



Chris Bittner
Utah Division of Water Quality
PO Box 144870
SLC, UT 84114
TEL: (801) 536-4300

RE: MP 44.9

Dear Chris Bittner:

Lab Set ID: 1304407

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 16 sample(s) on 4/15/2013 for the analyses presented in the following report.

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Thank You,

Approved by: _____
Laboratory Director or designee



Inorganic Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304407

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/15/2013
Date(s) of Collection: 4/13/2013
Sample Condition: Intact
C-O-C Discrepancies: None

Holding Time and Preservation Requirements: The analysis and preparation for the samples were performed within the method holding times. The samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, DUP:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples / Laboratory Control Samples Duplicate (LCS/LCSD): All LCS recoveries were within control limits, with the following exception: The LCSD on Biochemical Oxygen Demand was outside of its control limit for sample 1304407-015D indicating a possible bias low.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Duplicate (DUP): The parameters that required a duplicate analysis had RPDs within the control limits, with the following exception: On sample 1304407-015D, the RPD for Total Dissolved Solids was outside of its control limit due to sample non-homogeneity or matrix interference.

Corrective Action: None required.



TPH (DRO) Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304407

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/15/2013
Date of Collection: 4/13/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8015D /3510C
Analysis: Total Petroleum Hydrocarbon (DRO - C10-28)

General Set Comments: Multiple samples exhibited TPH-DRO above the reporting limit.

Holding Time Requirements: The preparations and analyses of the samples were performed within respective holding times.

Analysis Requirements: The samples were prepared and/or analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blank (MB): No target analytes were detected above reporting limits, evaluated to MDL, indicating the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Semivolatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304407

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/15/2013
Date of Collection: 4/13/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: Multiple analytes were observed above reporting limit. The samples were analyzed for TICs.

Holding Time Requirements: The preparations and analyses of the samples were performed within respective holding times.

Preparation Requirements: The samples were prepared and analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks: No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCS): All LCS percent recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Volatile Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1304407

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 4/15/2013
Date of Collection: 4/13/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-001C
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/13/2013 830h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/18/2013 1743h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.225	0.4000	56.3	10-190	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-003C
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 4/13/2013 1135h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/18/2013 1900h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.164	0.4000	41.1	10-190	

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-005C
Client Sample ID: 50' from WB1 / 4920505
Collection Date: 4/13/2013 1145h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/18/2013 1939h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.203	0.4000	50.8	10-190	

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-007C
Client Sample ID: East of Boom / 4920395
Collection Date: 4/13/2013 1040h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/18/2013 2017h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500	

Phone: (801) 263-8686
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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.196	0.4000	49.0	10-190	

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Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-012C
Client Sample ID: French Drain South / 4920398
Collection Date: 4/13/2013 1050h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/16/2013 2102h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	0.672	

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.183	0.4000	45.8	10-190	

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-015C
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/13/2013 900h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/16/2013 2258h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	0.543			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.163	0.4000	40.8	10-190	

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Laboratory Director

Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-016C
Client Sample ID: North Weir Outlet
Collection Date: 4/13/2013 1000h
Received Date: 4/15/2013 720h

Analytical Results

TPH-DRO (C10-C28) by GC/FID Method 8015D/3510C

Analyzed: 4/16/2013 2318h **Extracted:** 4/16/2013 847h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
Salt Lake City, UT 84115

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.174	0.4000	43.4	10-190	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/13/2013 830h
Received Date: 4/15/2013 720h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/16/2013 1701h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-002B
Client Sample ID: S. Marina / 4920495
Collection Date: 4/13/2013 845h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/16/2013 1822h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-003B

Client Sample ID: W. Boom 3 / 4920497

Collection Date: 4/13/2013 1135h

Received Date: 4/15/2013 720h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/16/2013 2255h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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web: www.awal-labs.com

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-004B

Client Sample ID: 50' from WB4 / 4920502

Collection Date: 4/13/2013 1135h

Received Date: 4/15/2013 720h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/16/2013 2321h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-005B
Client Sample ID: 50' from WB1 / 4920505
Collection Date: 4/13/2013 1145h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/16/2013 2347h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-006B
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 4/13/2013 1150h
Received Date: 4/15/2013 720h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 014h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1304407-007B
Client Sample ID: East of Boom / 4920395
Collection Date: 4/13/2013 1040h
Received Date: 4/15/2013 720h

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 040h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.150	
2-Methylnaphthalene	91-57-6	0.100	0.130	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-008B
Client Sample ID: Between Weirs / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 107h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.360	
2-Methylnaphthalene	91-57-6	0.100	0.280	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-009B
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 133h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.280	
2-Methylnaphthalene	91-57-6	0.100	0.220	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-012B
Client Sample ID: French Drain South / 4920398
Collection Date: 4/13/2013 1050h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 159h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	1.08	
2-Methylnaphthalene	91-57-6	0.100	0.930	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.520	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-013B
Client Sample ID: French Drain North / 4920399
Collection Date: 4/13/2013 1030h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 226h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	2.14	
2-Methylnaphthalene	91-57-6	0.100	1.99	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	1.97	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-014B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/13/2013 1035h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 252h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.140	
2-Methylnaphthalene	91-57-6	0.100	0.170	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.150	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-015B
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/13/2013 900h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 318h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.210	
2-Methylnaphthalene	91-57-6	0.100	0.190	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.120	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet
Collection Date: 4/13/2013 1000h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA PNA SIM List by GC/MS Method 8270D/3510C

Analyzed: 4/17/2013 345h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South

Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.110	
2-Methylnaphthalene	91-57-6	0.100	0.110	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	0.160	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-001B

Client Sample ID: East of I-15 / 4920392

Collection Date: 4/13/2013 830h

Received Date: 4/15/2013 720h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 500h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South

Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 500h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 500h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	103	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 500h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/18/2013 500h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	48.9	80.00	61.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	12.2	40.00	30.4	10-124	
Surr: 2-Fluorophenol	367-12-4	12.0	80.00	14.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	9.57	40.00	23.9	10-180	
Surr: Phenol-d6	13127-88-3	9.16	80.00	11.5	10-122	
Surr: Terphenyl-d14	1718-51-0	41.7	40.00	104	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-002B

Client Sample ID: S. Marina / 4920495

Collection Date: 4/13/2013 845h

Received Date: 4/15/2013 720h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 611h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 611h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 611h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 611h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-002B
Client Sample ID: S. Marina / 4920495

Analyzed: 4/18/2013 611h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	88.4	80.00	111	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	26.6	40.00	66.5	10-124	
Surr: 2-Fluorophenol	367-12-4	38.0	80.00	47.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	22.9	40.00	57.2	10-180	
Surr: Phenol-d6	13127-88-3	28.1	80.00	35.1	10-122	
Surr: Terphenyl-d14	1718-51-0	41.6	40.00	104	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-003B

Client Sample ID: W. Boom 3 / 4920497

Collection Date: 4/13/2013 1135h

Received Date: 4/15/2013 720h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 634h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-003B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/18/2013 634h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-003B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/18/2013 634h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-003B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/18/2013 634h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-003B

Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/18/2013 634h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	74.3	80.00	92.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.6	40.00	58.9	10-124	
Surr: 2-Fluorophenol	367-12-4	32.9	80.00	41.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.9	40.00	47.2	10-180	
Surr: Phenol-d6	13127-88-3	25.2	80.00	31.6	10-122	
Surr: Terphenyl-d14	1718-51-0	39.6	40.00	99.0	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Salt Lake City, UT 84115

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Fax: (801) 263-8687

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-004B
Client Sample ID: 50' from WB4 / 4920502
Collection Date: 4/13/2013 1135h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 658h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
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Jose Rocha
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-004B
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/18/2013 658h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-004B
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/18/2013 658h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-004B
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/18/2013 658h **Extracted:** 4/15/2013 1144h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-004B

Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/18/2013 658h

Extracted: 4/15/2013 1144h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	92.0	80.00	115	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	30.2	40.00	75.6	10-124	
Surr: 2-Fluorophenol	367-12-4	41.8	80.00	52.2	10-106	
Surr: Nitrobenzene-d5	4165-60-0	25.0	40.00	62.4	10-180	
Surr: Phenol-d6	13127-88-3	31.9	80.00	39.9	10-122	
Surr: Terphenyl-d14	1718-51-0	43.2	40.00	108	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-005B
Client Sample ID: 50' from WB1 / 4920505
Collection Date: 4/13/2013 1145h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 722h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-005B
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/18/2013 722h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-005B
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/18/2013 722h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-005B
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/18/2013 722h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-005B

Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/18/2013 722h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	71.9	80.00	89.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.5	40.00	58.7	10-124	
Surr: 2-Fluorophenol	367-12-4	36.2	80.00	45.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	21.1	40.00	52.7	10-180	
Surr: Phenol-d6	13127-88-3	26.9	80.00	33.7	10-122	
Surr: Terphenyl-d14	1718-51-0	40.8	40.00	102	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-006B
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 4/13/2013 1150h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 747h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South

Salt Lake City, UT 84115

Phone: (801) 263-8686

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Fax: (801) 263-8687

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-006B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/18/2013 747h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-006B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/18/2013 747h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-006B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/18/2013 747h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-006B

Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/18/2013 747h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	61.1	80.00	76.3	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.0	40.00	42.5	10-124	
Surr: 2-Fluorophenol	367-12-4	25.6	80.00	31.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	13.8	40.00	34.4	10-180	
Surr: Phenol-d6	13127-88-3	18.8	80.00	23.5	10-122	
Surr: Terphenyl-d14	1718-51-0	34.4	40.00	86.1	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-007B

Client Sample ID: East of Boom / 4920395

Collection Date: 4/13/2013 1040h

Received Date: 4/15/2013 720h

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 810h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 810h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 810h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

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Fax: (801) 263-8687

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 810h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-007B

Client Sample ID: East of Boom / 4920395

Analyzed: 4/18/2013 810h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	71.6	80.00	89.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	15.5	40.00	38.9	10-124	
Surr: 2-Fluorophenol	367-12-4	28.8	80.00	36.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	13.6	40.00	34.0	10-180	
Surr: Phenol-d6	13127-88-3	22.4	80.00	28.1	10-122	
Surr: Terphenyl-d14	1718-51-0	35.2	40.00	88.1	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-008B
Client Sample ID: Between Weirs / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 834h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South

Salt Lake City, UT 84115

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-008B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/18/2013 834h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-008B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/18/2013 834h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-008B
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/18/2013 834h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-008B

Client Sample ID: Between Weirs / 4920394

Analyzed: 4/18/2013 834h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	70.3	80.00	87.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	12.6	40.00	31.4	10-124	
Surr: 2-Fluorophenol	367-12-4	28.4	80.00	35.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	11.1	40.00	27.7	10-180	
Surr: Phenol-d6	13127-88-3	22.1	80.00	27.6	10-122	
Surr: Terphenyl-d14	1718-51-0	28.5	40.00	71.3	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-009B
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 857h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-009B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/18/2013 857h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-009B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/18/2013 857h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-009B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/18/2013 857h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-009B

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/18/2013 857h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	65.3	80.00	81.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	10.4	40.00	26.0	10-124	
Surr: 2-Fluorophenol	367-12-4	22.7	80.00	28.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	8.59	40.00	21.5	10-180	
Surr: Phenol-d6	13127-88-3	18.7	80.00	23.4	10-122	
Surr: Terphenyl-d14	1718-51-0	30.5	40.00	76.2	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-012B
Client Sample ID: French Drain South / 4920398
Collection Date: 4/13/2013 1050h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 1216h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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web: www.awal-labs.com

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-012B

Client Sample ID: French Drain South / 4920398

Analyzed: 4/18/2013 1216h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-012B

Client Sample ID: French Drain South / 4920398

Analyzed: 4/18/2013 1216h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-012B

Client Sample ID: French Drain South / 4920398

Analyzed: 4/18/2013 1216h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Benzene, (1,2-dimethyl-1-propenyl)-	000769-57-3		4.40	JN
TIC: Benzene, 1-ethenyl-4-ethyl-	003454-07-7		7.03	JN
TIC: Benzene, 2-ethenyl-1,3,5-trimethyl-	000769-25-5		6.74	JN



Lab Sample ID: 1304407-012B

Client Sample ID: French Drain South / 4920398

Analyzed: 4/18/2013 1216h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
TIC: Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2		6.90	JN		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	73.7	80.00	92.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	11.9	40.00	29.6	10-124	
Surr: 2-Fluorophenol	367-12-4	25.7	80.00	32.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	11.2	40.00	27.9	10-180	
Surr: Phenol-d6	13127-88-3	19.6	80.00	24.5	10-122	
Surr: Terphenyl-d14	1718-51-0	36.9	40.00	92.3	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-013B
Client Sample ID: French Drain North / 4920399
Collection Date: 4/13/2013 1030h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 1242h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Lab Sample ID: 1304407-013B

Client Sample ID: French Drain North / 4920399

Analyzed: 4/18/2013 1242h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-013B

Client Sample ID: French Drain North / 4920399

Analyzed: 4/18/2013 1242h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

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web: www.awal-labs.com

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-013B

Client Sample ID: French Drain North / 4920399

Analyzed: 4/18/2013 1242h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	014944-23-1		7.64	JN
TIC: 1(2H)-Naphthalenone, 8-ethyl-3,4...	051015-33-9		6.45	JN
TIC: 1H-Inden-1-one, 2,3-dihydro-3,4,...	035322-84-0		6.69	JN



Lab Sample ID: 1304407-013B
Client Sample ID: French Drain North / 4920399

Analyzed: 4/18/2013 1242h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 3-Phenylbut-1-ene	000934-10-1		16.2	JN
TIC: Benzene, (1-ethyl-2-propenyl)-	019947-22-9		7.00	JN
TIC: Benzene, 1,2,3-trimethyl-	000526-73-8		12.9	JN
TIC: Benzene, 2-ethenyl-1,3,5-trimethyl-	000769-25-5		9.81	JN
TIC: Benzene, 2-ethyl-1,4-dimethyl-	001758-88-9		7.16	JN
TIC: Naphthalene, 1,2,3,4-tetrahydro-	000119-64-2		16.4	JN
TIC: Naphthalene, 1,2-dihydro-3,5,8-t...	030316-18-8		8.08	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	64.8	80.00	81.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	15.2	40.00	38.0	10-124	
Surr: 2-Fluorophenol	367-12-4	19.8	80.00	24.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	13.5	40.00	33.7	10-180	
Surr: Phenol-d6	13127-88-3	16.1	80.00	20.1	10-122	
Surr: Terphenyl-d14	1718-51-0	39.8	40.00	99.6	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
 This sample was analyzed for TICs.

463 West 3600 South
 Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-014B
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/13/2013 1035h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 1305h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylamino fluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-014B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 1305h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-014B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 1305h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-014B
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 1305h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
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Kyle F. Gross
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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	



Lab Sample ID: 1304407-014B

Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/18/2013 1305h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	70.0	80.00	87.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.0	40.00	47.4	10-124	
Surr: 2-Fluorophenol	367-12-4	30.7	80.00	38.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.8	40.00	41.9	10-180	
Surr: Phenol-d6	13127-88-3	22.6	80.00	28.2	10-122	
Surr: Terphenyl-d14	1718-51-0	38.7	40.00	96.8	10-221	

This sample was analyzed for TICs and no unknown peaks were detected.

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Salt Lake City, UT 84115

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Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-015B
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/13/2013 900h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 1328h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Salt Lake City, UT 84115

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-015B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 1328h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-015B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 1328h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	



Lab Sample ID: 1304407-015B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 1328h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Naphthalene, 1,2,3,4-tetrahydro-...	000483-77-2		4.09	JN



Lab Sample ID: 1304407-015B

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/18/2013 1328h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	68.7	80.00	85.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	15.9	40.00	39.8	10-124	
Surr: 2-Fluorophenol	367-12-4	24.8	80.00	31.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	12.6	40.00	31.4	10-180	
Surr: Phenol-d6	13127-88-3	20.0	80.00	25.0	10-122	
Surr: Terphenyl-d14	1718-51-0	39.8	40.00	99.4	10-221	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

This sample was analyzed for TICs.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet
Collection Date: 4/13/2013 1000h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

SVOA List by GC/MS Method 8270D/3510C

Analyzed: 4/18/2013 1353h

Extracted: 4/15/2013 1430h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-Biphenyl	92-52-4	10.0	< 10.0	
1,2,4,5-Tetrachlorobenzene	95-94-3	10.0	< 10.0	
1,2,4-Trichlorobenzene	120-82-1	10.0	< 10.0	
1,2-Dichlorobenzene	95-50-1	10.0	< 10.0	
1,3,5-Trinitrobenzene	99-35-4	10.0	< 10.0	
1,3-Dichlorobenzene	541-73-1	10.0	< 10.0	
1,3-Dinitrobenzene	99-65-0	10.0	< 10.0	
1,4-Dichlorobenzene	106-46-7	10.0	< 10.0	
1,4-Dinitrobenzene	100-25-4	10.0	< 10.0	
1,4-Naphthoquinone	130-15-4	10.0	< 10.0	
1,4-Phenylenediamine	106-50-3	10.0	< 10.0	
1-Chloronaphthalene	90-13-1	10.0	< 10.0	
1-Methylnaphthalene	90-12-0	10.0	< 10.0	
1-Naphthylamine	134-32-7	10.0	< 10.0	
2,3,4,6-Tetrachlorophenol	58-90-2	10.0	< 10.0	
2,4,5-Trichlorophenol	95-95-4	10.0	< 10.0	
2,4,6-Trichlorophenol	88-06-2	10.0	< 10.0	
2,4-Dichlorophenol	120-83-2	10.0	< 10.0	
2,4-Dimethylphenol	105-67-9	10.0	< 10.0	
2,4-Dinitrophenol	51-28-5	10.0	< 10.0	
2,4-Dinitrotoluene	121-14-2	10.0	< 10.0	
2,6-Dichlorophenol	87-65-0	10.0	< 10.0	
2,6-Dinitrotoluene	606-20-2	10.0	< 10.0	
2-Acetylaminofluorene	53-96-3	10.0	< 10.0	
2-Chloronaphthalene	91-58-7	10.0	< 10.0	
2-Chlorophenol	95-57-8	10.0	< 10.0	
2-Methylnaphthalene	91-57-6	10.0	< 10.0	
2-Methylphenol	95-48-7	10.0	< 10.0	
2-Naphthylamine	91-59-8	10.0	< 10.0	
2-Nitroaniline	88-74-4	10.0	< 10.0	



Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet

Analyzed: 4/18/2013 1353h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

463 West 3600 South
Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Nitrophenol	88-75-5	10.0	< 10.0	
2-Picoline	109-06-8	10.0	< 10.0	
3&4-Methylphenol		10.0	< 10.0	
3,3'-Dichlorobenzidine	91-94-1	10.0	< 10.0	
3,3'-Dimethylbenzidine	119-93-7	10.0	< 10.0	
3-Methylcholanthrene	56-49-5	10.0	< 10.0	
3-Nitroaniline	99-09-2	10.0	< 10.0	
4,6-Dinitro-2-methylphenol	534-52-1	10.0	< 10.0	
4-Aminobiphenyl	92-67-1	10.0	< 10.0	
4-Bromophenyl phenyl ether	101-55-3	10.0	< 10.0	
4-Chloro-3-methylphenol	59-50-7	10.0	< 10.0	
4-Chloroaniline	106-47-8	10.0	< 10.0	
4-Chlorophenyl phenyl ether	7005-72-3	10.0	< 10.0	
4-Nitroaniline	100-01-6	10.0	< 10.0	
4-Nitrophenol	100-02-7	10.0	< 10.0	
5-Nitro-o-toluidine	99-55-8	10.0	< 10.0	
7,12-Dimethylbenz(a)anthracene	57-97-6	10.0	< 10.0	
a,a-Dimethylphenethylamine	122-09-8	10.0	< 10.0	
Acenaphthene	83-32-9	10.0	< 10.0	
Acenaphthylene	208-96-8	10.0	< 10.0	
Acetophenone	98-86-2	10.0	< 10.0	
alpha-Terpineol	98-55-5	10.0	< 10.0	
Aniline	62-53-3	10.0	< 10.0	
Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
Atrazine	1912-24-9	10.0	< 10.0	
Azobenzene	103-33-3	10.0	< 10.0	
Benz(a)anthracene	56-55-3	10.0	< 10.0	
Benzaldehyde	100-52-7	10.0	< 10.0	
Benzidine	92-87-5	10.0	< 10.0	
Benzo(a)pyrene	50-32-8	10.0	< 10.0	
Benzo(b)fluoranthene	205-99-2	10.0	< 10.0	
Benzo(g,h,i)perylene	191-24-2	10.0	< 10.0	
Benzo(k)fluoranthene	207-08-9	10.0	< 10.0	
Benzoic acid	65-85-0	20.0	< 20.0	
Benzyl alcohol	100-51-6	10.0	< 10.0	
Bis(2-chloroethoxy)methane	111-91-1	10.0	< 10.0	



Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet

Analyzed: 4/18/2013 1353h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Bis(2-chloroethyl) ether	111-44-4	10.0	< 10.0	
Bis(2-chloroisopropyl) ether	108-60-1	10.0	< 10.0	
Bis(2-ethylhexyl) phthalate	117-81-7	10.0	< 10.0	
bis(2-ethylhexyl)adipate	103-23-1	10.0	< 10.0	
Butyl benzyl phthalate	85-68-7	10.0	< 10.0	
Caprolactam	105-60-2	10.0	< 10.0	
Carbazole	86-74-8	10.0	< 10.0	
Chlorobenzilate	510-15-6	10.0	< 10.0	
Chrysene	218-01-9	10.0	< 10.0	
Di-n-butyl phthalate	84-74-2	10.0	< 10.0	
Di-n-octyl phthalate	117-84-0	10.0	< 10.0	
Diallate (cis or trans)	2303-16-4	10.0	< 10.0	
Dibenz(a,h)anthracene	53-70-3	10.0	< 10.0	
Dibenzofuran	132-64-9	10.0	< 10.0	
Diethyl phthalate	84-66-2	10.0	< 10.0	
Dimethoate	60-51-5	10.0	< 10.0	
Dimethyl phthalate	131-11-3	10.0	< 10.0	
Dimethylaminoazobenzene	60-11-7	10.0	< 10.0	
Dinoseb	88-85-7	10.0	< 10.0	
Diphenylamine	122-39-4	10.0	< 10.0	
Disulfoton	298-04-4	10.0	< 10.0	
Ethyl methanesulfonate	62-50-0	10.0	< 10.0	
Famphur	52-85-7	10.0	< 10.0	
Fluoranthene	206-44-0	10.0	< 10.0	
Fluorene	86-73-7	10.0	< 10.0	
Hexachlorobenzene	118-74-1	10.0	< 10.0	
Hexachlorobutadiene	87-68-3	10.0	< 10.0	
Hexachlorocyclopentadiene	77-47-4	10.0	< 10.0	
Hexachloroethane	67-72-1	10.0	< 10.0	
Hexachlorophene	70-30-4	10.0	< 10.0	
Hexachloropropene	1888-71-7	10.0	< 10.0	
Indene	95-13-6	10.0	< 10.0	
Indeno(1,2,3-cd)pyrene	193-39-5	10.0	< 10.0	
Isodrin	465-73-6	10.0	< 10.0	
Isophorone	78-59-1	10.0	< 10.0	
Isosafrole	120-58-1	10.0	< 10.0	
Kepone	143-50-0	10.0	< 10.0	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet

Analyzed: 4/18/2013 1353h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methapyrilene	91-80-5	10.0	< 10.0	
Methyl methanesulfonate	66-27-3	10.0	< 10.0	
n-Decane	124-18-5	10.0	< 10.0	
N-Nitrosodi-n-butylamine	924-16-3	10.0	< 10.0	
N-Nitrosodiethylamine	55-18-5	10.0	< 10.0	
N-Nitrosodimethylamine	62-75-9	10.0	< 10.0	
N-Nitrosodiphenylamine	86-30-6	10.0	< 10.0	
N-Nitrosodi-n-propylamine	621-64-7	10.0	< 10.0	
N-Nitrosomethylethylamine	10595-95-6	10.0	< 10.0	
N-Nitrosomorpholine	59-89-2	10.0	< 10.0	
N-Nitrosopiperidine	100-75-4	10.0	< 10.0	
N-Nitrosopyrrolidine	930-55-2	10.0	< 10.0	
n-Octadecane	593-45-3	10.0	< 10.0	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Benzene, 1,4-dimethyl-2,5-bis(1-...	010375-96-9		5.92	JN



Lab Sample ID: 1304407-016B
Client Sample ID: North Weir Outlet

Analyzed: 4/18/2013 1353h **Extracted:** 4/15/2013 1430h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	66.0	80.00	82.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.7	40.00	49.3	10-124	
Surr: 2-Fluorophenol	367-12-4	27.5	80.00	34.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.3	40.00	40.7	10-180	
Surr: Phenol-d6	13127-88-3	21.3	80.00	26.7	10-122	
Surr: Terphenyl-d14	1718-51-0	40.3	40.00	101	10-221	

J - This flag indicates an estimated value.
N - This flag indicates presumptive evidence of a compound.
This sample was analyzed for TICs.

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-001A
Client Sample ID: East of I-15 / 4920392
Collection Date: 4/13/2013 830h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1147h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South

Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/15/2013 1147h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 4/15/2013 1147h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-001A

Client Sample ID: East of I-15 / 4920392

Analyzed: 4/15/2013 1147h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	61.9	50.00	124	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.2	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.6	50.00	111	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.6	77-129	

463 West 3600 South
Salt Lake City, UT 84115

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Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-002A
Client Sample ID: S. Marina / 4920495
Collection Date: 4/13/2013 845h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1303h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/15/2013 1303h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

 Phone: (801) 263-8686
 Toll Free: (888) 263-8686
 Fax: (801) 263-8687
 e-mail: awal@awal-labs.com

 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-002A
Client Sample ID: S. Marina / 4920495

Analyzed: 4/15/2013 1303h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-002A

Client Sample ID: S. Marina / 4920495

Analyzed: 4/15/2013 1303h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	61.7	50.00	123	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.8	50.00	108	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.8	50.00	112	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	96.9	77-129	

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-003A
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 4/13/2013 1135h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-003A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/15/2013 1322h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-003A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/15/2013 1322h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

 Phone: (801) 263-8686
 Toll Free: (888) 263-8686
 Fax: (801) 263-8687
 e-mail: awal@awal-labs.com

 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-003A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 4/15/2013 1322h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	59.8	50.00	120	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.0	50.00	108	80-128	
Surr: Dibromofluoromethane	1868-53-7	54.4	50.00	109	80-124	
Surr: Toluene-d8	2037-26-5	48.8	50.00	97.6	77-129	

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Salt Lake City, UT 84115

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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-004A
Client Sample ID: 50' from WB4 / 4920502
Collection Date: 4/13/2013 1135h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1341h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
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Kyle F. Gross
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Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-004A
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/15/2013 1341h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

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Lab Sample ID: 1304407-004A
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/15/2013 1341h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-004A
Client Sample ID: 50' from WB4 / 4920502

Analyzed: 4/15/2013 1341h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	62.0	50.00	124	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.6	50.00	105	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.9	50.00	112	80-124	
Surr: Toluene-d8	2037-26-5	48.6	50.00	97.3	77-129	

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-005A
Client Sample ID: 50' from WB1 / 4920505
Collection Date: 4/13/2013 1145h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1400h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-005A
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/15/2013 1400h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-005A
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/15/2013 1400h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-005A
Client Sample ID: 50' from WB1 / 4920505

Analyzed: 4/15/2013 1400h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	60.5	50.00	121	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.2	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.3	50.00	111	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	96.9	77-129	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-006A

Client Sample ID: W. Boom 1 / 4920396

Collection Date: 4/13/2013 1150h

Received Date: 4/15/2013 720h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1419h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-006A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/15/2013 1419h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

 Phone: (801) 263-8686
 Toll Free: (888) 263-8686
 Fax: (801) 263-8687
 e-mail: awal@awal-labs.com

 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-006A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/15/2013 1419h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-006A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 4/15/2013 1419h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	63.8	50.00	128	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.1	50.00	108	80-128	
Surr: Dibromofluoromethane	1868-53-7	57.5	50.00	115	80-124	
Surr: Toluene-d8	2037-26-5	49.8	50.00	99.5	77-129	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Chris Bittner

Project: MP 44.9

Lab Sample ID: 1304407-007A

Client Sample ID: East of Boom / 4920395

Collection Date: 4/13/2013 1040h

Received Date: 4/15/2013 720h

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1438h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
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e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-007A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/15/2013 1438h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-007A
Client Sample ID: East of Boom / 4920395

Analyzed: 4/15/2013 1438h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-007A

Client Sample ID: East of Boom / 4920395

Analyzed: 4/15/2013 1438h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	62.4	50.00	125	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.1	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	56.5	50.00	113	80-124	
Surr: Toluene-d8	2037-26-5	49.0	50.00	98.0	77-129	

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Salt Lake City, UT 84115

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Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-008A
Client Sample ID: Between Weirs / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1457h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-008A
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/15/2013 1457h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-008A
Client Sample ID: Between Weirs / 4920394

Analyzed: 4/15/2013 1457h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-008A

Client Sample ID: Between Weirs / 4920394

Analyzed: 4/15/2013 1457h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	62.7	50.00	125	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.9	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	56.2	50.00	112	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.1	77-129	

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-009A
Client Sample ID: Between Weirs Dup / 4920394
Collection Date: 4/13/2013 1055h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1516h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-009A
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/15/2013 1516h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

 Phone: (801) 263-8686
 Toll Free: (888) 263-8686
 Fax: (801) 263-8687
 e-mail: awal@awal-labs.com

 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

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Lab Sample ID: 1304407-009A
Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/15/2013 1516h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-009A

Client Sample ID: Between Weirs Dup / 4920394

Analyzed: 4/15/2013 1516h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	61.4	50.00	123	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.0	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.5	50.00	111	80-124	
Surr: Toluene-d8	2037-26-5	48.7	50.00	97.5	77-129	

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-010A
Client Sample ID: Field Blank
Collection Date: 4/13/2013 950h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1109h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-010A

Client Sample ID: Field Blank

Analyzed: 4/15/2013 1109h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-010A

Client Sample ID: Field Blank

Analyzed: 4/15/2013 1109h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-010A

Client Sample ID: Field Blank

Analyzed: 4/15/2013 1109h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	59.0	50.00	118	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.8	50.00	108	80-128	
Surr: Dibromofluoromethane	1868-53-7	54.2	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	48.9	50.00	97.9	77-129	

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-011A
Client Sample ID: Trip Blank
Collection Date: 4/13/2013
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1128h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-011A

Client Sample ID: Trip Blank

Analyzed: 4/15/2013 1128h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-011A

Client Sample ID: Trip Blank

Analyzed: 4/15/2013 1128h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-011A

Client Sample ID: Trip Blank

Analyzed: 4/15/2013 1128h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	59.0	50.00	118	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	54.4	50.00	109	80-128	
Surr: Dibromofluoromethane	1868-53-7	55.0	50.00	110	80-124	
Surr: Toluene-d8	2037-26-5	47.8	50.00	95.5	77-129	

463 West 3600 South
Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-012A
Client Sample ID: French Drain South / 4920398
Collection Date: 4/13/2013 1050h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1535h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	21.4	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	23.8	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-012A
Client Sample ID: French Drain South / 4920398

Analyzed: 4/15/2013 1535h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-012A
Client Sample ID: French Drain South / 4920398

Analyzed: 4/15/2013 1535h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	10.1	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	6.54	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	16.6	



Lab Sample ID: 1304407-012A

Client Sample ID: French Drain South / 4920398

Analyzed: 4/15/2013 1535h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.0	50.00	116	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.9	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	54.2	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	48.0	50.00	96.0	77-129	

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-013A
Client Sample ID: French Drain North / 4920399
Collection Date: 4/13/2013 1030h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1554h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	55.8	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	59.4	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-013A
Client Sample ID: French Drain North / 4920399

Analyzed: 4/15/2013 1554h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	5.42	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	3.52	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-013A
Client Sample ID: French Drain North / 4920399

Analyzed: 4/15/2013 1554h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	34.8	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	6.69	
o-Xylene	95-47-6	2.00	27.6	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	62.4	



Lab Sample ID: 1304407-013A

Client Sample ID: French Drain North / 4920399

Analyzed: 4/15/2013 1554h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	59.2	50.00	118	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.2	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.6	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.1	77-129	

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-014A
Client Sample ID: East of Boom #3 / 4920402
Collection Date: 4/13/2013 1035h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1613h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South

Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	3.71	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	2.31	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-014A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/15/2013 1613h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-014A
Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/15/2013 1613h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	2.91	



Lab Sample ID: 1304407-014A

Client Sample ID: East of Boom #3 / 4920402

Analyzed: 4/15/2013 1613h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	57.7	50.00	115	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.1	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.6	50.00	107	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.2	77-129	

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Salt Lake City, UT 84115

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-015A
Client Sample ID: Below Weirs ab Res. / 4920401
Collection Date: 4/13/2013 900h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1633h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	< 2.00	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	< 2.00	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-015A
Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/15/2013 1633h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

 Phone: (801) 263-8686
 Toll Free: (888) 263-8686
 Fax: (801) 263-8687
 e-mail: awal@awal-labs.com

 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

 Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: 1304407-015A
Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/15/2013 1633h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-015A

Client Sample ID: Below Weirs ab Res. / 4920401

Analyzed: 4/15/2013 1633h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	58.1	50.00	116	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.5	50.00	105	80-128	
Surr: Dibromofluoromethane	1868-53-7	53.9	50.00	108	80-124	
Surr: Toluene-d8	2037-26-5	48.9	50.00	97.7	77-129	

463 West 3600 South
Salt Lake City, UT 84115

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Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1304407-016A
Client Sample ID: North Weir Outlet
Collection Date: 4/13/2013 1000h
Received Date: 4/15/2013 720h

Contact: Chris Bittner

Analytical Results

VOAs Full List by GC/MS Method 8260C/5030C

Analyzed: 4/15/2013 1651h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com
web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	2.00	< 2.00	
1,1,1-Trichloroethane	71-55-6	2.00	< 2.00	
1,1,2,2-Tetrachloroethane	79-34-5	2.00	< 2.00	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	2.00	< 2.00	
1,1,2-Trichloroethane	79-00-5	2.00	< 2.00	
1,1-Dichloropropene	563-58-6	2.00	< 2.00	
1,1-Dichloroethane	75-34-3	2.00	< 2.00	
1,1-Dichloroethene	75-35-4	2.00	< 2.00	
1,2,3-Trichlorobenzene	87-61-6	2.00	< 2.00	
1,2,3-Trichloropropane	96-18-4	2.00	< 2.00	
1,2,3-Trimethylbenzene	526-73-8	2.00	2.12	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	2.20	
1,2-Dibromo-3-chloropropane	96-12-8	5.00	< 5.00	
1,2-Dibromoethane	106-93-4	2.00	< 2.00	
1,2-Dichlorobenzene	95-50-1	2.00	< 2.00	
1,2-Dichloroethane	107-06-2	2.00	< 2.00	
1,2-Dichloropropane	78-87-5	2.00	< 2.00	
1,3,5-Trimethylbenzene	108-67-8	2.00	< 2.00	
1,3-Dichlorobenzene	541-73-1	2.00	< 2.00	
1,3-Dichloropropane	142-28-9	2.00	< 2.00	
1,4-Dichlorobenzene	106-46-7	2.00	< 2.00	
1,4-Dioxane	123-91-1	50.0	< 50.0	
2,2-Dichloropropane	594-20-7	2.00	< 2.00	
2-Butanone	78-93-3	10.0	< 10.0	
2-Chloroethyl vinyl ether	110-75-8	5.00	< 5.00	
2-Chlorotoluene	95-49-8	2.00	< 2.00	
2-Hexanone	591-78-6	5.00	< 5.00	
2-Nitropropane	79-46-9	5.00	< 5.00	
4-Chlorotoluene	106-43-4	2.00	< 2.00	



Lab Sample ID: 1304407-016A
Client Sample ID: North Weir Outlet

Analyzed: 4/15/2013 1651h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	2.00	< 2.00	
4-Methyl-2-pentanone	108-10-1	5.00	< 5.00	
Acetone	67-64-1	10.0	< 10.0	
Acetonitrile	75-05-8	5.00	< 5.00	
Acrolein	107-02-8	5.00	< 5.00	
Acrylonitrile	107-13-1	10.0	< 10.0	
Allyl chloride	107-05-1	5.00	< 5.00	
Benzene	71-43-2	2.00	< 2.00	
Benzyl chloride	100-44-7	5.00	< 5.00	
Bis(2-chloroisopropyl) ether	108-60-1	5.00	< 5.00	
Bromobenzene	108-86-1	2.00	< 2.00	
Bromochloromethane	74-97-5	2.00	< 2.00	
Bromodichloromethane	75-27-4	2.00	< 2.00	
Bromoform	75-25-2	2.00	< 2.00	
Bromomethane	74-83-9	5.00	< 5.00	
Butyl acetate	123-86-4	10.0	< 10.0	
Carbon disulfide	75-15-0	2.00	< 2.00	
Carbon tetrachloride	56-23-5	2.00	< 2.00	
Chlorobenzene	108-90-7	2.00	< 2.00	
Chloroethane	75-00-3	2.00	< 2.00	
Chloroform	67-66-3	2.00	< 2.00	
Chloromethane	74-87-3	3.00	< 3.00	
Chloroprene	126-99-8	2.00	< 2.00	
cis-1,2-Dichloroethene	156-59-2	2.00	< 2.00	
cis-1,3-Dichloropropene	10061-01-5	2.00	< 2.00	
Cyclohexane	110-82-7	2.00	< 2.00	
Cyclohexanone	108-94-1	50.0	< 50.0	
Dibromochloromethane	124-48-1	2.00	< 2.00	
Dibromomethane	74-95-3	2.00	< 2.00	
Dichlorodifluoromethane	75-71-8	2.00	< 2.00	
Ethyl acetate	141-78-6	10.0	< 10.0	
Ethyl ether	60-29-7	10.0	< 10.0	
Ethyl methacrylate	97-63-2	2.00	< 2.00	
Ethylbenzene	100-41-4	2.00	< 2.00	
Hexachlorobutadiene	87-68-3	2.00	< 2.00	
Iodomethane	74-88-4	5.00	< 5.00	
Isobutyl alcohol	78-83-1	100	< 100	



Lab Sample ID: 1304407-016A
Client Sample ID: North Weir Outlet

Analyzed: 4/15/2013 1651h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

463 West 3600 South
 Salt Lake City, UT 84115

Phone: (801) 263-8686

Toll Free: (888) 263-8686

Fax: (801) 263-8687

e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	10.0	< 10.0	
Isopropyl alcohol	67-63-0	40.0	< 40.0	
Isopropylbenzene	98-82-8	2.00	< 2.00	
m,p-Xylene	179601-23-1	2.00	< 2.00	
Methacrylonitrile	126-98-7	5.00	< 5.00	
Methyl Acetate	79-20-9	5.00	< 5.00	
Methyl methacrylate	80-62-6	5.00	< 5.00	
Methyl tert-butyl ether	1634-04-4	2.00	< 2.00	
Methylcyclohexane	108-87-2	2.00	< 2.00	
Methylene chloride	75-09-2	2.00	< 2.00	
n-Amyl acetate	628-63-7	10.0	< 10.0	
n-Butyl alcohol	71-36-3	100	< 100	
n-Butylbenzene	104-51-8	2.00	< 2.00	
n-Hexane	110-54-3	2.00	< 2.00	
n-Octane	111-65-9	2.00	< 2.00	
n-Propylbenzene	103-65-1	2.00	< 2.00	
Naphthalene	91-20-3	2.00	< 2.00	
o-Xylene	95-47-6	2.00	< 2.00	
Pentachloroethane	76-01-7	5.00	< 5.00	
Propionitrile	107-12-0	25.0	< 25.0	
Propyl acetate	109-60-4	10.0	< 10.0	
sec-Butylbenzene	135-98-8	2.00	< 2.00	
Styrene	100-42-5	2.00	< 2.00	
tert-Butyl alcohol	76-65-0	20.0	< 20.0	
tert-Butylbenzene	98-06-6	2.00	< 2.00	
Tetrachloroethene	127-18-4	2.00	< 2.00	
Tetrahydrofuran	109-99-9	2.00	< 2.00	
Toluene	108-88-3	2.00	< 2.00	
trans-1,2-Dichloroethene	156-60-5	2.00	< 2.00	
trans-1,3-Dichloropropene	10061-02-6	2.00	< 2.00	
trans-1,4-Dichloro-2-butene	110-57-6	2.00	< 2.00	
Trichloroethene	79-01-6	2.00	< 2.00	
Trichlorofluoromethane	75-69-4	2.00	< 2.00	
Vinyl acetate	108-05-4	10.0	< 10.0	
Vinyl chloride	75-01-4	1.00	< 1.00	
Xylenes, Total	1330-20-7	2.00	< 2.00	



Lab Sample ID: 1304407-016A
Client Sample ID: North Weir Outlet

Analyzed: 4/15/2013 1651h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.4	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.2	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.6	50.00	105	80-124	
Surr: Toluene-d8	2037-26-5	48.6	50.00	97.2	77-129	

463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: DUP

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-015DDUP	Total Dissolved Solids	mg/L	SM2540C	348		376.0		-	7.73	5	@	4/15/2013 1335h
1304407-015DDUP	Total Suspended Solids	mg/L	SM2540D	28.0		28.40		-	1.42	5		4/15/2013 825h

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24816	Biochemical Oxygen Demand	mg/L	SM5210B	177	198.0	0	89.4	85-115				4/20/2013 1830h
LCS-24840	Phosphate, Total (as P)	mg/L	SM4500-P-F	0.973	1.000	0	97.3	90-110				4/16/2013 2048h
LCS-R52997	Total Dissolved Solids	mg/L	SM2540C	196	205.0	0	95.6	80-120				4/15/2013 1335h
LCS-24821	TKN (as N)	mg/L	E351.2	2.09	2.000	0	104	90-110				4/15/2013 1930h
LCS-R52994	Total Suspended Solids	mg/L	SM2540D	105	100.0	0	105	80-120				4/15/2013 825h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: LCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCSD-24816	Biochemical Oxygen Demand	mg/L	SM5210B	167	198.0	0	84.3	85-115	5.81	20	^	4/20/2013 1830h

^ - The LCSD recovery was low indicating possible bias low. The LCS was within range.



