



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: 1303597

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 12 sample(s) on 3/24/2013 for the analyses presented in the following report.

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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: 1303597

463 West 3600 South
Salt Lake City, UT 84115

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/24/2013
Date of Collection: 3/24/2013
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:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that 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 Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exception: The MS/MSD percent recoveries for Chemical Oxygen Demand on sample 1303597-012E were outside of the control limits due to sample matrix interference.

Corrective Action: None required.



TPH (DRO) and (ORO) Case Narrative

Client: Utah Division of Water Quality
Contact: Chris Bittner
Project: MP 44.9
Lab Set ID: 1303597

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Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/24/2013
Date of Collection: 3/24/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8015D /3510C
Analysis: Total Petroleum Hydrocarbon (DRO - C10-28)
Total Petroleum Hydrocarbon (ORO - C28-36)

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: 1303597

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/24/2013
Date of Collection: 3/24/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

General Set Comments: Multiple target analytes were observed above their reporting limits. 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 / Laboratory Control Sample Duplicate (LCS/LCSD): 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 were inside established limits. The Relative Percent Differences (RPDs) for multiple analytes were outside of the control limits on sample 1303597-002B due to suspected sample non-homogeneity or sample matrix interference.

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: 1303597

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Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/24/2013
Date of Collection: 3/24/2013
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 on sample 1303597-007A.

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.



INORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303597-001
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/24/2013 900h
Received Date: 3/24/2013 1538h

Analytical Results

463 West 3600 South
Salt Lake City, UT 84115

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chemical Oxygen Demand	mg/L		3/25/2013 1100h	HACH 8000	10.0	< 10.0	

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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: 1303597-003D
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/24/2013 1145h
Received Date: 3/24/2013 1538h

Analytical Results

TPH-ORO (C28-C36) by GC/FID Method 8015D/3510C

Analyzed: 3/26/2013 152h **Extracted:** 3/25/2013 1751h
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		
Oil Range Organics (ORO) (C28-C36)		0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: C27		0.204	0.2000	102	10-200	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303597-007D
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/24/2013 1245h
Received Date: 3/24/2013 1538h

Analytical Results

TPH-ORO (C28-C36) by GC/FID Method 8015D/3510C

Analyzed: 3/26/2013 327h **Extracted:** 3/25/2013 1751h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

463 West 3600 South
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Oil Range Organics (ORO) (C28-C36)		0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: C27		0.199	0.2000	99.5	10-200	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303597-011D
Client Sample ID: East Boom Dup / 4920395
Collection Date: 3/24/2013 1400h
Received Date: 3/24/2013 1538h

Analytical Results

TPH-ORO (C28-C36) by GC/FID Method 8015D/3510C

Analyzed: 3/26/2013 414h **Extracted:** 3/25/2013 1751h
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		
Oil Range Organics (ORO) (C28-C36)		0.500	< 0.500			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: C27		0.208	0.2000	104	10-200	

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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: 1303597-002C
Client Sample ID: North Boom / 4920397
Collection Date: 3/24/2013 1130h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/25/2013 1513h **Extracted:** 3/25/2013 852h
Units: mg/L **Dilution Factor:** 1 **Method:** SW8015D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Diesel Range Organics (DRO) (C10-C28)	68476-34-6	0.500	0.654	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.113	0.4000	28.3	10-190	

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Laboratory Director

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303597-007C
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/24/2013 1245h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/25/2013 1649h **Extracted:** 3/25/2013 852h
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	1.83			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.137	0.4000	34.3	10-190	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality **Contact:** Chris Bittner
Project: MP 44.9
Lab Sample ID: 1303597-001B
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/24/2013 900h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1341h **Extracted:** 3/26/2013 756h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-002B
Client Sample ID: North Boom / 4920397
Collection Date: 3/24/2013 1130h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 914h **Extracted:** 3/26/2013 756h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.370	
2-Methylnaphthalene	91-57-6	0.100	0.310	
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	0.220	
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: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/24/2013 1145h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1408h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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	0.110	
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: 1303597-004B
Client Sample ID: W. Boom 4 / 4920498
Collection Date: 3/24/2013 1200h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1436h **Extracted:** 3/26/2013 1130h
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	0.110	
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: 1303597-005B
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 3/24/2013 1215h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1503h **Extracted:** 3/26/2013 1130h
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	0.110	
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: 1303597-006B
Client Sample ID: W. Boom 2 / 4920496
Collection Date: 3/24/2013 1230h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1531h **Extracted:** 3/26/2013 1130h
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
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	0.120	
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: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/24/2013 1245h
Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1558h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	1.51	
2-Methylnaphthalene	91-57-6	0.100	1.05	
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	0.540	
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: 1303597-010B

Client Sample ID: East Boom / 4920395

Collection Date: 3/24/2013 1345h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/28/2013 1626h

Extracted: 3/26/2013 1130h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.250	
2-Methylnaphthalene	91-57-6	0.100	0.200	
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	0.110	
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	0.110	
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: 1303597-011B
Client Sample ID: East Boom Dup / 4920395
Collection Date: 3/24/2013 1400h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/28/2013 1653h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	0.250	
2-Methylnaphthalene	91-57-6	0.100	0.200	
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	0.110	
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: 1303597-012B
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/24/2013 1415h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/28/2013 1720h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	9.64	
2-Methylnaphthalene	91-57-6	0.100	6.39	
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	3.41	
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: 1303597-001B

Client Sample ID: East of I-15 / 4920392

Collection Date: 3/24/2013 900h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/26/2013 1856h

Extracted: 3/26/2013 756h

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: 1303597-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 3/26/2013 1856h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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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: 1303597-001B
Client Sample ID: East of I-15 / 4920392

Analyzed: 3/26/2013 1856h **Extracted:** 3/26/2013 756h
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: 1303597-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 3/26/2013 1856h

Extracted: 3/26/2013 756h

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: 1303597-001B

Client Sample ID: East of I-15 / 4920392

Analyzed: 3/26/2013 1856h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	45.4	80.00	56.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	20.2	40.00	50.5	10-124	
Surr: 2-Fluorophenol	367-12-4	16.3	80.00	20.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.2	40.00	40.5	10-180	
Surr: Phenol-d6	13127-88-3	13.3	80.00	16.6	10-122	
Surr: Terphenyl-d14	1718-51-0	41.5	40.00	104	10-199	

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



Lab Sample ID: 1303597-002B

Client Sample ID: North Boom / 4920397

Analyzed: 3/26/2013 1923h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Jose Rocha
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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: 1303597-002B

Client Sample ID: North Boom / 4920397

Analyzed: 3/26/2013 1923h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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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: 1303597-002B

Client Sample ID: North Boom / 4920397

Analyzed: 3/26/2013 1923h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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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	
TIC: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		6.34	JN
TIC: 1H-Inden-1-ol, 2,3-dihydro-...	038393-92-9		6.35	JN
TIC: 2-Ethyl-1-H-indene	017059-50-6		6.77	JN



Lab Sample ID: 1303597-002B

Client Sample ID: North Boom / 4920397

Analyzed: 3/26/2013 1923h

Extracted: 3/26/2013 756h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 2H-1-Benzopyran-2-one, 3,4-dihyd...	029598-22-9		8.90	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		5.73	JN
TIC: Benzene, 1,2,4-trimethyl-5-...	010222-95-4		5.32	JN
TIC: Benzene, 1,2-bis(1-methylethyl)-	000577-55-9		6.40	JN
TIC: Benzene, 1,4-bis(1-methylet...	001605-18-1		8.38	JN
TIC: Benzene, hexamethyl-	000087-85-4		4.27	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	71.7	80.00	89.7	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.4	40.00	58.4	10-124	
Surr: 2-Fluorophenol	367-12-4	30.5	80.00	38.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	19.7	40.00	49.2	10-180	
Surr: Phenol-d6	13127-88-3	24.1	80.00	30.1	10-122	
Surr: Terphenyl-d14	1718-51-0	41.1	40.00	103	10-199	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

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

This sample was analyzed for TICs.

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/24/2013 1145h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/26/2013 2228h

Extracted: 3/26/2013 1130h

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: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/26/2013 2228h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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	
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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: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/26/2013 2228h **Extracted:** 3/26/2013 1130h
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: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/26/2013 2228h **Extracted:** 3/26/2013 1130h
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: 1303597-003B
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/26/2013 2228h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.0	80.00	70.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.6	40.00	49.0	10-124	
Surr: 2-Fluorophenol	367-12-4	25.8	80.00	32.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	17.3	40.00	43.2	10-180	
Surr: Phenol-d6	13127-88-3	19.3	80.00	24.1	10-122	
Surr: Terphenyl-d14	1718-51-0	39.2	40.00	97.9	10-199	

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: 1303597-004B

Client Sample ID: W. Boom 4 / 4920498

Collection Date: 3/24/2013 1200h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/26/2013 2255h

Extracted: 3/26/2013 1130h

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: 1303597-004B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/26/2013 2255h **Extracted:** 3/26/2013 1130h
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
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: 1303597-004B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/26/2013 2255h **Extracted:** 3/26/2013 1130h
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: 1303597-004B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/26/2013 2255h **Extracted:** 3/26/2013 1130h
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: 1303597-004B
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/26/2013 2255h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	57.1	80.00	71.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.2	40.00	45.6	10-124	
Surr: 2-Fluorophenol	367-12-4	27.3	80.00	34.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.4	40.00	40.9	10-180	
Surr: Phenol-d6	13127-88-3	21.2	80.00	26.4	10-122	
Surr: Terphenyl-d14	1718-51-0	39.3	40.00	98.3	10-199	

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: 1303597-005B

Client Sample ID: W. Boom 3 / 4920497

Collection Date: 3/24/2013 1215h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/26/2013 2321h

Extracted: 3/26/2013 1130h

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: 1303597-005B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/26/2013 2321h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-005B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/26/2013 2321h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-005B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/26/2013 2321h **Extracted:** 3/26/2013 1130h
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: 1303597-005B
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/26/2013 2321h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.6	80.00	75.7	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	24.2	40.00	60.4	10-124	
Surr: 2-Fluorophenol	367-12-4	31.7	80.00	39.6	10-106	
Surr: Nitrobenzene-d5	4165-60-0	21.4	40.00	53.4	10-180	
Surr: Phenol-d6	13127-88-3	24.0	80.00	30.0	10-122	
Surr: Terphenyl-d14	1718-51-0	41.8	40.00	104	10-199	

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: 1303597-006B

Client Sample ID: W. Boom 2 / 4920496

Collection Date: 3/24/2013 1230h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/26/2013 2347h

Extracted: 3/26/2013 1130h

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: 1303597-006B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/26/2013 2347h **Extracted:** 3/26/2013 1130h
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
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: 1303597-006B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/26/2013 2347h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-006B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/26/2013 2347h **Extracted:** 3/26/2013 1130h
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
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: 1303597-006B
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/26/2013 2347h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	62.1	80.00	77.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.4	40.00	48.5	10-124	
Surr: 2-Fluorophenol	367-12-4	25.3	80.00	31.6	10-106	
Surr: Nitrobenzene-d5	4165-60-0	15.7	40.00	39.3	10-180	
Surr: Phenol-d6	13127-88-3	19.7	80.00	24.6	10-122	
Surr: Terphenyl-d14	1718-51-0	39.9	40.00	99.7	10-199	

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: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/24/2013 1245h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/27/2013 014h **Extracted:** 3/26/2013 1130h
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: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/27/2013 014h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/27/2013 014h **Extracted:** 3/26/2013 1130h
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: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/27/2013 014h **Extracted:** 3/26/2013 1130h
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	11.8	
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: 1,3,2-Dioxaborolane, 4-meth...	004406-75-1		13.9	JN
TIC: 1H-Indene, 1,1-dimethyl-	018636-55-0		12.4	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		9.37	JN



Lab Sample ID: 1303597-007B
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/27/2013 014h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: Benzene, 1,2,4-trimethyl-5-...	010222-95-4		9.49	JN
TIC: Benzene, 1,4-bis(1-methylet...	001605-18-1		11.1	JN
TIC: Benzene, hexamethyl-	000087-85-4		9.37	JN
TIC: Benzofuran, 2,3-dihydro-2,2...	063577-97-9		9.49	JN
TIC: Eicosane	000112-95-8		10.6	JN
TIC: Nonadecane	000629-92-5		13.3	JN
TIC: Tetradecane	000629-59-4		9.41	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	60.9	80.00	76.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	14.9	40.00	37.2	10-124	
Surr: 2-Fluorophenol	367-12-4	23.9	80.00	29.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.4	40.00	36.1	10-180	
Surr: Phenol-d6	13127-88-3	18.7	80.00	23.4	10-122	
Surr: Terphenyl-d14	1718-51-0	35.6	40.00	89.0	10-199	

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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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303597-010B
Client Sample ID: East Boom / 4920395
Collection Date: 3/24/2013 1345h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/27/2013 822h **Extracted:** 3/26/2013 1130h
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: 1303597-010B
Client Sample ID: East Boom / 4920395

Analyzed: 3/27/2013 822h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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: 1303597-010B
Client Sample ID: East Boom / 4920395

Analyzed: 3/27/2013 822h **Extracted:** 3/26/2013 1130h
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: 1303597-010B
Client Sample ID: East Boom / 4920395

Analyzed: 3/27/2013 822h **Extracted:** 3/26/2013 1130h
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: Naphthalene, 1,2-dihydro-4-...	004373-13-1		4.50	JN



Lab Sample ID: 1303597-010B

Client Sample ID: East Boom / 4920395

Analyzed: 3/27/2013 822h

Extracted: 3/26/2013 1130h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	66.7	80.00	83.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.7	40.00	54.3	10-124	
Surr: 2-Fluorophenol	367-12-4	28.1	80.00	35.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.0	40.00	45.0	10-180	
Surr: Phenol-d6	13127-88-3	20.4	80.00	25.5	10-122	
Surr: Terphenyl-d14	1718-51-0	34.6	40.00	86.6	10-199	

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: 1303597-011B
Client Sample ID: East Boom Dup / 4920395
Collection Date: 3/24/2013 1400h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/27/2013 849h **Extracted:** 3/26/2013 1130h
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-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: 1303597-011B

Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/27/2013 849h

Extracted: 3/26/2013 1130h

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
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: 1303597-011B

Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/27/2013 849h

Extracted: 3/26/2013 1130h

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: 1303597-011B

Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/27/2013 849h

Extracted: 3/26/2013 1130h

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	
TIC: 1-Methyl-1,2,3,4-tetrahydro...	014944-28-6		4.76	JN



Lab Sample ID: 1303597-011B
Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/27/2013 849h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	67.1	80.00	83.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.4	40.00	53.4	10-124	
Surr: 2-Fluorophenol	367-12-4	29.0	80.00	36.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.4	40.00	46.1	10-180	
Surr: Phenol-d6	13127-88-3	21.3	80.00	26.7	10-122	
Surr: Terphenyl-d14	1718-51-0	35.7	40.00	89.4	10-199	

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: 1303597-012B
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/24/2013 1415h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/27/2013 915h **Extracted:** 3/26/2013 1130h
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: 1303597-012B
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/27/2013 915h **Extracted:** 3/26/2013 1130h
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
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: 1303597-012B
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/27/2013 915h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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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	74.8	
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	22.5	
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: 1303597-012B
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/27/2013 915h **Extracted:** 3/26/2013 1130h
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
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	141	
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-Naphthalenol, 1,2,3,4-tet...	000529-33-9		24.8	JN
TIC: Benzene, 1,2,4-trimethyl-5-...	010222-95-4		25.8	JN
TIC: Benzene, 1,2-diethyl-3,4-di...	054410-75-2		28.8	JN



Lab Sample ID: 1303597-012B
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/27/2013 915h **Extracted:** 3/26/2013 1130h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: Dodecane	000112-40-3		13.3	JN
TIC: Eicosane	000112-95-8		144	JN
TIC: Heneicosane	000629-94-7		107	JN
TIC: Nonadecane	000629-92-5		170	JN
TIC: Tetradecane	000629-59-4		50.1	JN
TIC: Tricosane	000638-67-5		29.1	JN
TIC: Tridecane	000629-50-5		39.5	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	43.8	80.00	54.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	14.4	40.00	36.1	10-124	
Surr: 2-Fluorophenol	367-12-4	30.1	80.00	37.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.4	40.00	50.9	10-180	
Surr: Phenol-d6	13127-88-3	23.1	80.00	28.9	10-122	
Surr: Terphenyl-d14	1718-51-0	36.5	40.00	91.2	10-199	

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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Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303597-001A
Client Sample ID: East of I-15 / 4920392
Collection Date: 3/24/2013 900h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 1924h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 3/24/2013 1924h

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

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 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: 1303597-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 3/24/2013 1924h

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

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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: 1303597-001A
Client Sample ID: East of I-15 / 4920392

Analyzed: 3/24/2013 1924h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	52.9	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.0	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.0	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	51.0	50.00	102	77-129	

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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: 1303597-002A
Client Sample ID: North Boom / 4920397
Collection Date: 3/24/2013 1130h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 1943h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-002A

Client Sample ID: North Boom / 4920397

Analyzed: 3/24/2013 1943h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-002A

Client Sample ID: North Boom / 4920397

Analyzed: 3/24/2013 1943h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-002A

Client Sample ID: North Boom / 4920397

Analyzed: 3/24/2013 1943h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	52.8	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.6	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.4	50.00	101	80-124	
Surr: Toluene-d8	2037-26-5	49.4	50.00	98.9	77-129	

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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: 1303597-003A
Client Sample ID: W. Boom 5 / 4920499
Collection Date: 3/24/2013 1145h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2002h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-003A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/24/2013 2002h

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

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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	

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: 1303597-003A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/24/2013 2002h

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

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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: 1303597-003A
Client Sample ID: W. Boom 5 / 4920499

Analyzed: 3/24/2013 2002h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Surrogate	CAS	Result	Amount Spiked	% REC
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.6	50.00	107
Surr: 4-Bromofluorobenzene	460-00-4	52.5	50.00	105
Surr: Dibromofluoromethane	1868-53-7	50.8	50.00	102
Surr: Toluene-d8	2037-26-5	50.5	50.00	101

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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: 1303597-004A
Client Sample ID: W. Boom 4 / 4920498
Collection Date: 3/24/2013 1200h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2021h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-004A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/24/2013 2021h

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

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Kyle F. Gross
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 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: 1303597-004A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/24/2013 2021h

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

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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: 1303597-004A
Client Sample ID: W. Boom 4 / 4920498

Analyzed: 3/24/2013 2021h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.3	50.00	107	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.7	50.00	103	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.1	50.00	100	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.2	77-129	

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ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303597-005A
Client Sample ID: W. Boom 3 / 4920497
Collection Date: 3/24/2013 1215h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2118h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-005A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/24/2013 2118h

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

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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	

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: 1303597-005A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/24/2013 2118h

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

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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: 1303597-005A
Client Sample ID: W. Boom 3 / 4920497

Analyzed: 3/24/2013 2118h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.6	50.00	109	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.8	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.6	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	50.2	50.00	100	77-129	

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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: 1303597-006A
Client Sample ID: W. Boom 2 / 4920496
Collection Date: 3/24/2013 1230h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2137h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Jose Rocha
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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: 1303597-006A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/24/2013 2137h

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

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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: 1303597-006A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/24/2013 2137h

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

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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: 1303597-006A
Client Sample ID: W. Boom 2 / 4920496

Analyzed: 3/24/2013 2137h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Surrogate	CAS	Result	Amount Spiked	% REC
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.2	50.00	108
Surr: 4-Bromofluorobenzene	460-00-4	50.7	50.00	101
Surr: Dibromofluoromethane	1868-53-7	51.7	50.00	103
Surr: Toluene-d8	2037-26-5	49.8	50.00	99.7

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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: 1303597-007A
Client Sample ID: W. Boom 1 / 4920396
Collection Date: 3/24/2013 1245h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2312h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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	2.65	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	4.46	
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: 1303597-007A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/24/2013 2312h

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

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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	

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: 1303597-007A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/24/2013 2312h

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

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 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: 1303597-007A
Client Sample ID: W. Boom 1 / 4920396

Analyzed: 3/24/2013 2312h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.2	50.00	108	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.4	50.00	98.9	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.9	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	49.1	50.00	98.2	77-129	

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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: 1303597-008A
Client Sample ID: Trip Blank
Collection Date: 3/24/2013
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2156h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-008A

Client Sample ID: Trip Blank

Analyzed: 3/24/2013 2156h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-008A

Client Sample ID: Trip Blank

Analyzed: 3/24/2013 2156h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-008A

Client Sample ID: Trip Blank

Analyzed: 3/24/2013 2156h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.8	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.0	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.8	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	49.9	50.00	99.7	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: 1303597-009A

Client Sample ID: Field Blank

Collection Date: 3/24/2013 1330h

Received Date: 3/24/2013 1538h

Analytical Results

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

Analyzed: 3/24/2013 2215h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-009A

Client Sample ID: Field Blank

Analyzed: 3/24/2013 2215h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-009A

Client Sample ID: Field Blank

Analyzed: 3/24/2013 2215h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-009A

Client Sample ID: Field Blank

Analyzed: 3/24/2013 2215h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.7	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.9	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	52.4	50.00	105	80-124	
Surr: Toluene-d8	2037-26-5	50.6	50.00	101	77-129	

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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: 1303597-010A
Client Sample ID: East Boom / 4920395
Collection Date: 3/24/2013 1345h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2234h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-010A
Client Sample ID: East Boom / 4920395

Analyzed: 3/24/2013 2234h

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

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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	

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: 1303597-010A
Client Sample ID: East Boom / 4920395

Analyzed: 3/24/2013 2234h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-010A
Client Sample ID: East Boom / 4920395

Analyzed: 3/24/2013 2234h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.2	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.0	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.3	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	49.7	50.00	99.4	77-129	

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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: 1303597-011A
Client Sample ID: East Boom Dup / 4920395
Collection Date: 3/24/2013 1400h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2253h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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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: 1303597-011A
Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/24/2013 2253h

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

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 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: 1303597-011A
Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/24/2013 2253h

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

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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: 1303597-011A
Client Sample ID: East Boom Dup / 4920395

Analyzed: 3/24/2013 2253h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.2	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.6	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.4	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	49.6	50.00	99.1	77-129	

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Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: MP 44.9
Lab Sample ID: 1303597-012A
Client Sample ID: Between Weirs / 4920394
Collection Date: 3/24/2013 1415h
Received Date: 3/24/2013 1538h

Contact: Chris Bittner

Analytical Results

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

Analyzed: 3/24/2013 2330h

Units: µg/L

Dilution Factor: 10

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1,1,2-Tetrachloroethane	630-20-6	20.0	< 20.0	
1,1,1-Trichloroethane	71-55-6	20.0	< 20.0	
1,1,2,2-Tetrachloroethane	79-34-5	20.0	< 20.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	20.0	< 20.0	
1,1,2-Trichloroethane	79-00-5	20.0	< 20.0	
1,1-Dichloropropene	563-58-6	20.0	< 20.0	
1,1-Dichloroethane	75-34-3	20.0	< 20.0	
1,1-Dichloroethene	75-35-4	20.0	< 20.0	
1,2,3-Trichlorobenzene	87-61-6	20.0	< 20.0	
1,2,3-Trichloropropane	96-18-4	20.0	< 20.0	
1,2,3-Trimethylbenzene	526-73-8	20.0	< 20.0	
1,2,4-Trichlorobenzene	120-82-1	20.0	< 20.0	
1,2,4-Trimethylbenzene	95-63-6	20.0	< 20.0	
1,2-Dibromo-3-chloropropane	96-12-8	50.0	< 50.0	
1,2-Dibromoethane	106-93-4	20.0	< 20.0	
1,2-Dichlorobenzene	95-50-1	20.0	< 20.0	
1,2-Dichloroethane	107-06-2	20.0	< 20.0	
1,2-Dichloropropane	78-87-5	20.0	< 20.0	
1,3,5-Trimethylbenzene	108-67-8	20.0	< 20.0	
1,3-Dichlorobenzene	541-73-1	20.0	< 20.0	
1,3-Dichloropropane	142-28-9	20.0	< 20.0	
1,4-Dichlorobenzene	106-46-7	20.0	< 20.0	
1,4-Dioxane	123-91-1	500	< 500	
2,2-Dichloropropane	594-20-7	20.0	< 20.0	
2-Butanone	78-93-3	100	< 100	
2-Chloroethyl vinyl ether	110-75-8	50.0	< 50.0	
2-Chlorotoluene	95-49-8	20.0	< 20.0	
2-Hexanone	591-78-6	50.0	< 50.0	
2-Nitropropane	79-46-9	50.0	< 50.0	
4-Chlorotoluene	106-43-4	20.0	< 20.0	



Lab Sample ID: 1303597-012A
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/24/2013 2330h

Units: µg/L **Dilution Factor:** 10 **Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
4-Isopropyltoluene	99-87-6	20.0	< 20.0	
4-Methyl-2-pentanone	108-10-1	50.0	< 50.0	
Acetone	67-64-1	100	< 100	
Acetonitrile	75-05-8	50.0	< 50.0	
Acrolein	107-02-8	50.0	< 50.0	
Acrylonitrile	107-13-1	100	< 100	
Allyl chloride	107-05-1	50.0	< 50.0	
Benzene	71-43-2	20.0	< 20.0	
Benzyl chloride	100-44-7	50.0	< 50.0	
Bis(2-chloroisopropyl) ether	108-60-1	50.0	< 50.0	
Bromobenzene	108-86-1	20.0	< 20.0	
Bromochloromethane	74-97-5	20.0	< 20.0	
Bromodichloromethane	75-27-4	20.0	< 20.0	
Bromoform	75-25-2	20.0	< 20.0	
Bromomethane	74-83-9	50.0	< 50.0	
Butyl acetate	123-86-4	100	< 100	
Carbon disulfide	75-15-0	20.0	< 20.0	
Carbon tetrachloride	56-23-5	20.0	< 20.0	
Chlorobenzene	108-90-7	20.0	< 20.0	
Chloroethane	75-00-3	20.0	< 20.0	
Chloroform	67-66-3	20.0	< 20.0	
Chloromethane	74-87-3	30.0	< 30.0	
Chloroprene	126-99-8	20.0	< 20.0	
cis-1,2-Dichloroethene	156-59-2	20.0	< 20.0	
cis-1,3-Dichloropropene	10061-01-5	20.0	< 20.0	
Cyclohexane	110-82-7	20.0	< 20.0	
Cyclohexanone	108-94-1	500	< 500	
Dibromochloromethane	124-48-1	20.0	< 20.0	
Dibromomethane	74-95-3	20.0	< 20.0	
Dichlorodifluoromethane	75-71-8	20.0	< 20.0	
Ethyl acetate	141-78-6	100	< 100	
Ethyl ether	60-29-7	100	< 100	
Ethyl methacrylate	97-63-2	20.0	< 20.0	
Ethylbenzene	100-41-4	20.0	< 20.0	
Hexachlorobutadiene	87-68-3	20.0	< 20.0	
Iodomethane	74-88-4	50.0	< 50.0	
Isobutyl alcohol	78-83-1	1,000	< 1,000	

