methylthiophene	Ave	1.074	1.108		2.06	2.00	3.2	80.0
2-Hexanone	Ave	0.5179	0.5195		2.01	2.00	0.3	35.0
Dibromochloromethane	Ave	0.6672	0.6964		2.09	2.00	4.4	35.0
Octane	Ave	0.4467	0.4141		1.85	2.00	-7.3	35.0
1,2-Dibromoethane (EDB)	Ave	0.6400	0.6596		2.06	2.00	3.1	35.0
Tetrachloroethene	Ave	0.4233	0.4357		2.06	2.00	2.9	35.0
Chlorobenzene	Ave	0.9899	0.9702		1.96	2.00	-2.0	35.0
2,3-Dimethylheptane	Ave	1.525	1.461		1.92	2.00	-4.2	80.0
Ethylbenzene	Ave	1.542	1.549		2.01	2.00	0.5	35.0
2-Ethylthiophene	Ave	1.174	1.175		2.00	2.00	0.1	80.0
m-Xylene & p-Xylene	Ave	1.224	1.222		3.99	4.00	-0.2	35.0
Bromoform	Ave	0.6350	0.6512		2.05	2.00	2.6	35.0
Styrene	Ave	0.8614	0.9220		2.14	2.00	7.0	35.0
Nonane	Ave	1.040	0.9594		1.84	2.00	-7.8	35.0
o-Xylene	Ave	1.263	1.238		1.96	2.00	-2.0	35.0
1,1,2,2-Tetrachloroethane	Ave	0.9511	0.9406		1.98	2.00	-1.1	35.0
1,2,3-Trichloropropane	Ave	0.2927	0.2805		1.92	2.00	-4.2	35.0
Isopropylbenzene	Ave	1.940	1.803		1.86	2.00	-7.1	35.0
Propylbenzene	Ave	0.5279	0.4956		1.88	2.00	-6.1	35.0
2-Chlorotoluene	Ave	0.4547	0.4426		1.95	2.00	-2.7	35.0
4-Ethyltoluene	Ave	1.990	1.870		1.88	2.00	-6.1	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: ICV 140-722/16 Calibration Date: 01/24/2014 11:35

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RICVA24a.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	0.8857	0.8563		1.93	2.00	-3.3	35.0
Alpha Methyl Styrene	Ave	0.7049	0.6933		1.97	2.00	-1.7	35.0
Decane	Ave	1.432	1.268		1.77	2.00	-11.4	35.0
tert-Butylbenzene	Ave	1.724	1.616		1.87	2.00	-6.3	35.0
1,2,4-Trimethylbenzene	Ave	1.643	1.566		1.91	2.00	-4.7	35.0
1,3-Dichlorobenzene	Ave	1.105	1.025		1.86	2.00	-7.2	35.0
sec-Butylbenzene	Ave	2.451	2.295		1.87	2.00	-6.4	35.0
Benzyl chloride	Ave	1.346	1.402		2.08	2.00	4.2	35.0
1,4-Dichlorobenzene	Ave	1.113	1.045		1.88	2.00	-6.2	35.0
4-Isopropyltoluene	Ave	2.097	2.021		1.93	2.00	-3.6	35.0
1,2,3-Trimethylbenzene	Ave	1.480	1.434		1.94	2.00	-3.1	80.0
Butylcyclohexane	Ave	1.320	1.265		1.92	2.00	-4.2	80.0
1,2-Dichlorobenzene	Ave	1.067	0.9818		1.84	2.00	-8.0	35.0
Indane	Ave	1.492	1.409		1.89	2.00	-5.6	80.0
Indene	Ave	1.466	1.434		1.96	2.00	-2.2	80.0
Butylbenzene	Ave	1.948	1.873		1.92	2.00	-3.8	35.0
1,2-Dimethyl-4-Ethylbenzene	Ave	1.968	1.896		1.93	2.00	-3.7	80.0
Undecane	Ave	1.560	1.534		1.97	2.00	-1.7	35.0
1,2,4,5-Tetramethylbenzene	Ave	2.053	1.987		1.94	2.00	-3.2	80.0
1,2,3,5-Tetramethylbenzene	Ave	1.287	1.250		1.94	2.00	-2.9	80.0
1,2,3,4-Tetramethylbenzene	Ave	1.717	1.657		1.93	2.00	-3.5	80.0
Dodecane	Ave	1.492	1.422		1.91	2.00	-4.7	35.0
1,2,4-Trichlorobenzene	Ave	0.8981	0.8174		1.82	2.00	-9.0	35.0
Naphthalene	Ave	1.984	1.902		1.92	2.00	-4.1	35.0
Benzo(b)thiophene	Ave	1.566	1.458		1.86	2.00	-6.9	80.0
Hexachlorobutadiene	Ave	0.8457	0.7276		1.72	2.00	-14.0	35.0
1,2,3-Trichlorobenzene	Ave	0.8521	0.7922		1.86	2.00	-7.0	35.0
2-Methylnaphthalene	Ave	0.1506	0.1515		12.6	12.5	0.6	80.0
1-Methylnaphthalene	Ave	0.1263	0.1345		13.3	12.5	6.5	80.0
Acetaldehyde	Ave	1.828				10.0		80.0
Acetone	Ave	5.059				2.00		35.0
4-Bromofluorobenzene (Surr)	Ave	0.7880	0.8215		4.17	4.00	4.2	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\RICVA24a.D
Lims ID: icv with extra Lab Sample ID: ICV 140-724/16-A
Client ID:
Sample Type: ICV
Inject. Date: 24-Jan-2014 11:35:30 ALS Bottle#: 7 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: R012414,TO15,140-0000382-003 =R012414,TO15,140-0000382-003
Operator ID: 7126 Instrument ID: MR
Sublist:

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jan-2014 13:49:11 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: barlozhetskayaa Date: 24-Jan-2014 14:04:39

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.522	8.527	-0.005	96	477903	4.00	
* 2 1,4-Difluorobenzene	114	10.820	10.819	0.001	96	2450029	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.172	17.156	0.016	88	2027022	4.00	
$ 4 4-Bromofluorobenzene (Surr)	95	19.938	19.925	0.013	90	1665093	4.17	
6 Chlorodifluoromethane	67	3.410	3.407	0.003	96	105888	2.06	
7 Propene	41	3.416	3.417	-0.001	98	361897	1.80	
8 Dichlorodifluoromethane	85	3.464	3.461	0.003	100	1041313	2.17	
9 Chloromethane	52	3.626	3.622	0.004	99	148829	2.10	
10 1,2-Dichloro-1,1,2,2-tetrafluoro	135	3.637	3.634	0.003	93	722542	2.10	
12 Vinyl chloride	62	3.788	3.784	0.004	98	450855	2.08	
14 Butadiene	54	3.874	3.871	0.003	97	384601	2.11	
13 Butane	43	3.874	3.872	0.002	87	719250	1.99	
15 Bromomethane	94	4.182	4.178	0.004	99	350865	1.93	
16 Chloroethane	64	4.316	4.319	-0.003	99	219066	2.00	
17 Ethanol	31	4.435	4.437	-0.002	91	698751	8.65	
18 Vinyl bromide	106	4.618	4.621	-0.003	99	378167	2.15	
19 2-Methylbutane	43	4.683	4.682	0.001	93	561021	2.04	
21 Acrolein	56	4.893	4.893	0.0	94	157714	1.61	
20 Trichlorofluoromethane	101	4.899	4.898	0.001	99	966822	2.04	
22 Acetonitrile	40	4.953	4.955	-0.002	100	175779	1.92	
24 Pentane	72	5.131	5.131	0.0	97	76975	1.98	
25 Isopropyl alcohol	45	5.125	5.132	-0.007	74	633316	1.71	
26 Ethyl ether	31	5.292	5.298	-0.006	94	460701	1.79	
27 1,1-Dichloroethene	96	5.605	5.610	-0.005	95	362280	2.37	
28 Acrylonitrile	53	5.697	5.699	-0.002	95	337053	1.98	
29 2-Methyl-2-propanol	59	5.724	5.736	-0.012	92	712296	1.89	
30 1,1,2-Trichloro-1,2,2-trifluoroe	101	5.805	5.805	0.0	96	756942	2.36	
31 Methylene Chloride	84	5.945	5.951	-0.006	94	333377	2.22	
32 3-Chloro-1-propene	39	5.972	5.972	0.0	92	351505	2.00	
33 Carbon disulfide	76	6.112	6.114	-0.002	100	1093912	2.10	

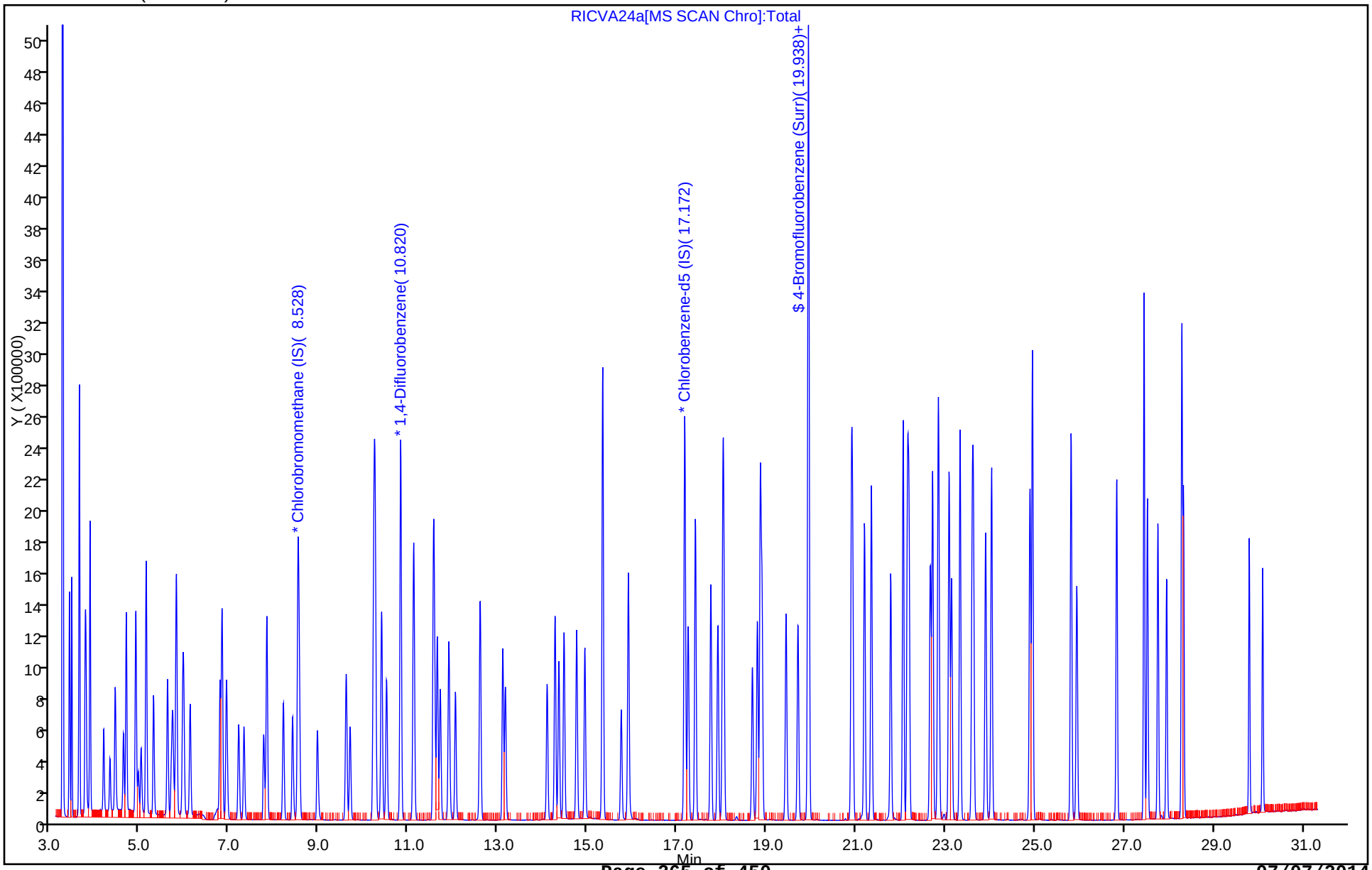
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
34 trans-1,2-Dichloroethene	96	6.781	6.784	-0.003	95	376853	2.00	
35 2-Methylpentane	43	6.824	6.828	-0.004	96	1080914	2.05	
36 Methyl tert-butyl ether	73	6.926	6.935	-0.009	96	965572	1.89	
37 1,1-Dichloroethane	63	7.196	7.199	-0.003	99	734608	2.17	
38 Vinyl acetate	43	7.314	7.320	-0.006	100	1094768	1.98	
39 2-Butanone (MEK)	72	7.757	7.763	-0.006	98	167309	1.53	
40 Hexane	56	7.827	7.830	-0.003	88	374894	1.99	
41 cis-1,2-Dichloroethene	96	8.193	8.201	-0.008	97	385308	2.21	
42 Ethyl acetate	43	8.404	8.410	-0.006	98	928107	1.85	
43 Chloroform	83	8.555	8.555	0.0	95	764594	2.15	
44 Tetrahydrofuran	42	8.959	8.967	-0.008	94	497900	1.82	
45 1,1,1-Trichloroethane	97	9.601	9.603	-0.002	88	754661	2.17	
46 1,2-Dichloroethane	62	9.693	9.691	0.002	95	575434	2.13	
49 n-Butanol	31	10.199	10.210	-0.011	60	140107	1.78	
47 Benzene	78	10.221	10.220	0.001	97	1132525	2.10	
48 Cyclohexane	69	10.237	10.239	-0.002	93	180269	1.98	
50 Carbon tetrachloride	117	10.253	10.255	-0.002	94	786699	2.18	
51 2,3-Dimethylpentane	71	10.388	10.393	-0.005	91	241900	2.06	
52 Thiophene	84	10.507	10.504	0.003	98	671982	2.07	
53 Isooctane	57	11.111	11.110	0.001	99	2171228	1.97	
54 n-Heptane	71	11.553	11.550	0.003	94	401775	1.95	
55 1,2-Dichloropropane	63	11.574	11.576	-0.002	83	447717	2.03	
56 Trichloroethene	130	11.639	11.636	0.003	96	485888	2.10	
57 Dibromomethane	93	11.704	11.702	0.002	95	420323	1.98	
58 Dichlorobromomethane	83	11.893	11.895	-0.002	98	793173	2.06	
59 1,4-Dioxane	88	11.909	11.918	-0.009	94	153448	1.81	
60 Methyl methacrylate	41	12.044	12.045	-0.001	95	576352	1.81	
61 Methylcyclohexane	83	12.599	12.594	0.005	90	674155	2.02	
62 4-Methyl-2-pentanone (MIBK)	43	13.101	13.106	-0.006	98	1038080	1.82	
63 cis-1,3-Dichloropropene	75	13.160	13.159	0.001	96	600910	2.05	
64 trans-1,3-Dichloropropene	75	14.098	14.092	0.006	98	611558	2.12	
65 Toluene	91	14.276	14.269	0.007	93	1294262	2.06	
66 1,1,2-Trichloroethane	83	14.357	14.354	0.003	98	364232	1.98	
67 2-Methylthiophene	97	14.476	14.472	0.004	98	1106730	2.07	
68 3-Methylthiophene	97	14.756	14.754	0.002	99	1123314	2.06	
69 2-Hexanone	58	14.939	14.940	-0.001	92	526469	2.01	
71 Chlorodibromomethane	129	15.338	15.334	0.004	79	705781	2.09	
70 n-Octane	85	15.338	15.335	0.003	96	419652	1.85	
72 Ethylene Dibromide	107	15.754	15.750	0.004	98	668468	2.06	
73 Tetrachloroethene	129	15.910	15.910	0.0	95	441591	2.06	
74 Chlorobenzene	112	17.247	17.232	0.015	91	983296	1.96	
75 2,3-Dimethylheptane	43	17.409	17.390	0.019	95	1480833	1.92	
76 Ethylbenzene	91	17.754	17.734	0.020	98	1570354	2.01	
77 2-Ethylthiophene	97	17.916	17.891	0.025	98	1191141	2.00	
78 m-Xylene & p-Xylene	91	18.035	18.011	0.024	98	2476093	3.99	
79 Bromoform	173	18.682	18.662	0.020	95	660028	2.05	
80 Styrene	104	18.795	18.776	0.019	98	934478	2.14	
81 n-Nonane	57	18.860	18.845	0.015	95	972326	1.84	
82 o-Xylene	91	18.897	18.879	0.018	97	1254906	1.96	
83 1,1,2,2-Tetrachloroethane	83	19.437	19.422	0.015	99	953282	1.98	
84 1,2,3-Trichloropropane	110	19.706	19.688	0.018	95	284303	1.92	
85 Isopropylbenzene	105	19.933	19.919	0.014	97	1827153	1.86	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
86 N-Propylbenzene	120	20.898	20.891	0.007	98	502292	1.88	
87 2-Chlorotoluene	126	20.930	20.915	0.015	95	448579	1.95	
88 4-Ethyltoluene	105	21.189	21.182	0.007	98	1895109	1.88	
89 1,3,5-Trimethylbenzene	120	21.345	21.337	0.008	92	867834	1.93	
90 Alpha Methyl Styrene	118	21.777	21.770	0.007	86	702620	1.97	
91 n-Decane	57	22.057	22.050	0.007	88	1285441	1.77	
92 tert-Butylbenzene	119	22.154	22.149	0.005	83	1637716	1.87	
93 1,2,4-Trimethylbenzene	105	22.187	22.179	0.008	96	1586849	1.91	
94 1,3-Dichlorobenzene	146	22.667	22.660	0.007	98	1039291	1.86	
95 sec-Butylbenzene	105	22.715	22.710	0.005	98	2325893	1.87	
96 Benzyl chloride	91	22.839	22.831	0.008	96	1420680	2.08	
97 1,4-Dichlorobenzene	146	22.850	22.847	0.003	92	1058730	1.88	
98 4-Isopropyltoluene	119	23.082	23.081	0.001	97	2048665	1.93	
99 1,2,3-Trimethylbenzene	105	23.141	23.134	0.007	99	1453780	1.94	
100 Butylcyclohexane	83	23.330	23.327	0.003	89	1281819	1.92	
101 1,2-Dichlorobenzene	146	23.599	23.598	0.001	94	995044	1.84	
102 2,3-Dihydroindene	117	23.626	23.625	0.001	90	1428414	1.89	
103 Indene	116	23.901	23.898	0.003	87	1452955	1.96	
104 n-Butylbenzene	91	24.036	24.031	0.005	98	1898280	1.92	
105 1,2-Dimethyl-4-Ethylbenzene	119	24.894	24.892	0.002	99	1921546	1.93	
106 Undecane	57	24.948	24.950	-0.002	95	1554331	1.97	
107 1,2,4,5-Tetramethylbenzene	119	25.810	25.814	-0.004	97	2014214	1.94	
108 1,2,3,5-Tetramethylbenzene	119	25.940	25.942	-0.002	95	1266555	1.94	
109 1,2,3,4-Tetramethylbenzene	119	26.829	26.837	-0.008	97	1678934	1.93	
110 Dodecane	57	27.444	27.451	-0.007	93	1441702	1.91	
111 1,2,4-Trichlorobenzene	180	27.520	27.524	-0.004	93	828431	1.82	
112 Naphthalene	128	27.752	27.760	-0.008	99	1927953	1.92	
113 Benzo(b)thiophene	134	27.951	27.953	-0.002	99	1477948	1.86	
114 Hexachlorobutadiene	225	28.291	28.296	-0.005	84	737397	1.72	
115 1,2,3-Trichlorobenzene	180	28.323	28.333	-0.010	92	802933	1.86	
116 2-Methylnaphthalene	142	29.795	29.812	-0.017	100	959657	12.6	
117 1-Methylnaphthalene	142	30.097	30.124	-0.027	99	851825	13.3	
A 118 C6 Range	1	7.821	7.730 -	7.913	0	4486306	2.44	
A 119 Toluene Range	1	14.286	14.200 -	14.362	0	5731634	2.41	
A 120 C8 Range	1	15.344	15.274 -	15.414	0	6892088	1.88	
S 124 Xylenes, Total	100				0		5.95	

Report Date: 24-Jan-2014 14:04:40 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\RICVA24a.D				
Injection Date:	24-Jan-2014 11:35:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	icv with extra	Lab Sample ID:	ICV 140-724/16-A	Worklist Smp#:	16
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column: RTX-5 (0.32 mm)					



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: CCVIS 140-1390/2 Calibration Date: 06/27/2014 11:04

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RCCVF27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.4302	0.4546		2.09	1.98	5.6	30.0
Propene	Ave	1.679	1.225		1.44	1.98	-27.0	30.0
Dichlorodifluoromethane	Ave	4.020	3.620		1.78	1.98	-10.0	30.0
Chloromethane	Ave	0.5930	0.4607		1.54	1.98	-22.3	30.0
1,2-Dichloro-1,1,2,2-tetrafl uoroethane	Ave	2.879	2.542		1.75	1.98	-11.7	30.0
Acetaldehyde	Ave	1.828	0.7717		4.18	9.90	-57.8*	50.0
Vinyl chloride	Ave	1.816	1.465		1.60	1.98	-19.3	30.0
1,3-Butadiene	Ave	1.527	1.206		1.56	1.98	-21.1	30.0
Butane	Ave	3.020	2.521		1.65	1.98	-16.5	30.0
Bromomethane	Ave	1.523	1.255		1.63	1.98	-17.6	30.0
Chloroethane	Ave	0.9180	0.7765		1.67	1.98	-15.4	30.0
Ethanol	Ave	0.6757	0.7504		11.0	9.90	11.0	50.0
Vinyl bromide	Ave	1.471	1.362		1.83	1.98	-7.4	30.0
2-Methylbutane	Ave	2.298	2.063		1.78	1.98	-10.2	30.0
Acrolein	Ave	0.8185	0.6628		1.60	1.98	-19.0	30.0
Trichlorofluoromethane	Ave	3.966	4.582		2.29	1.98	15.5	30.0
Acetonitrile	Ave	0.7674	1.029		2.66	1.98	34.1*	30.0
Acetone	Ave	5.059	1.089			5.94	-78.5*	30.0
Isopropyl alcohol	Ave	3.097	3.090		5.93	5.94	-0.2	30.0
Pentane	Ave	0.3251	0.3381		2.06	1.98	4.0	30.0
Ethyl ether	Ave	2.157	2.495		2.29	1.98	15.7	30.0
1,1-Dichloroethene	Ave	1.280	1.600		2.48	1.98	25.0	30.0
Acrylonitrile	Ave	1.424	1.607		2.24	1.98	12.9	30.0
tert-Butyl alcohol	Ave	3.154	3.653		2.29	1.98	15.8	30.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	2.682	3.450		2.55	1.98	28.7	30.0
Methylene Chloride	Ave	1.255	1.516		2.39	1.98	20.8	30.0
3-Chloropropene	Ave	1.475	1.760		2.36	1.98	19.4	30.0
Carbon disulfide	Ave	4.355	4.991		2.27	1.98	14.6	30.0
trans-1,2-Dichloroethene	Ave	1.578	1.687		2.12	1.98	6.9	30.0
2-Methylpentane	Ave	4.422	5.040		2.26	1.98	14.0	50.0
Methyl tert-butyl ether	Ave	4.280	4.943		2.29	1.98	15.5	30.0
1,1-Dichloroethane	Ave	2.838	3.447		2.40	1.98	21.4	30.0
Vinyl acetate	Ave	4.623	5.622		2.41	1.98	21.6	30.0
2-Butanone (MEK)	Ave	0.9176	0.9143		1.97	1.98	-0.4	30.0
Hexane	Ave	1.578	1.671		2.10	1.98	5.9	30.0
cis-1,2-Dichloroethene	Ave	1.459	1.732		2.35	1.98	18.7	30.0
Ethyl acetate	Ave	4.202	4.905		2.31	1.98	16.7	30.0
Chloroform	Ave	2.977	3.695		2.46	1.98	24.1	30.0
Tetrahydrofuran	Ave	2.285	2.538		2.20	1.98	11.1	30.0
1,1,1-Trichloroethane	Ave	2.906	3.701		2.52	1.98	27.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: CCVIS 140-1390/2 Calibration Date: 06/27/2014 11:04

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RCCVF27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.4407	0.5273		2.37	1.98	19.6	30.0
1-Butanol	Ave	0.1284	0.1533		2.36	1.98	19.4	30.0
Benzene	Ave	0.8820	0.9831		2.21	1.98	11.5	30.0
Cyclohexane	Ave	0.1490	0.1590		2.11	1.98	6.7	30.0
Carbon tetrachloride	Ave	0.5896	0.7232		2.43	1.98	22.7	30.0
2,3-Dimethylpentane	Ave	0.1919	0.2154		2.22	1.98	12.2	50.0
Thiophene	Ave	0.5288	0.5881		2.20	1.98	11.2	50.0
2,2,4-Trimethylpentane	Ave	1.796	1.902		2.10	1.98	5.9	30.0
Heptane	Ave	0.3372	0.3644		2.14	1.98	8.1	30.0
1,2-Dichloropropane	Ave	0.3592	0.3954		2.18	1.98	10.1	30.0
Trichloroethene	Ave	0.3777	0.4109		2.15	1.98	8.8	30.0
Dibromomethane	Ave	0.3465	0.3810		2.18	1.98	9.9	30.0
Bromodichloromethane	Ave	0.6274	0.7485		2.36	1.98	19.3	30.0
1,4-Dioxane	Ave	0.1387	0.1529		2.18	1.98	10.2	30.0
Methyl methacrylate	Ave	0.5194	0.5757		2.19	1.98	10.8	30.0
Methylcyclohexane	Ave	0.5440	0.5901		2.15	1.98	8.5	50.0
4-Methyl-2-pentanone (MIBK)	Ave	0.9289	0.9867		2.10	1.98	6.2	30.0
cis-1,3-Dichloropropene	Ave	0.4775	0.5728		2.38	1.98	20.0	30.0
trans-1,3-Dichloropropene	Ave	0.5692	0.7047		2.45	1.98	23.8	30.0
Toluene	Ave	1.238	1.412		2.26	1.98	14.1	30.0
1,1,2-Trichloroethane	Ave	0.3635	0.4017		2.19	1.98	10.5	30.0
2-Methylthiophene	Ave	1.053	1.185		2.23	1.98	12.5	50.0
3-Methylthiophene	Ave	1.074	1.208		2.23	1.98	12.5	50.0
2-Hexanone	Ave	0.5179	0.5199		1.99	1.98	0.4	30.0
Dibromochloromethane	Ave	0.6672	0.7776		2.31	1.98	16.5	30.0
Octane	Ave	0.4467	0.4634		2.05	1.98	3.7	30.0
1,2-Dibromoethane (EDB)	Ave	0.6400	0.7180		2.22	1.98	12.2	30.0
Tetrachloroethene	Ave	0.4233	0.4635		2.17	1.98	9.5	30.0
Chlorobenzene	Ave	0.9899	1.110		2.22	1.98	12.2	30.0
2,3-Dimethylheptane	Ave	1.525	1.747		2.27	1.98	14.6	50.0
Ethylbenzene	Ave	1.542	1.845		2.37	1.98	19.7	30.0
2-Ethylthiophene	Ave	1.174	1.404		2.37	1.98	19.7	50.0
m-Xylene & p-Xylene	Ave	1.224	1.439		4.66	3.96	17.6	30.0
Bromoform	Ave	0.6350	0.7530		2.35	1.98	18.6	30.0
Styrene	Ave	0.8614	1.050		2.41	1.98	21.9	30.0
Nonane	Ave	1.040	1.169		2.23	1.98	12.4	30.0
o-Xylene	Ave	1.263	1.473		2.31	1.98	16.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.9511	1.110		2.31	1.98	16.8	30.0
1,2,3-Trichloropropane	Ave	0.2927	0.3216		2.18	1.98	9.8	30.0
Isopropylbenzene	Ave	1.940	2.072		2.11	1.98	6.8	30.0
Propylbenzene	Ave	0.5279	0.5754		2.16	1.98	9.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Lab Sample ID: CCVIS 140-1390/2 Calibration Date: 06/27/2014 11:04

Instrument ID: MR Calib Start Date: 01/21/2014 17:35

GC Column: RTX-5 ID: 0.32(mm) Calib End Date: 01/22/2014 00:00

Lab File ID: RCCVF27.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chlorotoluene	Ave	0.4547	0.4978		2.17	1.98	9.5	30.0
4-Ethyltoluene	Ave	1.990	2.197		2.19	1.98	10.4	30.0
1,3,5-Trimethylbenzene	Ave	0.8857	0.9796		2.19	1.98	10.6	30.0
Alpha Methyl Styrene	Ave	0.7049	0.8097		2.27	1.98	14.9	30.0
Decane	Ave	1.432	1.493		2.06	1.98	4.2	30.0
tert-Butylbenzene	Ave	1.724	1.852		2.13	1.98	7.4	30.0
1,2,4-Trimethylbenzene	Ave	1.643	1.804		2.17	1.98	9.8	30.0
1,3-Dichlorobenzene	Ave	1.105	1.151		2.06	1.98	4.2	30.0
sec-Butylbenzene	Ave	2.451	2.634		2.13	1.98	7.5	30.0
Benzyl chloride	Ave	1.346	1.638		2.41	1.98	21.7	30.0
1,4-Dichlorobenzene	Ave	1.113	1.165		2.07	1.98	4.7	30.0
4-Isopropyltoluene	Ave	2.097	2.275		2.15	1.98	8.5	30.0
1,2,3-Trimethylbenzene	Ave	1.480	1.642		2.20	1.98	11.0	50.0
Butylcyclohexane	Ave	1.320	1.492		2.24	1.98	13.1	50.0
1,2-Dichlorobenzene	Ave	1.067	1.078		2.00	1.98	1.1	30.0
Indane	Ave	1.492	1.622		2.15	1.98	8.7	50.0
Indene	Ave	1.466	1.624		2.19	1.98	10.8	50.0
Butylbenzene	Ave	1.948	2.130		2.17	1.98	9.4	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	1.968	2.164		2.18	1.98	9.9	50.0
Undecane	Ave	1.560	1.677		2.13	1.98	7.5	30.0
1,2,4,5-Tetramethylbenzene	Ave	2.053	2.209		2.13	1.98	7.6	50.0
1,2,3,5-Tetramethylbenzene	Ave	1.287	1.380		2.12	1.98	7.2	50.0
1,2,3,4-Tetramethylbenzene	Ave	1.717	1.804		2.08	1.98	5.0	50.0
Dodecane	Ave	1.492	1.496		1.99	1.98	0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.8981	0.8579		1.89	1.98	-4.5	30.0
Naphthalene	Ave	1.984	2.069		2.06	1.98	4.3	30.0
Benzo(b)thiophene	Ave	1.566	1.559		1.97	1.98	-0.4	50.0
Hexachlorobutadiene	Ave	0.8457	0.7263		1.70	1.98	-14.1	30.0
1,2,3-Trichlorobenzene	Ave	0.8521	0.8097		1.88	1.98	-5.0	30.0
2-Methylnaphthalene	Ave	0.1506	0.1566		12.9	12.4	4.0	50.0
1-Methylnaphthalene	Ave	0.1263	0.1246		12.2	12.4	-1.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7880	0.8026		4.07	4.00	1.9	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140626-780.b\RCCVF27.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-Jun-2014 11:04:30 ALS Bottle#: 8 Worklist Smp#: 2
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ccvis,,2,6,,
Misc. Info.: R062714,TO15,140-0000780-002
Operator ID: 71256 Instrument ID: MR
Sublist: chrom-MR_TO15*sub5

Method: \\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Jun-2014 17:46:31 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: barlozhetskayaa Date: 27-Jun-2014 17:46:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	95	312705	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	94	1668736	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.031	17.031	0.000	90	1400584	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.782	19.782	0.000	87	1124119	4.00	4.07	
6 Chlorodifluoromethane	67	3.389	3.389	0.000	90	70366	1.98	2.09	
7 Propene	41	3.394	3.394	0.000	97	189654	1.98	1.44	
8 Dichlorodifluoromethane	85	3.443	3.443	0.000	99	560372	1.98	1.78	
9 Chloromethane	52	3.594	3.594	0.000	98	71316	1.98	1.54	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.610	0.000	92	393521	1.98	1.75	
11 Acetaldehyde	44	3.734	3.734	0.000	96	597271	9.90	4.18	
12 Vinyl chloride	62	3.755	3.755	0.000	99	226760	1.98	1.60	
14 Butadiene	54	3.836	3.836	0.000	91	186632	1.98	1.56	
13 Butane	43	3.842	3.842	0.000	91	390223	1.98	1.65	
15 Bromomethane	94	4.138	4.138	0.000	98	194238	1.98	1.63	
16 Chloroethane	64	4.273	4.273	0.000	91	120203	1.98	1.67	
17 Ethanol	31	4.381	4.381	0.000	97	580814	9.90	11.0	
18 Vinyl bromide	106	4.570	4.570	0.000	97	210786	1.98	1.83	
19 2-Methylbutane	43	4.629	4.629	0.000	92	319395	1.98	1.78	
21 Acrolein	56	4.829	4.829	0.000	96	102608	1.98	1.60	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	99	709363	1.98	2.29	
22 Acetonitrile	40	4.882	4.882	0.000	98	159364	1.98	2.66	
23 Acetone	58	4.936	4.936	0.000	91	505983	5.94	1.28	
25 Isopropyl alcohol	45	5.050	5.050	0.000	93	1435239	5.94	5.93	
24 Pentane	72	5.071	5.071	0.000	97	52339	1.98	2.06	
26 Ethyl ether	31	5.222	5.222	0.000	92	386234	1.98	2.29	
27 1,1-Dichloroethene	96	5.535	5.535	0.000	93	247628	1.98	2.48	
28 Acrylonitrile	53	5.616	5.616	0.000	94	248727	1.98	2.24	
29 2-Methyl-2-propanol	59	5.643	5.643	0.000	96	565451	1.98	2.29	
30 1,1,2-Trichloro-1,2,2-trif	101	5.729	5.729	0.000	94	534103	1.98	2.55	
31 Methylene Chloride	84	5.869	5.869	0.000	94	234719	1.98	2.39	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	5.891	5.891	0.000	92	272471	1.98	2.36	
33 Carbon disulfide	76	6.036	6.036	0.000	100	772562	1.98	2.27	
34 trans-1,2-Dichloroethene	96	6.694	6.694	0.000	94	261125	1.98	2.12	
35 2-Methylpentane	43	6.743	6.743	0.000	96	780226	1.98	2.26	
36 Methyl tert-butyl ether	73	6.829	6.829	0.000	96	765269	1.98	2.29	
37 1,1-Dichloroethane	63	7.104	7.104	0.000	99	533596	1.98	2.40	
38 Vinyl acetate	43	7.217	7.217	0.000	100	870255	1.98	2.41	
39 2-Butanone (MEK)	72	7.649	7.649	0.000	98	141538	1.98	1.97	
40 Hexane	56	7.740	7.740	0.000	90	258682	1.98	2.10	
141 Isopropyl ether	45	7.886	7.886	0.000	97	1106401	NC	NC	
41 cis-1,2-Dichloroethene	96	8.096	8.096	0.000	98	268142	1.98	2.35	
42 Ethyl acetate	43	8.296	8.296	0.000	98	759339	1.98	2.31	
43 Chloroform	83	8.452	8.452	0.000	96	571958	1.98	2.46	
144 Tert-butyl ethyl ether	59	8.571	8.571	0.000	97	892590	1.98	11.4	
44 Tetrahydrofuran	42	8.846	8.846	0.000	93	392823	1.98	2.20	
45 1,1,1-Trichloroethane	97	9.498	9.498	0.000	96	572857	1.98	2.52	
46 1,2-Dichloroethane	62	9.579	9.579	0.000	95	435566	1.98	2.37	
49 n-Butanol	31	10.086	10.086	0.000	62	126618	1.98	2.36	
47 Benzene	78	10.113	10.113	0.000	97	812126	1.98	2.21	
48 Cyclohexane	69	10.135	10.135	0.000	93	131314	1.98	2.11	
50 Carbon tetrachloride	117	10.151	10.151	0.000	97	597416	1.98	2.43	
51 2,3-Dimethylpentane	71	10.291	10.291	0.000	91	177954	1.98	2.22	
52 Thiophene	84	10.393	10.393	0.000	97	485869	1.98	2.20	
142 Tert-amyl methyl ether	73	10.652	10.652	0.000	95	751974	NC	NC	
53 Isooctane	57	11.008	11.008	0.000	98	1570979	1.98	2.10	
54 n-Heptane	71	11.450	11.450	0.000	95	301049	1.98	2.14	
55 1,2-Dichloropropane	63	11.461	11.461	0.000	82	326652	1.98	2.18	
56 Trichloroethene	130	11.526	11.526	0.000	95	339421	1.98	2.15	
57 Dibromomethane	93	11.585	11.585	0.000	91	314742	1.98	2.18	
58 Dichlorobromomethane	83	11.779	11.779	0.000	98	618319	1.98	2.36	
59 1,4-Dioxane	88	11.790	11.790	0.000	96	126284	1.98	2.18	
60 Methyl methacrylate	41	11.930	11.930	0.000	95	475580	1.98	2.19	
61 Methylcyclohexane	83	12.486	12.486	0.000	91	487470	1.98	2.15	
62 4-Methyl-2-pentanone (MIBK	43	12.982	12.982	0.000	99	815085	1.98	2.10	
63 cis-1,3-Dichloropropene	75	13.041	13.041	0.000	97	473181	1.98	2.38	
64 trans-1,3-Dichloropropene	75	13.969	13.969	0.000	97	488625	1.98	2.45	
65 Toluene	91	14.147	14.147	0.000	93	979326	1.98	2.26	
66 1,1,2-Trichloroethane	83	14.227	14.227	0.000	98	278501	1.98	2.19	
67 2-Methylthiophene	97	14.346	14.346	0.000	98	821865	1.98	2.23	
68 3-Methylthiophene	97	14.626	14.626	0.000	99	837756	1.98	2.23	
69 2-Hexanone	58	14.810	14.810	0.000	90	360476	1.98	1.99	
71 Chlorodibromomethane	129	15.203	15.203	0.000	96	539135	1.98	2.31	
70 n-Octane	85	15.220	15.220	0.000	97	321296	1.98	2.05	
72 Ethylene Dibromide	107	15.613	15.613	0.000	98	497797	1.98	2.22	
73 Tetrachloroethene	129	15.780	15.780	0.000	94	321373	1.98	2.17	
74 Chlorobenzene	112	17.102	17.102	0.000	90	769927	1.98	2.22	
75 2,3-Dimethylheptane	43	17.280	17.280	0.000	95	1211600	1.98	2.27	
76 Ethylbenzene	91	17.614	17.614	0.000	99	1279389	1.98	2.37	
77 2-Ethylthiophene	97	17.765	17.765	0.000	99	973762	1.98	2.37	
78 m-Xylene & p-Xylene	91	17.889	17.889	0.000	99	1995478	3.96	4.66	
79 Bromoform	173	18.531	18.531	0.000	95	522064	1.98	2.35	
80 Styrene	104	18.644	18.644	0.000	98	727863	1.98	2.41	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
81 n-Nonane	57	18.725	18.725	0.000	95	810490	1.98	2.23	
82 o-Xylene	91	18.746	18.746	0.000	97	1021030	1.98	2.31	
83 1,1,2,2-Tetrachloroethane	83	19.280	19.280	0.000	99	769910	1.98	2.31	
84 1,2,3-Trichloropropane	110	19.544	19.544	0.000	96	222946	1.98	2.18	
85 Isopropylbenzene	105	19.782	19.782	0.000	97	1436348	1.98	2.11	
86 N-Propylbenzene	120	20.741	20.741	0.000	97	398973	1.98	2.16	
87 2-Chlorotoluene	126	20.768	20.768	0.000	93	345163	1.98	2.17	
88 4-Ethyltoluene	105	21.033	21.033	0.000	98	1523279	1.98	2.19	
89 1,3,5-Trimethylbenzene	120	21.189	21.189	0.000	91	679237	1.98	2.19	
90 Alpha Methyl Styrene	118	21.615	21.615	0.000	84	561403	1.98	2.27	
91 n-Decane	57	21.901	21.901	0.000	87	1035245	1.98	2.06	
92 tert-Butylbenzene	119	21.992	21.992	0.000	87	1284303	1.98	2.13	
93 1,2,4-Trimethylbenzene	105	22.019	22.019	0.000	96	1250762	1.98	2.17	
94 1,3-Dichlorobenzene	146	22.494	22.494	0.000	98	797868	1.98	2.06	
95 sec-Butylbenzene	105	22.548	22.548	0.000	96	1826537	1.98	2.13	
96 Benzyl chloride	91	22.667	22.667	0.000	97	1135542	1.98	2.41	
97 1,4-Dichlorobenzene	146	22.683	22.683	0.000	91	807831	1.98	2.07	
98 4-Isopropyltoluene	119	22.915	22.915	0.000	94	1577569	1.98	2.15	
99 1,2,3-Trimethylbenzene	105	22.968	22.968	0.000	99	1138784	1.98	2.20	
100 Butylcyclohexane	83	23.163	23.163	0.000	90	1034599	1.98	2.24	
101 1,2-Dichlorobenzene	146	23.427	23.427	0.000	92	747490	1.98	2.00	
102 2,3-Dihydroindene	117	23.454	23.454	0.000	90	1124573	1.98	2.15	
103 Indene	116	23.723	23.723	0.000	88	1125799	1.98	2.19	
104 n-Butylbenzene	91	23.864	23.864	0.000	99	1476919	1.98	2.17	
105 1,2-Dimethyl-4-Ethylbenzen	119	24.716	24.716	0.000	98	1500213	1.98	2.18	
106 Undecane	57	24.780	24.780	0.000	92	1162637	1.98	2.13	
143 1,2-Dibromo-3-Chloropropan	157	24.780	24.780	0.000	35	229520	NC	NC	
107 1,2,4,5-Tetramethylbenzene	119	25.632	25.632	0.000	96	1531614	1.98	2.13	
108 1,2,3,5-Tetramethylbenzene	119	25.756	25.756	0.000	95	956835	1.98	2.12	
109 1,2,3,4-Tetramethylbenzene	119	26.662	26.662	0.000	97	1250522	1.98	2.08	
110 Dodecane	57	27.293	27.293	0.000	93	1037474	1.98	1.99	
111 1,2,4-Trichlorobenzene	180	27.358	27.358	0.000	89	594858	1.98	1.89	
112 Naphthalene	128	27.595	27.595	0.000	99	1434456	1.98	2.06	
113 Benzo(b)thiophene	134	27.789	27.789	0.000	99	1080932	1.98	1.97	
114 Hexachlorobutadiene	225	28.140	28.140	0.000	84	503586	1.98	1.70	
115 1,2,3-Trichlorobenzene	180	28.172	28.172	0.000	93	561399	1.98	1.88	
116 2-Methylnaphthalene	142	29.666	29.666	0.000	99	678613	12.4	12.9	
117 1-Methylnaphthalene	142	29.973	29.973	0.000	99	540030	12.4	12.2	
A 118 C6 Range	1	7.754	(7.676-7.805)		0	2298470	1.98	1.84	
A 119 Toluene Range	1	14.176	(14.076-14.260)		0	4403669	1.98	2.72	
A 120 C8 Range	1	15.225	(15.160-15.290)		0	5437739	1.98	2.18	
S 124 Xylenes, Total	100				0		5.94	6.97	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