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Salt Lake City, UT 84115

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24816	Biochemical Oxygen Demand	mg/L	SM5210B	< 5.00				-				4/20/2013 1830h
MB-24840	Phosphate, Total (as P)	mg/L	SM4500-P-F	< 0.0500				-				4/16/2013 2045h
MB-R52997	Total Dissolved Solids	mg/L	SM2540C	< 10.0				-				4/15/2013 1335h
MB-24821	TKN (as N)	mg/L	E351.2	< 0.500				-				4/15/2013 1929h
MB-R52994	Total Suspended Solids	mg/L	SM2540D	< 3.00				-				4/15/2013 825h



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Kyle F. Gross
Laboratory Director

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-015DMS	Biochemical Oxygen Demand	mg/L	SM5210B	29.0	27.00	0	107	85-115				4/20/2013 1830h
1304407-015EMS	Phosphate, Total (as P)	mg/L	SM4500-P-F	1.06	1.000	0	106	90-110				4/16/2013 2047h
1304389-015EMS	TKN (as N)	mg/L	E351.2	2.26	2.000	0.4497	90.7	90-110				4/15/2013 1931h
1304407-015EMS	TKN (as N)	mg/L	E351.2	2.74	2.000	0.5966	107	90-110				4/15/2013 1950h



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Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-015DMSD	Biochemical Oxygen Demand	mg/L	SM5210B	30.0	27.00	0	111	85-115	3.39	20		4/20/2013 1830h
1304407-015EMSD	Phosphate, Total (as P)	mg/L	SM4500-P-F	1.00	1.000	0	100	90-110	5.74	10		4/16/2013 2048h
1304389-015EMSD	TKN (as N)	mg/L	E351.2	2.30	2.000	0.4497	92.3	90-110	1.39	20		4/15/2013 1932h
1304407-015EMSD	TKN (as N)	mg/L	E351.2	2.57	2.000	0.5966	98.6	90-110	6.39	20		4/15/2013 1956h



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Kyle F. Gross
Laboratory Director

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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24842	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.64	2.000	0	82.0	48-118				4/18/2013 1451h
LCS-24842	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.200	0.4000		50.1	18-95				4/18/2013 1451h



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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24842	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				4/18/2013 1432h
MB-24842	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.164	0.4000		41.0	18-95				4/18/2013 1432h



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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-002CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.73	2.000	0	86.3	60-161				4/18/2013 1822h
1304407-002CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.217	0.4000		54.3	10-190				4/18/2013 1822h



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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-002CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.70	2.000	0	85.1	60-161	1.4	25		4/18/2013 1841h
1304407-002CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.223	0.4000		55.6	10-190				4/18/2013 1841h



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24817	1,2,4-Trichlorobenzene	µg/L	SW8270D	29.5	80.00	0	36.8	10-104				4/18/2013 414h
LCS-24817	1,4-Dichlorobenzene	µg/L	SW8270D	20.6	80.00	0	25.8	10-118				4/18/2013 414h
LCS-24817	2,4,6-Trichlorophenol	µg/L	SW8270D	76.4	80.00	0	95.5	17-119				4/18/2013 414h
LCS-24817	2,4-Dimethylphenol	µg/L	SW8270D	66.7	80.00	0	83.4	10-131				4/18/2013 414h
LCS-24817	2,4-Dinitrotoluene	µg/L	SW8270D	82.1	80.00	0	103	42-219				4/18/2013 414h
LCS-24817	2-Chloronaphthalene	µg/L	SW8270D	45.0	80.00	0	56.3	23-126				4/18/2013 414h
LCS-24817	2-Chlorophenol	µg/L	SW8270D	55.2	80.00	0	69.0	15-128				4/18/2013 414h
LCS-24817	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	90.1	80.00	0	113	30-198				4/18/2013 414h
LCS-24817	4-Chloro-3-methylphenol	µg/L	SW8270D	82.8	80.00	0	103	29-148				4/18/2013 414h
LCS-24817	4-Nitrophenol	µg/L	SW8270D	40.6	80.00	0	50.7	10-157				4/18/2013 414h
LCS-24817	Acenaphthene	µg/L	SW8270D	55.1	80.00	0	68.9	20-116				4/18/2013 414h
LCS-24817	Benzo(a)pyrene	µg/L	SW8270D	84.1	80.00	0	105	10-221				4/18/2013 414h
LCS-24817	N-Nitrosodi-n-propylamine	µg/L	SW8270D	53.6	80.00	0	67.0	20-148				4/18/2013 414h
LCS-24817	Pentachlorophenol	µg/L	SW8270D	98.9	80.00	0	124	21-153				4/18/2013 414h
LCS-24817	Phenol	µg/L	SW8270D	29.8	80.00	0	37.2	10-131				4/18/2013 414h
LCS-24817	Pyrene	µg/L	SW8270D	69.3	80.00	0	86.6	37-150				4/18/2013 414h
LCS-24817	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	105	80.00		132	10-165				4/18/2013 414h
LCS-24817	Surr: 2-Fluorobiphenyl	%REC	SW8270D	24.4	40.00		61.0	10-118				4/18/2013 414h
LCS-24817	Surr: 2-Fluorophenol	%REC	SW8270D	34.7	80.00		43.4	10-121				4/18/2013 414h
LCS-24817	Surr: Nitrobenzene-d5	%REC	SW8270D	19.5	40.00		48.7	10-127				4/18/2013 414h
LCS-24817	Surr: Phenol-d6	%REC	SW8270D	30.0	80.00		37.5	10-124				4/18/2013 414h
LCS-24817	Surr: Terphenyl-d14	%REC	SW8270D	36.9	40.00		92.2	51-221				4/18/2013 414h
LCS-24817	Acenaphthene	µg/L	SW8270D	53.0	80.00	0	66.2	23-159				4/16/2013 1634h
LCS-24817	Benzo(a)pyrene	µg/L	SW8270D	78.2	80.00	0	97.8	26-223				4/16/2013 1634h
LCS-24817	Pentachlorophenol	µg/L	SW8270D	122	80.00	0	152	10-249				4/16/2013 1634h
LCS-24817	Pyrene	µg/L	SW8270D	71.6	80.00	0	89.5	28-204				4/16/2013 1634h



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Kyle F. Gross
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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h

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463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687

e-mail: awal@awal-labs.com, web: www.awal-labs.com

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	2-Methylphenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	2-Picoline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Acenaphthene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Acenaphthylene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Acetophenone	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Aniline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Anthracene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h

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463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	Aramite	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Atrazine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Azobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzaldehyde	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Benzoic acid	µg/L	SW8270D	< 20.0				-				4/18/2013 350h
MB-24817	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Caprolactam	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Carbazole	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Chrysene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Dibenzofuran	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Dimethoate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h

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Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Dinoseb	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Diphenylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Disulfoton	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Famphur	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Fluoranthene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Fluorene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachloroethane	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachlorophene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Hexachloropropene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Indene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Isodrin	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Isophorone	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Isosafrole	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Kepone	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Methapyrilene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Naphthalene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	n-Decane	µg/L	SW8270D	< 10.0				-				4/18/2013 350h

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	Nitrobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	n-Octadecane	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	o-Toluidine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Parathion	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Methyl parathion	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Phenacetin	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Phenanthrene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Phenol	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Phorate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pronamide	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pyrene	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Pyridine	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Quinoline	µg/L	SW8270D	< 10.0				-				4/18/2013 350h

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463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	Safrole	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Thionazin	µg/L	SW8270D	< 10.0				-				4/18/2013 350h
MB-24817	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	76.2	80.00		95.2	10-165				4/18/2013 350h
MB-24817	Surr: 2-Fluorobiphenyl	%REC	SW8270D	17.7	40.00		44.2	10-118				4/18/2013 350h
MB-24817	Surr: 2-Fluorophenol	%REC	SW8270D	34.4	80.00		43.0	10-121				4/18/2013 350h
MB-24817	Surr: Nitrobenzene-d5	%REC	SW8270D	16.5	40.00		41.3	10-127				4/18/2013 350h
MB-24817	Surr: Phenol-d6	%REC	SW8270D	26.0	80.00		32.5	10-124				4/18/2013 350h
MB-24817	Surr: Terphenyl-d14	%REC	SW8270D	42.7	40.00		107	51-221				4/18/2013 350h
MB-24817	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Acenaphthene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Acenaphthylene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Anthracene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Chrysene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Fluoranthene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Fluorene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				4/16/2013 1607h
MB-24817	Indene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Naphthalene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h

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463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24817	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				4/16/2013 1607h
MB-24817	Phenanthrene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h
MB-24817	Pyrene	µg/L	SW8270D	< 0.100				-				4/16/2013 1607h



463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-001BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	35.3	80.00	0	44.1	20-107				4/18/2013 523h
1304407-001BMS	1,4-Dichlorobenzene	µg/L	SW8270D	24.6	80.00	0	30.8	11-90				4/18/2013 523h
1304407-001BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	69.2	80.00	0	86.5	10-223				4/18/2013 523h
1304407-001BMS	2,4-Dimethylphenol	µg/L	SW8270D	29.4	80.00	0	36.7	10-176				4/18/2013 523h
1304407-001BMS	2,4-Dinitrotoluene	µg/L	SW8270D	82.7	80.00	0	103	21-191				4/18/2013 523h
1304407-001BMS	2-Chloronaphthalene	µg/L	SW8270D	46.0	80.00	0	57.6	12-132				4/18/2013 523h
1304407-001BMS	2-Chlorophenol	µg/L	SW8270D	47.7	80.00	0	59.6	20-107				4/18/2013 523h
1304407-001BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	97.2	80.00	0	122	20-250				4/18/2013 523h
1304407-001BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	70.0	80.00	0	87.5	10-136				4/18/2013 523h
1304407-001BMS	4-Nitrophenol	µg/L	SW8270D	42.8	80.00	0	53.5	10-135				4/18/2013 523h
1304407-001BMS	Acenaphthene	µg/L	SW8270D	53.8	80.00	0	67.3	21-113				4/18/2013 523h
1304407-001BMS	Benzo(a)pyrene	µg/L	SW8270D	92.7	80.00	0	116	15-169				4/18/2013 523h
1304407-001BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	48.9	80.00	0	61.1	10-133				4/18/2013 523h
1304407-001BMS	Pentachlorophenol	µg/L	SW8270D	65.4	80.00	0	81.7	10-131				4/18/2013 523h
1304407-001BMS	Phenol	µg/L	SW8270D	25.3	80.00	0	31.7	10-71				4/18/2013 523h
1304407-001BMS	Pyrene	µg/L	SW8270D	77.2	80.00	0	96.6	23-150				4/18/2013 523h
1304407-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	83.1	80.00		104	14-159				4/18/2013 523h
1304407-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	21.1	40.00		52.8	10-124				4/18/2013 523h
1304407-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	26.6	80.00		33.2	10-106				4/18/2013 523h
1304407-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	16.2	40.00		40.4	10-180				4/18/2013 523h
1304407-001BMS	Surr: Phenol-d6	%REC	SW8270D	24.6	80.00		30.8	10-122				4/18/2013 523h
1304407-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	36.9	40.00		92.3	10-221				4/18/2013 523h
1304407-001BMS	Acenaphthene	µg/L	SW8270D	46.8	80.00	0	58.5	21-113				4/16/2013 1728h
1304407-001BMS	Benzo(a)pyrene	µg/L	SW8270D	79.4	80.00	0	99.2	15-169				4/16/2013 1728h
1304407-001BMS	Pentachlorophenol	µg/L	SW8270D	94.2	80.00	0	118	10-249				4/16/2013 1728h
1304407-001BMS	Pyrene	µg/L	SW8270D	71.0	80.00	0	88.8	23-150				4/16/2013 1728h



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-001BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	42.4	80.00	0	53.1	20-107	18.4	25		4/18/2013 547h
1304407-001BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	29.7	80.00	0	37.1	11-90	18.5	25		4/18/2013 547h
1304407-001BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	72.8	80.00	0	91.0	10-223	5.07	25		4/18/2013 547h
1304407-001BMSD	2,4-Dimethylphenol	µg/L	SW8270D	35.6	80.00	0	44.5	10-176	19.3	25		4/18/2013 547h
1304407-001BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	89.4	80.00	0	112	21-191	7.77	25		4/18/2013 547h
1304407-001BMSD	2-Chloronaphthalene	µg/L	SW8270D	51.7	80.00	0	64.7	12-132	11.6	25		4/18/2013 547h
1304407-001BMSD	2-Chlorophenol	µg/L	SW8270D	50.9	80.00	0	63.6	20-107	6.47	25		4/18/2013 547h
1304407-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	102	80.00	0	128	20-250	5.2	25		4/18/2013 547h
1304407-001BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	74.6	80.00	0	93.2	10-136	6.29	25		4/18/2013 547h
1304407-001BMSD	4-Nitrophenol	µg/L	SW8270D	45.6	80.00	0	57.0	10-135	6.4	25		4/18/2013 547h
1304407-001BMSD	Acenaphthene	µg/L	SW8270D	59.6	80.00	0	74.6	21-113	10.3	25		4/18/2013 547h
1304407-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	88.8	80.00	0	111	15-169	4.36	25		4/18/2013 547h
1304407-001BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	53.6	80.00	0	66.9	10-133	9.12	25		4/18/2013 547h
1304407-001BMSD	Pentachlorophenol	µg/L	SW8270D	60.2	80.00	0	75.2	10-131	8.27	25		4/18/2013 547h
1304407-001BMSD	Phenol	µg/L	SW8270D	26.6	80.00	0	33.2	10-71	4.74	25		4/18/2013 547h
1304407-001BMSD	Pyrene	µg/L	SW8270D	76.2	80.00	0	95.2	23-150	1.41	25		4/18/2013 547h
1304407-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	97.7	80.00		122	14-159				4/18/2013 547h
1304407-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	27.1	40.00		67.8	10-124				4/18/2013 547h
1304407-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	31.2	80.00		39.0	10-106				4/18/2013 547h
1304407-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	22.7	40.00		56.7	10-180				4/18/2013 547h
1304407-001BMSD	Surr: Phenol-d6	%REC	SW8270D	26.8	80.00		33.5	10-122				4/18/2013 547h
1304407-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	40.3	40.00		101	10-221				4/18/2013 547h
1304407-001BMSD	Acenaphthene	µg/L	SW8270D	55.2	80.00	0	69.0	21-113	16.5	25		4/16/2013 1755h
1304407-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	81.0	80.00	0	101	15-169	2	25		4/16/2013 1755h
1304407-001BMSD	Pentachlorophenol	µg/L	SW8270D	91.6	80.00	0	114	10-249	2.8	25		4/16/2013 1755h
1304407-001BMSD	Pyrene	µg/L	SW8270D	75.4	80.00	0	94.3	23-150	6.01	25		4/16/2013 1755h



463 West 3600 South
Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS VOC 041513A	1,1,1-Trichloroethane	µg/L	SW8260C	25.7	20.00	0	128	59-156				4/15/2013 1012h
LCS VOC 041513A	1,1-Dichloroethene	µg/L	SW8260C	25.0	20.00	0	125	46-171				4/15/2013 1012h
LCS VOC 041513A	1,2-Dichlorobenzene	µg/L	SW8260C	20.7	20.00	0	103	67-135				4/15/2013 1012h
LCS VOC 041513A	1,2-Dichloroethane	µg/L	SW8260C	23.4	20.00	0	117	60-137				4/15/2013 1012h
LCS VOC 041513A	1,2-Dichloropropane	µg/L	SW8260C	18.8	20.00	0	94.1	59-135				4/15/2013 1012h
LCS VOC 041513A	Benzene	µg/L	SW8260C	20.1	20.00	0	101	62-127				4/15/2013 1012h
LCS VOC 041513A	Chlorobenzene	µg/L	SW8260C	20.0	20.00	0	99.9	63-140				4/15/2013 1012h
LCS VOC 041513A	Chloroform	µg/L	SW8260C	21.4	20.00	0	107	67-132				4/15/2013 1012h
LCS VOC 041513A	Ethylbenzene	µg/L	SW8260C	20.5	20.00	0	102	55-133				4/15/2013 1012h
LCS VOC 041513A	Isopropylbenzene	µg/L	SW8260C	21.9	20.00	0	109	60-147				4/15/2013 1012h
LCS VOC 041513A	Methyl tert-butyl ether	µg/L	SW8260C	18.8	20.00	0	94.2	37-189				4/15/2013 1012h
LCS VOC 041513A	Methylene chloride	µg/L	SW8260C	23.4	20.00	0	117	32-185				4/15/2013 1012h
LCS VOC 041513A	Naphthalene	µg/L	SW8260C	16.8	20.00	0	83.8	28-136				4/15/2013 1012h
LCS VOC 041513A	Tetrahydrofuran	µg/L	SW8260C	14.2	20.00	0	70.8	43-146				4/15/2013 1012h
LCS VOC 041513A	Toluene	µg/L	SW8260C	19.9	20.00	0	99.4	64-129				4/15/2013 1012h
LCS VOC 041513A	Trichloroethene	µg/L	SW8260C	22.0	20.00	0	110	54-152				4/15/2013 1012h
LCS VOC 041513A	Xylenes, Total	µg/L	SW8260C	61.3	60.00	0	102	52-134				4/15/2013 1012h
LCS VOC 041513A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	59.0	50.00		118	76-138				4/15/2013 1012h
LCS VOC 041513A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	77-121				4/15/2013 1012h
LCS VOC 041513A	Surr: Dibromofluoromethane	%REC	SW8260C	54.2	50.00		108	67-128				4/15/2013 1012h
LCS VOC 041513A	Surr: Toluene-d8	%REC	SW8260C	46.8	50.00		93.6	81-135				4/15/2013 1012h



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Salt Lake City, UT 84115

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041513A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				4/15/2013 1050h
MB VOC 041513A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	2-Butanone	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h

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463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041513A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	2-Hexanone	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Acetone	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Acetonitrile	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Acrolein	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Allyl chloride	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Benzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Bromobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Bromoform	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Bromomethane	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Butyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Chloroethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Chloroform	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Chloromethane	µg/L	SW8260C	< 3.00				-				4/15/2013 1050h
MB VOC 041513A	Chloroprene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h

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Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687

e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1304407

Project: MP 44.9

Contact: Chris Bittner

Dept: MSVOA

QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041513A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Cyclohexane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				4/15/2013 1050h
MB VOC 041513A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Dibromomethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Ethyl ether	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Iodomethane	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				4/15/2013 1050h
MB VOC 041513A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				4/15/2013 1050h
MB VOC 041513A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Methylene chloride	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Naphthalene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				4/15/2013 1050h

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Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB VOC 041513A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	n-Hexane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	n-Octane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	o-Xylene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				4/15/2013 1050h
MB VOC 041513A	Propionitrile	µg/L	SW8260C	< 25.0				-				4/15/2013 1050h
MB VOC 041513A	Propyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Styrene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				4/15/2013 1050h
MB VOC 041513A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Toluene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Trichloroethene	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				4/15/2013 1050h
MB VOC 041513A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				4/15/2013 1050h
MB VOC 041513A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				4/15/2013 1050h
MB VOC 041513A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	57.5	50.00		115	76-138				4/15/2013 1050h
MB VOC 041513A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.6	50.00		101	77-121				4/15/2013 1050h
MB VOC 041513A	Surr: Dibromofluoromethane	%REC	SW8260C	52.0	50.00		104	67-128				4/15/2013 1050h
MB VOC 041513A	Surr: Toluene-d8	%REC	SW8260C	46.9	50.00		93.8	81-135				4/15/2013 1050h



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Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-001AMS	1,1,1-Trichloroethane	µg/L	SW8260C	23.0	20.00	0	115	67-147				4/15/2013 1206h
1304407-001AMS	1,1-Dichloroethene	µg/L	SW8260C	21.4	20.00	0	107	51-152				4/15/2013 1206h
1304407-001AMS	1,2-Dichlorobenzene	µg/L	SW8260C	18.4	20.00	0	92.0	70-130				4/15/2013 1206h
1304407-001AMS	1,2-Dichloroethane	µg/L	SW8260C	20.9	20.00	0	105	39-162				4/15/2013 1206h
1304407-001AMS	1,2-Dichloropropane	µg/L	SW8260C	16.3	20.00	0	81.7	59-135				4/15/2013 1206h
1304407-001AMS	Benzene	µg/L	SW8260C	17.7	20.00	0	88.4	66-145				4/15/2013 1206h
1304407-001AMS	Chlorobenzene	µg/L	SW8260C	17.6	20.00	0	87.9	63-140				4/15/2013 1206h
1304407-001AMS	Chloroform	µg/L	SW8260C	18.3	20.00	0	91.7	50-146				4/15/2013 1206h
1304407-001AMS	Ethylbenzene	µg/L	SW8260C	17.9	20.00	0	89.7	69-133				4/15/2013 1206h
1304407-001AMS	Isopropylbenzene	µg/L	SW8260C	19.0	20.00	0	94.8	60-147				4/15/2013 1206h
1304407-001AMS	Methyl tert-butyl ether	µg/L	SW8260C	21.7	20.00	0	109	37-189				4/15/2013 1206h
1304407-001AMS	Methylene chloride	µg/L	SW8260C	21.9	20.00	0	109	30-192				4/15/2013 1206h
1304407-001AMS	Naphthalene	µg/L	SW8260C	13.7	20.00	0	68.6	41-131				4/15/2013 1206h
1304407-001AMS	Tetrahydrofuran	µg/L	SW8260C	18.1	20.00	0	90.7	43-146				4/15/2013 1206h
1304407-001AMS	Toluene	µg/L	SW8260C	17.3	20.00	0	86.7	18-192				4/15/2013 1206h
1304407-001AMS	Trichloroethene	µg/L	SW8260C	19.0	20.00	0	94.9	61-153				4/15/2013 1206h
1304407-001AMS	Xylenes, Total	µg/L	SW8260C	53.1	60.00	0	88.6	42-167				4/15/2013 1206h
1304407-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	60.4	50.00		121	72-151				4/15/2013 1206h
1304407-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.6	50.00		103	80-128				4/15/2013 1206h
1304407-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	55.6	50.00		111	80-124				4/15/2013 1206h
1304407-001AMS	Surr: Toluene-d8	%REC	SW8260C	48.0	50.00		95.9	77-129				4/15/2013 1206h



463 West 3600 South
Salt Lake City, UT 84115

Phone: (801) 263-8686, Toll Free: (888) 263-8686, Fax: (801) 263-8687
e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

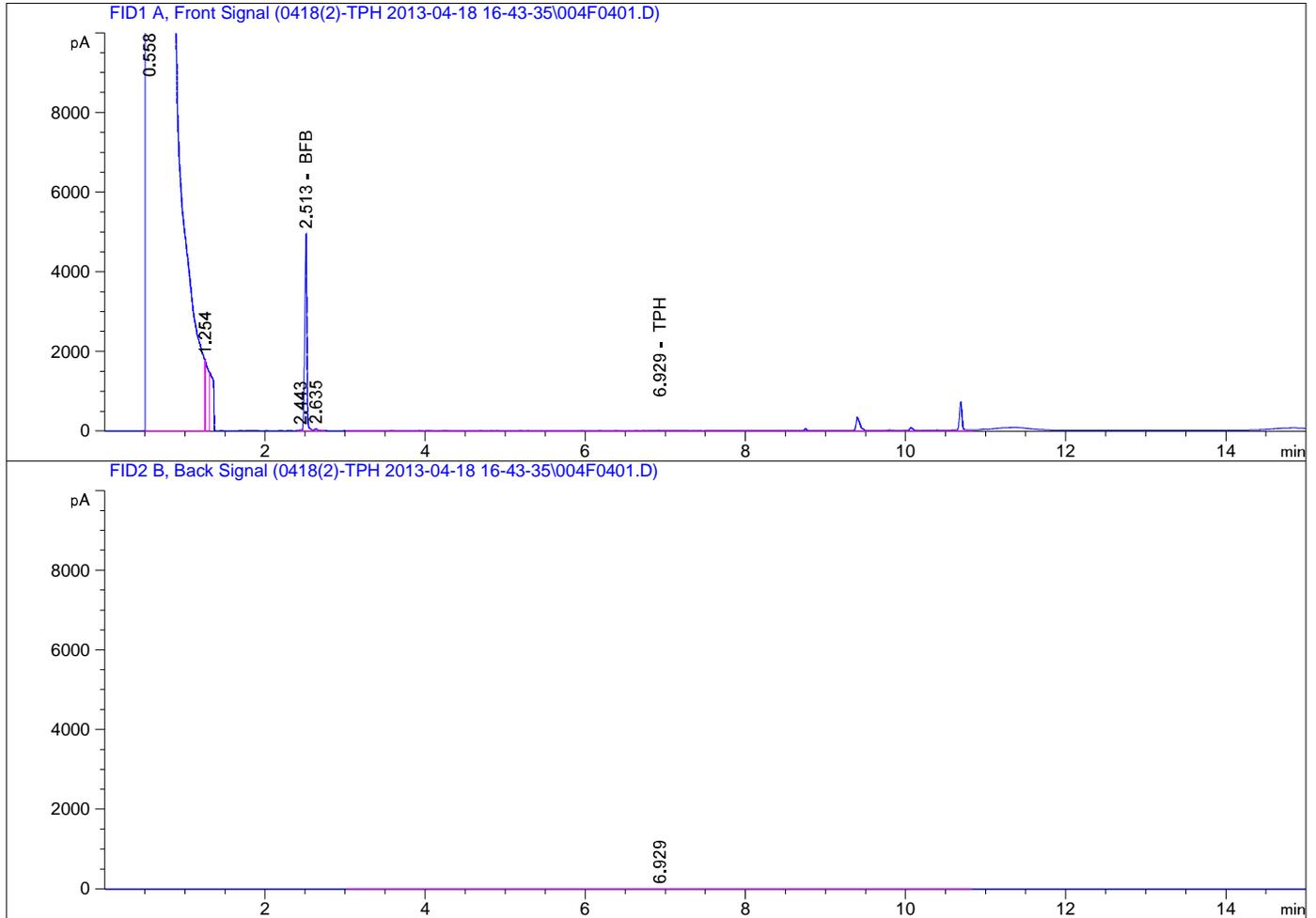
QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1304407
Project: MP 44.9

Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1304407-001AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	25.0	20.00	0	125	67-147	8.16	25		4/15/2013 1225h
1304407-001AMSD	1,1-Dichloroethene	µg/L	SW8260C	23.1	20.00	0	115	51-152	7.51	25		4/15/2013 1225h
1304407-001AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	19.3	20.00	0	96.3	70-130	4.51	25		4/15/2013 1225h
1304407-001AMSD	1,2-Dichloroethane	µg/L	SW8260C	22.7	20.00	0	113	39-162	8.02	25		4/15/2013 1225h
1304407-001AMSD	1,2-Dichloropropane	µg/L	SW8260C	17.7	20.00	0	88.6	59-135	8.22	25		4/15/2013 1225h
1304407-001AMSD	Benzene	µg/L	SW8260C	18.8	20.00	0	93.8	66-145	5.87	25		4/15/2013 1225h
1304407-001AMSD	Chlorobenzene	µg/L	SW8260C	18.8	20.00	0	93.8	63-140	6.5	25		4/15/2013 1225h
1304407-001AMSD	Chloroform	µg/L	SW8260C	19.7	20.00	0	98.6	50-146	7.36	25		4/15/2013 1225h
1304407-001AMSD	Ethylbenzene	µg/L	SW8260C	18.7	20.00	0	93.4	69-133	4.04	25		4/15/2013 1225h
1304407-001AMSD	Isopropylbenzene	µg/L	SW8260C	20.2	20.00	0	101	60-147	6.53	25		4/15/2013 1225h
1304407-001AMSD	Methyl tert-butyl ether	µg/L	SW8260C	20.5	20.00	0	103	37-189	5.59	25		4/15/2013 1225h
1304407-001AMSD	Methylene chloride	µg/L	SW8260C	22.8	20.00	0	114	30-192	4.34	25		4/15/2013 1225h
1304407-001AMSD	Naphthalene	µg/L	SW8260C	15.3	20.00	0	76.4	41-131	10.8	25		4/15/2013 1225h
1304407-001AMSD	Tetrahydrofuran	µg/L	SW8260C	16.4	20.00	0	81.8	43-146	10.3	25		4/15/2013 1225h
1304407-001AMSD	Toluene	µg/L	SW8260C	18.3	20.00	0	91.7	18-192	5.55	25		4/15/2013 1225h
1304407-001AMSD	Trichloroethene	µg/L	SW8260C	20.3	20.00	0	102	61-153	6.82	25		4/15/2013 1225h
1304407-001AMSD	Xylenes, Total	µg/L	SW8260C	56.6	60.00	0	94.4	42-167	6.32	25		4/15/2013 1225h
1304407-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	61.3	50.00		123	72-151				4/15/2013 1225h
1304407-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.0	50.00		102	80-128				4/15/2013 1225h
1304407-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	56.5	50.00		113	80-124				4/15/2013 1225h
1304407-001AMSD	Surr: Toluene-d8	%REC	SW8260C	47.0	50.00		93.9	77-129				4/15/2013 1225h

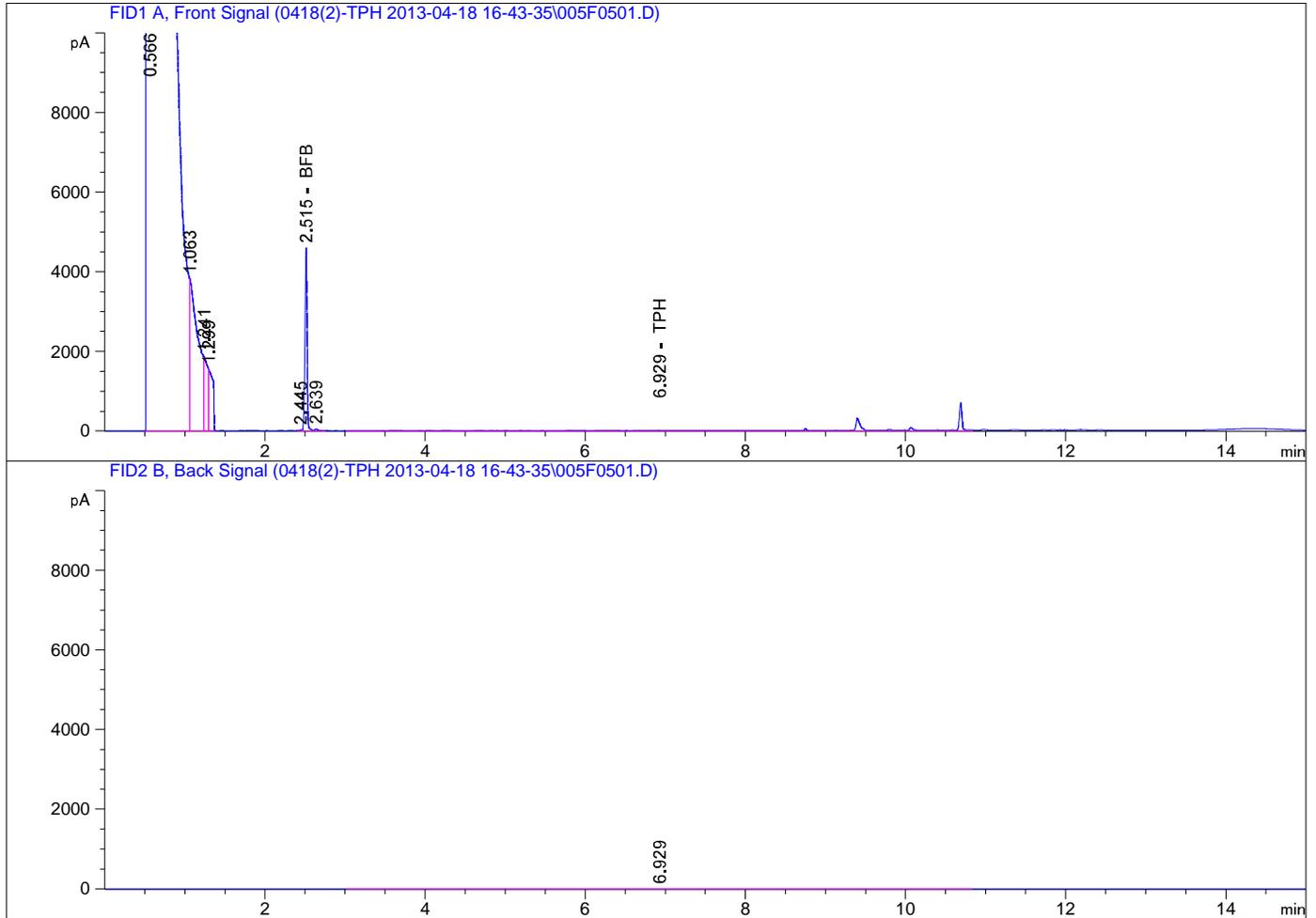
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Acq. Operator : Seq. Line : 4
Acq. Instrument : GC C Location : Vial 4
Injection Date : 4/18/2013 5:43:32 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

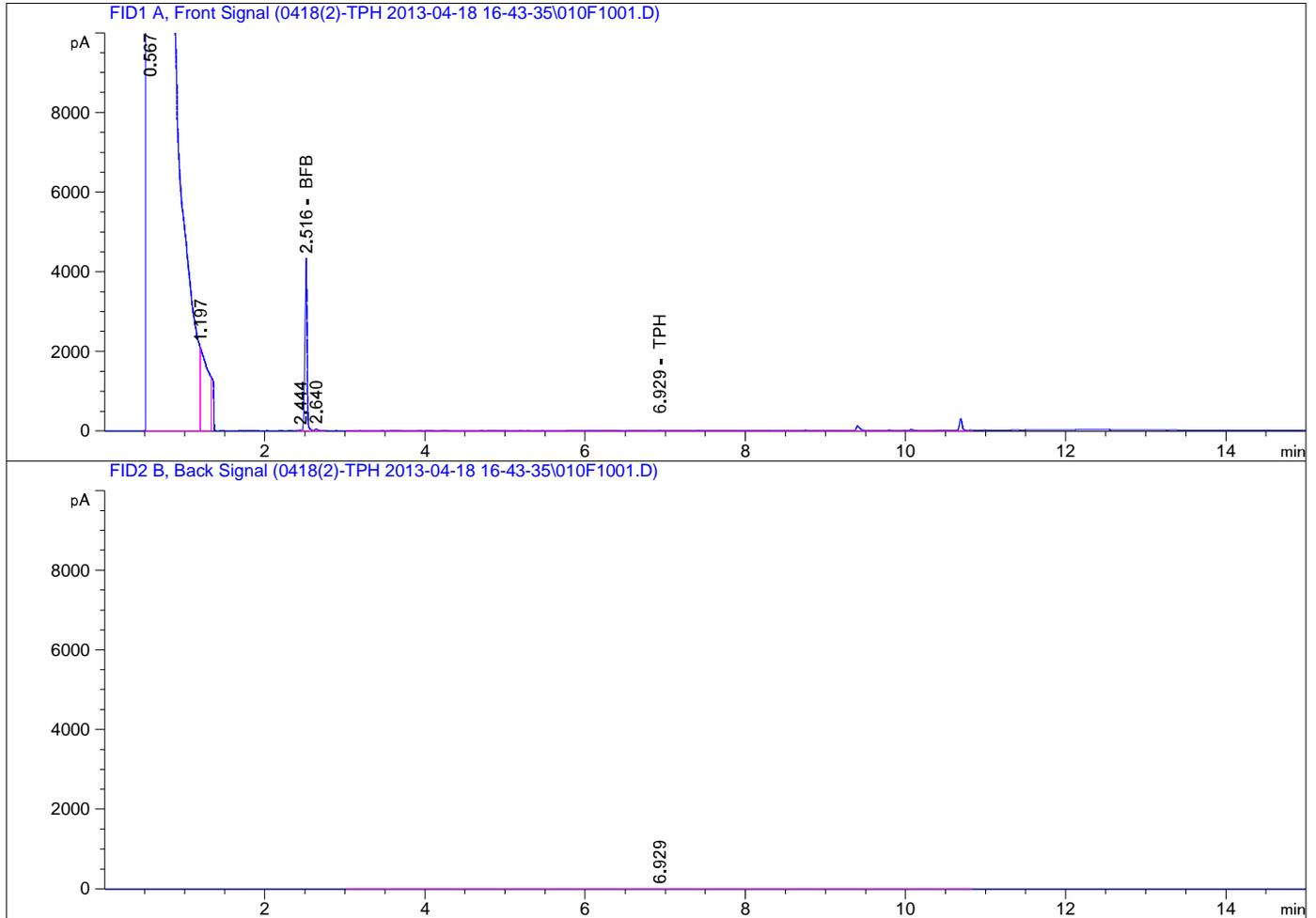
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Acq. Operator : Seq. Line : 5
Acq. Instrument : GC C Location : Vial 5
Injection Date : 4/18/2013 6:02:47 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

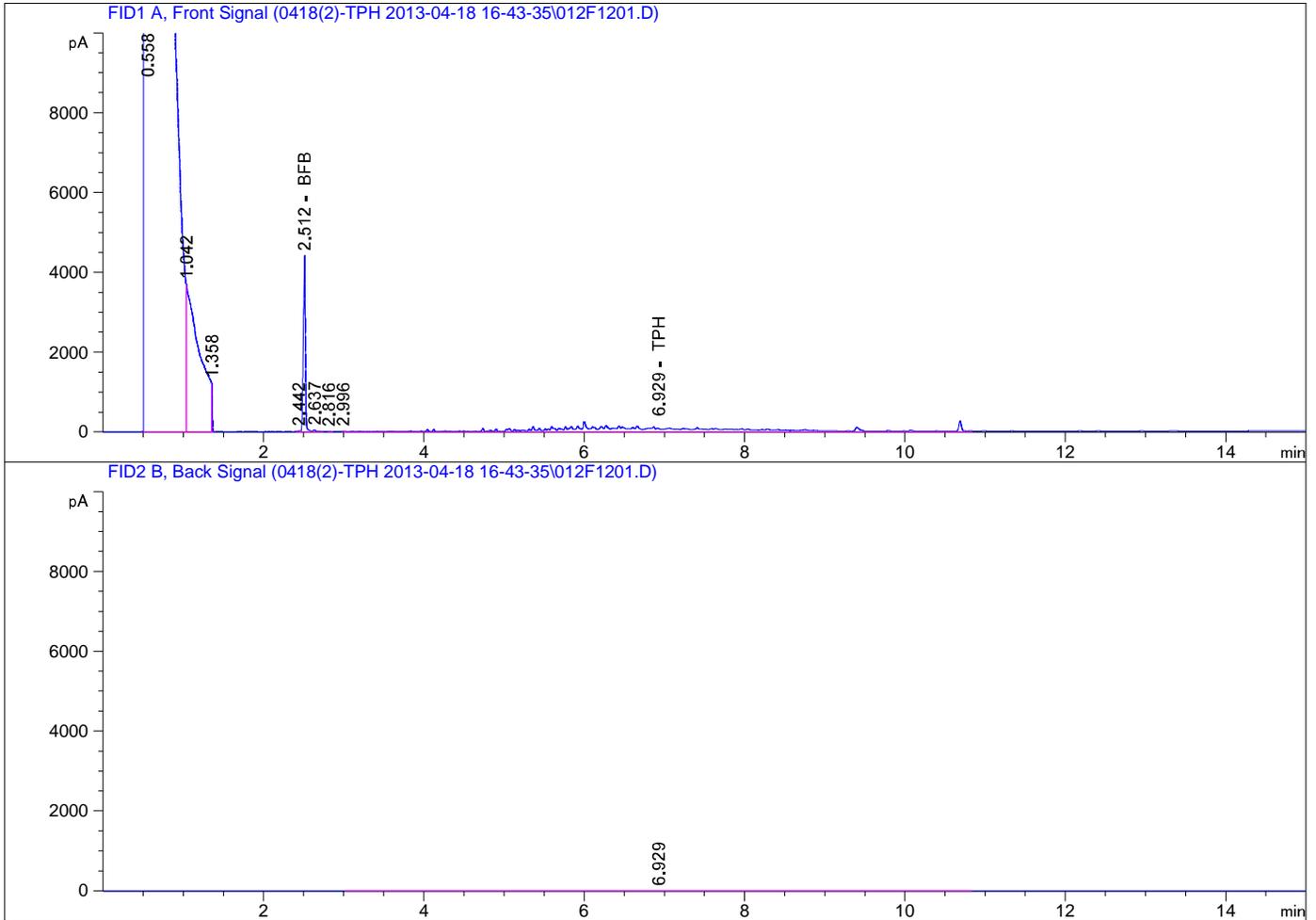
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Acq. Operator : Seq. Line : 10
Acq. Instrument : GC C Location : Vial 10
Injection Date : 4/18/2013 7:39:14 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