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: 1303597-012A
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/24/2013 2330h

Units: µg/L **Dilution Factor:** 10 **Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Isopropyl acetate	108-21-4	100	< 100	
Isopropyl alcohol	67-63-0	400	< 400	
Isopropylbenzene	98-82-8	20.0	< 20.0	
m,p-Xylene	179601-23-1	20.0	< 20.0	
Methacrylonitrile	126-98-7	50.0	< 50.0	
Methyl Acetate	79-20-9	50.0	< 50.0	
Methyl methacrylate	80-62-6	50.0	< 50.0	
Methyl tert-butyl ether	1634-04-4	20.0	< 20.0	
Methylcyclohexane	108-87-2	20.0	< 20.0	
Methylene chloride	75-09-2	20.0	< 20.0	
n-Amyl acetate	628-63-7	100	< 100	
n-Butyl alcohol	71-36-3	1,000	< 1,000	
n-Butylbenzene	104-51-8	20.0	< 20.0	
n-Hexane	110-54-3	20.0	< 20.0	
n-Octane	111-65-9	20.0	< 20.0	
n-Propylbenzene	103-65-1	20.0	< 20.0	
Naphthalene	91-20-3	20.0	< 20.0	
o-Xylene	95-47-6	20.0	< 20.0	
Pentachloroethane	76-01-7	50.0	< 50.0	
Propionitrile	107-12-0	250	< 250	
Propyl acetate	109-60-4	100	< 100	
sec-Butylbenzene	135-98-8	20.0	< 20.0	
Styrene	100-42-5	20.0	< 20.0	
tert-Butyl alcohol	76-65-0	200	< 200	
tert-Butylbenzene	98-06-6	20.0	< 20.0	
Tetrachloroethene	127-18-4	20.0	< 20.0	
Tetrahydrofuran	109-99-9	20.0	< 20.0	
Toluene	108-88-3	20.0	< 20.0	
trans-1,2-Dichloroethene	156-60-5	20.0	< 20.0	
trans-1,3-Dichloropropene	10061-02-6	20.0	< 20.0	
trans-1,4-Dichloro-2-butene	110-57-6	20.0	< 20.0	
Trichloroethene	79-01-6	20.0	< 20.0	
Trichlorofluoromethane	75-69-4	20.0	< 20.0	
Vinyl acetate	108-05-4	100	< 100	
Vinyl chloride	75-01-4	10.0	< 10.0	
Xylenes, Total	1330-20-7	20.0	< 20.0	



Lab Sample ID: 1303597-012A
Client Sample ID: Between Weirs / 4920394

Analyzed: 3/24/2013 2330h

Units: µg/L **Dilution Factor:** 10 **Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	508	500.0	102	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	512	500.0	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	496	500.0	99.2	80-124	
Surr: Toluene-d8	2037-26-5	502	500.0	100	77-129	

The reporting limits were raised due to sample matrix interferences. Sample contained oil.

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
LCS1-R51888	Chemical Oxygen Demand	mg/L	HACH 8000	323	300.0	0	108	85-115				3/25/2013 1100h
LCS2-R51888	Chemical Oxygen Demand	mg/L	HACH 8000	101	100.0	0	101	85-115				3/25/2013 1100h
LCS3-R51888	Chemical Oxygen Demand	mg/L	HACH 8000	9.00	10.00	0	90.0	85-115				3/25/2013 1100h
LCS-R51888	Chemical Oxygen Demand	mg/L	HACH 8000	1,040	1,000	0	104	85-115				3/25/2013 1100h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-R51888	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0				-				3/25/2013 1100h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-012EMS	Chemical Oxygen Demand	mg/L	HACH 8000	141	50.00	111.0	60.0	85-115			¹	3/25/2013 1100h

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-012EMSD	Chemical Oxygen Demand	mg/L	HACH 8000	135	50.00	111.0	48.0	85-115	4.35	10	¹	3/25/2013 1100h

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24351	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.740	0.9000	0	82.2	10-200				3/26/2013 017h
LCS-24351	Surr: C27	%REC	SW8015D	0.204	0.2000		102	10-200				3/26/2013 017h
LCS-24331	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.40	2.000	0	70.1	48-118				3/25/2013 1356h
LCS-24331	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.152	0.4000		38.1	18-95				3/25/2013 1356h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
Project: MP 44.9

Contact: Chris Bittner
Dept: GC
QC Type: LCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCSD-24351	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.748	0.9000	0	83.1	10-200	1.08	30		3/26/2013 040h
LCSD-24351	Surr: C27	%REC	SW8015D	0.208	0.2000		104	10-200				3/26/2013 040h
LCSD-24331	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.71	2.000	0	85.4	48-118	19.6	25		3/25/2013 1825h
LCSD-24331	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.260	0.4000		64.9	18-95				3/25/2013 1825h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24351	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	< 0.500				-				3/25/2013 2353h
MB-24351	Surr: C27	%REC	SW8015D	0.191	0.2000		95.4	10-200				3/25/2013 2353h
MB-24331	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				3/25/2013 1337h
MB-24331	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.113	0.4000		28.2	18-95				3/25/2013 1337h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-012DMS	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.754	0.9000	0	83.8	10-200				3/26/2013 502h
1303597-012DMS	Surr: C27	%REC	SW8015D	0.206	0.2000		103	10-200				3/26/2013 502h
1303597-001CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.67	2.000	0	83.4	60-161				3/25/2013 1435h
1303597-001CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.205	0.4000		51.2	10-190				3/25/2013 1435h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-012DMSD	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.756	0.9000	0	84.0	10-200	0.265	30		3/26/2013 525h
1303597-012DMSD	Surr: C27	%REC	SW8015D	0.206	0.2000		103	10-200				3/26/2013 525h
1303597-001CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.38	2.000	0	69.1	60-161	18.7	25		3/25/2013 1454h
1303597-001CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.156	0.4000		39.1	10-190				3/25/2013 1454h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24355	1,2,4-Trichlorobenzene	µg/L	SW8270D	45.2	80.00	0	56.5	10-104				3/26/2013 1431h
LCS-24355	1,4-Dichlorobenzene	µg/L	SW8270D	32.3	80.00	0	40.4	10-118				3/26/2013 1431h
LCS-24355	2,4,6-Trichlorophenol	µg/L	SW8270D	63.8	80.00	0	79.8	17-119				3/26/2013 1431h
LCS-24355	2,4-Dimethylphenol	µg/L	SW8270D	60.9	80.00	0	76.1	10-131				3/26/2013 1431h
LCS-24355	2,4-Dinitrotoluene	µg/L	SW8270D	85.4	80.00	0	107	42-219				3/26/2013 1431h
LCS-24355	2-Chloronaphthalene	µg/L	SW8270D	60.4	80.00	0	75.5	23-126				3/26/2013 1431h
LCS-24355	2-Chlorophenol	µg/L	SW8270D	54.9	80.00	0	68.6	15-128				3/26/2013 1431h
LCS-24355	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	83.1	80.00	0	104	30-198				3/26/2013 1431h
LCS-24355	4-Chloro-3-methylphenol	µg/L	SW8270D	67.6	80.00	0	84.5	29-148				3/26/2013 1431h
LCS-24355	4-Nitrophenol	µg/L	SW8270D	34.6	80.00	0	43.3	10-157				3/26/2013 1431h
LCS-24355	Acenaphthene	µg/L	SW8270D	63.8	80.00	0	79.7	20-116				3/26/2013 1431h
LCS-24355	Benzo(a)pyrene	µg/L	SW8270D	99.0	80.00	0	124	10-221				3/26/2013 1431h
LCS-24355	N-Nitrosodi-n-propylamine	µg/L	SW8270D	52.2	80.00	0	65.3	20-148				3/26/2013 1431h
LCS-24355	Pentachlorophenol	µg/L	SW8270D	77.2	80.00	0	96.5	21-153				3/26/2013 1431h
LCS-24355	Phenol	µg/L	SW8270D	29.8	80.00	0	37.2	10-131				3/26/2013 1431h
LCS-24355	Pyrene	µg/L	SW8270D	84.6	80.00	0	106	37-150				3/26/2013 1431h
LCS-24355	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	79.8	80.00		99.8	10-165				3/26/2013 1431h
LCS-24355	Surr: 2-Fluorobiphenyl	%REC	SW8270D	29.2	40.00		73.1	10-118				3/26/2013 1431h
LCS-24355	Surr: 2-Fluorophenol	%REC	SW8270D	35.8	80.00		44.8	10-121				3/26/2013 1431h
LCS-24355	Surr: Nitrobenzene-d5	%REC	SW8270D	26.6	40.00		66.4	10-127				3/26/2013 1431h
LCS-24355	Surr: Phenol-d6	%REC	SW8270D	29.2	80.00		36.5	10-124				3/26/2013 1431h
LCS-24355	Surr: Terphenyl-d14	%REC	SW8270D	43.7	40.00		109	51-221				3/26/2013 1431h
LCS-24355	Acenaphthene	µg/L	SW8270D	77.6	80.00	0	97.0	23-159				3/28/2013 754h
LCS-24355	Benzo(a)pyrene	µg/L	SW8270D	78.8	80.00	0	98.5	26-223				3/28/2013 754h
LCS-24355	Pentachlorophenol	µg/L	SW8270D	133	80.00	0	166	10-249				3/28/2013 754h
LCS-24355	Pyrene	µg/L	SW8270D	84.4	80.00	0	106	28-204				3/28/2013 754h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
Project: MP 44.9

Contact: Chris Bittner
Dept: MSSV
QC Type: LCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCSD-24355	1,2,4-Trichlorobenzene	µg/L	SW8270D	42.6	80.00	0	53.3	10-104	5.94	25		3/26/2013 1458h
LCSD-24355	1,4-Dichlorobenzene	µg/L	SW8270D	29.7	80.00	0	37.1	10-118	8.54	25		3/26/2013 1458h
LCSD-24355	2,4,6-Trichlorophenol	µg/L	SW8270D	70.7	80.00	0	88.4	17-119	10.2	25		3/26/2013 1458h
LCSD-24355	2,4-Dimethylphenol	µg/L	SW8270D	64.1	80.00	0	80.2	10-131	5.2	25		3/26/2013 1458h
LCSD-24355	2,4-Dinitrotoluene	µg/L	SW8270D	89.2	80.00	0	111	42-219	4.35	25		3/26/2013 1458h
LCSD-24355	2-Chloronaphthalene	µg/L	SW8270D	64.1	80.00	0	80.1	23-126	5.96	25		3/26/2013 1458h
LCSD-24355	2-Chlorophenol	µg/L	SW8270D	56.6	80.00	0	70.7	15-128	3.01	25		3/26/2013 1458h
LCSD-24355	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	91.2	80.00	0	114	30-198	9.2	25		3/26/2013 1458h
LCSD-24355	4-Chloro-3-methylphenol	µg/L	SW8270D	72.1	80.00	0	90.2	29-148	6.51	25		3/26/2013 1458h
LCSD-24355	4-Nitrophenol	µg/L	SW8270D	36.8	80.00	0	46.1	10-157	6.16	25		3/26/2013 1458h
LCSD-24355	Acenaphthene	µg/L	SW8270D	66.9	80.00	0	83.6	20-116	4.79	25		3/26/2013 1458h
LCSD-24355	Benzo(a)pyrene	µg/L	SW8270D	102	80.00	0	128	10-221	3.38	25		3/26/2013 1458h
LCSD-24355	N-Nitrosodi-n-propylamine	µg/L	SW8270D	52.2	80.00	0	65.3	20-148	0.0766	25		3/26/2013 1458h
LCSD-24355	Pentachlorophenol	µg/L	SW8270D	82.0	80.00	0	103	21-153	6.07	25		3/26/2013 1458h
LCSD-24355	Phenol	µg/L	SW8270D	30.4	80.00	0	38.0	10-131	2.03	25		3/26/2013 1458h
LCSD-24355	Pyrene	µg/L	SW8270D	87.4	80.00	0	109	37-150	3.19	25		3/26/2013 1458h
LCSD-24355	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	82.3	80.00		103	10-165				3/26/2013 1458h
LCSD-24355	Surr: 2-Fluorobiphenyl	%REC	SW8270D	29.7	40.00		74.3	10-118				3/26/2013 1458h
LCSD-24355	Surr: 2-Fluorophenol	%REC	SW8270D	36.6	80.00		45.7	10-121				3/26/2013 1458h
LCSD-24355	Surr: Nitrobenzene-d5	%REC	SW8270D	24.9	40.00		62.4	10-127				3/26/2013 1458h
LCSD-24355	Surr: Phenol-d6	%REC	SW8270D	30.4	80.00		38.1	10-124				3/26/2013 1458h
LCSD-24355	Surr: Terphenyl-d14	%REC	SW8270D	44.4	40.00		111	51-221				3/26/2013 1458h
LCSD-24355	Acenaphthene	µg/L	SW8270D	86.8	80.00	0	108	23-159	11.2	25		3/28/2013 821h
LCSD-24355	Benzo(a)pyrene	µg/L	SW8270D	83.2	80.00	0	104	26-223	5.43	25		3/28/2013 821h
LCSD-24355	Pentachlorophenol	µg/L	SW8270D	142	80.00	0	178	10-249	6.84	25		3/28/2013 821h
LCSD-24355	Pyrene	µg/L	SW8270D	92.4	80.00	0	116	28-204	9.05	25		3/28/2013 821h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24355	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h

Report Date: 3/29/2013 Page 155 of 244



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24355	2-Methylphenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	2-Picoline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Acenaphthene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Acenaphthylene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Acetophenone	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Aniline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Anthracene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h

Report Date: 3/29/2013 Page 156 of 244



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24355	Aramite	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Atrazine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Azobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzaldehyde	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Benzoic acid	µg/L	SW8270D	< 20.0				-				3/26/2013 1405h
MB-24355	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Caprolactam	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Carbazole	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Chrysene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Dibenzofuran	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Dimethoate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h

Report Date: 3/29/2013 Page 157 of 244



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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-24355	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Dinoseb	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Diphenylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Disulfoton	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Famphur	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Fluoranthene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Fluorene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachloroethane	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachlorophene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Hexachloropropene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Indene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Isodrin	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Isophorone	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Isosafrole	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Kepone	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Methapyrilene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Naphthalene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	n-Decane	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h

Report Date: 3/29/2013 Page 158 of 244



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QC SUMMARY REPORT

Client: Utah Division of Water Quality

Lab Set ID: 1303597

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-24355	Nitrobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	n-Octadecane	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	o-Toluidine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Parathion	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Methyl parathion	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Phenacetin	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Phenanthrene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Phenol	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Phorate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pronamide	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pyrene	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Pyridine	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Quinoline	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h

Report Date: 3/29/2013 Page 159 of 244



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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: 1303597
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-24355	Safrole	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Thionazin	µg/L	SW8270D	< 10.0				-				3/26/2013 1405h
MB-24355	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	66.9	80.00		83.7	10-165				3/26/2013 1405h
MB-24355	Surr: 2-Fluorobiphenyl	%REC	SW8270D	24.2	40.00		60.4	10-118				3/26/2013 1405h
MB-24355	Surr: 2-Fluorophenol	%REC	SW8270D	33.3	80.00		41.7	10-121				3/26/2013 1405h
MB-24355	Surr: Nitrobenzene-d5	%REC	SW8270D	22.1	40.00		55.2	10-127				3/26/2013 1405h
MB-24355	Surr: Phenol-d6	%REC	SW8270D	24.8	80.00		31.0	10-124				3/26/2013 1405h
MB-24355	Surr: Terphenyl-d14	%REC	SW8270D	42.2	40.00		105	51-221				3/26/2013 1405h
MB-24355	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Acenaphthene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Acenaphthylene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Anthracene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Chrysene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Fluoranthene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Fluorene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				3/28/2013 728h
MB-24355	Indene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Naphthalene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h

Report Date: 3/29/2013 Page 160 of 244



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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: 1303597
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-24355	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				3/28/2013 728h
MB-24355	Phenanthrene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h
MB-24355	Pyrene	µg/L	SW8270D	< 0.100				-				3/28/2013 728h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-002BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	42.9	80.00	0	53.6	20-107				3/26/2013 1949h
1303597-002BMS	1,4-Dichlorobenzene	µg/L	SW8270D	31.0	80.00	0	38.8	11-90				3/26/2013 1949h
1303597-002BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	60.0	80.00	0	75.0	10-223				3/26/2013 1949h
1303597-002BMS	2,4-Dimethylphenol	µg/L	SW8270D	59.0	80.00	0	73.7	10-176				3/26/2013 1949h
1303597-002BMS	2,4-Dinitrotoluene	µg/L	SW8270D	71.2	80.00	0	88.9	21-191				3/26/2013 1949h
1303597-002BMS	2-Chloronaphthalene	µg/L	SW8270D	58.0	80.00	0	72.5	12-132				3/26/2013 1949h
1303597-002BMS	2-Chlorophenol	µg/L	SW8270D	57.1	80.00	0	71.4	20-107				3/26/2013 1949h
1303597-002BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	76.2	80.00	0	95.2	20-250				3/26/2013 1949h
1303597-002BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	67.0	80.00	0	83.7	10-136				3/26/2013 1949h
1303597-002BMS	4-Nitrophenol	µg/L	SW8270D	29.0	80.00	0	36.2	10-135				3/26/2013 1949h
1303597-002BMS	Acenaphthene	µg/L	SW8270D	57.2	80.00	0	71.6	21-113				3/26/2013 1949h
1303597-002BMS	Benzo(a)pyrene	µg/L	SW8270D	76.0	80.00	0	95.1	15-169				3/26/2013 1949h
1303597-002BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	50.3	80.00	0	62.8	10-133				3/26/2013 1949h
1303597-002BMS	Pentachlorophenol	µg/L	SW8270D	38.3	80.00	0	47.9	10-131				3/26/2013 1949h
1303597-002BMS	Phenol	µg/L	SW8270D	30.3	80.00	0	37.8	10-71				3/26/2013 1949h
1303597-002BMS	Pyrene	µg/L	SW8270D	74.6	80.00	0	93.2	23-150				3/26/2013 1949h
1303597-002BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.9	80.00		81.1	14-159				3/26/2013 1949h
1303597-002BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	26.5	40.00		66.2	10-124				3/26/2013 1949h
1303597-002BMS	Surr: 2-Fluorophenol	%REC	SW8270D	39.3	80.00		49.1	10-106				3/26/2013 1949h
1303597-002BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	25.3	40.00		63.3	10-180				3/26/2013 1949h
1303597-002BMS	Surr: Phenol-d6	%REC	SW8270D	30.3	80.00		37.9	10-122				3/26/2013 1949h
1303597-002BMS	Surr: Terphenyl-d14	%REC	SW8270D	36.2	40.00		90.4	10-199				3/26/2013 1949h
1303597-002BMS	Acenaphthene	µg/L	SW8270D	79.8	80.00	0	99.8	21-113				3/28/2013 941h
1303597-002BMS	Benzo(a)pyrene	µg/L	SW8270D	73.4	80.00	0	91.8	15-169				3/28/2013 941h
1303597-002BMS	Pentachlorophenol	µg/L	SW8270D	97.0	80.00	0	121	10-131				3/28/2013 941h
1303597-002BMS	Pyrene	µg/L	SW8270D	80.8	80.00	0	101	23-150				3/28/2013 941h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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
1303597-002BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	50.4	80.00	0	63.0	20-107	16	25		3/26/2013 2202h
1303597-002BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	41.7	80.00	0	52.1	11-90	29.3	25	@	3/26/2013 2202h
1303597-002BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	62.8	80.00	0	78.5	10-223	4.53	25		3/26/2013 2202h
1303597-002BMSD	2,4-Dimethylphenol	µg/L	SW8270D	54.6	80.00	0	68.2	10-176	7.75	25		3/26/2013 2202h
1303597-002BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	88.9	80.00	0	111	21-191	22.2	25		3/26/2013 2202h
1303597-002BMSD	2-Chloronaphthalene	µg/L	SW8270D	56.0	80.00	0	70.1	12-132	3.44	25		3/26/2013 2202h
1303597-002BMSD	2-Chlorophenol	µg/L	SW8270D	51.8	80.00	0	64.7	20-107	9.77	25		3/26/2013 2202h
1303597-002BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	95.9	80.00	0	120	20-250	23	25		3/26/2013 2202h
1303597-002BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	71.5	80.00	0	89.3	10-136	6.53	25		3/26/2013 2202h
1303597-002BMSD	4-Nitrophenol	µg/L	SW8270D	37.7	80.00	0	47.1	10-135	26.2	25	@	3/26/2013 2202h
1303597-002BMSD	Acenaphthene	µg/L	SW8270D	58.8	80.00	0	73.5	21-113	2.71	25		3/26/2013 2202h
1303597-002BMSD	Benzo(a)pyrene	µg/L	SW8270D	97.1	80.00	0	121	15-169	24.3	25		3/26/2013 2202h
1303597-002BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	50.8	80.00	0	63.5	10-133	1.11	25		3/26/2013 2202h
1303597-002BMSD	Pentachlorophenol	µg/L	SW8270D	44.0	80.00	0	55.0	10-131	13.9	25		3/26/2013 2202h
1303597-002BMSD	Phenol	µg/L	SW8270D	27.8	80.00	0	34.8	10-71	8.54	25		3/26/2013 2202h
1303597-002BMSD	Pyrene	µg/L	SW8270D	91.2	80.00	0	114	23-150	20	25		3/26/2013 2202h
1303597-002BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.1	80.00		80.1	14-159				3/26/2013 2202h
1303597-002BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	20.8	40.00		52.0	10-124				3/26/2013 2202h
1303597-002BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	30.7	80.00		38.4	10-106				3/26/2013 2202h
1303597-002BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	20.0	40.00		50.1	10-180				3/26/2013 2202h
1303597-002BMSD	Surr: Phenol-d6	%REC	SW8270D	25.7	80.00		32.2	10-122				3/26/2013 2202h
1303597-002BMSD	Surr: Terphenyl-d14	%REC	SW8270D	36.1	40.00		90.2	10-199				3/26/2013 2202h
1303597-002BMSD	Acenaphthene	µg/L	SW8270D	73.4	80.00	0	91.8	21-113	8.36	25		3/28/2013 1008h
1303597-002BMSD	Benzo(a)pyrene	µg/L	SW8270D	79.4	80.00	0	99.2	15-169	7.85	25		3/28/2013 1008h
1303597-002BMSD	Pentachlorophenol	µg/L	SW8270D	95.2	80.00	0	119	10-131	1.87	25		3/28/2013 1008h
1303597-002BMSD	Pyrene	µg/L	SW8270D	89.0	80.00	0	111	23-150	9.66	25		3/28/2013 1008h

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



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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 032413B	1,1,1-Trichloroethane	µg/L	SW8260C	21.5	20.00	0	107	59-156				3/24/2013 1827h
LCS VOC 032413B	1,1-Dichloroethene	µg/L	SW8260C	20.8	20.00	0	104	46-171				3/24/2013 1827h
LCS VOC 032413B	1,2-Dichlorobenzene	µg/L	SW8260C	21.4	20.00	0	107	67-135				3/24/2013 1827h
LCS VOC 032413B	1,2-Dichloroethane	µg/L	SW8260C	20.2	20.00	0	101	60-137				3/24/2013 1827h
LCS VOC 032413B	1,2-Dichloropropane	µg/L	SW8260C	20.6	20.00	0	103	59-135				3/24/2013 1827h
LCS VOC 032413B	Benzene	µg/L	SW8260C	21.5	20.00	0	107	62-127				3/24/2013 1827h
LCS VOC 032413B	Chlorobenzene	µg/L	SW8260C	21.2	20.00	0	106	63-140				3/24/2013 1827h
LCS VOC 032413B	Chloroform	µg/L	SW8260C	21.0	20.00	0	105	67-132				3/24/2013 1827h
LCS VOC 032413B	Ethylbenzene	µg/L	SW8260C	21.9	20.00	0	109	55-133				3/24/2013 1827h
LCS VOC 032413B	Isopropylbenzene	µg/L	SW8260C	22.4	20.00	0	112	60-147				3/24/2013 1827h
LCS VOC 032413B	Methyl tert-butyl ether	µg/L	SW8260C	20.1	20.00	0	100	37-189				3/24/2013 1827h
LCS VOC 032413B	Methylene chloride	µg/L	SW8260C	20.3	20.00	0	101	32-185				3/24/2013 1827h
LCS VOC 032413B	Naphthalene	µg/L	SW8260C	19.9	20.00	0	99.4	28-136				3/24/2013 1827h
LCS VOC 032413B	Tetrahydrofuran	µg/L	SW8260C	18.1	20.00	0	90.4	43-146				3/24/2013 1827h
LCS VOC 032413B	Toluene	µg/L	SW8260C	21.8	20.00	0	109	64-129				3/24/2013 1827h
LCS VOC 032413B	Trichloroethene	µg/L	SW8260C	21.6	20.00	0	108	54-152				3/24/2013 1827h
LCS VOC 032413B	Xylenes, Total	µg/L	SW8260C	66.6	60.00	0	111	52-134				3/24/2013 1827h
LCS VOC 032413B	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	48.9	50.00		97.8	76-138				3/24/2013 1827h
LCS VOC 032413B	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.6	50.00		99.1	77-121				3/24/2013 1827h
LCS VOC 032413B	Surr: Dibromofluoromethane	%REC	SW8260C	49.8	50.00		99.6	67-128				3/24/2013 1827h
LCS VOC 032413B	Surr: Toluene-d8	%REC	SW8260C	50.4	50.00		101	81-135				3/24/2013 1827h