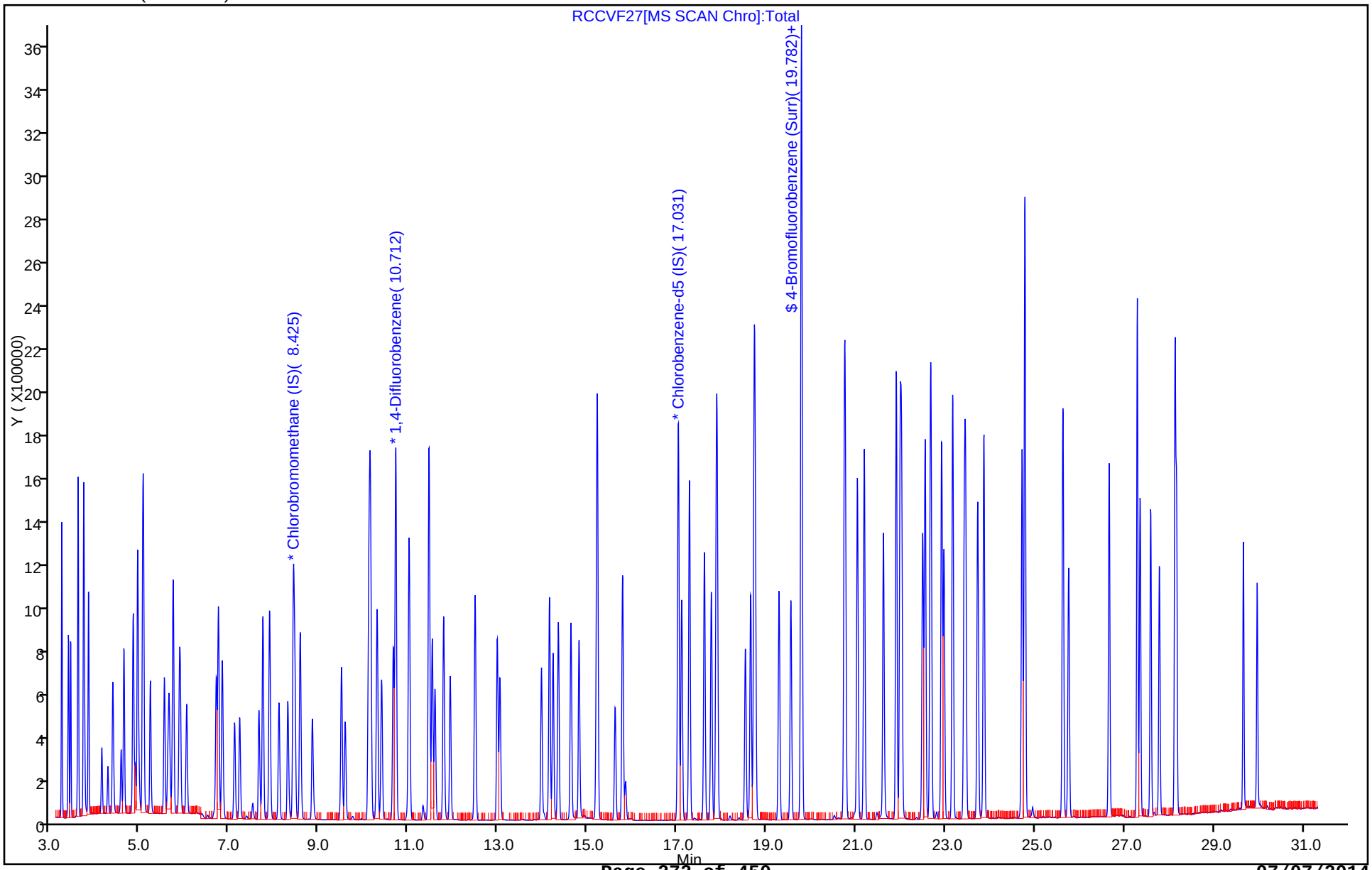
MAicv10_00029	Amount Added: 100.00	Units: mL	
MAissur1_00001	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 27-Jun-2014 17:46:32 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RCCVF27.D				
Injection Date:	27-Jun-2014 11:04:30	Instrument ID:	MR	Operator ID:	71256
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-001.D				
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Sample Type:	BFB				
Inject. Date:	21-Jan-2014 17:09:30	ALS Bottle#:	16	Worklist Smp#:	1
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	R012114I,BFB,				
Operator ID:	403648	Instrument ID:	MR		
Method:	\\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	23-Jan-2014 16:18:57	Calib Date:	22-Jan-2014 00:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK011				
First Level Reviewer: barlozhetskayaa		Date:	23-Jan-2014 16:18:57		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
$ 133 BFB	95	4.764	4.764	0.0	0	1465817	NR	

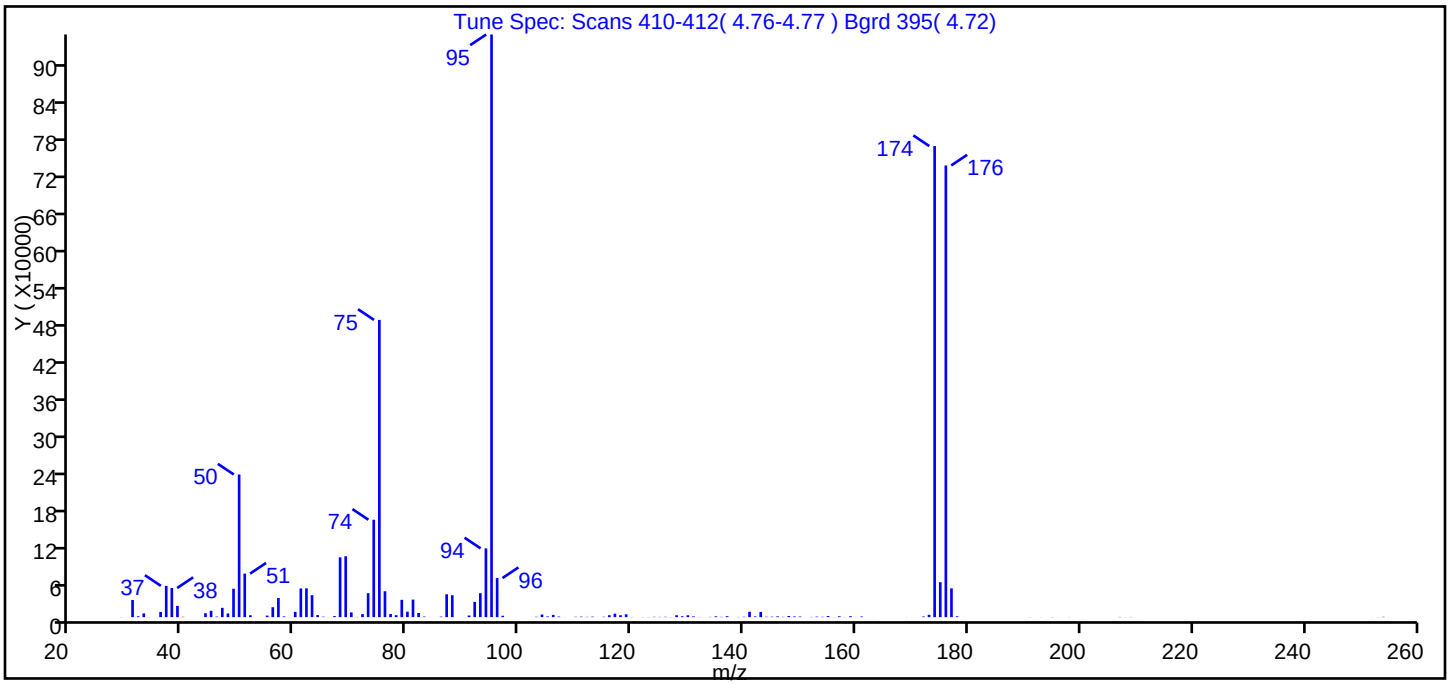
Report Date: 23-Jan-2014 16:18:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

MS Tune Report

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-001.D				
Injection Date:	21-Jan-2014 17:09:30	Instrument ID:	MR		
Lims ID:	BFB	Lab Sample ID:			
Client ID:					
Operator ID:	403648	ALS Bottle#:	16	Worklist Smp#:	1
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Tune Method:	BFB Method 8260				

$ 133 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.50
75	30.00 - 60.00% of mass 95	51.00
96	5.00 - 9.00% of mass 95	6.70
173	Less than 2.00% of mass 174	0.40 (0.50)
174	50.00 - 120.00% of mass 95	80.80
175	5.00 - 9.00% of mass 174	6.00 (7.40)
176	95.00 - 101.00% of mass 174	77.50 (95.90)
177	5.00 - 9.00% of mass 176	4.90 (6.40)

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-001.D\MR_TO15.rslt\spectra.d
Injection Date: 21-Jan-2014 17:09:30
Spectrum: Tune Spec: Scans 410-412(4.76-4.77) Bgrd 395(4.72)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	209	69.00	99032	112.00	467	152.00	334
31.00	27936	70.00	7736	113.00	755	153.00	828
32.00	1392	71.00	342	115.00	586	154.00	536
33.00	6088	72.00	4899	116.00	3160	155.00	1738
34.00	201	73.00	38936	117.00	5601	156.00	175
36.00	8528	74.00	158336	118.00	3141	157.00	1385
37.00	50880	75.00	483264	119.00	4610	158.00	174
38.00	47384	76.00	42136	120.00	269	159.00	1491
39.00	18328	77.00	5125	122.00	253	160.00	91
40.00	535	78.00	3214	123.00	256	161.00	1019
42.00	51	79.00	28136	124.00	540	162.00	38
44.00	6349	80.00	8922	125.00	378	163.00	58
45.00	10403	81.00	28544	126.00	542	169.00	138
46.00	884	82.00	6747	127.00	233	170.00	46
47.00	15121	83.00	930	128.00	3086	171.00	64
48.00	5952	84.00	95	129.00	1421	172.00	1034
49.00	46192	86.00	834	130.00	3033	173.00	3809
50.00	231936	87.00	37224	131.00	1245	174.00	765888
51.00	70776	88.00	35600	132.00	222	175.00	56848
52.00	3066	90.00	62	133.00	63	176.00	734336
53.00	30	91.00	2694	134.00	369	177.00	46800
54.00	41	92.00	24832	135.00	1325	178.00	1417
55.00	2496	93.00	38984	136.00	448	191.00	194
56.00	16131	94.00	111816	137.00	1557	193.00	140
57.00	31128	95.00	947328	139.00	340	195.00	260
58.00	1129	96.00	63552	140.00	636	196.00	119
59.00	101	97.00	2249	141.00	8756	198.00	132
60.00	8617	98.00	41	142.00	1172	207.00	354
61.00	46592	103.00	625	143.00	8506	208.00	187
62.00	46816	104.00	4263	144.00	660	209.00	258
63.00	35728	105.00	1058	145.00	709	210.00	35
64.00	3364	106.00	3604	146.00	1283	221.00	111
65.00	702	107.00	897	147.00	457	252.00	63

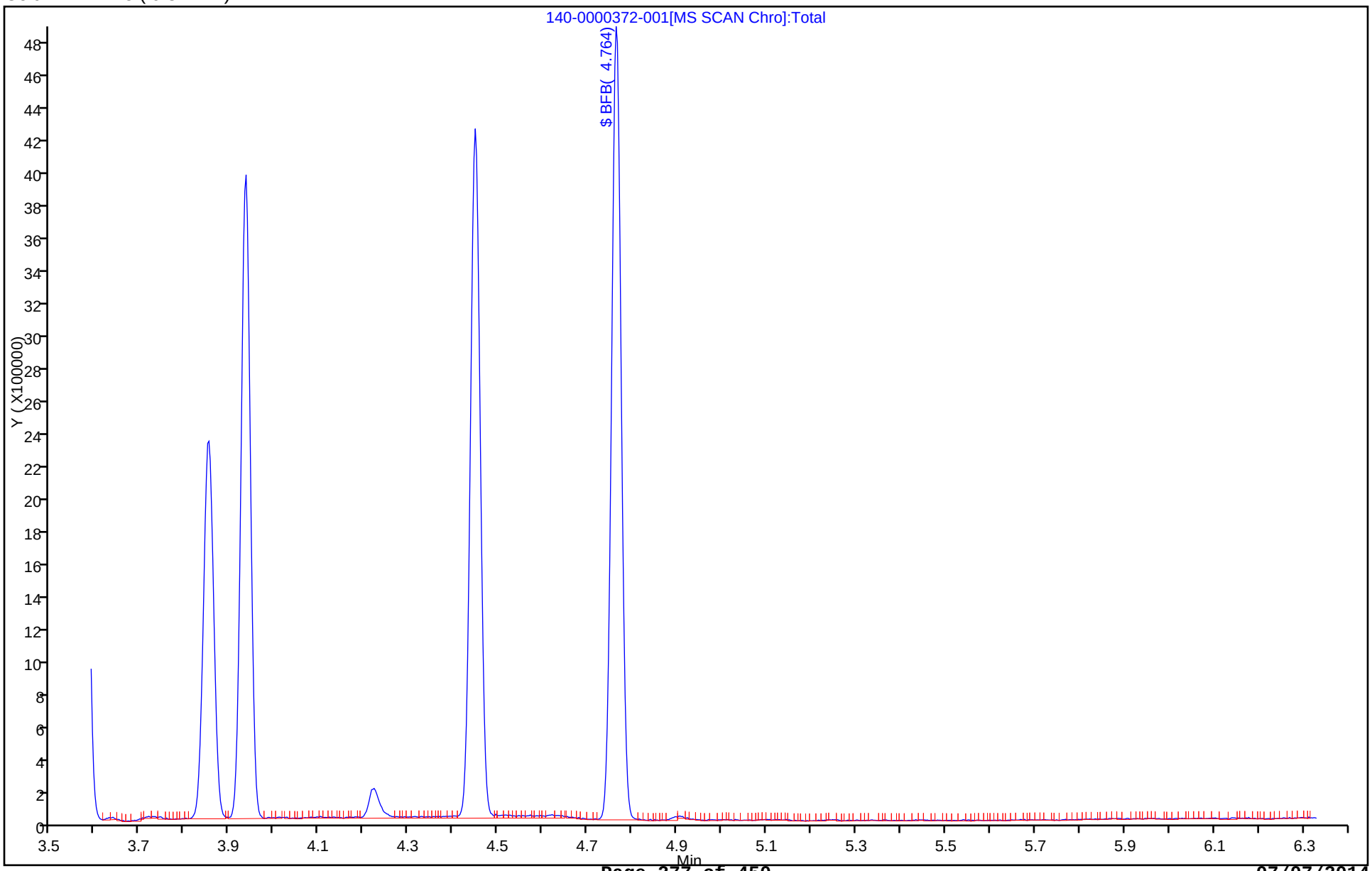
Report Date: 23-Jan-2014 16:18:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26
Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-001.D\MR_TO15.rslt\spectra.d
Injection Date: 21-Jan-2014 17:09:30
Spectrum: Tune Spec: Scans 410-412(4.76-4.77) Bgrd 395(4.72)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	107	108.00	92	148.00	1903	253.00	189
67.00	1728	110.00	563	149.00	1086	254.00	503
68.00	97256	111.00	784	150.00	965	255.00	83

Report Date: 23-Jan-2014 16:18:58 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-001.D				
Injection Date:	21-Jan-2014 17:09:30	Instrument ID:	MR	Operator ID:	403648
Lims ID:	BFB	Lab Sample ID:		Worklist Smp#:	1
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column: RTX-5 (0.32 mm)					



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\RBFBA24a.D
Lims ID: bfb Lab Sample ID:
Client ID:
Sample Type: BFB
Inject. Date: 24-Jan-2014 09:38:30 ALS Bottle#: 16 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: bfb,,3,,
Misc. Info.: R012414,BFB,140-0000382-001 =R012414,BFB,140-0000382-001
Operator ID: 7126 Instrument ID: MR

Method: \\KNXCHROM\ChromData\MR\20140121-372.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 24-Jan-2014 14:05:16 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK050

First Level Reviewer: barlozhetskayaa Date: 24-Jan-2014 14:05:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	On-Col Amt ppb v/v	Flags
$ 133 BFB	95	4.767	4.764	0.003	0	1439226	NR	

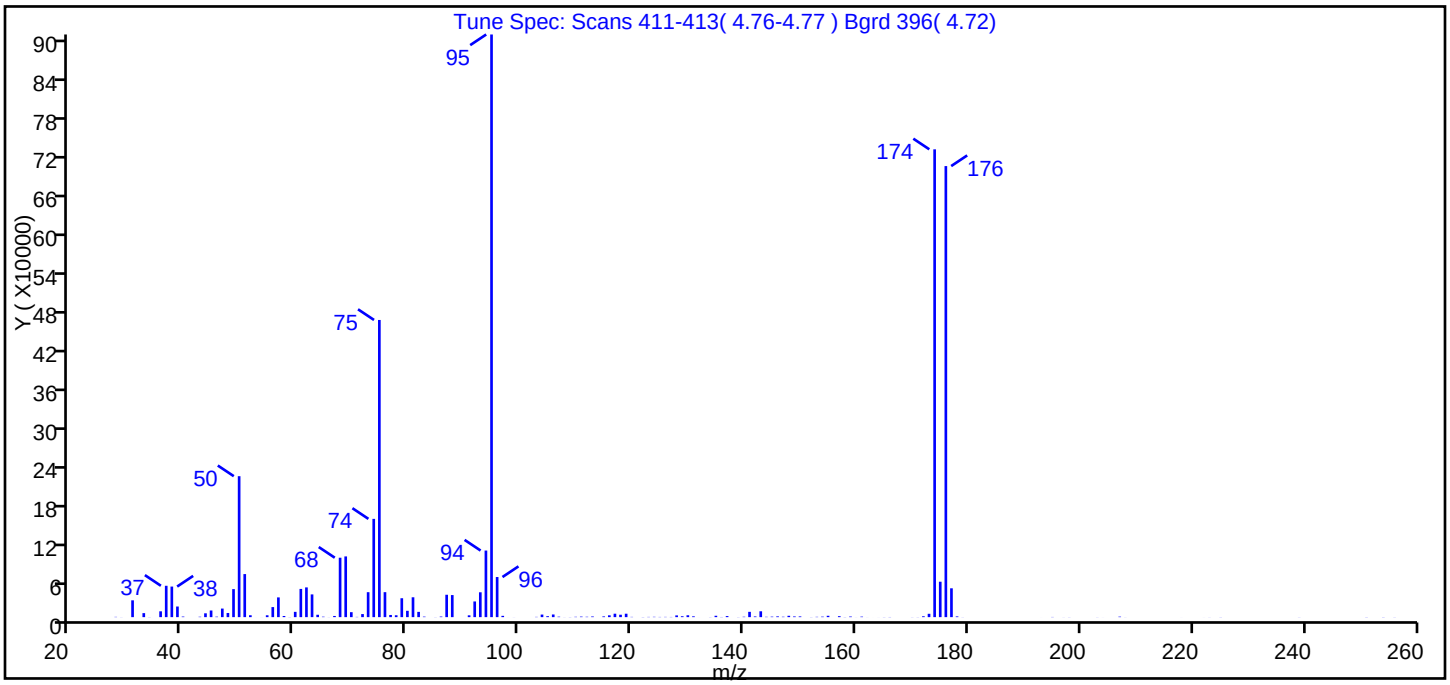
Report Date: 24-Jan-2014 14:05:16 Chrom Revision: 2.1 15-Jan-2014 14:06:26

MS Tune Report

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\RBFBA24a.D				
Injection Date:	24-Jan-2014 09:38:30	Instrument ID:	MR		
Lims ID:	bfb	Lab Sample ID:			
Client ID:					
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	15
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Tune Method:	BFB Method 8260				

$ 133 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.20
75	30.00 - 60.00% of mass 95	51.00
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.60 (0.70)
174	50.00 - 120.00% of mass 95	80.30
175	5.00 - 9.00% of mass 174	6.10 (7.60)
176	95.00 - 101.00% of mass 174	77.40 (96.40)
177	5.00 - 9.00% of mass 176	5.00 (6.40)

Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\RBFBA24a.D\MR_TO15.rslt\spectra.d
Injection Date: 24-Jan-2014 09:38:30
Spectrum: Tune Spec: Scans 411-413(4.76-4.77) Bgrd 396(4.72)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 148

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	421	70.00	7743	113.00	1025	155.00	2132
29.00	107	71.00	367	115.00	1150	157.00	1491
31.00	26216	72.00	4799	116.00	2839	158.00	189
33.00	6255	73.00	38912	117.00	5365	159.00	951
34.00	157	74.00	153216	118.00	3761	160.00	61
36.00	9100	75.00	463360	119.00	5342	161.00	793
37.00	48904	76.00	38944	120.00	391	162.00	49
38.00	47680	77.00	3383	122.00	209	163.00	18
39.00	16576	78.00	2937	123.00	353	164.00	45
40.00	890	79.00	29496	124.00	501	165.00	162
43.00	618	80.00	9875	125.00	320	166.00	237
44.00	5975	81.00	30976	126.00	394	170.00	128
45.00	10375	82.00	8211	127.00	293	171.00	149
46.00	742	83.00	803	128.00	2715	172.00	1340
47.00	13371	85.00	140	129.00	1378	173.00	5226
48.00	6481	86.00	930	130.00	2920	174.00	729408
49.00	43704	87.00	34896	131.00	1260	175.00	55232
50.00	219776	88.00	34416	132.00	30	176.00	703296
51.00	67144	91.00	2827	134.00	153	177.00	44984
52.00	2934	92.00	24456	135.00	2148	178.00	1134
53.00	23	93.00	38760	136.00	242	179.00	123
54.00	50	94.00	103824	137.00	1673	193.00	22
55.00	2909	95.00	908480	139.00	165	195.00	295
56.00	15668	96.00	62552	140.00	615	197.00	84
57.00	30784	97.00	2017	141.00	8275	198.00	139
58.00	1790	98.00	34	142.00	1078	203.00	115
59.00	172	99.00	77	143.00	9141	204.00	43
60.00	8253	103.00	414	144.00	526	207.00	762
61.00	44008	104.00	4022	145.00	792	208.00	84
62.00	46368	105.00	1491	146.00	1197	218.00	36
63.00	35456	106.00	4155	147.00	635	222.00	37
64.00	3707	107.00	719	148.00	2116	223.00	98
65.00	695	108.00	91	149.00	1083	225.00	161

Report Date: 24-Jan-2014 14:05:16 Chrom Revision: 2.1 15-Jan-2014 14:06:26
Data File: \\KNXCHROM\ChromData\MR\20140121-372.b\RBFBA24a.D\MR_TO15.rslt\spectra.d
Injection Date: 24-Jan-2014 09:38:30
Spectrum: Tune Spec: Scans 411-413(4.76-4.77) Bgrd 396(4.72)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 148

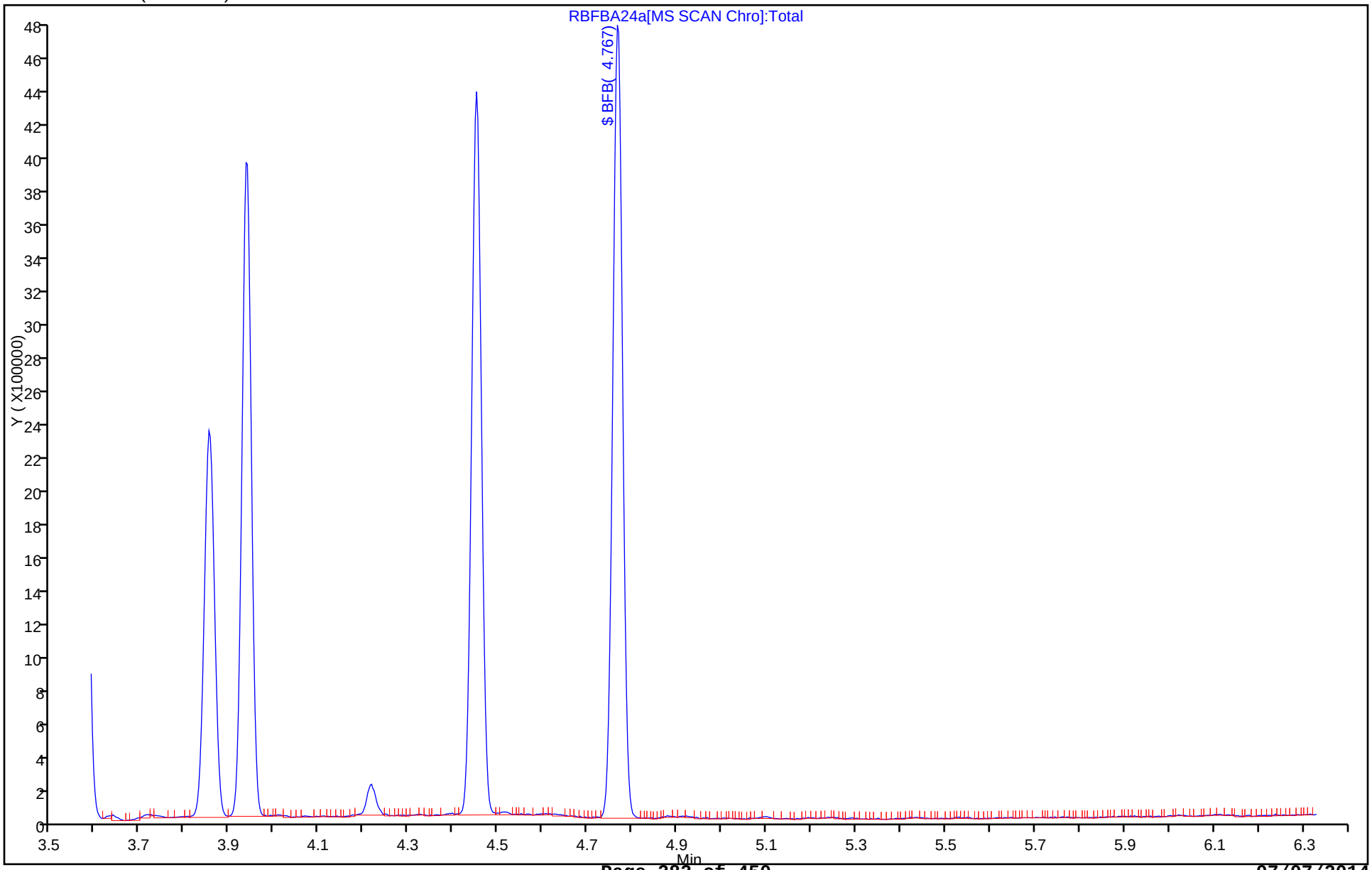
m/z	Y	m/z	Y	m/z	Y	m/z	Y
66.00	109	109.00	170	150.00	1132	239.00	133
67.00	1828	110.00	523	152.00	161	251.00	205
68.00	92664	111.00	851	153.00	481	254.00	211
69.00	94680	112.00	590	154.00	777	256.00	143

Report Date: 24-Jan-2014 14:05:16 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140121-372.b\RBFBA24a.D				
Injection Date:	24-Jan-2014 09:38:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	bfb	Lab Sample ID:		Worklist Smp#:	15
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RBFBF27.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-Jun-2014 10:37:30	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	100.0 mL	Dil. Factor:	1.0000		
Sample Info:	bfb,,3,,				
Misc. Info.:	R062714,BFB,140-0000780-001				
Operator ID:	71256	Instrument ID:	MR		
Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Jun-2014 17:09:20	Calib Date:	22-Jan-2014 00:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK036				
First Level Reviewer: barlozhetskayaa		Date:	27-Jun-2014 17:09:19		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
$ 133 BFB	95	4.741	4.741	0.000	0	1099835	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

MAbfb1_00001 Amount Added: 40.00 Units: mL

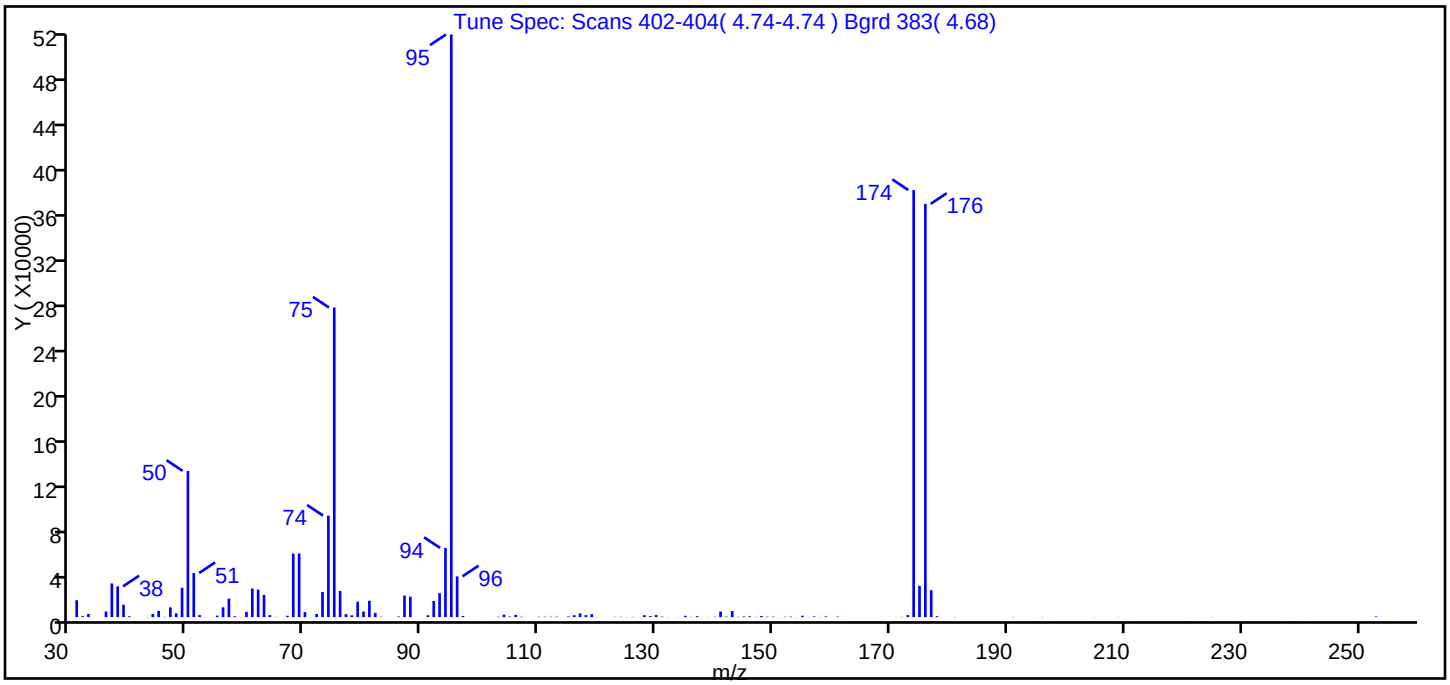
Report Date: 27-Jun-2014 17:09:21 Chrom Revision: 2.2 24-Jun-2014 07:21:42

MS Tune Report

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RBFBF27.D				
Injection Date:	27-Jun-2014 10:37:30	Instrument ID:	MR		
Lims ID:	BFB				
Client ID:					
Operator ID:	71256	ALS Bottle#:	16	Worklist Smp#:	1
Injection Vol:	100.0 mL	Dil. Factor:	1.0000		
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Tune Method:	BFB Method 8260				

$ 133 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.10
75	30.00 - 60.00% of mass 95	53.10
96	5.00 - 9.00% of mass 95	7.00
173	Less than 2.00% of mass 174	0.40 (0.50)
174	50.00 - 120.00% of mass 95	73.30
175	5.00 - 9.00% of mass 174	5.40 (7.30)
176	95.00 - 101.00% of mass 174	70.90 (96.80)
177	5.00 - 9.00% of mass 176	4.60 (6.50)

Data File: \\KNXCHROM\ChromData\MR\20140626-780.b\RBFBF27.D\MR_TO15.rslt\spectra.d
Injection Date: 27-Jun-2014 10:37:30
Spectrum: Tune Spec: Scans 402-404(4.74-4.74) Bgrd 383(4.68)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	14911	72.00	2708	118.00	1782	158.00	104
32.00	815	73.00	22080	119.00	2548	159.00	638
33.00	2861	74.00	89384	120.00	132	161.00	495
34.00	81	75.00	272576	122.00	44	163.00	57
36.00	4984	76.00	23064	123.00	280	165.00	87
37.00	29672	77.00	2628	124.00	307	166.00	98
38.00	27088	78.00	1612	125.00	159	167.00	75
39.00	10972	79.00	13581	126.00	232	171.00	82
40.00	774	80.00	4988	128.00	1708	172.00	246
43.00	137	81.00	14403	129.00	886	173.00	1813
44.00	2847	82.00	3764	130.00	1833	174.00	376000
45.00	5523	83.00	331	131.00	474	175.00	27584
46.00	270	85.00	37	132.00	91	176.00	363840
47.00	8634	86.00	547	134.00	89	177.00	23688
48.00	3321	87.00	19008	135.00	1192	178.00	856
49.00	25856	88.00	18104	136.00	203	181.00	167
50.00	128784	91.00	1637	137.00	876	191.00	186
51.00	38808	92.00	14247	139.00	158	192.00	20
52.00	1779	93.00	21176	140.00	325	195.00	70
53.00	148	94.00	60920	141.00	4940	196.00	166
55.00	1332	95.00	512960	142.00	485	198.00	41
56.00	8669	96.00	35888	143.00	5412	205.00	84
57.00	16323	97.00	1001	144.00	261	209.00	142
58.00	805	100.00	42	145.00	571	210.00	36
59.00	102	103.00	361	146.00	710	211.00	44
60.00	4627	104.00	2202	147.00	216	221.00	56
61.00	25224	105.00	512	148.00	1046	223.00	83
62.00	24288	106.00	1974	149.00	373	225.00	156
63.00	19560	107.00	378	150.00	421	238.00	81
64.00	1783	110.00	344	151.00	43	239.00	45
65.00	186	111.00	400	152.00	347	241.00	41
67.00	1195	112.00	355	153.00	431	251.00	50
68.00	56032	113.00	447	154.00	105	253.00	605