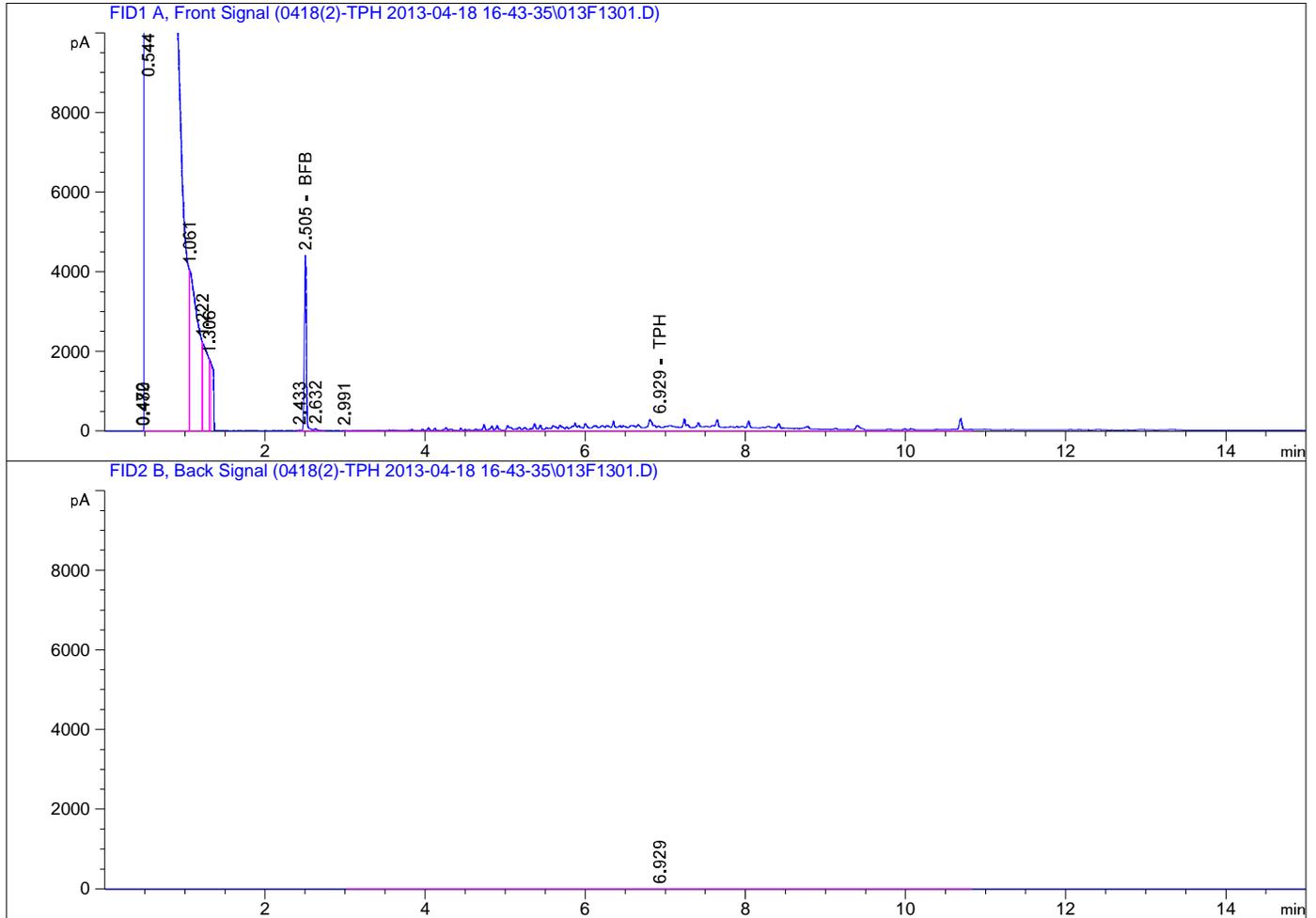
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Acq. Operator : Seq. Line : 12
Acq. Instrument : GC C Location : Vial 12
Injection Date : 4/18/2013 8:17:49 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

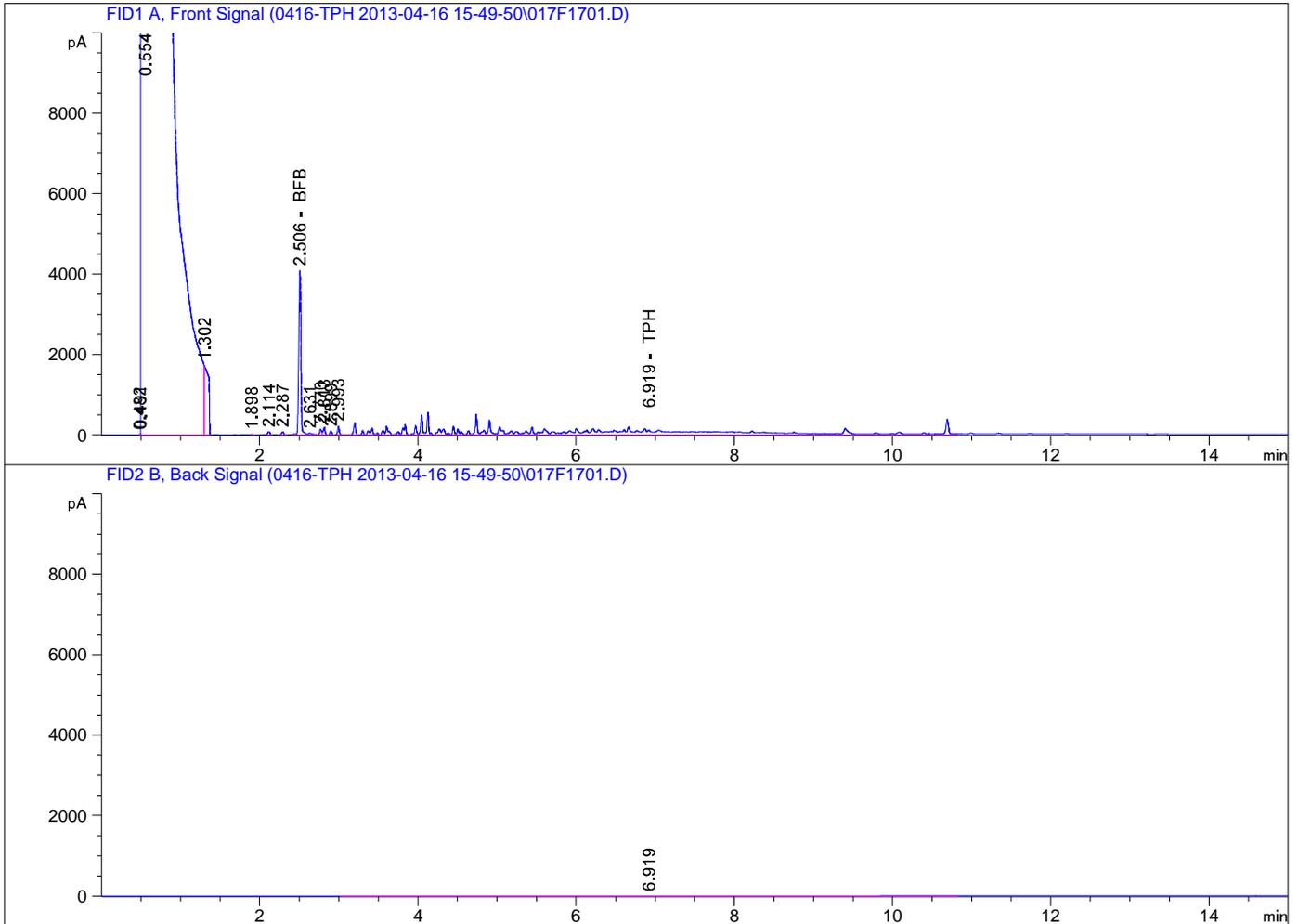
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Acq. Operator : Seq. Line : 13
Acq. Instrument : GC C Location : Vial 13
Injection Date : 4/18/2013 8:37:04 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

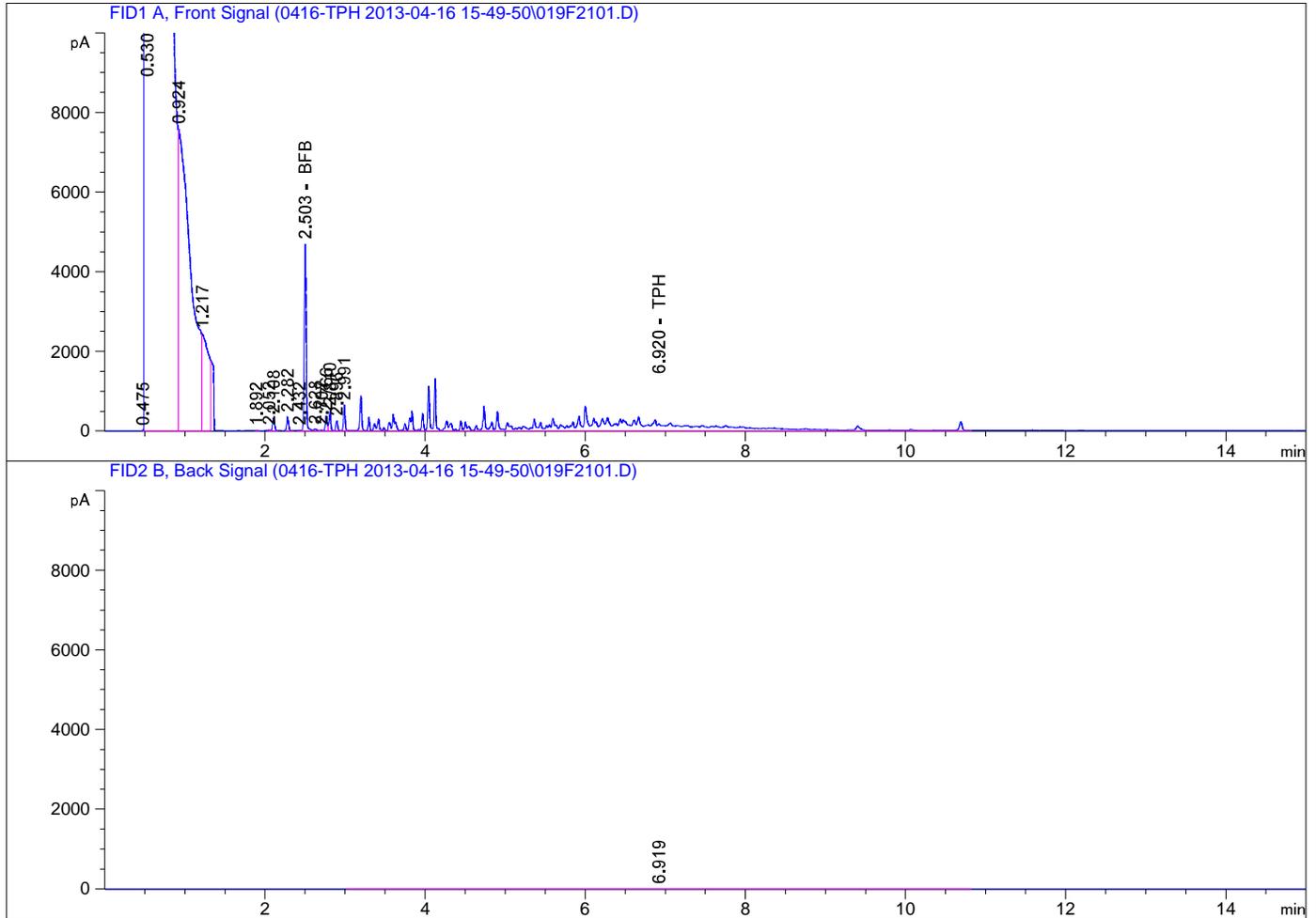
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Acq. Operator : Seq. Line : 17
Acq. Instrument : GC C Location : Vial 17
Injection Date : 4/16/2013 9:02:26 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/18/2013 11:24:04 AM
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 21
Acq. Instrument : GC C Location : Vial 19
Injection Date : 4/16/2013 10:20:00 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/18/2013 11:15:35 AM
(modified after loading)
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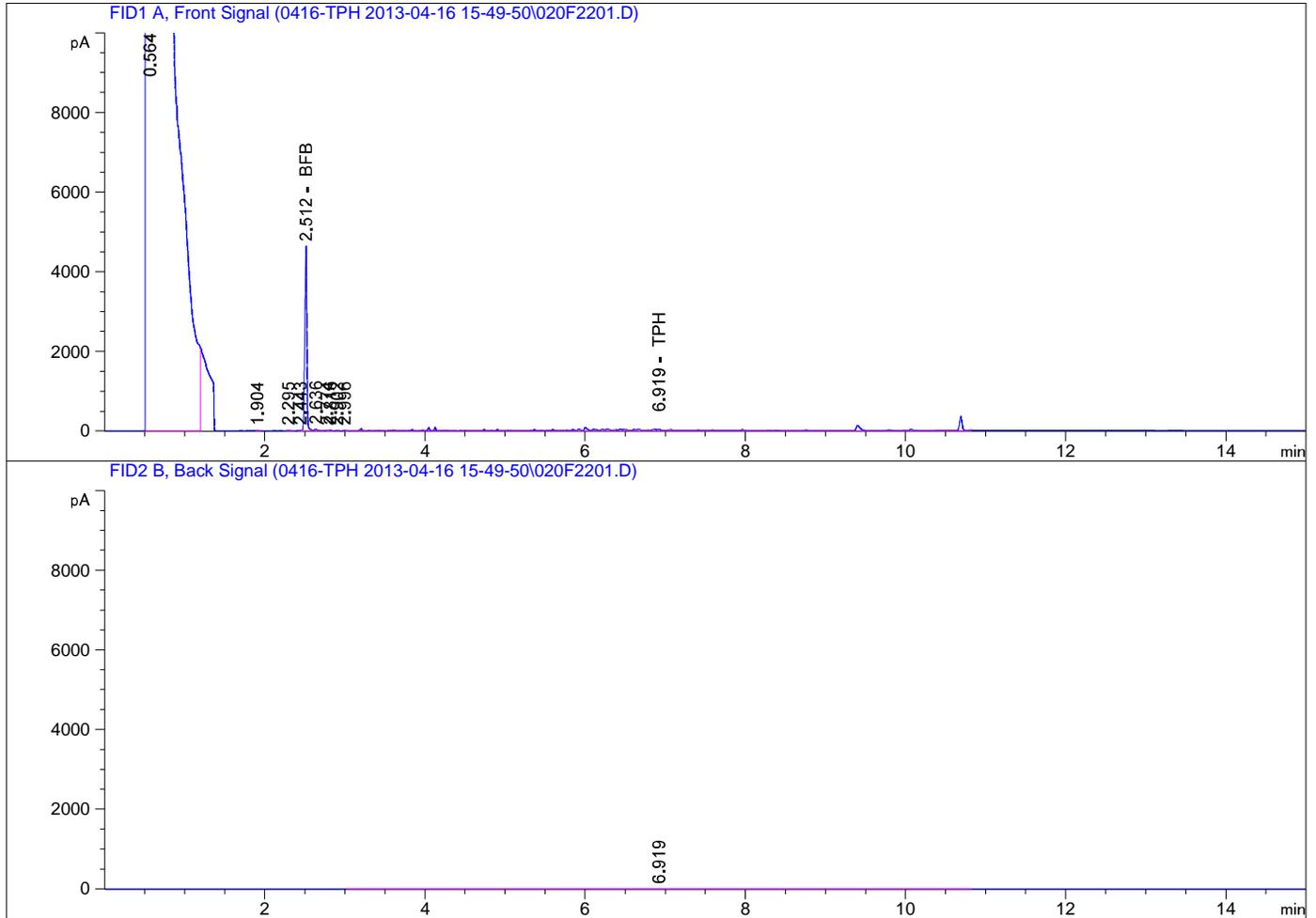
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Operator	:		Seq. Line	:	22
Acq. Instrument	:	GC C	Location	:	Vial 20
Injection Date	:	4/16/2013 10:39:15 PM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M			
Last changed	:	4/15/2013 9:56:52 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M (Sequence Method)			
Last changed	:	4/18/2013 11:15:35 AM (modified after loading)			

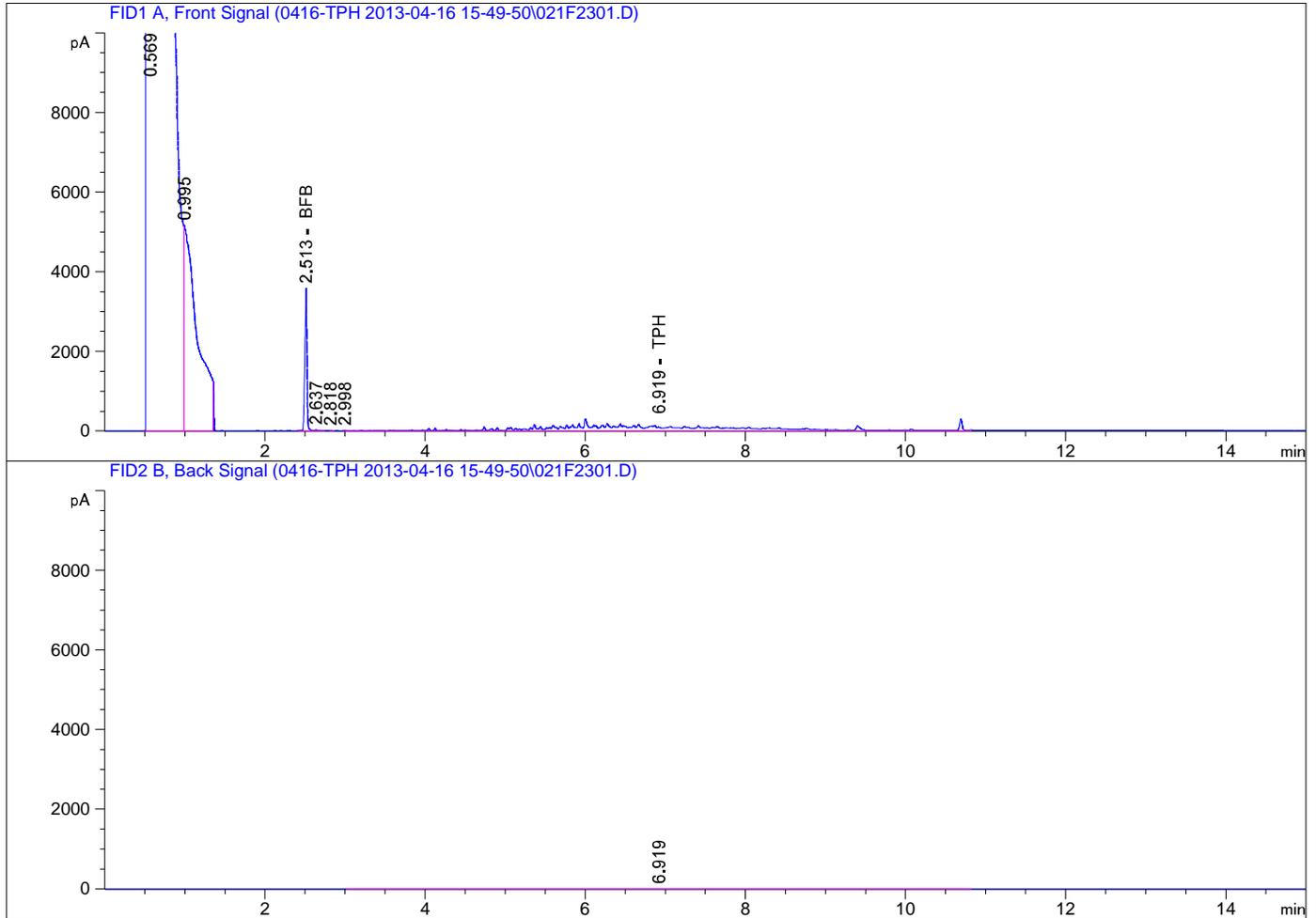
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External Standard Report

Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

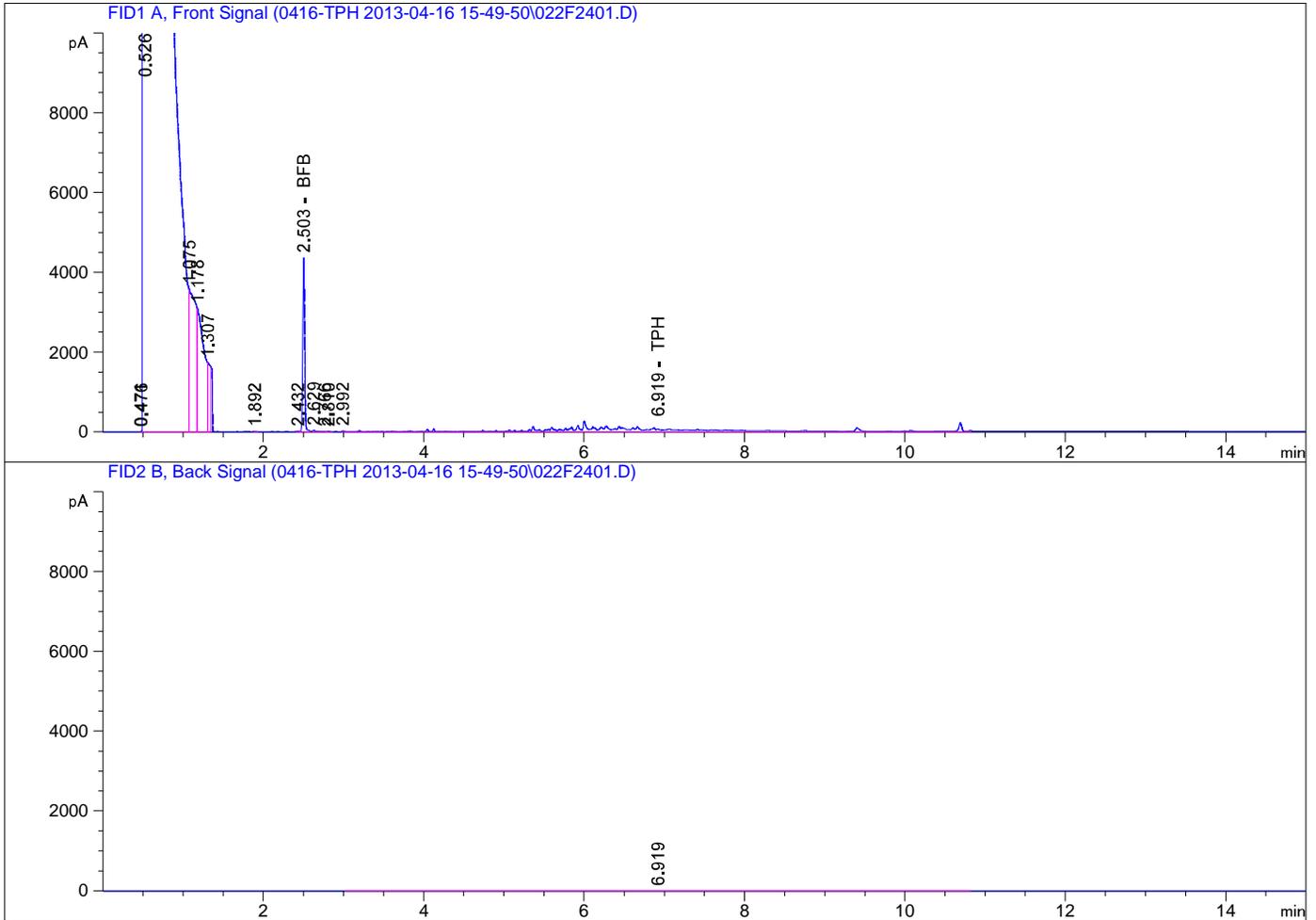
=====
Acq. Operator : Seq. Line : 23
Acq. Instrument : GC C Location : Vial 21
Injection Date : 4/16/2013 10:58:42 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/18/2013 11:15:35 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

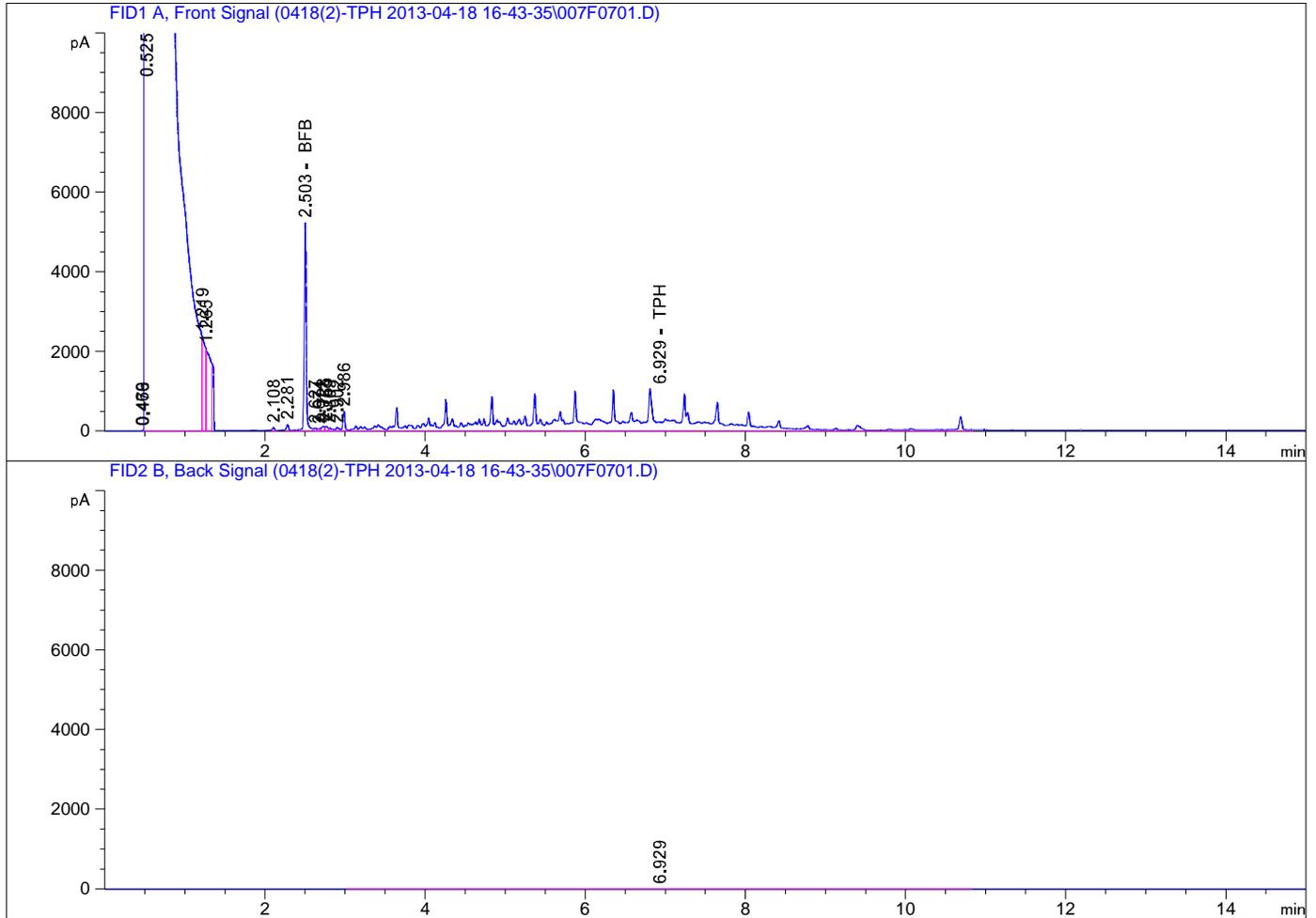
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Acq. Operator : Seq. Line : 24
Acq. Instrument : GC C Location : Vial 22
Injection Date : 4/16/2013 11:18:16 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0416-TPH 2013-04-16 15-49-50\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/18/2013 11:15:35 AM
(modified after loading)
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 7
Acq. Instrument : GC C Location : Vial 7
Injection Date : 4/18/2013 6:41:25 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M
Last changed : 4/15/2013 9:56:52 PM
Analysis Method : C:\CHEM32\1\DATA\0418(2)-TPH 2013-04-18 16-43-35\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 4/19/2013 12:48:25 PM
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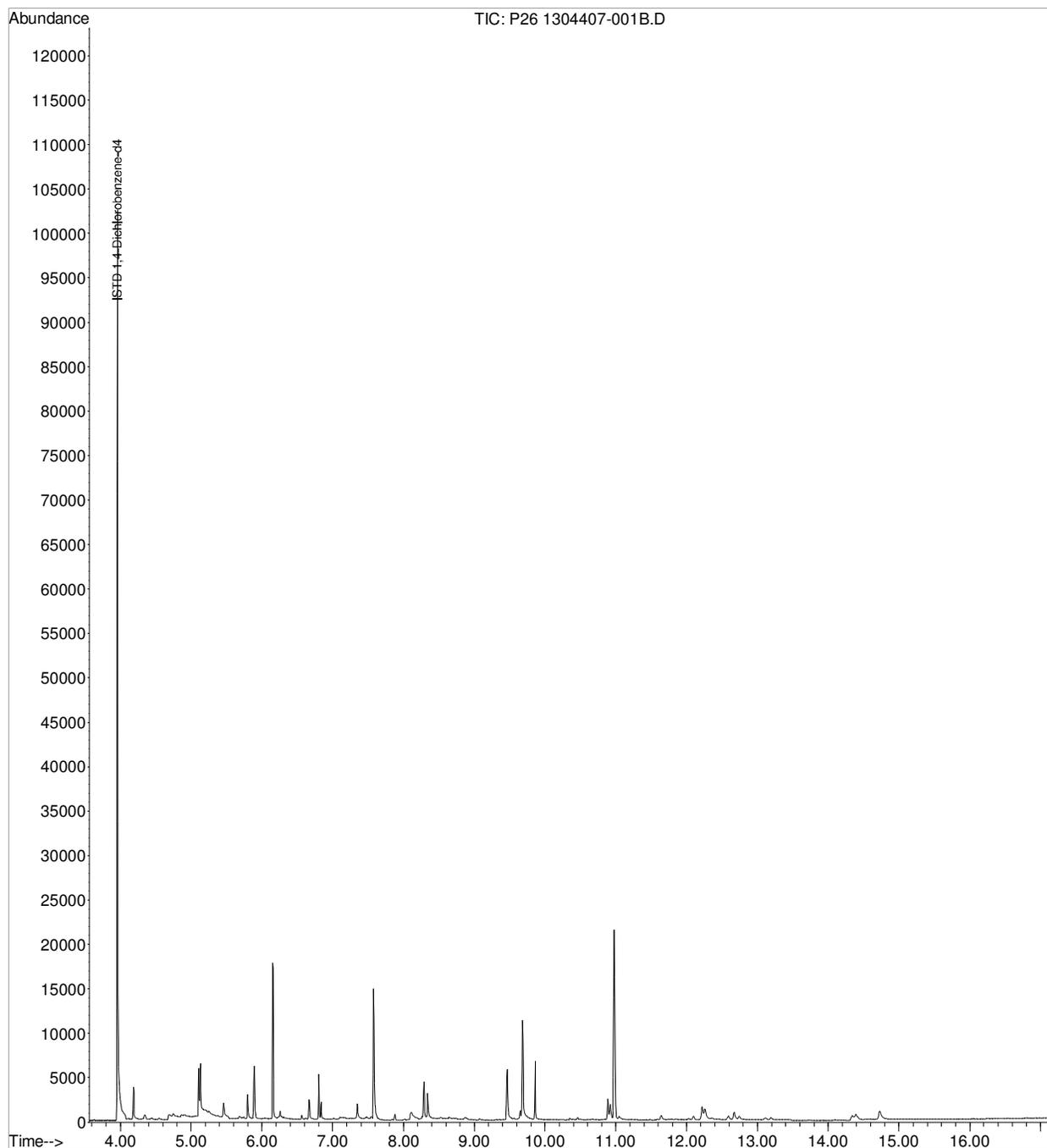
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External Standard Report
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Sorted By : Signal
Calib. Data Modified : 4/15/2013 9:56:46 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P26 1304407-001B.D
Acq On : 16 Apr 2013 5:01 pm
Operator : ALICIA HABERLE
Sample : 1304407-001B
Misc : SAMP
ALS Vial : 18 Sample Multiplier: 1

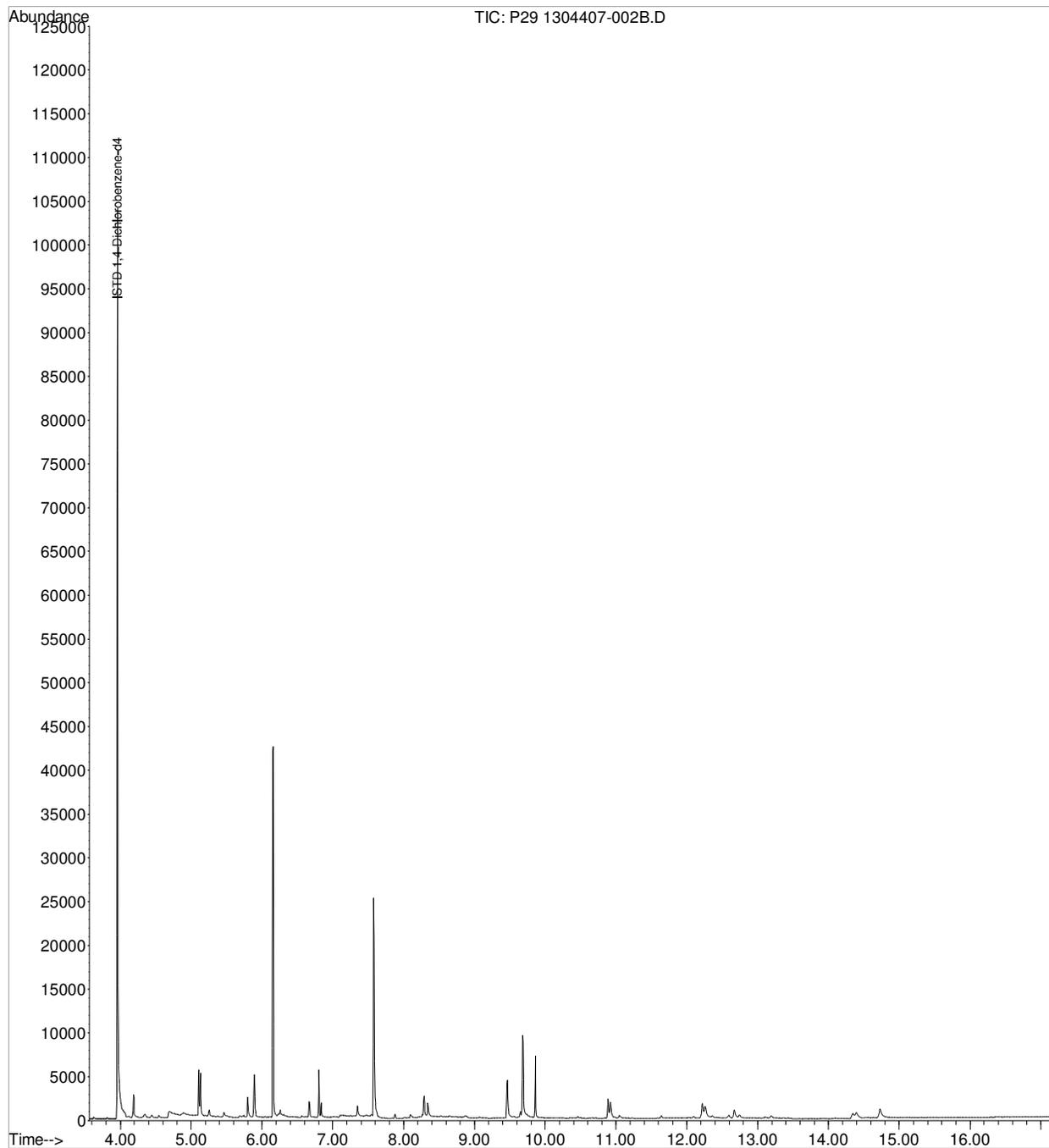
Quant Time: Apr 17 08:30:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:04:32 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P29 1304407-002B.D
Acq On : 16 Apr 2013 6:22 pm
Operator : ALICIA HABERLE
Sample : 1304407-002B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

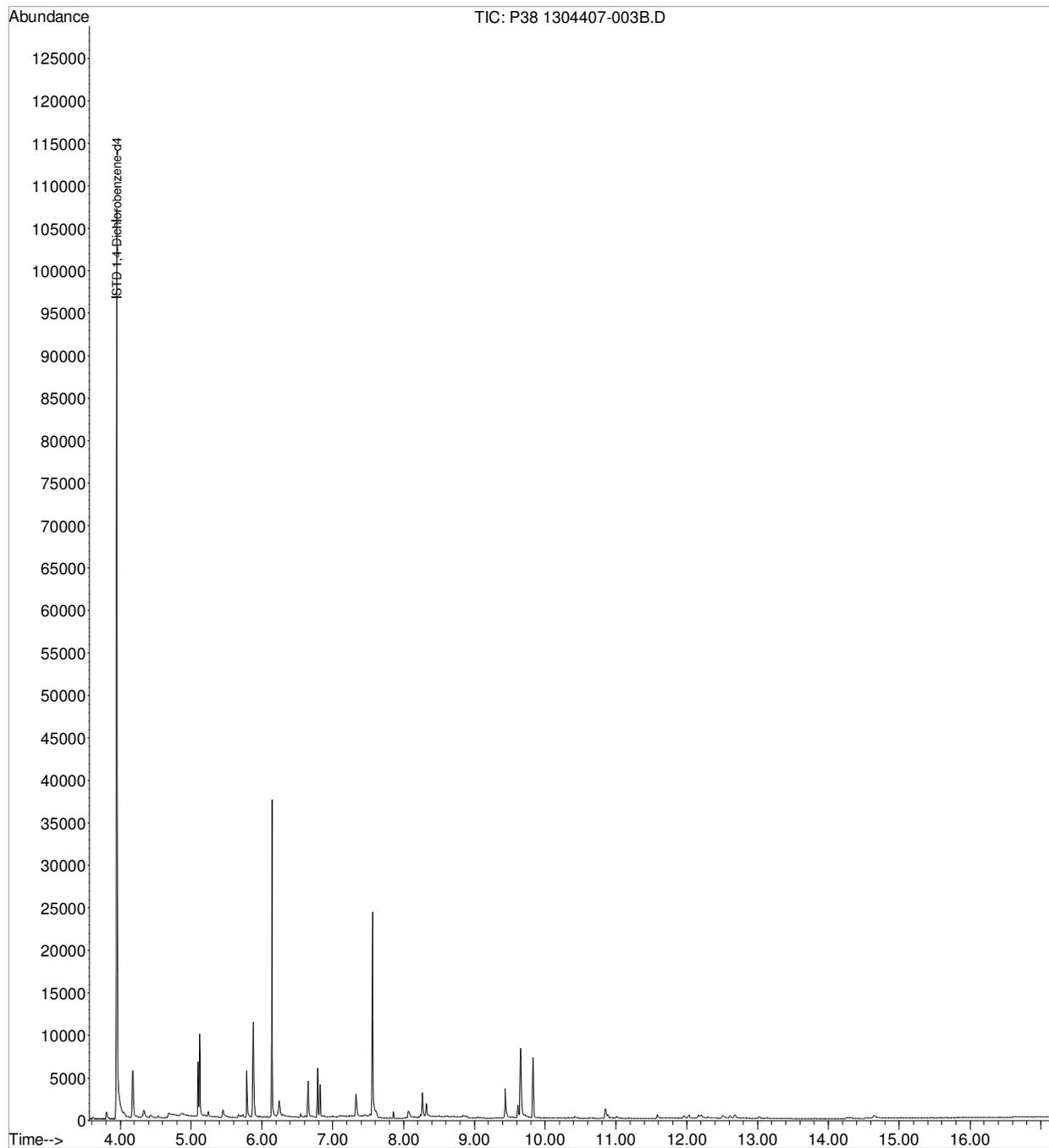
Quant Time: Apr 17 08:32:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:04:32 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P38 1304407-003B.D
Acq On : 16 Apr 2013 10:55 pm
Operator : ALICIA HABERLE
Sample : 1304407-003B
Misc : SAMP
ALS Vial : 5 Sample Multiplier: 1

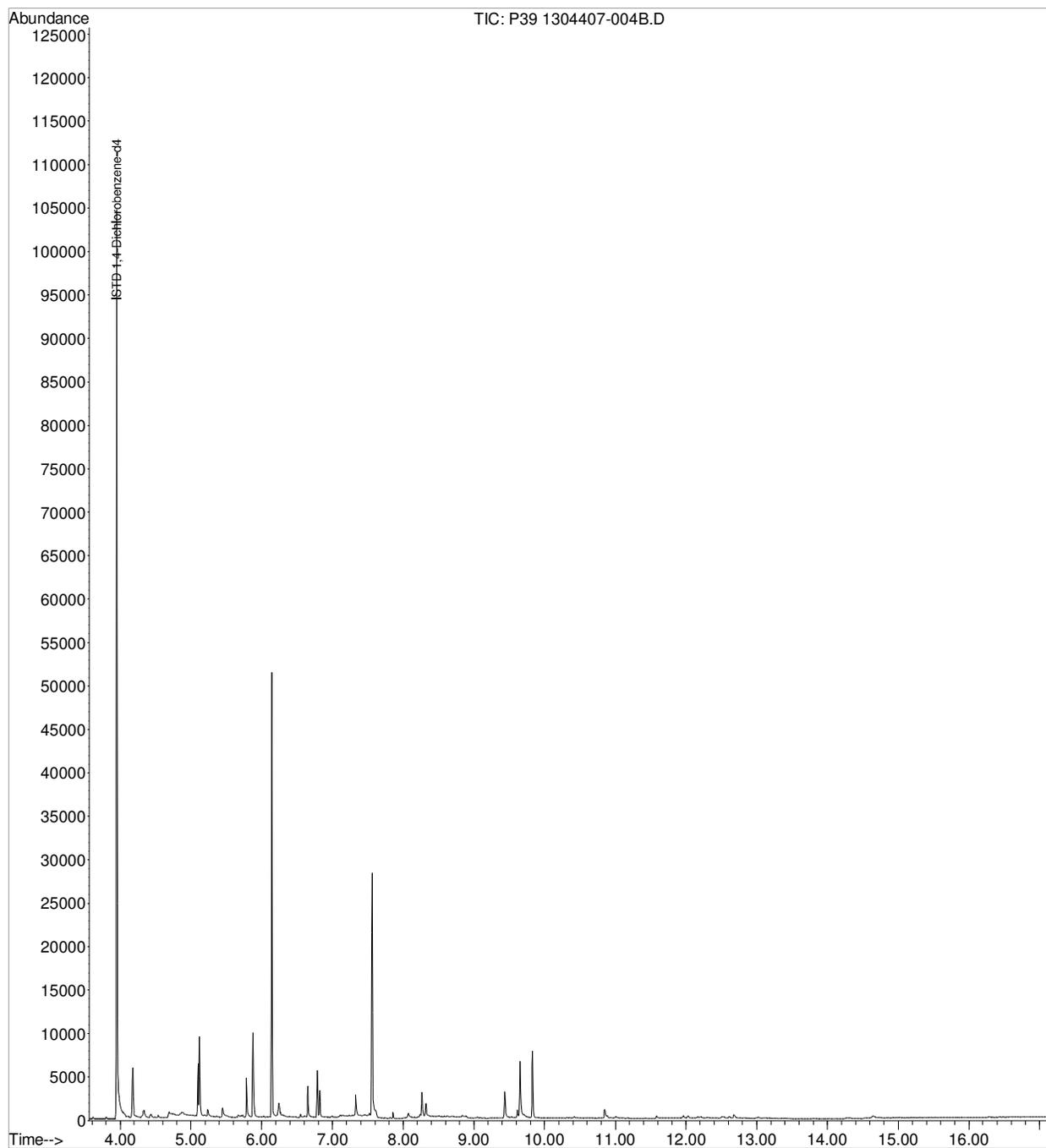
Quant Time: Apr 17 08:42:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P39 1304407-004B.D
Acq On : 16 Apr 2013 11:21 pm
Operator : ALICIA HABERLE
Sample : 1304407-004B
Misc : SAMP
ALS Vial : 6 Sample Multiplier: 1