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QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
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 032413B	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				3/24/2013 1905h
MB VOC 032413B	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	2-Butanone	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h

Report Date: 3/29/2013 Page 165 of 244



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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: 1303597
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 032413B	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	2-Hexanone	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	2-Nitropropane	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Acetone	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Acetonitrile	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Acrolein	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Acrylonitrile	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Allyl chloride	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Benzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Benzyl chloride	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Bromobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Bromochloromethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Bromoform	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Bromomethane	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Butyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Carbon disulfide	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Chlorobenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Chloroethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Chloroform	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Chloromethane	µg/L	SW8260C	< 3.00				-				3/24/2013 1905h
MB VOC 032413B	Chloroprene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h

Report Date: 3/29/2013 Page 166 of 244



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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: 1303597

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 032413B	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Cyclohexane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Cyclohexanone	µg/L	SW8260C	< 50.0				-				3/24/2013 1905h
MB VOC 032413B	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Dibromomethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Ethyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Ethyl ether	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Ethylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Iodomethane	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Isobutyl alcohol	µg/L	SW8260C	< 100				-				3/24/2013 1905h
MB VOC 032413B	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				3/24/2013 1905h
MB VOC 032413B	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	m,p-Xylene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Methyl Acetate	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Methylene chloride	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Naphthalene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	n-Butyl alcohol	µg/L	SW8260C	< 100				-				3/24/2013 1905h

Report Date: 3/29/2013 Page 167 of 244



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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: 1303597
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 032413B	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	n-Hexane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	n-Octane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	o-Xylene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Pentachloroethane	µg/L	SW8260C	< 5.00				-				3/24/2013 1905h
MB VOC 032413B	Propionitrile	µg/L	SW8260C	< 25.0				-				3/24/2013 1905h
MB VOC 032413B	Propyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Styrene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				3/24/2013 1905h
MB VOC 032413B	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Toluene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Trichloroethene	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Vinyl acetate	µg/L	SW8260C	< 10.0				-				3/24/2013 1905h
MB VOC 032413B	Vinyl chloride	µg/L	SW8260C	< 1.00				-				3/24/2013 1905h
MB VOC 032413B	Xylenes, Total	µg/L	SW8260C	< 2.00				-				3/24/2013 1905h
MB VOC 032413B	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.1	50.00		102	76-138				3/24/2013 1905h
MB VOC 032413B	Surr: 4-Bromofluorobenzene	%REC	SW8260C	52.5	50.00		105	77-121				3/24/2013 1905h
MB VOC 032413B	Surr: Dibromofluoromethane	%REC	SW8260C	50.1	50.00		100	67-128				3/24/2013 1905h
MB VOC 032413B	Surr: Toluene-d8	%REC	SW8260C	50.8	50.00		102	81-135				3/24/2013 1905h

Report Date: 3/29/2013 Page 168 of 244



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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: 1303597
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
1303597-001MS	1,1,1-Trichloroethane	µg/L	SW8260C	21.6	20.00	0	108	67-147				3/24/2013 2040h
1303597-001MS	1,1-Dichloroethene	µg/L	SW8260C	21.1	20.00	0	106	51-152				3/24/2013 2040h
1303597-001MS	1,2-Dichlorobenzene	µg/L	SW8260C	18.6	20.00	0	93.1	70-130				3/24/2013 2040h
1303597-001MS	1,2-Dichloroethane	µg/L	SW8260C	19.8	20.00	0	99.2	39-162				3/24/2013 2040h
1303597-001MS	1,2-Dichloropropane	µg/L	SW8260C	18.4	20.00	0	92.0	59-135				3/24/2013 2040h
1303597-001MS	Benzene	µg/L	SW8260C	19.7	20.00	0	98.4	66-145				3/24/2013 2040h
1303597-001MS	Chlorobenzene	µg/L	SW8260C	19.2	20.00	0	95.8	63-140				3/24/2013 2040h
1303597-001MS	Chloroform	µg/L	SW8260C	20.1	20.00	0	101	50-146				3/24/2013 2040h
1303597-001MS	Ethylbenzene	µg/L	SW8260C	19.6	20.00	0	98.1	69-133				3/24/2013 2040h
1303597-001MS	Isopropylbenzene	µg/L	SW8260C	20.2	20.00	0	101	60-147				3/24/2013 2040h
1303597-001MS	Methyl tert-butyl ether	µg/L	SW8260C	20.6	20.00	0	103	37-189				3/24/2013 2040h
1303597-001MS	Methylene chloride	µg/L	SW8260C	20.1	20.00	0	100	30-192				3/24/2013 2040h
1303597-001MS	Naphthalene	µg/L	SW8260C	17.5	20.00	0	87.6	41-131				3/24/2013 2040h
1303597-001MS	Tetrahydrofuran	µg/L	SW8260C	17.8	20.00	0	89.1	43-146				3/24/2013 2040h
1303597-001MS	Toluene	µg/L	SW8260C	19.5	20.00	0	97.5	18-192				3/24/2013 2040h
1303597-001MS	Trichloroethene	µg/L	SW8260C	19.3	20.00	0	96.5	61-153				3/24/2013 2040h
1303597-001MS	Xylenes, Total	µg/L	SW8260C	59.6	60.00	0	99.4	42-167				3/24/2013 2040h
1303597-001MS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.1	50.00		106	72-151				3/24/2013 2040h
1303597-001MS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.0	50.00		96.0	80-128				3/24/2013 2040h
1303597-001MS	Surr: Dibromofluoromethane	%REC	SW8260C	51.8	50.00		104	80-124				3/24/2013 2040h
1303597-001MS	Surr: Toluene-d8	%REC	SW8260C	48.6	50.00		97.1	77-129				3/24/2013 2040h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303597
Project: MP 44.9

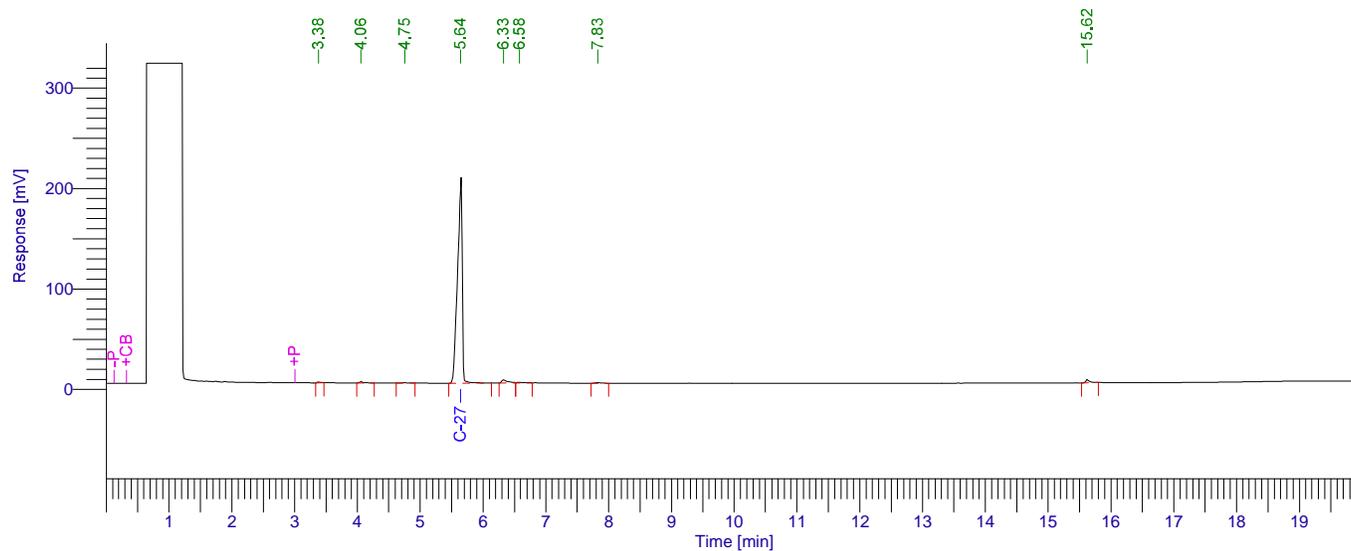
Contact: Chris Bittner
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303597-001MSD	1,1,1-Trichloroethane	µg/L	SW8260C	21.7	20.00	0	108	67-147	0.231	25		3/24/2013 2059h
1303597-001MSD	1,1-Dichloroethene	µg/L	SW8260C	21.0	20.00	0	105	51-152	0.285	25		3/24/2013 2059h
1303597-001MSD	1,2-Dichlorobenzene	µg/L	SW8260C	19.0	20.00	0	94.8	70-130	1.76	25		3/24/2013 2059h
1303597-001MSD	1,2-Dichloroethane	µg/L	SW8260C	19.8	20.00	0	99.1	39-162	0.151	25		3/24/2013 2059h
1303597-001MSD	1,2-Dichloropropane	µg/L	SW8260C	18.3	20.00	0	91.6	59-135	0.49	25		3/24/2013 2059h
1303597-001MSD	Benzene	µg/L	SW8260C	19.8	20.00	0	99.2	66-145	0.81	25		3/24/2013 2059h
1303597-001MSD	Chlorobenzene	µg/L	SW8260C	18.8	20.00	0	94.3	63-140	1.63	25		3/24/2013 2059h
1303597-001MSD	Chloroform	µg/L	SW8260C	20.2	20.00	0	101	50-146	0.0993	25		3/24/2013 2059h
1303597-001MSD	Ethylbenzene	µg/L	SW8260C	19.6	20.00	0	98.0	69-133	0.153	25		3/24/2013 2059h
1303597-001MSD	Isopropylbenzene	µg/L	SW8260C	20.1	20.00	0	100	60-147	0.348	25		3/24/2013 2059h
1303597-001MSD	Methyl tert-butyl ether	µg/L	SW8260C	20.0	20.00	0	100	37-189	2.71	25		3/24/2013 2059h
1303597-001MSD	Methylene chloride	µg/L	SW8260C	20.0	20.00	0	100	30-192	0.249	25		3/24/2013 2059h
1303597-001MSD	Naphthalene	µg/L	SW8260C	17.8	20.00	0	89.2	41-131	1.75	25		3/24/2013 2059h
1303597-001MSD	Tetrahydrofuran	µg/L	SW8260C	22.9	20.00	0	114	43-146	24.9	25		3/24/2013 2059h
1303597-001MSD	Toluene	µg/L	SW8260C	19.2	20.00	0	96.2	18-192	1.24	25		3/24/2013 2059h
1303597-001MSD	Trichloroethene	µg/L	SW8260C	19.1	20.00	0	95.7	61-153	0.781	25		3/24/2013 2059h
1303597-001MSD	Xylenes, Total	µg/L	SW8260C	58.6	60.00	0	97.7	42-167	1.67	25		3/24/2013 2059h
1303597-001MSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.3	50.00		109	72-151				3/24/2013 2059h
1303597-001MSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.7	50.00		99.4	80-128				3/24/2013 2059h
1303597-001MSD	Surr: Dibromofluoromethane	%REC	SW8260C	52.4	50.00		105	80-124				3/24/2013 2059h
1303597-001MSD	Surr: Toluene-d8	%REC	SW8260C	49.2	50.00		98.4	77-129				3/24/2013 2059h

Software Version : 6.3.1.0504
 Sample Name : 1303597-001D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 6

Date : 3/26/2013 1:55:45 PM
 Data Acquisition Time : 3/26/2013 1:04:36 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g006.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2

injection amount: 5 μ L

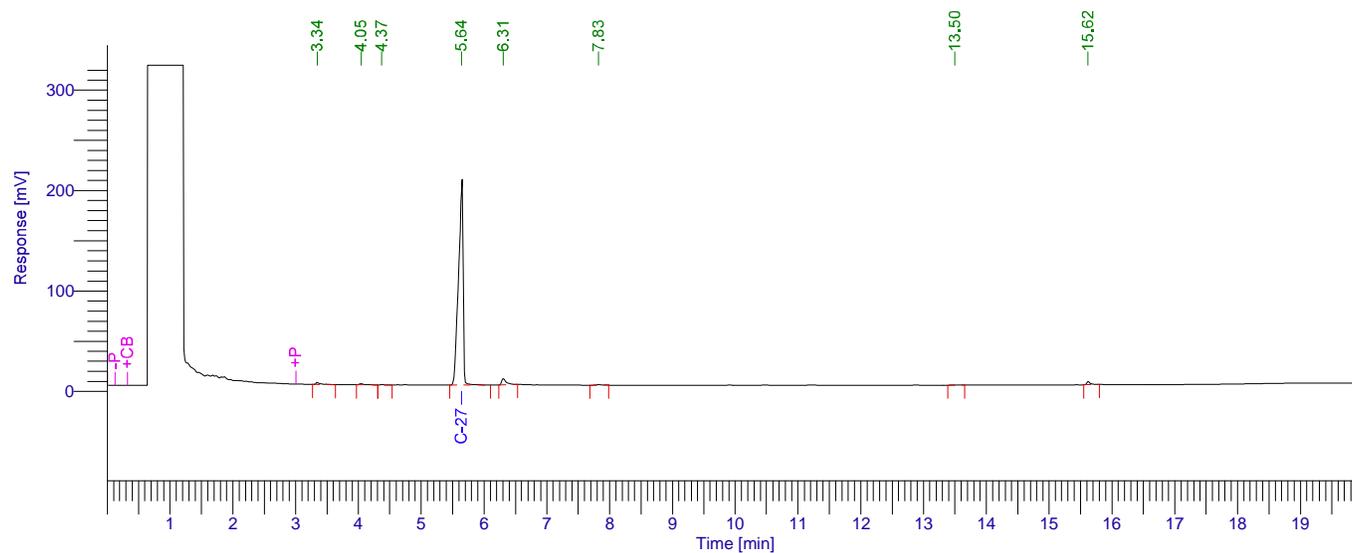
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.641	C-27	202769	1055320	1.05e+02	100.00	104.9
11.311	ORO	4229	21445	7.60542	100.00	7.6 <PQL
						112.6

Report stored in ASCII file: C:\gc#2\ORO\0325g006.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-002D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 7

Date : 3/26/2013 1:56:03 PM
 Data Acquisition Time : 3/26/2013 1:28:24 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g007.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2

injection amount: 5 μ L

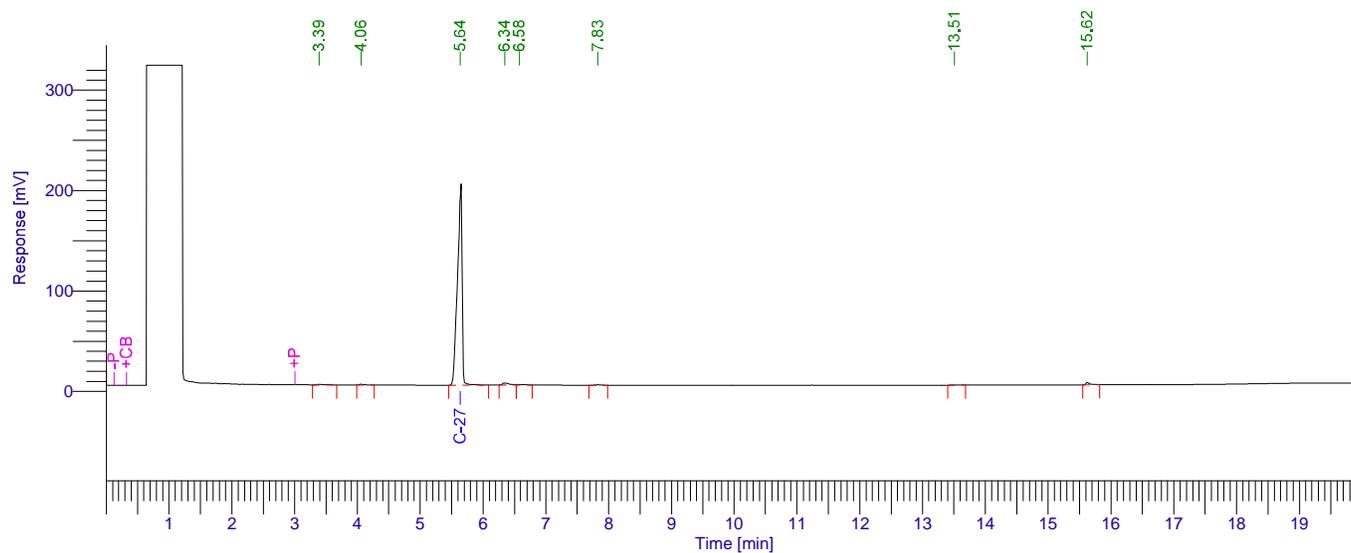
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.640	C-27	200769	1046517	1.04e+02	100.00	104.1
11.311	ORO	3812	17340	7.21443	100.00	7.2 <PQL
						111.3

Report stored in ASCII file: C:\gc#2\ORO\0325g007.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-003D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 8

Date : 3/26/2013 1:56:23 PM
 Data Acquisition Time : 3/26/2013 1:52:08 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g008.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

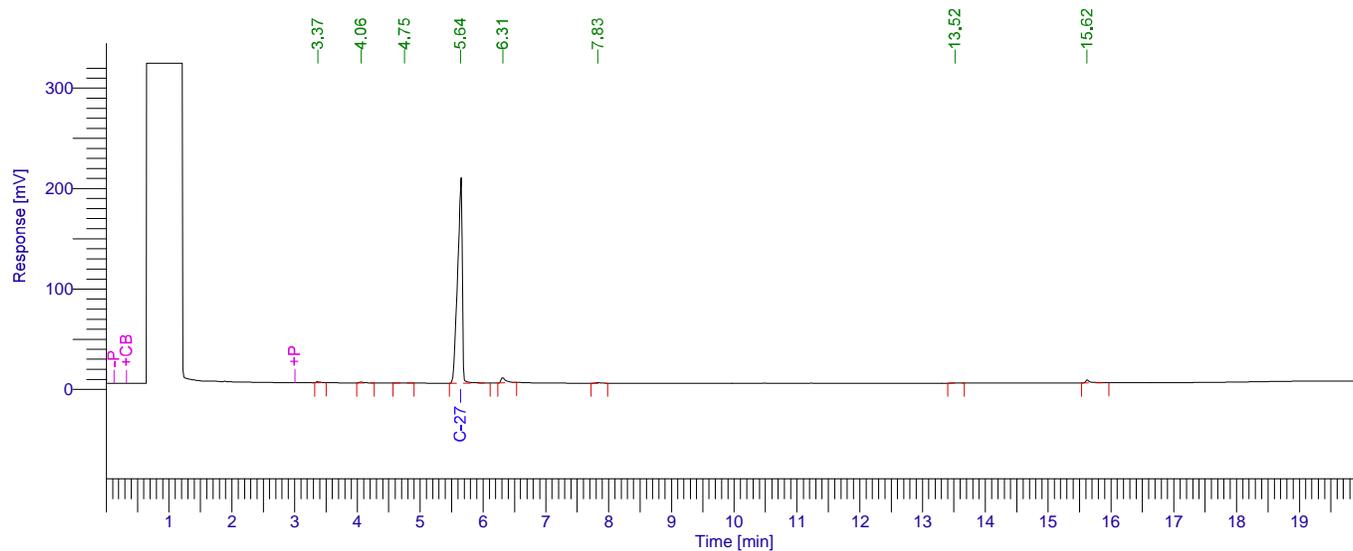
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.639	C-27	196400	1020373	1.02e+02	100.00	101.6
11.311	ORO	3381	18172	7.29368	100.00	7.3 <PQL
						108.9

Report stored in ASCII file: C:\gc#2\ORO\0325g008.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-004D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 9

Date : 3/26/2013 1:56:40 PM
 Data Acquisition Time : 3/26/2013 2:15:54 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g009.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15µm
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2

injection amount: 5µL

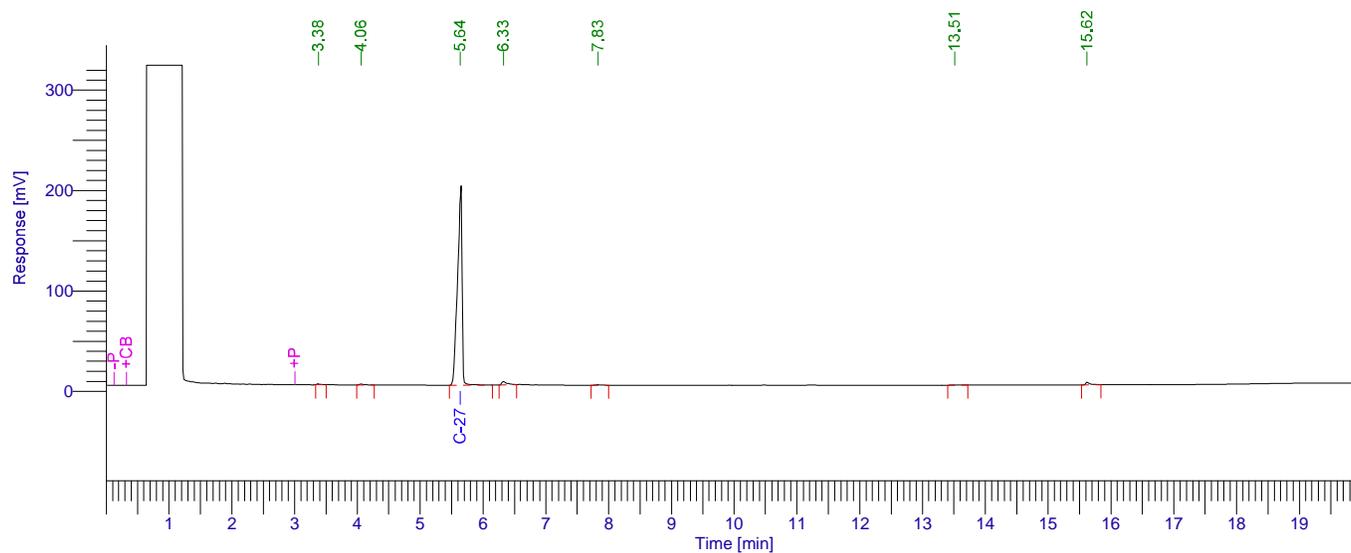
time [min]	component name	height [µV]	area [µV·s]	raw amt µg/mL	target µg/mL	% recs
5.641	C-27	203319	1051750	1.05e+02	100.00	104.6
11.311	ORO	3494	19436	7.41410	100.00	7.4 <PQL
						112.0

Report stored in ASCII file: C:\gc#2\ORO\0325g009.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-005D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 10

Date : 3/26/2013 1:56:57 PM
 Data Acquisition Time : 3/26/2013 2:39:40 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g010.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15µm
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5µL

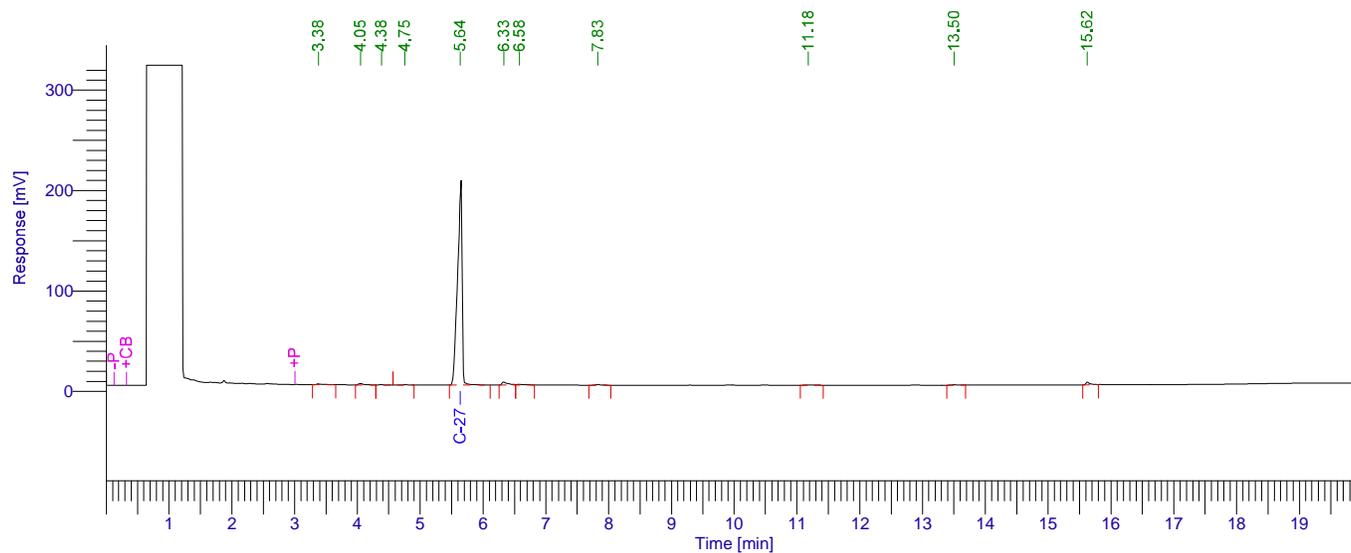
time [min]	component name	height [µV]	area [µV-s]	raw amt µg/mL	target µg/mL	% recs
5.639	C-27	192980	993412	99.00348	100.00	99.0
11.311	ORO	3225	16227	7.10847	100.00	7.1 <PQL
						106.1

Report stored in ASCII file: C:\gc#2\ORO\0325g010.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-006D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 11