Report Date: 27-Jun-2014 17:09:21 Chrom Revision: 2.2 24-Jun-2014 07:21:42
Data File: \\KNXCHROM\ChromData\MR\20140626-780.b\RBFBF27.D\MR_TO15.rslt\spectra.d
Injection Date: 27-Jun-2014 10:37:30
Spectrum: Tune Spec: Scans 402-404(4.74-4.74) Bgrd 383(4.68)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 144

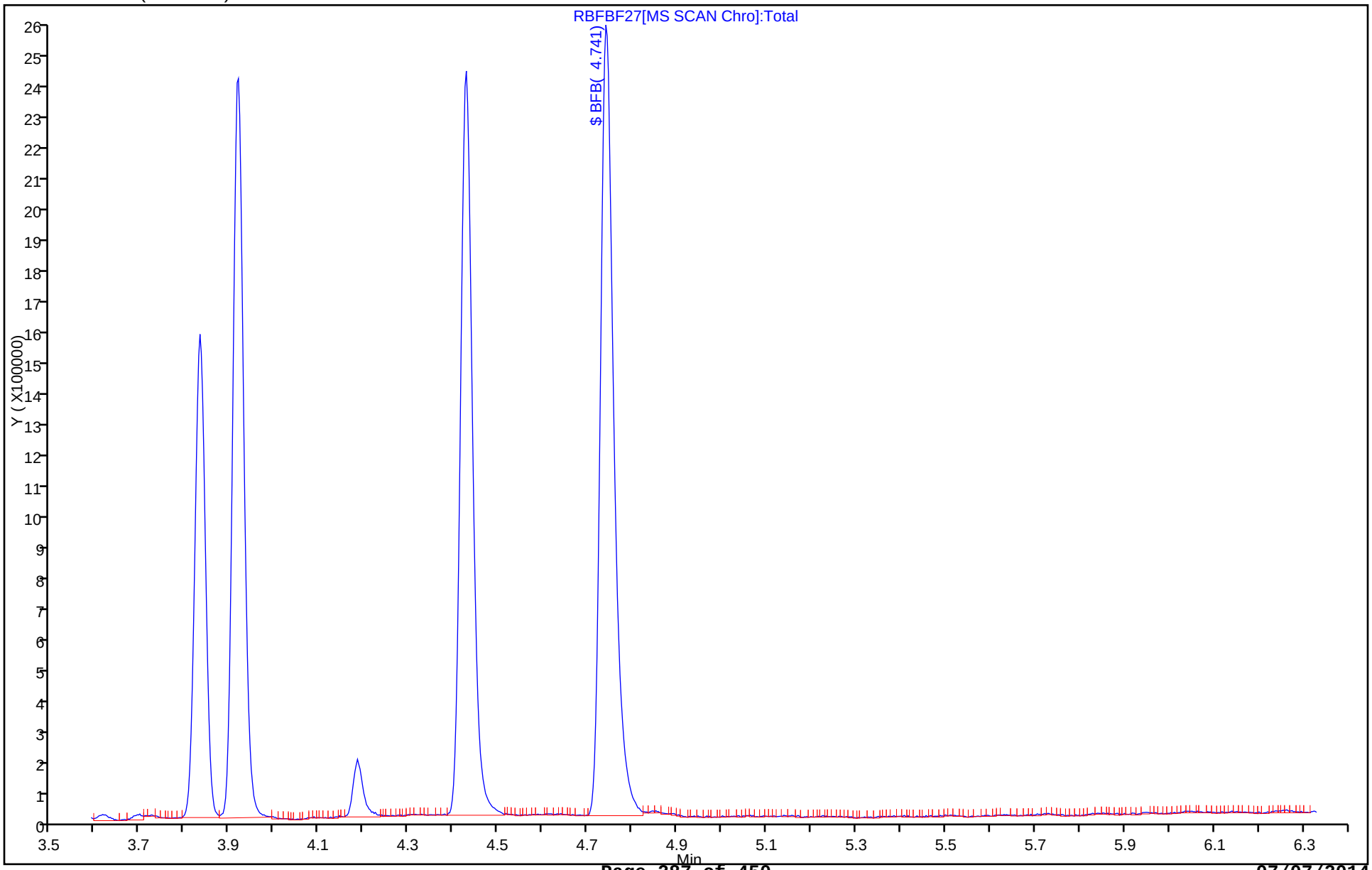
m/z	Y	m/z	Y	m/z	Y	m/z	Y
69.00	56088	115.00	578	155.00	1235	254.00	9
70.00	4455	116.00	1703	156.00	151	255.00	23
71.00	121	117.00	3305	157.00	622	257.00	35

Report Date: 27-Jun-2014 17:09:21 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RBFBF27.D				
Injection Date:	27-Jun-2014 10:37:30	Instrument ID:	MR	Operator ID:	71256
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	100.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 140-1390/4

Matrix: Air | Lab File ID: RBLKF27.D

Analysis Method: TO-15 | Date Collected:

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		0.20	
100-44-7	Benzyl chloride	126.58	ND		0.40	
74-83-9	Bromomethane	94.94	ND		0.20	
56-23-5	Carbon tetrachloride	153.81	ND		0.20	
108-90-7	Chlorobenzene	112.56	ND		0.20	
75-00-3	Chloroethane	64.52	ND		0.20	
67-66-3	Chloroform	119.38	ND		0.20	
74-87-3	Chloromethane	50.49	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.20	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.20	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.20	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.20	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.20	
75-34-3	1,1-Dichloroethane	98.96	ND		0.20	
107-06-2	1,2-Dichloroethane	98.96	ND		0.20	
75-35-4	1,1-Dichloroethene	96.94	ND		0.20	
78-87-5	1,2-Dichloropropane	112.99	ND		0.20	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.20	
100-41-4	Ethylbenzene	106.17	ND		0.20	
87-68-3	Hexachlorobutadiene	260.76	ND		1.0	
75-09-2	Methylene Chloride	84.93	ND		0.50	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.20	
95-47-6	o-Xylene	106.17	ND		0.20	
100-42-5	Styrene	104.15	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.20	
127-18-4	Tetrachloroethene	165.83	ND		0.20	
108-88-3	Toluene	92.14	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.0	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.20	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.20	
79-01-6	Trichloroethene	131.39	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 140-1390/4

Matrix: Air | Lab File ID: RBLKF27.D

Analysis Method: TO-15 | Date Collected:

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		0.20	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		0.20	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.20	
75-01-4	Vinyl chloride	62.50	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 140-1390/4

Matrix: Air | Lab File ID: RBLKF27.D

Analysis Method: TO-15 | Date Collected:

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	ND		0.64	
100-44-7	Benzyl chloride	126.58	ND		2.1	
74-83-9	Bromomethane	94.94	ND		0.78	
56-23-5	Carbon tetrachloride	153.81	ND		1.3	
108-90-7	Chlorobenzene	112.56	ND		0.92	
75-00-3	Chloroethane	64.52	ND		0.53	
67-66-3	Chloroform	119.38	ND		0.98	
74-87-3	Chloromethane	50.49	ND		1.0	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.79	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.91	
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		1.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.2	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.2	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.2	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.99	
75-34-3	1,1-Dichloroethane	98.96	ND		0.81	
107-06-2	1,2-Dichloroethane	98.96	ND		0.81	
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	
78-87-5	1,2-Dichloropropane	112.99	ND		0.92	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		1.4	
100-41-4	Ethylbenzene	106.17	ND		0.87	
87-68-3	Hexachlorobutadiene	260.76	ND		11	
75-09-2	Methylene Chloride	84.93	ND		1.7	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.87	
95-47-6	o-Xylene	106.17	ND		0.87	
100-42-5	Styrene	104.15	ND		0.85	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.4	
127-18-4	Tetrachloroethene	165.83	ND		1.4	
108-88-3	Toluene	92.14	ND		0.75	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.91	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		7.4	
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.1	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.1	
79-01-6	Trichloroethene	131.39	ND		1.1	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 140-1390/4

Matrix: Air | Lab File ID: RBLKF27.D

Analysis Method: TO-15 | Date Collected:

Sample wt/vol: 200(mL) | Date Analyzed: 06/27/2014 13:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	ND		1.1	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	ND		1.5	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.98	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.98	
75-01-4	Vinyl chloride	62.50	ND		0.51	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RBLKF27.D				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	27-Jun-2014 13:47:30	ALS Bottle#:	16	Worklist Smp#:	4
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	200ML BLANK				
Misc. Info.:	R062714,TO15,140-0000780-004				
Operator ID:	7126	Instrument ID:	MR		
Method:	\\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	27-Jun-2014 17:46:31	Calib Date:	22-Jan-2014 00:00:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK036				
First Level Reviewer: barlozhetskayaa		Date:	27-Jun-2014 17:46:46		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.414	8.420	-0.006	97	327304	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.701	10.712	-0.011	96	1739624	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.015	17.031	-0.016	90	1458897	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.765	19.782	-0.017	86	1210956	4.00	4.21	
142 Tert-amyl methyl ether	73	10.701	10.652	0.049	22	21654		NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

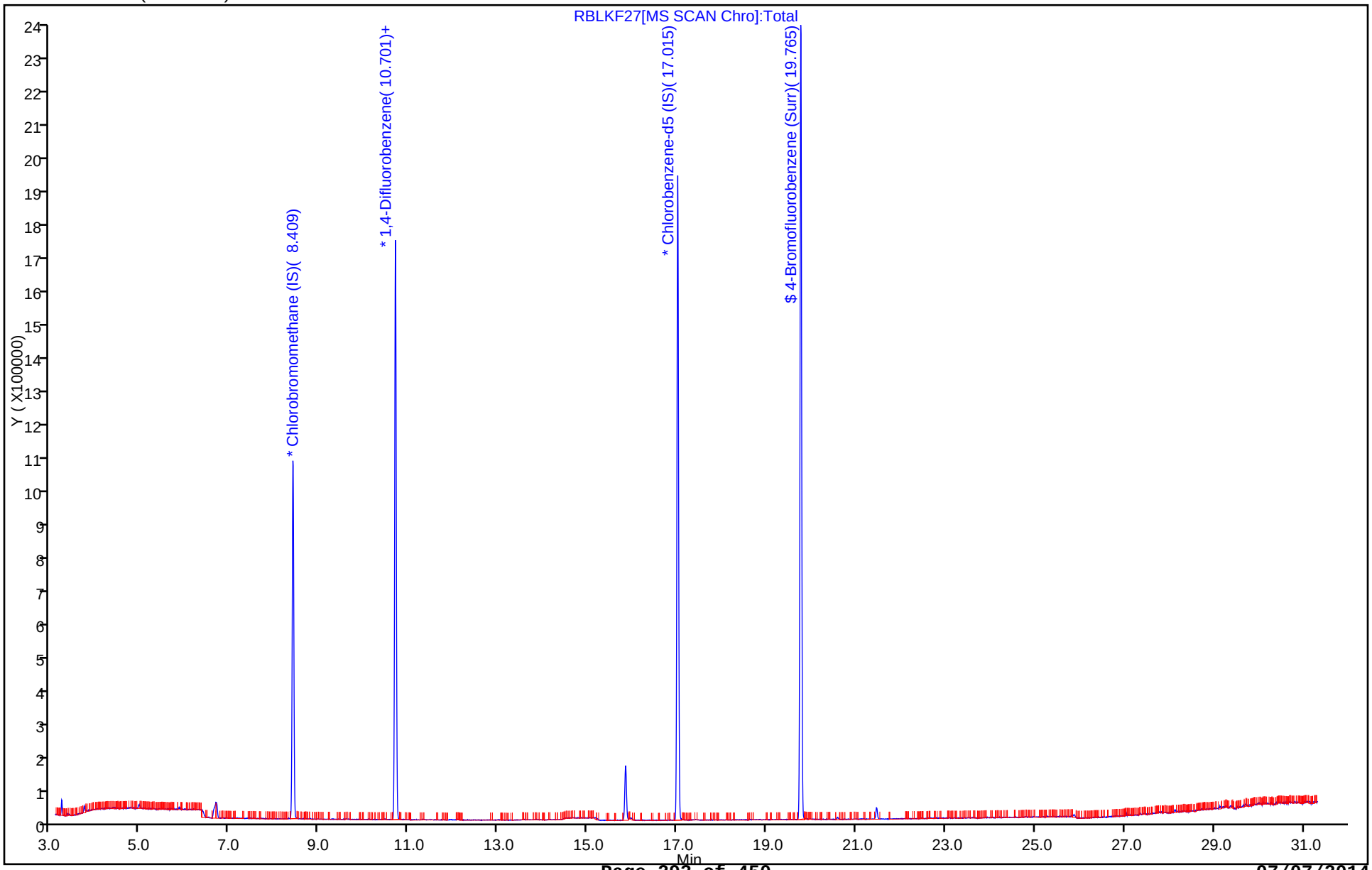
MAissur1_00001 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 27-Jun-2014 17:46:47 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RBLKF27.D				
Injection Date:	27-Jun-2014 13:47:30	Instrument ID:	MR	Operator ID:	7126
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1594-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 140-1390/1002

Matrix: Air | Lab File ID: RCCVF27-LCS.d

Analysis Method: TO-15 | Date Collected:

Sample wt/vol: 100(mL) | Date Analyzed: 06/27/2014 11:04

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1390 | Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-43-2	Benzene	78.11	2.21		0.080	
100-44-7	Benzyl chloride	126.58	2.41		0.16	
74-83-9	Bromomethane	94.94	1.63		0.080	
56-23-5	Carbon tetrachloride	153.81	2.43		0.080	
108-90-7	Chlorobenzene	112.56	2.22		0.080	
75-00-3	Chloroethane	64.52	1.67		0.080	
67-66-3	Chloroform	119.38	2.46		0.080	
74-87-3	Chloromethane	50.49	1.54		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	2.35		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.38		0.080	
106-93-4	1,2-Dibromoethane (EDB)	187.87	2.22		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	2.00		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	2.06		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	2.07		0.080	
75-71-8	Dichlorodifluoromethane	120.91	1.78		0.080	
75-34-3	1,1-Dichloroethane	98.96	2.40		0.080	
107-06-2	1,2-Dichloroethane	98.96	2.37		0.080	
75-35-4	1,1-Dichloroethene	96.94	2.48		0.080	
78-87-5	1,2-Dichloropropane	112.99	2.18		0.080	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	1.75		0.080	
100-41-4	Ethylbenzene	106.17	2.37		0.080	
87-68-3	Hexachlorobutadiene	260.76	1.70		0.40	
75-09-2	Methylene Chloride	84.93	2.39		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	4.66		0.080	
95-47-6	o-Xylene	106.17	2.31		0.080	
100-42-5	Styrene	104.15	2.41		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.31		0.080	
127-18-4	Tetrachloroethene	165.83	2.17		0.080	
108-88-3	Toluene	92.14	2.26		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.45		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	1.89		0.40	
71-55-6	1,1,1-Trichloroethane	133.41	2.52		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	2.19		0.080	
79-01-6	Trichloroethene	131.39	2.15		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville
Job No.: 140-1594-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 140-1390/1002
Matrix: Air
Lab File ID: RCCVF27-LCS.d
Analysis Method: TO-15
Date Collected:
Sample wt/vol: 100(mL)
Date Analyzed: 06/27/2014 11:04
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-5 ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 1390
Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	137.37	2.29		0.080	
76-13-1	1,1,2-Trichloro-1,2,2-tr ifluoroethane	187.38	2.55		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.17		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.19		0.080	
75-01-4	Vinyl chloride	62.50	1.60		0.080	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MR\20140626-780.b\RCCVF27-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 27-Jun-2014 11:04:30 ALS Bottle#: 8 Worklist Smp#: 1002
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: ccvis,,2,6,,
Misc. Info.: R062714,TO15,140-0000780-002
Operator ID: 71256 Instrument ID: MR

Method: \\KNXCHROM\ChromData\MR\20140626-780.b\MR_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 27-Jun-2014 17:46:31 Calib Date: 22-Jan-2014 00:00:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MR\20140121-372.b\140-0000372-010.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK036

First Level Reviewer: barlozhetskayaa Date: 27-Jun-2014 17:46:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.420	8.420	0.000	95	312705	4.00	4.00	
* 2 1,4-Difluorobenzene	114	10.712	10.712	0.000	94	1668736	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	17.031	17.031	0.000	90	1400584	4.00	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	19.782	19.782	0.000	87	1124119	4.00	4.07	
6 Chlorodifluoromethane	67	3.389	3.389	0.000	90	70366	1.98	2.09	
7 Propene	41	3.394	3.394	0.000	97	189654	1.98	1.44	
8 Dichlorodifluoromethane	85	3.443	3.443	0.000	99	560372	1.98	1.78	
9 Chloromethane	52	3.594	3.594	0.000	98	71316	1.98	1.54	
10 1,2-Dichloro-1,1,2,2-tetra	135	3.610	3.610	0.000	92	393521	1.98	1.75	
11 Acetaldehyde	44	3.734	3.734	0.000	96	597271	9.90	4.18	
12 Vinyl chloride	62	3.755	3.755	0.000	99	226760	1.98	1.60	
14 Butadiene	54	3.836	3.836	0.000	91	186632	1.98	1.56	
13 Butane	43	3.842	3.842	0.000	91	390223	1.98	1.65	
15 Bromomethane	94	4.138	4.138	0.000	98	194238	1.98	1.63	
16 Chloroethane	64	4.273	4.273	0.000	91	120203	1.98	1.67	
17 Ethanol	31	4.381	4.381	0.000	97	580814	9.90	11.0	
18 Vinyl bromide	106	4.570	4.570	0.000	97	210786	1.98	1.83	
19 2-Methylbutane	43	4.629	4.629	0.000	92	319395	1.98	1.78	
21 Acrolein	56	4.829	4.829	0.000	96	102608	1.98	1.60	
20 Trichlorofluoromethane	101	4.839	4.839	0.000	99	709363	1.98	2.29	
22 Acetonitrile	40	4.882	4.882	0.000	98	159364	1.98	2.66	
23 Acetone	58	4.936	4.936	0.000	91	505983	5.94	1.28	
25 Isopropyl alcohol	45	5.050	5.050	0.000	93	1435239	5.94	5.93	
24 Pentane	72	5.071	5.071	0.000	97	52339	1.98	2.06	
26 Ethyl ether	31	5.222	5.222	0.000	92	386234	1.98	2.29	
27 1,1-Dichloroethene	96	5.535	5.535	0.000	93	247628	1.98	2.48	
28 Acrylonitrile	53	5.616	5.616	0.000	94	248727	1.98	2.24	
29 2-Methyl-2-propanol	59	5.643	5.643	0.000	96	565451	1.98	2.29	
30 1,1,2-Trichloro-1,2,2-trif	101	5.729	5.729	0.000	94	534103	1.98	2.55	
31 Methylene Chloride	84	5.869	5.869	0.000	94	234719	1.98	2.39	
32 3-Chloro-1-propene	39	5.891	5.891	0.000	92	272471	1.98	2.36	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.036	6.036	0.000	100	772562	1.98	2.27	
34 trans-1,2-Dichloroethene	96	6.694	6.694	0.000	94	261125	1.98	2.12	
35 2-Methylpentane	43	6.743	6.743	0.000	96	780226	1.98	2.26	
36 Methyl tert-butyl ether	73	6.829	6.829	0.000	96	765269	1.98	2.29	
37 1,1-Dichloroethane	63	7.104	7.104	0.000	99	533596	1.98	2.40	
38 Vinyl acetate	43	7.217	7.217	0.000	100	870255	1.98	2.41	
39 2-Butanone (MEK)	72	7.649	7.649	0.000	98	141538	1.98	1.97	
40 Hexane	56	7.740	7.740	0.000	90	258682	1.98	2.10	
141 Isopropyl ether	45	7.886	7.886	0.000	97	1106401	NC	NC	
41 cis-1,2-Dichloroethene	96	8.096	8.096	0.000	98	268142	1.98	2.35	
42 Ethyl acetate	43	8.296	8.296	0.000	98	759339	1.98	2.31	
43 Chloroform	83	8.452	8.452	0.000	96	571958	1.98	2.46	
144 Tert-butyl ethyl ether	59	8.571	8.571	0.000	97	892590	1.98	11.4	
44 Tetrahydrofuran	42	8.846	8.846	0.000	93	392823	1.98	2.20	
45 1,1,1-Trichloroethane	97	9.498	9.498	0.000	96	572857	1.98	2.52	
46 1,2-Dichloroethane	62	9.579	9.579	0.000	95	435566	1.98	2.37	
49 n-Butanol	31	10.086	10.086	0.000	62	126618	1.98	2.36	
47 Benzene	78	10.113	10.113	0.000	97	812126	1.98	2.21	
48 Cyclohexane	69	10.135	10.135	0.000	93	131314	1.98	2.11	
50 Carbon tetrachloride	117	10.151	10.151	0.000	97	597416	1.98	2.43	
51 2,3-Dimethylpentane	71	10.291	10.291	0.000	91	177954	1.98	2.22	
52 Thiophene	84	10.393	10.393	0.000	97	485869	1.98	2.20	
142 Tert-amyl methyl ether	73	10.652	10.652	0.000	95	751974	NC	NC	
53 Isooctane	57	11.008	11.008	0.000	98	1570979	1.98	2.10	
54 n-Heptane	71	11.450	11.450	0.000	95	301049	1.98	2.14	
55 1,2-Dichloropropane	63	11.461	11.461	0.000	82	326652	1.98	2.18	
56 Trichloroethene	130	11.526	11.526	0.000	95	339421	1.98	2.15	
57 Dibromomethane	93	11.585	11.585	0.000	91	314742	1.98	2.18	
58 Dichlorobromomethane	83	11.779	11.779	0.000	98	618319	1.98	2.36	
59 1,4-Dioxane	88	11.790	11.790	0.000	96	126284	1.98	2.18	
60 Methyl methacrylate	41	11.930	11.930	0.000	95	475580	1.98	2.19	
61 Methylcyclohexane	83	12.486	12.486	0.000	91	487470	1.98	2.15	
62 4-Methyl-2-pentanone (MIBK	43	12.982	12.982	0.000	99	815085	1.98	2.10	
63 cis-1,3-Dichloropropene	75	13.041	13.041	0.000	97	473181	1.98	2.38	
64 trans-1,3-Dichloropropene	75	13.969	13.969	0.000	97	488625	1.98	2.45	
65 Toluene	91	14.147	14.147	0.000	93	979326	1.98	2.26	
66 1,1,2-Trichloroethane	83	14.227	14.227	0.000	98	278501	1.98	2.19	
67 2-Methylthiophene	97	14.346	14.346	0.000	98	821865	1.98	2.23	
68 3-Methylthiophene	97	14.626	14.626	0.000	99	837756	1.98	2.23	
69 2-Hexanone	58	14.810	14.810	0.000	90	360476	1.98	1.99	
71 Chlorodibromomethane	129	15.203	15.203	0.000	96	539135	1.98	2.31	
70 n-Octane	85	15.220	15.220	0.000	97	321296	1.98	2.05	
72 Ethylene Dibromide	107	15.613	15.613	0.000	98	497797	1.98	2.22	
73 Tetrachloroethene	129	15.780	15.780	0.000	94	321373	1.98	2.17	
74 Chlorobenzene	112	17.102	17.102	0.000	90	769927	1.98	2.22	
75 2,3-Dimethylheptane	43	17.280	17.280	0.000	95	1211600	1.98	2.27	
76 Ethylbenzene	91	17.614	17.614	0.000	99	1279389	1.98	2.37	
77 2-Ethylthiophene	97	17.765	17.765	0.000	99	973762	1.98	2.37	
78 m-Xylene & p-Xylene	91	17.889	17.889	0.000	99	1995478	3.96	4.66	
79 Bromoform	173	18.531	18.531	0.000	95	522064	1.98	2.35	
80 Styrene	104	18.644	18.644	0.000	98	727863	1.98	2.41	
81 n-Nonane	57	18.725	18.725	0.000	95	810490	1.98	2.23	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
82 o-Xylene	91	18.746	18.746	0.000	97	1021030	1.98	2.31	
83 1,1,2,2-Tetrachloroethane	83	19.280	19.280	0.000	99	769910	1.98	2.31	
84 1,2,3-Trichloropropane	110	19.544	19.544	0.000	96	222946	1.98	2.18	
85 Isopropylbenzene	105	19.782	19.782	0.000	97	1436348	1.98	2.11	
86 N-Propylbenzene	120	20.741	20.741	0.000	97	398973	1.98	2.16	
87 2-Chlorotoluene	126	20.768	20.768	0.000	93	345163	1.98	2.17	
88 4-Ethyltoluene	105	21.033	21.033	0.000	98	1523279	1.98	2.19	
89 1,3,5-Trimethylbenzene	120	21.189	21.189	0.000	91	679237	1.98	2.19	
90 Alpha Methyl Styrene	118	21.615	21.615	0.000	84	561403	1.98	2.27	
91 n-Decane	57	21.901	21.901	0.000	87	1035245	1.98	2.06	
92 tert-Butylbenzene	119	21.992	21.992	0.000	87	1284303	1.98	2.13	
93 1,2,4-Trimethylbenzene	105	22.019	22.019	0.000	96	1250762	1.98	2.17	
94 1,3-Dichlorobenzene	146	22.494	22.494	0.000	98	797868	1.98	2.06	
95 sec-Butylbenzene	105	22.548	22.548	0.000	96	1826537	1.98	2.13	
96 Benzyl chloride	91	22.667	22.667	0.000	97	1135542	1.98	2.41	
97 1,4-Dichlorobenzene	146	22.683	22.683	0.000	91	807831	1.98	2.07	
98 4-Isopropyltoluene	119	22.915	22.915	0.000	94	1577569	1.98	2.15	
99 1,2,3-Trimethylbenzene	105	22.968	22.968	0.000	99	1138784	1.98	2.20	
100 Butylcyclohexane	83	23.163	23.163	0.000	90	1034599	1.98	2.24	
101 1,2-Dichlorobenzene	146	23.427	23.427	0.000	92	747490	1.98	2.00	
102 2,3-Dihydroindene	117	23.454	23.454	0.000	90	1124573	1.98	2.15	
103 Indene	116	23.723	23.723	0.000	88	1125799	1.98	2.19	
104 n-Butylbenzene	91	23.864	23.864	0.000	99	1476919	1.98	2.17	
105 1,2-Dimethyl-4-Ethylbenzen	119	24.716	24.716	0.000	98	1500213	1.98	2.18	
106 Undecane	57	24.780	24.780	0.000	92	1162637	1.98	2.13	
143 1,2-Dibromo-3-Chloropropan	157	24.780	24.780	0.000	35	229520	NC	NC	
107 1,2,4,5-Tetramethylbenzene	119	25.632	25.632	0.000	96	1531614	1.98	2.13	
108 1,2,3,5-Tetramethylbenzene	119	25.756	25.756	0.000	95	956835	1.98	2.12	
109 1,2,3,4-Tetramethylbenzene	119	26.662	26.662	0.000	97	1250522	1.98	2.08	
110 Dodecane	57	27.293	27.293	0.000	93	1037474	1.98	1.99	
111 1,2,4-Trichlorobenzene	180	27.358	27.358	0.000	89	594858	1.98	1.89	
112 Naphthalene	128	27.595	27.595	0.000	99	1434456	1.98	2.06	
113 Benzo(b)thiophene	134	27.789	27.789	0.000	99	1080932	1.98	1.97	
114 Hexachlorobutadiene	225	28.140	28.140	0.000	84	503586	1.98	1.70	
115 1,2,3-Trichlorobenzene	180	28.172	28.172	0.000	93	561399	1.98	1.88	
116 2-Methylnaphthalene	142	29.666	29.666	0.000	99	678613	12.4	12.9	
117 1-Methylnaphthalene	142	29.973	29.973	0.000	99	540030	12.4	12.2	
A 118 C6 Range	1	7.754	(7.676-7.805)		0	2298470	1.98	1.84	
A 119 Toluene Range	1	14.176	(14.076-14.260)		0	4403669	1.98	2.72	
A 120 C8 Range	1	15.225	(15.160-15.290)		0	5437739	1.98	2.18	
S 124 Xylenes, Total	100				0		5.94	6.97	

QC Flag Legend

Processing Flags
NC - Not Calibrated

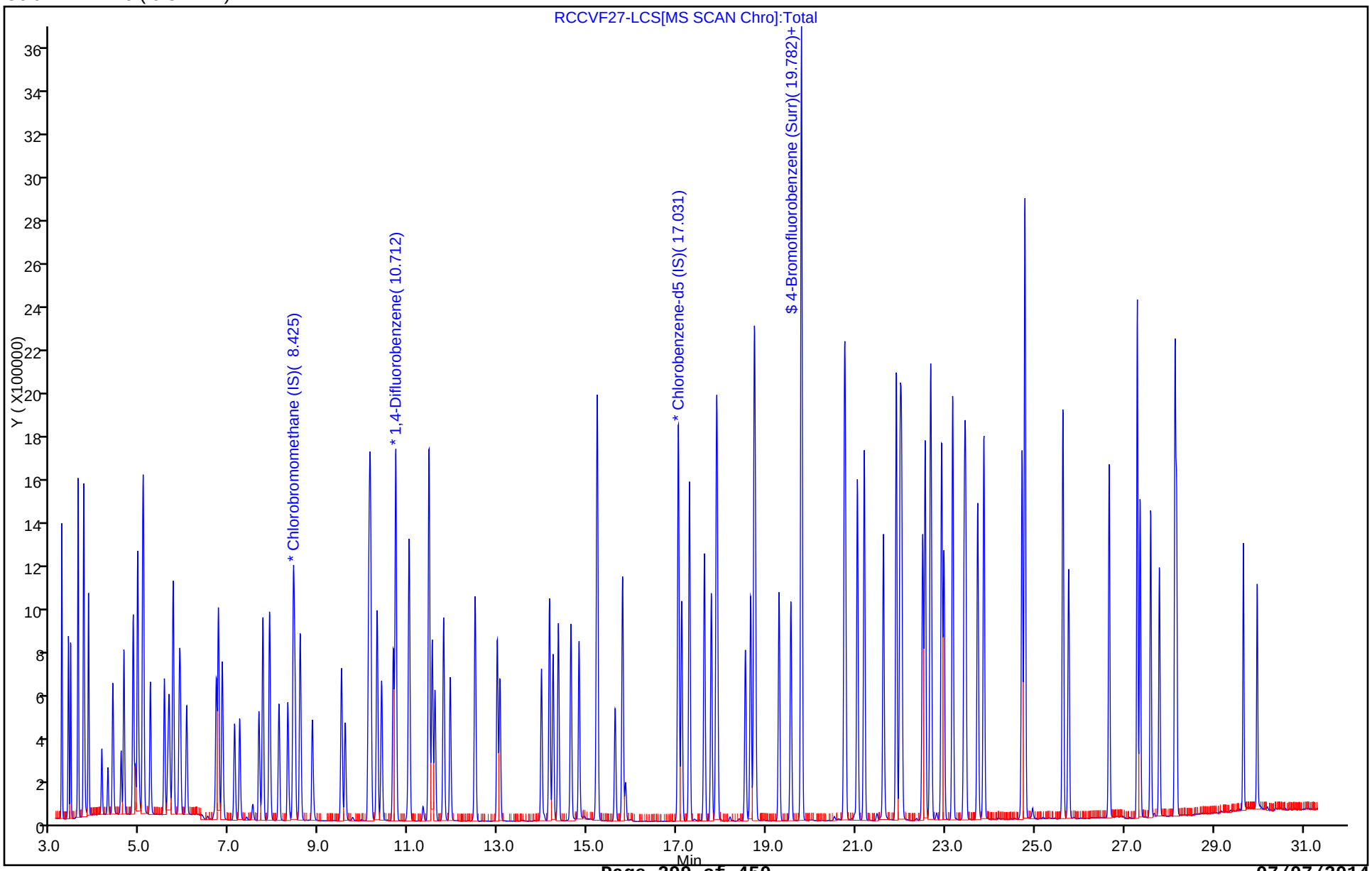
Reagents:

MAicv10_00029	Amount Added: 100.00	Units: mL	
MAissur1_00001	Amount Added: 40.00	Units: mL	Run Reagent

Report Date: 27-Jun-2014 17:46:33 Chrom Revision: 2.2 24-Jun-2014 07:21:42

TestAmerica Laboratories

Data File:	\\KNXCHROM\ChromData\MR\20140626-780.b\RCCVF27-LCS.d				
Injection Date:	27-Jun-2014 11:04:30	Instrument ID:	MR	Operator ID:	71256
Lims ID:	LCS			Worklist Smp#:	1002
Client ID:					
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MR_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column: RTX-5 (0.32 mm)					



AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Instrument ID: MR Start Date: 01/21/2014 17:09

Analysis Batch Number: 722 End Date: 01/24/2014 11:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-722/1		01/21/2014 17:09	1	140-0000372-001 .D	RTX-5 0.32(mm)
IC 140-722/2		01/21/2014 17:35	1	140-0000372-002 .D	RTX-5 0.32(mm)
IC 140-722/3		01/21/2014 18:23	1	140-0000372-003 .D	RTX-5 0.32(mm)
IC 140-722/4		01/21/2014 19:12	1	140-0000372-004 .D	RTX-5 0.32(mm)
IC 140-722/5		01/21/2014 20:00	1	140-0000372-005 .D	RTX-5 0.32(mm)
IC 140-722/6		01/21/2014 20:48	1	140-0000372-006 .D	RTX-5 0.32(mm)
IC 140-722/7 ICIS		01/21/2014 21:36	1	140-0000372-007 .D	RTX-5 0.32(mm)
IC 140-722/8		01/21/2014 22:24	1	140-0000372-008 .D	RTX-5 0.32(mm)
IC 140-722/9		01/21/2014 23:13	1	140-0000372-009 .D	RTX-5 0.32(mm)
IC 140-722/10		01/22/2014 00:00	1	140-0000372-010 .D	RTX-5 0.32(mm)
ICV 140-722/13		01/22/2014 02:26	1		RTX-5 0.32(mm)
BFB 140-722/15		01/24/2014 09:38	1	RBFBA24a.D	RTX-5 0.32(mm)
ICV 140-722/16		01/24/2014 11:35	1	RICVA24a.D	RTX-5 0.32(mm)

TO-15

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Knoxville Job No.: 140-1594-1

SDG No.:

Instrument ID: MR Start Date: 06/27/2014 10:37

Analysis Batch Number: 1390 End Date: 06/28/2014 06:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-1390/1		06/27/2014 10:37	1	RBFBF27.D	RTX-5 0.32(mm)
CCVIS 140-1390/2		06/27/2014 11:04	1	RCCVF27.D	RTX-5 0.32(mm)
LCS 140-1390/1002		06/27/2014 11:04	1	RCCVF27-LCS.d	RTX-5 0.32(mm)
MB 140-1390/4		06/27/2014 13:47	1	RBLKF27.D	RTX-5 0.32(mm)
ZZZZZ		06/27/2014 14:40	1		RTX-5 0.32(mm)
ZZZZZ		06/27/2014 15:35	1		RTX-5 0.32(mm)
ZZZZZ		06/27/2014 16:29	1		RTX-5 0.32(mm)
ZZZZZ		06/27/2014 17:22	1		RTX-5 0.32(mm)
ZZZZZ		06/27/2014 19:22	1		RTX-5 0.32(mm)
140-1594-1	SMSSV14	06/27/2014 20:14	1	RF27P105.D	RTX-5 0.32(mm)
140-1594-2	SMSSV15D	06/27/2014 21:07	1	RF27P106.D	RTX-5 0.32(mm)
140-1594-3	SMSSV15	06/27/2014 21:58	1	RF27P107.D	RTX-5 0.32(mm)
140-1594-4	SMSSV16	06/27/2014 22:49	1	RF27P108.D	RTX-5 0.32(mm)
140-1594-5	SMSSV AMBIENT	06/27/2014 23:43	1	RF27P109.D	RTX-5 0.32(mm)
140-1594-6	SMSSV10-20	06/28/2014 00:35	1	RF27P110.D	RTX-5 0.32(mm)
140-1594-7	SMSSV8-15	06/28/2014 01:28	4.55	RF27P111.D	RTX-5 0.32(mm)
140-1594-8	SMSSV13-11	06/28/2014 02:20	2.3	RF27P112.D	RTX-5 0.32(mm)
140-1594-9	SMSSV11-11	06/28/2014 03:12	1	RF27P113.D	RTX-5 0.32(mm)
140-1594-10	SMSSV9-10	06/28/2014 04:05	1	RF27P114.D	RTX-5 0.32(mm)
140-1594-11	SMSSV4-15	06/28/2014 04:57	1	RF27P115.D	RTX-5 0.32(mm)
140-1594-12	SMSSV3-10	06/28/2014 05:50	111.09	RF27P201.D	RTX-5 0.32(mm)
140-1594-13	SMSSV3D-10	06/28/2014 06:43	109.8	RF27P202.D	RTX-5 0.32(mm)

Summa Canister Dilution Worksheet

Client: J.M. Waller Associates, Inc.