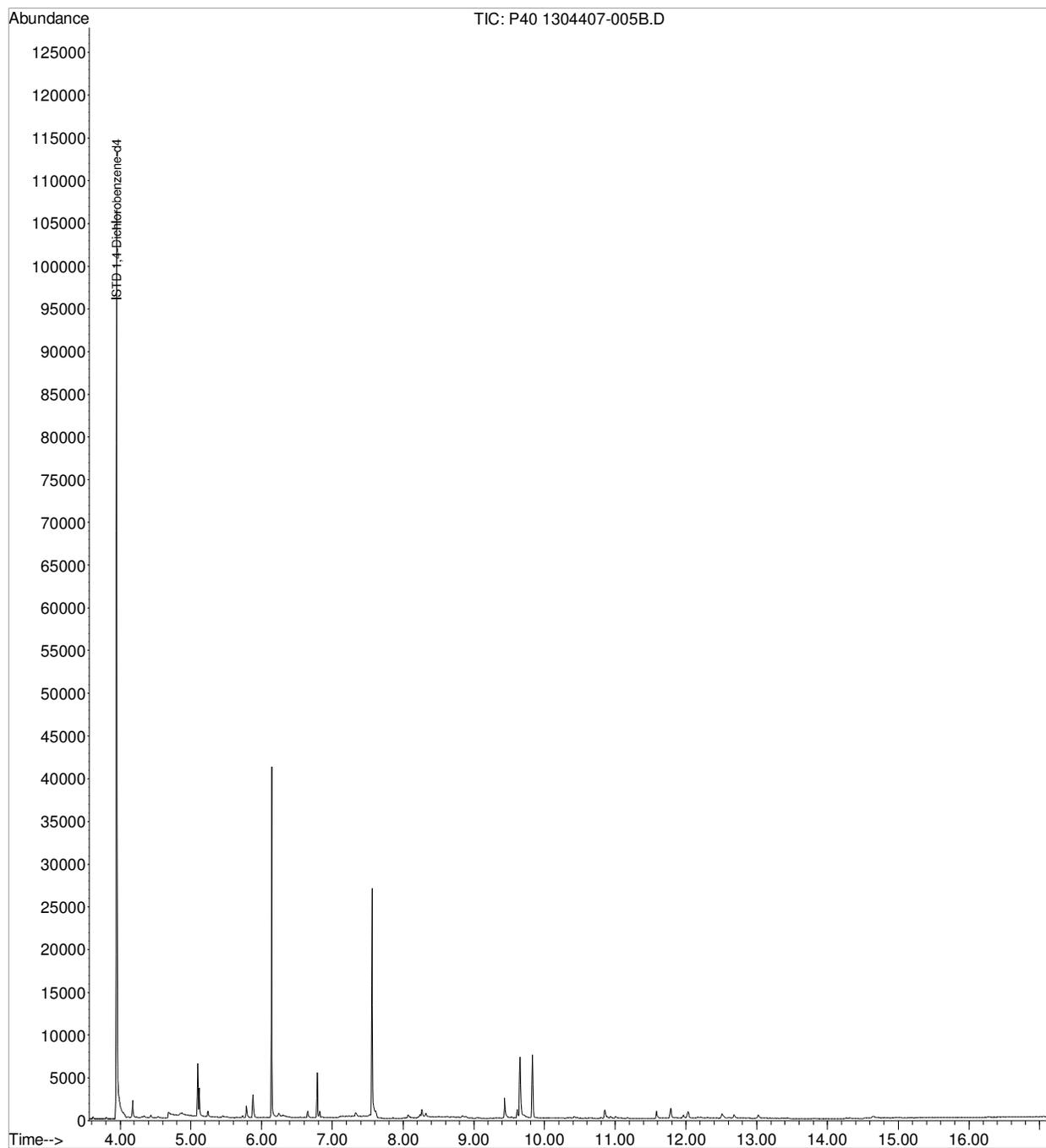
Quant Time: Apr 17 08:42:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P40 1304407-005B.D
Acq On : 16 Apr 2013 11:47 pm
Operator : ALICIA HABERLE
Sample : 1304407-005B
Misc : SAMP
ALS Vial : 7 Sample Multiplier: 1

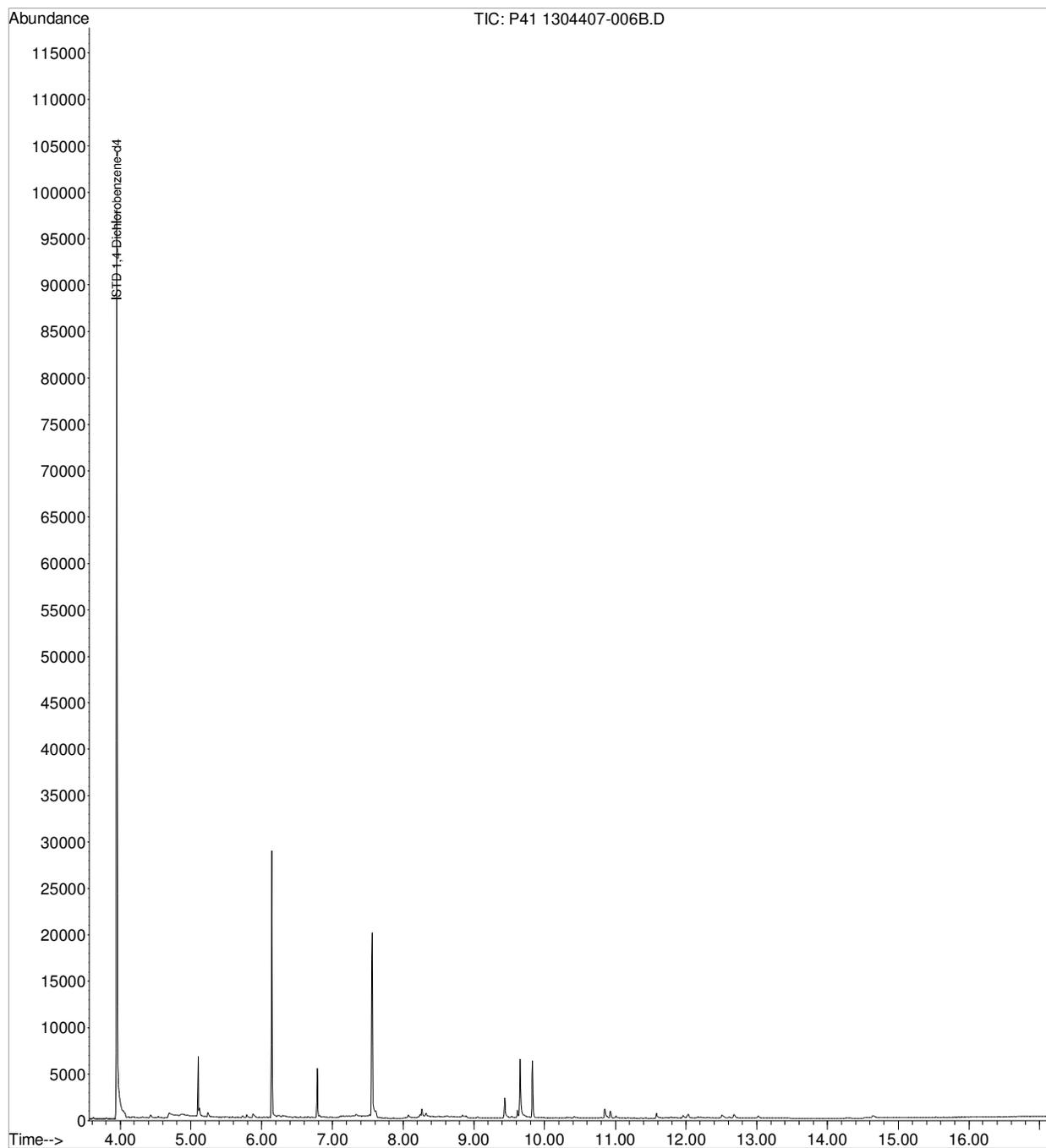
Quant Time: Apr 17 08:43:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P41 1304407-006B.D
Acq On : 17 Apr 2013 12:14 am
Operator : ALICIA HABERLE
Sample : 1304407-006B
Misc : SAMP
ALS Vial : 8 Sample Multiplier: 1

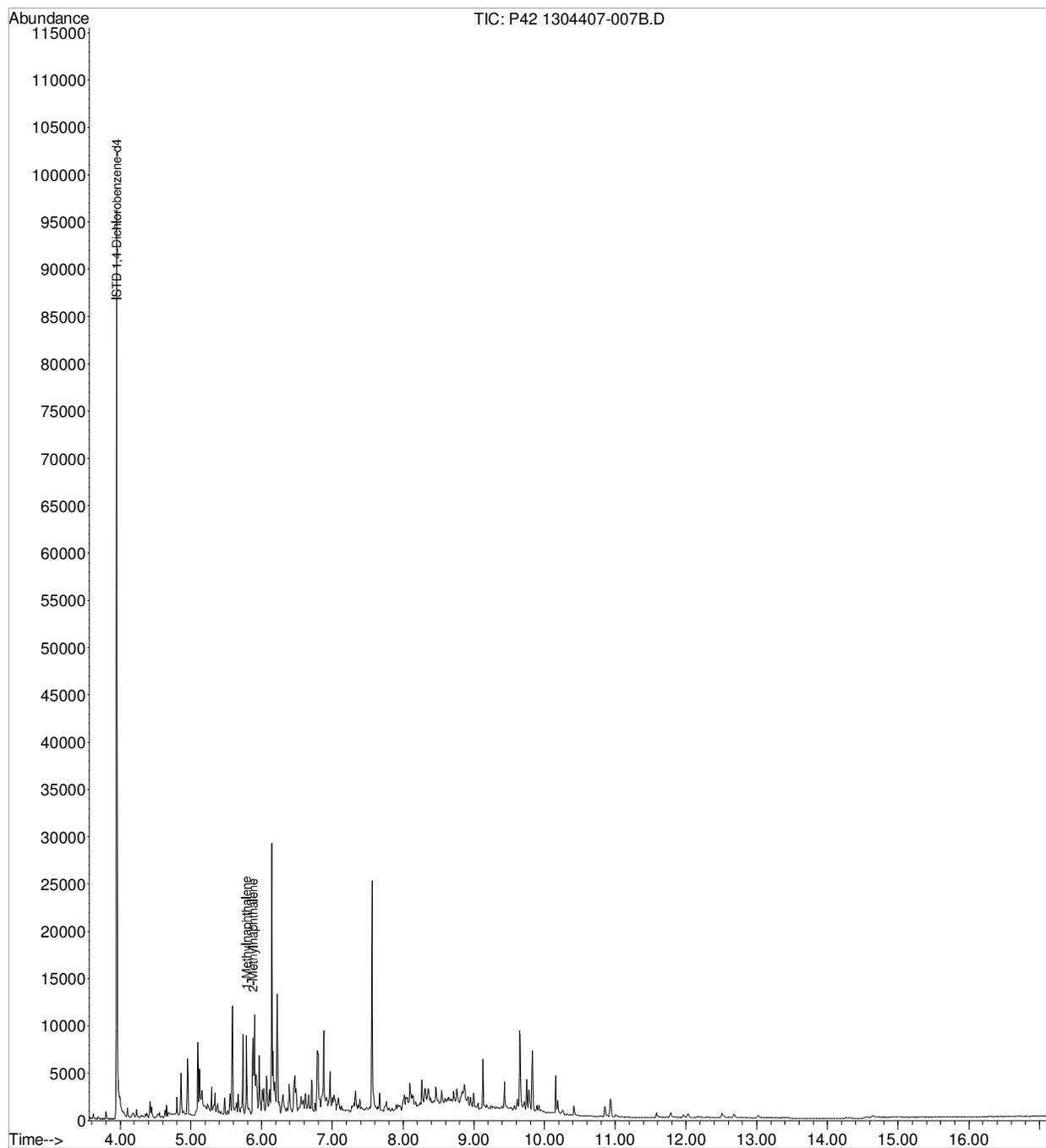
Quant Time: Apr 17 08:43:31 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P42 1304407-007B.D
Acq On : 17 Apr 2013 12:40 am
Operator : ALICIA HABERLE
Sample : 1304407-007B
Misc : SAMP
ALS Vial : 9 Sample Multiplier: 1

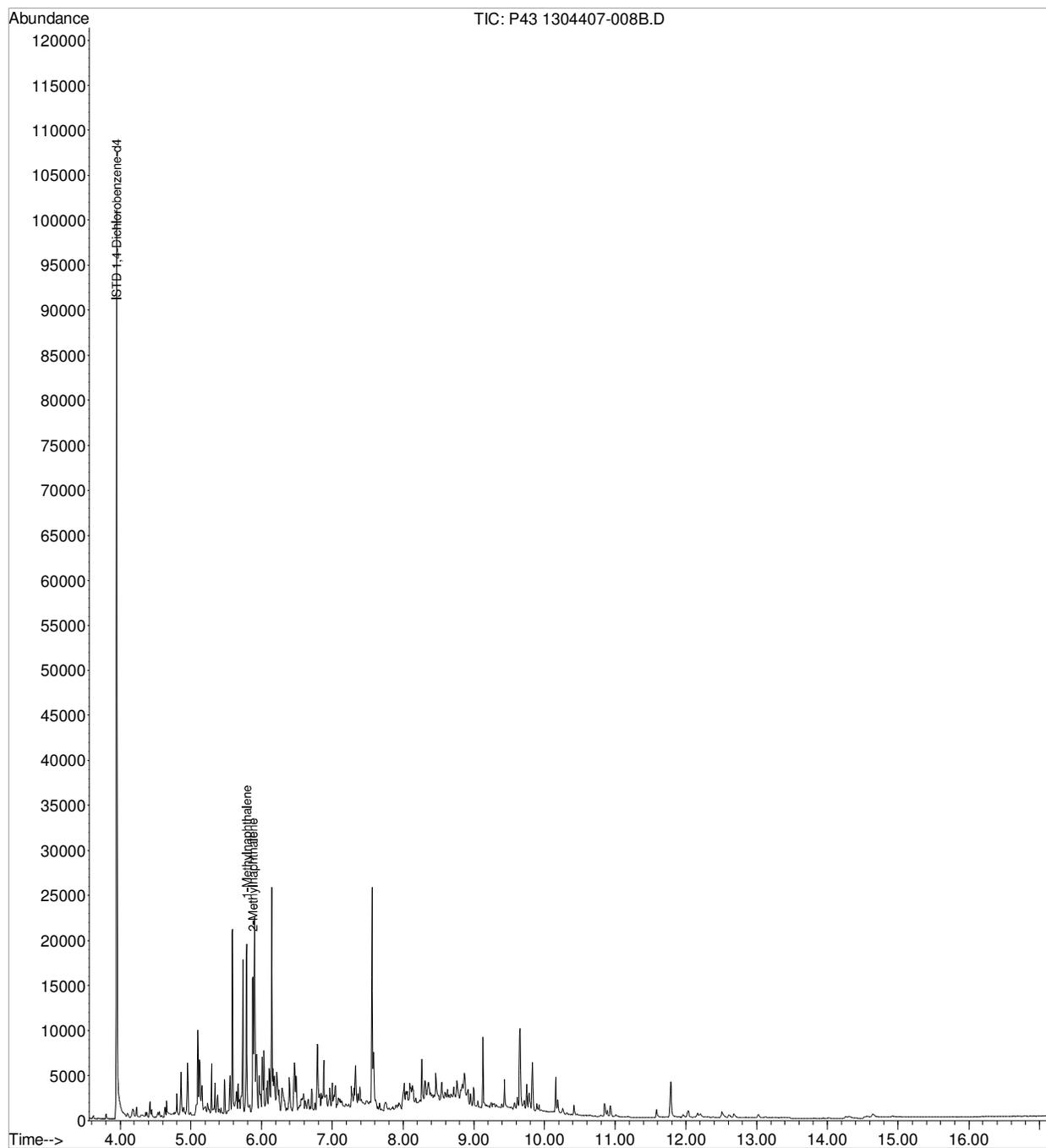
Quant Time: Apr 17 08:44:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P43 1304407-008B.D
Acq On : 17 Apr 2013 1:07 am
Operator : ALICIA HABERLE
Sample : 1304407-008B
Misc : SAMP
ALS Vial : 10 Sample Multiplier: 1

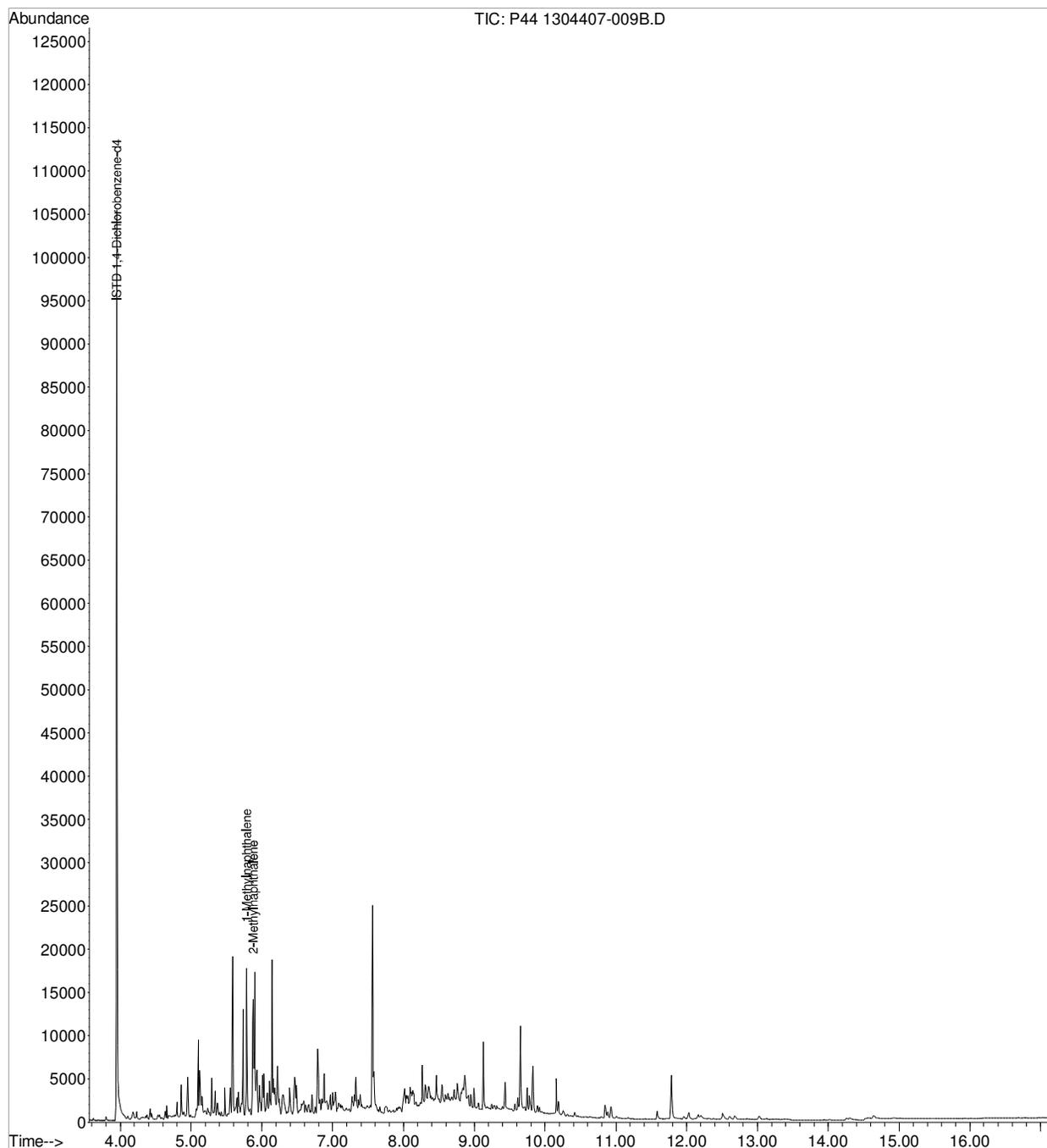
Quant Time: Apr 17 08:44:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P44 1304407-009B.D
Acq On : 17 Apr 2013 1:33 am
Operator : ALICIA HABERLE
Sample : 1304407-009B
Misc : SAMP
ALS Vial : 11 Sample Multiplier: 1

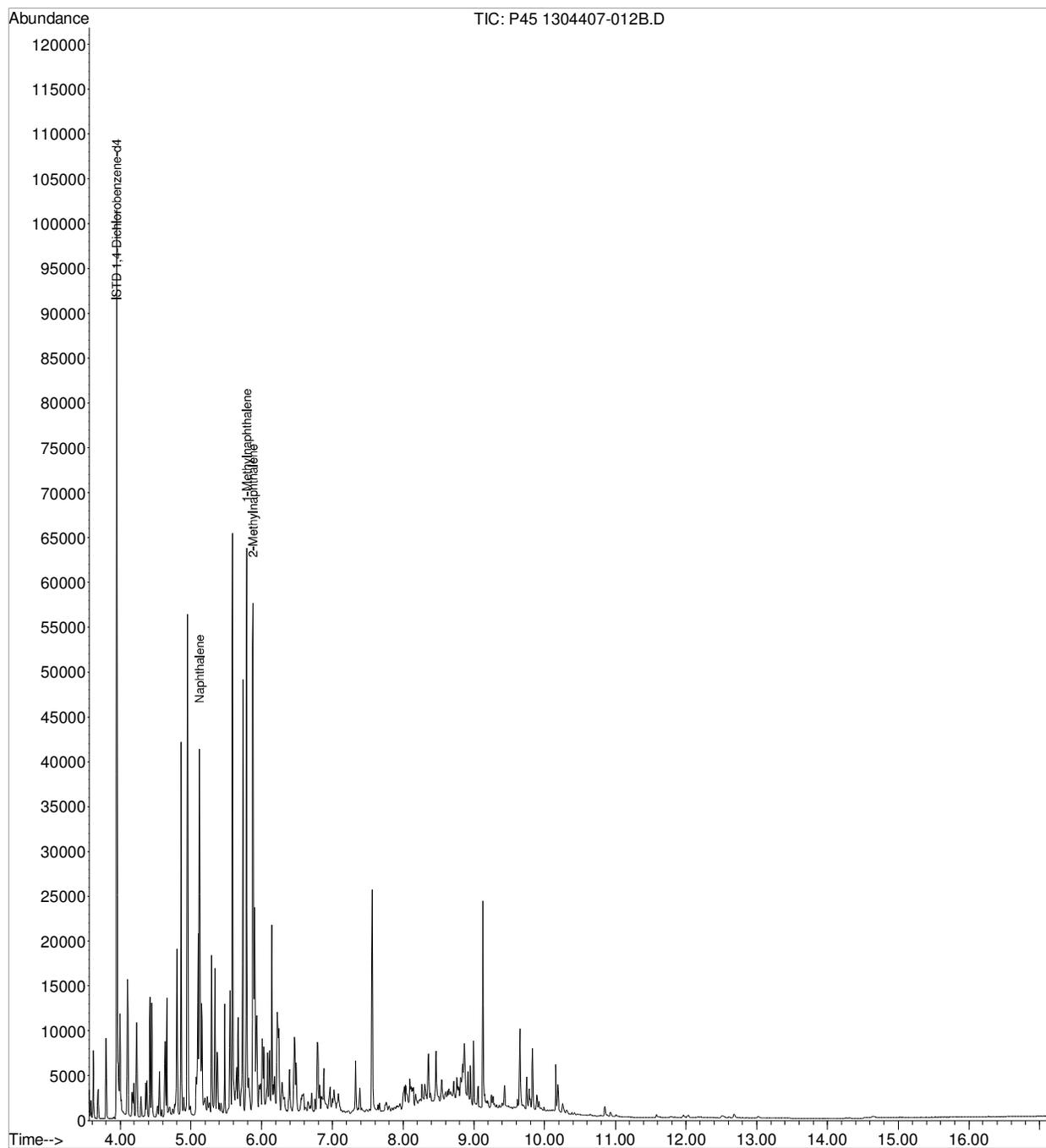
Quant Time: Apr 17 08:45:00 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P45 1304407-012B.D
Acq On : 17 Apr 2013 1:59 am
Operator : ALICIA HABERLE
Sample : 1304407-012B
Misc : SAMP
ALS Vial : 12 Sample Multiplier: 1

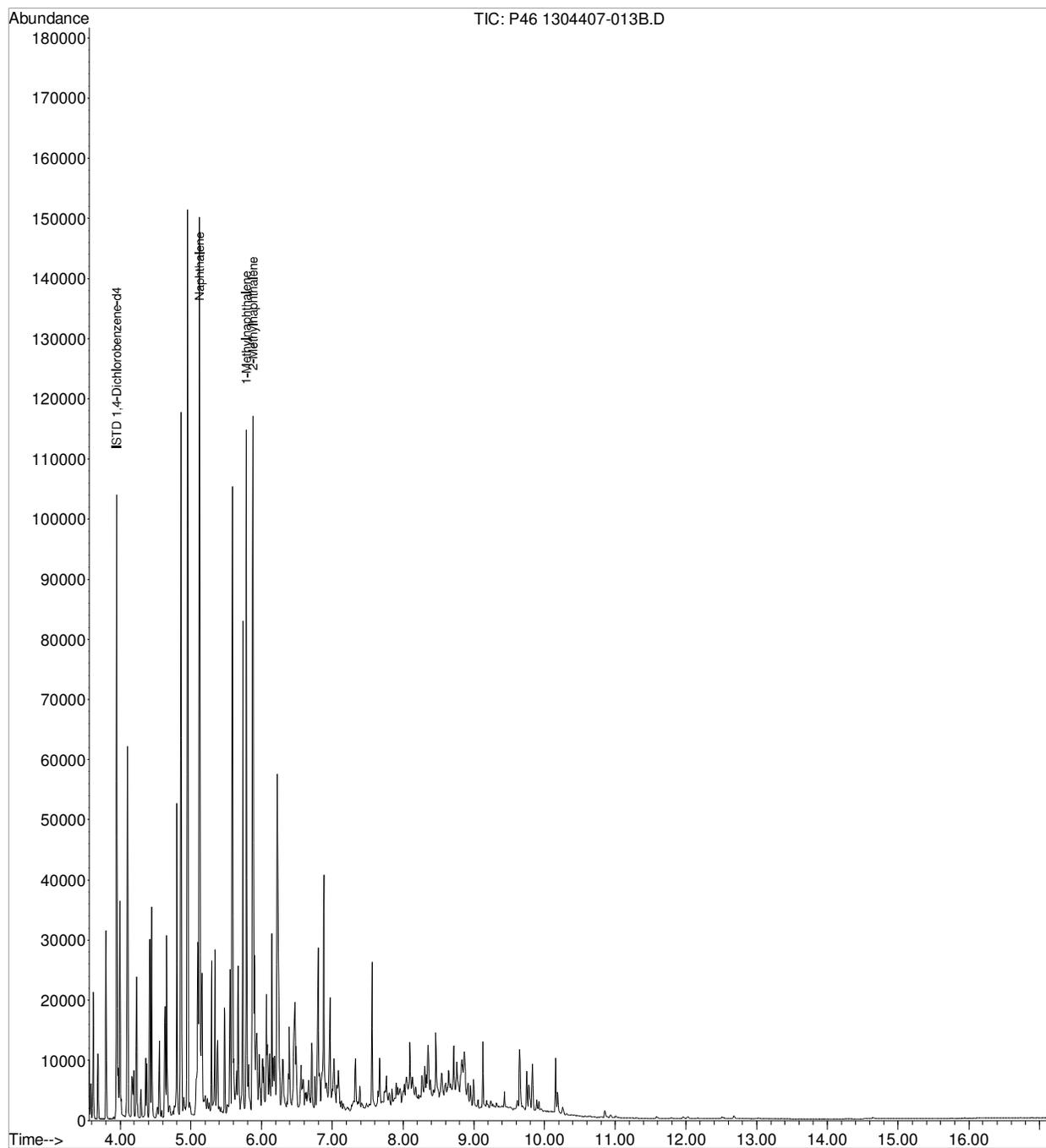
Quant Time: Apr 17 08:45:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P46 1304407-013B.D
Acq On : 17 Apr 2013 2:26 am
Operator : ALICIA HABERLE
Sample : 1304407-013B
Misc : SAMP
ALS Vial : 13 Sample Multiplier: 1

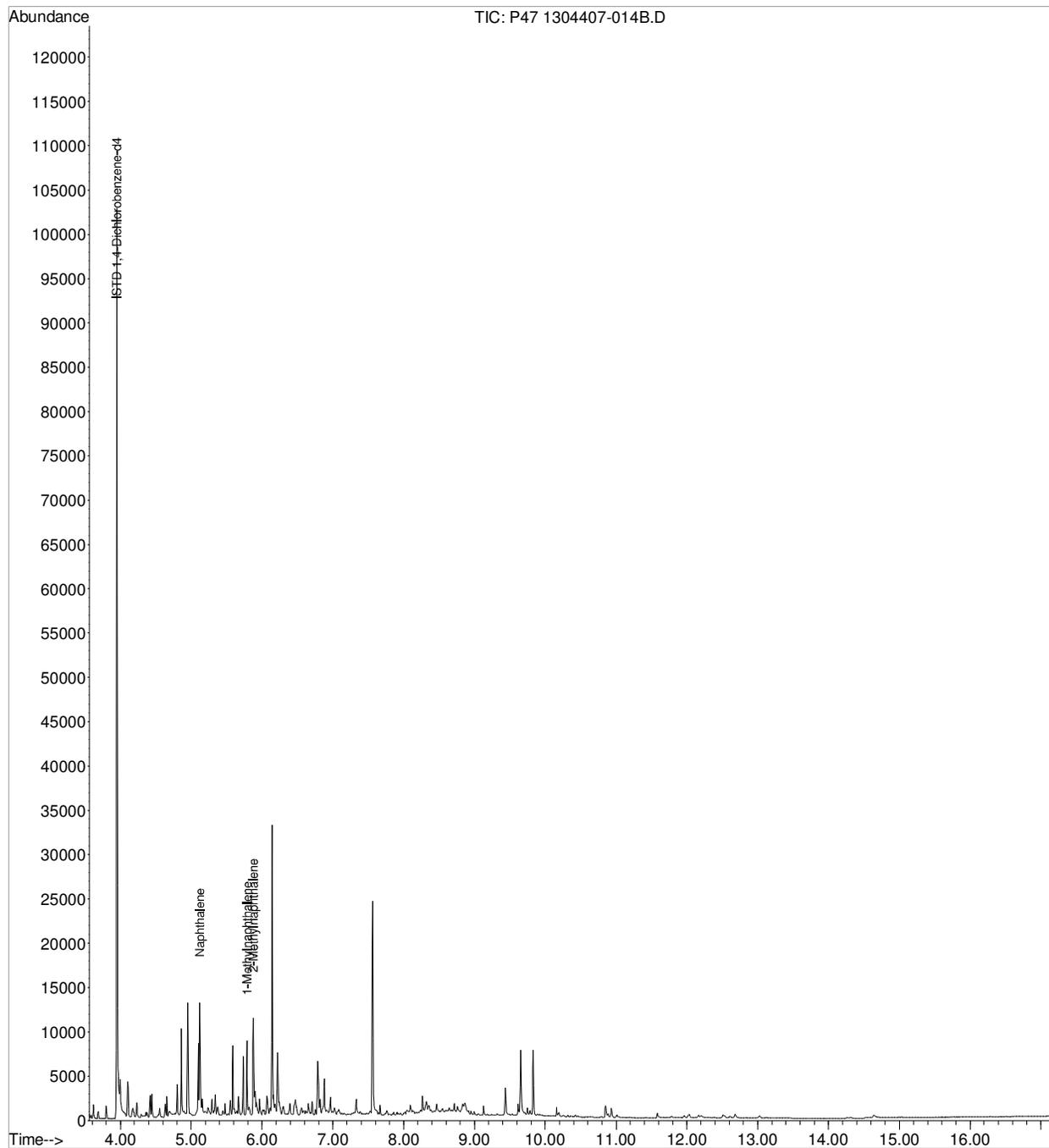
Quant Time: Apr 17 08:46:01 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P47 1304407-014B.D
Acq On : 17 Apr 2013 2:52 am
Operator : ALICIA HABERLE
Sample : 1304407-014B
Misc : SAMP
ALS Vial : 14 Sample Multiplier: 1

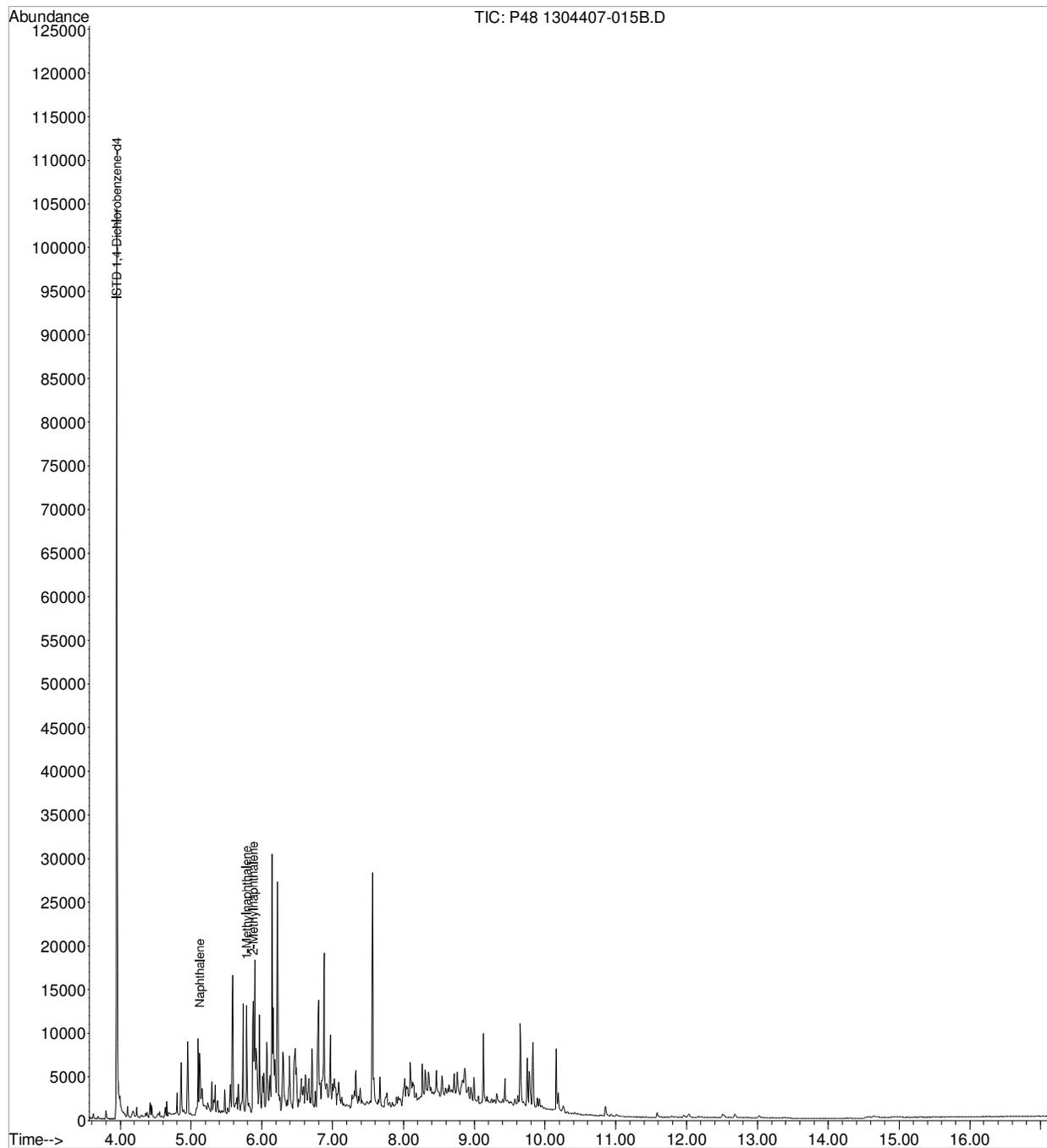
Quant Time: Apr 17 08:46:29 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P48 1304407-015B.D
Acq On : 17 Apr 2013 3:18 am
Operator : ALICIA HABERLE
Sample : 1304407-015B
Misc : SAMP
ALS Vial : 15 Sample Multiplier: 1

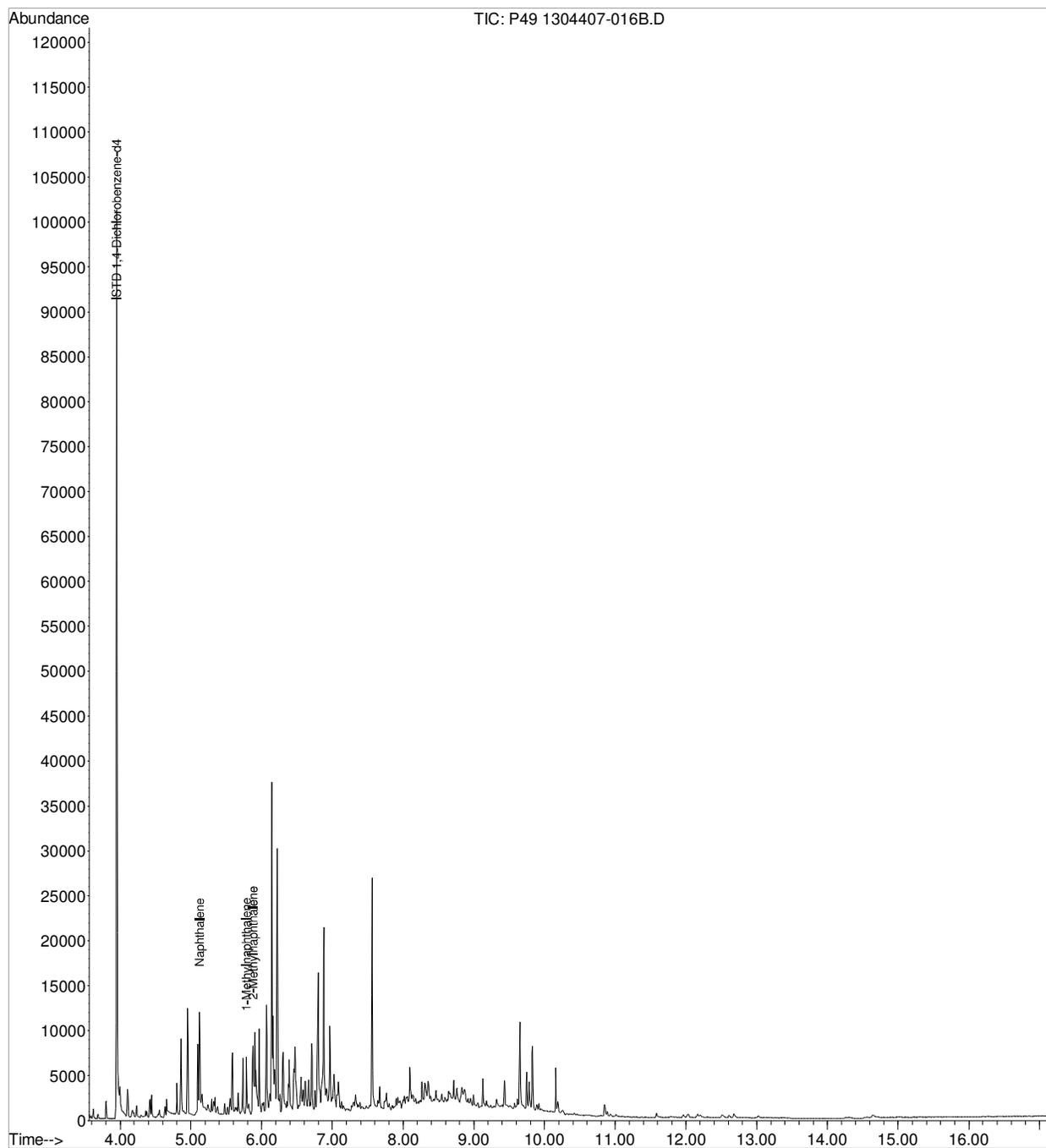
Quant Time: Apr 17 08:47:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P49 1304407-016B.D
Acq On : 17 Apr 2013 3:45 am
Operator : ALICIA HABERLE
Sample : 1304407-016B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