Date : 3/26/2013 1:57:13 PM
 Data Acquisition Time : 3/26/2013 3:03:27 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g011.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

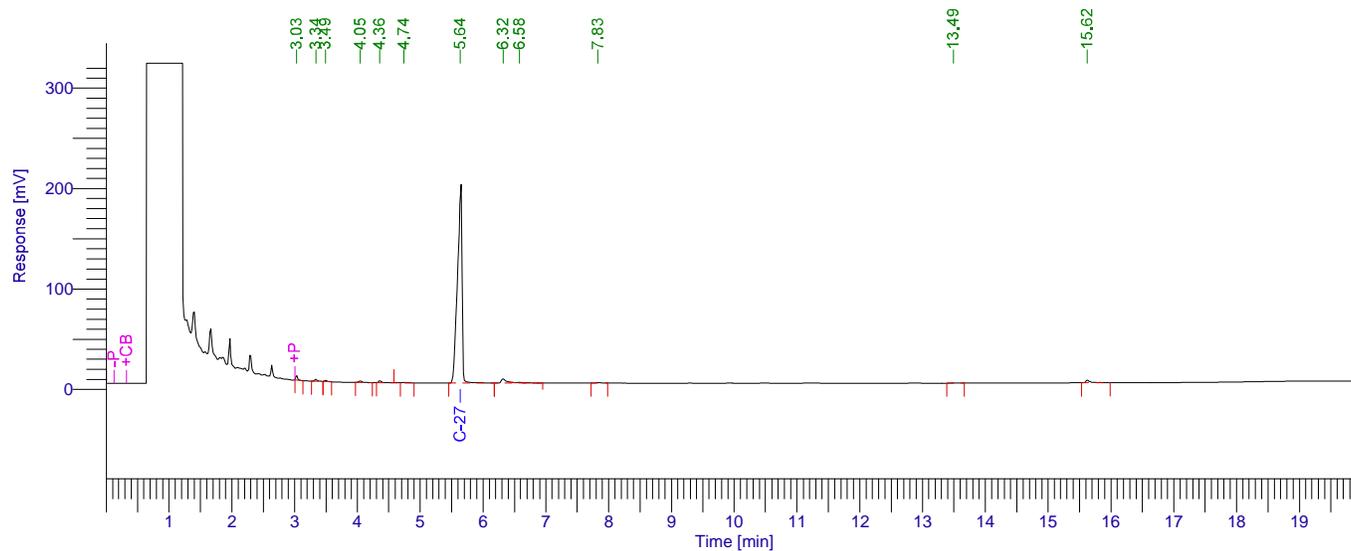
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.640	C-27	198004	1021898	1.02e+02	100.00	101.7
11.311	ORO	4108	23415	7.79303	100.00	7.8 <PQL
						109.5

Report stored in ASCII file: C:\gc#2\ORO\0325g011.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-007D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 12

Date : 3/26/2013 1:57:46 PM
 Data Acquisition Time : 3/26/2013 3:27:12 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g012.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15µm
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5µL

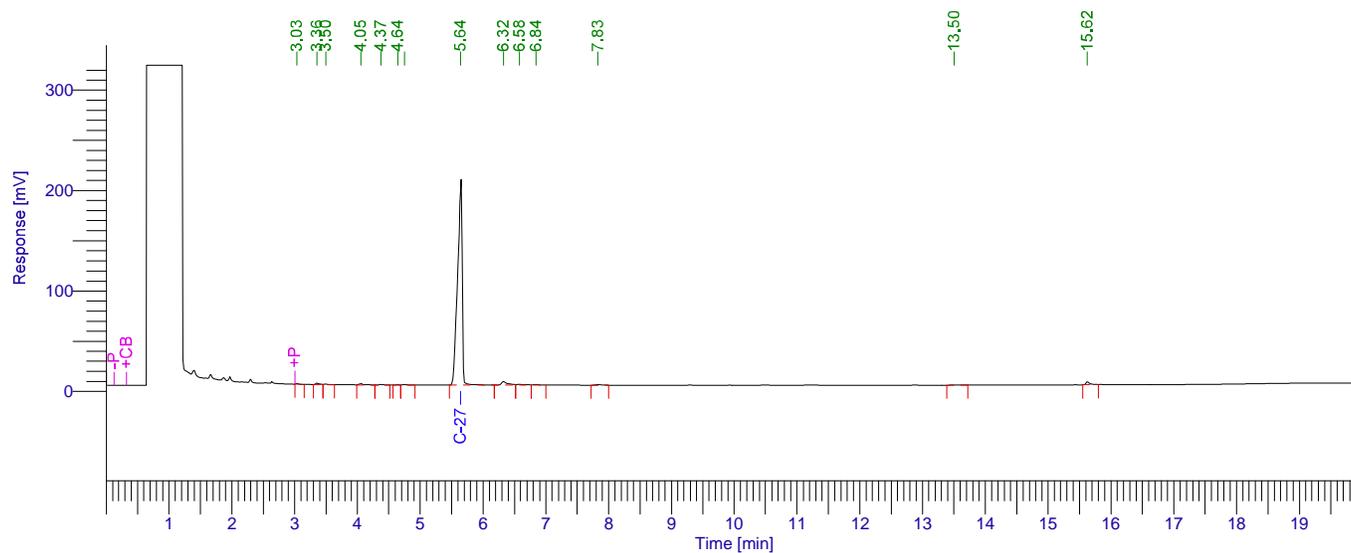
time [min]	component name	height [µV]	area [µV-s]	raw amt µg/mL	target µg/mL	% recs
5.639	C-27	192062	998945	99.53473	100.00	99.5
11.311	ORO	3902	24188	7.86667	100.00	7.9 <PQL
						107.4

Report stored in ASCII file: C:\gc#2\ORO\0325g012.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-010D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 13

Date : 3/26/2013 1:58:07 PM
 Data Acquisition Time : 3/26/2013 3:50:58 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g013.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

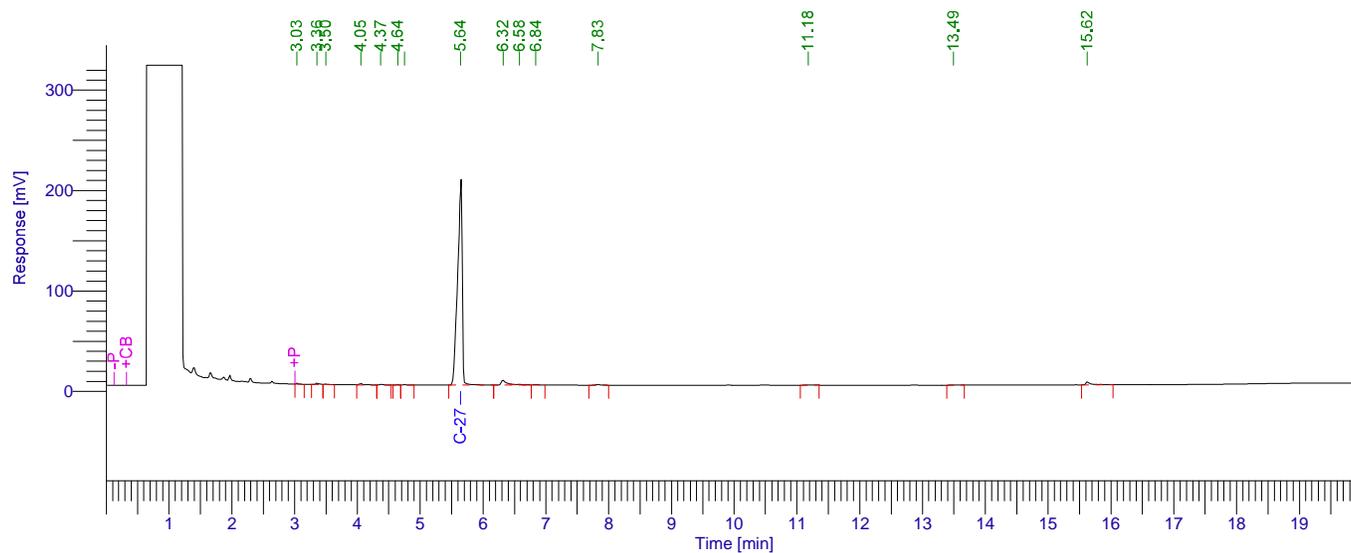
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.641	C-27	203134	1047423	1.04e+02	100.00	104.2
11.311	ORO	4853	27284	8.16146	100.00	8.2 <PQL
						112.3

Report stored in ASCII file: C:\gc#2\ORO\0325g013.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-011D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 14

Date : 3/26/2013 1:58:29 PM
 Data Acquisition Time : 3/26/2013 4:14:42 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g014.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

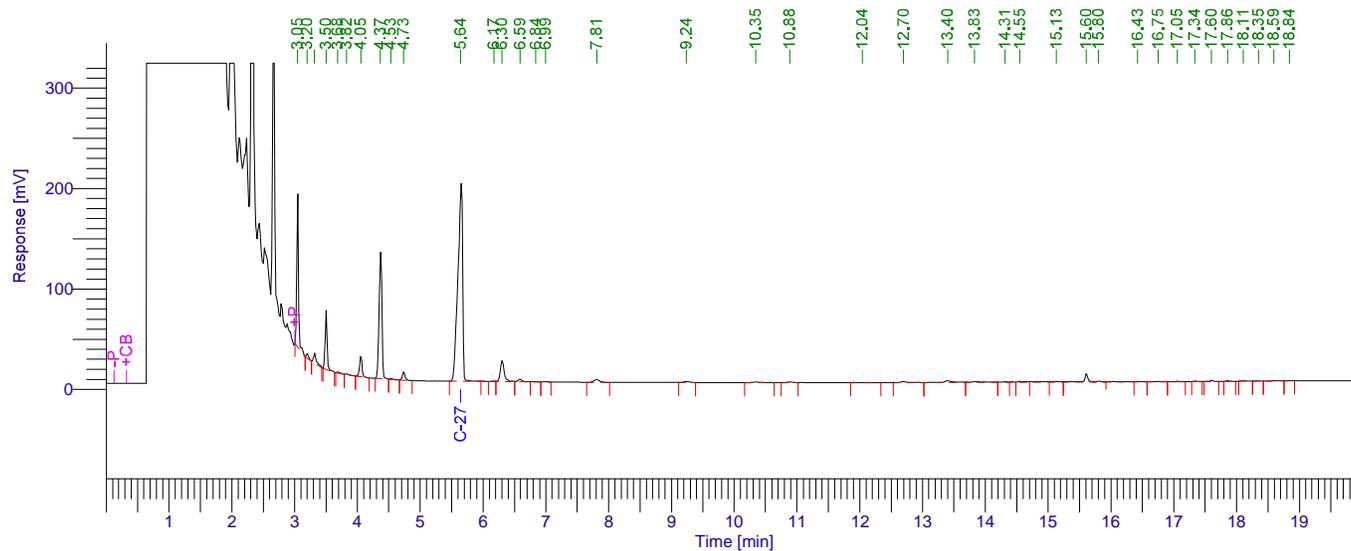
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.641	C-27	203586	1043581	1.04e+02	100.00	103.8
11.311	ORO	4850	32045	8.61484	100.00	8.6<PQL
						112.4

Report stored in ASCII file: C:\gc#2\ORO\0325g014.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-012D
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 15

Date : 3/26/2013 1:58:55 PM
 Data Acquisition Time : 3/26/2013 4:38:28 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g015.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15µm
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5µL

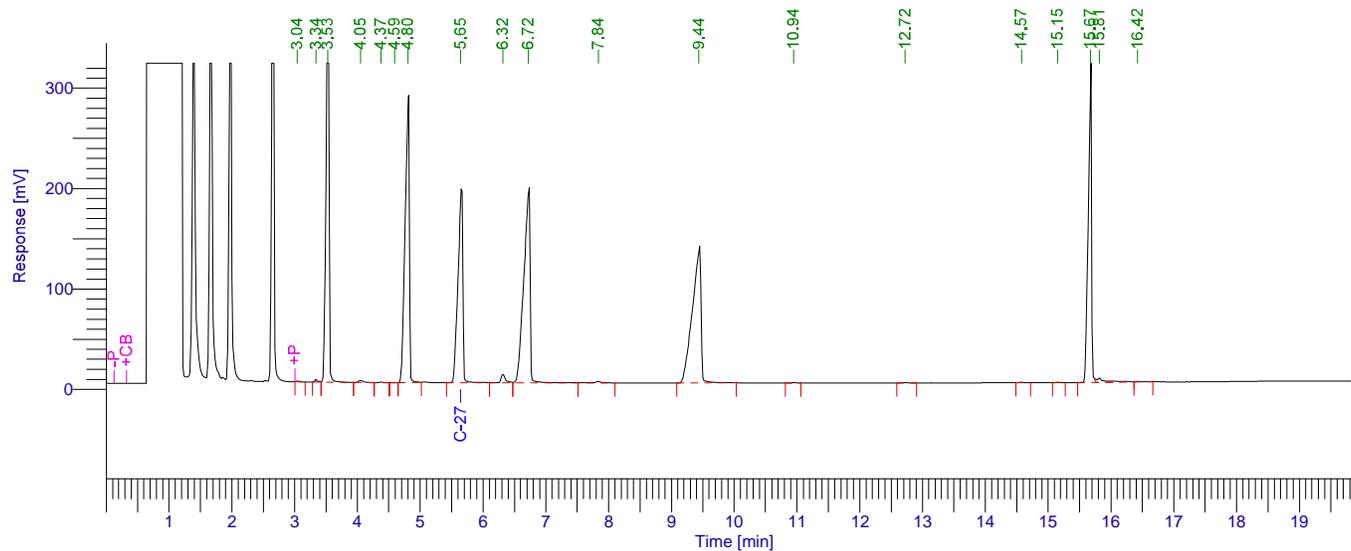
time [min]	component name	height [µV]	area [µV·s]	raw amt µg/mL	target µg/mL	% recs
5.644	C-27	202663	1026262	1.02e+02	100.00	102.2
11.311	ORO	22120	144207	19.28683	100.00	19.3 <PQL
						121.4

Report stored in ASCII file: C:\gc#2\ORO\0325g015.TX0

Software Version : 6.3.1.0504
 Sample Name : LCS-24351
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 4

Date : 3/26/2013 1:54:49 PM
 Data Acquisition Time : 3/26/2013 12:17:03 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g004.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

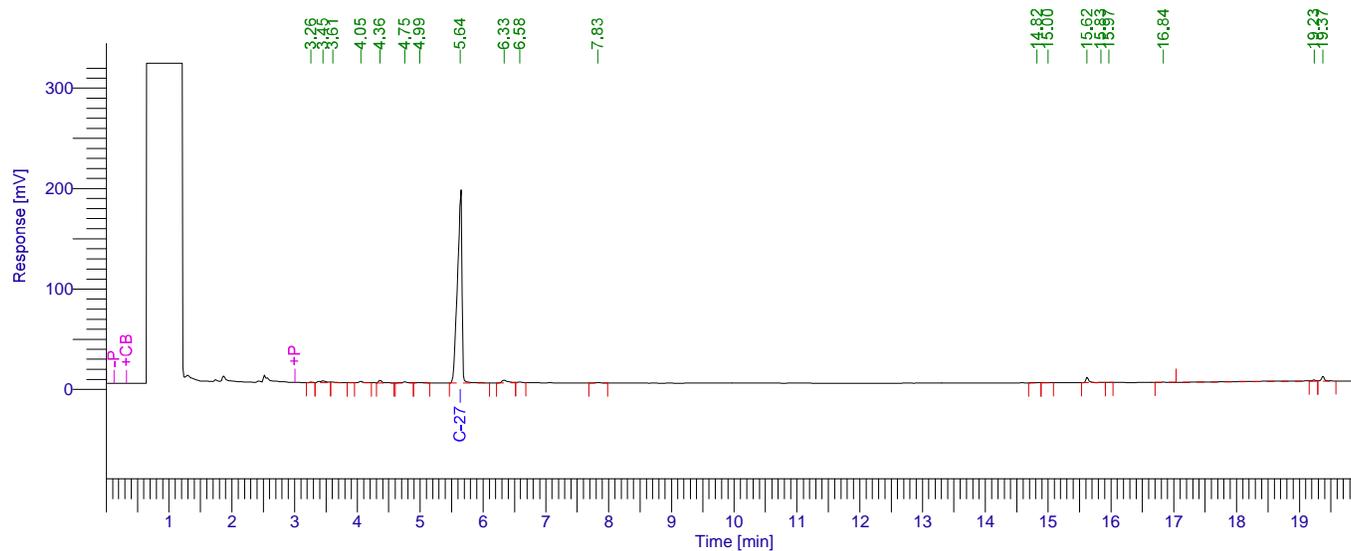
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.646	C-27	201030	1028793	1.02e+02	100.00	102.4
11.311	ORO	625653	3923377	3.70e+02	100.00	370.3
						472.7

Report stored in ASCII file: C:\gc#2\ORO\0325g004.TX0

Software Version : 6.3.1.0504
 Sample Name : MB-24351
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 3

Date : 3/26/2013 1:54:24 PM
 Data Acquisition Time : 3/25/2013 11:53:18 PM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g003.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15µm
 carrier gas: Helium
 oven temp prgrm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5µL

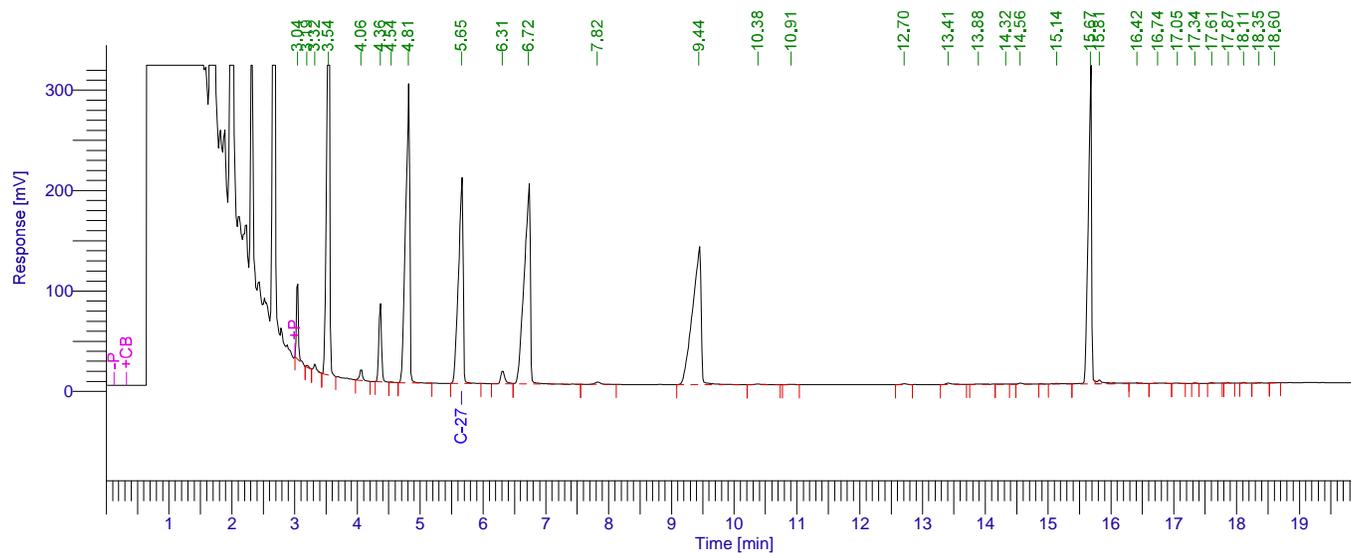
time [min]	component name	height [µV]	area [µV-s]	raw amt µg/mL	target µg/mL	% recs
5.637	C-27	184704	956052	95.41525	100.00	95.4
11.311	ORO	6687	28360	8.26390	100.00	8.3 <PQL
						103.7

Report stored in ASCII file: C:\gc#2\ORO\0325g003.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-012DMS
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 16

Date : 3/26/2013 1:59:15 PM
 Data Acquisition Time : 3/26/2013 5:02:13 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g016.rst
 Sequence File : C:\sequences\0325-ORO.seq



ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

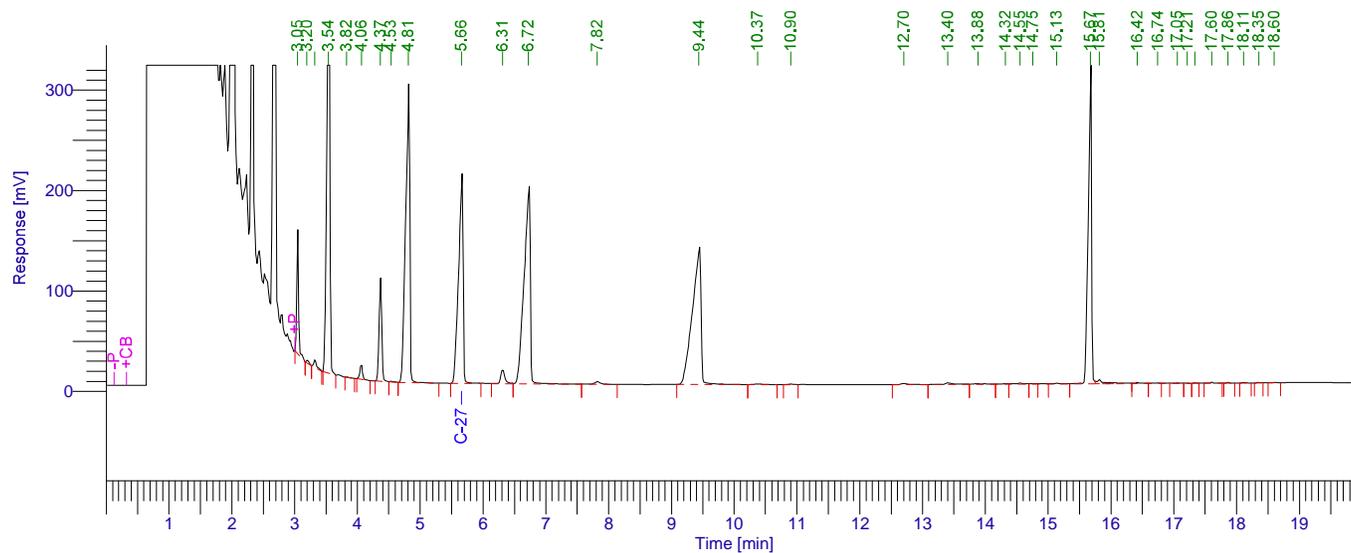
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.655	C-27	199137	1039744	1.03e+02	100.00	103.5
11.311	ORO	641908	3994403	3.77e+02	100.00	376.8
						480.2

Report stored in ASCII file: C:\gc#2\ORO\0325g016.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303597-012DMSD
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 17

Date : 3/26/2013 1:59:33 PM
 Data Acquisition Time : 3/26/2013 5:25:59 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0325g017.rst
 Sequence File : C:\sequences\0325-ORO.seq



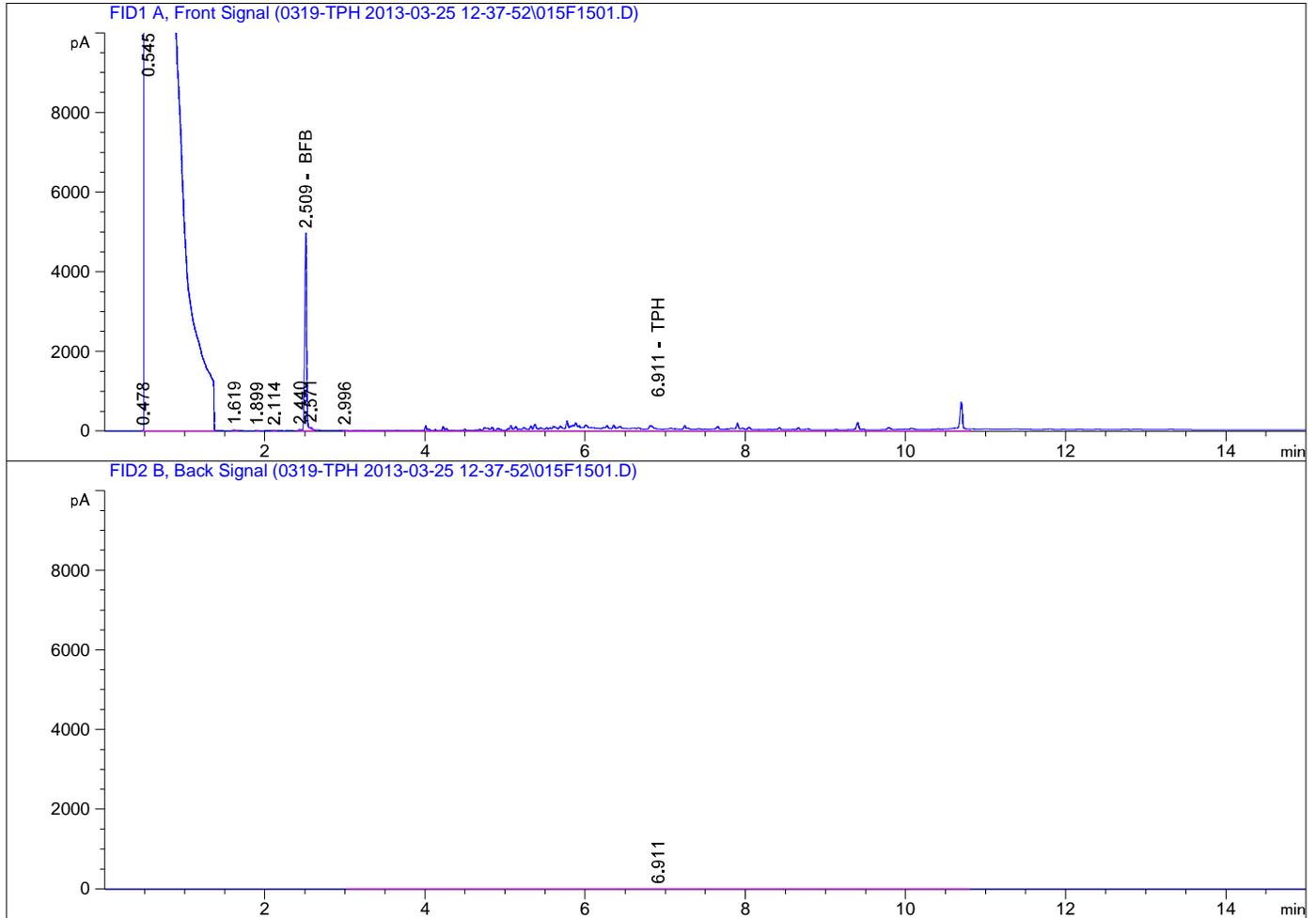
ORO Analysis (FID)

capillary column gas chromatography
 instrument: GC#2 HP5890 Series II Plus
 column: Zebtron ZB-5HT
 column dimensions: 30m X 0.53mm X 0.15 μ m
 carrier gas: Helium
 oven temp prgm: 180C/0min @ 30C/min to 220C/0.00min
 20C/min to 360 hold 1.67
 injection temp: 340C detector temp: 360C Range: 2 injection amount: 5 μ L

time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.655	C-27	200753	1039685	1.03e+02	100.00	103.4
11.311	ORO	643500	4010663	3.78e+02	100.00	378.3
						481.7