Job No.: 140-1594-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-1594-7	1	-22	0.26	0.26	3.0	1.20	1.20		4.55	4.55	06/26/14 15:53	Barlozhetskaya, Anna F
140-1594-8	1	-14.5	0.52	0.52	2.7	1.18	1.18		2.30	2.30	06/26/14 15:54	Barlozhetskaya, Anna F
140-1594-12	1	-6.1	0.80	0.80	32.2	3.19	3.19		4.01	4.01	06/27/14 12:51	Barlozhetskaya, Anna F
140-1594-12	1	0.0	1.00	1.00	31.2	3.12	3.12		3.12	12.51	06/27/14 12:52	Barlozhetskaya, Anna F
140-1594-12	1	0.0	1.00	1.00	28.6	2.95	2.95		2.95	36.91	06/27/14 12:52	Barlozhetskaya, Anna F
140-1594-12	1	0.0	1.00	1.00	29.5	3.01	3.01		3.01	111.09	06/27/14 12:53	Barlozhetskaya, Anna F
140-1594-13	1	-6.1	0.80	0.80	30.0	3.04	3.04		3.82	3.82	06/27/14 12:54	Barlozhetskaya, Anna F
140-1594-13	1	0.0	1.00	1.00	30.7	3.09	3.09		3.09	11.80	06/27/14 12:55	Barlozhetskaya, Anna F
140-1594-13	1	0.0	1.00	1.00	30.1	3.05	3.05		3.05	36.00	06/27/14 12:55	Barlozhetskaya, Anna F
140-1594-13	1	0.0	1.00	1.00	30.1	3.05	3.05		3.05	109.80	06/27/14 12:56	Barlozhetskaya, Anna F

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10499 | Lab Sample ID: 140-1372-2

Matrix: Air | Lab File ID: 140-1372-a-2.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 13:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10499 | Lab Sample ID: 140-1372-2

Matrix: Air | Lab File ID: 140-1372-a-2.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 13:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10499 | Lab Sample ID: 140-1372-2

Matrix: Air | Lab File ID: 140-1372-a-2.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 13:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10499 | Lab Sample ID: 140-1372-2

Matrix: Air | Lab File ID: 140-1372-a-2.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 13:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-2.D				
Lims ID:	140-1372-A-2	Lab Sample ID:	140-1372-2		
Client ID:	10499				
Sample Type:	Client				
Inject. Date:	27-May-2014 13:32:30	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10499				
Misc. Info.:	G052714,TO15,140-0000709-005				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	28-May-2014 13:42:38	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK015	

First Level Reviewer: barlozhetskayaa Date: 28-May-2014 13:42:38

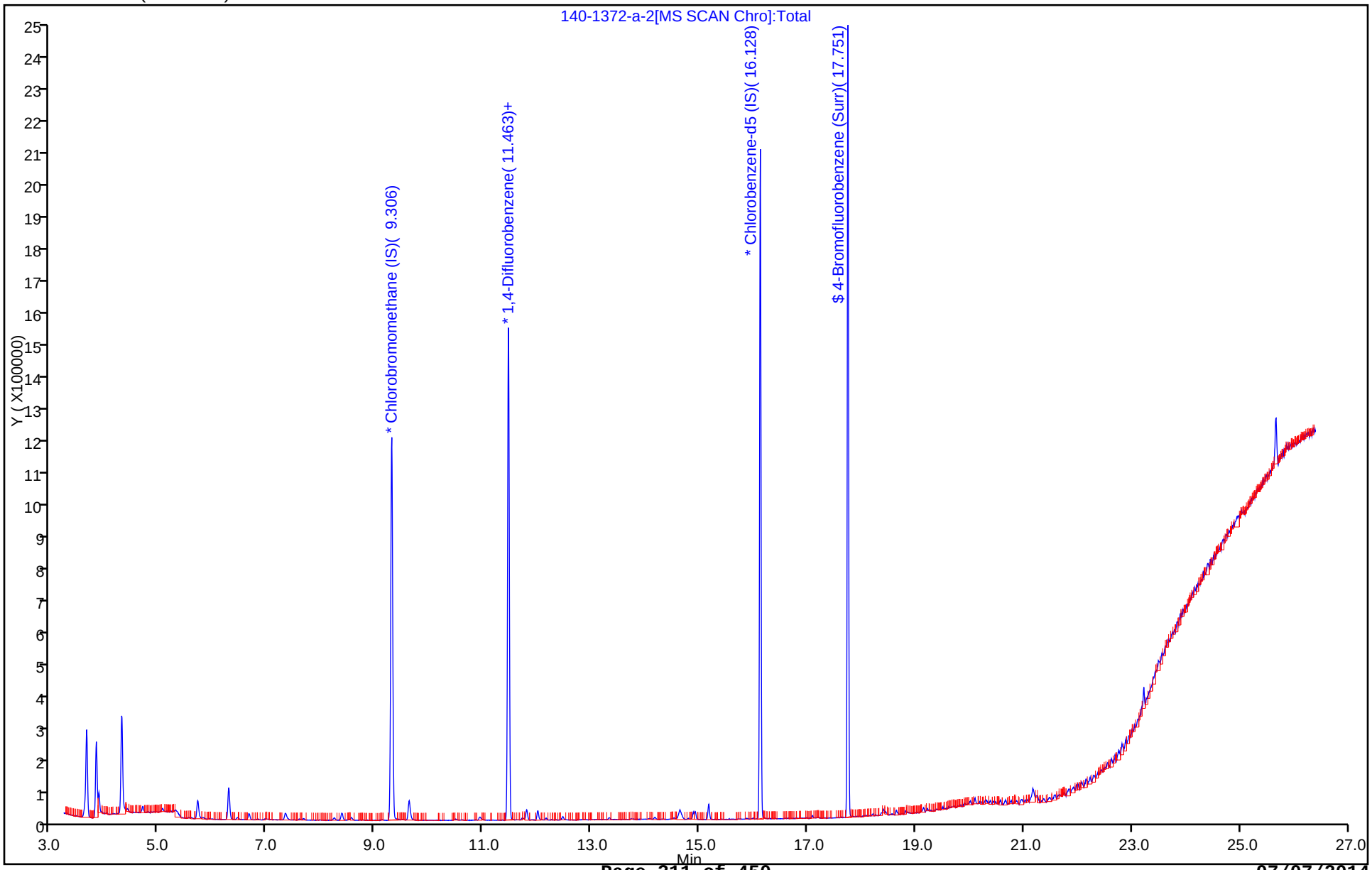
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.306	9.301	0.005	96	347937	4.00	
* 2 1,4-Difluorobenzene	114	11.469	11.463	0.006	96	1314222	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	92	1075465	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.746	-0.001	85	792649	4.00	
7 Propene	41	3.887	3.871	0.016	94	11393	0.0773	
19 2-Methylbutane	43	5.300	5.284	0.016	75	2646	0.0185	
25 Isopropyl alcohol	45	5.812	5.785	0.027	47	6099	0.0377	
30 2-Methyl-2-propanol	59	6.454	6.411	0.043	75	7639	0.0366	
31 Methylene Chloride	84	6.659	6.659	0.000	91	8744	0.0771	
51 n-Butanol	31	10.940	10.897	0.043	74	5399	0.1285	
69 2-Hexanone	58	14.629	14.623	0.006	84	3110	0.0274	

Report Date: 28-May-2014 13:42:38 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-2.D				
Injection Date:	27-May-2014 13:32:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-2	Lab Sample ID:	140-1372-2	Worklist Smp#:	5
Client ID:	10499				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09787 | Lab Sample ID: 140-1372-4

Matrix: Air | Lab File ID: 140-1372-a-4.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09787 | Lab Sample ID: 140-1372-4

Matrix: Air | Lab File ID: 140-1372-a-4.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09787 | Lab Sample ID: 140-1372-4

Matrix: Air | Lab File ID: 140-1372-a-4.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09787 | Lab Sample ID: 140-1372-4

Matrix: Air | Lab File ID: 140-1372-a-4.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-4.D				
Lims ID:	140-1372-A-4	Lab Sample ID:	140-1372-4		
Client ID:	09787				
Sample Type:	Client				
Inject. Date:	27-May-2014 14:14:30	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09787				
Misc. Info.:	G052714,TO15,140-0000709-006				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-May-2014 13:43:05	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: barlozhetskayaa		Date:	28-May-2014 13:43:05		

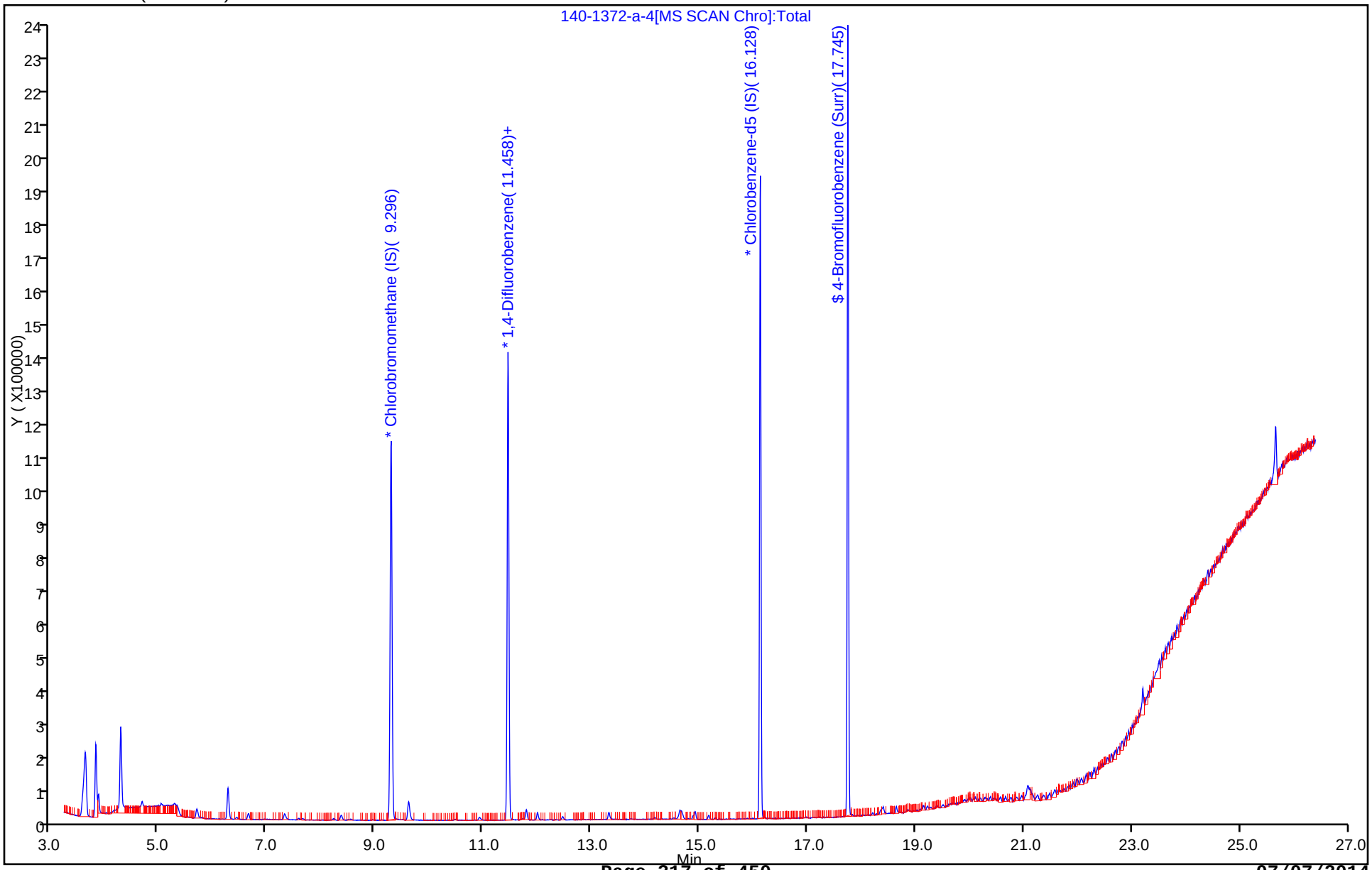
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.296	9.301	-0.005	96	327927	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.463	-0.005	96	1182339	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	91	1001355	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.746	-0.001	85	764054	4.14	
7 Propene	41	3.876	3.871	0.005	71	9743	0.0702	
19 2-Methylbutane	43	5.278	5.284	-0.006	80	3508	0.0261	
30 2-Methyl-2-propanol	59	6.438	6.411	0.027	83	6450	0.0328	
31 Methylene Chloride	84	6.653	6.659	-0.006	91	8494	0.0794	
51 n-Butanol	31	10.935	10.897	0.038	75	4468	0.1182	
62 4-Methyl-2-pentanone (MIBK	43	13.324	13.308	0.016	96	17187	0.0693	

Report Date: 28-May-2014 13:43:06 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-4.D				
Injection Date:	27-May-2014 14:14:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-4	Lab Sample ID:	140-1372-4	Worklist Smp#:	6
Client ID:	09787				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09833 | Lab Sample ID: 140-1372-5

Matrix: Air | Lab File ID: 140-1372-a-5.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09833 | Lab Sample ID: 140-1372-5

Matrix: Air | Lab File ID: 140-1372-a-5.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09833 | Lab Sample ID: 140-1372-5

Matrix: Air | Lab File ID: 140-1372-a-5.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 14:59

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09833 Lab Sample ID: 140-1372-5

Matrix: Air Lab File ID: 140-1372-a-5.D

Analysis Method: TO-15 Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) Date Analyzed: 05/27/2014 14:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1280 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-5.D				
Lims ID:	140-1372-A-5	Lab Sample ID:	140-1372-5		
Client ID:	09833				
Sample Type:	Client				
Inject. Date:	27-May-2014 14:59:30	ALS Bottle#:	4	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09833				
Misc. Info.:	G052714,TO15,140-0000709-007				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-May-2014 13:43:58	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: barlozhetskayaa		Date:	28-May-2014 13:43:57		

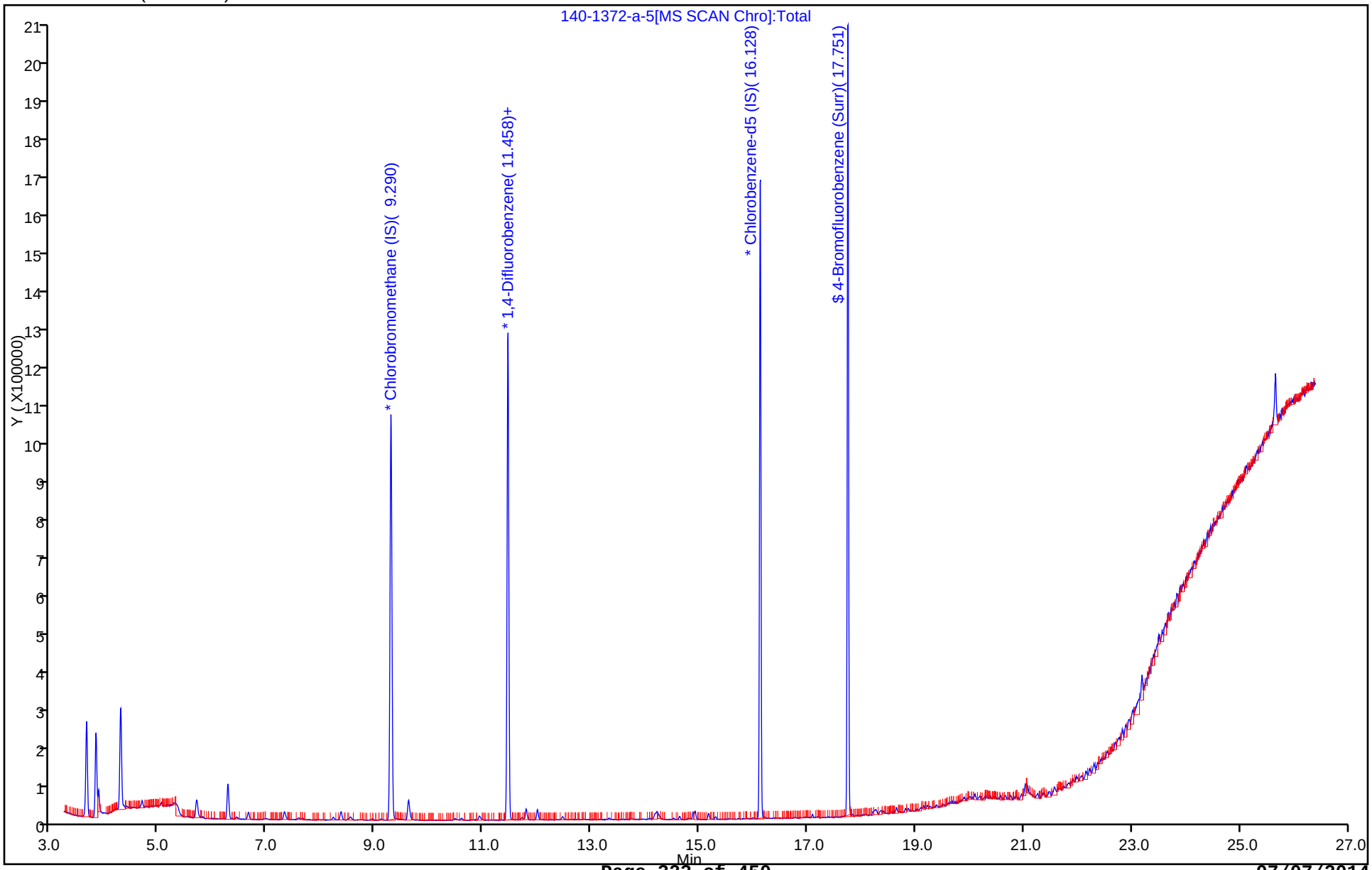
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.290	9.301	-0.011	96	303922	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.463	-0.005	96	1087139	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	92	883183	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.746	17.746	0.000	85	679488	4.17	
6 Chlorodifluoromethane	67	3.860	3.860	0.000	39	765	0.0190	
7 Propene	41	3.876	3.871	0.005	87	10843	0.0843	
19 2-Methylbutane	43	5.284	5.284	0.000	70	2229	0.0179	
25 Isopropyl alcohol	45	5.791	5.785	0.006	32	5943	0.0421	
30 2-Methyl-2-propanol	59	6.438	6.411	0.027	78	7026	0.0385	
31 Methylene Chloride	84	6.648	6.659	-0.011	92	8423	0.0850	
51 n-Butanol	31	10.946	10.897	0.049	73	4507	0.1297	
69 2-Hexanone	58	14.634	14.623	0.011	83	2931	0.0315	

Report Date: 28-May-2014 13:43:58 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-5.D				
Injection Date:	27-May-2014 14:59:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-5	Lab Sample ID:	140-1372-5	Worklist Smp#:	7
Client ID:	09833				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09812 | Lab Sample ID: 140-1372-6

Matrix: Air | Lab File ID: 140-1372-a-6.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 15:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09812 | Lab Sample ID: 140-1372-6

Matrix: Air | Lab File ID: 140-1372-a-6.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 15:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09812 | Lab Sample ID: 140-1372-6

Matrix: Air | Lab File ID: 140-1372-a-6.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 15:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09812 | Lab Sample ID: 140-1372-6

Matrix: Air | Lab File ID: 140-1372-a-6.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 15:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-6.D				
Lims ID:	140-1372-A-6	Lab Sample ID:	140-1372-6		
Client ID:	09812				
Sample Type:	Client				
Inject. Date:	27-May-2014 15:44:30	ALS Bottle#:	5	Worklist Smp#:	8
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09812				
Misc. Info.:	G052714,TO15,140-0000709-008				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-May-2014 13:45:19	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: barlozhetskayaa		Date:	28-May-2014 13:45:19		

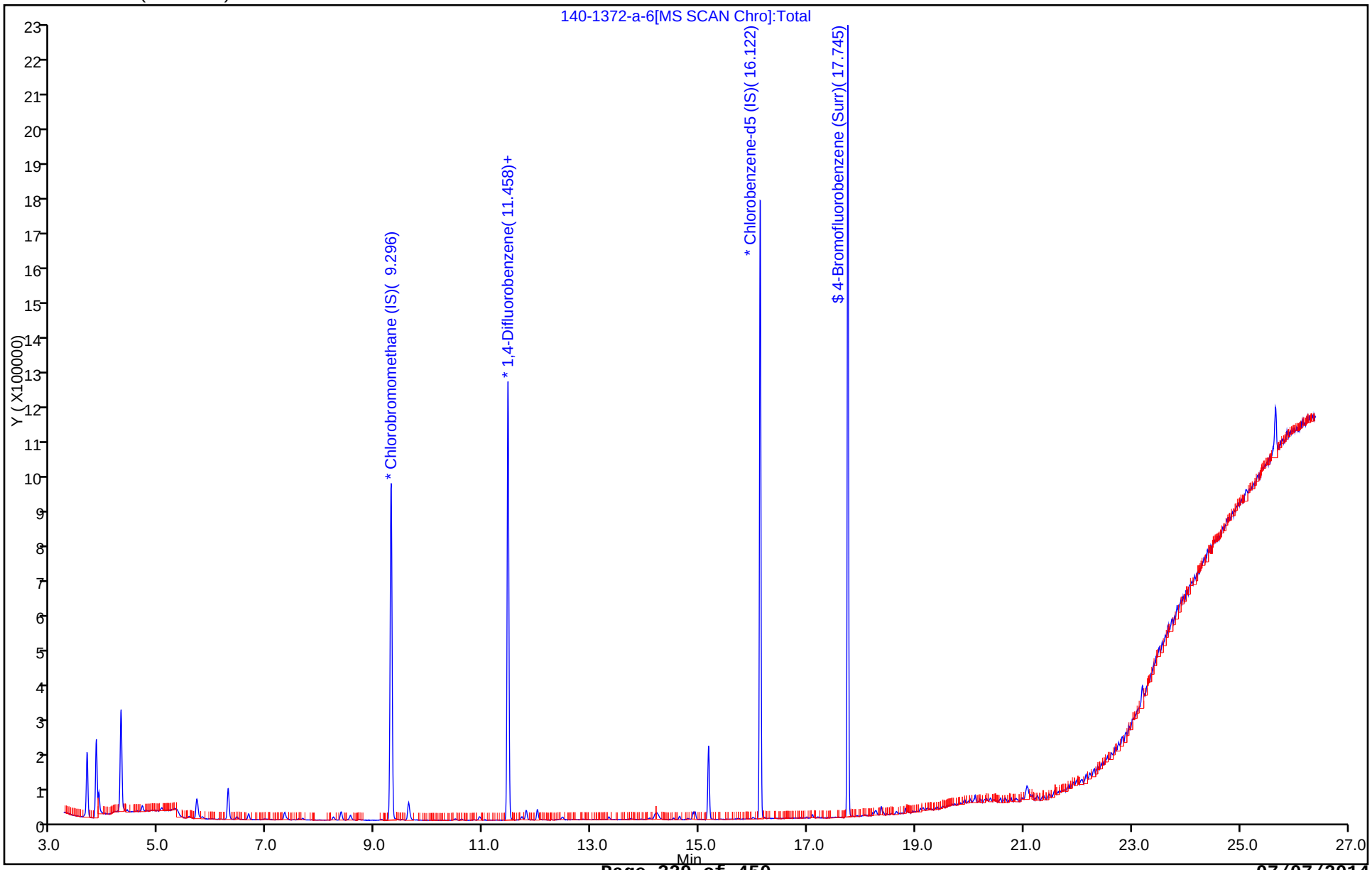
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.296	9.301	-0.005	96	289696	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.463	-0.005	96	1097817	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	91	972308	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.746	-0.001	85	751059	4.19	
6 Chlorodifluoromethane	67	3.871	3.860	0.011	1	591	0.0154	
7 Propene	41	3.882	3.871	0.011	72	12850	0.1048	
19 2-Methylbutane	43	5.300	5.284	0.016	77	3104	0.0261	
21 Acrolein	56	5.559	5.553	0.006	77	4460	0.1130	
23 Acetone	58	5.704	5.683	0.021	91	35870	0.6389	
25 Isopropyl alcohol	45	5.796	5.785	0.011	29	8755	0.0650	
30 2-Methyl-2-propanol	59	6.432	6.411	0.021	74	10009	0.0576	
31 Methylene Chloride	84	6.659	6.659	0.000	89	7653	0.0810	
40 2-Butanone (MEK)	72	8.546	8.525	0.021	95	4165	0.0958	
51 n-Butanol	31	10.924	10.897	0.027	71	4648	0.1324	
62 4-Methyl-2-pentanone (MIBK	43	13.324	13.308	0.016	89	7543	0.0328	
69 2-Hexanone	58	14.634	14.623	0.011	86	3538	0.0345	

Report Date: 28-May-2014 13:45:20 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-6.D				
Injection Date:	27-May-2014 15:44:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-6	Lab Sample ID:	140-1372-6	Worklist Smp#:	8
Client ID:	09812				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10518 | Lab Sample ID: 140-1372-14

Matrix: Air | Lab File ID: 140-1372-a-14.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10518 | Lab Sample ID: 140-1372-14

Matrix: Air | Lab File ID: 140-1372-a-14.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10518 | Lab Sample ID: 140-1372-14

Matrix: Air | Lab File ID: 140-1372-a-14.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 10518 | Lab Sample ID: 140-1372-14

Matrix: Air | Lab File ID: 140-1372-a-14.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-14.D				
Lims ID:	140-1372-A-14	Lab Sample ID:	140-1372-14		
Client ID:	10518				
Sample Type:	Client				
Inject. Date:	27-May-2014 17:11:30	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10518				
Misc. Info.:	G052714,TO15,140-0000709-010				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-May-2014 13:46:34	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: barlozhetskayaa		Date:	28-May-2014 13:46:34		

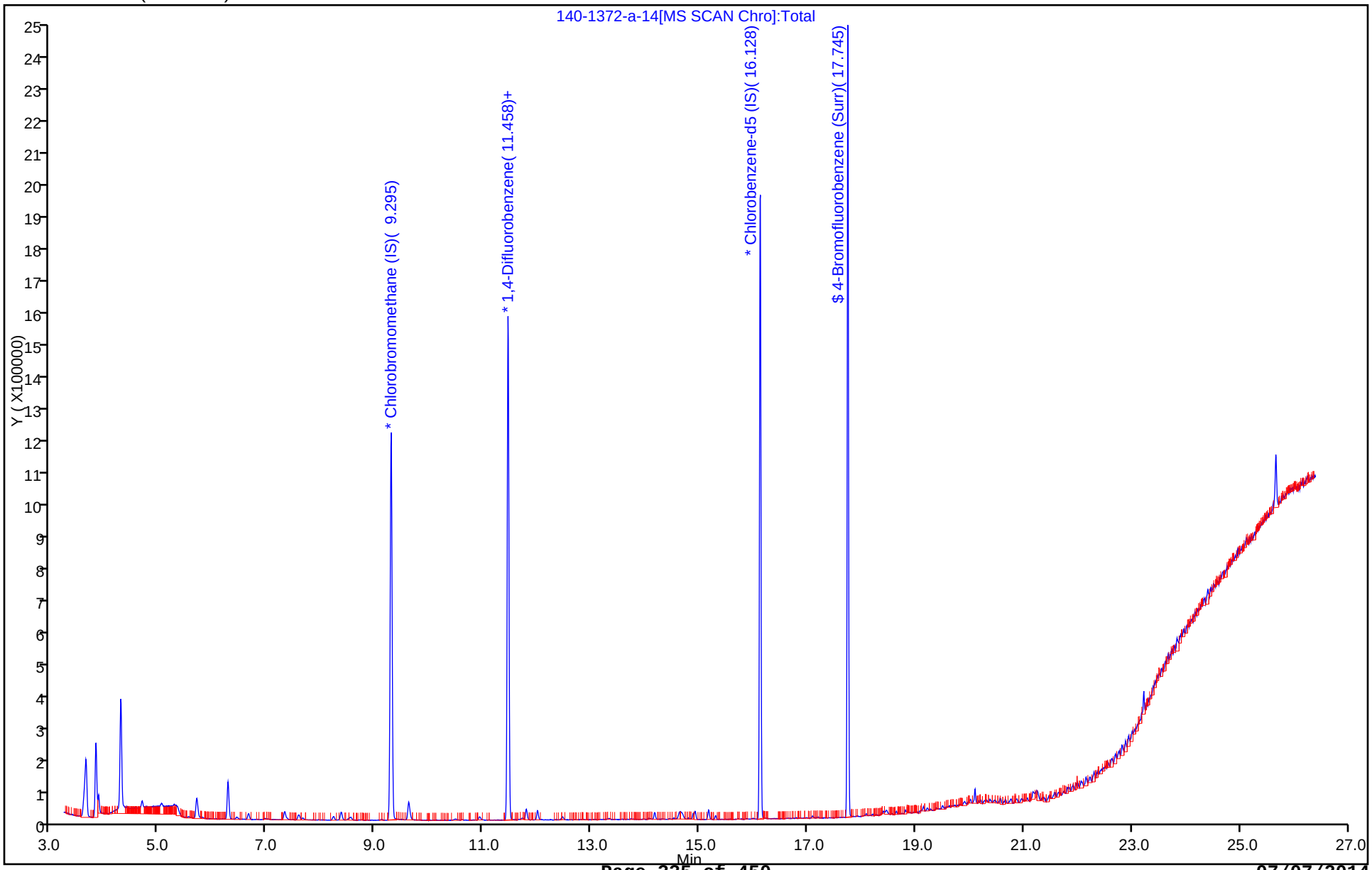
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.295	9.301	-0.006	96	360004	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.463	-0.005	96	1359764	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	91	1062736	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.746	-0.001	85	801698	4.09	
7 Propene	41	3.876	3.871	0.005	90	11089	0.0728	
19 2-Methylbutane	43	5.278	5.284	-0.006	76	2304	0.0156	
25 Isopropyl alcohol	45	5.801	5.785	0.016	3	6363	0.0380	
30 2-Methyl-2-propanol	59	6.438	6.411	0.027	82	8449	0.0391	
31 Methylene Chloride	84	6.653	6.659	-0.006	93	8824	0.0752	
51 n-Butanol	31	10.935	10.897	0.038	79	5793	0.1333	
65 Toluene	91	14.170	14.176	-0.006	90	17256	0.0501	
69 2-Hexanone	58	14.634	14.623	0.011	88	3142	0.0280	
73 Tetrachloroethene	129	15.303	15.297	0.006	78	2433	0.0203	

Report Date: 28-May-2014 13:46:34 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-14.D				
Injection Date:	27-May-2014 17:11:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-14	Lab Sample ID:	140-1372-14	Worklist Smp#:	10
Client ID:	10518				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09804 | Lab Sample ID: 140-1372-15

Matrix: Air | Lab File ID: 140-1372-a-15.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09804 | Lab Sample ID: 140-1372-15

Matrix: Air | Lab File ID: 140-1372-a-15.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09804 | Lab Sample ID: 140-1372-15

Matrix: Air | Lab File ID: 140-1372-a-15.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09804 | Lab Sample ID: 140-1372-15

Matrix: Air | Lab File ID: 140-1372-a-15.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-15.D				
Lims ID:	140-1372-A-15	Lab Sample ID:	140-1372-15		
Client ID:	09804				
Sample Type:	Client				
Inject. Date:	27-May-2014 17:53:30	ALS Bottle#:	8	Worklist Smp#:	11
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09804				
Misc. Info.:	G052714,TO15,140-0000709-011				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	28-May-2014 13:47:10	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: barlozhetskayaa		Date:	28-May-2014 13:47:10		

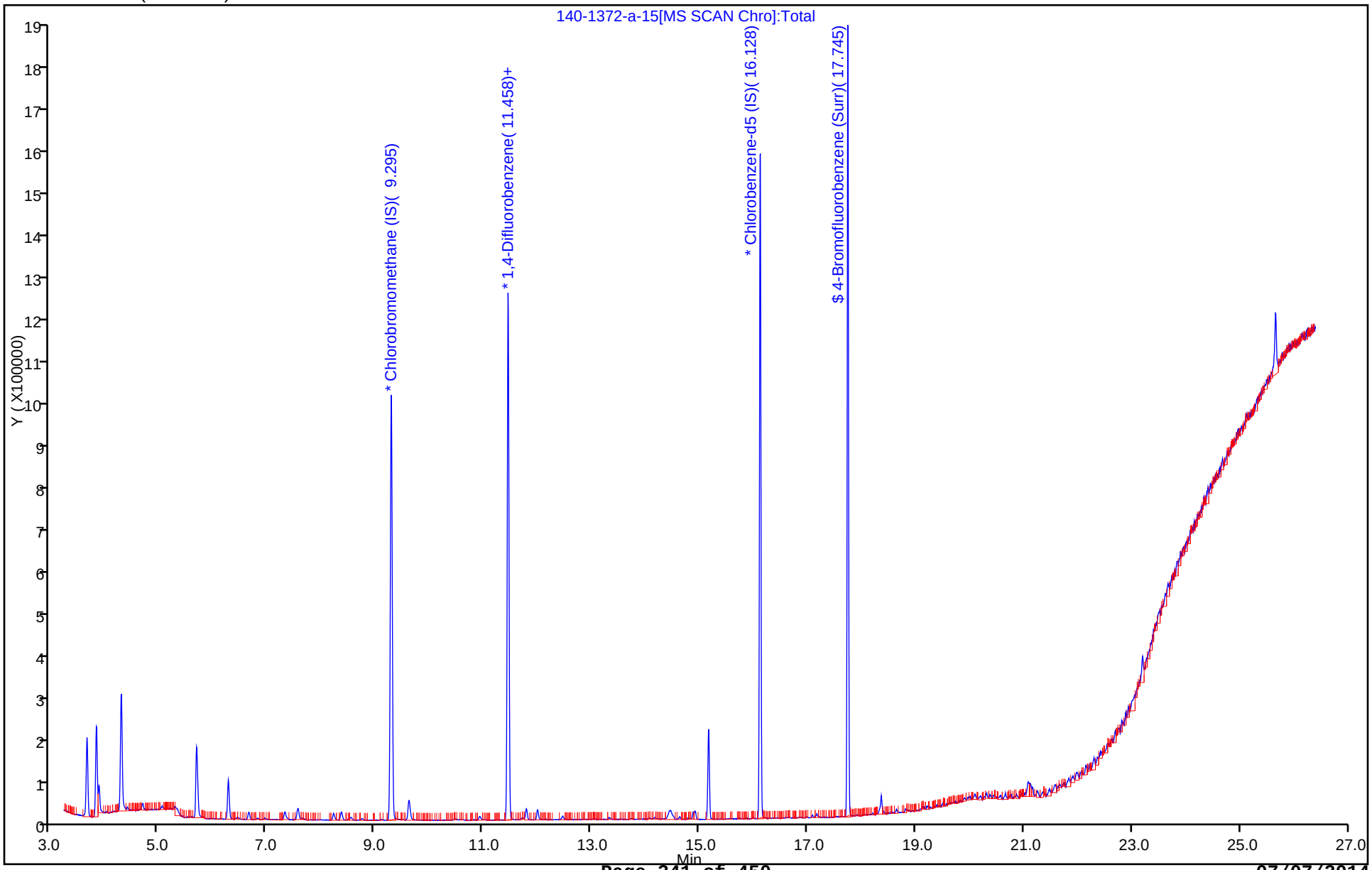
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.301	9.301	0.000	96	298814	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.463	-0.005	96	1080541	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	91	843323	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.746	-0.001	86	616995	3.97	
6 Chlorodifluoromethane	67	3.871	3.860	0.011	37	609	0.0154	
7 Propene	41	3.887	3.871	0.016	81	10956	0.0866	
19 2-Methylbutane	43	5.294	5.284	0.010	82	4628	0.0378	
23 Acetone	58	5.693	5.683	0.010	99	78913	1.36	
25 Isopropyl alcohol	45	5.812	5.785	0.027	17	5544	0.0399	
30 2-Methyl-2-propanol	59	6.448	6.411	0.037	79	6422	0.0358	
31 Methylene Chloride	84	6.659	6.659	0.000	89	7776	0.0798	
33 Carbon disulfide	76	6.820	6.821	-0.001	94	5758	0.0176	
51 n-Butanol	31	10.940	10.897	0.043	69	3786	0.1096	
62 4-Methyl-2-pentanone (MIBK	43	13.334	13.308	0.026	87	4370	0.0193	
69 2-Hexanone	58	14.639	14.623	0.016	75	2306	0.0259	

Report Date: 28-May-2014 13:47:11 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-15.D				
Injection Date:	27-May-2014 17:53:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-15	Lab Sample ID:	140-1372-15	Worklist Smp#:	11
Client ID:	09804				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09668 | Lab Sample ID: 140-1372-16

Matrix: Air | Lab File ID: 140-1372-a-16.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 18:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09668 | Lab Sample ID: 140-1372-16

Matrix: Air | Lab File ID: 140-1372-a-16.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 18:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09668 | Lab Sample ID: 140-1372-16

Matrix: Air | Lab File ID: 140-1372-a-16.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 18:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1372-1

SDG No.:

Client Sample ID: 09668 | Lab Sample ID: 140-1372-16

Matrix: Air | Lab File ID: 140-1372-a-16.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 10:30

Sample wt/vol: 200(mL) | Date Analyzed: 05/27/2014 18:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1280 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

Report Date: 28-May-2014 13:47:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-16.D
Lims ID: 140-1372-A-16 Lab Sample ID: 140-1372-16
Client ID: 09668
Sample Type: Client
Inject. Date: 27-May-2014 18:38:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 09668
Misc. Info.: G052714,TO15,140-0000709-012
Operator ID: 7126 Instrument ID: MG

Method: \\KNXCHROM\ChromData\MG\20140527-709.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 28-May-2014 13:47:52 Calib Date: 22-May-2014 22:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: barlozhetskayaa Date: 28-May-2014 13:47:52