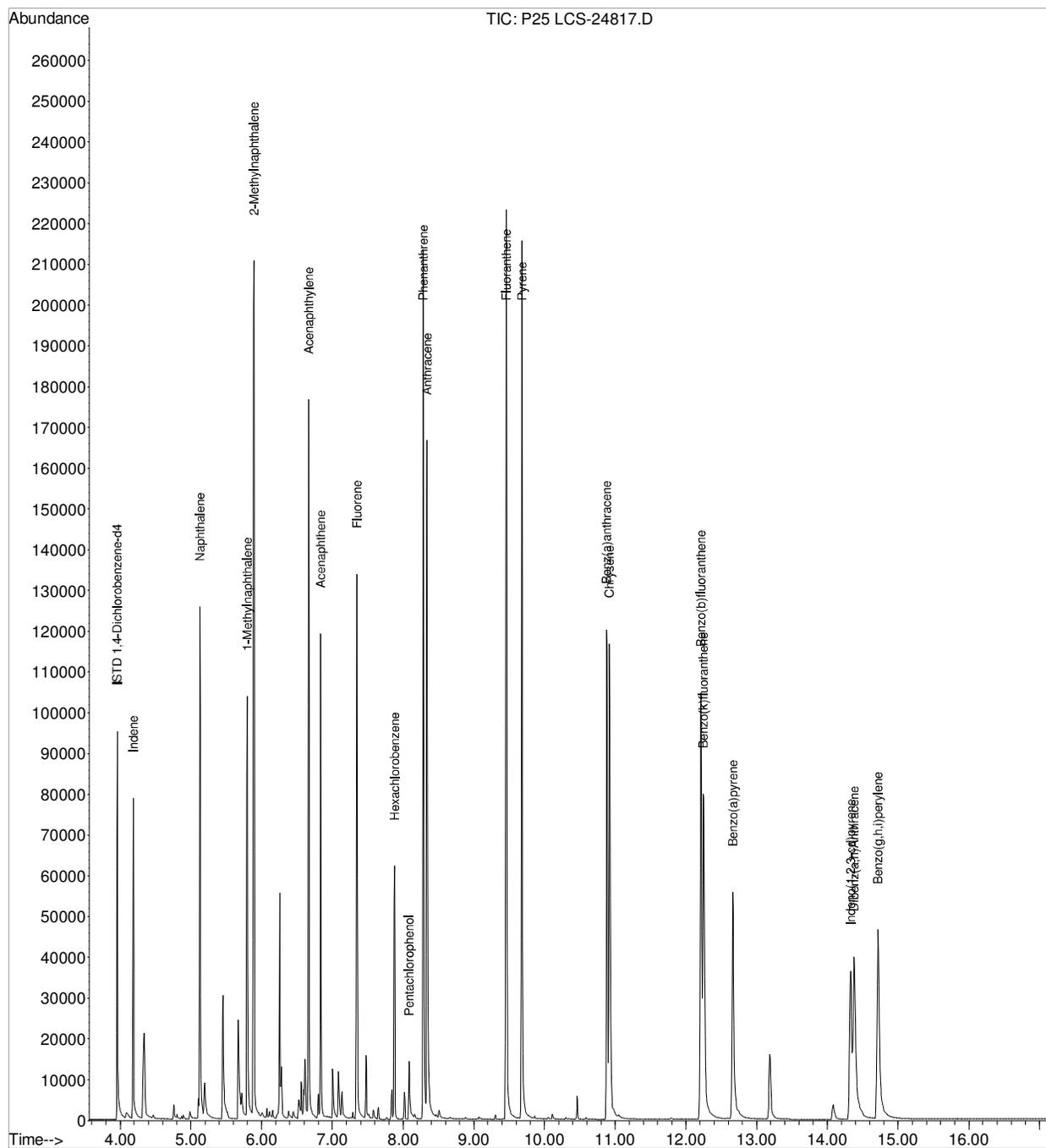
Quant Time: Apr 17 08:47:39 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Apr 17 08:35:55 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
 Data File : P25 LCS-24817.D
 Acq On : 16 Apr 2013 4:34 pm
 Operator : ALICIA HABERLE
 Sample : LCS-24817
 Misc : LCS 20X
 ALS Vial : 17 Sample Multiplier: 1

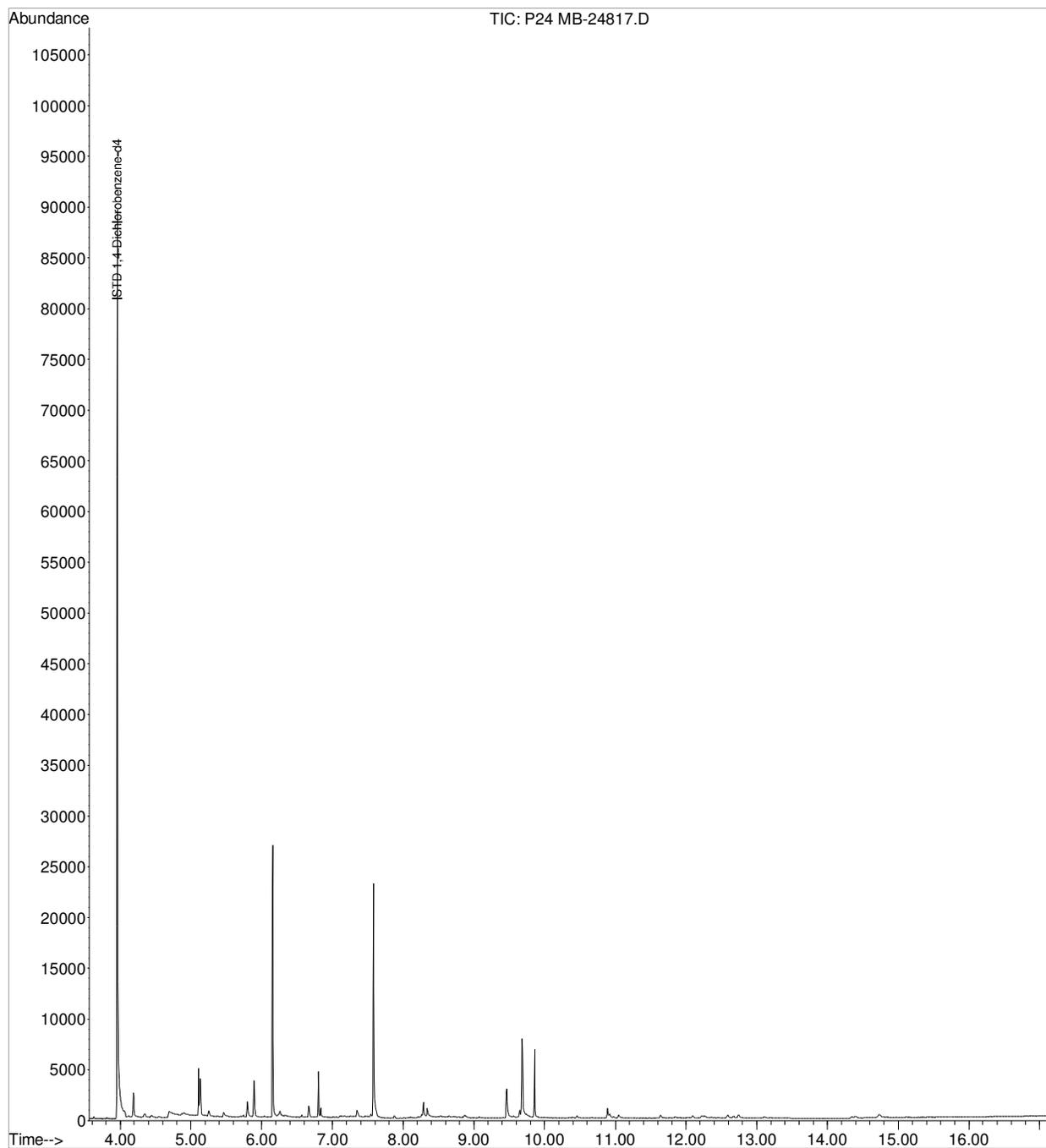
Quant Time: Apr 17 08:29:19 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:04:32 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
Data File : P24 MB-24817.D
Acq On : 16 Apr 2013 4:07 pm
Operator : ALICIA HABERLE
Sample : MB-24817
Misc : MBLK
ALS Vial : 16 Sample Multiplier: 1

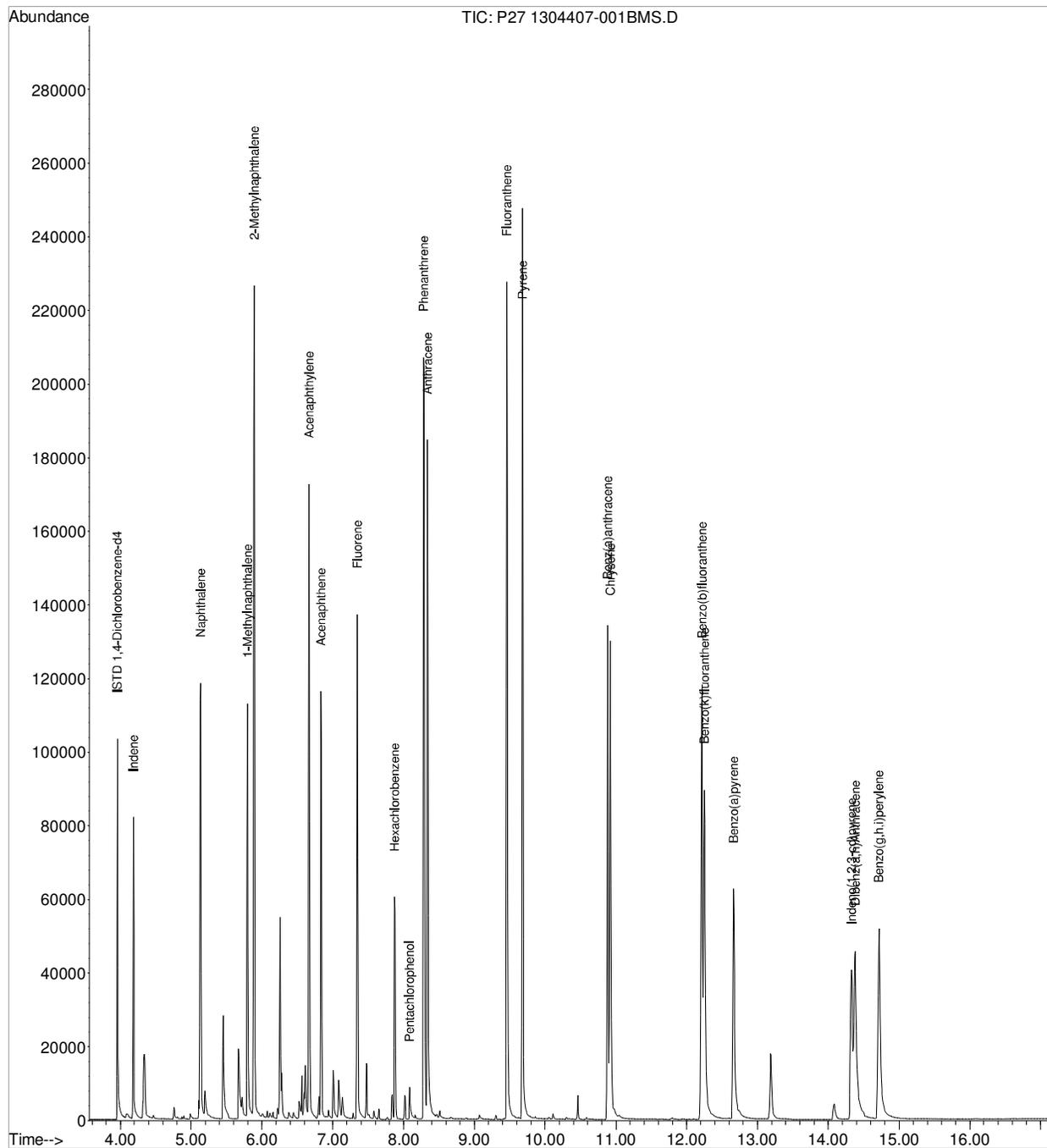
Quant Time: Apr 17 08:28:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:04:32 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
 Data File : P27 1304407-001BMS.D
 Acq On : 16 Apr 2013 5:28 pm
 Operator : ALICIA HABERLE
 Sample : 1304407-001BMS
 Misc : MS 20X
 ALS Vial : 19 Sample Multiplier: 1

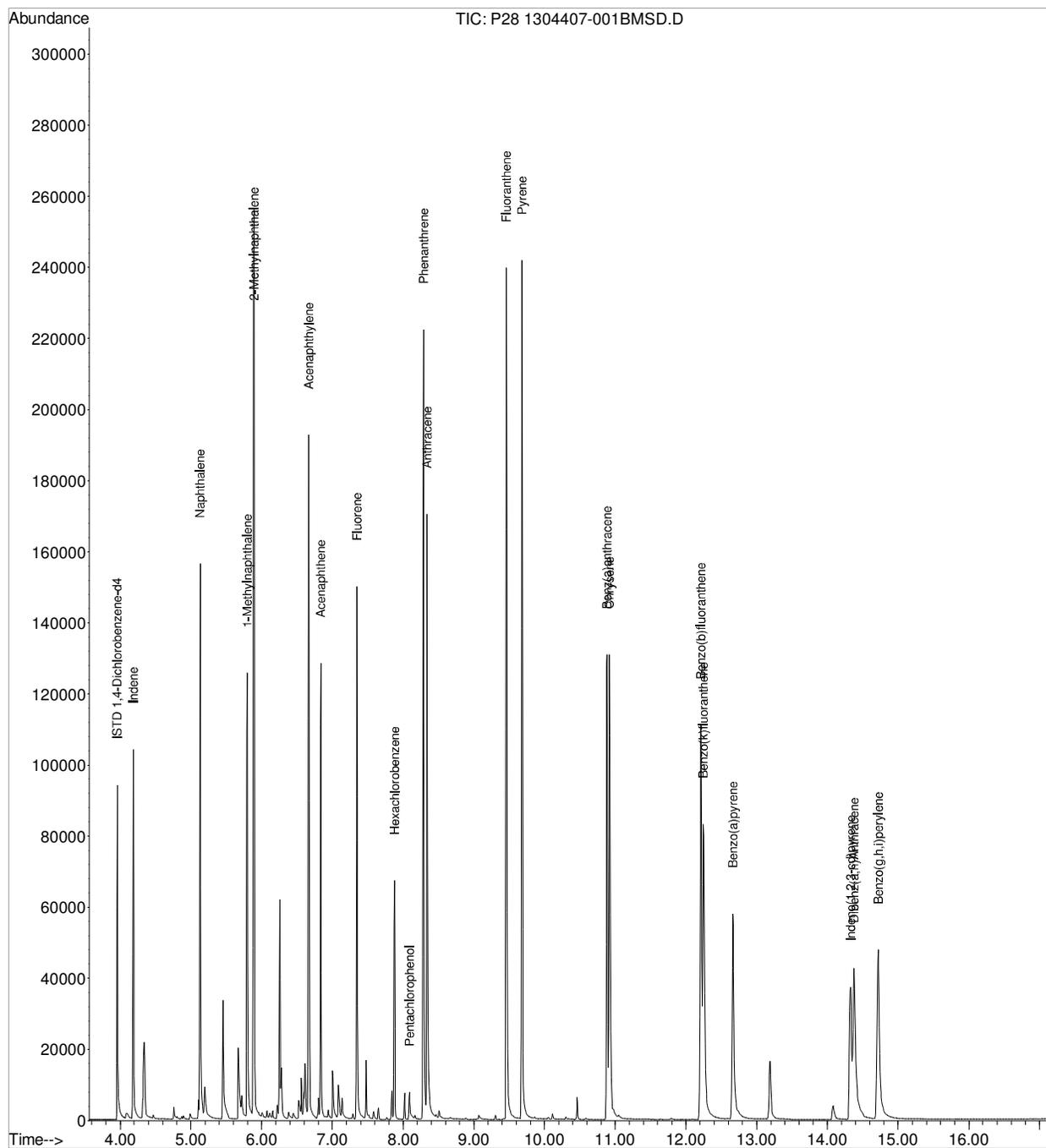
Quant Time: Apr 17 08:31:21 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:04:32 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\16APR13-A\
 Data File : P28 1304407-001BMSD.D
 Acq On : 16 Apr 2013 5:55 pm
 Operator : ALICIA HABERLE
 Sample : 1304407-001BMSD
 Misc : MSD 20X
 ALS Vial : 20 Sample Multiplier: 1

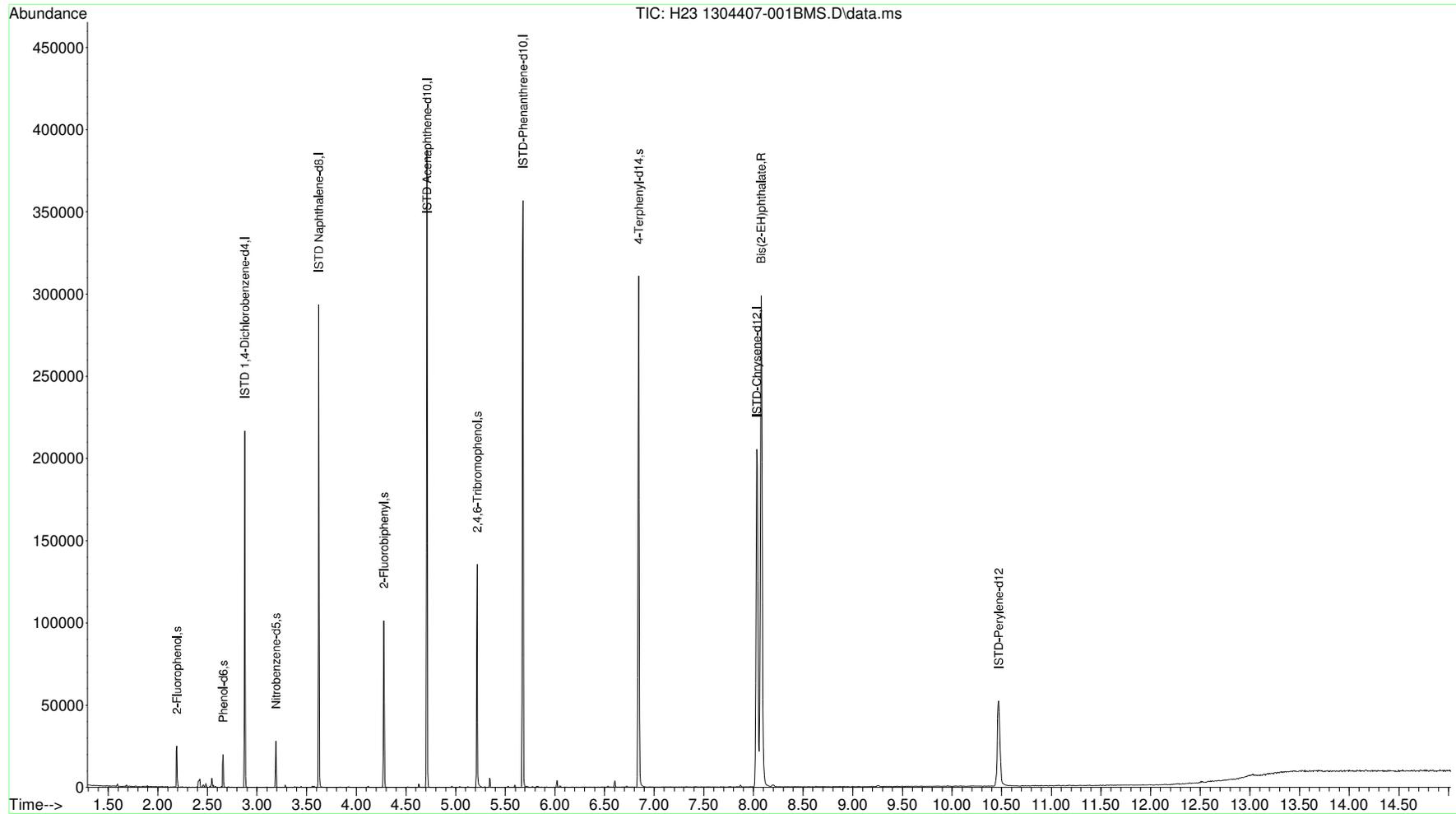
Quant Time: Apr 17 08:31:51 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:04:32 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
 Data File : H23 1304407-001BMS.D
 Acq On : 18 Apr 2013 5:00 am
 Operator : ALICIA HABERLE
 Sample : 1304407-001B
 Misc : SAMP
 ALS Vial : 16 Sample Multiplier: 1

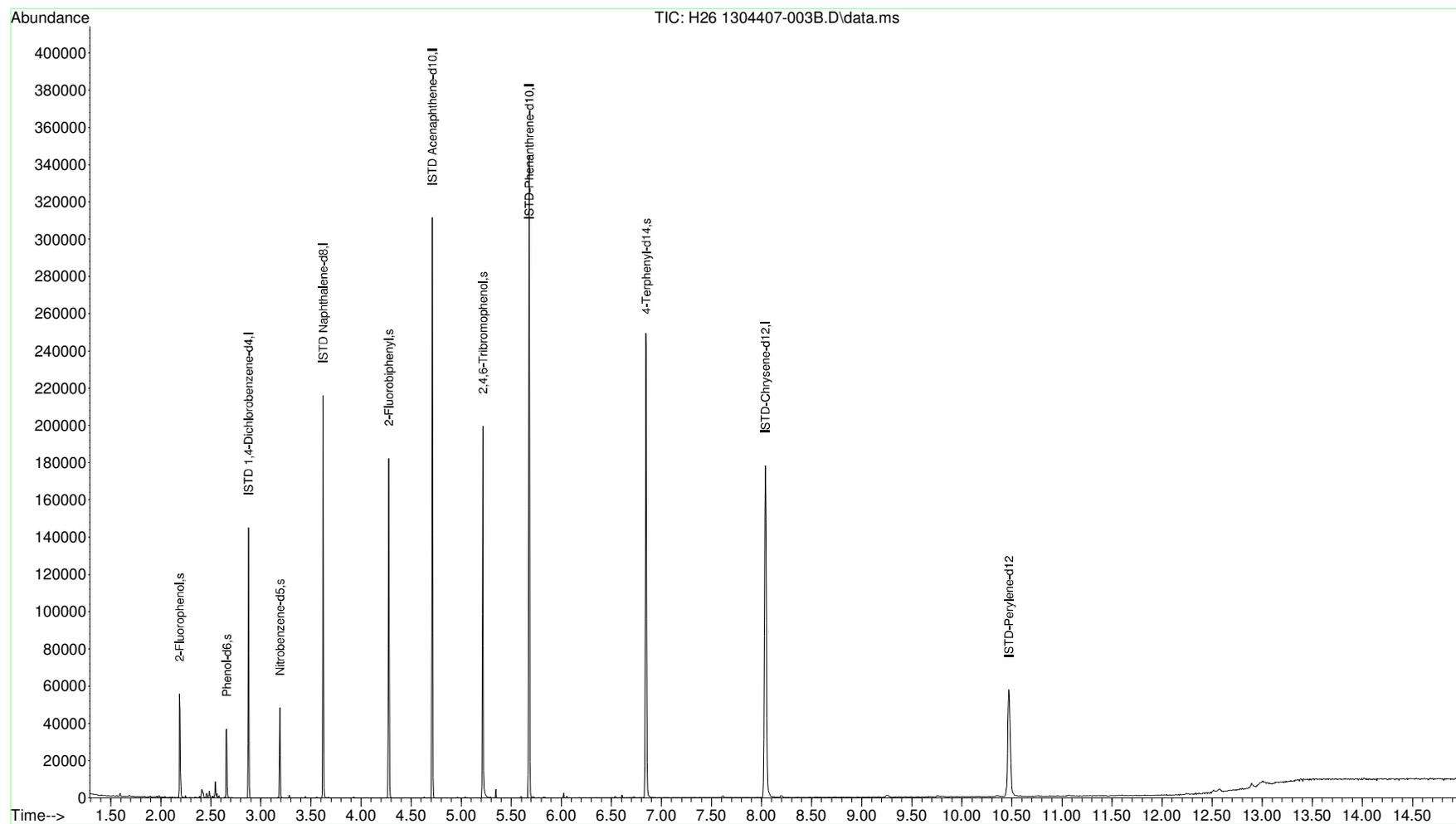
Quant Time: Apr 18 12:58:26 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:52:47 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
 Data File : H26 1304407-003B.D
 Acq On : 18 Apr 2013 6:11 am
 Operator : ALICIA HABERLE
 Sample : 1304407-002B
 Misc : SAMP
 ALS Vial : 19 Sample Multiplier: 1

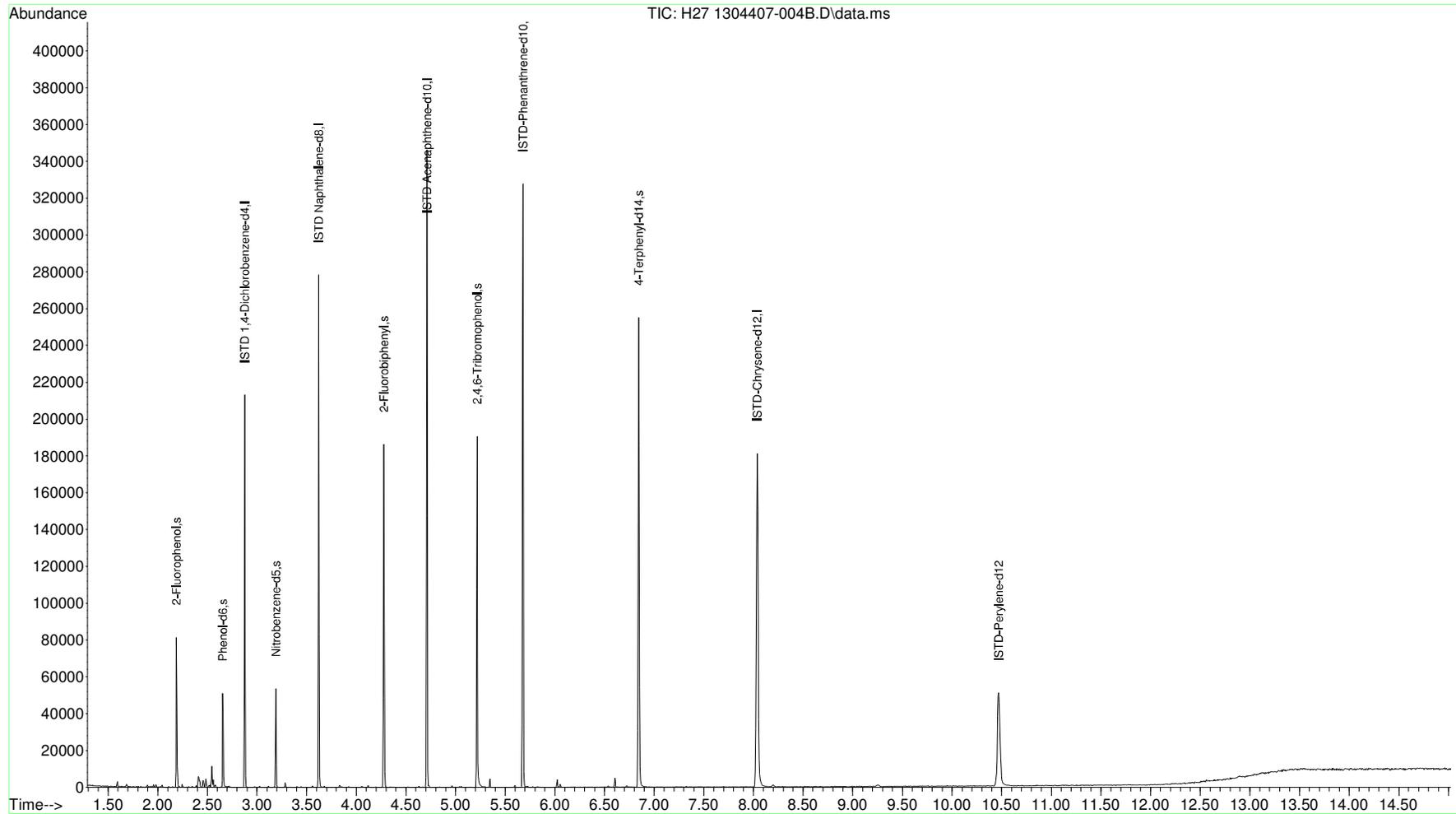
Quant Time: Apr 18 13:00:53 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:52:47 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H27 1304407-004B.D
Acq On : 18 Apr 2013 6:34 am
Operator : ALICIA HABERLE
Sample : 1304407-003B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

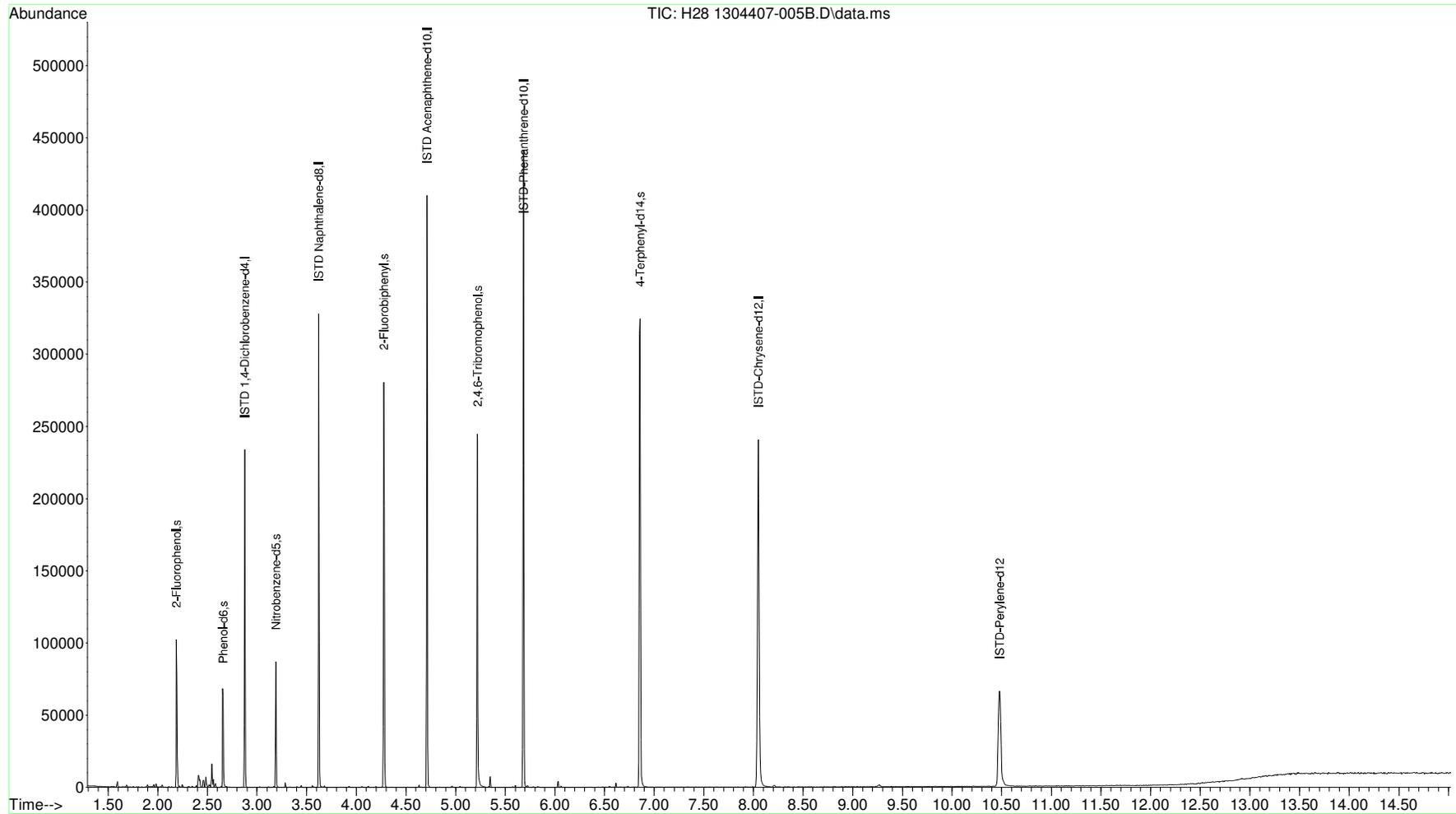
Quant Time: Apr 18 13:01:15 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H28 1304407-005B.D
Acq On : 18 Apr 2013 6:58 am
Operator : ALICIA HABERLE
Sample : 1304407-004B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

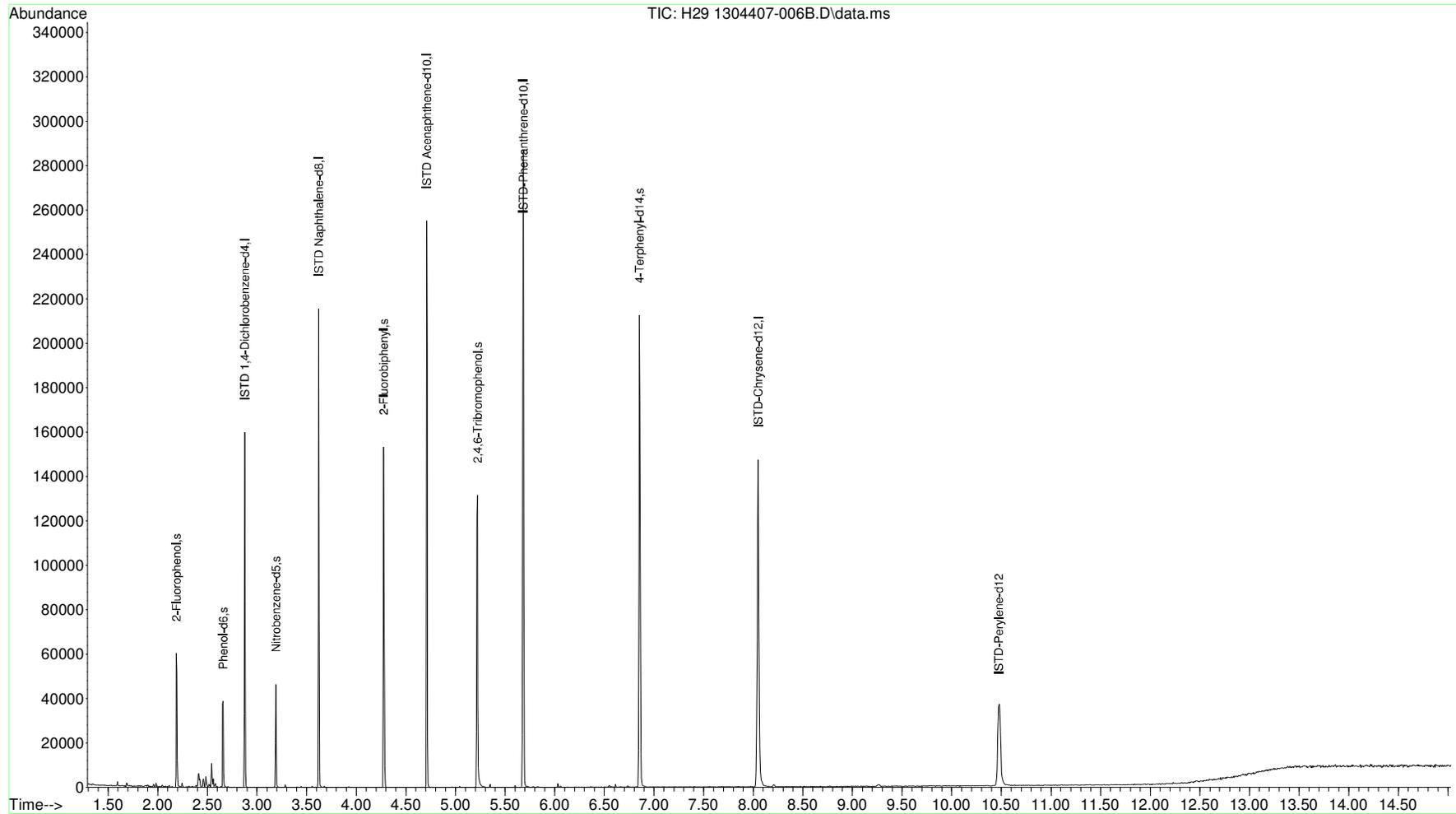
Quant Time: Apr 18 13:01:36 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H29 1304407-006B.D
Acq On : 18 Apr 2013 7:22 am
Operator : ALICIA HABERLE
Sample : 1304407-005B
Misc : SAMP
ALS Vial : 22 Sample Multiplier: 1

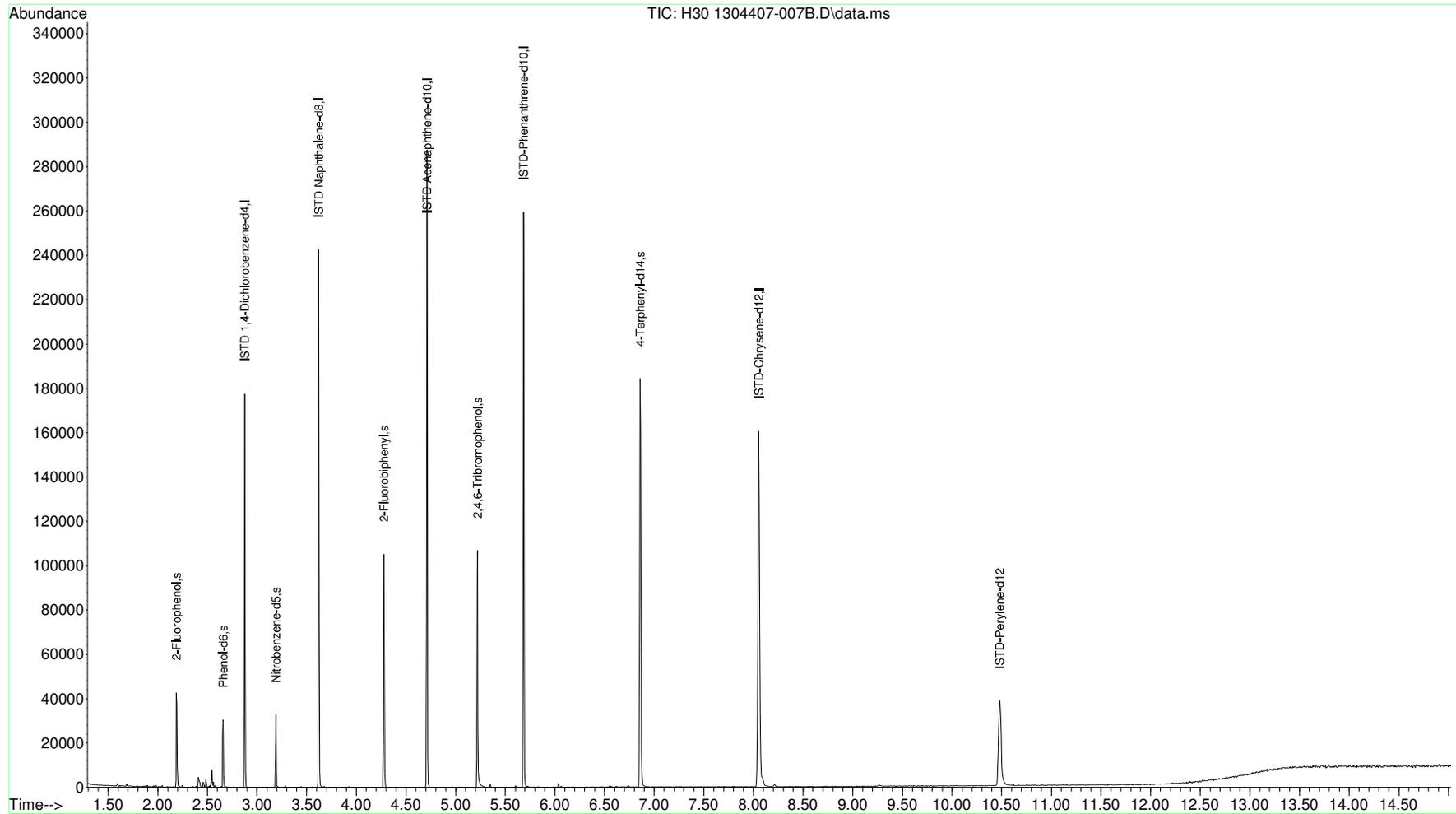
Quant Time: Apr 18 12:05:37 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H30 1304407-007B.D
Acq On : 18 Apr 2013 7:47 am
Operator : ALICIA HABERLE
Sample : 1304407-006B
Misc : SAMP
ALS Vial : 23 Sample Multiplier: 1