Report stored in ASCII file: C:\gc#2\ORO\0325g017.TX0

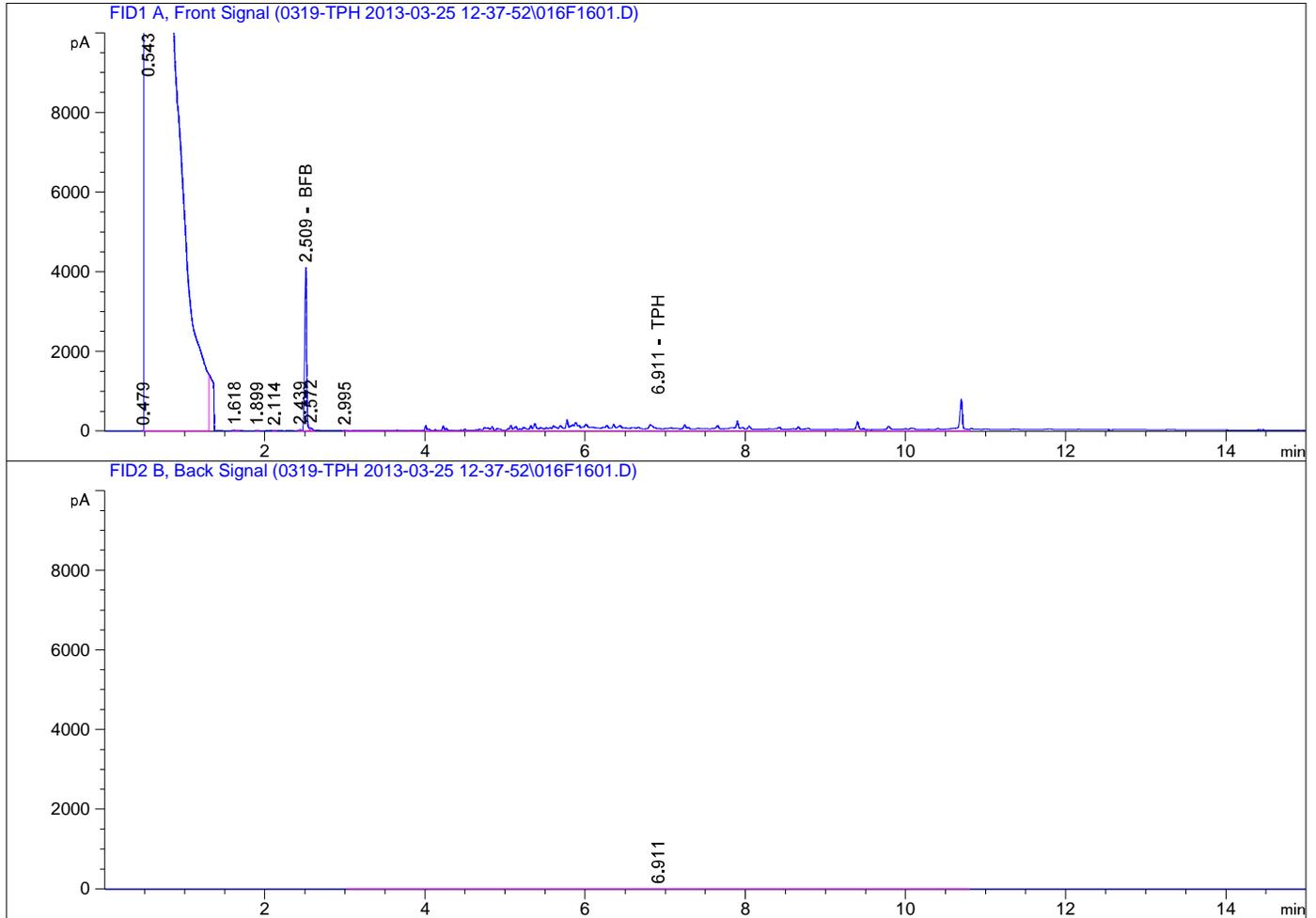
=====
Acq. Operator : Seq. Line : 15
Acq. Instrument : GC C Location : Vial 15
Injection Date : 3/25/2013 5:08:42 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 3/26/2013 12:18:05 PM
(modified after loading)
=====



=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 3/26/2013 12:18:05 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

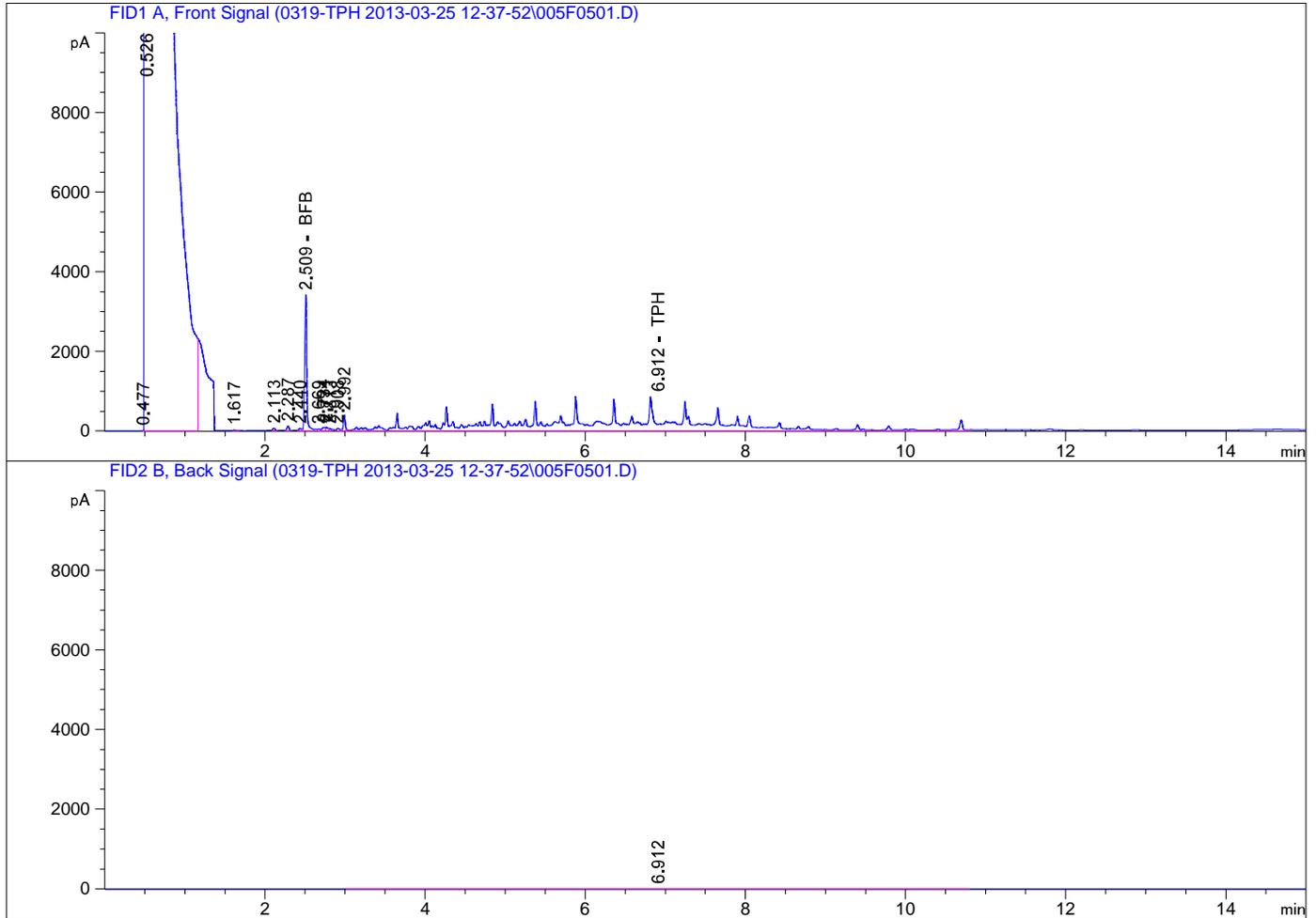
=====
Acq. Operator : Seq. Line : 16
Acq. Instrument : GC C Location : Vial 16
Injection Date : 3/25/2013 5:27:51 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 3/26/2013 12:18:05 PM
(modified after loading)
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=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 3/26/2013 12:18:05 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

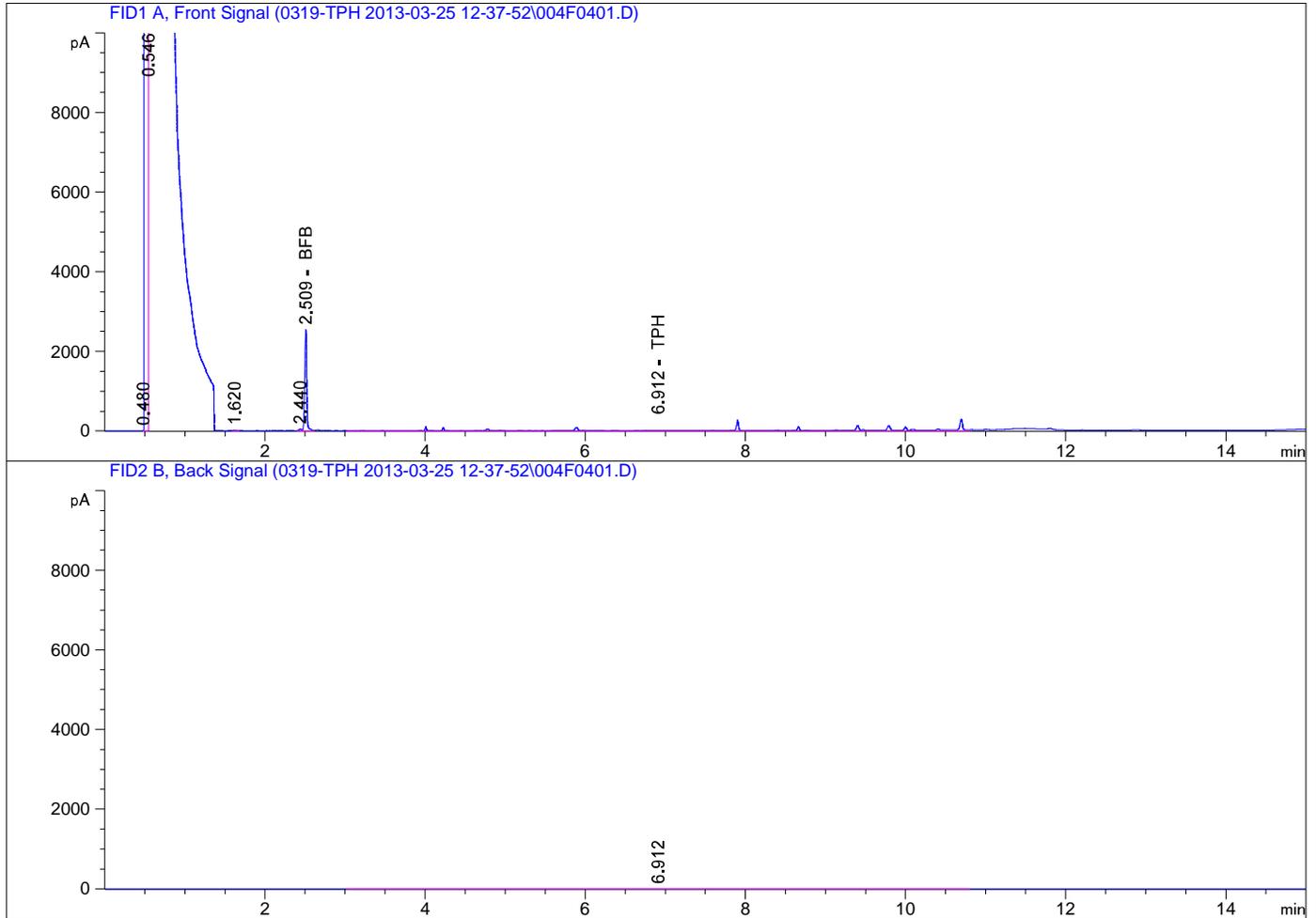
=====
Acq. Operator : Seq. Line : 5
Acq. Instrument : GC C Location : Vial 5
Injection Date : 3/25/2013 1:56:45 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 3/26/2013 12:18:05 PM
(modified after loading)
=====



=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 3/26/2013 12:18:05 PM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====
Acq. Operator : Seq. Line : 4
Acq. Instrument : GC C Location : Vial 4
Injection Date : 3/25/2013 1:37:32 PM Inj : 1
Inj Volume : 5 µl
Acq. Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M
Last changed : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0319-TPH 2013-03-25 12-37-52\TPH-FRONT-1090171B.M (Sequence Method)
Last changed : 3/26/2013 12:18:05 PM
(modified after loading)
=====



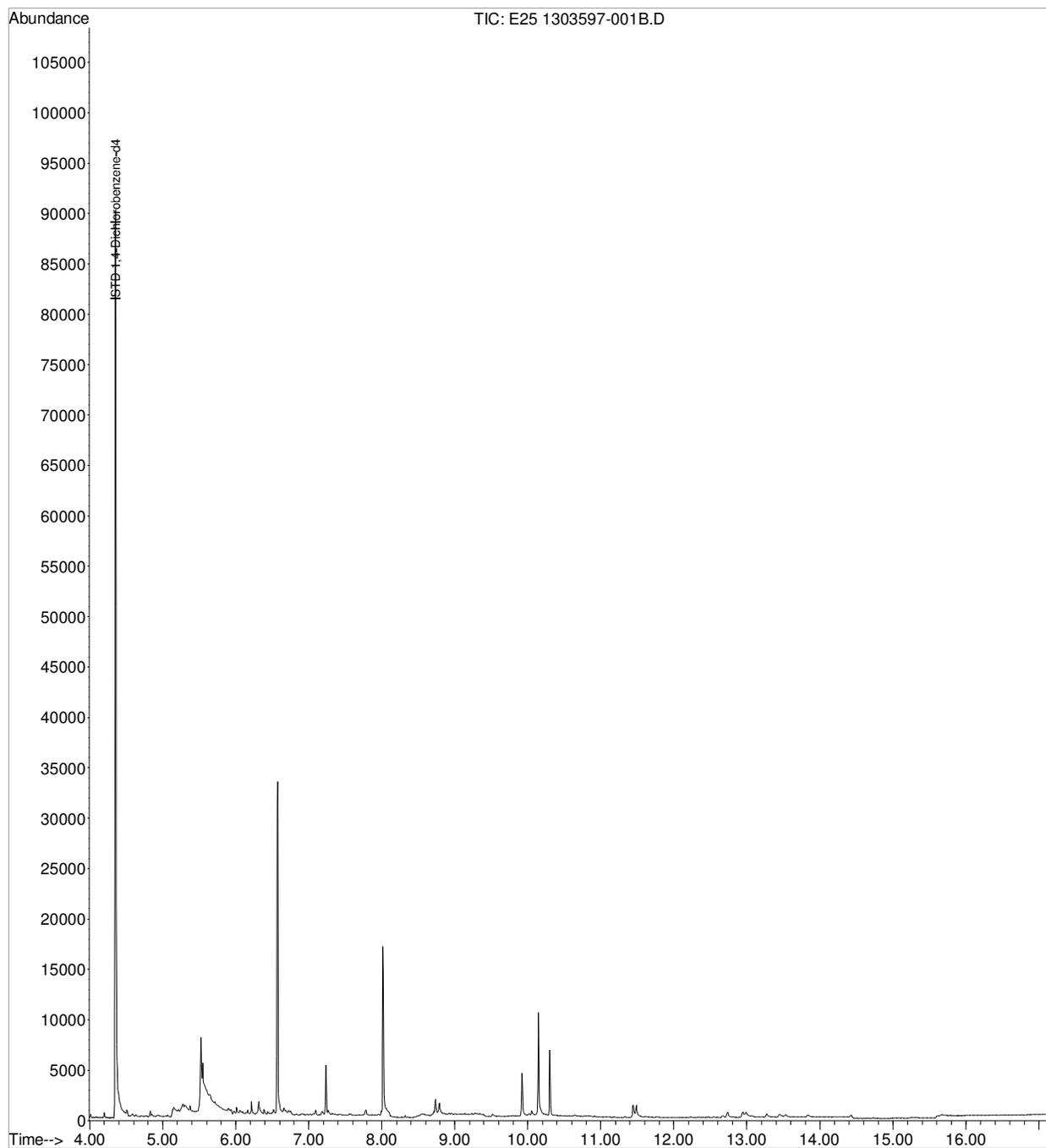
=====
External Standard Report
=====

Sorted By : Signal
Calib. Data Modified : 3/26/2013 12:18:05 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\MAR 13\28MAR13-A\
Data File : E25 1303597-001B.D
Acq On : 28 Mar 2013 1:41 pm
Operator : ALICIA HABERLE
Sample : 1303597-001B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

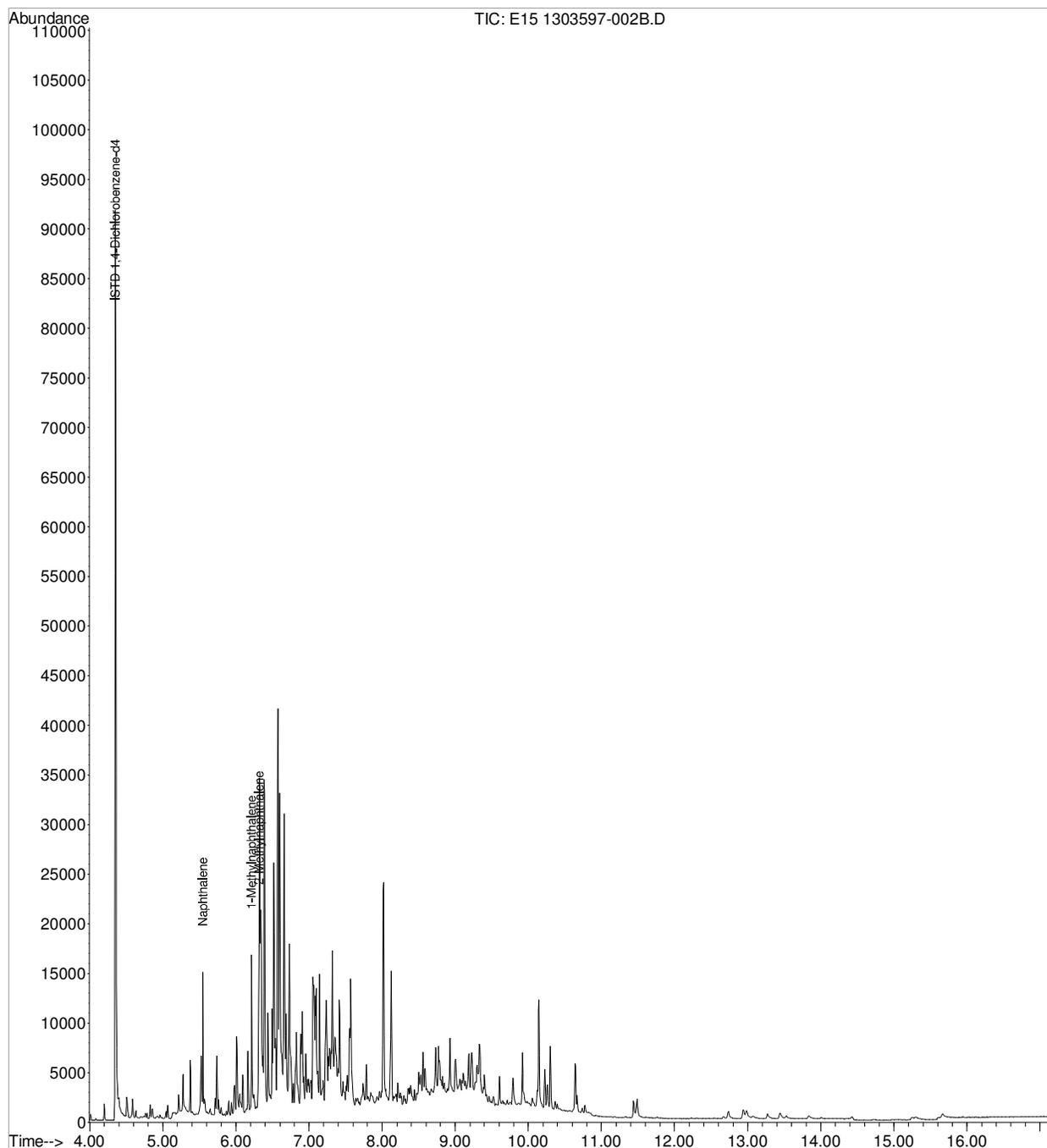
Quant Time: Mar 29 06:12:10 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E15 1303597-002B.D
Acq On : 28 Mar 2013 9:14 am
Operator : ALICIA HABERLE
Sample : 1303597-002B
Misc : SAMP
ALS Vial : 9 Sample Multiplier: 1

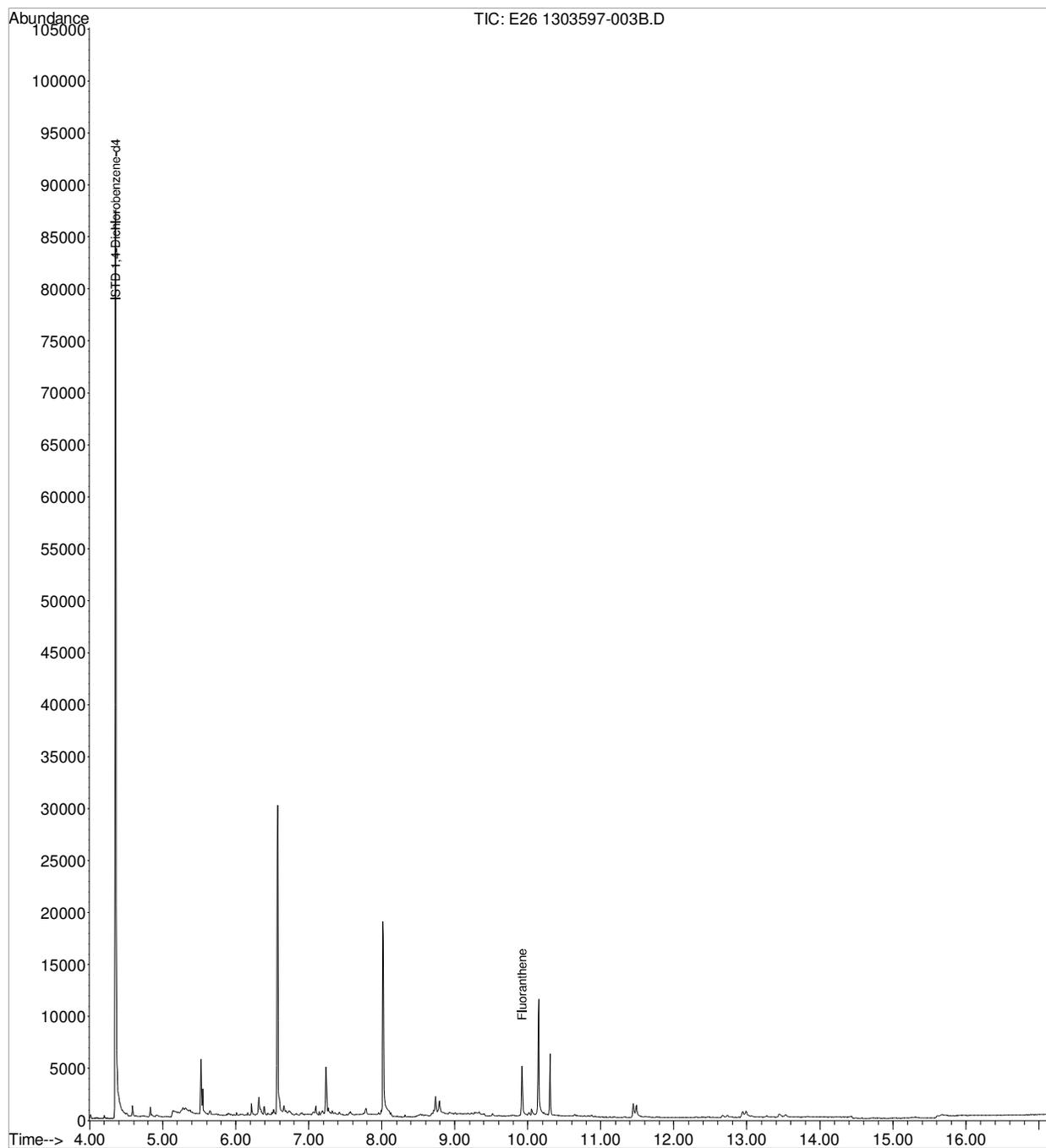
Quant Time: Mar 28 13:35:27 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E26 1303597-003B.D
Acq On : 28 Mar 2013 2:08 pm
Operator : ALICIA HABERLE
Sample : 1303597-003B
Misc : SAMP
ALS Vial : 20 Sample Multiplier: 1