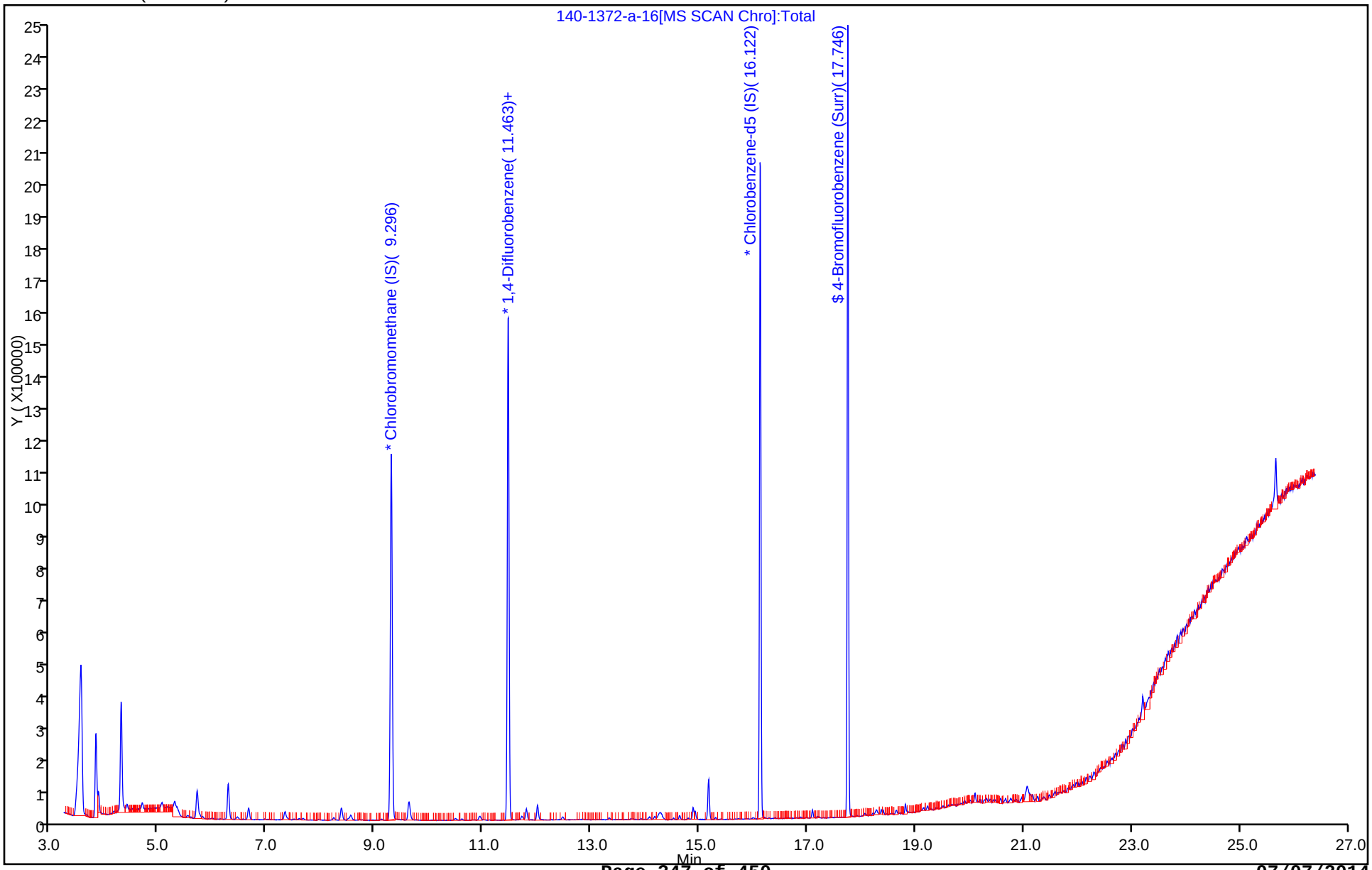
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.296	9.301	-0.005	96	337570	4.00	
* 2 1,4-Difluorobenzene	114	11.463	11.463	0.000	96	1372707	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.128	0.000	91	1091873	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.746	17.746	0.000	85	794816	3.95	
6 Chlorodifluoromethane	67	3.860	3.860	0.000	91	2309	0.0517	
7 Propene	41	3.882	3.871	0.011	73	12730	0.0891	
13 Butane	43	4.405	4.405	0.000	83	12751	0.0636	
19 2-Methylbutane	43	5.289	5.284	0.005	83	12050	0.0870	
20 Trichlorofluoromethane	101	5.526	5.526	0.000	80	6243	0.0194	
23 Acetone	58	5.710	5.683	0.027	89	50755	0.7758	
24 Pentane	72	5.764	5.753	0.011	14	675	0.0252	
25 Isopropyl alcohol	45	5.801	5.785	0.016	64	9215	0.0587	
30 2-Methyl-2-propanol	59	6.454	6.411	0.043	82	9526	0.0470	
31 Methylene Chloride	84	6.659	6.659	0.000	93	16431	0.1493	
39 Hexane	56	8.498	8.503	-0.005	61	1627	0.0140	
40 2-Butanone (MEK)	72	8.552	8.525	0.027	97	4817	0.0951	
51 n-Butanol	31	10.940	10.897	0.043	86	5759	0.1312	
62 4-Methyl-2-pentanone (MIBK	43	13.329	13.308	0.021	89	5469	0.0190	
69 2-Hexanone	58	14.634	14.623	0.011	86	4364	0.0379	

Report Date: 28-May-2014 13:47:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140527-709.b\140-1372-a-16.D				
Injection Date:	27-May-2014 18:38:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1372-A-16	Lab Sample ID:	140-1372-16	Worklist Smp#:	12
Client ID:	09668				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1377-1

SDG No.:

Client Sample ID: 10338 | Lab Sample ID: 140-1377-13

Matrix: Air | Lab File ID: 140-1377-a-13.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 11:40

Sample wt/vol: 200(mL) | Date Analyzed: 05/20/2014 13:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1234 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1377-1

SDG No.:

Client Sample ID: 10338 | Lab Sample ID: 140-1377-13

Matrix: Air | Lab File ID: 140-1377-a-13.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 11:40

Sample wt/vol: 200(mL) | Date Analyzed: 05/20/2014 13:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1234 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND	*	0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1377-1

SDG No.:

Client Sample ID: 10338 | Lab Sample ID: 140-1377-13

Matrix: Air | Lab File ID: 140-1377-a-13.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 11:40

Sample wt/vol: 200(mL) | Date Analyzed: 05/20/2014 13:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1234 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND	*	2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND	*	0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1377-1

SDG No.:

Client Sample ID: 10338 | Lab Sample ID: 140-1377-13

Matrix: Air | Lab File ID: 140-1377-a-13.D

Analysis Method: TO-15 | Date Collected: 05/17/2014 11:40

Sample wt/vol: 200(mL) | Date Analyzed: 05/20/2014 13:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1234 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	95		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MJ\20140519-687.b\140-1377-a-13.D				
Lims ID:	140-1377-A-13	Lab Sample ID:	140-1377-13		
Client ID:	10338				
Sample Type:	Client				
Inject. Date:	20-May-2014 13:16:30	ALS Bottle#:	3	Worklist Smp#:	6
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10338				
Misc. Info.:	J052014,TO15,,140-0000687-006				
Operator ID:	7126	Instrument ID:	MJ		

Method:	\\KNXCHROM\ChromData\MJ\20140519-687.b\MJ_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	21-May-2014 08:46:31	Calib Date:	11-Mar-2014 19:57:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MJ\20140311-516.b\JICC119.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK011	

First Level Reviewer: tajh Date: 20-May-2014 13:49:25

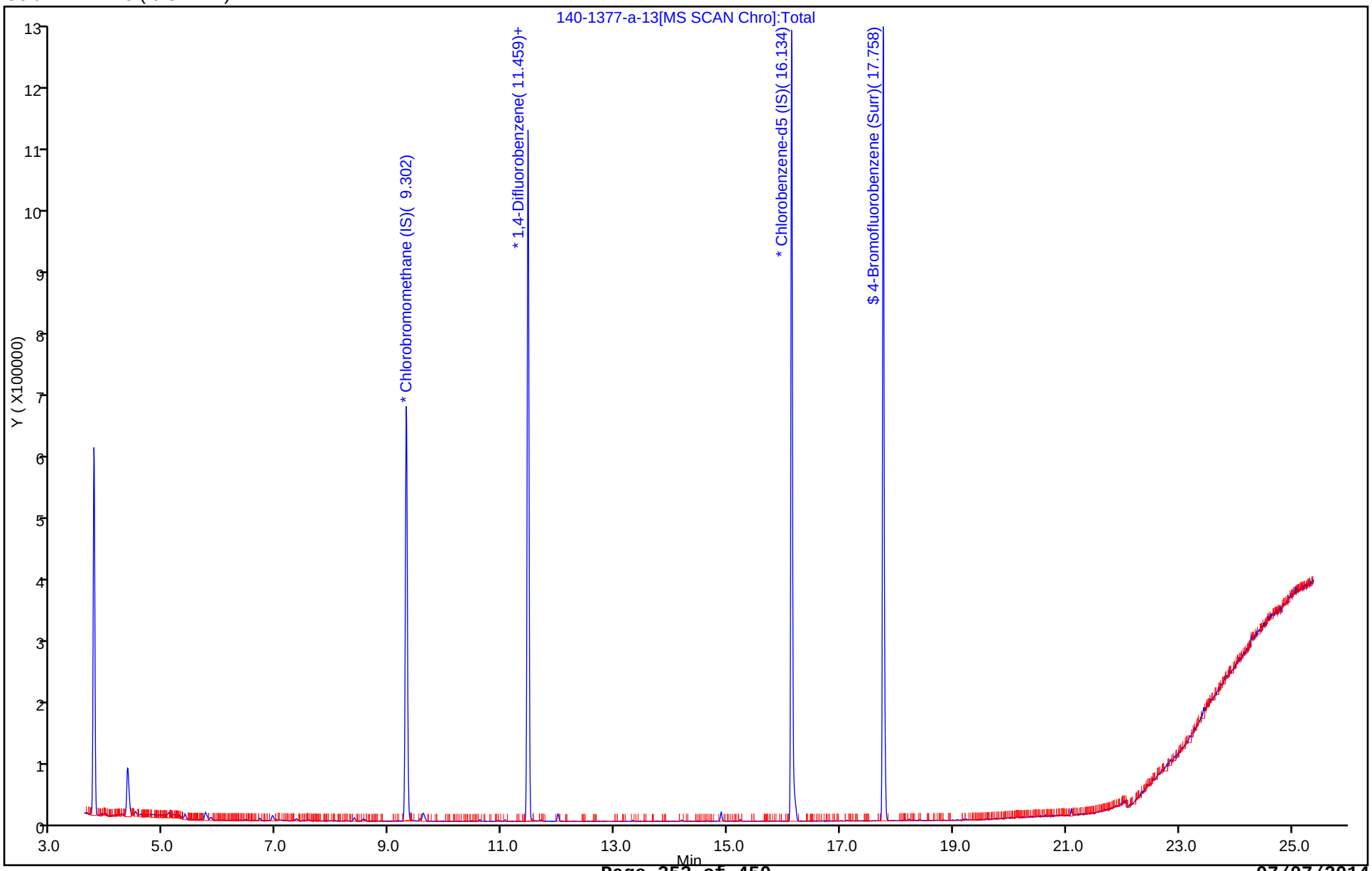
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.302	9.309	-0.007	96	195614	4.00	
* 2 1,4-Difluorobenzene	114	11.459	11.467	-0.008	96	959124	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.134	16.136	-0.002	92	741567	4.00	
$ 5 4-Bromofluorobenzene (Surr	95	17.758	17.761	-0.002	83	497672	3.79	
13 Butane	43	4.503	4.500	0.003	65	4793	0.0464	
19 2-Methylbutane	43	5.380	5.382	-0.002	70	4094	0.0493	

Report Date: 21-May-2014 08:46:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MJ\20140519-687.b\140-1377-a-13.D				
Injection Date:	20-May-2014 13:16:30	Instrument ID:	MJ	Operator ID:	7126
Lims ID:	140-1377-A-13	Lab Sample ID:	140-1377-13	Worklist Smp#:	6
Client ID:	10338				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1399-1

SDG No.:

Client Sample ID: 10344 | Lab Sample ID: 140-1399-12

Matrix: Air | Lab File ID: 140-1399-a-12.D

Analysis Method: TO-15 | Date Collected: 05/21/2014 14:45

Sample wt/vol: 200(mL) | Date Analyzed: 05/24/2014 10:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1261 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND		0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1399-1

SDG No.:

Client Sample ID: 10344 | Lab Sample ID: 140-1399-12

Matrix: Air | Lab File ID: 140-1399-a-12.D

Analysis Method: TO-15 | Date Collected: 05/21/2014 14:45

Sample wt/vol: 200(mL) | Date Analyzed: 05/24/2014 10:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1261 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1399-1

SDG No.:

Client Sample ID: 10344 | Lab Sample ID: 140-1399-12

Matrix: Air | Lab File ID: 140-1399-a-12.D

Analysis Method: TO-15 | Date Collected: 05/21/2014 14:45

Sample wt/vol: 200(mL) | Date Analyzed: 05/24/2014 10:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1261 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1399-1

SDG No.:

Client Sample ID: 10344 | Lab Sample ID: 140-1399-12

Matrix: Air | Lab File ID: 140-1399-a-12.D

Analysis Method: TO-15 | Date Collected: 05/21/2014 14:45

Sample wt/vol: 200(mL) | Date Analyzed: 05/24/2014 10:06

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1261 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MJ\20140523-700.b\140-1399-a-12.D				
Lims ID:	140-1399-A-12	Lab Sample ID:	140-1399-12		
Client ID:	10344				
Sample Type:	Client				
Inject. Date:	24-May-2014 10:06:30	ALS Bottle#:	1	Worklist Smp#:	24
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	1L 10344 LOTCHK				
Misc. Info.:	J052314,TO15,,140-0000700-024				
Operator ID:	403648	Instrument ID:	MJ		
Method:	\\KNXCHROM\ChromData\MJ\20140523-700.b\MJ_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	24-May-2014 12:34:52	Calib Date:	11-Mar-2014 19:57:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MJ\20140311-516.b\JICC119.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK030				
First Level Reviewer: barlozhetskayaa		Date:	24-May-2014 12:34:52		

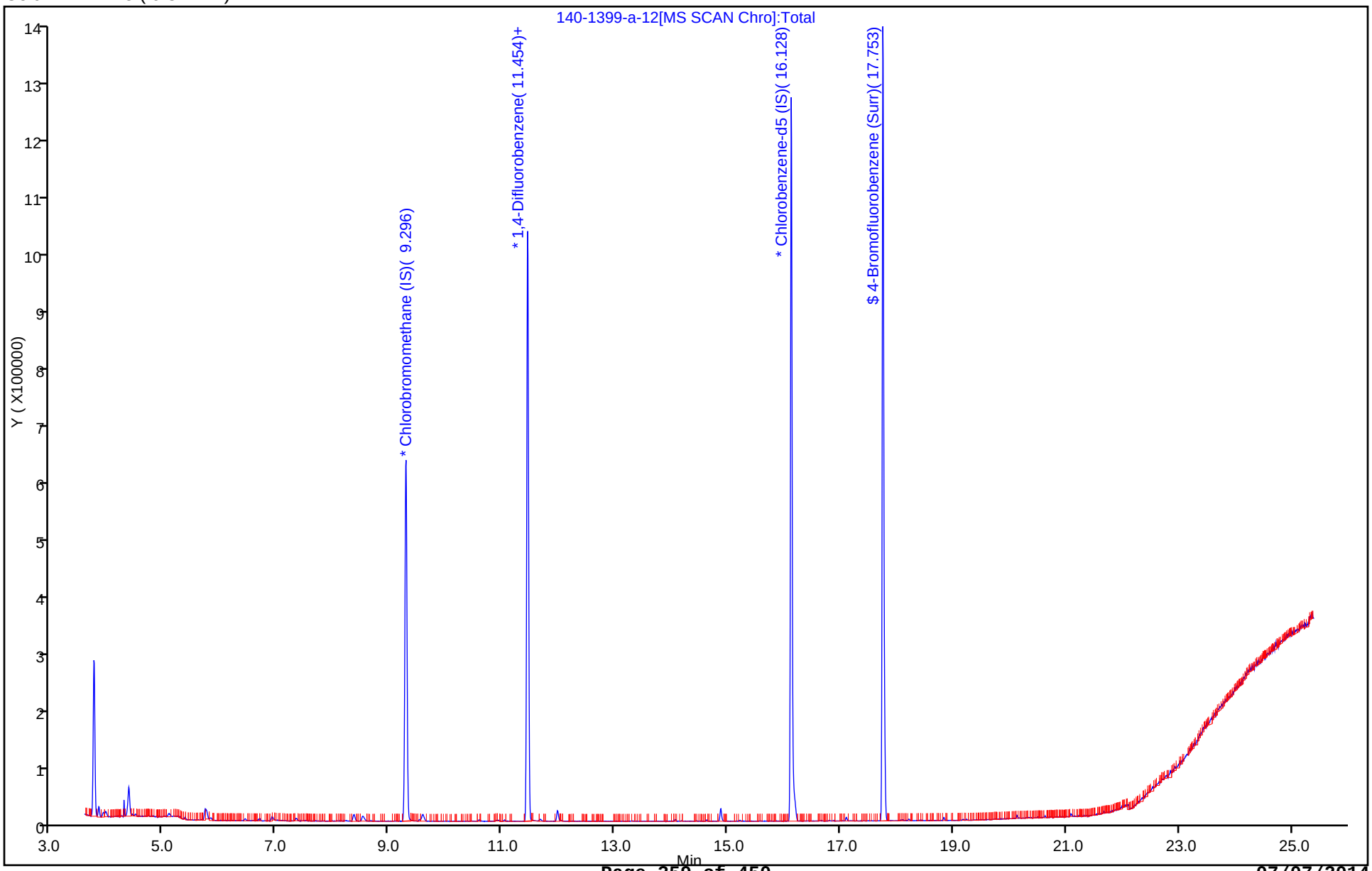
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.296	9.302	-0.006	96	189841	4.00	
* 2 1,4-Difluorobenzene	114	11.454	11.459	-0.005	96	917092	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.134	-0.006	91	758074	4.00	
$ 5 4-Bromofluorobenzene (Surr	95	17.753	17.759	-0.006	83	549528	4.10	
7 Propene	41	3.971	3.971	0.000	82	3089	0.0531	
13 Butane	43	4.498	4.504	-0.006	62	3957	0.0395	
19 2-Methylbutane	43	5.375	5.381	-0.006	60	1661	0.0206	
24 Isopropyl alcohol	45	5.816	5.806	0.010	37	3134	0.0440	
28 2-Methyl-2-propanol	59	6.440	6.424	0.016	45	3226	0.0368	

Report Date: 24-May-2014 12:34:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MJ\20140523-700.b\140-1399-a-12.D				
Injection Date:	24-May-2014 10:06:30	Instrument ID:	MJ	Operator ID:	403648
Lims ID:	140-1399-A-12	Lab Sample ID:	140-1399-12	Worklist Smp#:	24
Client ID:	10344				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09769 | Lab Sample ID: 140-1437-3

Matrix: Air | Lab File ID: 140-1437-a-3.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	0.082		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09769 | Lab Sample ID: 140-1437-3

Matrix: Air | Lab File ID: 140-1437-a-3.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	0.36		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09769 | Lab Sample ID: 140-1437-3

Matrix: Air | Lab File ID: 140-1437-a-3.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 13:10

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09769 Lab Sample ID: 140-1437-3

Matrix: Air Lab File ID: 140-1437-a-3.D

Analysis Method: TO 15 LL Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) Date Analyzed: 06/02/2014 13:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1291 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-3.D				
Lims ID:	140-1437-A-3	Lab Sample ID:	140-1437-3		
Client ID:	09769				
Sample Type:	Client				
Inject. Date:	02-Jun-2014 13:10:30	ALS Bottle#:	4	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09769				
Misc. Info.:	G060214,TO15,140-0000715-007				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140529-715.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	03-Jun-2014 09:23:02	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK005				
First Level Reviewer: tajh		Date:	02-Jun-2014 13:57:24		

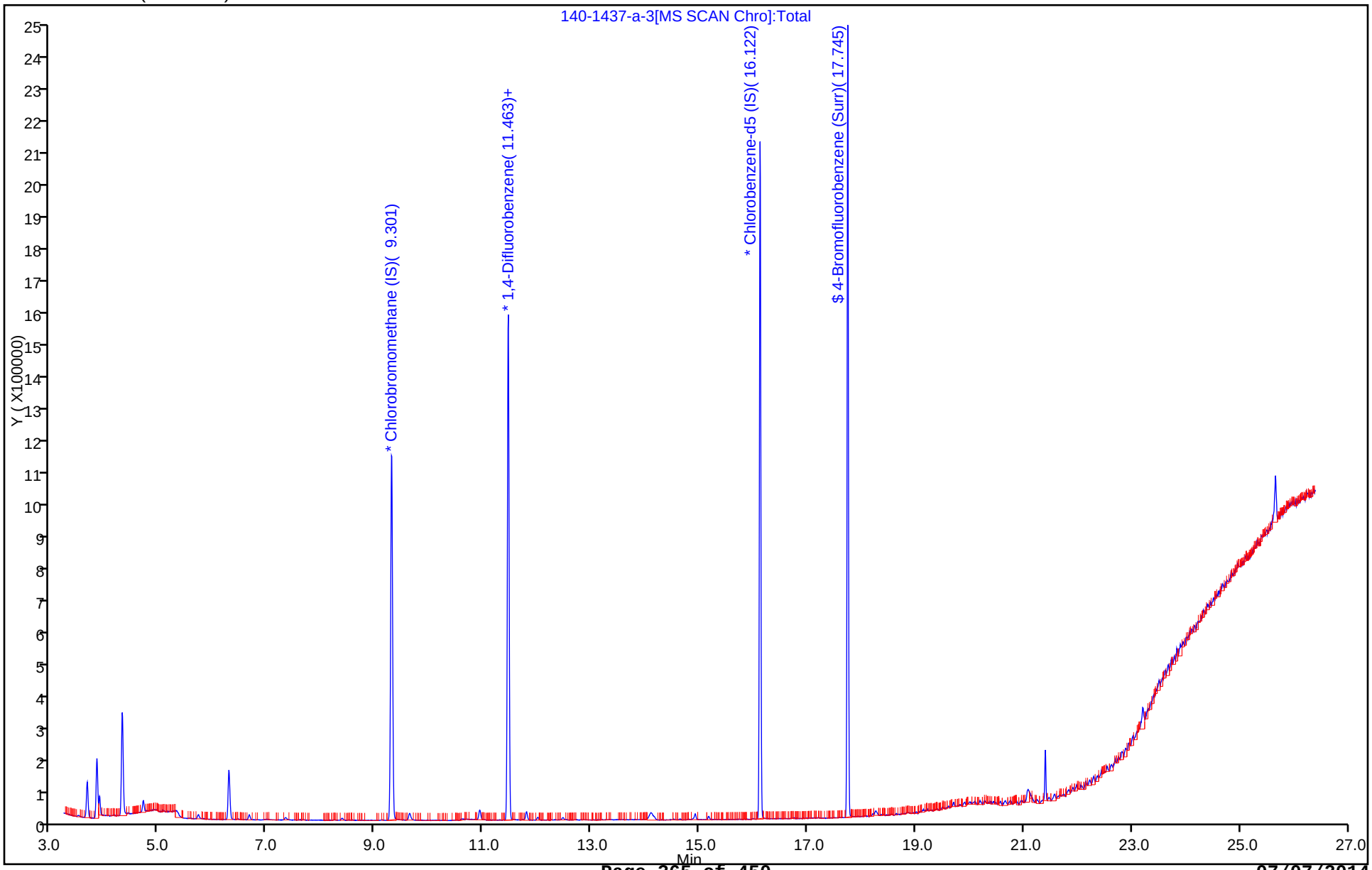
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.306	9.296	0.010	94	320034	4.00	
* 2 1,4-Difluorobenzene	114	11.463	11.458	0.005	97	1293857	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.122	0.000	93	1064735	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	84	778989	3.97	
31 Methylene Chloride	84	6.675	6.659	0.016	86	6382	0.0611	
48 Benzene	78	10.935	10.929	0.006	97	28393	0.0816	
112 Naphthalene	128	21.401	21.401	0.000	98	106196	0.3638	

Report Date: 03-Jun-2014 09:23:19 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-3.D				
Injection Date:	02-Jun-2014 13:10:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1437-A-3	Lab Sample ID:	140-1437-3	Worklist Smp#:	7
Client ID:	09769				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

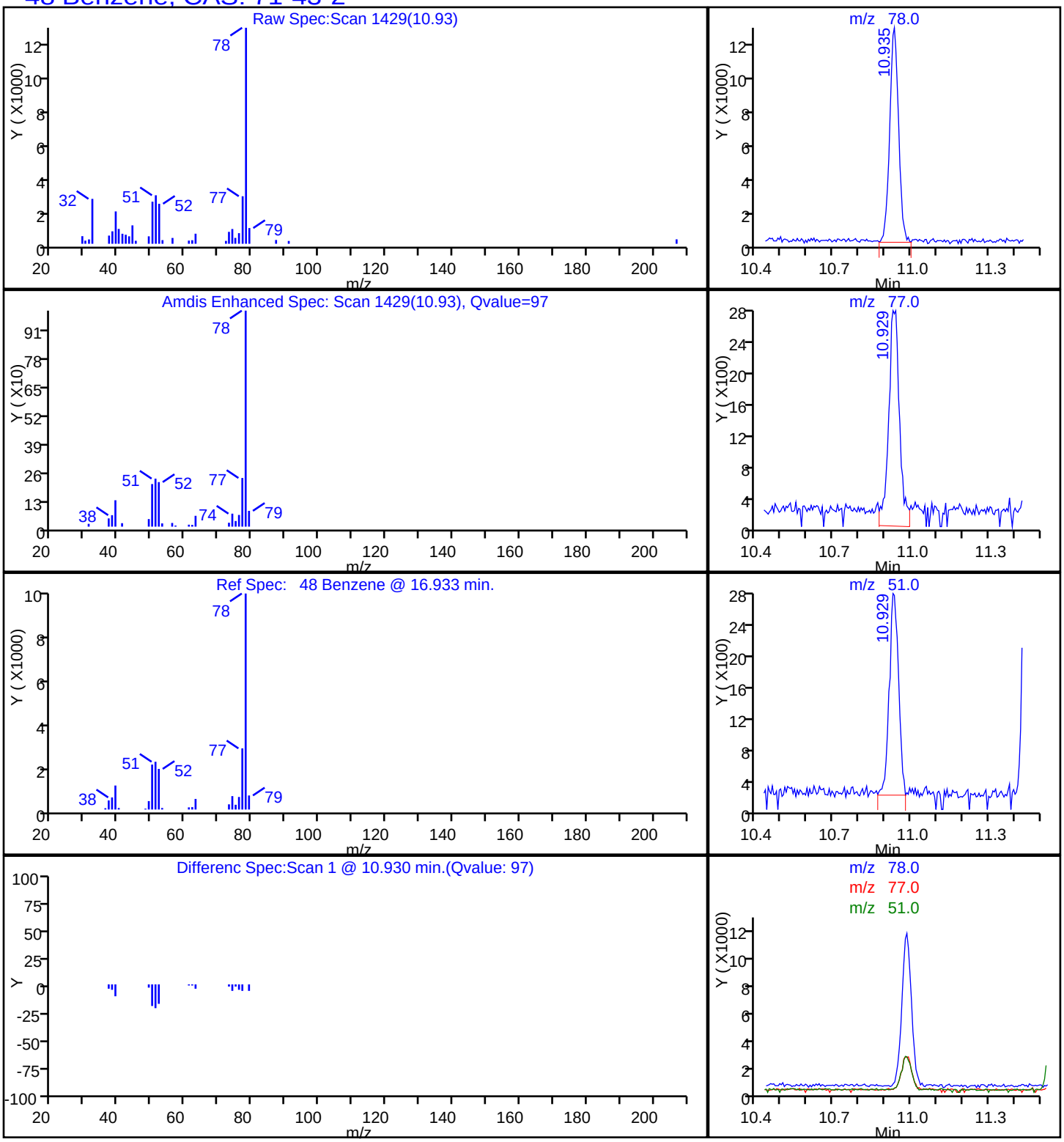


Report Date: 03-Jun-2014 09:23:19 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-3.D				
Injection Date:	02-Jun-2014 13:10:30	Instrument ID:	MG		
Lims ID:	140-1437-A-3	Lab Sample ID:	140-1437-3		
Client ID:	09769				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

48 Benzene, CAS: 71-43-2

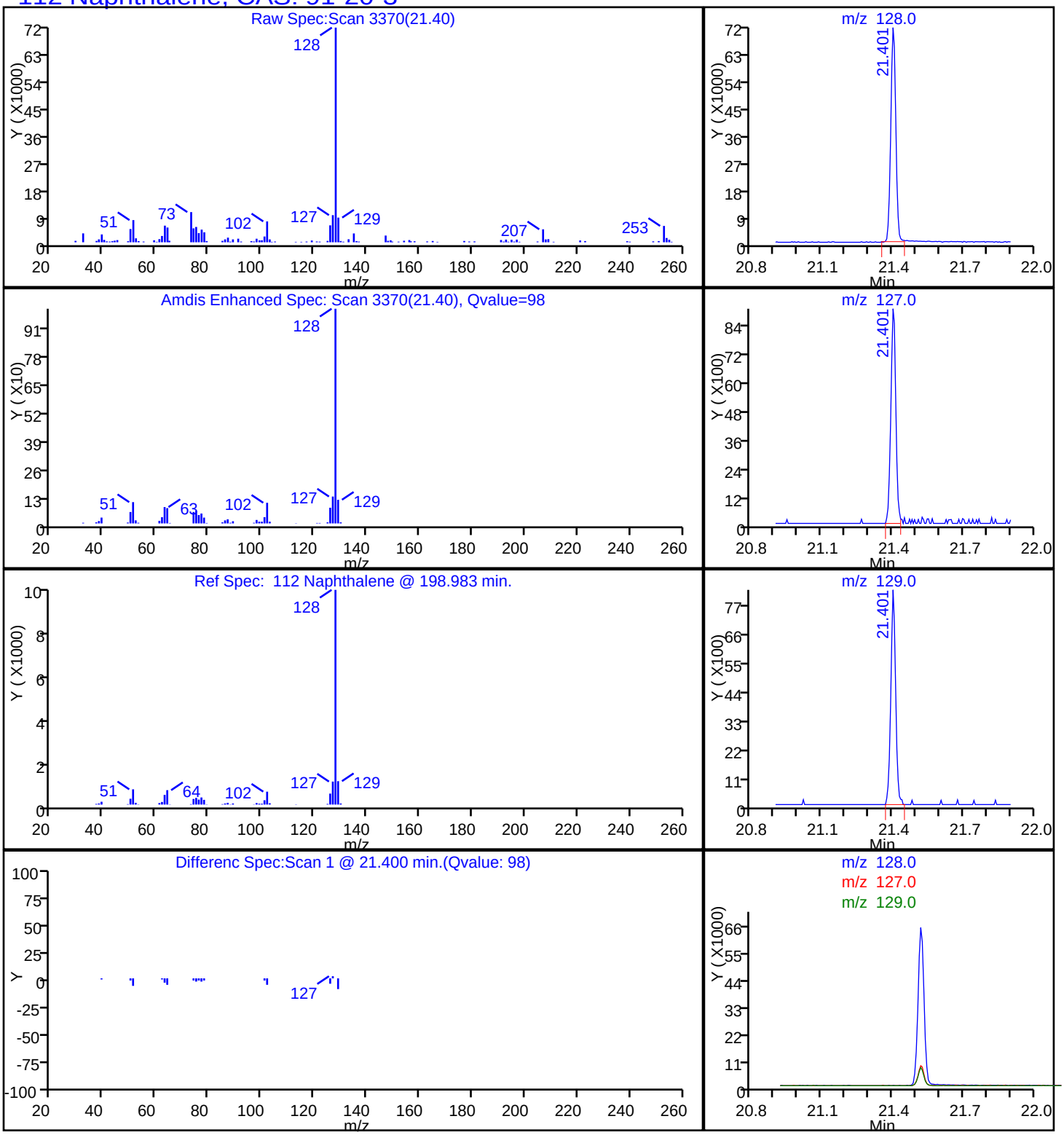


Report Date: 03-Jun-2014 09:23:19 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-3.D				
Injection Date:	02-Jun-2014 13:10:30	Instrument ID:	MG		
Lims ID:	140-1437-A-3	Lab Sample ID:	140-1437-3		
Client ID:	09769				
Operator ID:	7126	ALS Bottle#:	4	Worklist Smp#:	7
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

112 Naphthalene, CAS: 91-20-3



FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 10512 | Lab Sample ID: 140-1437-5

Matrix: Air | Lab File ID: 140-1437-a-5.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 10512 | Lab Sample ID: 140-1437-5

Matrix: Air | Lab File ID: 140-1437-a-5.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	0.15		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 10512 | Lab Sample ID: 140-1437-5

Matrix: Air | Lab File ID: 140-1437-a-5.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 14:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1437-1

SDG No.:

Client Sample ID: 10512 Lab Sample ID: 140-1437-5

Matrix: Air Lab File ID: 140-1437-a-5.D

Analysis Method: TO 15 LL Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) Date Analyzed: 06/02/2014 14:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1291 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-5.D				
Lims ID:	140-1437-A-5	Lab Sample ID:	140-1437-5		
Client ID:	10512				
Sample Type:	Client				
Inject. Date:	02-Jun-2014 14:47:30	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10512				
Misc. Info.:	G060214,TO15,140-0000715-009				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140529-715.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	03-Jun-2014 09:23:02	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK005	

First Level Reviewer: tajh Date: 03-Jun-2014 09:16:19

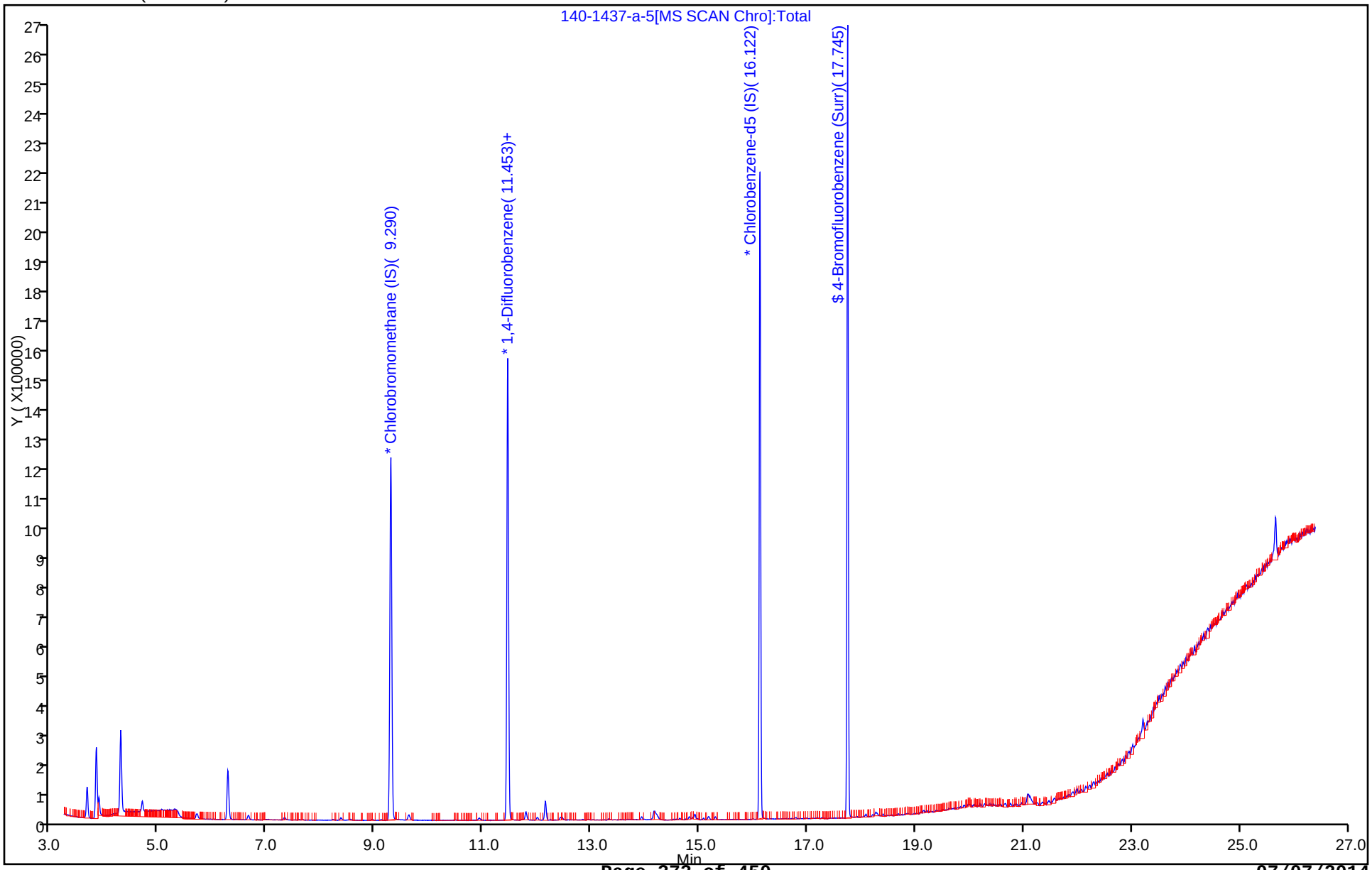
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.290	9.296	-0.006	94	344973	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.458	-0.005	97	1300665	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.122	0.000	93	1135199	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	85	881816	4.21	
31 Methylene Chloride	84	6.653	6.659	-0.006	87	6759	0.0601	
51 n-Butanol	31	10.924	10.897	0.027	54	2955	0.0711	
56 Trichloroethene	130	12.154	12.154	0.000	91	20561	0.1483	

Report Date: 03-Jun-2014 09:23:21 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-5.D				
Injection Date:	02-Jun-2014 14:47:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1437-A-5	Lab Sample ID:	140-1437-5	Worklist Smp#:	9
Client ID:	10512				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