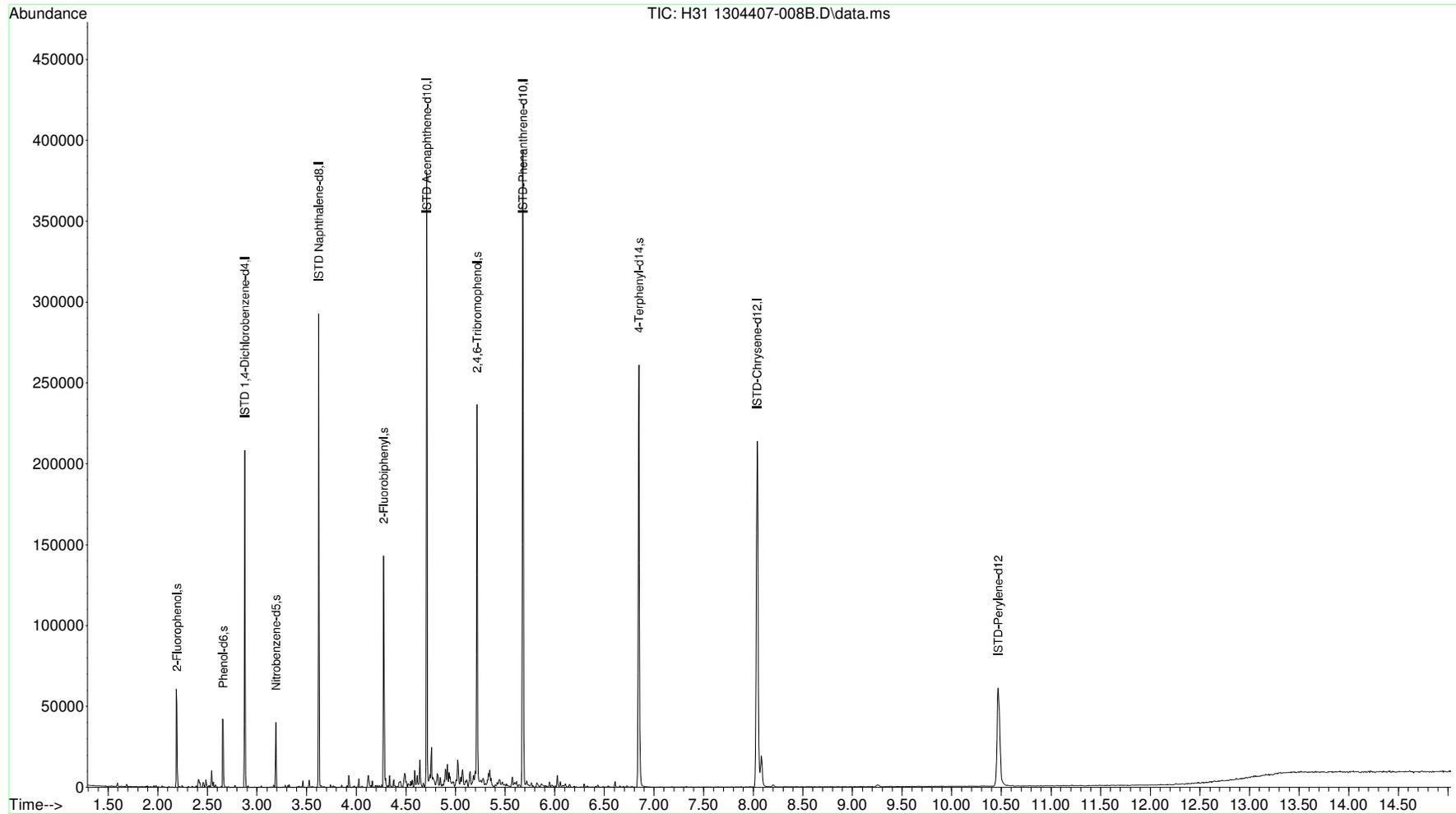
Quant Time: Apr 18 13:02:14 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H31 1304407-008B.D
Acq On : 18 Apr 2013 8:10 am
Operator : ALICIA HABERLE
Sample : 1304407-007B
Misc : SAMP
ALS Vial : 24 Sample Multiplier: 1

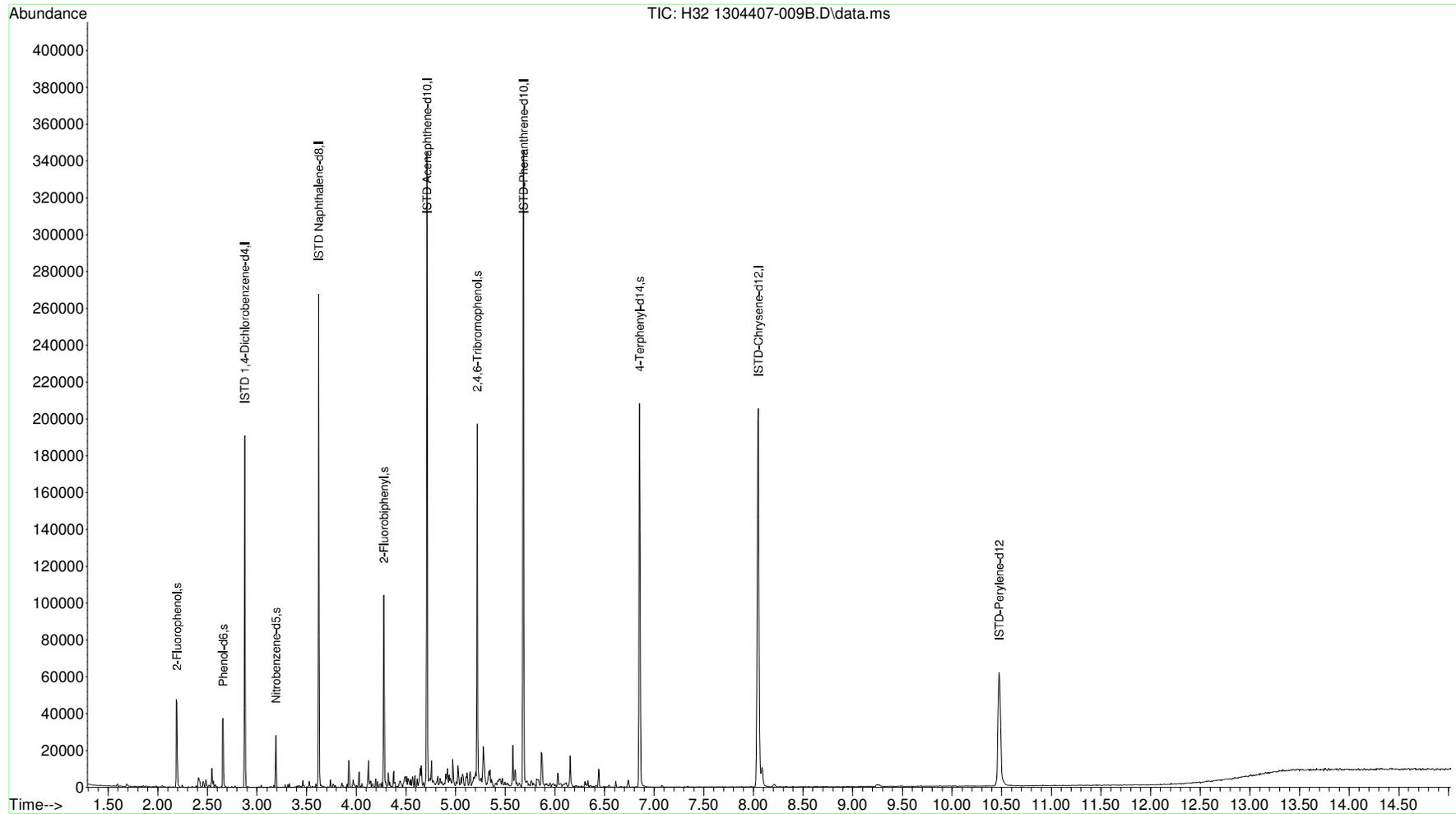
Quant Time: Apr 18 13:02:36 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H32 1304407-009B.D
Acq On : 18 Apr 2013 8:34 am
Operator : ALICIA HABERLE
Sample : 1304407-008B
Misc : SAMP
ALS Vial : 25 Sample Multiplier: 1

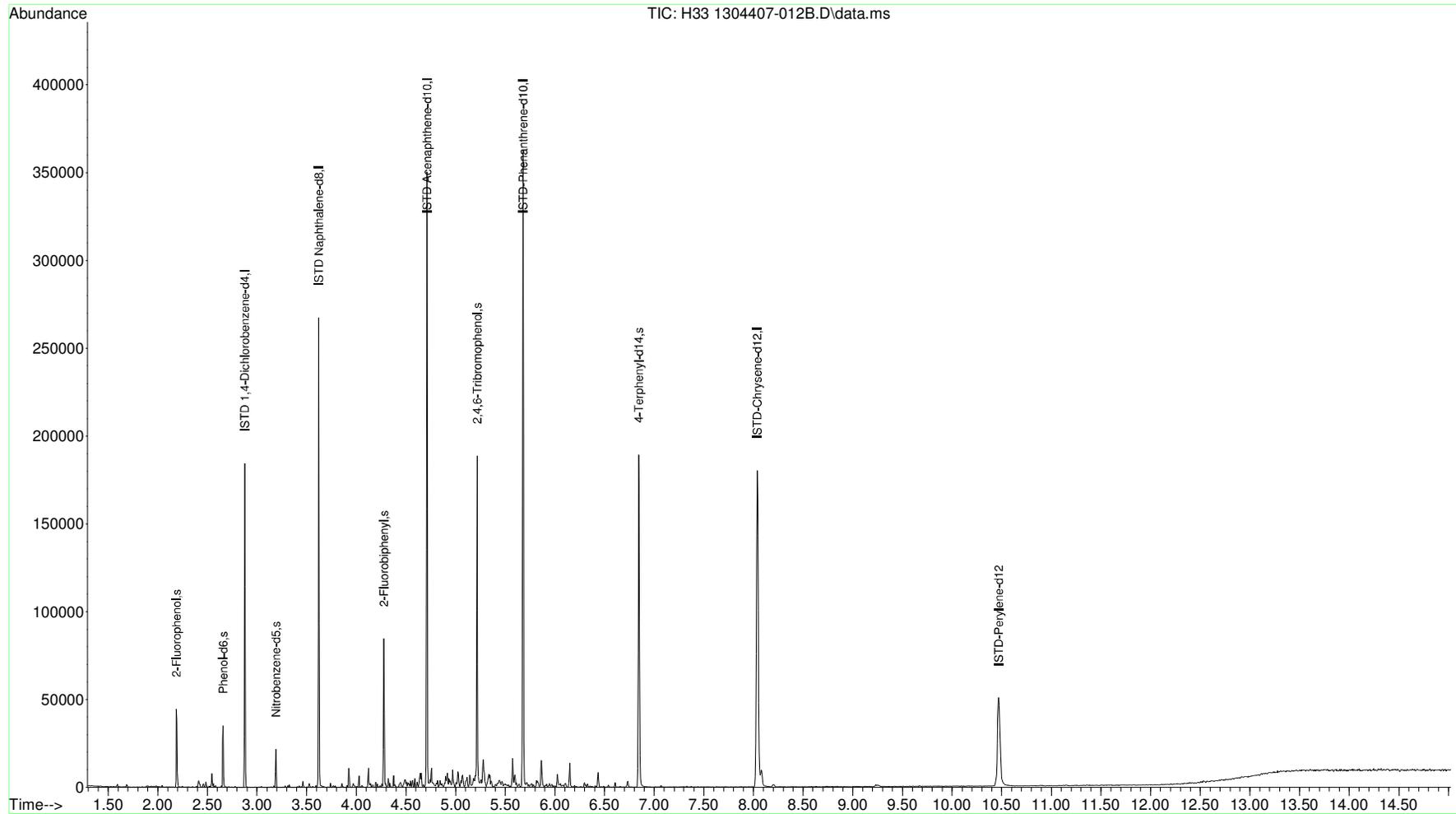
Quant Time: Apr 18 13:02:58 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H33 1304407-012B.D
Acq On : 18 Apr 2013 8:57 am
Operator : ALICIA HABERLE
Sample : 1304407-009B
Misc : SAMP
ALS Vial : 26 Sample Multiplier: 1

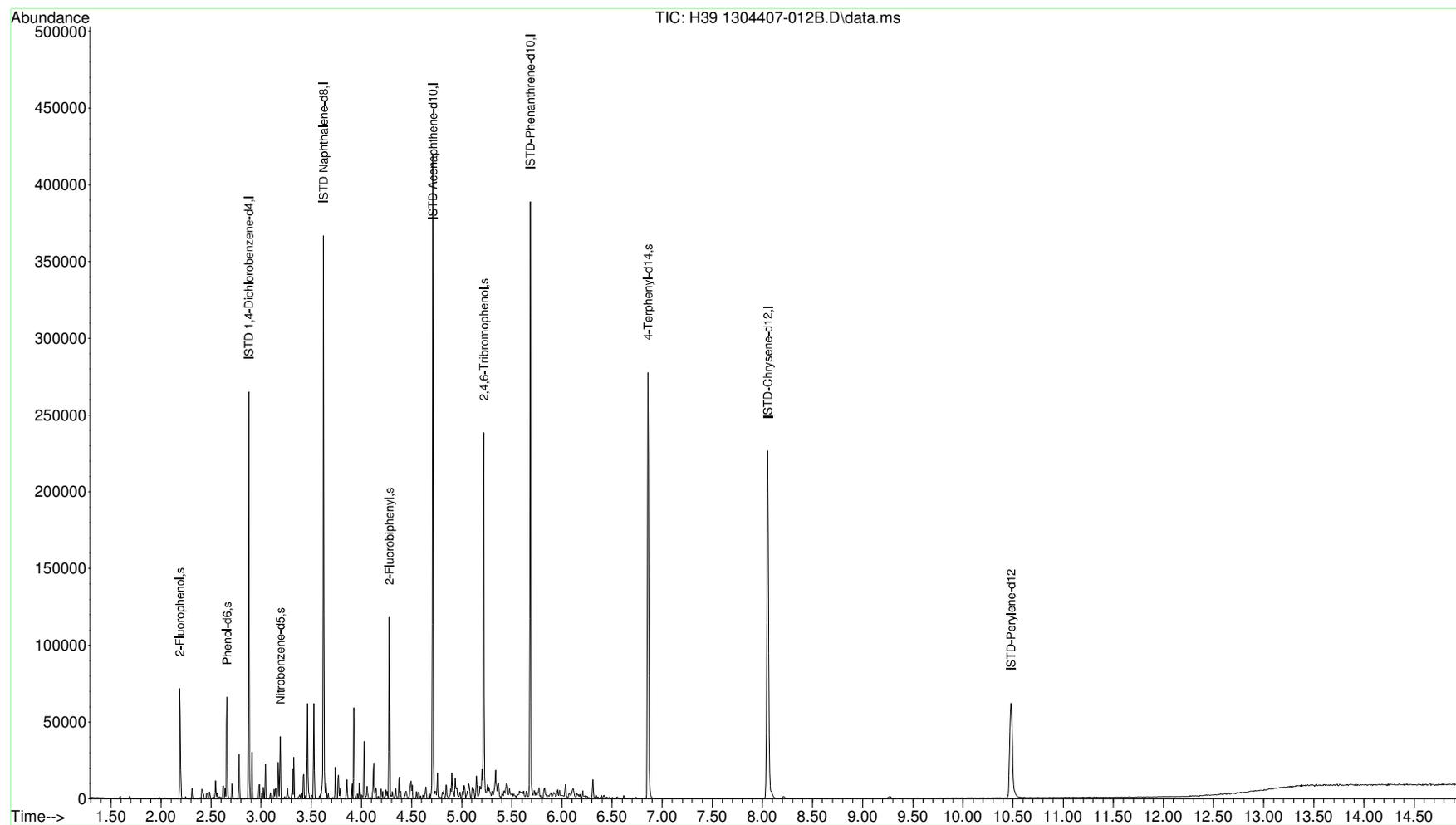
Quant Time: Apr 18 13:03:19 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\18APR 13-A\
Data File : H39 1304407-012B.D
Acq On : 18 Apr 2013 12:16 pm
Operator : ALICIA HABERLE
Sample : 1304407-012B
Misc : SAMP
ALS Vial : 5 Sample Multiplier: 1

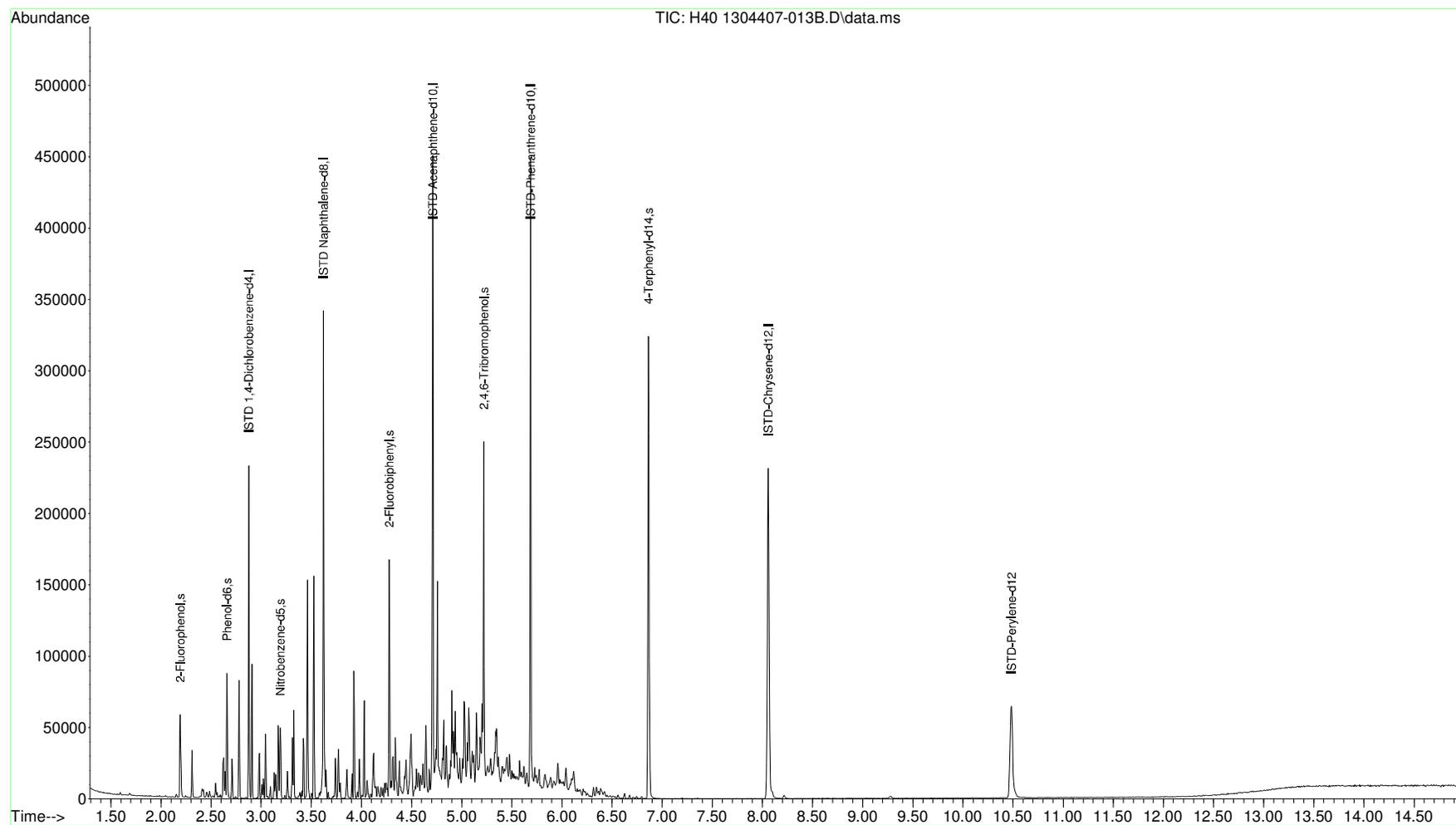
Quant Time: Apr 18 15:10:25 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\18APR 13-A\
Data File : H40 1304407-013B.D
Acq On : 18 Apr 2013 12:42 pm
Operator : ALICIA HABERLE
Sample : 1304407-013B
Misc : SAMP
ALS Vial : 6 Sample Multiplier: 1

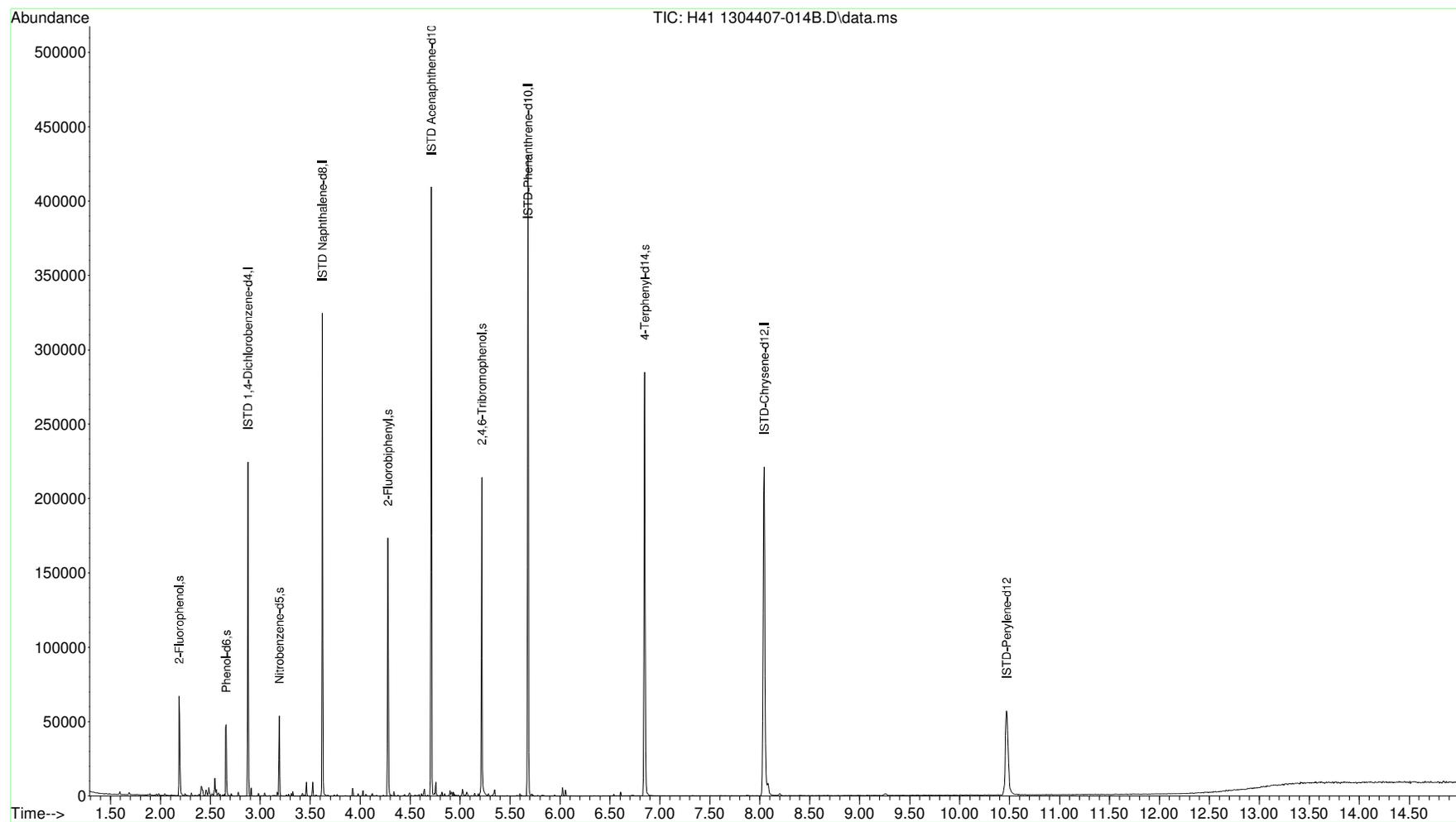
Quant Time: Apr 18 15:10:52 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\18APR 13-A\
Data File : H41 1304407-014B.D
Acq On : 18 Apr 2013 1:05 pm
Operator : ALICIA HABERLE
Sample : 1304407-014B
Misc : SAMP
ALS Vial : 7 Sample Multiplier: 1

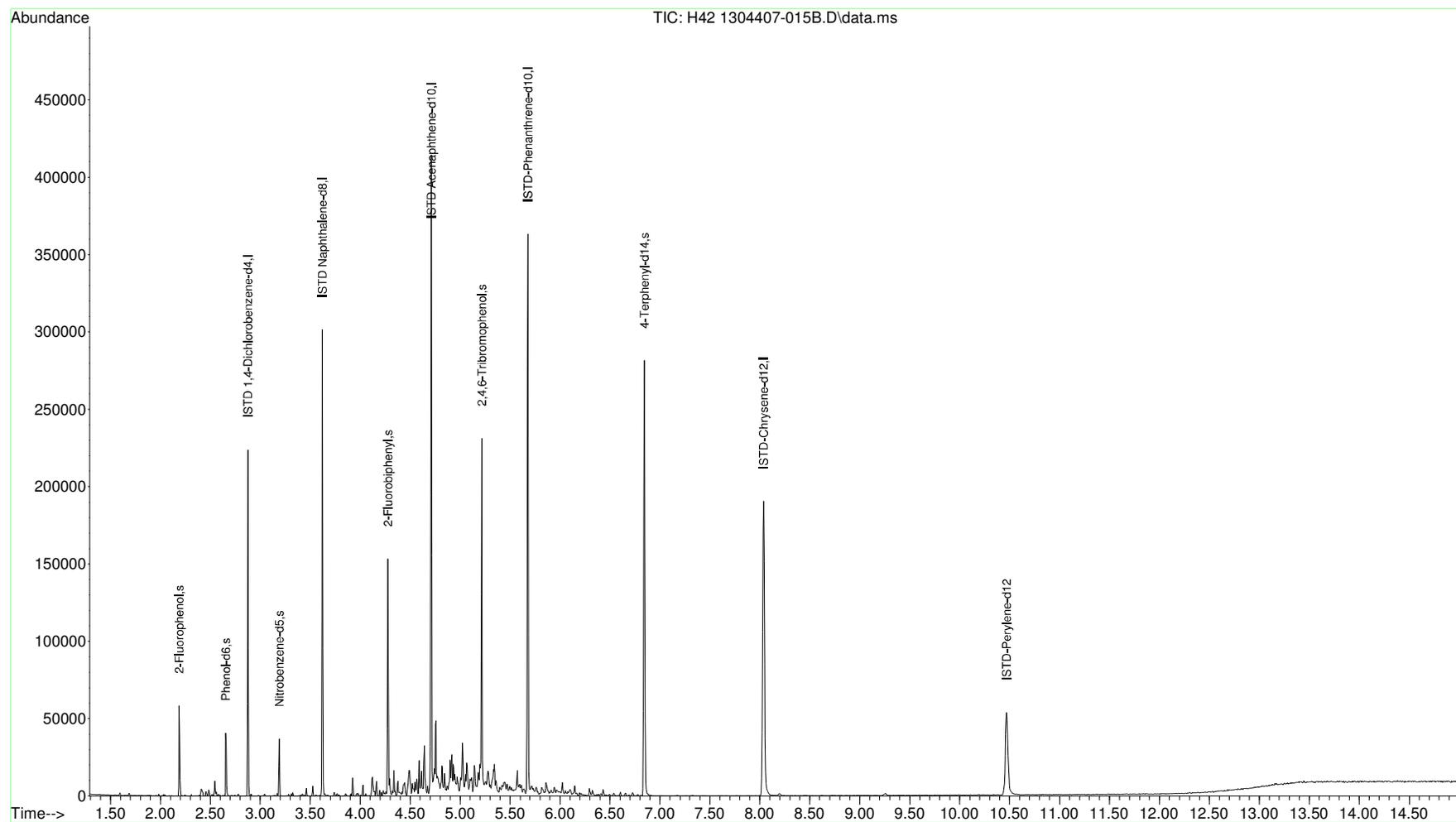
Quant Time: Apr 18 15:11:11 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\18APR 13-A\
Data File : H42 1304407-015B.D
Acq On : 18 Apr 2013 1:28 pm
Operator : ALICIA HABERLE
Sample : 1304407-015B
Misc : SAMP
ALS Vial : 8 Sample Multiplier: 1

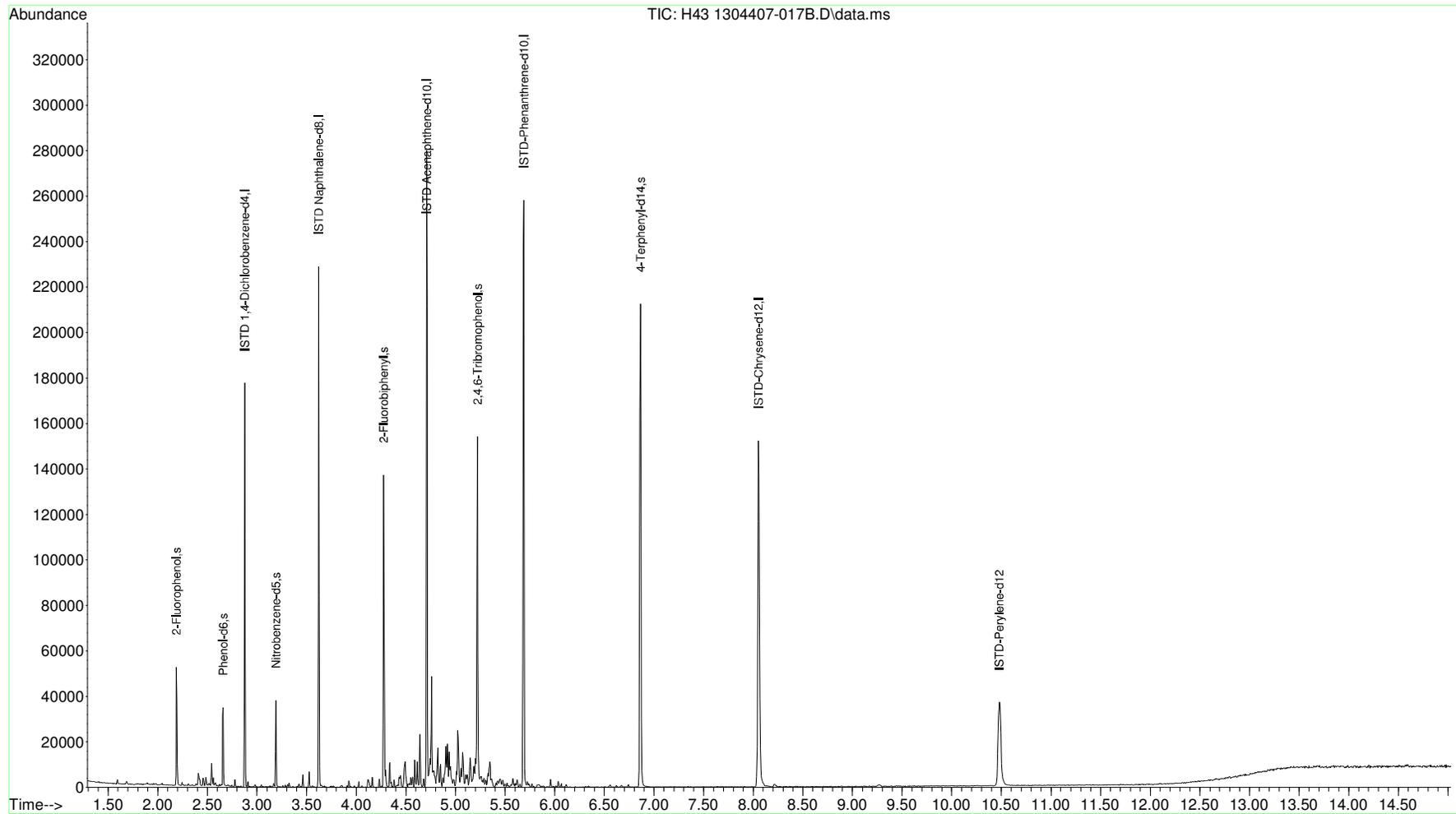
Quant Time: Apr 18 15:11:28 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\18APR 13-A\
Data File : H43 1304407-017B.D
Acq On : 18 Apr 2013 1:53 pm
Operator : ALICIA HABERLE
Sample : 1304407-016B
Misc : SAMP
ALS Vial : 9 Sample Multiplier: 1

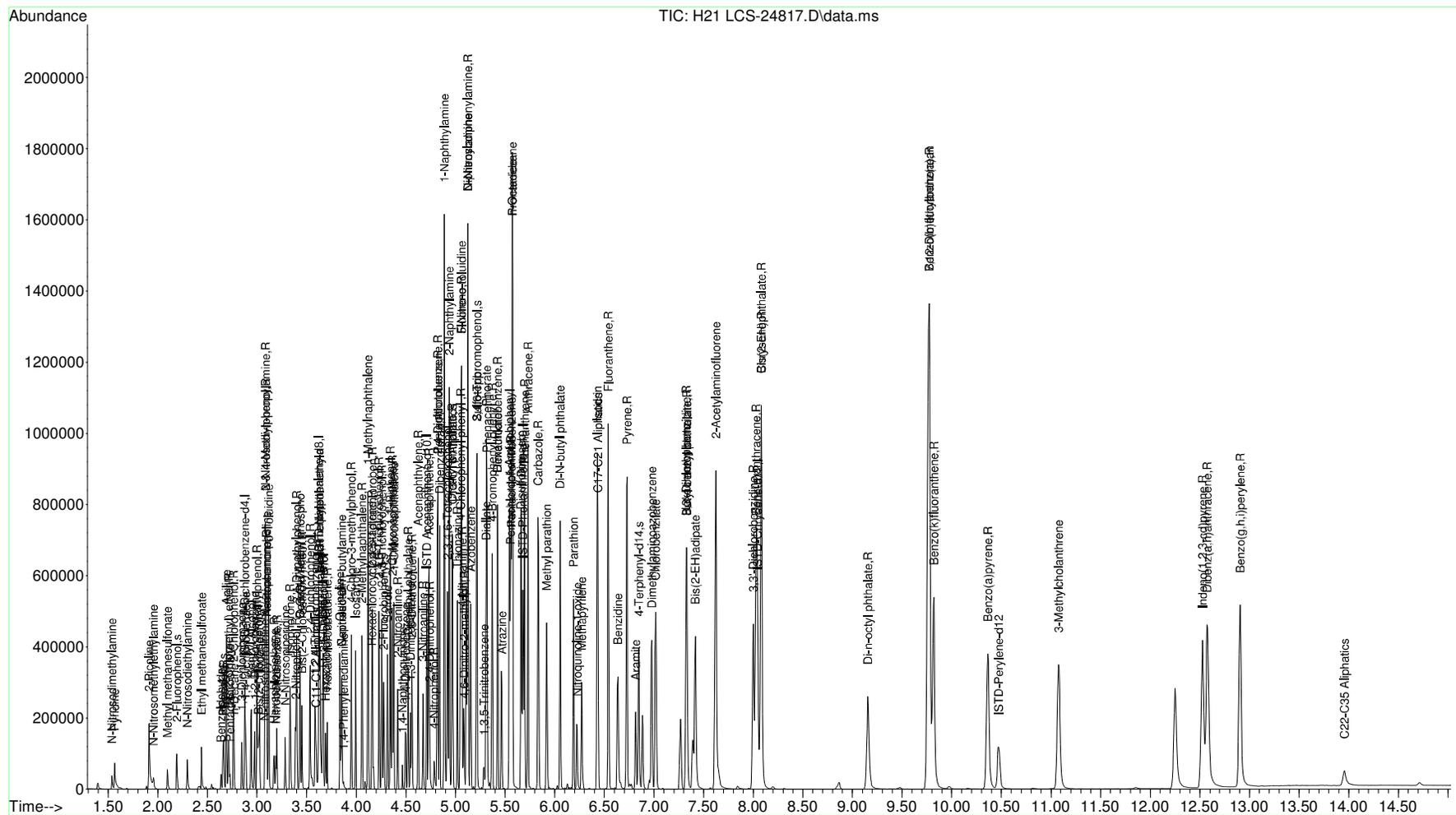
Quant Time: Apr 18 15:11:45 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
 Data File : H21 LCS-24817.D
 Acq On : 18 Apr 2013 4:14 am
 Operator : ALICIA HABERLE
 Sample : LCS-24817
 Misc : LCS
 ALS Vial : 15 Sample Multiplier: 1

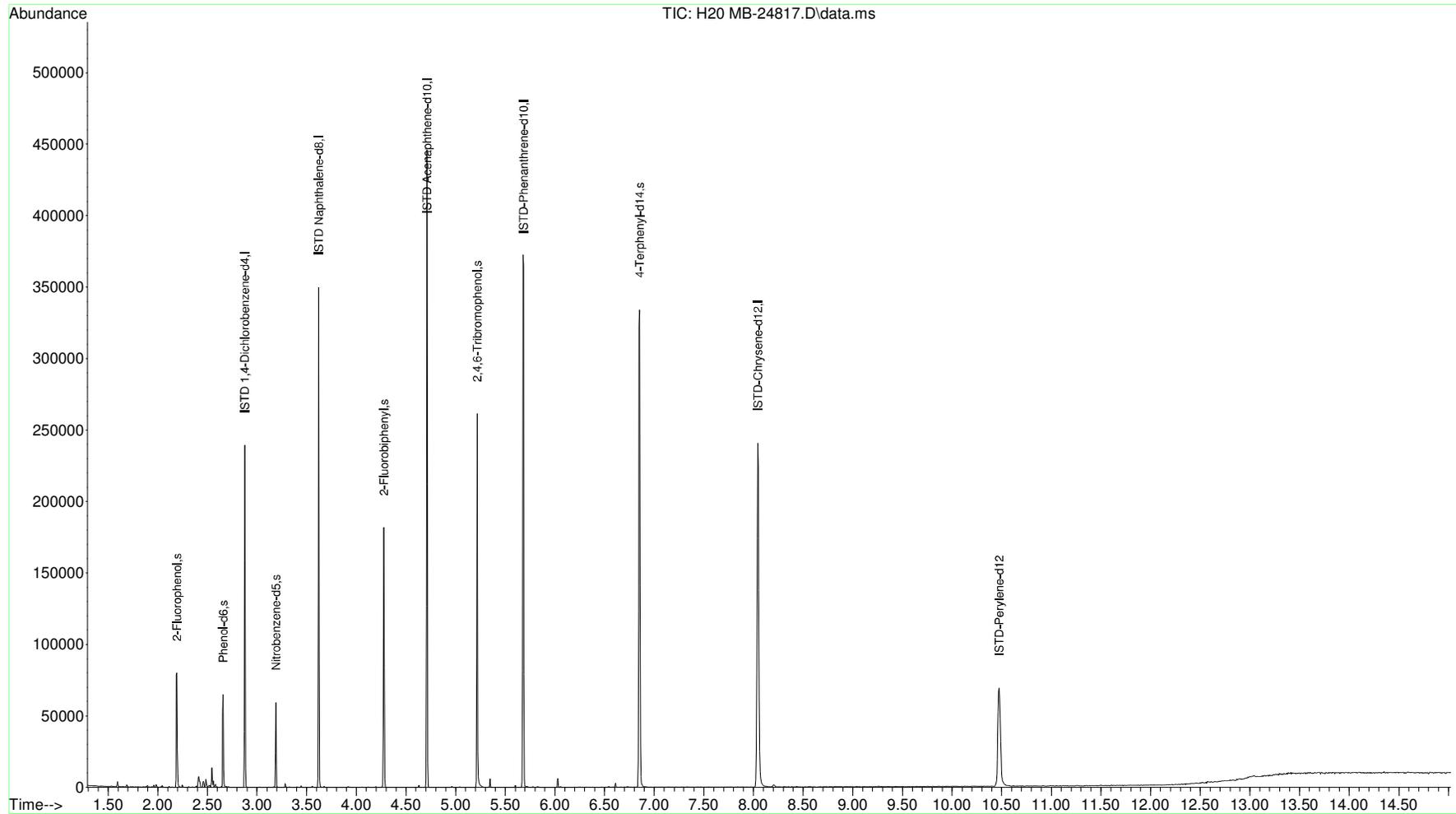
Quant Time: Apr 18 12:57:56 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:52:47 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
Data File : H20 MB-24817.D
Acq On : 18 Apr 2013 3:50 am
Operator : ALICIA HABERLE
Sample : MB-24817
Misc : MBLK
ALS Vial : 14 Sample Multiplier: 1

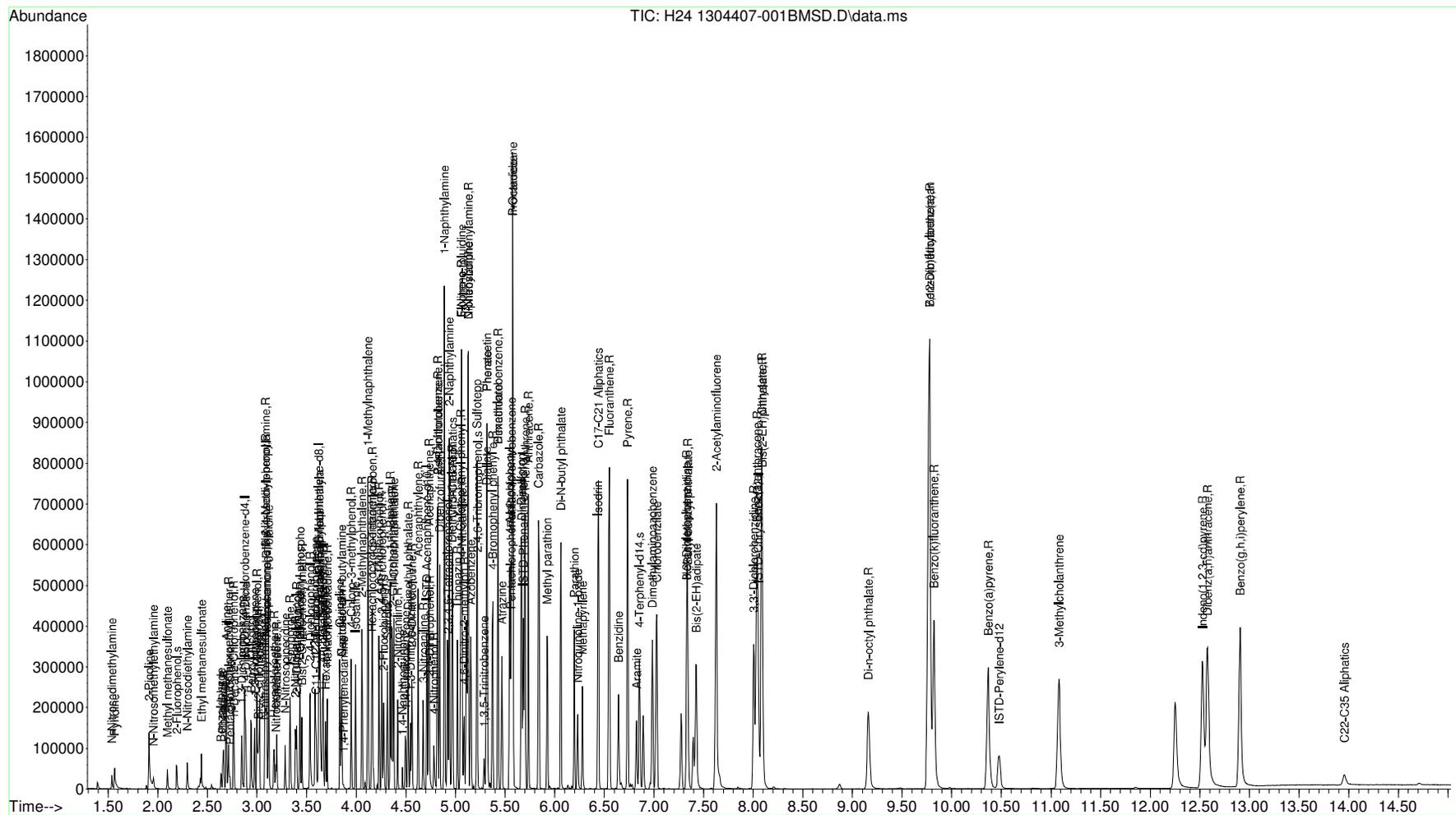
Quant Time: Apr 18 12:56:57 2013
Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Apr 16 10:52:47 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR 13\17APR 13-A\
 Data File : H24 1304407-001BMSD.D
 Acq On : 18 Apr 2013 5:23 am
 Operator : ALICIA HABERLE
 Sample : 1304407-001BMS
 Misc : MS
 ALS Vial : 17 Sample Multiplier: 1