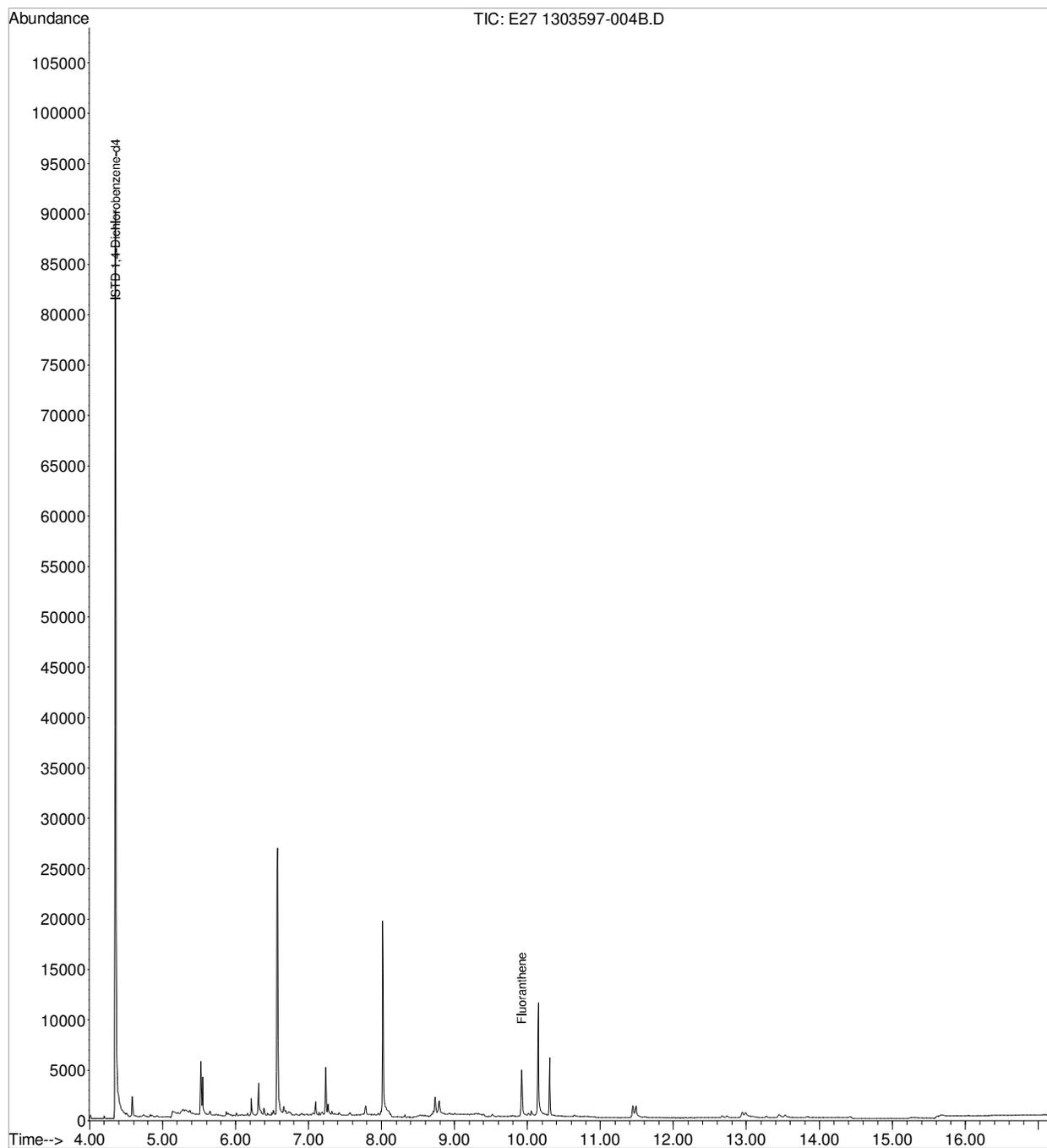
Quant Time: Mar 29 06:13:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E27 1303597-004B.D
Acq On : 28 Mar 2013 2:36 pm
Operator : ALICIA HABERLE
Sample : 1303597-004B
Misc : SAMP
ALS Vial : 21 Sample Multiplier: 1

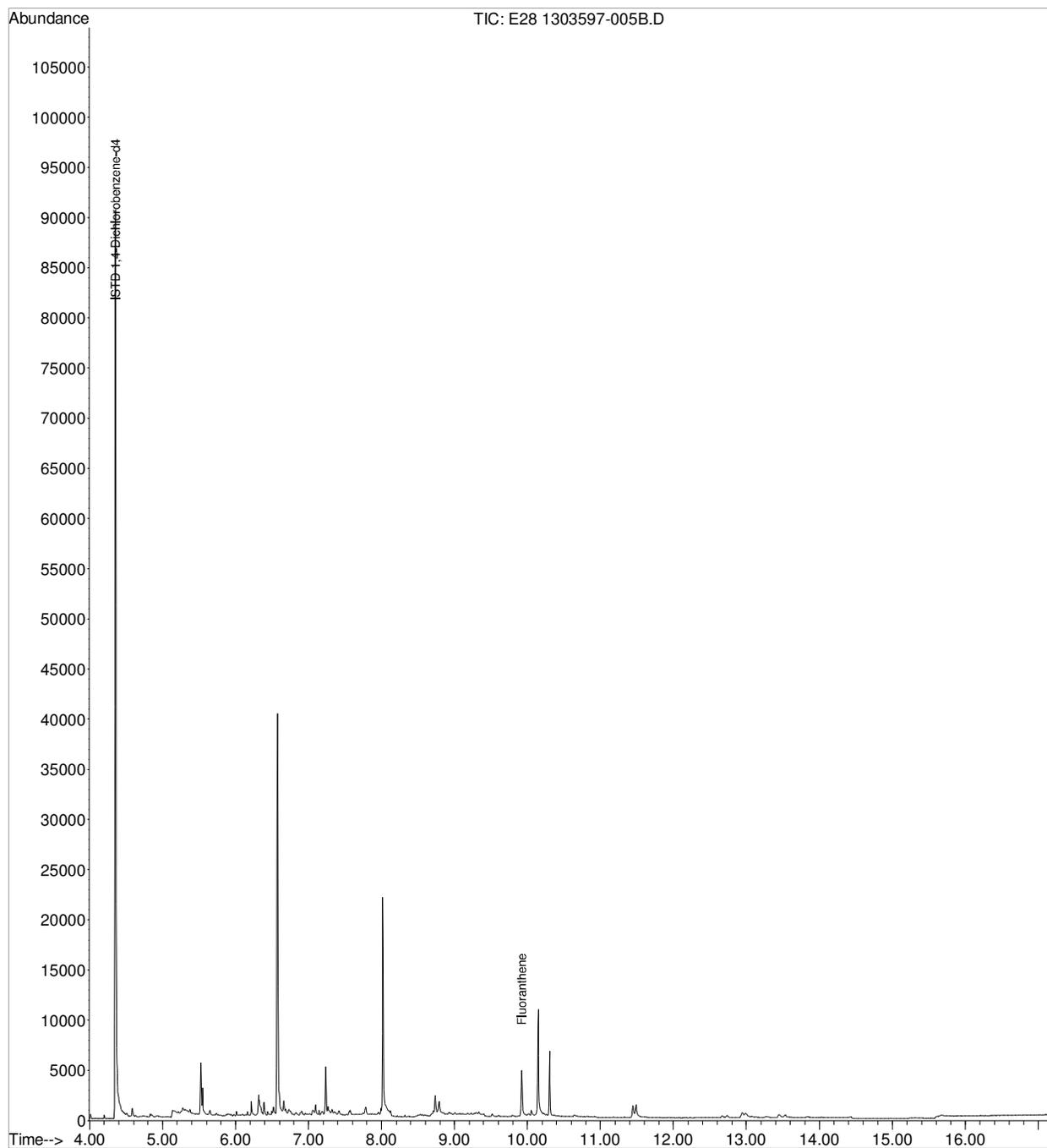
Quant Time: Mar 29 06:13:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E28 1303597-005B.D
Acq On : 28 Mar 2013 3:03 pm
Operator : ALICIA HABERLE
Sample : 1303597-005B
Misc : SAMP
ALS Vial : 22 Sample Multiplier: 1

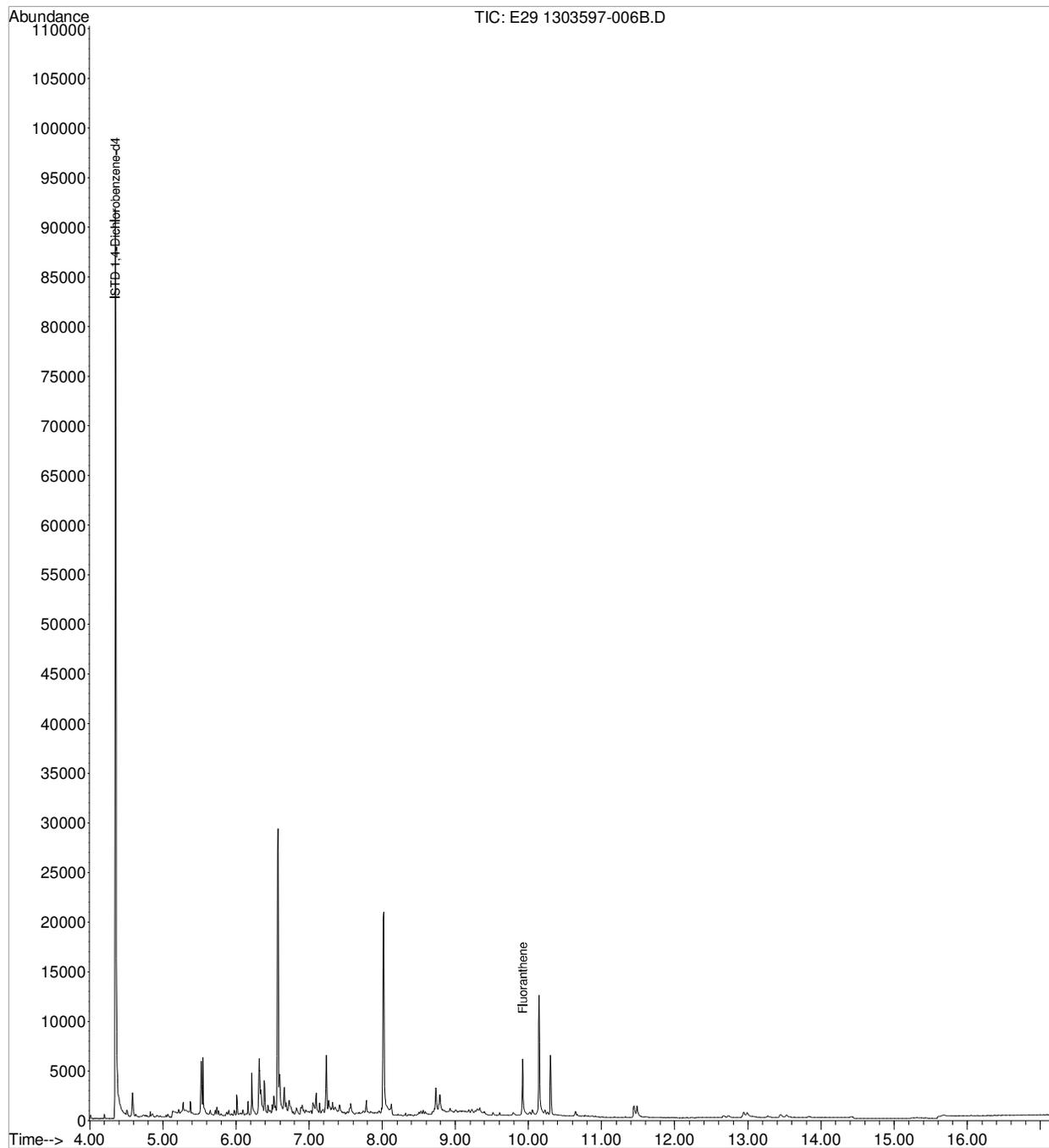
Quant Time: Mar 29 06:14:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E29 1303597-006B.D
Acq On : 28 Mar 2013 3:31 pm
Operator : ALICIA HABERLE
Sample : 1303597-006B
Misc : SAMP
ALS Vial : 23 Sample Multiplier: 1

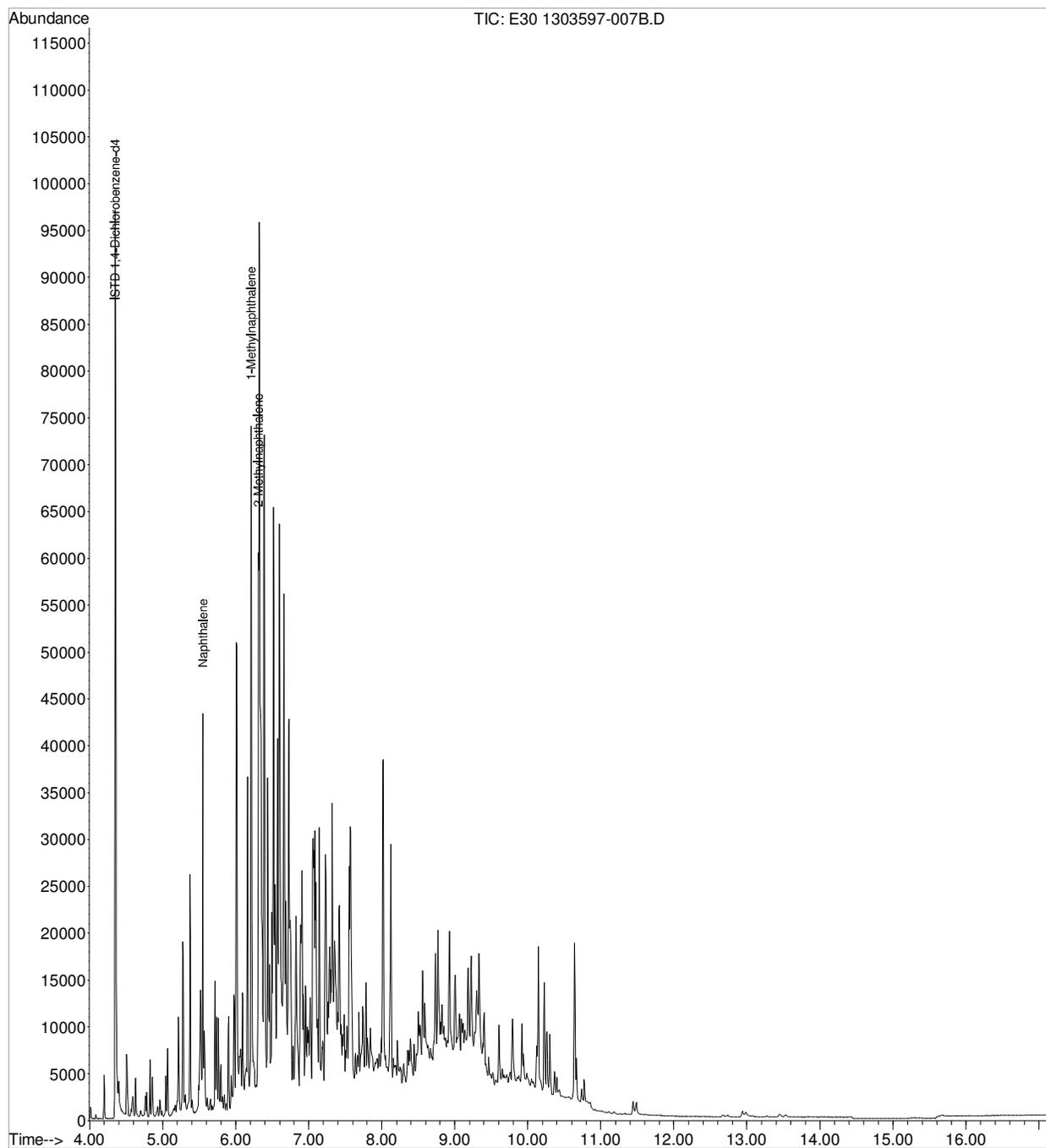
Quant Time: Mar 29 06:14:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E30 1303597-007B.D
Acq On : 28 Mar 2013 3:58 pm
Operator : ALICIA HABERLE
Sample : 1303597-007B
Misc : SAMP
ALS Vial : 24 Sample Multiplier: 1

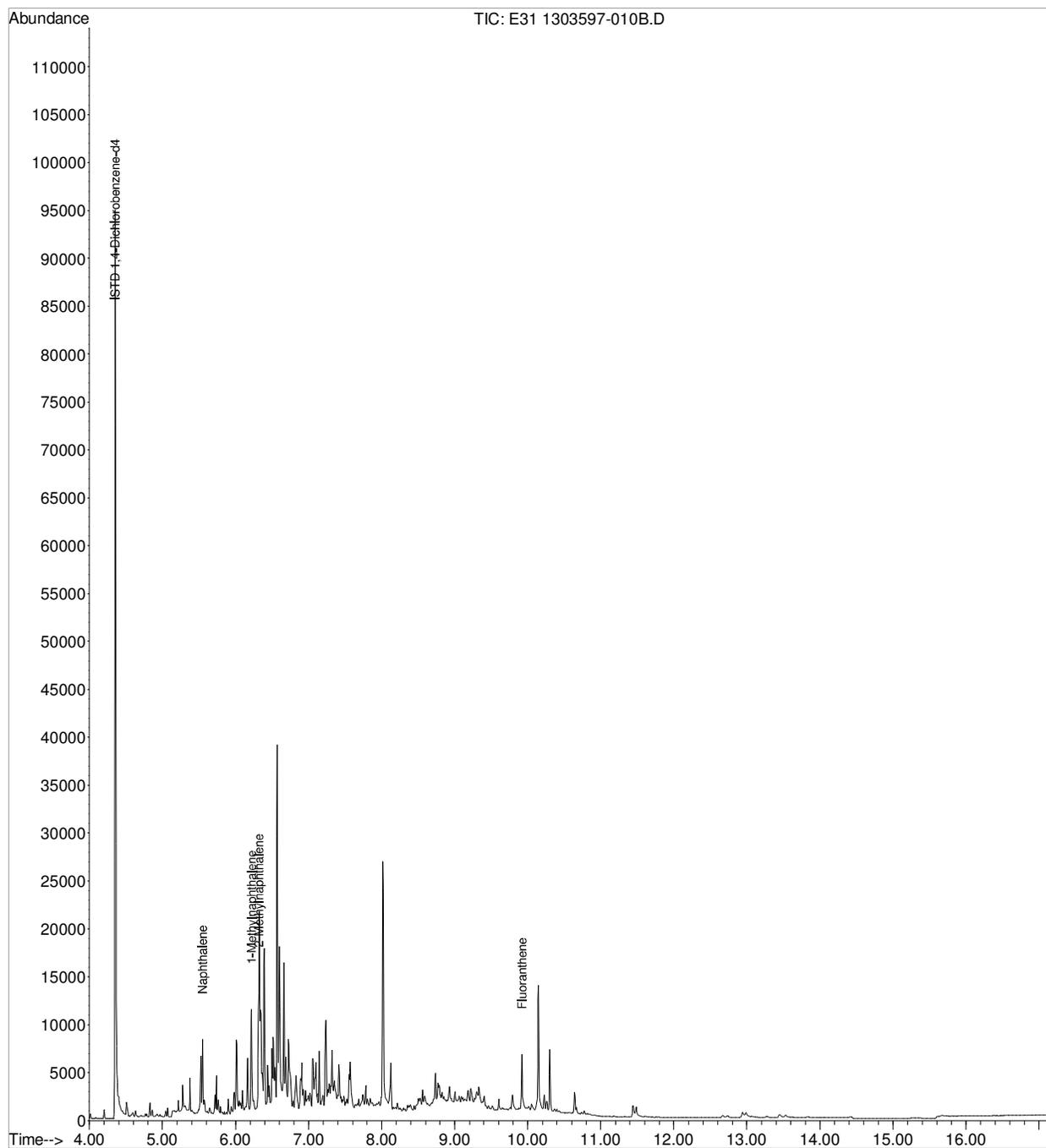
Quant Time: Mar 29 06:15:34 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E31 1303597-010B.D
Acq On : 28 Mar 2013 4:26 pm
Operator : ALICIA HABERLE
Sample : 1303597-010B
Misc : SAMP
ALS Vial : 25 Sample Multiplier: 1

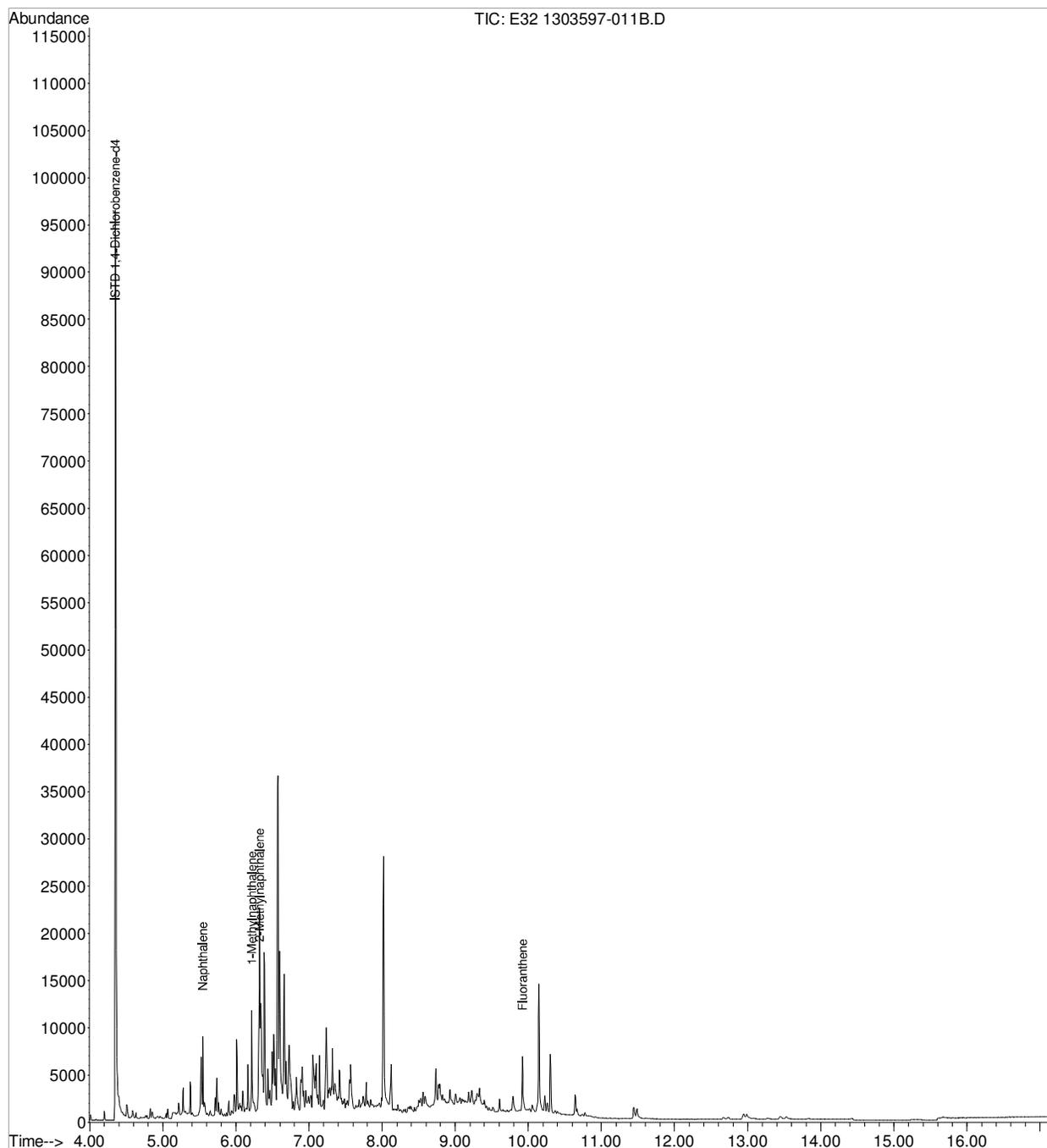
Quant Time: Mar 29 06:16:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E32 1303597-011B.D
Acq On : 28 Mar 2013 4:53 pm
Operator : ALICIA HABERLE
Sample : 1303597-011B
Misc : SAMP
ALS Vial : 26 Sample Multiplier: 1