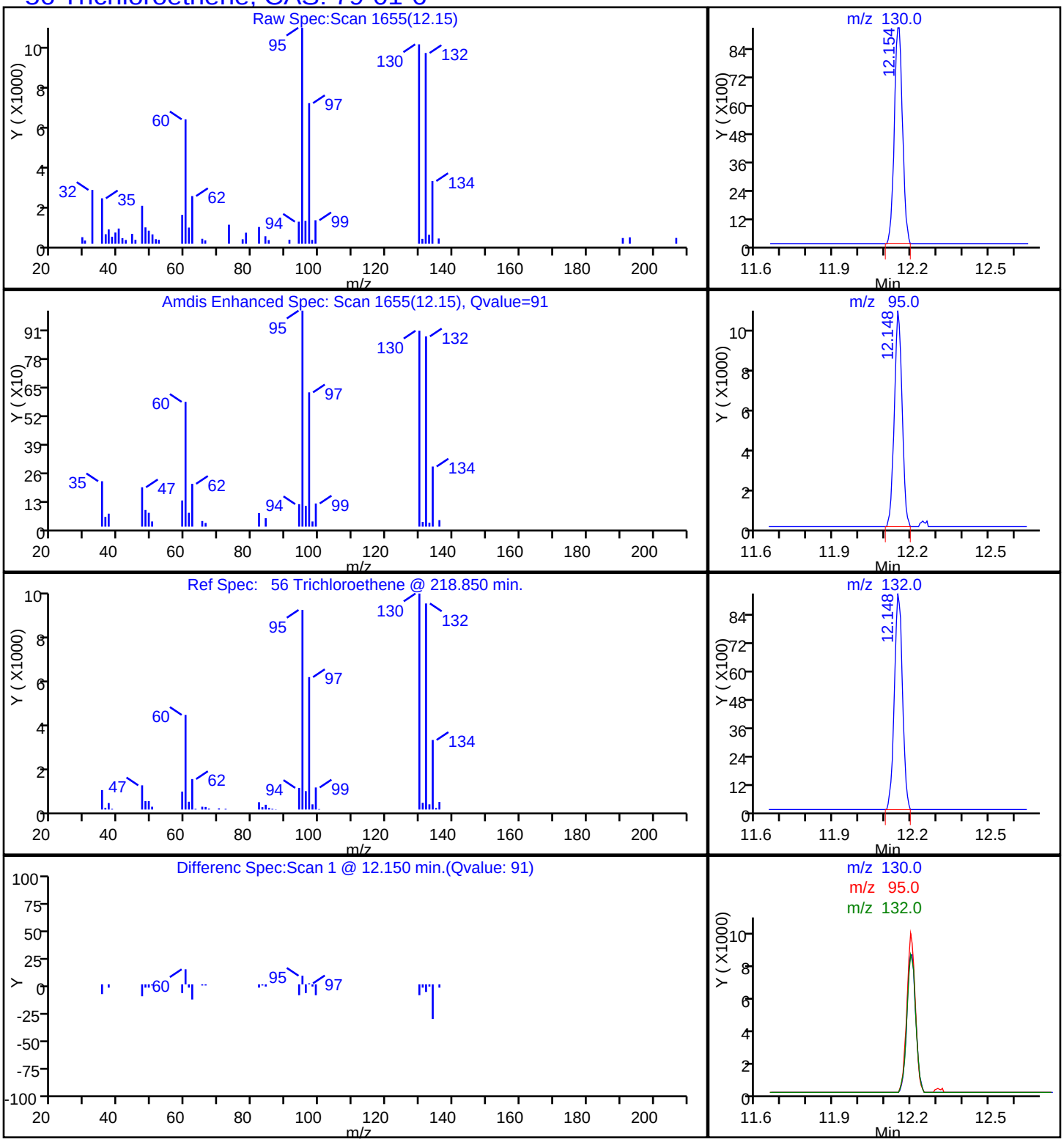


Report Date: 03-Jun-2014 09:23:21 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-5.D				
Injection Date:	02-Jun-2014 14:47:30	Instrument ID:	MG		
Lims ID:	140-1437-A-5	Lab Sample ID:	140-1437-5		
Client ID:	10512				
Operator ID:	7126	ALS Bottle#:	6	Worklist Smp#:	9
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 11041 | Lab Sample ID: 140-1437-6

Matrix: Air | Lab File ID: 140-1437-a-6.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 15:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 11041 | Lab Sample ID: 140-1437-6

Matrix: Air | Lab File ID: 140-1437-a-6.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 15:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	0.049		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 11041 | Lab Sample ID: 140-1437-6

Matrix: Air | Lab File ID: 140-1437-a-6.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 15:33

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1437-1

SDG No.:

Client Sample ID: 11041 Lab Sample ID: 140-1437-6

Matrix: Air Lab File ID: 140-1437-a-6.D

Analysis Method: TO 15 LL Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) Date Analyzed: 06/02/2014 15:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1291 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-6.D				
Lims ID:	140-1437-A-6	Lab Sample ID:	140-1437-6		
Client ID:	11041				
Sample Type:	Client				
Inject. Date:	02-Jun-2014 15:33:30	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	11041				
Misc. Info.:	G060214,TO15,140-0000715-010				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140529-715.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	03-Jun-2014 09:23:02	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK005	

First Level Reviewer: tajh Date: 03-Jun-2014 09:16:58

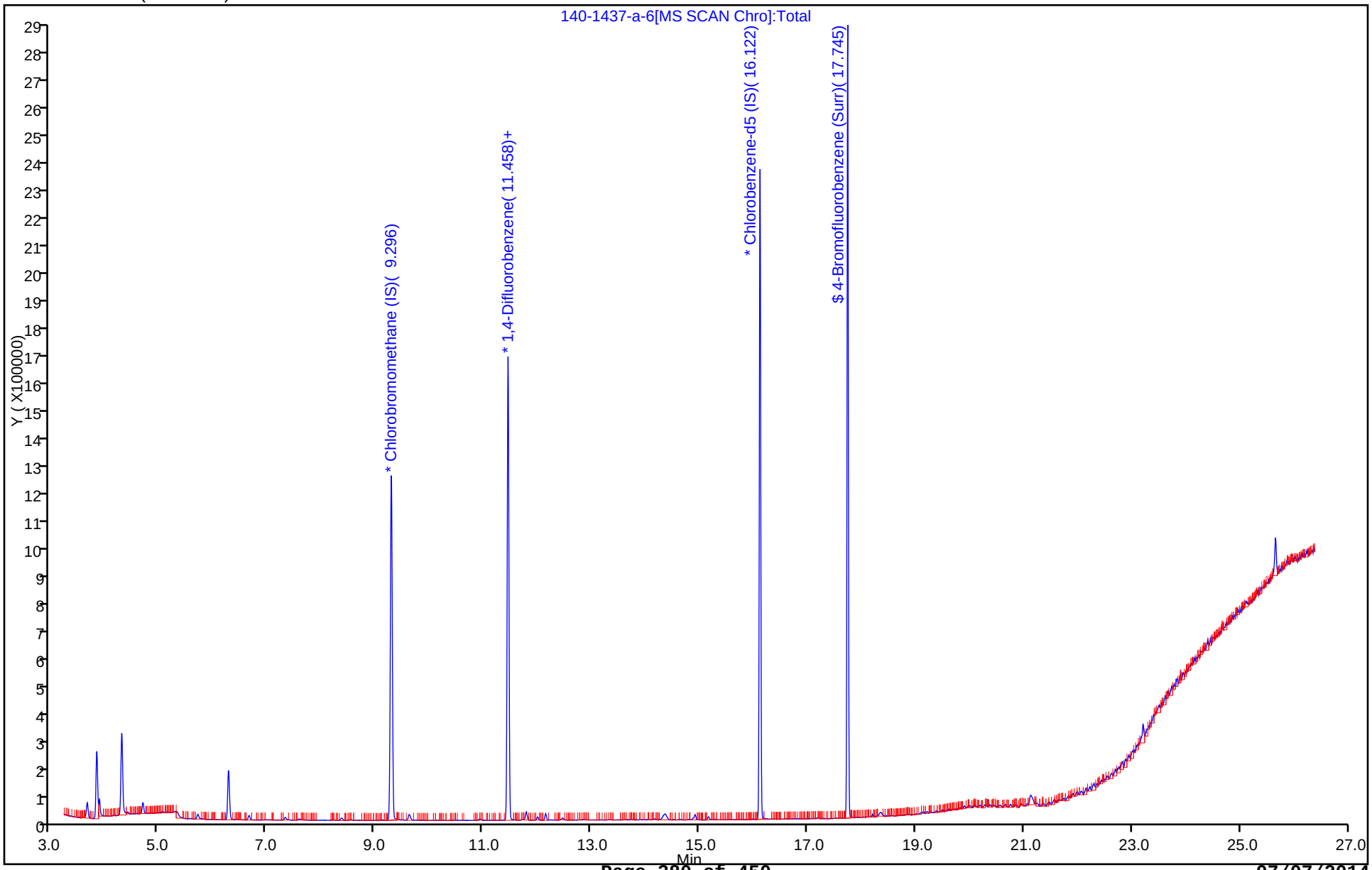
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.301	9.296	0.005	95	363947	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.458	0.000	97	1425591	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.122	0.000	93	1222502	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	85	940900	4.17	
31 Methylene Chloride	84	6.664	6.659	0.005	91	7262	0.0612	
51 n-Butanol	31	10.940	10.897	0.043	23	2284	0.0501	
56 Trichloroethene	130	12.154	12.154	0.000	87	7399	0.0487	

Report Date: 03-Jun-2014 09:23:22 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-6.D				
Injection Date:	02-Jun-2014 15:33:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1437-A-6	Lab Sample ID:	140-1437-6	Worklist Smp#:	10
Client ID:	11041				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

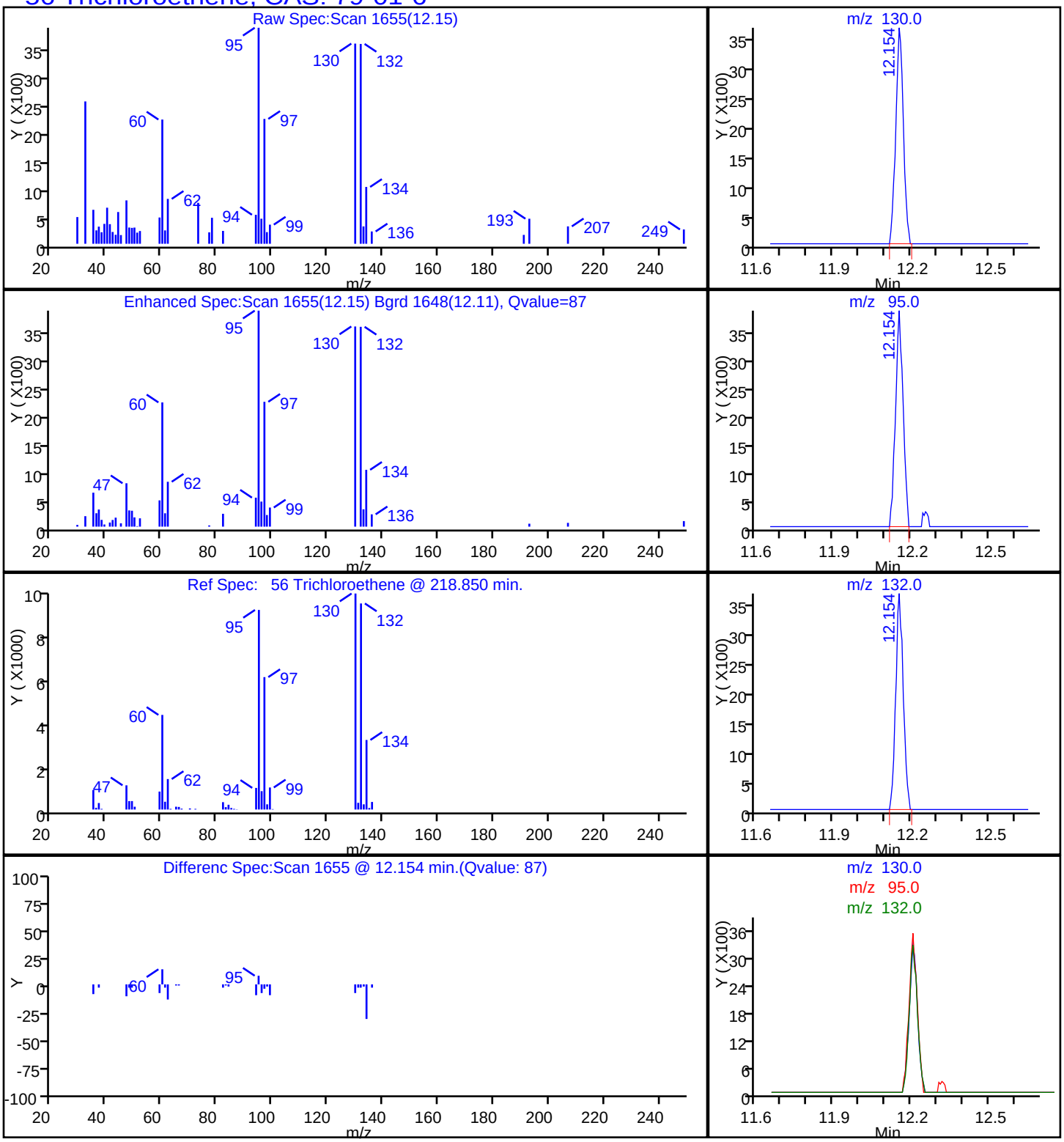


Report Date: 03-Jun-2014 09:23:23 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-6.D				
Injection Date:	02-Jun-2014 15:33:30	Instrument ID:	MG		
Lims ID:	140-1437-A-6	Lab Sample ID:	140-1437-6		
Client ID:	11041				
Operator ID:	7126	ALS Bottle#:	7	Worklist Smp#:	10
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09723 | Lab Sample ID: 140-1437-13

Matrix: Air | Lab File ID: 140-1437-a-13.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09723 | Lab Sample ID: 140-1437-13

Matrix: Air | Lab File ID: 140-1437-a-13.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	0.047		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09723 | Lab Sample ID: 140-1437-13

Matrix: Air | Lab File ID: 140-1437-a-13.D

Analysis Method: TO 15 LL | Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) | Date Analyzed: 06/02/2014 21:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1437-1

SDG No.:

Client Sample ID: 09723 Lab Sample ID: 140-1437-13

Matrix: Air Lab File ID: 140-1437-a-13.D

Analysis Method: TO 15 LL Date Collected: 05/30/2014 07:00

Sample wt/vol: 500(mL) Date Analyzed: 06/02/2014 21:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1291 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-13.D				
Lims ID:	140-1437-A-13	Lab Sample ID:	140-1437-13		
Client ID:	09723				
Sample Type:	Client				
Inject. Date:	02-Jun-2014 21:07:30	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09723				
Misc. Info.:	G060214,TO15,140-0000715-017				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140529-715.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	03-Jun-2014 09:23:02	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK005	

First Level Reviewer: tajh Date: 03-Jun-2014 09:21:01

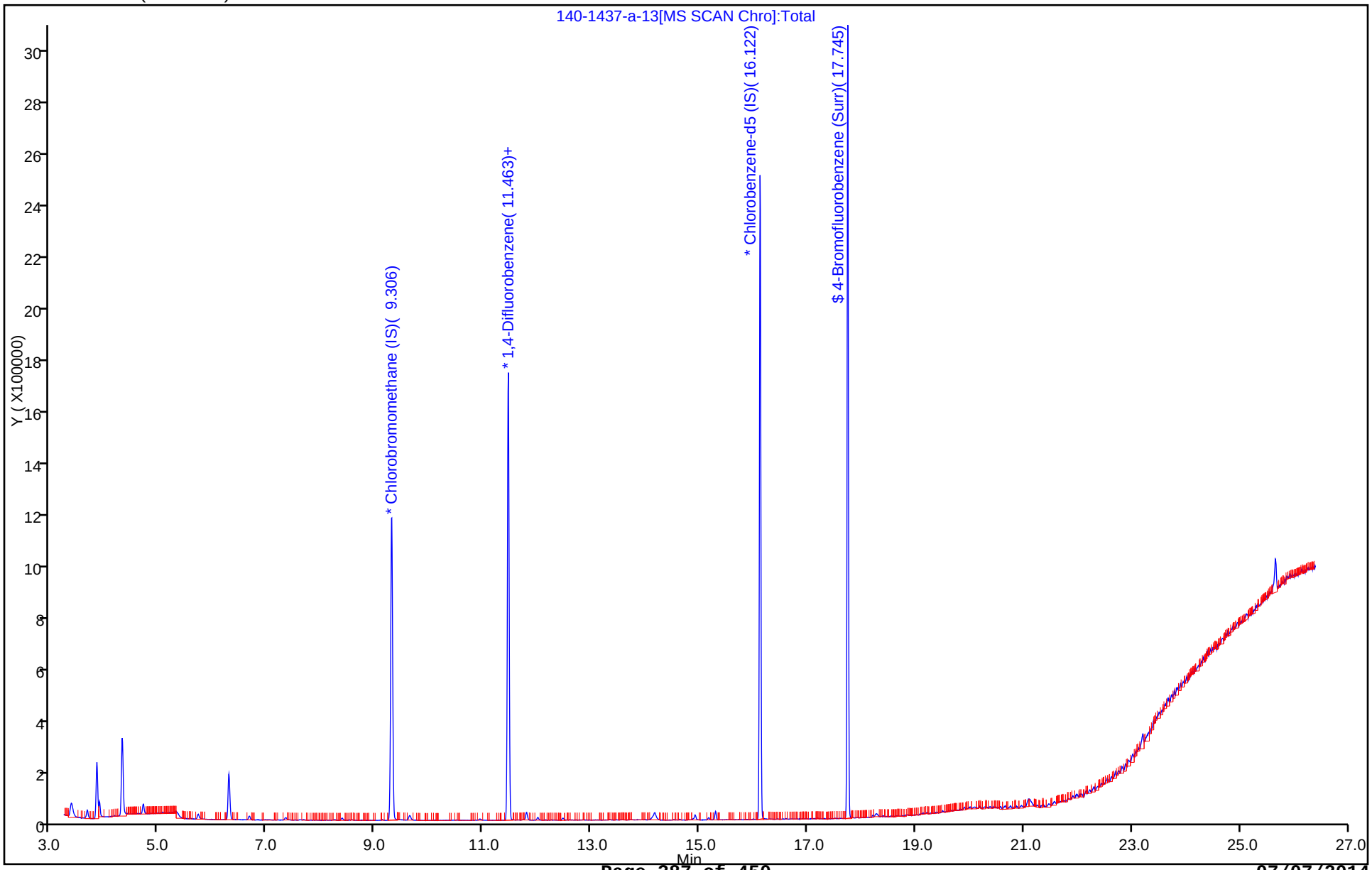
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.306	9.296	0.010	94	335790	4.00	
* 2 1,4-Difluorobenzene	114	11.463	11.458	0.005	97	1449022	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.122	0.000	93	1278870	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	84	982588	4.17	
31 Methylene Chloride	84	6.669	6.659	0.010	89	6617	0.0604	
73 Tetrachloroethene	129	15.297	15.297	0.000	85	6713	0.0465	

Report Date: 03-Jun-2014 09:23:32 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-13.D				
Injection Date:	02-Jun-2014 21:07:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1437-A-13	Lab Sample ID:	140-1437-13	Worklist Smp#:	17
Client ID:	09723				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

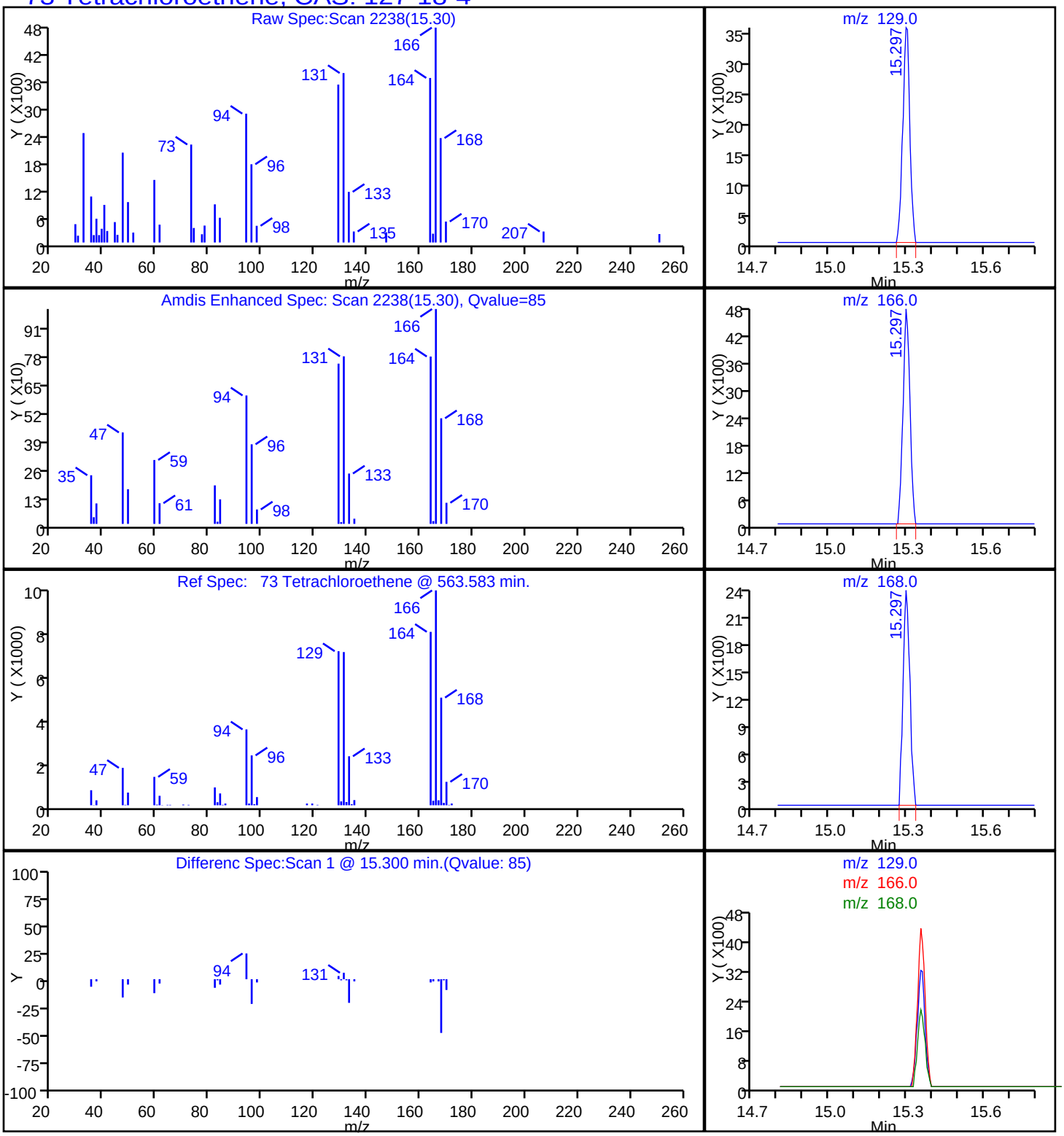


Report Date: 03-Jun-2014 09:23:32 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1437-a-13.D				
Injection Date:	02-Jun-2014 21:07:30	Instrument ID:	MG		
Lims ID:	140-1437-A-13	Lab Sample ID:	140-1437-13		
Client ID:	09723				
Operator ID:	7126	ALS Bottle#:	14	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1439-1

SDG No.:

Client Sample ID: 09641 | Lab Sample ID: 140-1439-1

Matrix: Air | Lab File ID: 140-1439-a-1.D

Analysis Method: TO-15 | Date Collected: 05/30/2014 07:45

Sample wt/vol: 200(mL) | Date Analyzed: 06/02/2014 22:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.20	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.20	
79-00-5	1,1,2-Trichloroethane	ND		0.20	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.20	
75-34-3	1,1-Dichloroethane	ND		0.20	
75-35-4	1,1-Dichloroethene	ND		0.20	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.20	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.20	
87-61-6	1,2,3-Trichlorobenzene	ND		1.0	
96-18-4	1,2,3-Trichloropropane	ND		0.50	
526-73-8	1,2,3-Trimethylbenzene	ND		0.20	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.20	
120-82-1	1,2,4-Trichlorobenzene	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	ND		0.20	
106-93-4	1,2-Dibromoethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.20	
107-06-2	1,2-Dichloroethane	ND		0.20	
78-87-5	1,2-Dichloropropane	ND		0.20	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.20	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.20	
108-67-8	1,3,5-Trimethylbenzene	ND		0.20	
106-99-0	1,3-Butadiene	ND		0.40	
541-73-1	1,3-Dichlorobenzene	ND		0.20	
106-46-7	1,4-Dichlorobenzene	ND		0.20	
123-91-1	1,4-Dioxane	ND		0.50	
71-36-3	1-Butanol	ND		2.0	
90-12-0	1-Methylnaphthalene	ND		2.5	
540-84-1	2,2,4-Trimethylpentane	ND		0.50	
3074-71-3	2,3-Dimethylheptane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.20	
78-93-3	2-Butanone	ND		1.0	
95-49-8	2-Chlorotoluene	ND		0.40	
872-55-9	2-Ethylthiophene	ND		0.20	
591-78-6	2-Hexanone	ND		0.50	
78-78-4	2-Methylbutane	ND	*	0.50	
91-57-6	2-Methylnaphthalene	ND		2.5	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1439-1

SDG No.:

Client Sample ID: 09641 | Lab Sample ID: 140-1439-1

Matrix: Air | Lab File ID: 140-1439-a-1.D

Analysis Method: TO-15 | Date Collected: 05/30/2014 07:45

Sample wt/vol: 200(mL) | Date Analyzed: 06/02/2014 22:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
107-83-5	2-Methylpentane	ND		0.20	
554-14-3	2-Methylthiophene	ND		0.20	
107-05-1	3-Chloropropene	ND		0.20	
616-44-4	3-Methylthiophene	ND		0.20	
622-96-8	4-Ethyltoluene	ND		0.40	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.50	
75-07-0	Acetaldehyde	ND		10	
67-64-1	Acetone	ND		5.0	
75-05-8	Acetonitrile	ND		1.0	
107-02-8	Acrolein	ND		1.0	
107-13-1	Acrylonitrile	ND		2.0	
98-83-9	Alpha Methyl Styrene	ND		0.40	
71-43-2	Benzene	ND		0.20	
95-15-8	Benzo(b)thiophene	ND		0.40	
100-44-7	Benzyl chloride	ND		0.40	
75-27-4	Bromodichloromethane	ND		0.20	
75-25-2	Bromoform	ND		0.20	
74-83-9	Bromomethane	ND		0.20	
106-97-8	Butane	ND		0.40	
1678-93-9	Butylcyclohexane	ND		0.20	
75-15-0	Carbon disulfide	ND		0.50	
56-23-5	Carbon tetrachloride	ND		0.20	
108-90-7	Chlorobenzene	ND		0.20	
75-45-6	Chlorodifluoromethane	ND		0.20	
75-00-3	Chloroethane	ND		0.20	
67-66-3	Chloroform	ND		0.20	
74-87-3	Chloromethane	ND		0.50	
156-59-2	cis-1,2-Dichloroethene	ND		0.20	
10061-01-5	cis-1,3-Dichloropropene	ND		0.20	
98-82-8	Cumene	ND		0.40	
110-82-7	Cyclohexane	ND		0.50	
124-48-1	Dibromochloromethane	ND		0.20	
74-95-3	Dibromomethane	ND		0.40	
75-71-8	Dichlorodifluoromethane	ND		0.20	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1439-1

SDG No.:

Client Sample ID: 09641 | Lab Sample ID: 140-1439-1

Matrix: Air | Lab File ID: 140-1439-a-1.D

Analysis Method: TO-15 | Date Collected: 05/30/2014 07:45

Sample wt/vol: 200(mL) | Date Analyzed: 06/02/2014 22:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
60-29-7	Ethyl ether	ND		2.0	
100-41-4	Ethylbenzene	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		1.0	
110-54-3	Hexane	ND		0.50	
496-11-7	Indane	ND		0.20	
95-13-6	Indene	ND		0.40	
67-63-0	Isopropyl alcohol	ND		2.0	
179601-23-1	m&p-Xylene	ND		0.20	
80-62-6	Methyl methacrylate	ND		0.50	
1634-04-4	Methyl tert-butyl ether	ND		1.0	
108-87-2	Methylcyclohexane	ND		0.20	
75-09-2	Methylene Chloride	ND		0.50	
91-20-3	Naphthalene	ND		0.50	
104-51-8	n-Butylbenzene	ND		0.40	
124-18-5	n-Decane	ND		1.0	
112-40-3	n-Dodecane	ND		1.0	
142-82-5	n-Heptane	ND		0.50	
111-84-2	n-Nonane	ND		0.50	
111-65-9	n-Octane	ND		0.40	
103-65-1	N-Propylbenzene	ND		0.40	
1120-21-4	n-Undecane	ND		1.0	
95-47-6	o-Xylene	ND		0.20	
99-87-6	p-Cymene	ND		0.20	
109-66-0	Pentane	ND		1.0	
115-07-1	Propene	ND		0.50	
135-98-8	sec-Butylbenzene	ND		0.40	
100-42-5	Styrene	ND		0.20	
75-65-0	tert-Butanol	ND		2.0	
98-06-6	tert-Butylbenzene	ND		0.50	
127-18-4	Tetrachloroethene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		1.0	
110-02-1	Thiophene	ND		0.20	
108-88-3	Toluene	ND		0.20	
156-60-5	trans-1,2-Dichloroethene	ND		0.20	
10061-02-6	trans-1,3-Dichloropropene	ND		0.20	
79-01-6	Trichloroethene	ND		0.20	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1439-1

SDG No.:

Client Sample ID: 09641 | Lab Sample ID: 140-1439-1

Matrix: Air | Lab File ID: 140-1439-a-1.D

Analysis Method: TO-15 | Date Collected: 05/30/2014 07:45

Sample wt/vol: 200(mL) | Date Analyzed: 06/02/2014 22:39

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1291 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-69-4	Trichlorofluoromethane	ND		0.20	
108-05-4	Vinyl acetate	ND		1.0	
593-60-2	Vinyl bromide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1439-a-1.D				
Lims ID:	140-1439-A-1	Lab Sample ID:	140-1439-1		
Client ID:	09641				
Sample Type:	Client				
Inject. Date:	02-Jun-2014 22:39:30	ALS Bottle#:	16	Worklist Smp#:	19
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09641				
Misc. Info.:	G060214,TO15,140-0000715-019				
Operator ID:	7126	Instrument ID:	MG		
Method:	\\KNXCHROM\ChromData\MG\20140529-715.b\MG_TO15.m				
Limit Group:	MSA TO14A_15 Routine ICAL				
Last Update:	03-Jun-2014 09:23:02	Calib Date:	22-May-2014 22:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D				
Column 1 :	RTX-5 (0.32 mm)		Det: MS SCAN		
Process Host:	XAWRK005				

First Level Reviewer: tajh Date: 03-Jun-2014 09:23:02

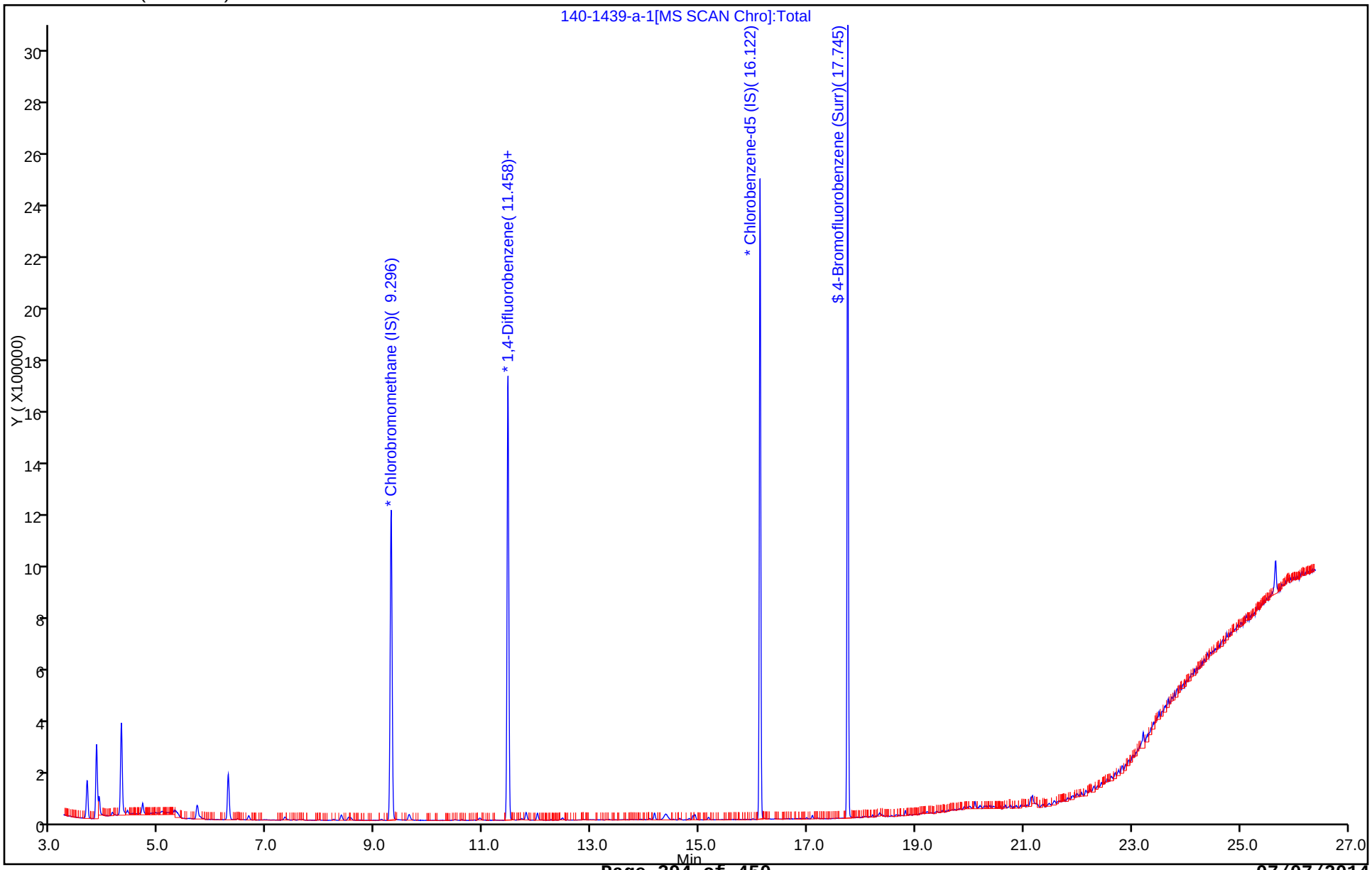
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.296	9.296	0.000	95	347463	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.458	0.000	97	1459754	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.122	0.000	93	1286295	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	85	993714	4.19	
9 Chloromethane	52	4.141	4.130	0.010	100	5088	0.1172	
13 Butane	43	4.416	4.410	0.006	90	11105	0.0538	
19 2-Methylbutane	43	5.294	5.289	0.005	85	3890	0.0273	
24 Pentane	72	5.764	5.758	0.006	62	743	0.0269	
30 2-Methyl-2-propanol	59	6.459	6.411	0.048	67	5048	0.0242	
31 Methylene Chloride	84	6.664	6.659	0.005	90	7433	0.0656	
39 Hexane	56	8.508	8.497	0.011	72	2237	0.0186	
51 n-Butanol	31	10.940	10.897	0.043	68	6192	0.1327	
65 Toluene	91	14.165	14.170	-0.005	90	20273	0.0487	

Report Date: 03-Jun-2014 09:23:34 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140529-715.b\140-1439-a-1.D				
Injection Date:	02-Jun-2014 22:39:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1439-A-1	Lab Sample ID:	140-1439-1	Worklist Smp#:	19
Client ID:	09641				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1480-1

SDG No.:

Client Sample ID: 10509 | Lab Sample ID: 140-1480-6

Matrix: Air | Lab File ID: 140-1480-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 07:10

Sample wt/vol: 500(mL) | Date Analyzed: 06/09/2014 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1315 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1480-1

SDG No.:

Client Sample ID: 10509 | Lab Sample ID: 140-1480-6

Matrix: Air | Lab File ID: 140-1480-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 07:10

Sample wt/vol: 500(mL) | Date Analyzed: 06/09/2014 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1315 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1480-1

SDG No.:

Client Sample ID: 10509 | Lab Sample ID: 140-1480-6

Matrix: Air | Lab File ID: 140-1480-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 07:10

Sample wt/vol: 500(mL) | Date Analyzed: 06/09/2014 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1315 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	1.2	*	0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND		0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1480-1

SDG No.:

Client Sample ID: 10509 | Lab Sample ID: 140-1480-6

Matrix: Air | Lab File ID: 140-1480-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 07:10

Sample wt/vol: 500(mL) | Date Analyzed: 06/09/2014 12:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1315 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MJ\20140606-730.b\140-1480-a-6.D				
Lims ID:	140-1480-A-6	Lab Sample ID:	140-1480-6		
Client ID:	10509				
Sample Type:	Client				
Inject. Date:	09-Jun-2014 12:35:30	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10509				
Misc. Info.:	J060914,TO15,,140-0000730-005				
Operator ID:	7126	Instrument ID:	MJ		

Method:	\\KNXCHROM\ChromData\MJ\20140606-730.b\MJ_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	09-Jun-2014 16:10:49	Calib Date:	11-Mar-2014 19:57:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MJ\20140311-516.b\JICC119.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK017	