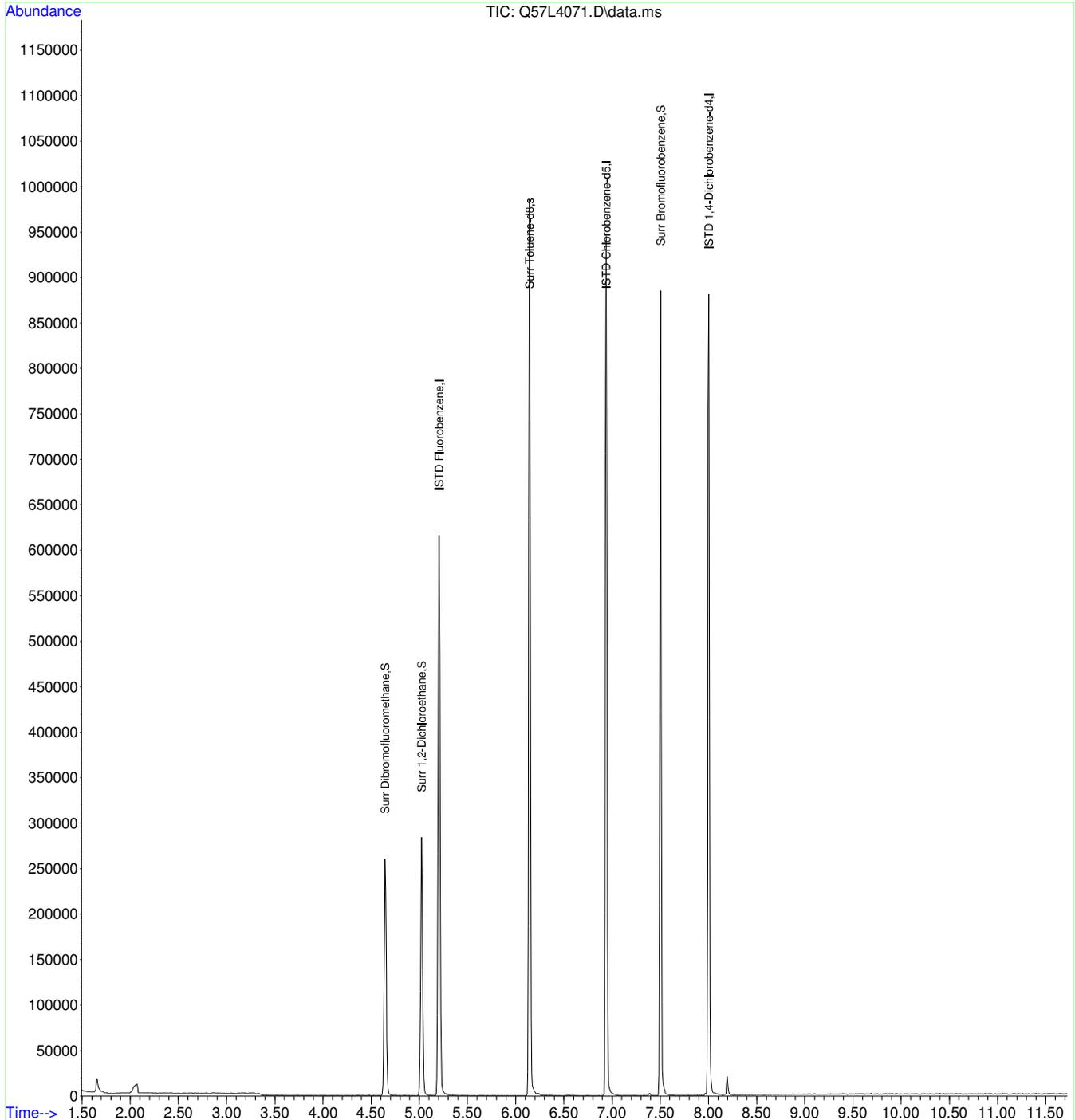
Quant Time: Apr 18 12:59:34 2013
 Quant Method : C:\msdchem\1\methods\SVQUANT4-15-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Apr 16 10:52:47 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q57L4071.D
Acq On : 15 Apr 2013 11:47 am
Operator :
Sample : 1304407-001A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 8 Sample Multiplier: 1

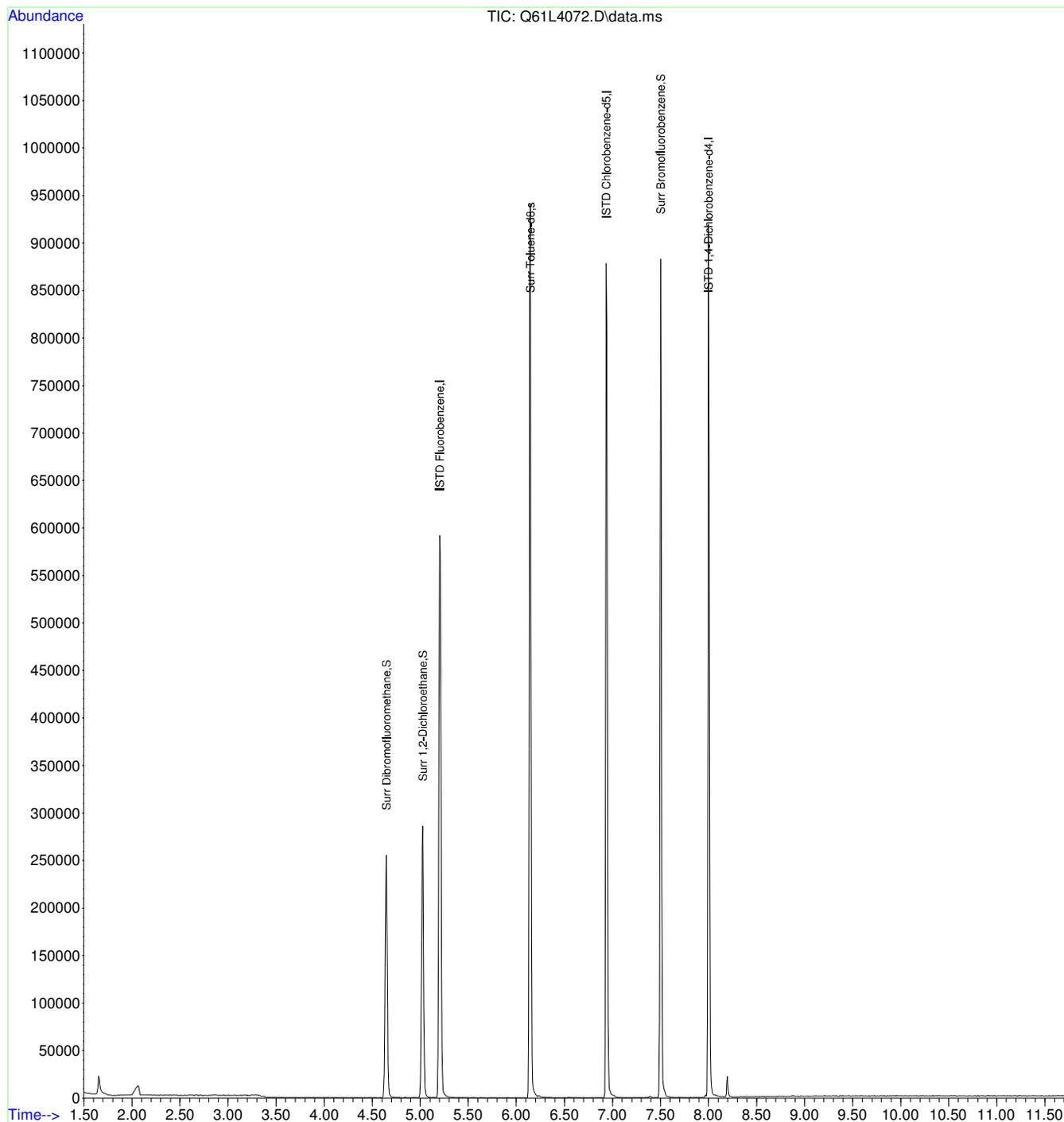
Quant Time: Apr 15 12:48:03 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q61L4072.D
Acq On : 15 Apr 2013 1:03 pm
Operator :
Sample : 1304407-002A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 12 Sample Multiplier: 1

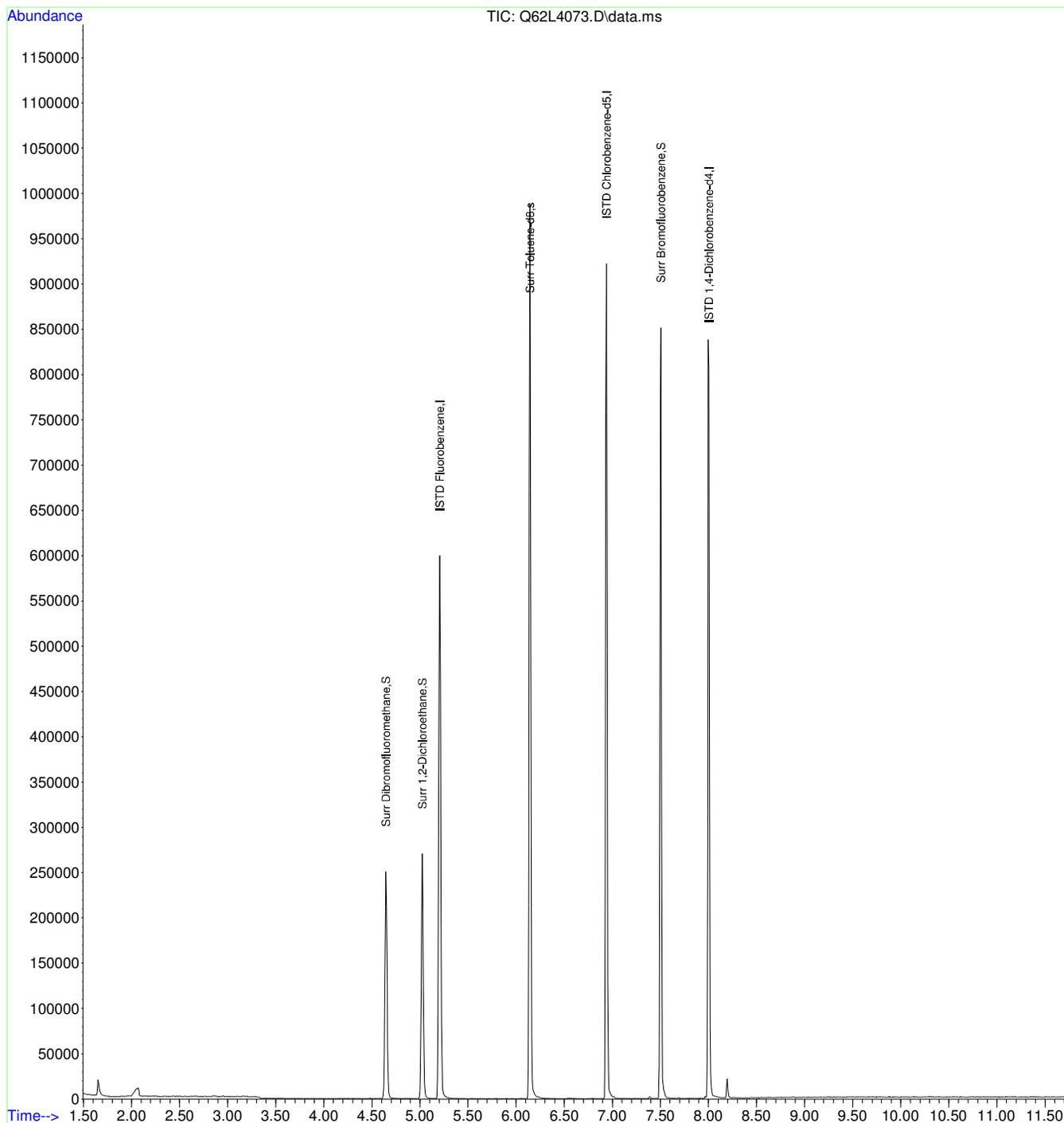
Quant Time: Apr 15 13:28:53 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q62L4073.D
Acq On : 15 Apr 2013 1:22 pm
Operator :
Sample : 1304407-003A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 13 Sample Multiplier: 1

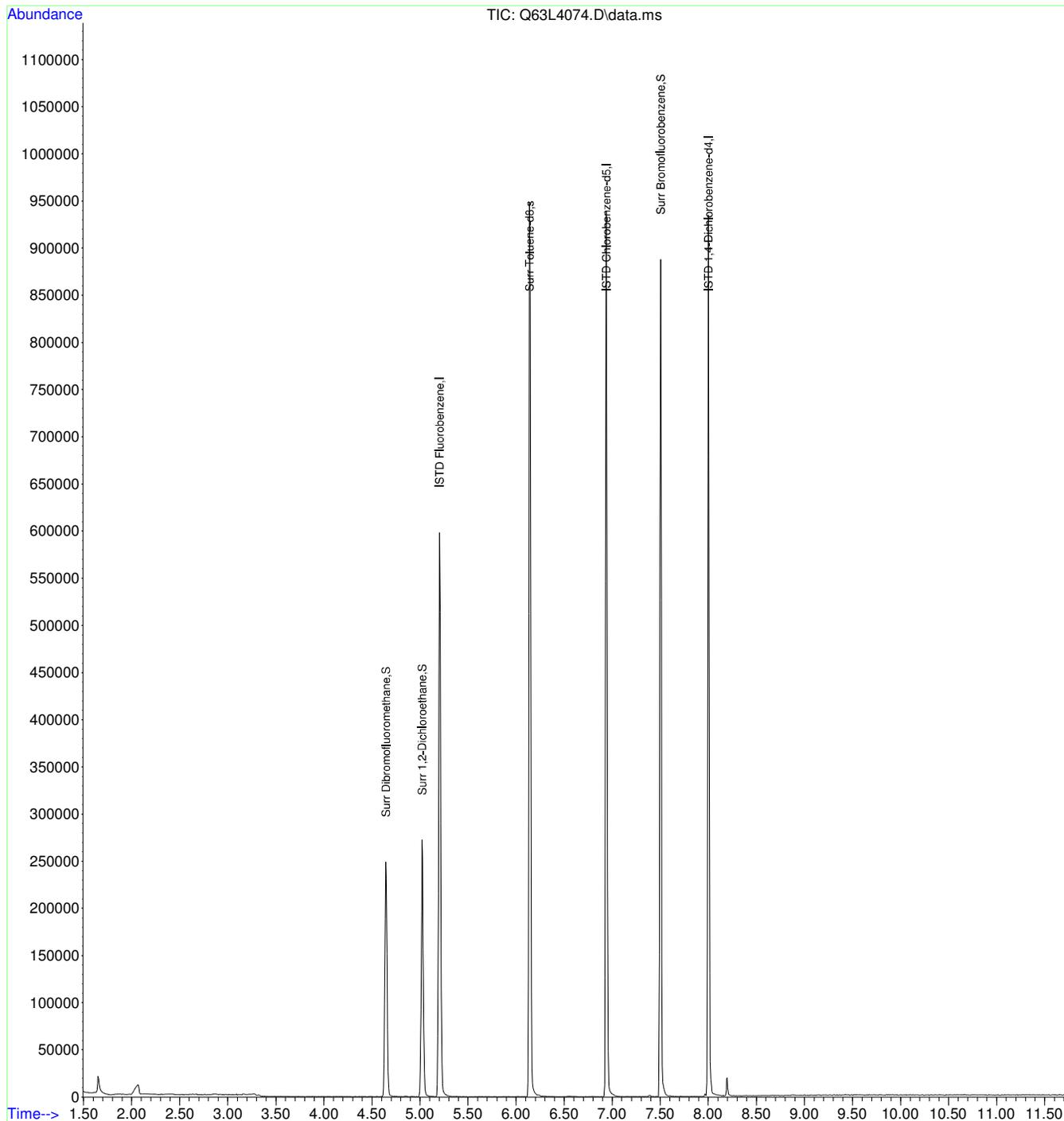
Quant Time: Apr 15 14:39:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q63L4074.D
Acq On : 15 Apr 2013 1:41 pm
Operator :
Sample : 1304407-004A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 14 Sample Multiplier: 1

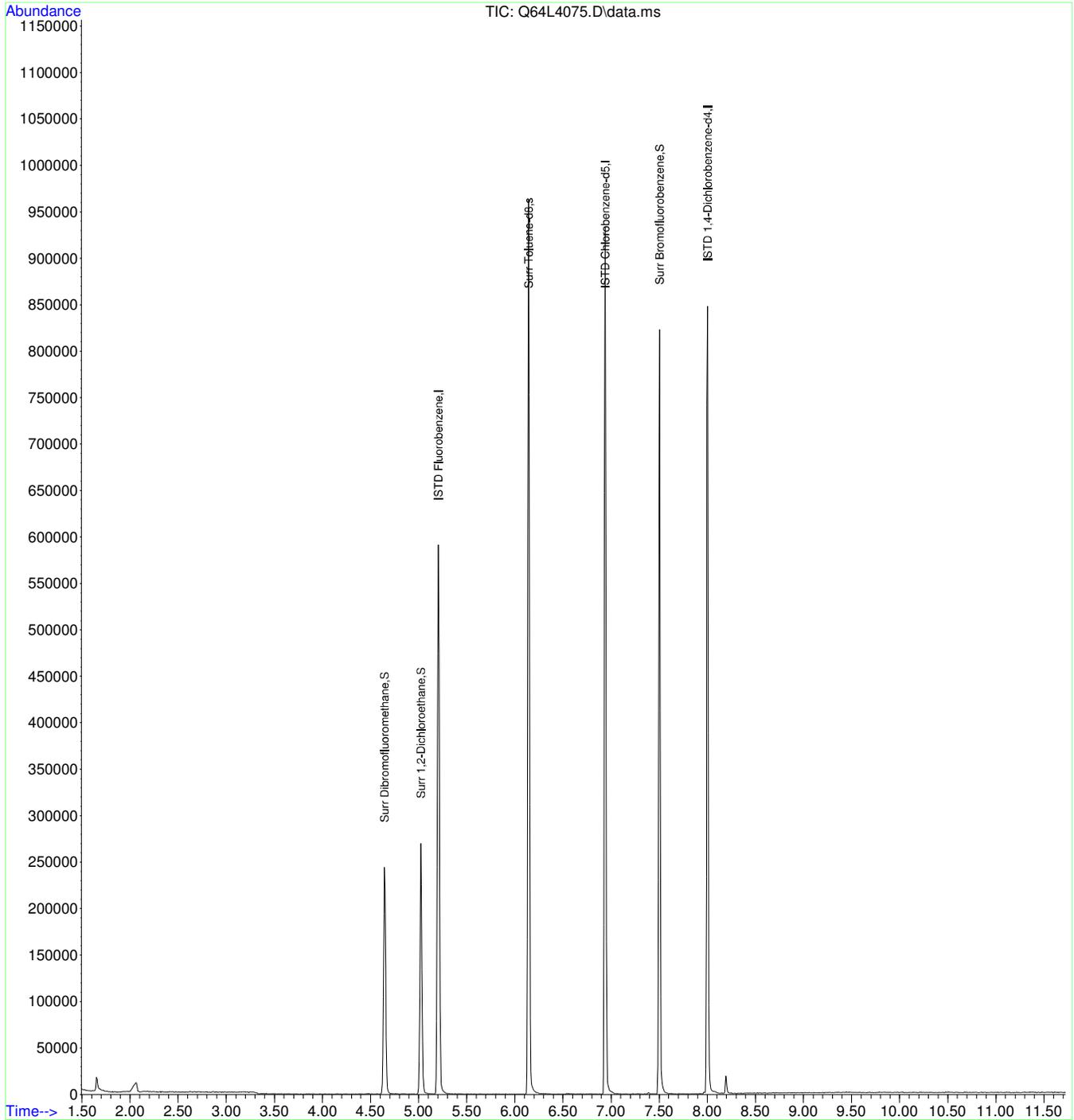
Quant Time: Apr 15 14:40:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q64L4075.D
Acq On : 15 Apr 2013 2:00 pm
Operator :
Sample : 1304407-005A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 15 Sample Multiplier: 1

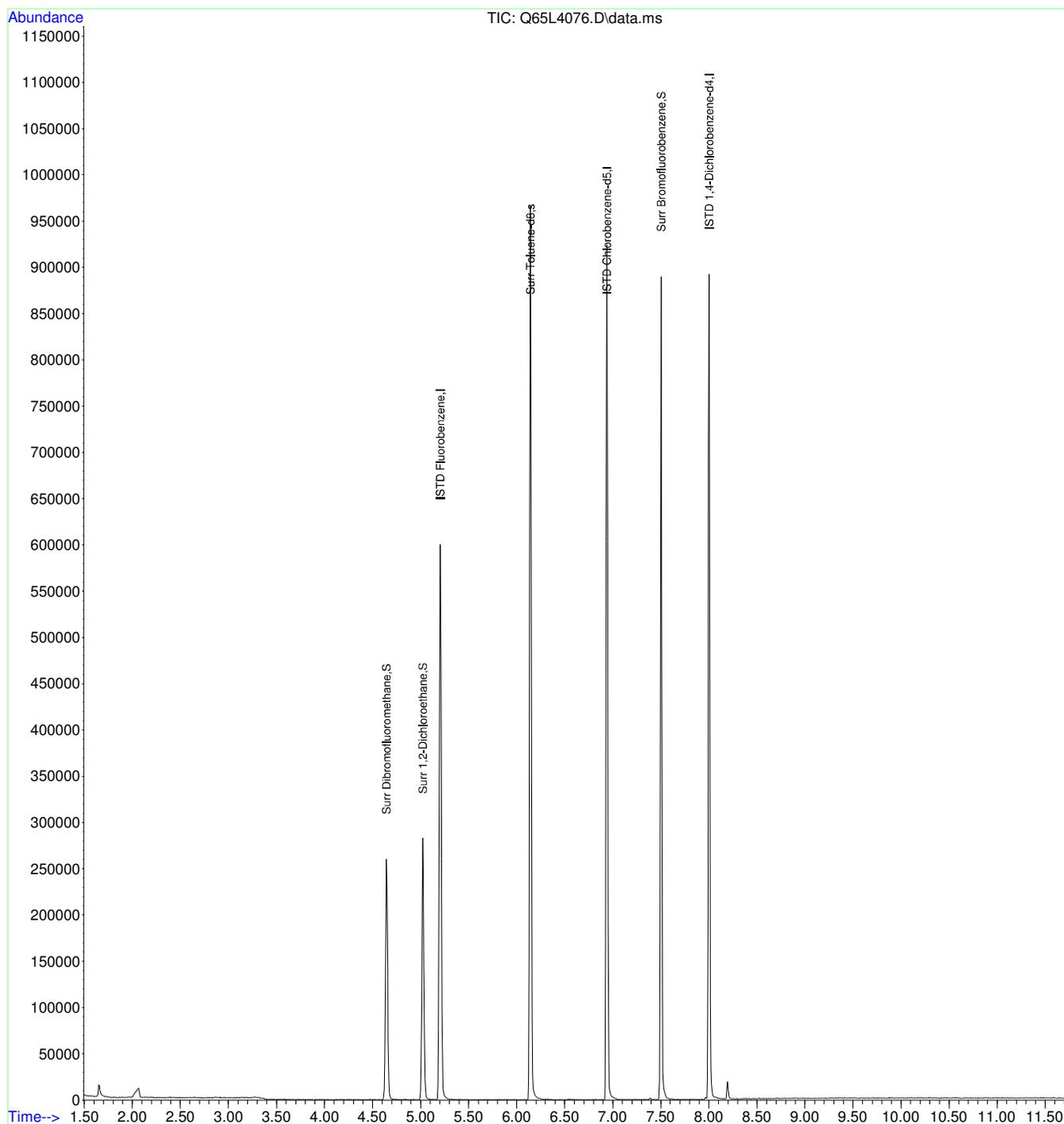
Quant Time: Apr 15 14:40:30 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q65L4076.D
Acq On : 15 Apr 2013 2:19 pm
Operator :
Sample : 1304407-006A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 16 Sample Multiplier: 1

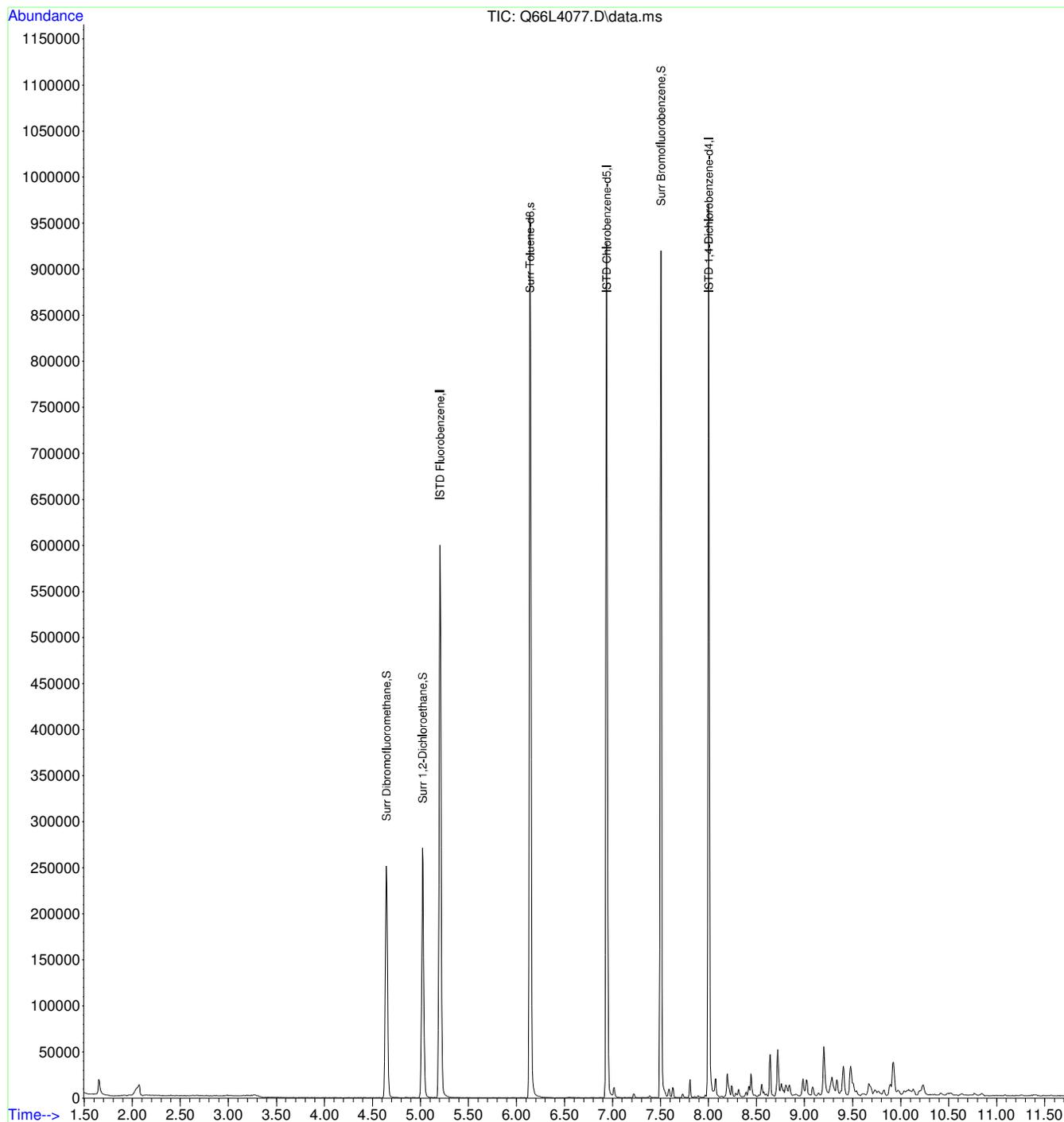
Quant Time: Apr 15 14:40:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q66L4077.D
Acq On : 15 Apr 2013 2:38 pm
Operator :
Sample : 1304407-007A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 17 Sample Multiplier: 1

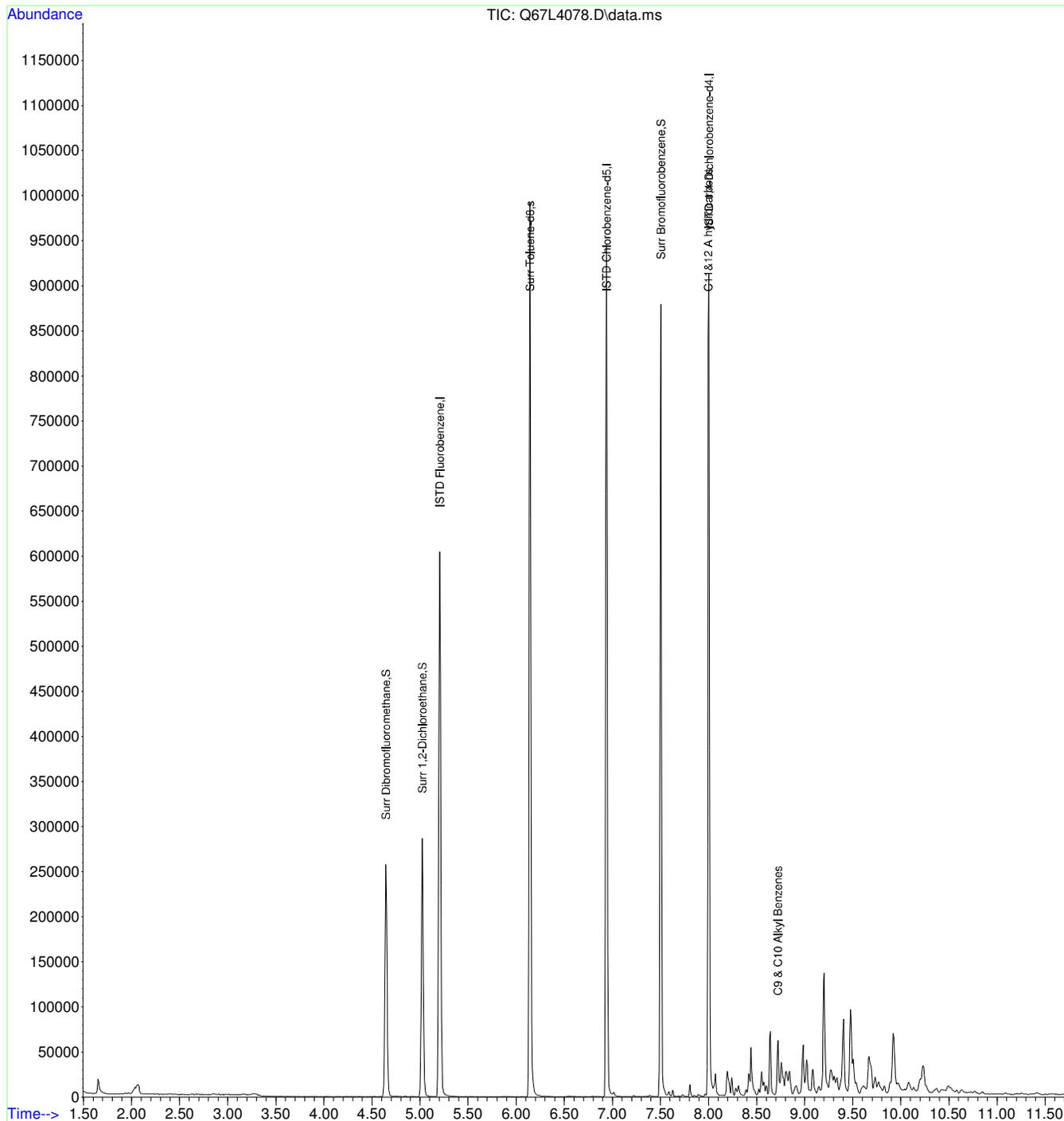
Quant Time: Apr 15 16:47:12 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q67L4078.D
Acq On : 15 Apr 2013 2:57 pm
Operator :
Sample : 1304407-008A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 18 Sample Multiplier: 1

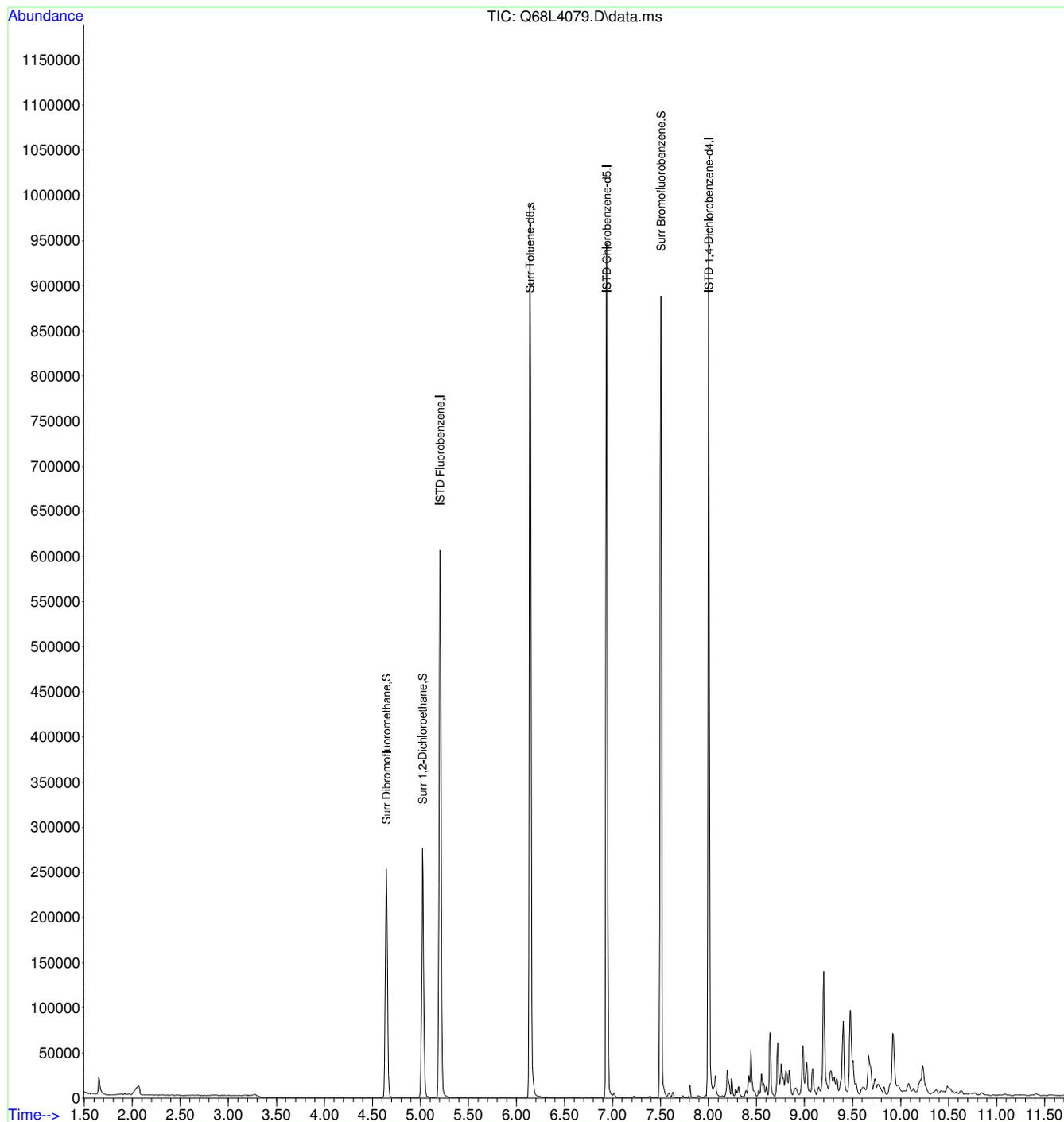
Quant Time: Apr 15 16:49:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q68L4079.D
Acq On : 15 Apr 2013 3:16 pm
Operator :
Sample : 1304407-009A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 19 Sample Multiplier: 1

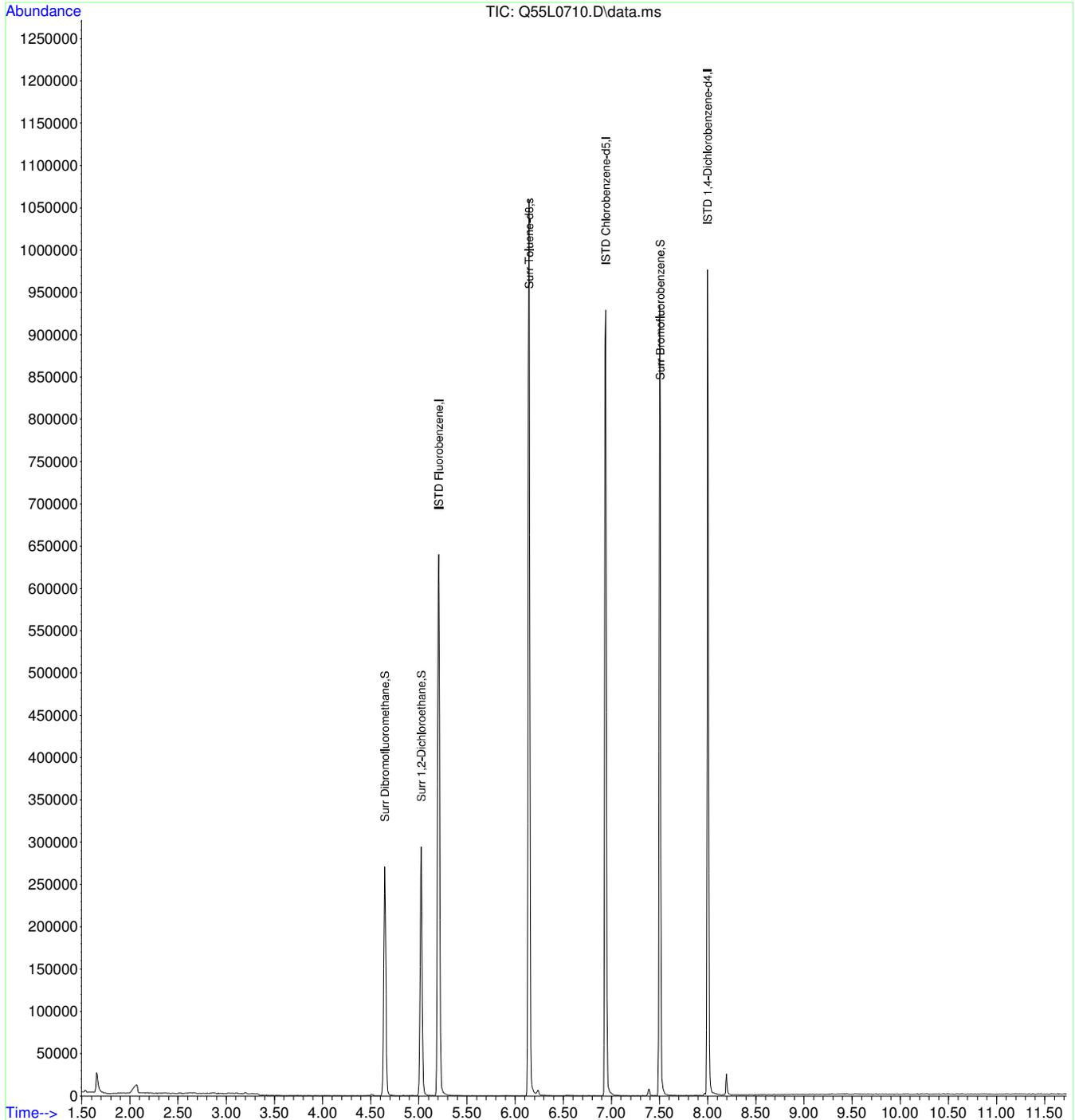
Quant Time: Apr 15 16:51:47 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q55L0710.D
Acq On : 15 Apr 2013 11:09 am
Operator :
Sample : 1304407-010A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 6 Sample Multiplier: 1