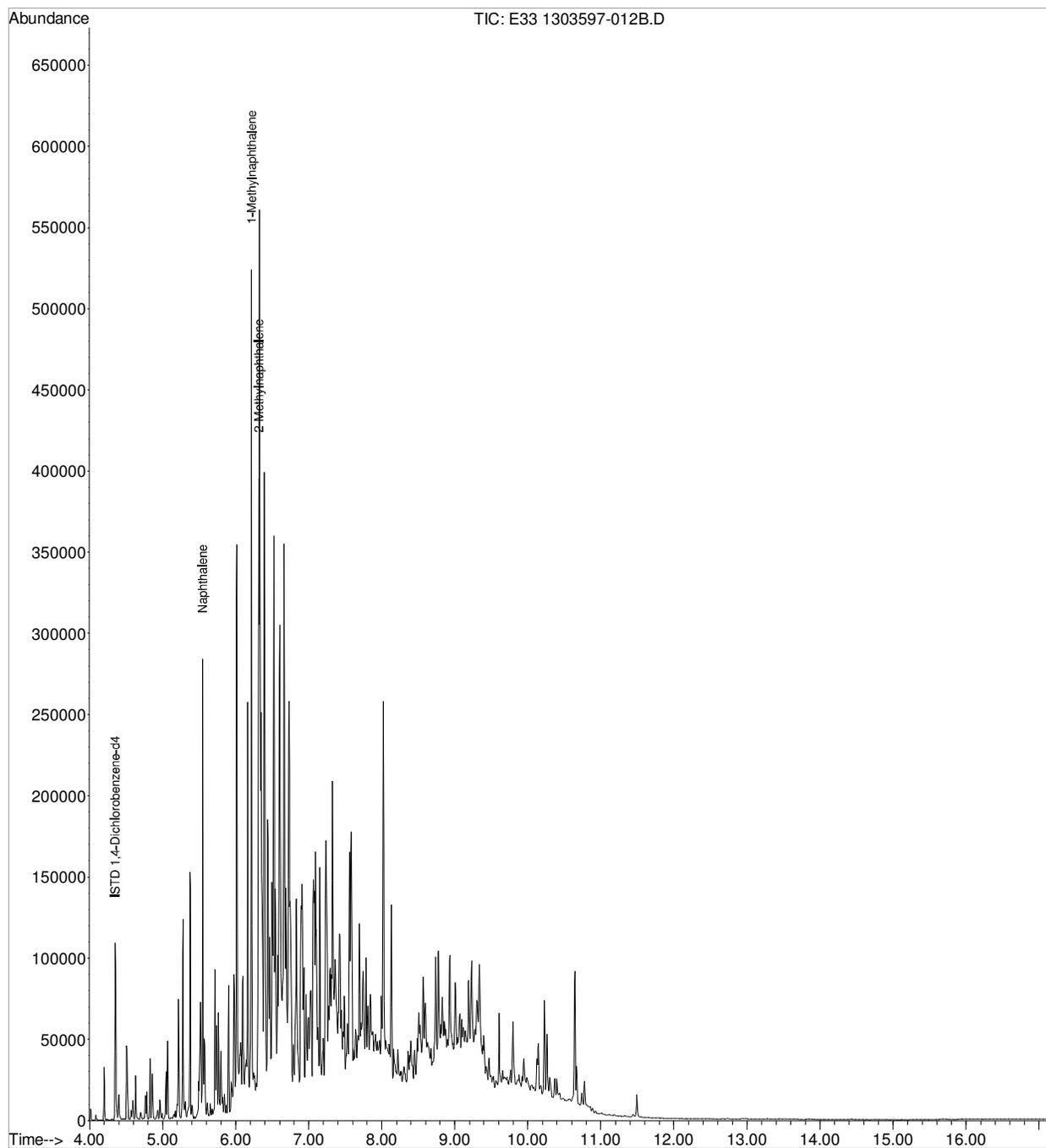
Quant Time: Mar 29 06:16:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E33 1303597-012B.D
Acq On : 28 Mar 2013 5:20 pm
Operator : ALICIA HABERLE
Sample : 1303597-012B
Misc : SAMP
ALS Vial : 27 Sample Multiplier: 1

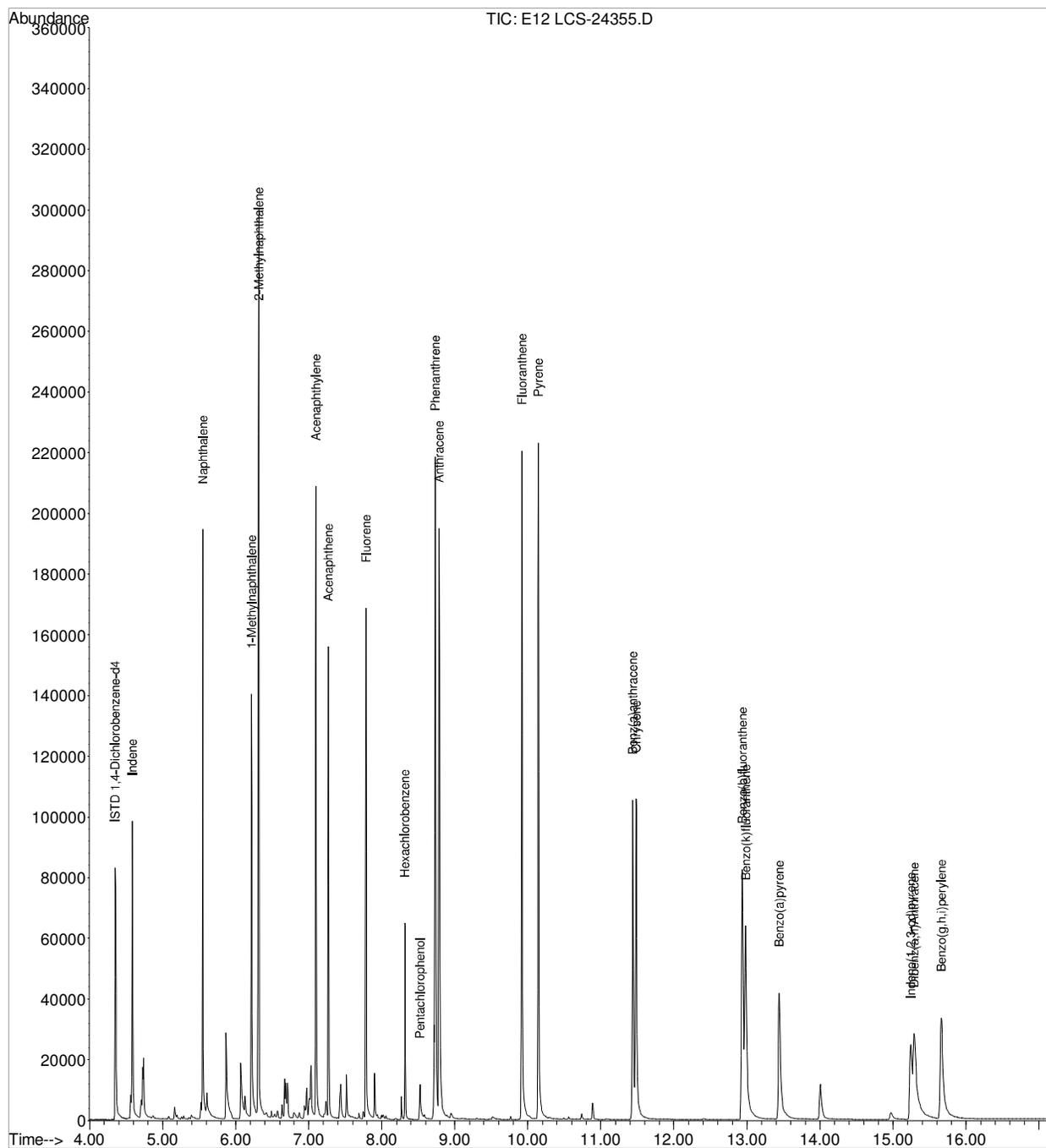
Quant Time: Mar 29 06:17:36 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
 Data File : E12 LCS-24355.D
 Acq On : 28 Mar 2013 7:54 am
 Operator : ALICIA HABERLE
 Sample : LCS-24355
 Misc : LCS 20X
 ALS Vial : 6 Sample Multiplier: 1

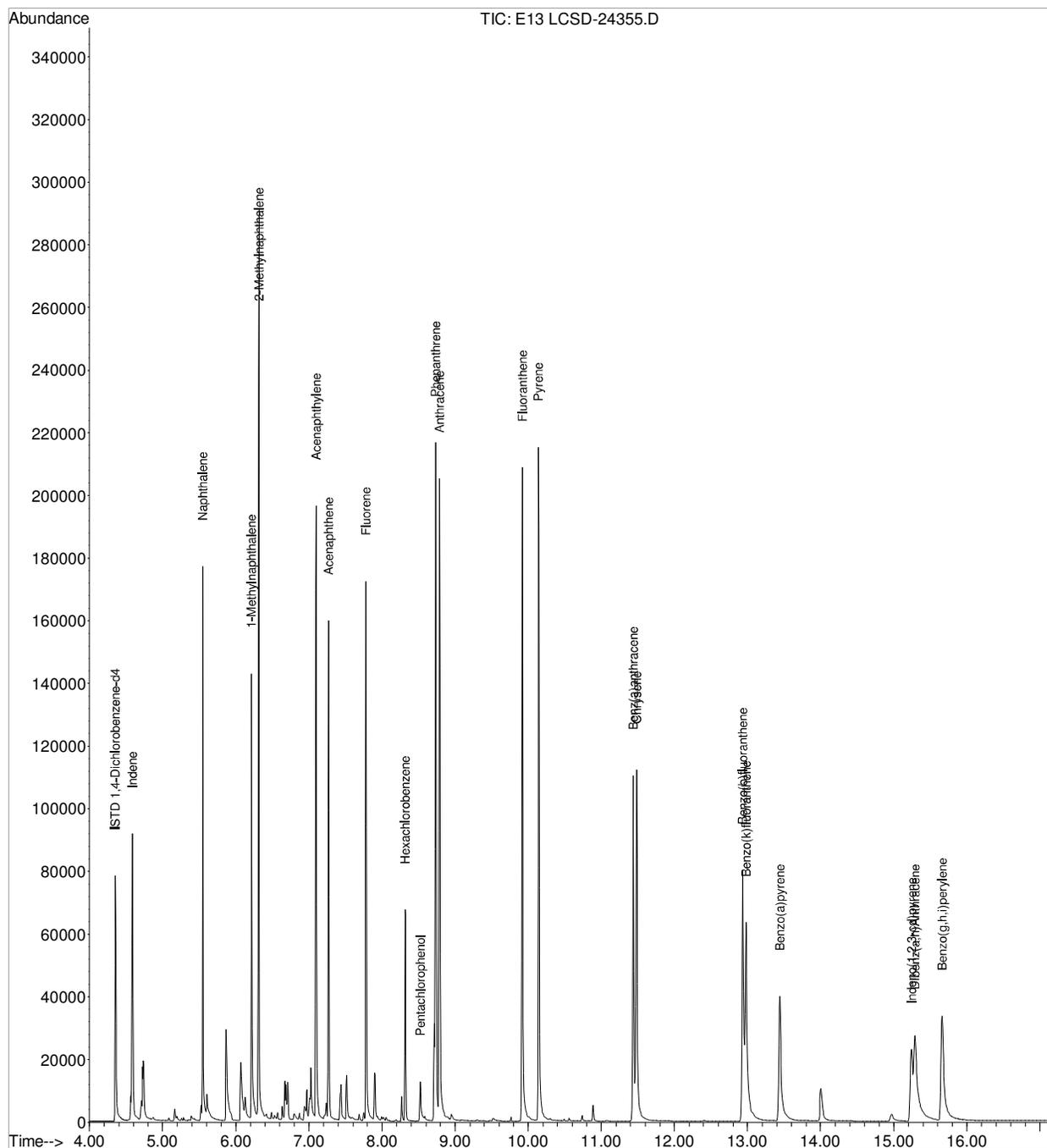
Quant Time: Mar 28 13:18:09 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Mar 28 06:39:03 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
 Data File : E13 LCSD-24355.D
 Acq On : 28 Mar 2013 8:21 am
 Operator : ALICIA HABERLE
 Sample : LCSD-24355
 Misc : LCSD 20X
 ALS Vial : 7 Sample Multiplier: 1

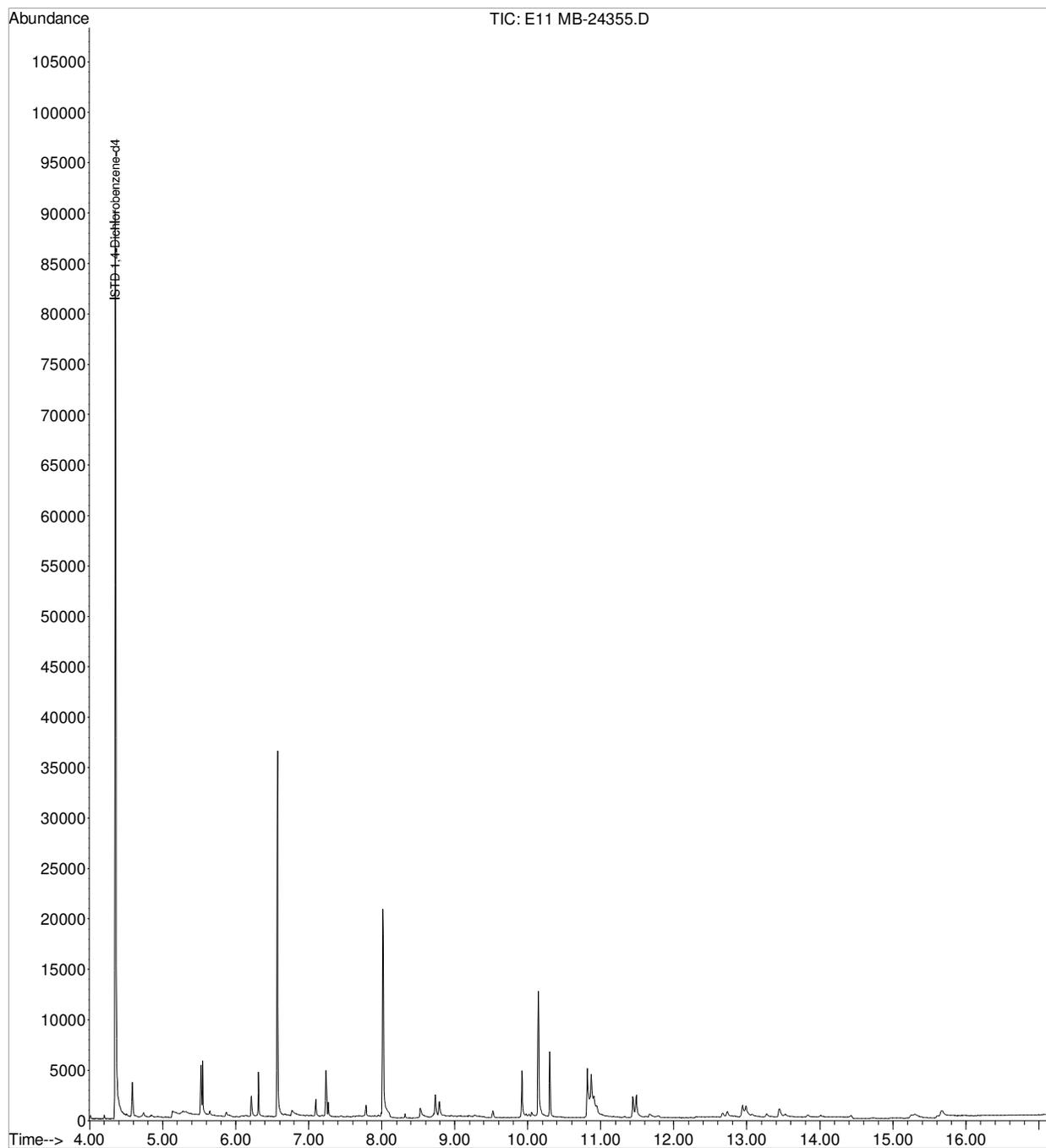
Quant Time: Mar 28 13:18:48 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Mar 28 06:39:03 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
Data File : E11 MB-24355.D
Acq On : 28 Mar 2013 7:28 am
Operator : ALICIA HABERLE
Sample : MB-34355
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

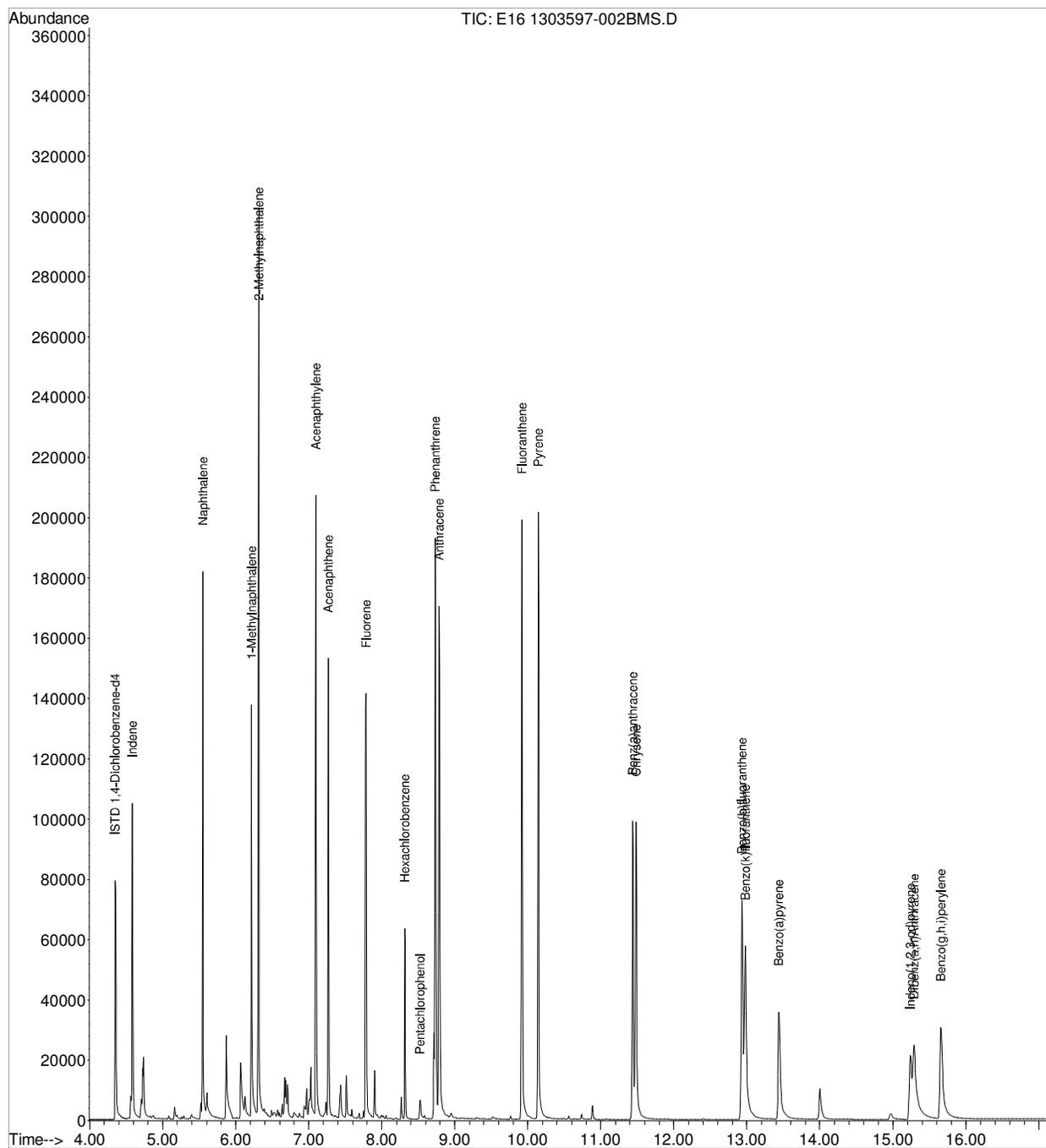
Quant Time: Mar 28 13:27:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Thu Mar 28 06:39:03 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
 Data File : E16 1303597-002BMS.D
 Acq On : 28 Mar 2013 9:41 am
 Operator : ALICIA HABERLE
 Sample : 1303597-002BMS
 Misc : MS 20X
 ALS Vial : 10 Sample Multiplier: 1

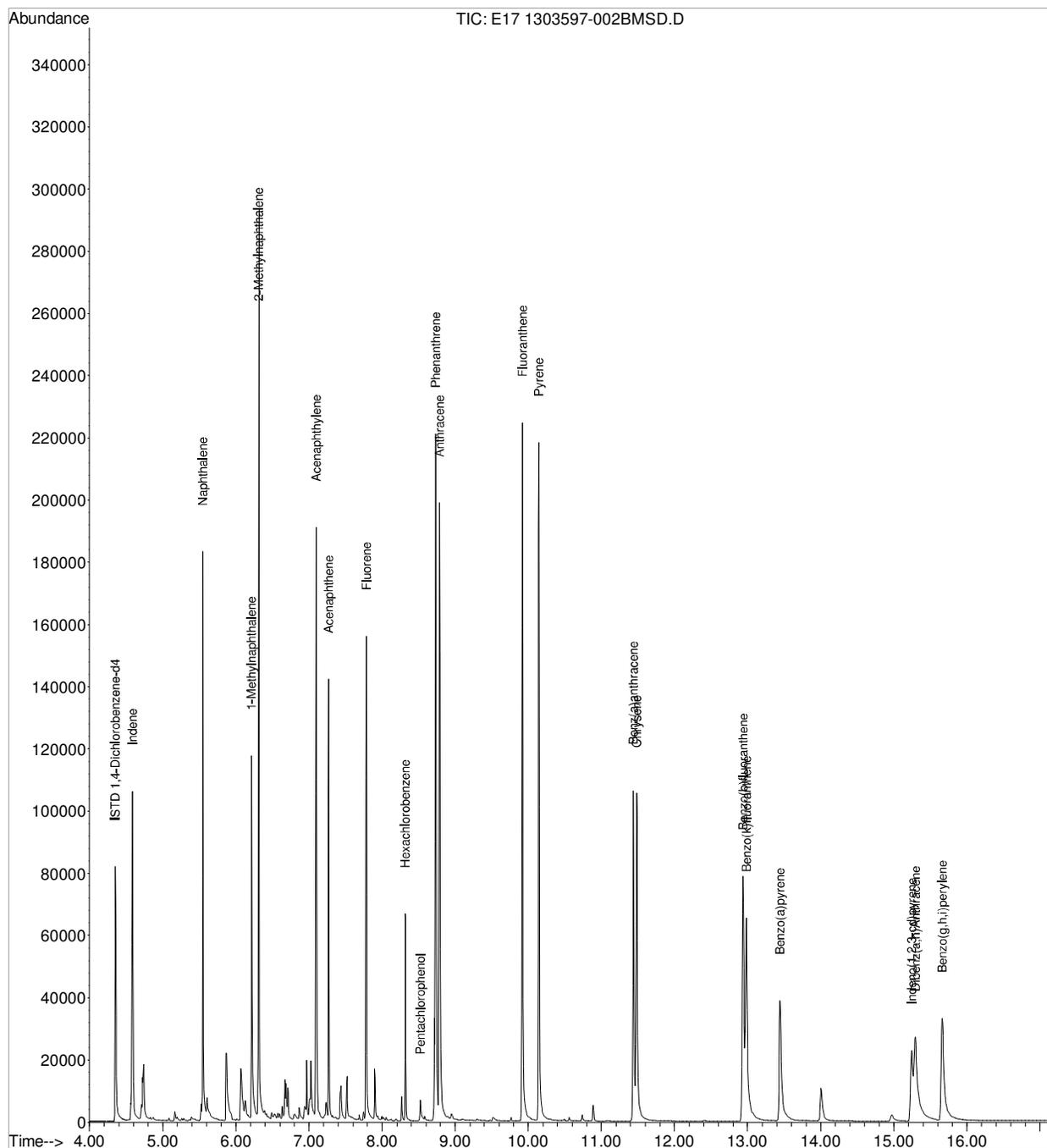
Quant Time: Mar 28 13:19:20 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Mar 28 06:39:03 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\28MAR13-A\
 Data File : E17 1303597-002BMSD.D
 Acq On : 28 Mar 2013 10:08 am
 Operator : ALICIA HABERLE
 Sample : 1303597-002BMSD
 Misc : MSD 20X
 ALS Vial : 11 Sample Multiplier: 1

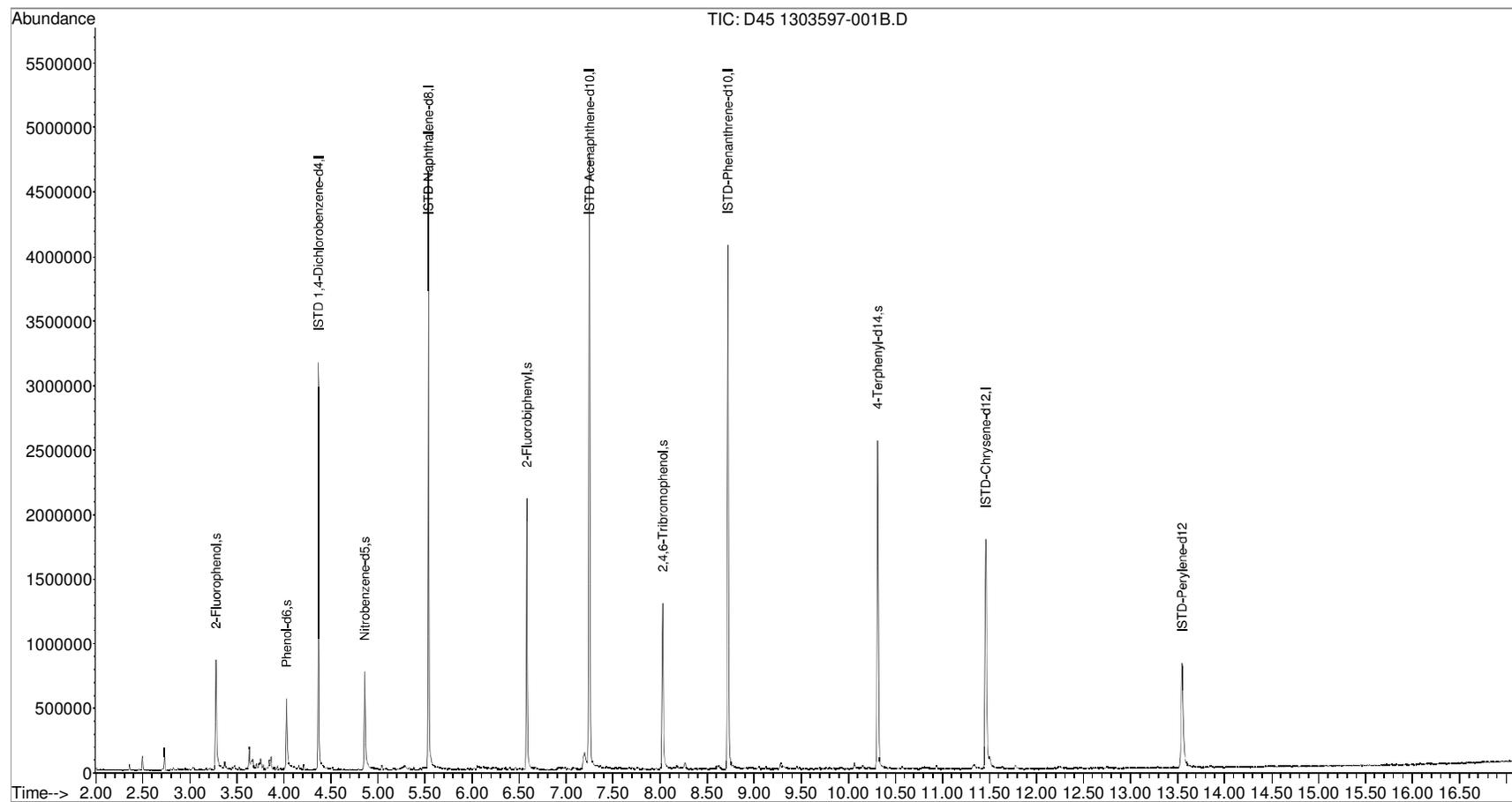
Quant Time: Mar 28 13:20:57 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Thu Mar 28 06:39:03 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
Data File : D45 1303597-001B.D
Acq On : 26 Mar 2013 6:56 pm
Operator : ALICIA HABERLE
Sample : 1303597-001B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