First Level Reviewer: barlozhetskayaa Date: 09-Jun-2014 16:11:52

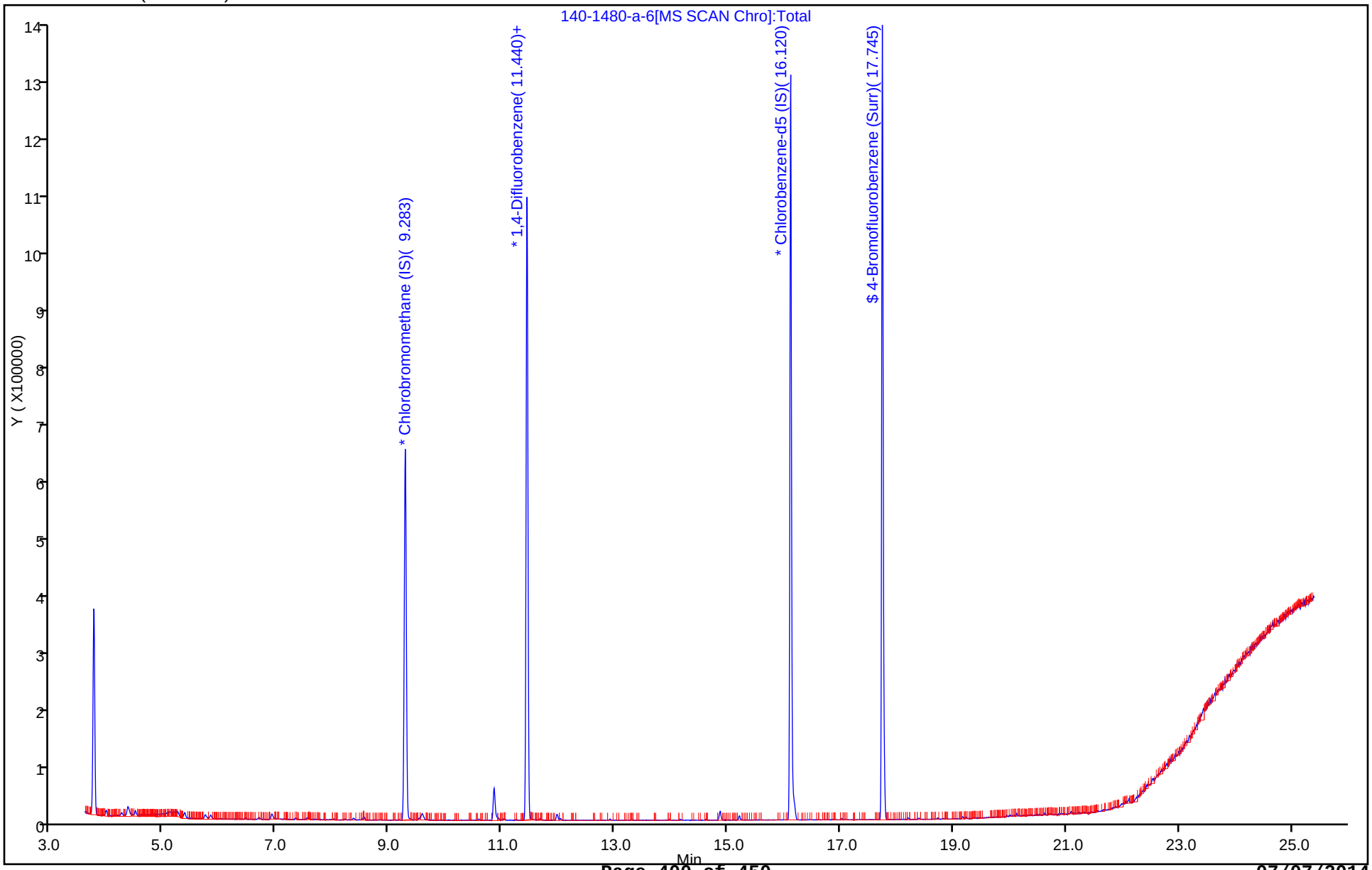
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.283	9.290	-0.007	96	185802	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.448	-0.008	96	922479	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.120	16.122	-0.002	91	736685	4.00	
$ 5 4-Bromofluorobenzene (Surr	95	17.745	17.747	-0.002	82	513116	3.94	
13 Butane	43	4.495	4.503	-0.008	84	5931	0.0605	
19 2-Methylbutane	43	5.372	5.374	-0.002	75	5040	0.0639	
40 Hexane	56	8.551	8.559	-0.008	59	655	0.0131	
47 n-Butanol	31	10.859	10.856	0.003	94	24248	1.20	

Report Date: 09-Jun-2014 16:11:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MJ\20140606-730.b\140-1480-a-6.D				
Injection Date:	09-Jun-2014 12:35:30	Instrument ID:	MJ	Operator ID:	7126
Lims ID:	140-1480-A-6	Lab Sample ID:	140-1480-6	Worklist Smp#:	5
Client ID:	10509				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

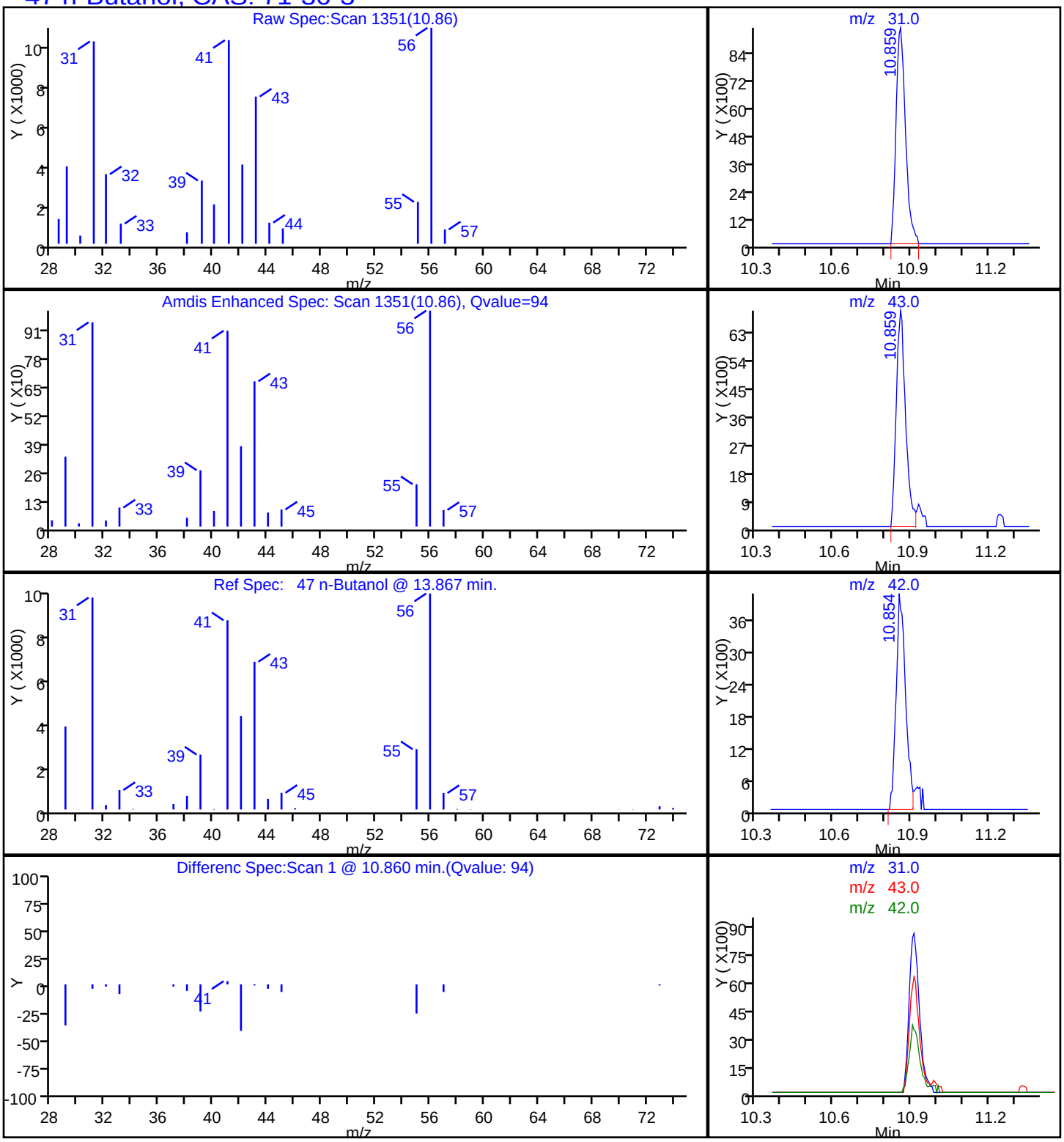


Report Date: 09-Jun-2014 16:11:53 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MJ\20140606-730.b\140-1480-a-6.D				
Injection Date:	09-Jun-2014 12:35:30	Instrument ID:	MJ		
Lims ID:	140-1480-A-6	Lab Sample ID:	140-1480-6		
Client ID:	10509				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	5
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

47 n-Butanol, CAS: 71-36-3



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10576 | Lab Sample ID: 140-1481-6

Matrix: Air | Lab File ID: 140-1481-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10576 | Lab Sample ID: 140-1481-6

Matrix: Air | Lab File ID: 140-1481-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	0.077		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10576 | Lab Sample ID: 140-1481-6

Matrix: Air | Lab File ID: 140-1481-a-6.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10576 Lab Sample ID: 140-1481-6

Matrix: Air Lab File ID: 140-1481-a-6.D

Analysis Method: TO 15 LL Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) Date Analyzed: 06/10/2014 01:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1318 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-6.D				
Lims ID:	140-1481-A-6	Lab Sample ID:	140-1481-6		
Client ID:	10576				
Sample Type:	Client				
Inject. Date:	10-Jun-2014 01:03:30	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10576				
Misc. Info.:	G060914,TO15,140-0000732-017				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	10-Jun-2014 07:32:06	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK053	

First Level Reviewer: tajh Date: 10-Jun-2014 07:25:26

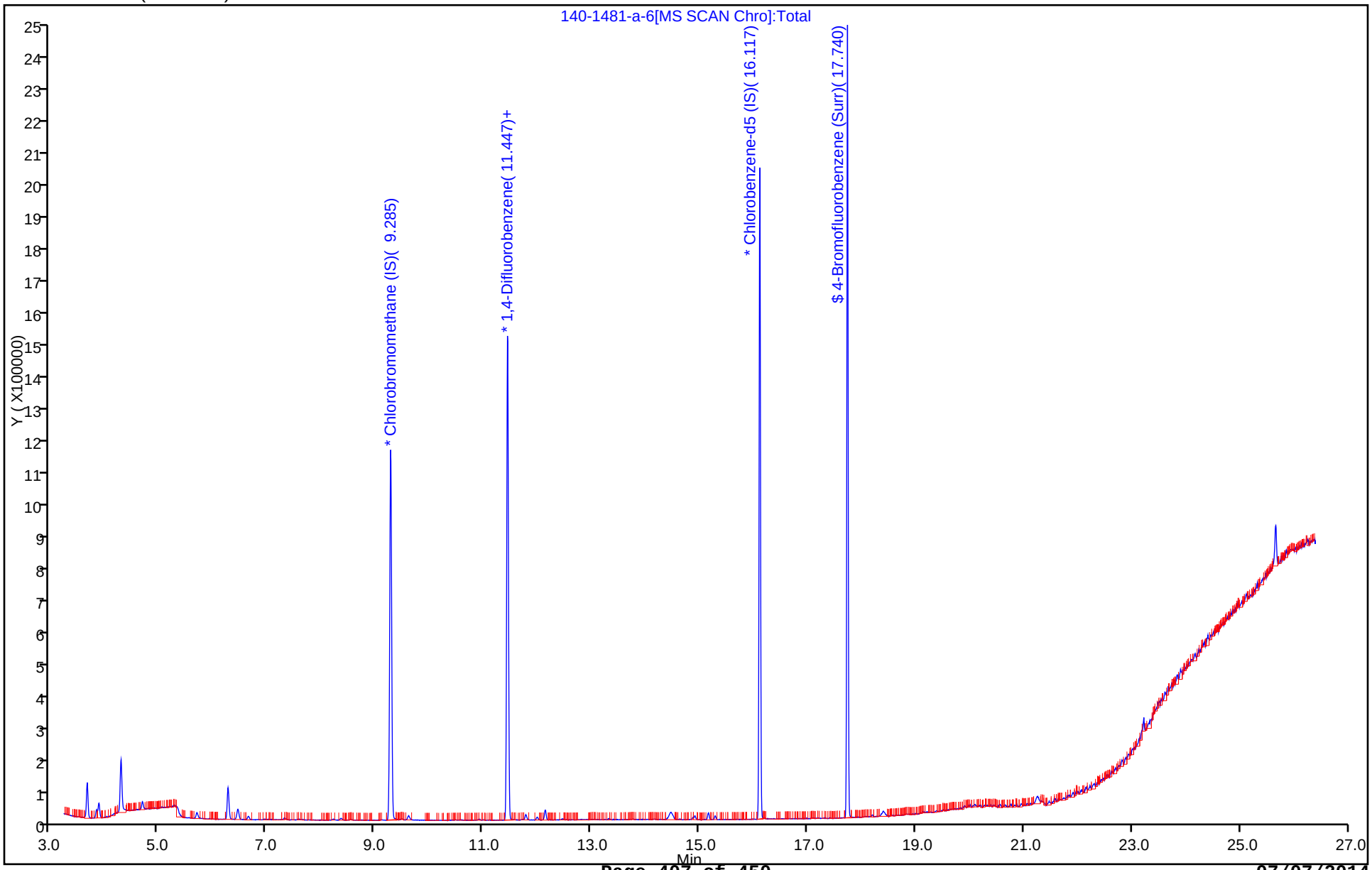
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.285	9.290	-0.005	93	310549	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.453	0.000	97	1223281	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.117	16.117	0.000	94	988854	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	82	782044	4.29	
30 2-Methyl-2-propanol	59	6.443	6.405	0.038	35	2986	0.0160	
28 1,1,2-Trichloro-1,2,2-trif	101	6.459	6.454	0.005	86	14738	0.0760	
56 Trichloroethene	130	12.148	12.148	0.000	85	10066	0.0772	
73 Tetrachloroethene	129	15.292	15.292	0.000	76	2443	0.0219	

Report Date: 10-Jun-2014 07:32:45 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-6.D				
Injection Date:	10-Jun-2014 01:03:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-6	Lab Sample ID:	140-1481-6	Worklist Smp#:	17
Client ID:	10576				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

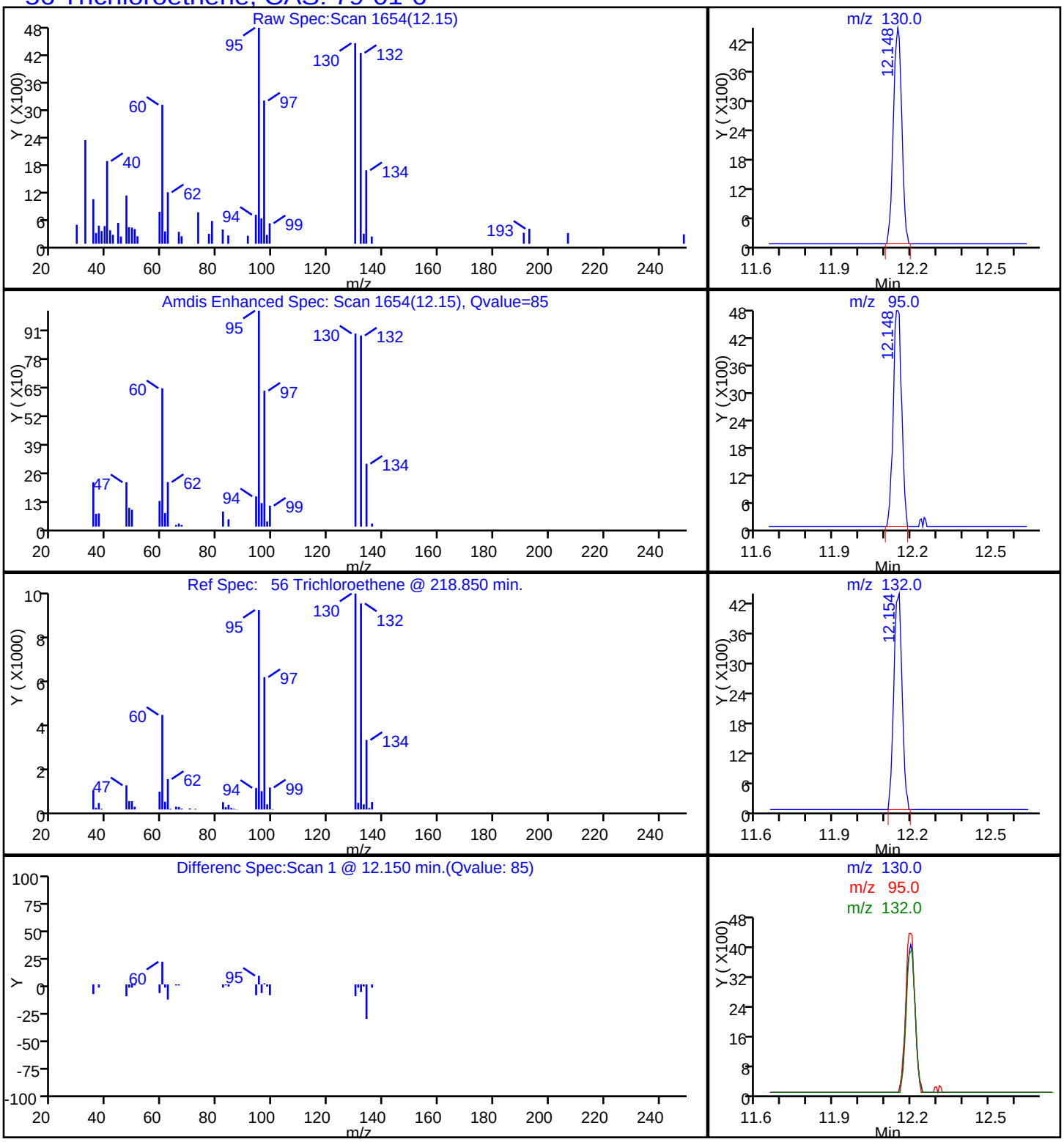


Report Date: 10-Jun-2014 07:32:45 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-6.D				
Injection Date:	10-Jun-2014 01:03:30	Instrument ID:	MG		
Lims ID:	140-1481-A-6	Lab Sample ID:	140-1481-6		
Client ID:	10576				
Operator ID:	7126	ALS Bottle#:	12	Worklist Smp#:	17
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10390 | Lab Sample ID: 140-1481-7

Matrix: Air | Lab File ID: 140-1481-a-7.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10390 | Lab Sample ID: 140-1481-7

Matrix: Air | Lab File ID: 140-1481-a-7.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	0.051		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10390 | Lab Sample ID: 140-1481-7

Matrix: Air | Lab File ID: 140-1481-a-7.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 01:48

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10390 Lab Sample ID: 140-1481-7

Matrix: Air Lab File ID: 140-1481-a-7.D

Analysis Method: TO 15 LL Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) Date Analyzed: 06/10/2014 01:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1318 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-7.D				
Lims ID:	140-1481-A-7	Lab Sample ID:	140-1481-7		
Client ID:	10390				
Sample Type:	Client				
Inject. Date:	10-Jun-2014 01:48:30	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10390				
Misc. Info.:	G060914,TO15,140-0000732-018				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	10-Jun-2014 07:32:06	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK053	

First Level Reviewer: tajh Date: 10-Jun-2014 07:26:15

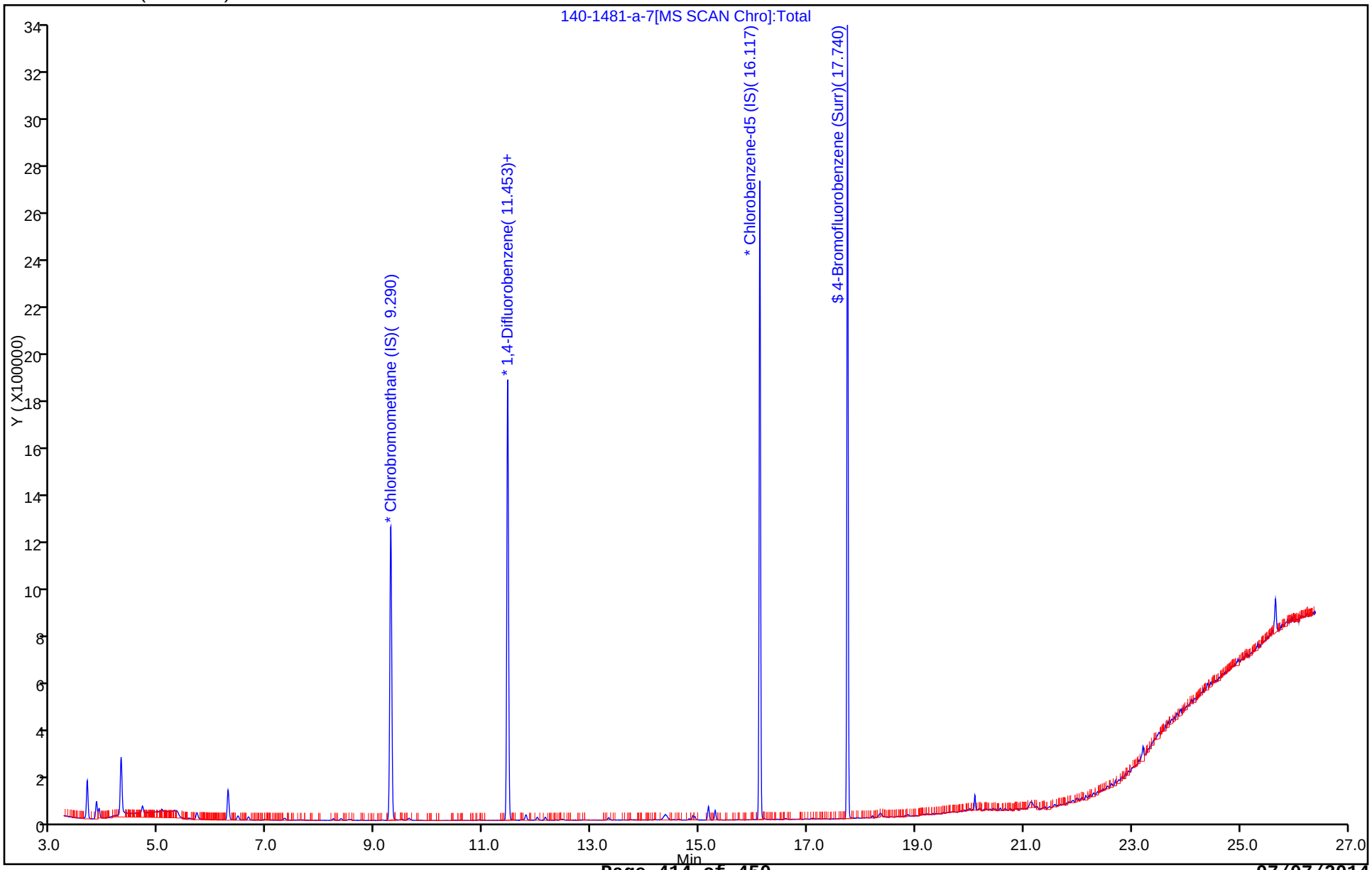
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.290	9.290	0.000	94	339192	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.453	0.000	97	1519088	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.117	16.117	0.000	94	1318456	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	83	1058642	4.35	
28 1,1,2-Trichloro-1,2,2-trif	101	6.459	6.454	0.005	82	7887	0.0372	
56 Trichloroethene	130	12.148	12.148	0.000	81	3834	0.0237	
62 4-Methyl-2-pentanone (MIBK	43	13.318	13.302	0.016	88	8598	0.0270	
73 Tetrachloroethene	129	15.292	15.292	0.000	85	7599	0.0511	

Report Date: 10-Jun-2014 07:32:47 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-7.D				
Injection Date:	10-Jun-2014 01:48:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-7	Lab Sample ID:	140-1481-7	Worklist Smp#:	18
Client ID:	10390				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

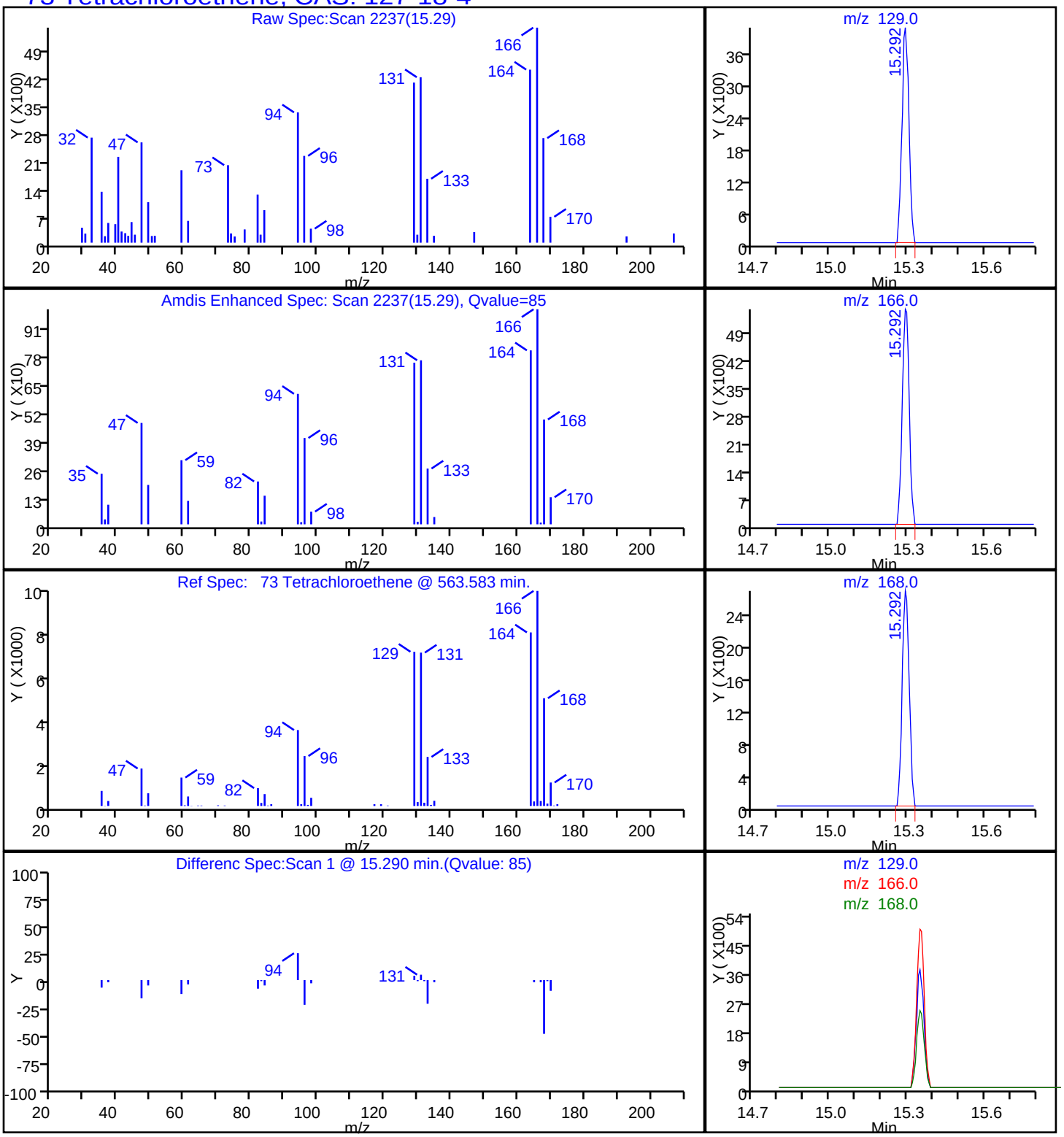


Report Date: 10-Jun-2014 07:32:47 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-7.D				
Injection Date:	10-Jun-2014 01:48:30	Instrument ID:	MG		
Lims ID:	140-1481-A-7	Lab Sample ID:	140-1481-7		
Client ID:	10390				
Operator ID:	7126	ALS Bottle#:	13	Worklist Smp#:	18
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09613 | Lab Sample ID: 140-1481-9

Matrix: Air | Lab File ID: 140-1481-a-9.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 03:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09613 | Lab Sample ID: 140-1481-9

Matrix: Air | Lab File ID: 140-1481-a-9.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 03:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	0.092		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	0.074		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09613 | Lab Sample ID: 140-1481-9

Matrix: Air | Lab File ID: 140-1481-a-9.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 03:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09613 | Lab Sample ID: 140-1481-9

Matrix: Air | Lab File ID: 140-1481-a-9.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 03:25

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-9.D
Lims ID: 140-1481-A-9 Lab Sample ID: 140-1481-9
Client ID: 09613
Sample Type: Client
Inject. Date: 10-Jun-2014 03:25:30 ALS Bottle#: 15 Worklist Smp#: 20
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 09613
Misc. Info.: G060914,TO15,140-0000732-020
Operator ID: 7126 Instrument ID: MG

Method: \\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 10-Jun-2014 07:32:06 Calib Date: 22-May-2014 22:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D

Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: tajh Date: 10-Jun-2014 07:27:08

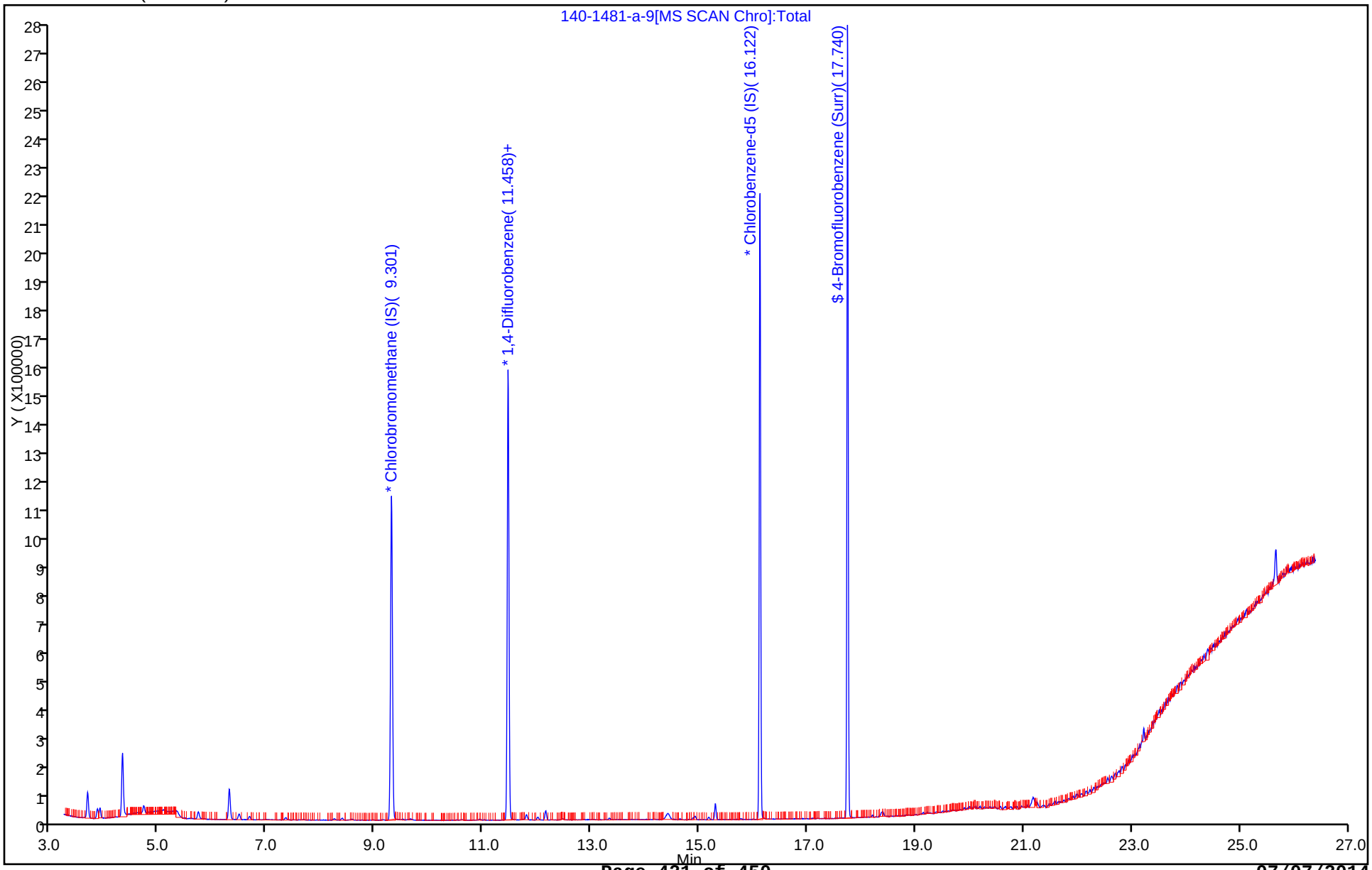
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.301	9.290	0.011	93	303435	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.453	0.005	97	1264440	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.117	0.005	94	1081087	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	82	885382	4.44	
28 1,1,2-Trichloro-1,2,2-trif	101	6.481	6.454	0.027	86	9433	0.0498	
56 Trichloroethene	130	12.159	12.148	0.011	87	9928	0.0736	
62 4-Methyl-2-pentanone (MIBK	43	13.329	13.302	0.027	86	5283	0.0199	
73 Tetrachloroethene	129	15.297	15.292	0.005	87	11273	0.0924	

Report Date: 10-Jun-2014 07:32:52 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-9.D				
Injection Date:	10-Jun-2014 03:25:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-9	Lab Sample ID:	140-1481-9	Worklist Smp#:	20
Client ID:	09613				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

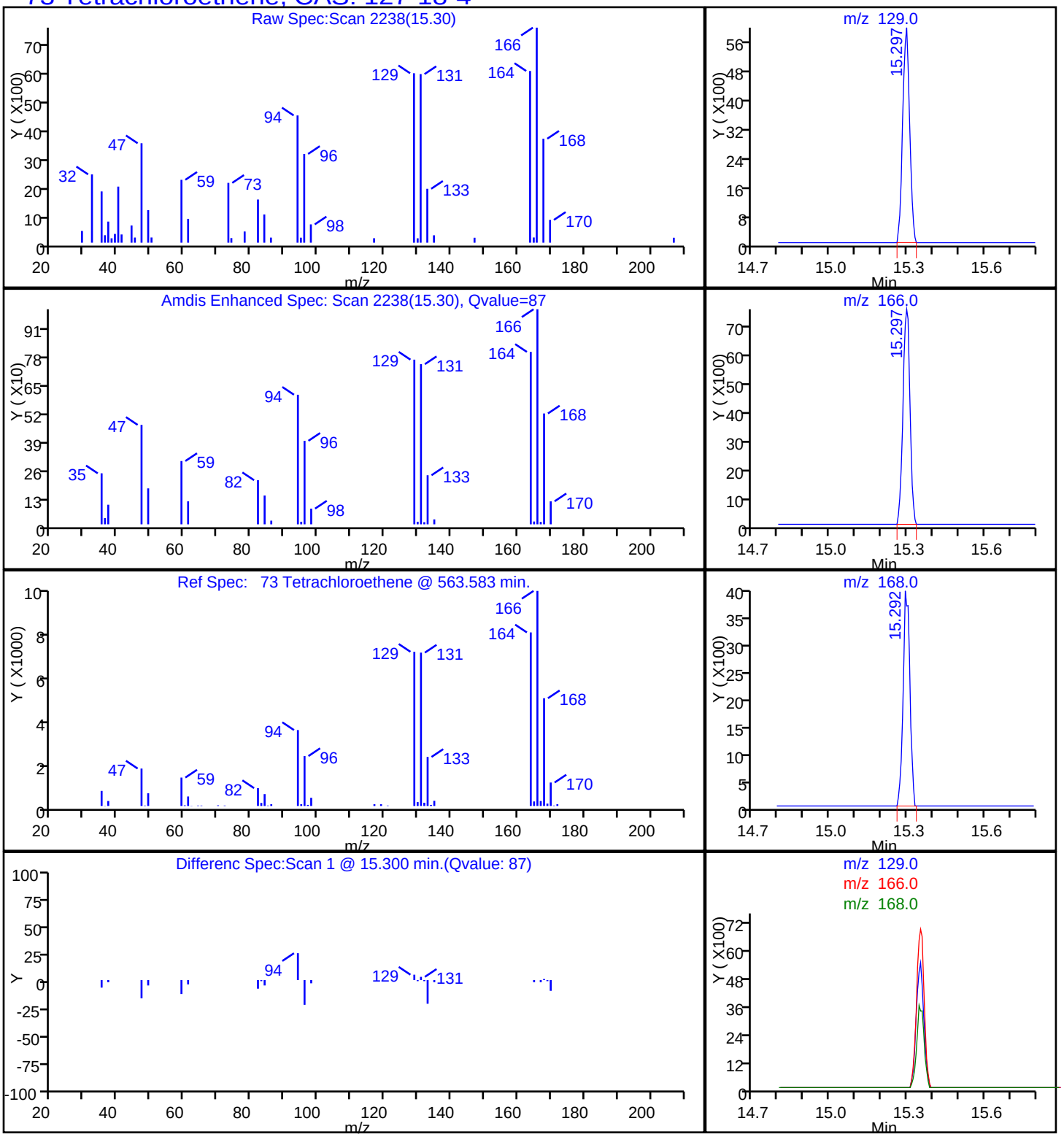


Report Date: 10-Jun-2014 07:32:52 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-9.D				
Injection Date:	10-Jun-2014 03:25:30	Instrument ID:	MG		
Lims ID:	140-1481-A-9	Lab Sample ID:	140-1481-9		
Client ID:	09613				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4

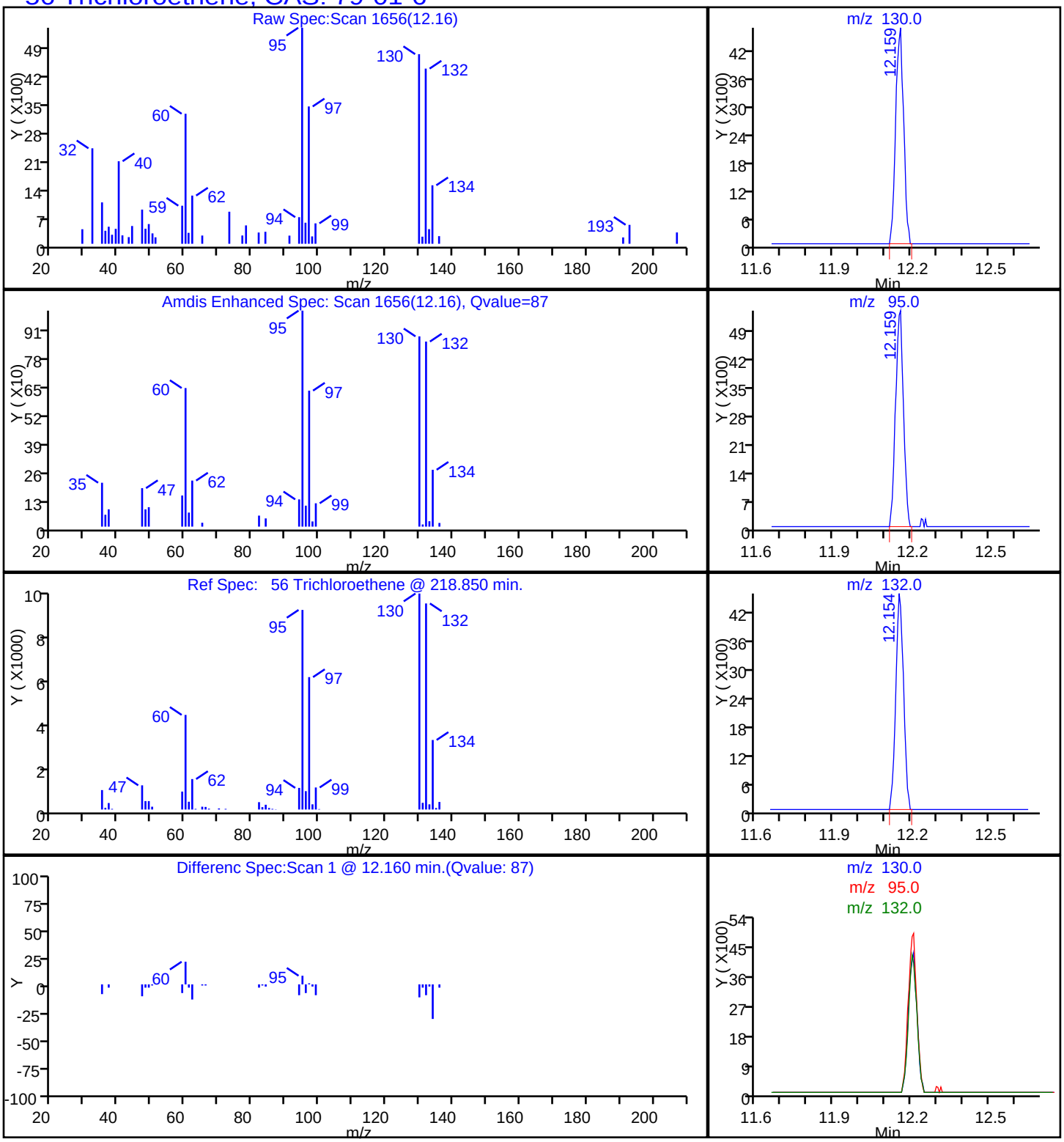


Report Date: 10-Jun-2014 07:32:52 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-9.D				
Injection Date:	10-Jun-2014 03:25:30	Instrument ID:	MG		
Lims ID:	140-1481-A-9	Lab Sample ID:	140-1481-9		
Client ID:	09613				
Operator ID:	7126	ALS Bottle#:	15	Worklist Smp#:	20
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10551 | Lab Sample ID: 140-1481-10