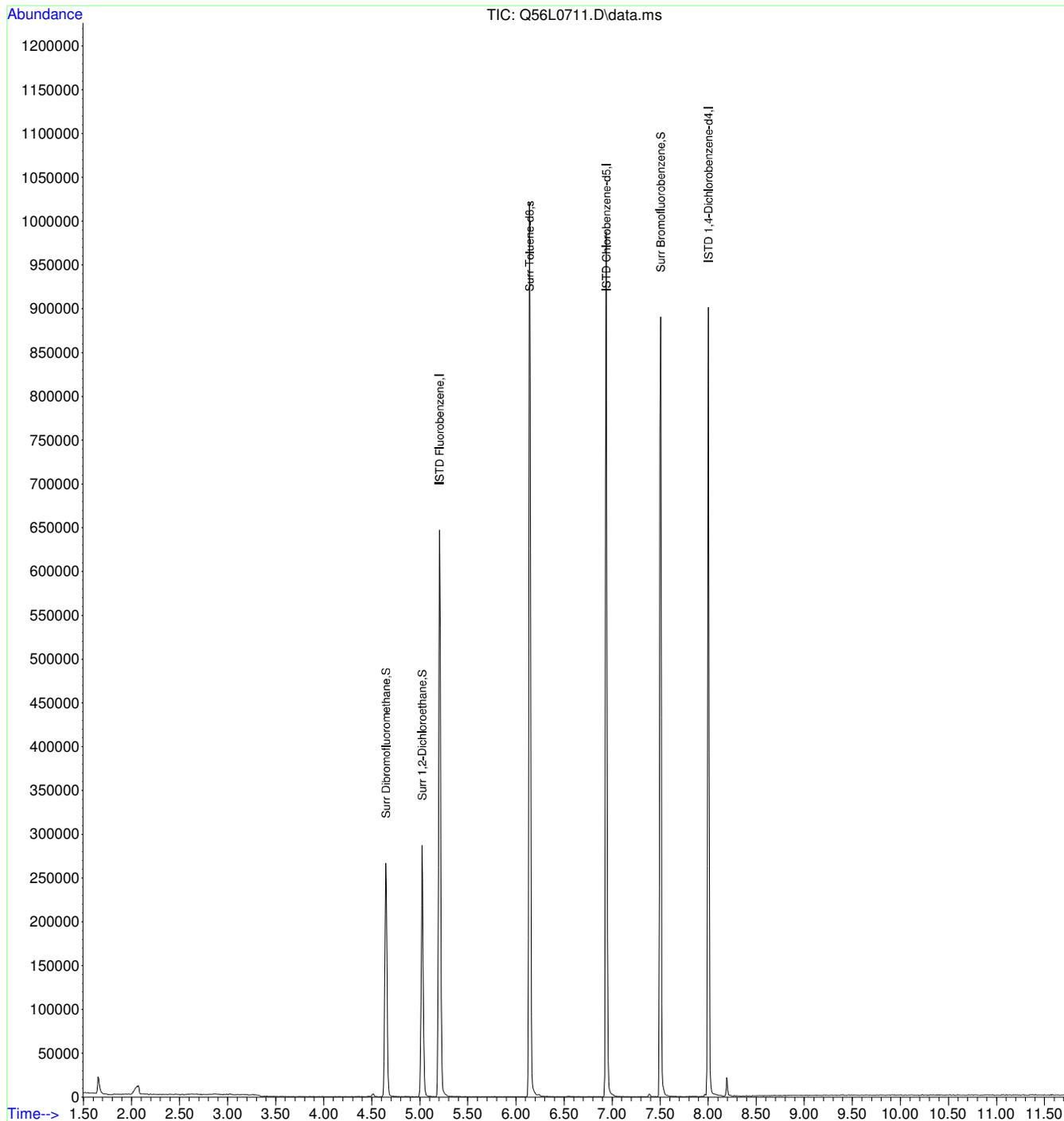
Quant Time: Apr 15 12:47:28 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q56L0711.D
Acq On : 15 Apr 2013 11:28 am
Operator :
Sample : 1304407-011A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 7 Sample Multiplier: 1

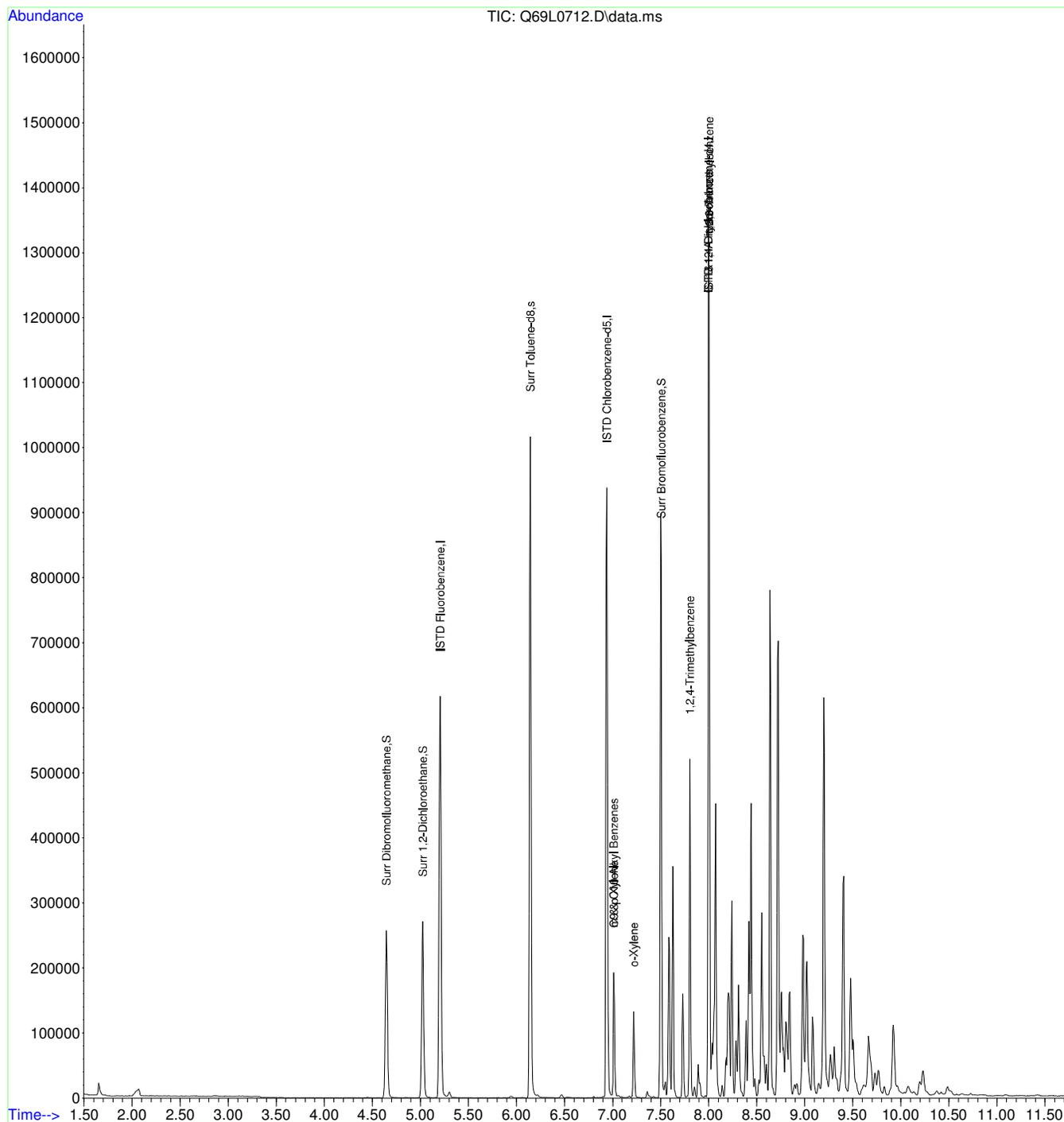
Quant Time: Apr 15 12:47:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q69L0712.D
Acq On : 15 Apr 2013 3:35 pm
Operator :
Sample : 1304407-012A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 20 Sample Multiplier: 1

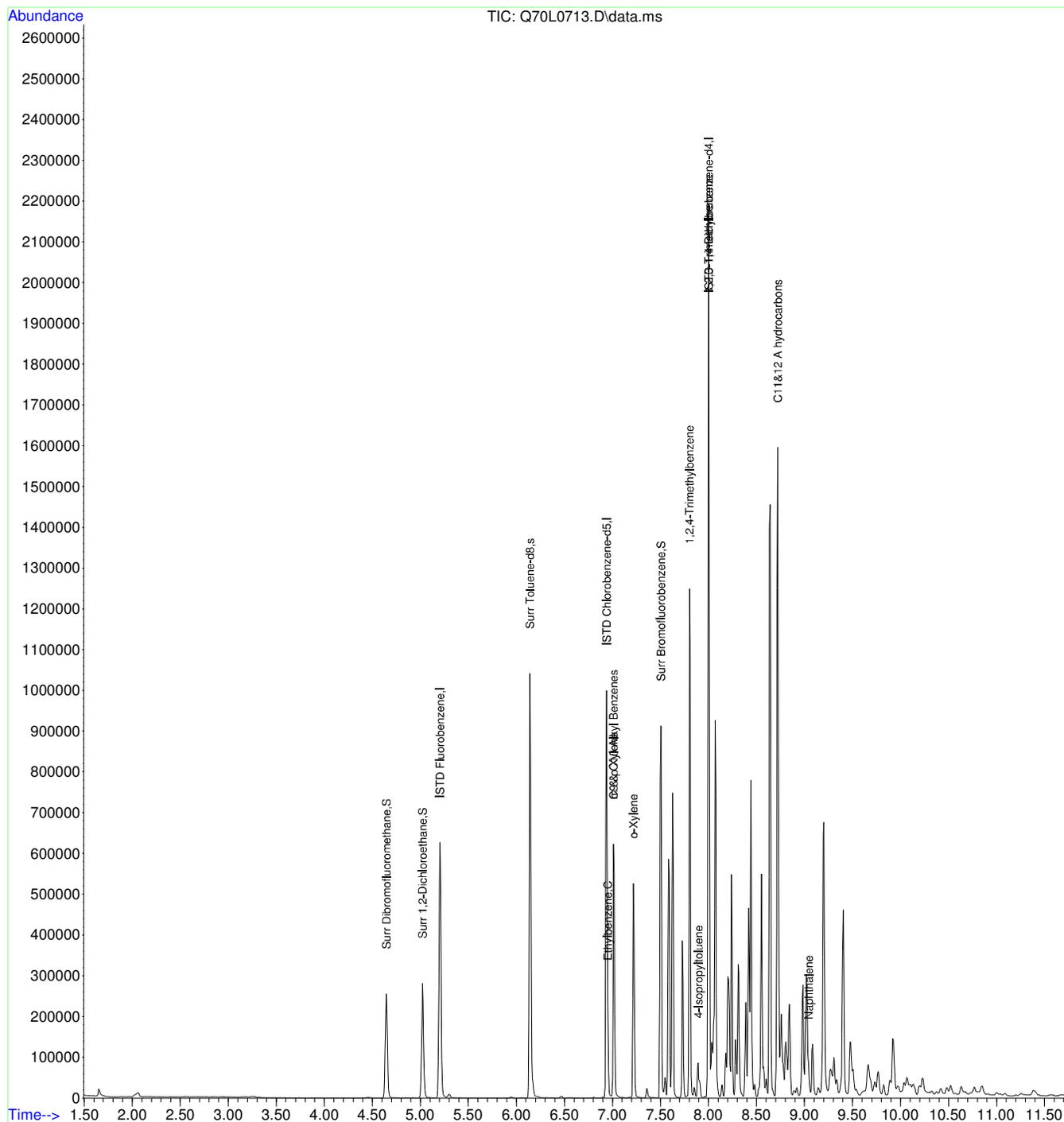
Quant Time: Apr 16 09:23:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q70L0713.D
Acq On : 15 Apr 13 3:54 pm
Operator :
Sample : 1304407-013A
Misc : SAMP 5.0ML 10F3 SB
ALS Vial : 21 Sample Multiplier: 1

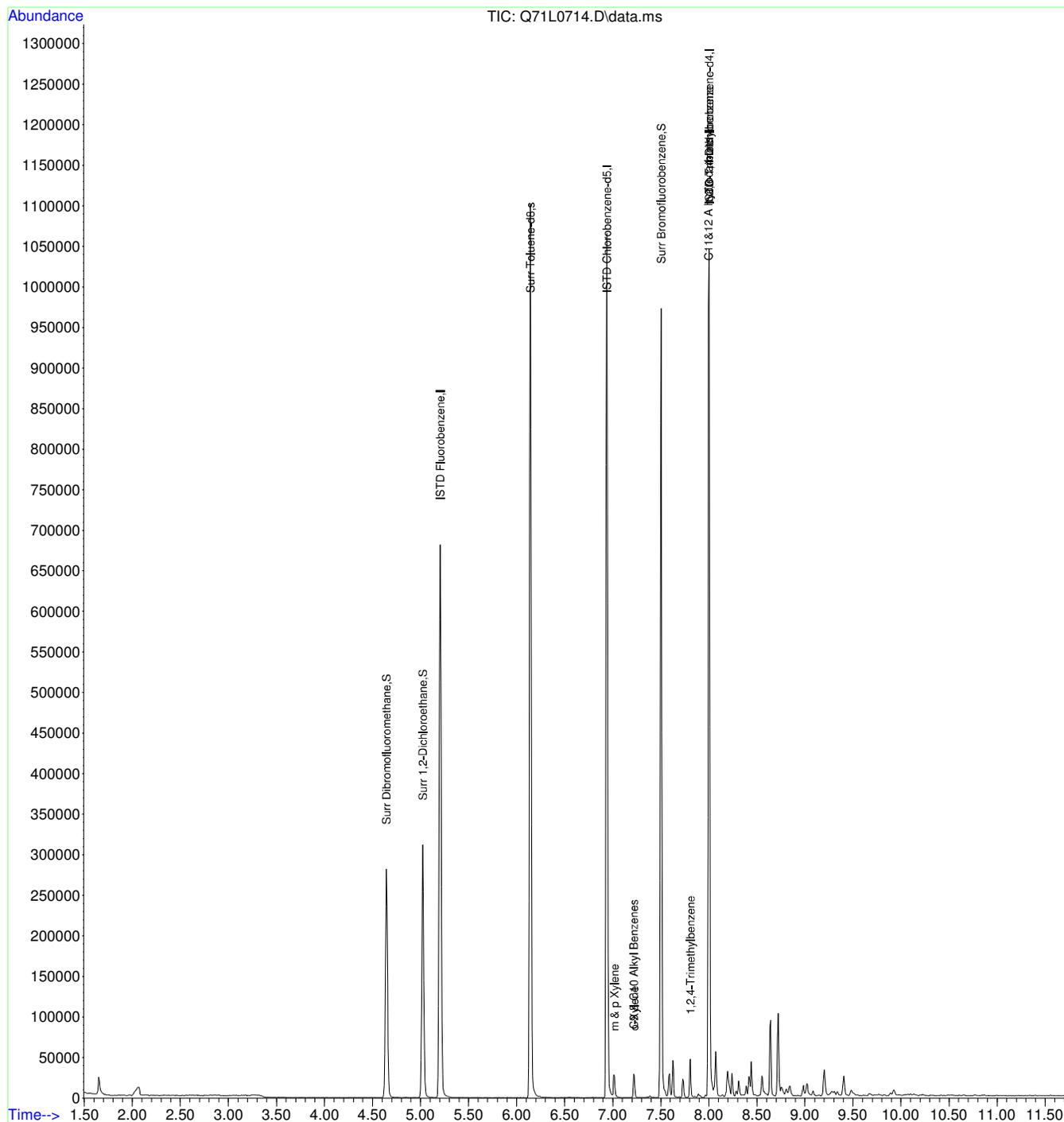
Quant Time: Apr 16 09:27:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q71L0714.D
Acq On : 15 Apr 2013 4:13 pm
Operator :
Sample : 1304407-014A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 22 Sample Multiplier: 1

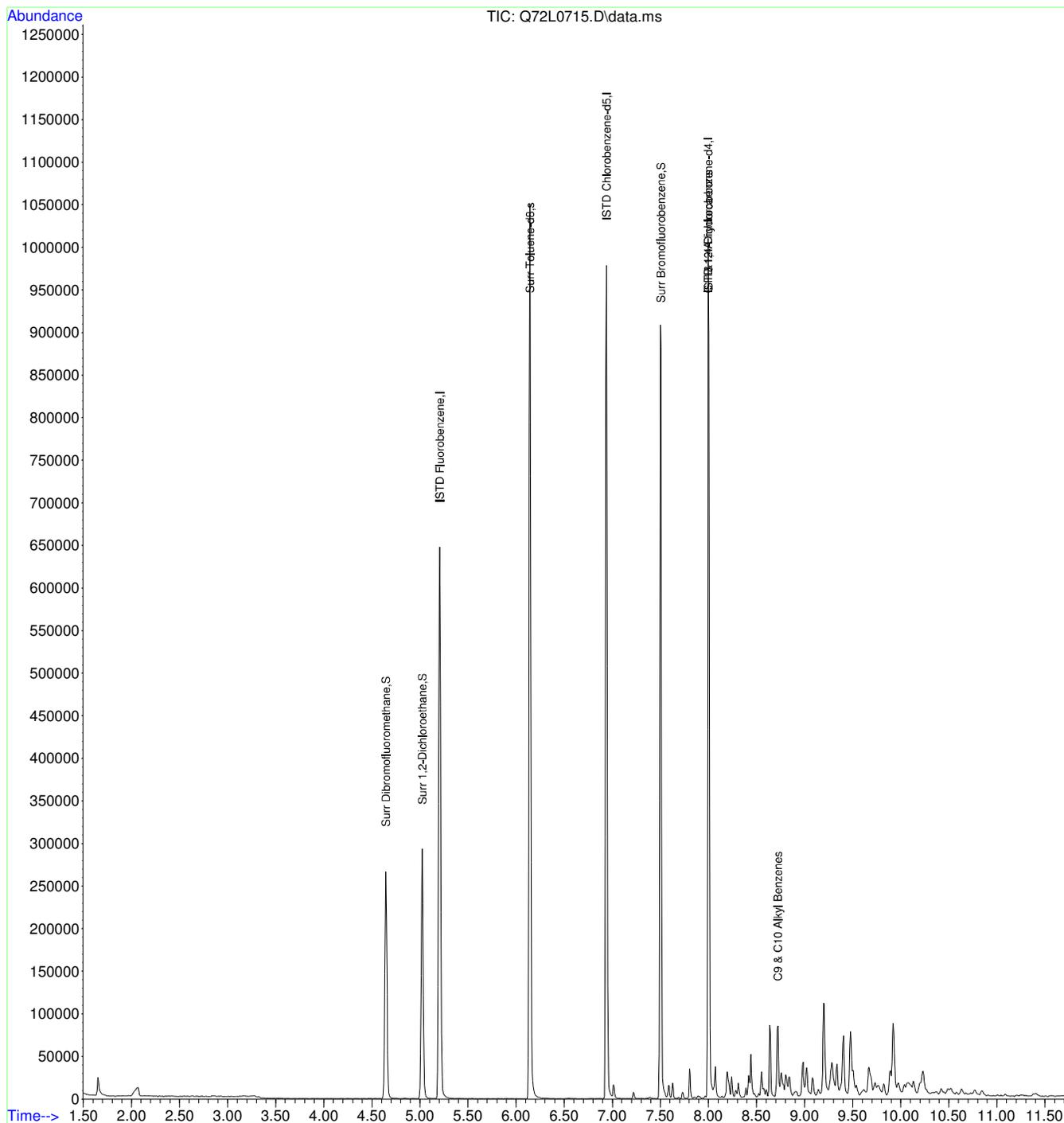
Quant Time: Apr 16 09:29:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q72L0715.D
Acq On : 15 Apr 2013 4:33 pm
Operator :
Sample : 1304407-015A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 23 Sample Multiplier: 1

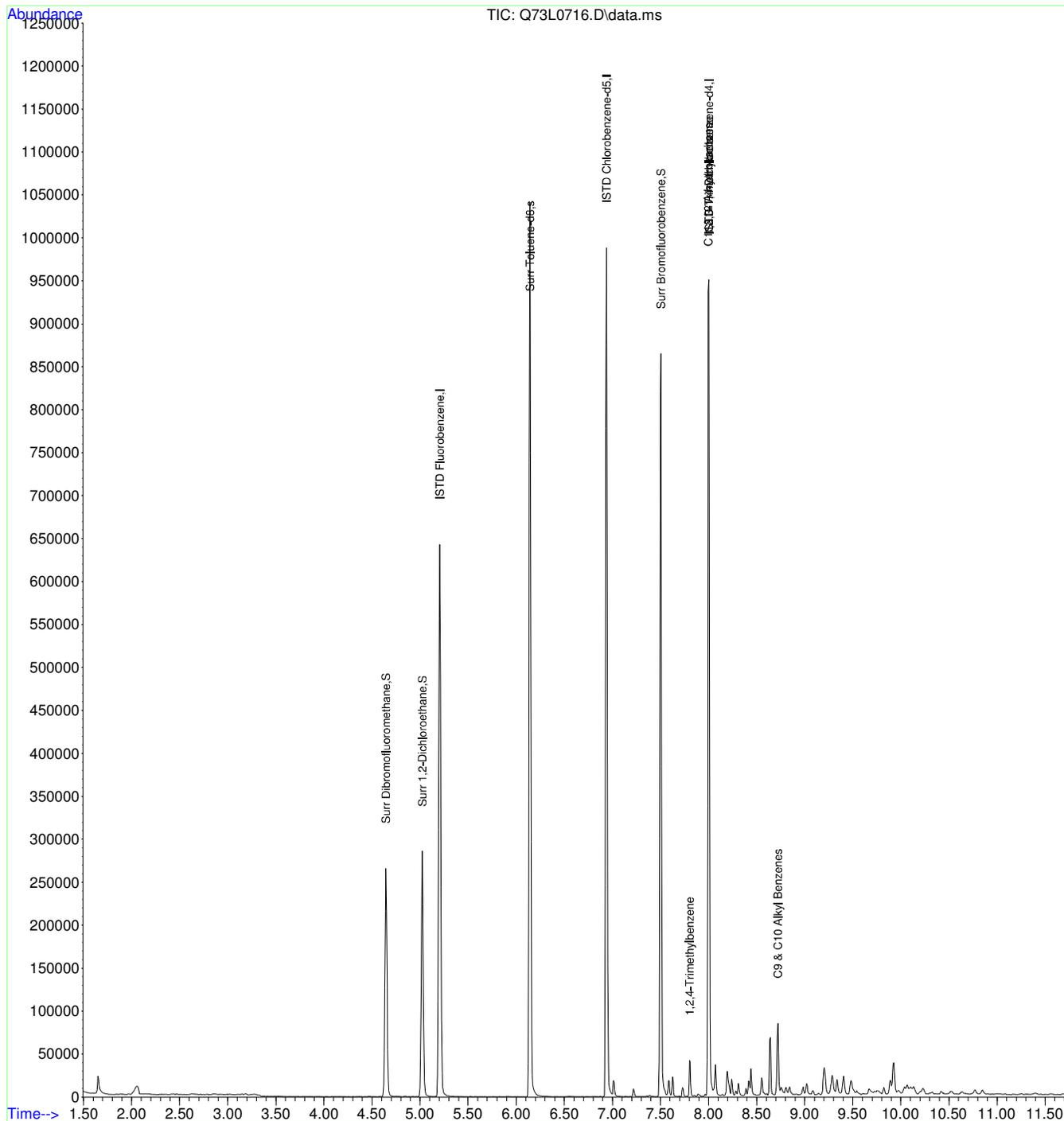
Quant Time: Apr 16 09:29:48 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q73L0716.D
Acq On : 15 Apr 2013 4:51 pm
Operator :
Sample : 1304407-016A
Misc : SAMP 5.0ML 10F3 SB
ALS Vial : 24 Sample Multiplier: 1

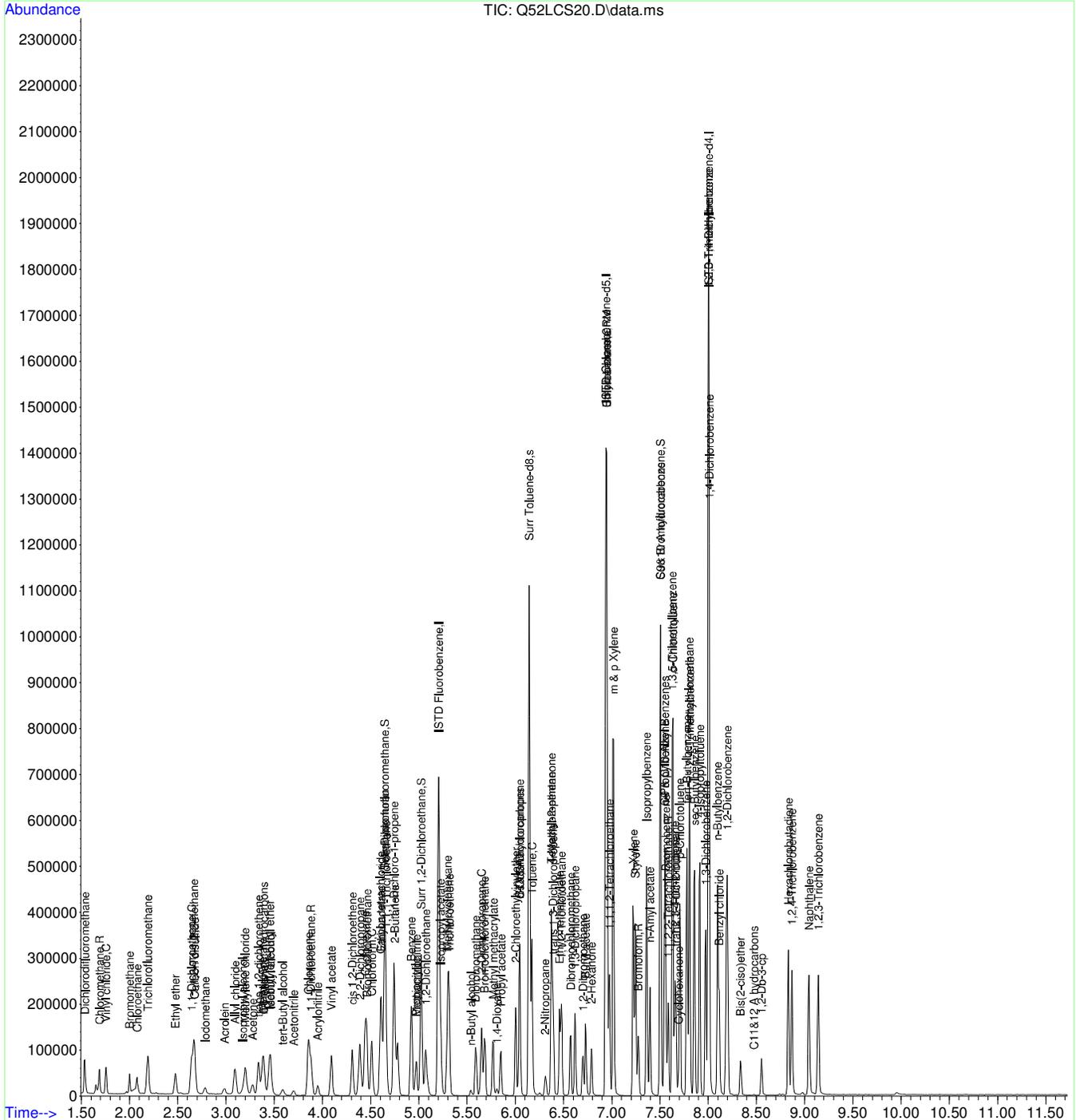
Quant Time: Apr 16 09:32:16 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q52LCS20.D
Acq On : 15 Apr 2013 10:12 am
Operator :
Sample : LCS VOC 041513A
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
ALS Vial : 3 Sample Multiplier: 1

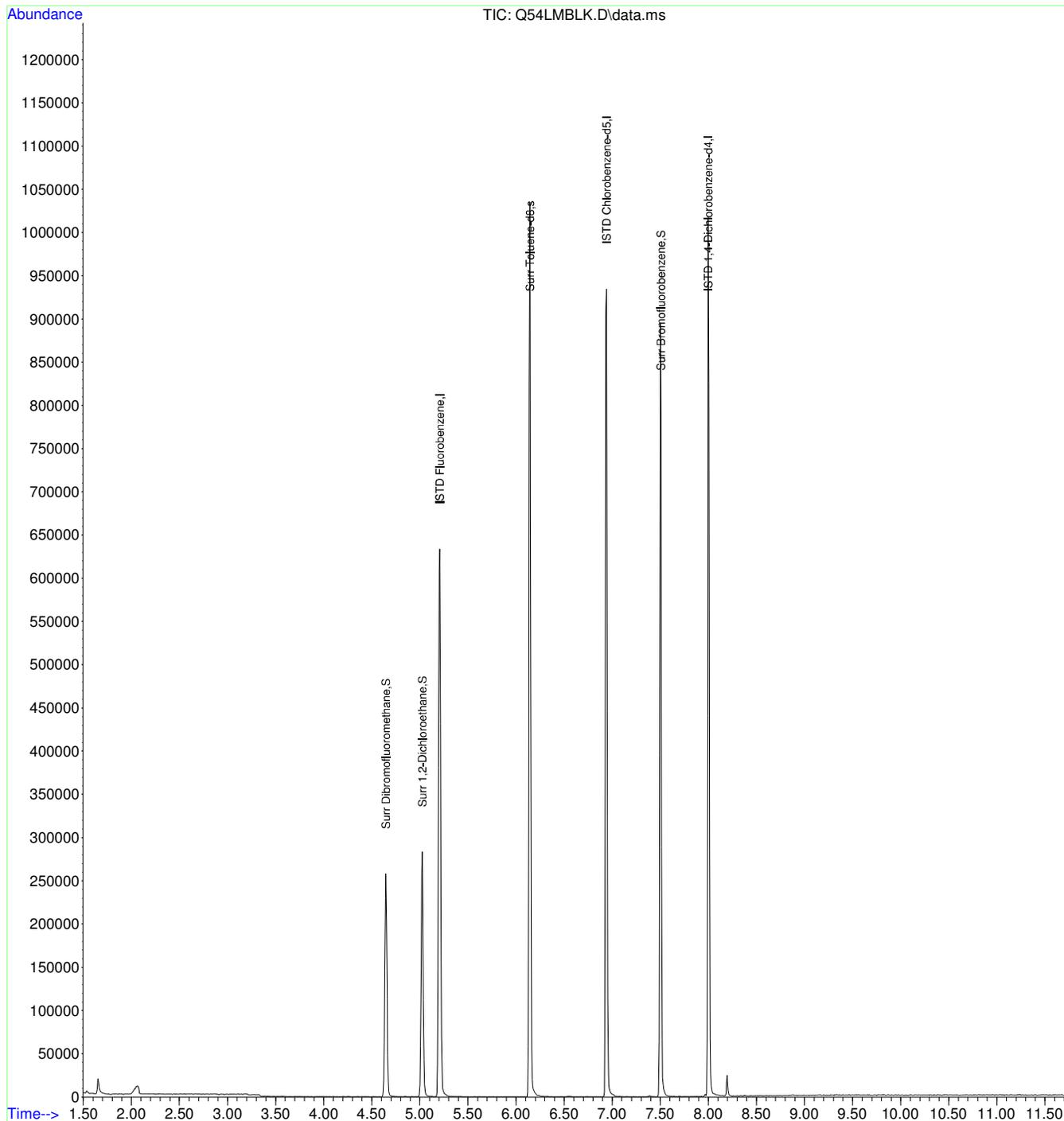
Quant Time: Apr 15 10:23:58 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\APR13-C\15APR13\
Data File : Q54LMBLK.D
Acq On : 15 Apr 2013 10:50 am
Operator :
Sample : MB VOC 041513A
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 15 12:57:20 2013
Quant Method : C:\MSDCHEM\1\METHODS\AFULLW_79.M
Quant Title : VOA Calibration
QLast Update : Wed Apr 10 14:19:48 2013
Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1304407** Page 1 of 5

Client: Utah Division of Water Quality

Due Date: 4/17/2013

Client ID: UTD200

Contact: Chris Bittner

Project: MP 44.9

QC Level: III

WO Type: Standard

Comments: 2 Day Rush / QC 3. Include TICs on SVOC only. Send partial reports as results become available. Bill accordingly.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1304407-001A	East of I-15 / 4920392	4/13/2013 0830h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304407-001B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>								
				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>								
1304407-001C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>								
1304407-002A	S. Marina / 4920495	4/13/2013 0845h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304407-002B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>								
				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>								
1304407-002C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>								
1304407-003A	W. Boom 3 / 4920497	4/13/2013 1135h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304407-003B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>								
				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi	
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>								
1304407-003C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>								
1304407-004A	50' from WB4 / 4920502	4/13/2013 1135h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1304407-004B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2

WORK ORDER Summary

Work Order: **1304407** Page 2 of 5

Client: Utah Division of Water Quality

Due Date: 4/17/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage		
1304407-004B	50' from WB4 / 4920502	4/13/2013 1135h	4/15/2013 0720h	8270-W	Aqueous	<input checked="" type="checkbox"/>	Walkin-Semi	2	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
1304407-004C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>									
1304407-005A	50' from WB1 / 4920505	4/13/2013 1145h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-005B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
1304407-005C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>									
1304407-006A	W. Boom 1 / 4920396	4/13/2013 1150h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-006B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
1304407-006C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>									
1304407-007A	East of Boom / 4920395	4/13/2013 1040h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-007B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
1304407-007C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>									
1304407-008A	Between Weirs / 4920394	4/13/2013 1055h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-008B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	

WORK ORDER Summary

Work Order: **1304407** Page 3 of 5

Client: Utah Division of Water Quality

Due Date: 4/17/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage		
1304407-008B	Between Weirs / 4920394	4/13/2013 1055h	4/15/2013 0720h	8270-W	Aqueous	<input checked="" type="checkbox"/>	Walkin-Semi	2	
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
1304407-008C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>					
1304407-009A	Between Weirs Dup / 4920394	4/13/2013 1055h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
1304407-009B				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1304407-009C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
		<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>							
1304407-010A	Field Blank	4/13/2013 0950h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-011A	Trip Blank	4/13/2013	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>									
1304407-012A	French Drain South / 4920398	4/13/2013 1050h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
1304407-012B				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1304407-012C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)		
		<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>							
1304407-013A	French Drain North / 4920399	4/13/2013 1030h	4/15/2013 0720h	8260-W	Aqueous	<input checked="" type="checkbox"/>	vOC	3	
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2	
1304407-013B				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi		
<i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi		
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>					
1304407-013C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		

WORK ORDER Summary

Work Order: **1304407** Page 4 of 5

Client: Utah Division of Water Quality

Due Date: 4/17/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1304407-013C	French Drain North / 4920399	4/13/2013 1030h	4/15/2013 0720h	8015-W-TPH(1L) <i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>	Aqueous	<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	2
1304407-014A	East of Boom #3 / 4920402	4/13/2013 1035h	4/15/2013 0720h	8260-W <i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>	Aqueous	<input checked="" type="checkbox"/>	vOC	3
1304407-014B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W <i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>		<input checked="" type="checkbox"/>	Walkin-Semi	
				8270-W-SIM <i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>		<input checked="" type="checkbox"/>	Walkin-Semi	
1304407-014C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L) <i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
1304407-015A	Below Weirs ab Res. / 4920401	4/13/2013 0900h	4/15/2013 0720h	8260-W <i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>	Aqueous	<input checked="" type="checkbox"/>	vOC	3
1304407-015B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W <i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>		<input checked="" type="checkbox"/>	Walkin-Semi	
				8270-W-SIM <i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>		<input checked="" type="checkbox"/>	Walkin-Semi	
1304407-015C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L) <i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
1304407-015D				BOD-5210B		<input type="checkbox"/>	ww - bod/tss/tds	1
				BOD-PR		<input type="checkbox"/>	ww - bod/tss/tds	
				TDS-W-2540C		<input type="checkbox"/>	ww - bod/tss/tds	
				TSS-W-2540D		<input type="checkbox"/>	ww - bod/tss/tds	
1304407-015E				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	df / nutrient	
				PO4-W-4500PF		<input type="checkbox"/>	df / nutrient	
				PO4-W-PR		<input type="checkbox"/>	df / nutrient	
				TKN-W-351.2 <i>1 SEL Analytes:</i>		<input checked="" type="checkbox"/>	df / nutrient	
				TKN-W-PR		<input type="checkbox"/>	df / nutrient	
				TOTAL-NITROGEN		<input type="checkbox"/>	df / nutrient	
1304407-016A	North Weir Outlet	4/13/2013 1000h	4/15/2013 0720h	8260-W <i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>	Aqueous	<input checked="" type="checkbox"/>	vOC	3
1304407-016B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2
				8270-W <i>Test Group: 8270-W-Custom; # of Analytes: 138 / # of Surr: 6</i>		<input checked="" type="checkbox"/>	Walkin-Semi	
				8270-W-SIM <i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>		<input checked="" type="checkbox"/>	Walkin-Semi	

WORK ORDER Summary

Work Order: **1304407** Page 5 of 5

Client: Utah Division of Water Quality

Due Date: 4/17/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1304407-016C	North Weir Outlet	4/13/2013 1000h	4/15/2013 0720h	3510-TPH-PR	Aqueous	<input type="checkbox"/>	Walkin-TPH (Liters)	2
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	

Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1

American West Analytical Laboratories

Chain of Custody

Lab Sample Set # 1304407

Client: **Utah Division of Water Quality**
 Address: **195 N. 1950 W.**
Salt Lake City, UT 84115

Contact: **Chris Bittner**
 Phone: **(801) 536-3600**

Page 1 of 1

Project Name: **MP 44.9**
 PO#:

Fax :
 Email: **cbittner@utah.gov**

QC Level: **3**

Turn Around Time

2 NEXT DAY RUSH

Sample ID:	Date Sampled	Time	# of Containers	Sample Matrix	VOC's (8260C)	Full SVOC - w/ TICs (8270D)	PNA SVOC - SIM (8270D)	DRO (8015D)	BOD TDS TSS	T-N T-KN T-P	Comments
1 East of I-15	4920392	4/13/2013	830	7 W	X	X	X	X			
2 S. Marina	4920495	4/13/2013	845	7 W	X	X	X	X			
3 W. Boom 3	4920497	4/13/2013	1125	7 W	X	X	X	X			
4 50' from WB4	4920502	4/13/2013	1130	7 W	X	X	X	X			
5 50' from WB1	4920505	4/13/2013	1145	7 W	X	X	X	X			
6 W. Boom 1	4920396	4/13/2013	1150	7 W	X	X	X	X			
7 East of Boom	4920395	4/13/2013	1040	7 W	X	X	X	X			
8 Between Weirs	4920394	4/13/2013	1055	7 W	X	X	X	X			
9 Between Weirs Dup	4920394	4/13/2013	1055	7 W	X	X	X	X			
10 Field Blank		4/13/2013	0950	3 W	X						
11 Trip Blank		4/13/2013		3 W	X						
12 French Drain South	4920398	4/13/2013	1050	7 W	X	X	X	X			
13 French Drain North	4920399	4/13/2013	1030	7 W	X	X	X	X			
14 East of Boom #3	4920402	4/13/2013	1035	7 W	X	X	X	X			
15 Below Weirs ab Res.	4920401	4/13/2013	0600	7 W	X	X	X	X	X	X	
16 North Weir Outlet		4-13-13	1000		X	X	X	X			
17											
18											
19											
20											

Laboratory Use Only

Samples Were:

- Shipped or hand delivered
- Ambient or Chilled
- Temperature 2.8
- Received Broken/Leaking (Improperly Sealed) Y N
- Properly Preserved Y N
- Received Within Holding Times Y N

COC Tape Was:

- Present on Outer Package Y N NA
- Unbroken on Outer Package Y N NA
- Present on Sample Y N NA
- Unbroken on Sample Y N NA

Discrepancies Between Sample Labels and COC Record? Y N

PH 7.30
 DO 7.70
 9DO 82%
 T = 10.93
 9PC = 602

Special Instructions: **Release results as they become available**

Relinquished by: Signature <i>[Signature]</i>	Date: <u>4/15/13</u>	Received by: Signature <i>[Signature]</i>	Date: <u>4/15/2013</u>
Print Name JAMES HARRIS	Time: <u>720</u>	Print Name Kyle F. Gross	Time: <u>0720</u>
Relinquished by: Signature	Date:	Received by: Signature	Date:
Print Name	Time:	Print Name	Time:

Sample Set: 13044/07

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except														
Ammonia	pH <2 H ₂ SO ₄		15														
COD	pH <2 H ₂ SO ₄																
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO ₃																
NO ₂ & NO ₃	pH <2 H ₂ SO ₄		yes														
Nutrients	pH <2 H ₂ SO ₄																
O & G	pH <2 HCL																
Phenols	pH <2 H ₂ SO ₄																
Sulfide	pH > 9NaOH, Zn Acetate																
TKN	pH <2 H ₂ SO ₄		yes														
TOC	pH <2 H ₃ PO ₄																
TOX	pH <2 H ₂ SO ₄																
T PO ₄	pH <2 H ₂ SO ₄		yes														
TPH	pH <2 HCL																

4/15/13

- Procedure:
- 1) Pour a small amount of sample in the sample lid
 - 2) Pour sample from Lid gently over wide range pH paper
 - 3) **Do Not** dip the pH paper in the sample bottle or lid
 - 4) If sample is not preserved properly list its extension and receiving pH in the appropriate column above
 - 5) Flag COC, notify client if requested
 - 6) Place client conversation on COC
 - 7) Samples may be adjusted

Frequency: All samples requiring preservation