Matrix: Air | Lab File ID: 140-1481-a-10.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10551 | Lab Sample ID: 140-1481-10

Matrix: Air | Lab File ID: 140-1481-a-10.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	0.063		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10551 | Lab Sample ID: 140-1481-10

Matrix: Air | Lab File ID: 140-1481-a-10.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10551 Lab Sample ID: 140-1481-10

Matrix: Air Lab File ID: 140-1481-a-10.D

Analysis Method: TO 15 LL Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) Date Analyzed: 06/10/2014 04:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1318 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-10.D				
Lims ID:	140-1481-A-10	Lab Sample ID:	140-1481-10		
Client ID:	10551				
Sample Type:	Client				
Inject. Date:	10-Jun-2014 04:13:30	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10551				
Misc. Info.:	G060914,TO15,140-0000732-021				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	10-Jun-2014 07:32:06	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK053	

First Level Reviewer: tajh Date: 10-Jun-2014 07:27:34

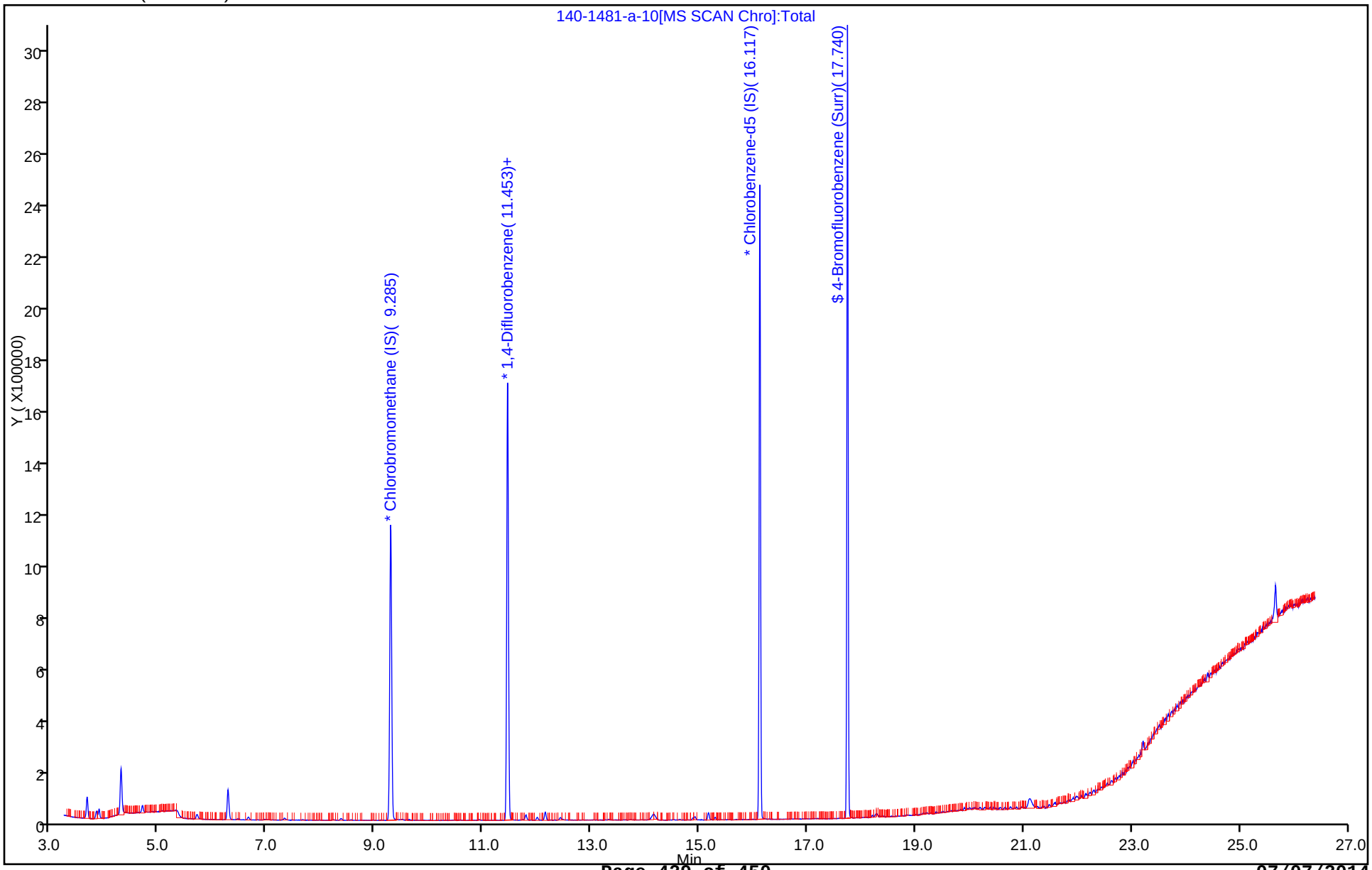
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.285	9.290	-0.005	93	317721	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.453	-0.001	97	1424953	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.117	16.117	0.000	94	1235858	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	83	993486	4.36	
56 Trichloroethene	130	12.148	12.148	0.000	85	9592	0.0631	

Report Date: 10-Jun-2014 07:32:54 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-10.D				
Injection Date:	10-Jun-2014 04:13:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-10	Lab Sample ID:	140-1481-10	Worklist Smp#:	21
Client ID:	10551				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

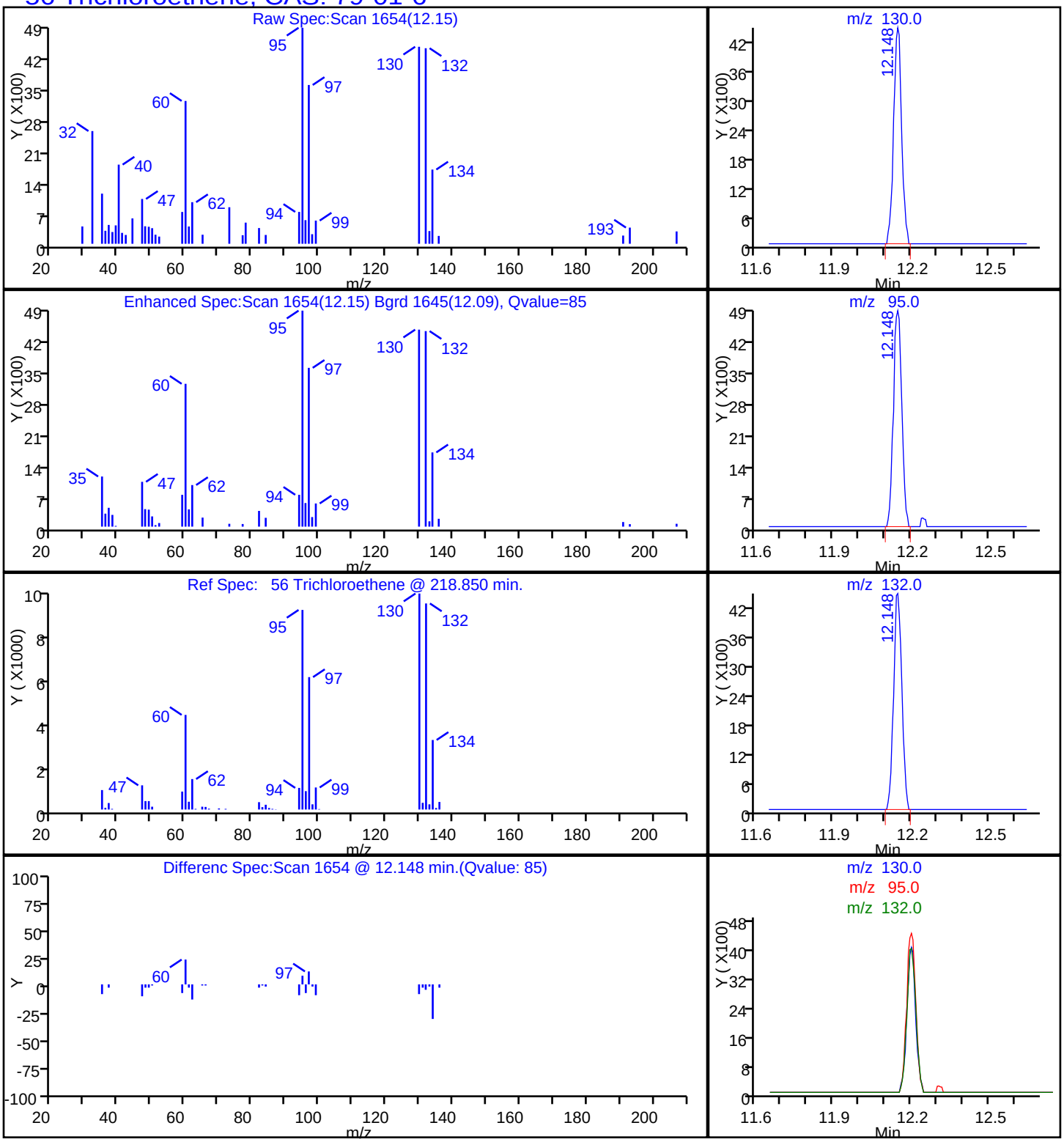


Report Date: 10-Jun-2014 07:32:54 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-10.D				
Injection Date:	10-Jun-2014 04:13:30	Instrument ID:	MG		
Lims ID:	140-1481-A-10	Lab Sample ID:	140-1481-10		
Client ID:	10551				
Operator ID:	7126	ALS Bottle#:	16	Worklist Smp#:	21
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

56 Trichloroethene, CAS: 79-01-6



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10180 | Lab Sample ID: 140-1481-11

Matrix: Air | Lab File ID: 140-1481-a-11.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10180 | Lab Sample ID: 140-1481-11

Matrix: Air | Lab File ID: 140-1481-a-11.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	0.049		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10180 | Lab Sample ID: 140-1481-11

Matrix: Air | Lab File ID: 140-1481-a-11.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 04:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-1481-1

SDG No.:

Client Sample ID: 10180 Lab Sample ID: 140-1481-11

Matrix: Air Lab File ID: 140-1481-a-11.D

Analysis Method: TO 15 LL Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) Date Analyzed: 06/10/2014 04:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-5 ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 1318 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-11.D				
Lims ID:	140-1481-A-11	Lab Sample ID:	140-1481-11		
Client ID:	10180				
Sample Type:	Client				
Inject. Date:	10-Jun-2014 04:58:30	ALS Bottle#:	1	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	10180				
Misc. Info.:	G060914,TO15,140-0000732-022				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	10-Jun-2014 07:32:06	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK053	

First Level Reviewer: tajh Date: 10-Jun-2014 07:28:15

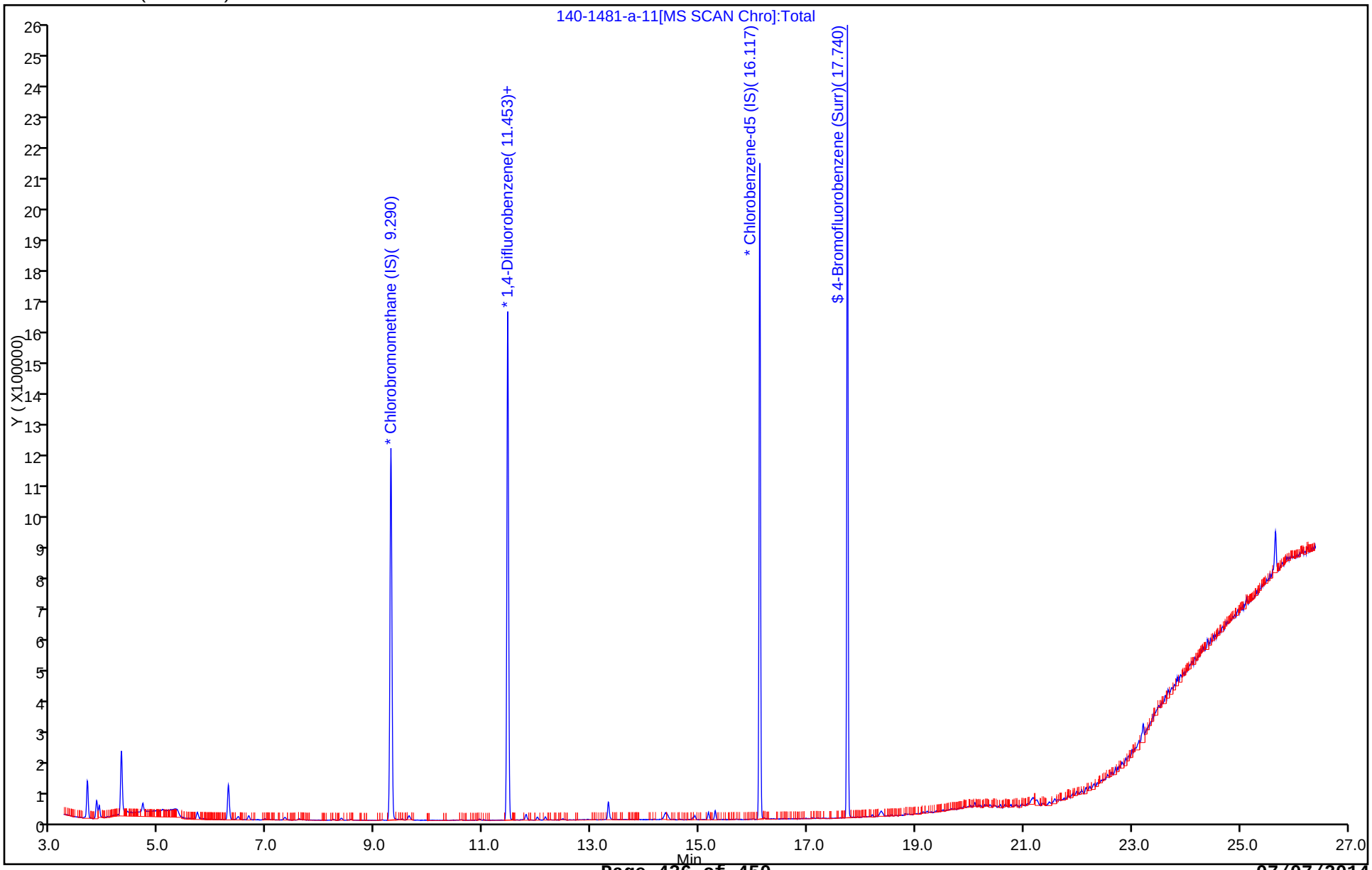
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.290	9.290	0.000	93	327944	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.453	0.000	97	1341228	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.117	16.117	0.000	94	1059452	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	83	815626	4.17	
28 1,1,2-Trichloro-1,2,2-trif	101	6.465	6.454	0.011	71	4261	0.0208	
31 Methylene Chloride	84	6.659	6.653	0.006	87	5750	0.0538	
56 Trichloroethene	130	12.148	12.148	0.000	77	3049	0.0213	
62 4-Methyl-2-pentanone (MIBK	43	13.313	13.302	0.011	98	48489	0.1723	
73 Tetrachloroethene	129	15.287	15.292	-0.005	82	5907	0.0494	

Report Date: 10-Jun-2014 07:32:56 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-11.D				
Injection Date:	10-Jun-2014 04:58:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-11	Lab Sample ID:	140-1481-11	Worklist Smp#:	22
Client ID:	10180				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

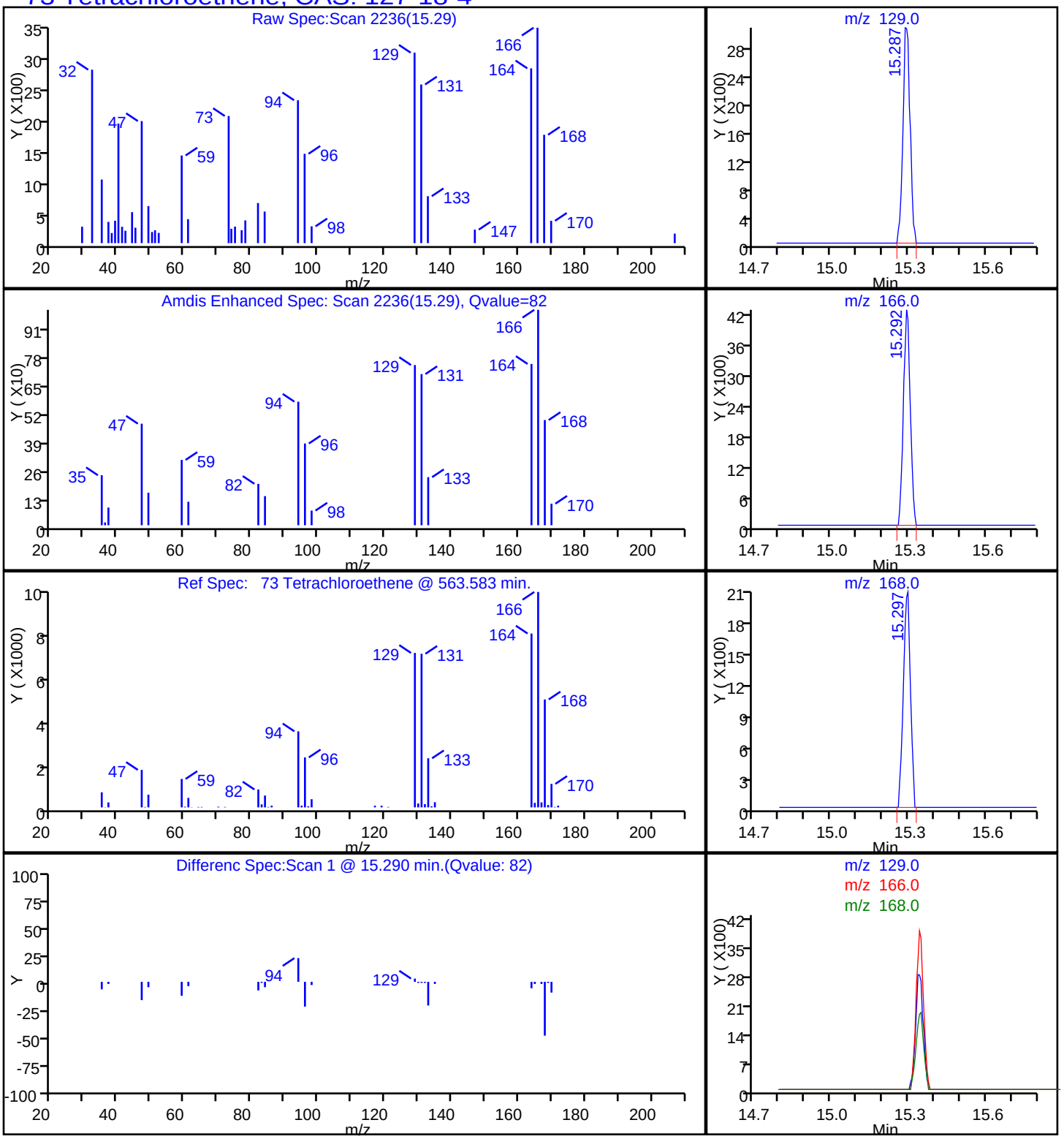


Report Date: 10-Jun-2014 07:32:56 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-11.D				
Injection Date:	10-Jun-2014 04:58:30	Instrument ID:	MG		
Lims ID:	140-1481-A-11	Lab Sample ID:	140-1481-11		
Client ID:	10180				
Operator ID:	7126	ALS Bottle#:	1	Worklist Smp#:	22
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

73 Tetrachloroethene, CAS: 127-18-4



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09781 | Lab Sample ID: 140-1481-12

Matrix: Air | Lab File ID: 140-1481-a-12.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 05:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND	*	0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09781 | Lab Sample ID: 140-1481-12

Matrix: Air | Lab File ID: 140-1481-a-12.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 05:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	0.11		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		0.80	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND	*	0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09781 | Lab Sample ID: 140-1481-12

Matrix: Air | Lab File ID: 140-1481-a-12.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 05:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND	*	0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo(b)thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadine	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND	*	0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I

AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville | Job No.: 140-1481-1

SDG No.:

Client Sample ID: 09781 | Lab Sample ID: 140-1481-12

Matrix: Air | Lab File ID: 140-1481-a-12.D

Analysis Method: TO 15 LL | Date Collected: 06/06/2014 08:15

Sample wt/vol: 500(mL) | Date Analyzed: 06/10/2014 05:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: RTX-5 ID: 0.32(mm)

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

Analysis Batch No.: 1318 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-12.D				
Lims ID:	140-1481-A-12	Lab Sample ID:	140-1481-12		
Client ID:	09781				
Sample Type:	Client				
Inject. Date:	10-Jun-2014 05:45:30	ALS Bottle#:	2	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Sample Info:	09781				
Misc. Info.:	G060914,TO15,140-0000732-023				
Operator ID:	7126	Instrument ID:	MG		

Method:	\\KNXCHROM\ChromData\MG\20140606-732.b\MG_TO15.m		
Limit Group:	MSA TO14A_15 Routine ICAL		
Last Update:	10-Jun-2014 07:32:06	Calib Date:	22-May-2014 22:35:30
Integrator:	RTE	ID Type:	Deconvolution ID
Quant Method:	Internal Standard	Quant By:	Initial Calibration
Last ICal File:	\\KNXCHROM\ChromData\MG\20140522-699.b\ic l9.D		

Column 1 :	RTX-5 (0.32 mm)	Det: MS SCAN
Process Host:	XAWRK053	

First Level Reviewer: tajh Date: 10-Jun-2014 07:28:58

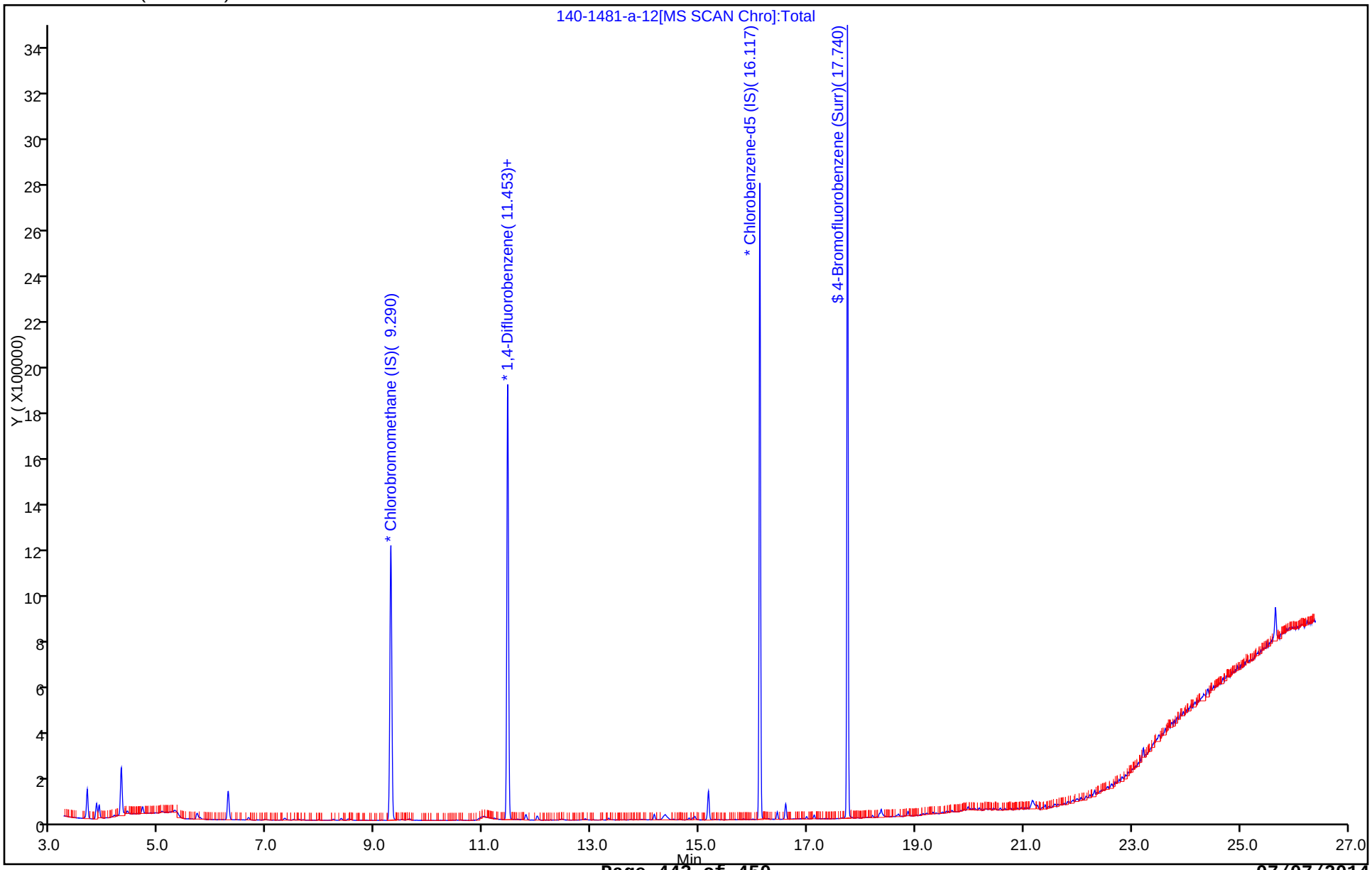
Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.290	9.290	0.000	93	329588	4.00	
* 2 1,4-Difluorobenzene	114	11.453	11.453	0.000	97	1559549	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.117	16.117	0.000	94	1372372	4.00	
$ 4 4-Bromofluorobenzene (Surr	95	17.740	17.740	0.000	83	1103003	4.36	
13 Butane	43	4.410	4.405	0.005	87	9844	0.0503	
19 2-Methylbutane	43	5.289	5.284	0.005	85	5605	0.0415	
39 Hexane	56	8.497	8.492	0.005	57	1685	0.0148	
62 4-Methyl-2-pentanone (MIBK	43	13.318	13.302	0.016	89	6941	0.0212	
76 Ethylbenzene	91	16.440	16.440	0.000	95	22349	0.0462	
78 m-Xylene & p-Xylene	91	16.597	16.597	0.000	98	43514	0.1134	
82 o-Xylene	91	17.125	17.125	0.000	88	11222	0.0270	

Report Date: 10-Jun-2014 07:32:58 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-12.D				
Injection Date:	10-Jun-2014 05:45:30	Instrument ID:	MG	Operator ID:	7126
Lims ID:	140-1481-A-12	Lab Sample ID:	140-1481-12	Worklist Smp#:	23
Client ID:	09781				
Purge Vol:	500.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		

Column: RTX-5 (0.32 mm)

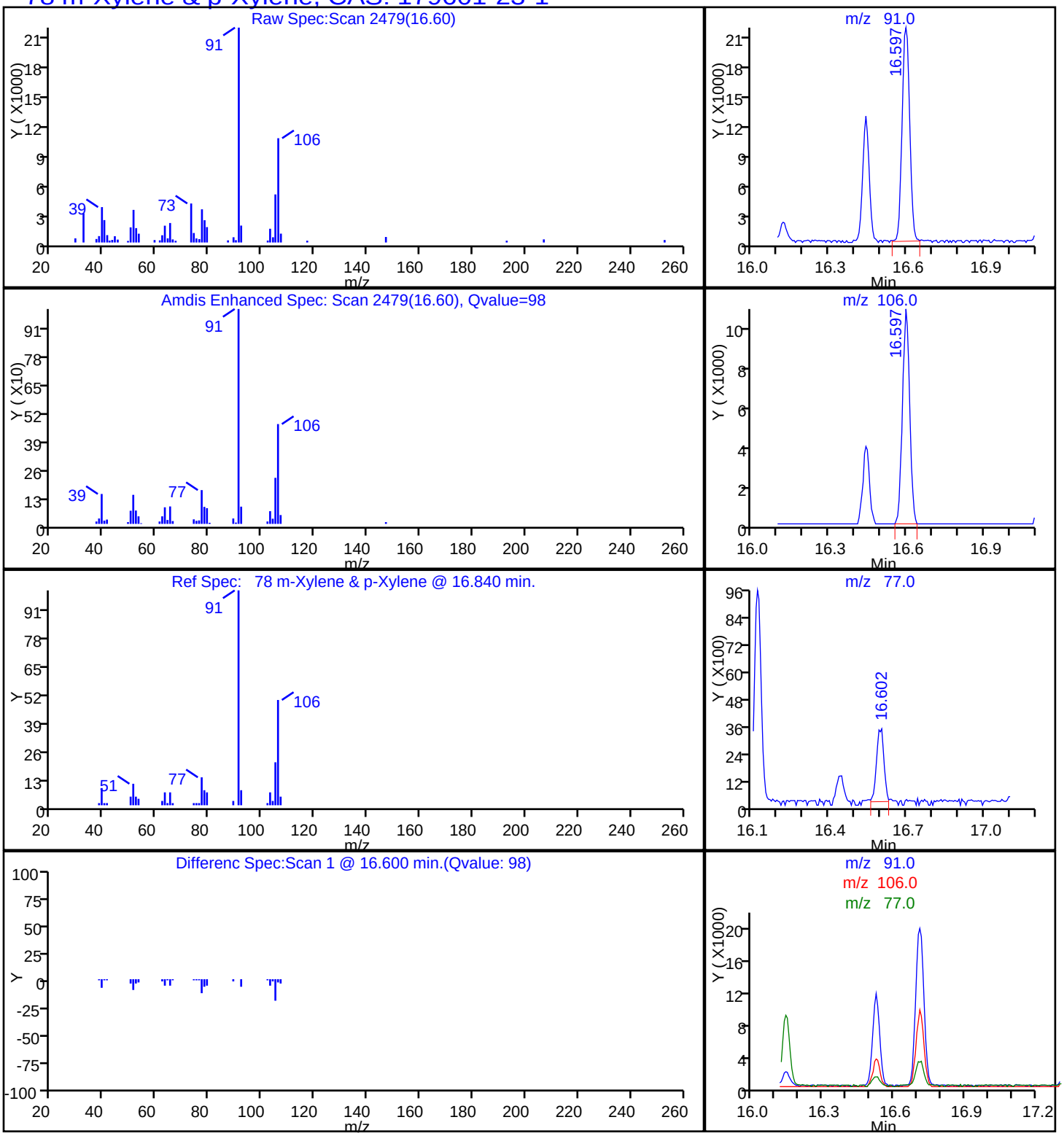


Report Date: 10-Jun-2014 07:32:59 Chrom Revision: 2.2 16-May-2014 10:46:48

TestAmerica Knoxville

Data File:	\\KNXCHROM\ChromData\MG\20140606-732.b\140-1481-a-12.D				
Injection Date:	10-Jun-2014 05:45:30	Instrument ID:	MG		
Lims ID:	140-1481-A-12	Lab Sample ID:	140-1481-12		
Client ID:	09781				
Operator ID:	7126	ALS Bottle#:	2	Worklist Smp#:	23
Purge Vol:	500.000 mL	Dil. Factor:	1.0000		
Method:	MG_TO15	Limit Group:	MSA TO14A_15 Routine ICAL		
Column:	RTX-5 (0.32 mm)	Detector	MS SCAN		

78 m-Xylene & p-Xylene, CAS: 179601-23-1



Shipping and Receiving Documents

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information
Company: JM WALLER
Address: 100 HARTSFIELD CTR PKWY SUITE 610
City/State/Zip ATLANTA, GA 30354
Phone: 404 443-2777
FAX:
Project Name: SMOKEY MOUNTAIN SMELTERS
Site/location: KNOXVILLE, TN
PO #

Project Manager: JANKE AUSTIN
Phone: 404 443-2777
Site Contact:
TAL Contact:

Analysis Turnaround Time
Standard (Specify)
Rush (Specify)

Sampled By: A. GRIMMKE

1 of 3 COCs

140-1594 Chain of Custody

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SMS SV14	6/25/14	0755	1610	-29	0	09906	10512	X									X		
SMS SV15D	6/25/14	0803	1610	-30	0	10633	~~12308~~ AG	X									X		
SMS SV15	6/25/14	0803	1610	-30	0	09868	10509 09723	X									X		
SMS SV~~14~~16	6/25/14	0810	1610	~~-30~~ -28.5	-1	10861	09769	X									X		
SMS SV AMBIENT	6/25/14	0812	1610	-30	0	10593	10576	X								X			
SMS SV10-20	6/24/15	1648	1700	-30	-2	181	09787	X									X		

Sampled by : ANDREW GRIMMKE

Temperature (Fahrenheit)	Interior	Ambient
Start	NA	71
Stop	NA	83

Pressure (inches of Hg)	Interior	Ambient
Start	NA	29.99"
Stop	NA	29.96"

Received @ ambient
Custody seal intact
2 boxes
KW 6/26/14
Lab courier

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: ANDREW GRIMMKE	Date/Time: 6/25/14 1030	Canisters Received by: COURIER	
Samples Relinquished by:	Date/Time:	Received by: Ken Wilson 6/26/14 1055	
Relinquished by:	Date/Time:	Received by:	

15 cans
(6[6L can] + 9[1L can])
2 gauges, 5 flow
2T, 9KR
1 CC

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: JANICE AUSTIN	Sampled By: A. GRIMMKE	2 of 3 COCs
Company: J.M. WALLER	Phone: 404 443-2777		
Address:	Site Contact:		
City/State/Zip	TAL Contact:		
Phone:			
FAX:			
Project Name: SMOKEY MOUNTAIN SMELTER	Analysis Turnaround Time		
Site/location: KNOXVILLE, TN	Standard (Specify)		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SMSSVQ-15	6/25/14	1026	1118	-28	-21.5	58	10499	X									X		
SMSSV13-11	6/25/14	1240	1257	~~-28.5~~	-12.5	103	10344	X									X		
SMSSV11-11	6/25/14	1340	1349	-29	0	51	09641	X									X		
SMSSV9-10	6/25/14	1430	1445	-29	-1	45	10338	X									X		
SMSSV4-15	6/25/14	~~1500~~ 1541	1553	-29	0	143	10518	X									X		
SMSSV3-10	6/25/14	1622	1644	-28	-4	172	09668	X									X		

Sampled by : ANDREW GRIMMKE

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: ANDREW GRIMMKE	Date/Time: 6/25/14 1030	Canisters Received by: COURIER
Samples Relinquished by:	Date/Time:	Received by: Kim Wilson 6/26/14 1055
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** JANICE AUSTIN	**Sampled By:** A. GRIMMKE	3 of 3 COCs
Company: J. M. WALLER	**Phone:** 404-443-2777		
Address:	**Site Contact:**		
City/State/Zip	**TAL Contact:**		
Phone:			
FAX:			
Project Name: SMOKEY MOUNTAIN SMELTER	**Analysis Turnaround Time**		
Site/location: KNOXVILLE, TN	Standard (Specify)		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SMSSV3D-10	6/25/14	1122	1144	-28.5	-5	151	09812	X									X		

Sampled by : ANDREW GRIMMKE

	Temperature (Fahrenheit)		
	Interior	Ambient	
Start			
Stop			

	Pressure (inches of Hg)		
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: ANDREW GRIMMKE	Date/Time: 6/25/14 1030	Canisters Received by: COURIER
Samples Relinquished by:	Date/Time:	Received by: Ken Wilson 6/26/14 1055
Relinquished by:	Date/Time:	Received by:

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G1

Analyst	Date	Sample ID	6 L	1 L	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
AFB	6/26/2014	140-1594-a-1	X		-3.7	1545	
AFB	6/26/2014	140-1594-a-2	X		-5.5	1546	
AFB	6/26/2014	140-1594-a-3	X		-5.0	1547	
AFB	6/26/2014	140-1594-a-4	X		-4.9	1548	
AFB	6/26/2014	140-1594-a-5	X		-4.8	1549	
AFB	6/26/2014	140-1594-a-6		X	-3.2	1550	
AFB	6/26/2014	140-1594-a-7		X	-22.0	1551	
AFB	6/26/2014	140-1594-a-8		X	-14.5	1552	
AFB	6/26/2014	140-1594-a-9		X	-1.5	1553	
AFB	6/26/2014	140-1594-a-10		X	-2.9	1554	
AFB	6/26/2014	140-1594-a-11		X	-3.3	1555	
AFB	6/26/2014	140-1594-a-12		X	-5.6	1556	
AFB	6/26/2014	140-1594-a-13		X	-6.0	1557	

Login Sample Receipt Checklist

Client: J.M. Waller Associates, Inc.

Job Number: 140-1594-1

Login Number: 1594

List Source: TestAmerica Knoxville

List Number: 1

Creator: Wilson, Ken

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
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.	N/A	This is checked in the lab.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	