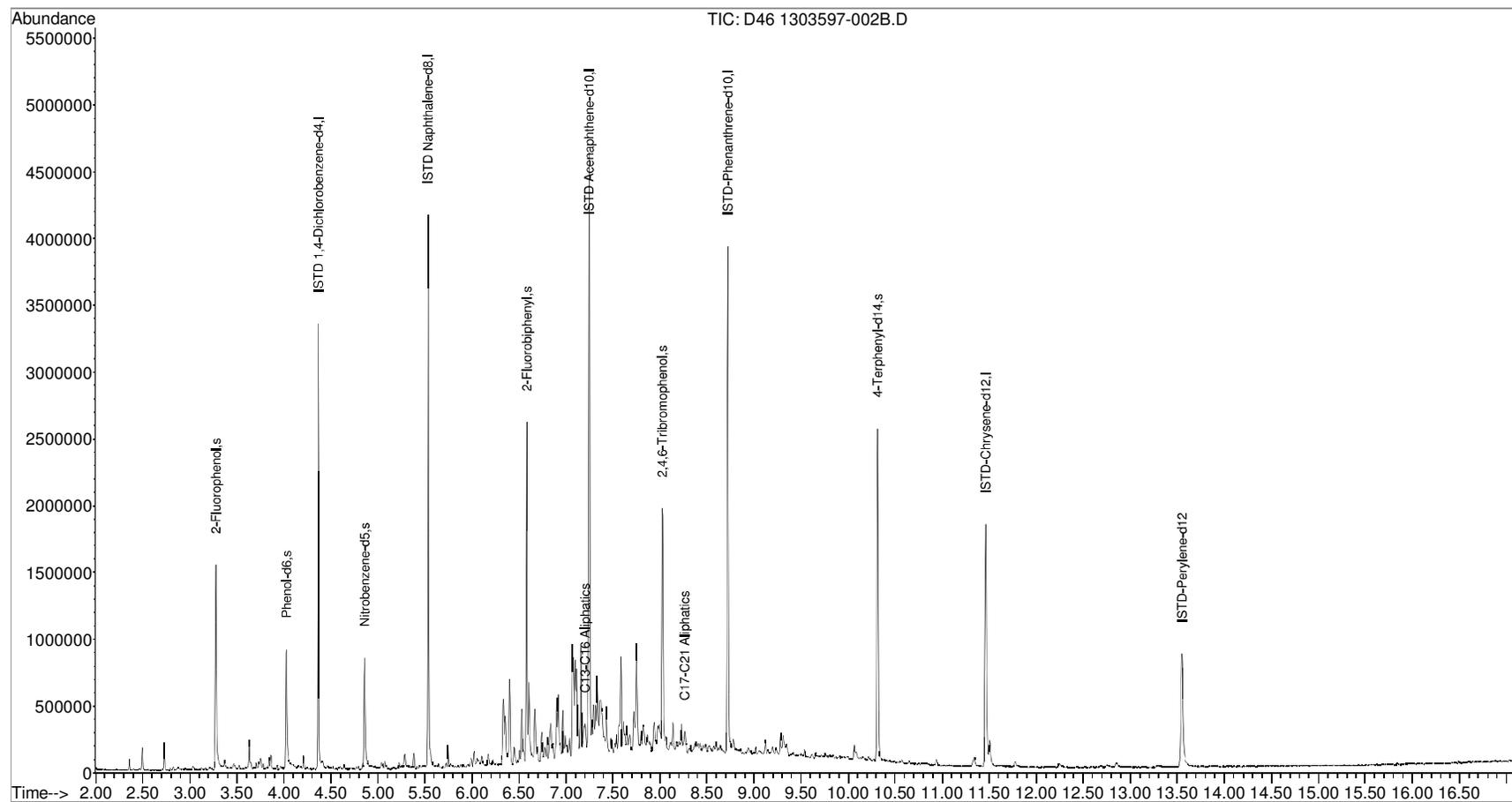
Quant Time: Mar 27 12:08:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Sat Mar 23 15:30:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D46 1303597-002B.D
 Acq On : 26 Mar 2013 7:23 pm
 Operator : ALICIA HABERLE
 Sample : 1303597-002B
 Misc : SAMP
 ALS Vial : 17 Sample Multiplier: 1

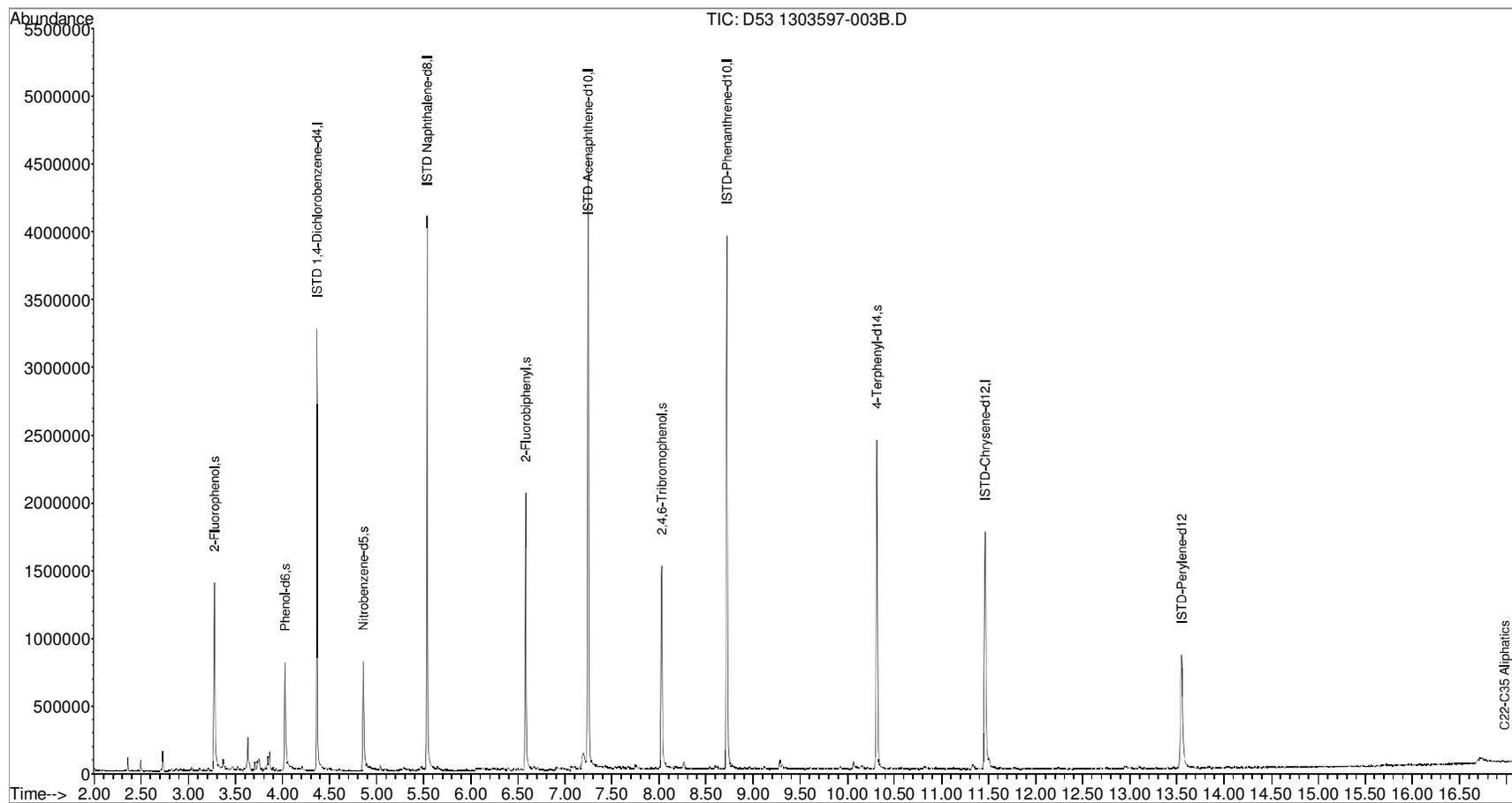
Quant Time: Mar 27 08:35:50 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
Data File : D53 1303597-003B.D
Acq On : 26 Mar 2013 10:28 pm
Operator : ALICIA HABERLE
Sample : 1303597-003B
Misc : SAMP
ALS Vial : 24 Sample Multiplier: 1

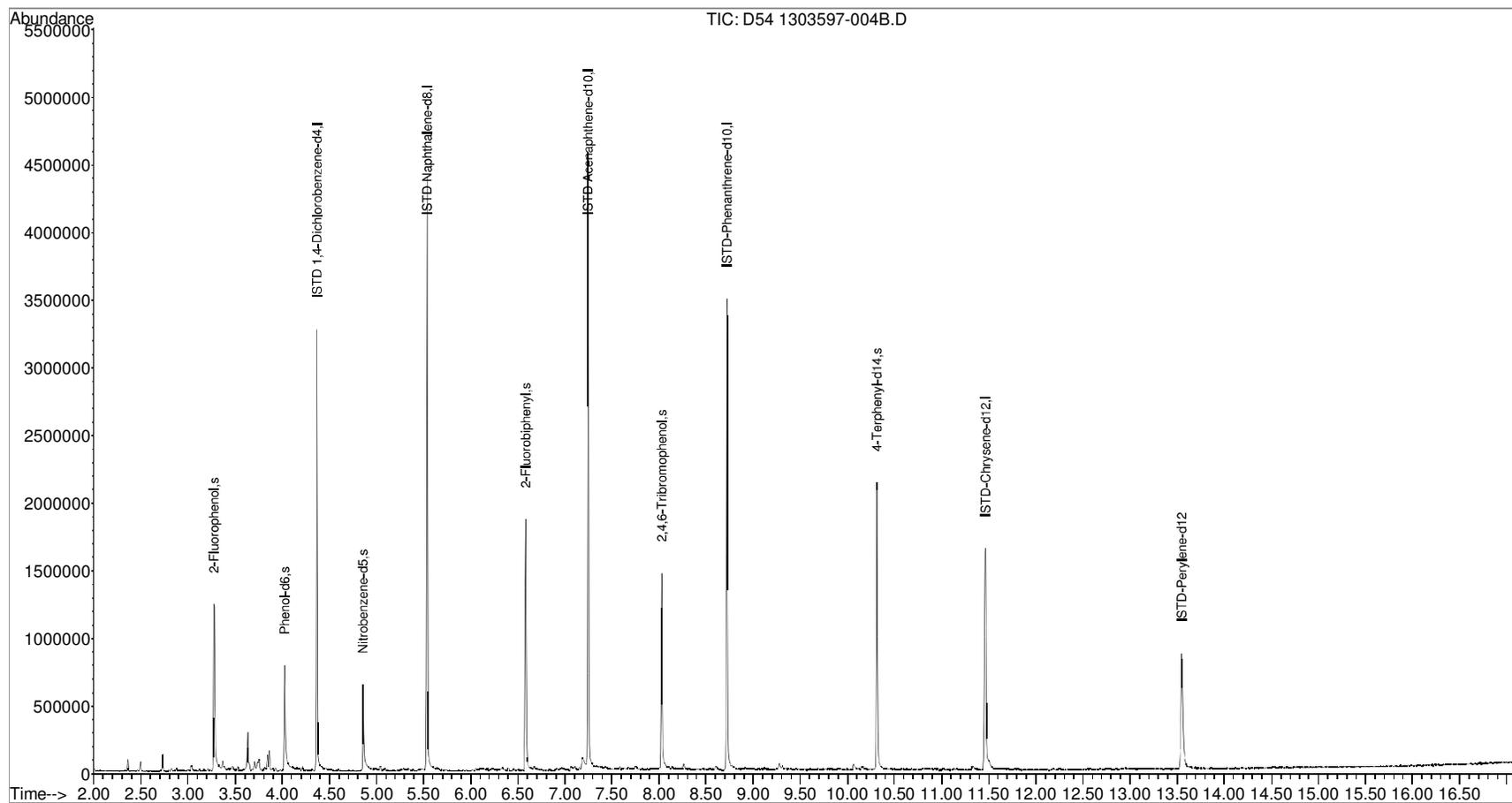
Quant Time: Mar 27 12:08:52 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Sat Mar 23 15:30:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
Data File : D54 1303597-004B.D
Acq On : 26 Mar 2013 10:55 pm
Operator : ALICIA HABERLE
Sample : 1303597-004B
Misc : SAMP
ALS Vial : 25 Sample Multiplier: 1

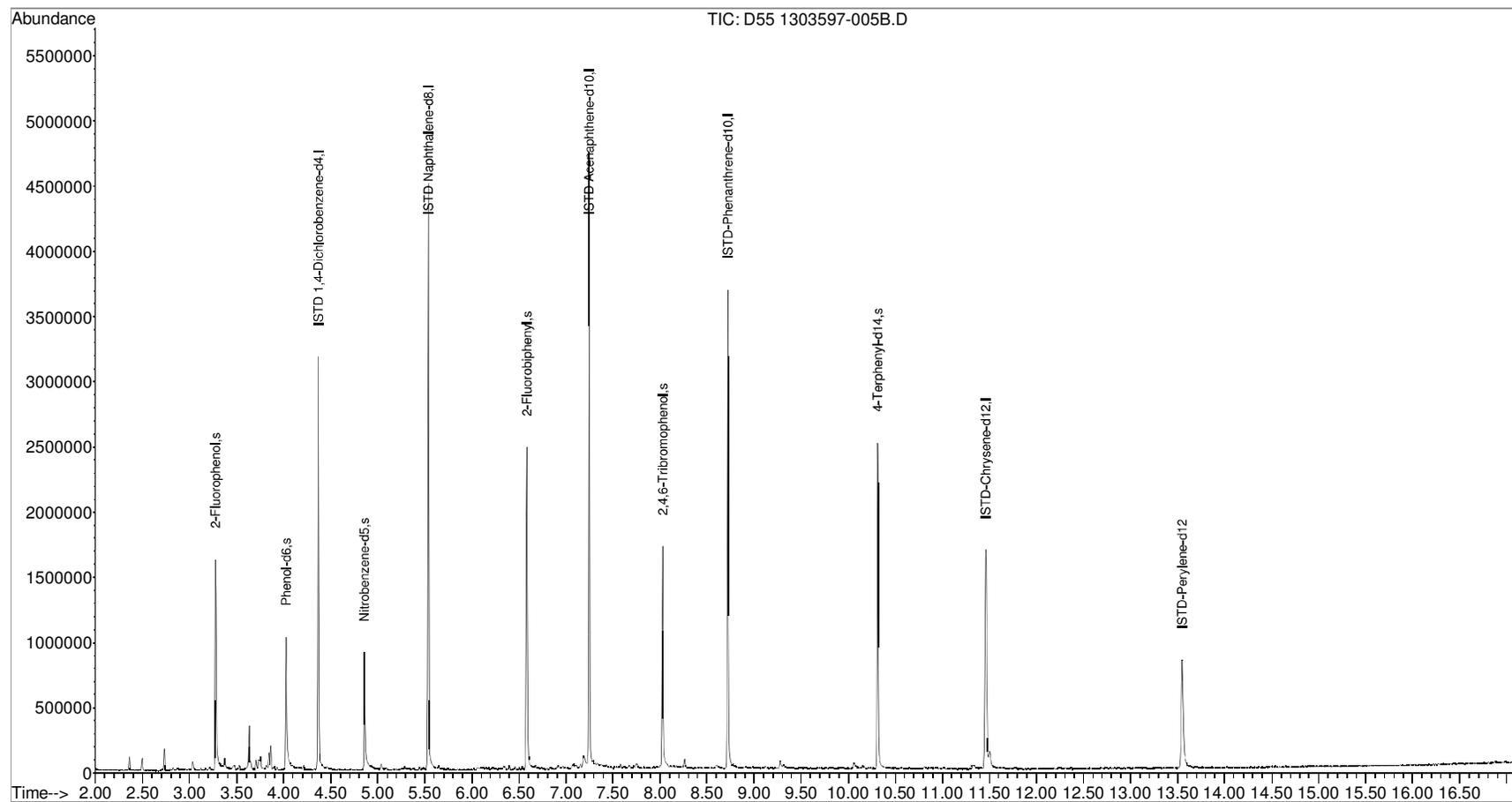
Quant Time: Mar 27 12:09:17 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Sat Mar 23 15:30:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D55 1303597-005B.D
 Acq On : 26 Mar 2013 11:21 pm
 Operator : ALICIA HABERLE
 Sample : 1303597-005B
 Misc : SAMP
 ALS Vial : 26 Sample Multiplier: 1

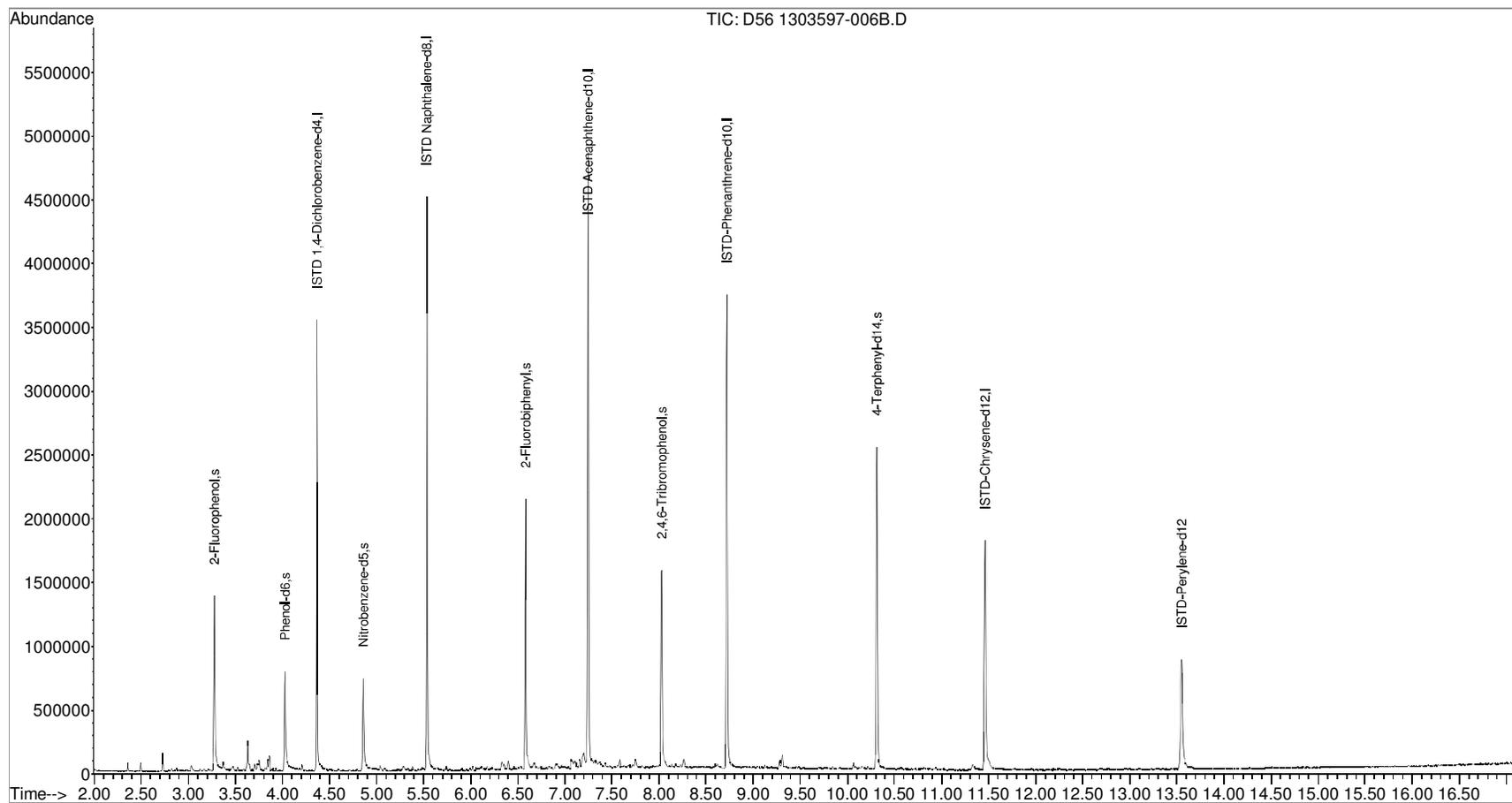
Quant Time: Mar 27 12:09:38 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
Data File : D56 1303597-006B.D
Acq On : 26 Mar 2013 11:47 pm
Operator : ALICIA HABERLE
Sample : 1303597-006B
Misc : SAMP
ALS Vial : 27 Sample Multiplier: 1

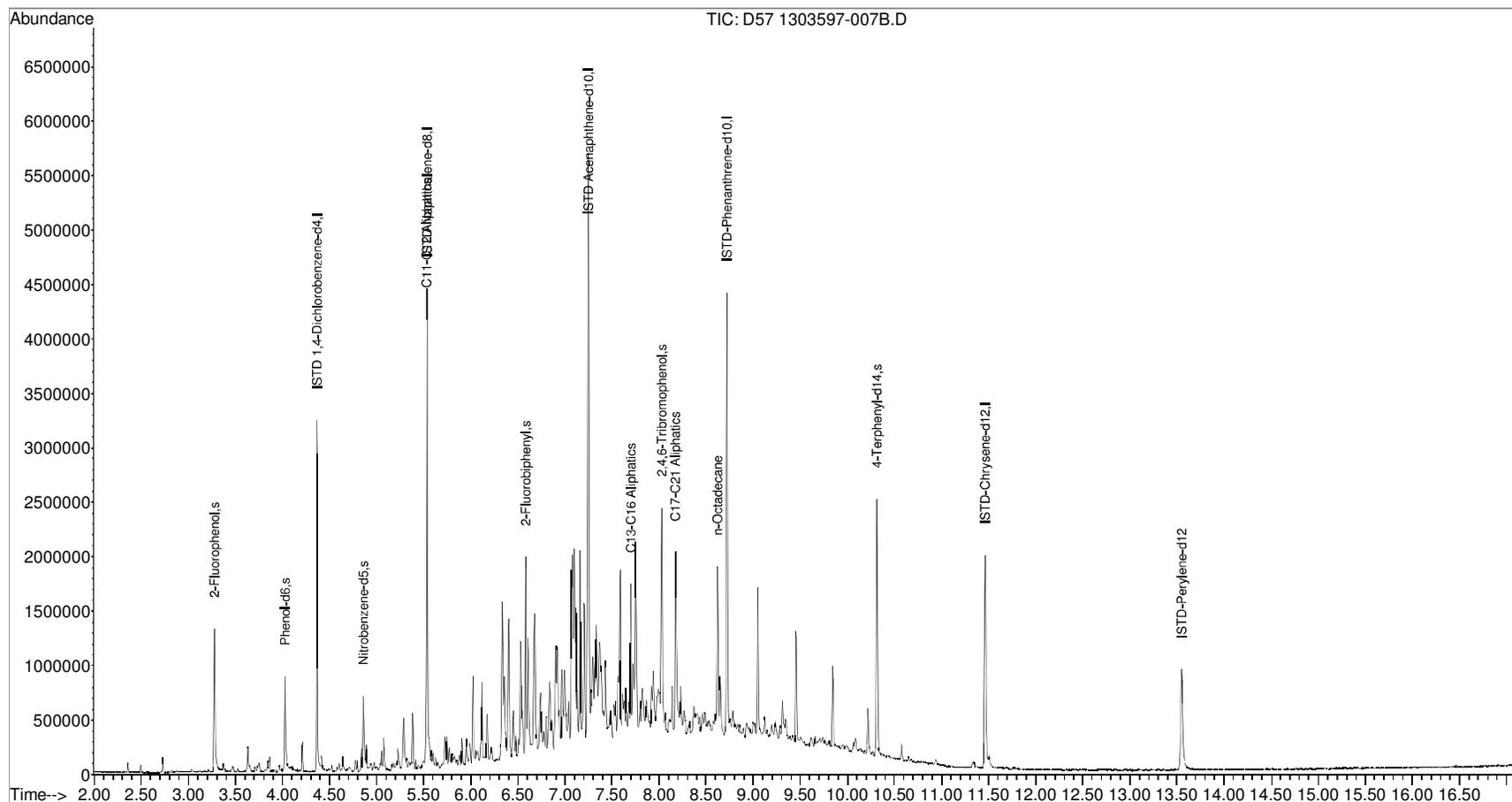
Quant Time: Mar 27 12:10:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Sat Mar 23 15:30:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D57 1303597-007B.D
 Acq On : 27 Mar 2013 12:14 am
 Operator : ALICIA HABERLE
 Sample : 1303597-007B
 Misc : SAMP
 ALS Vial : 28 Sample Multiplier: 1

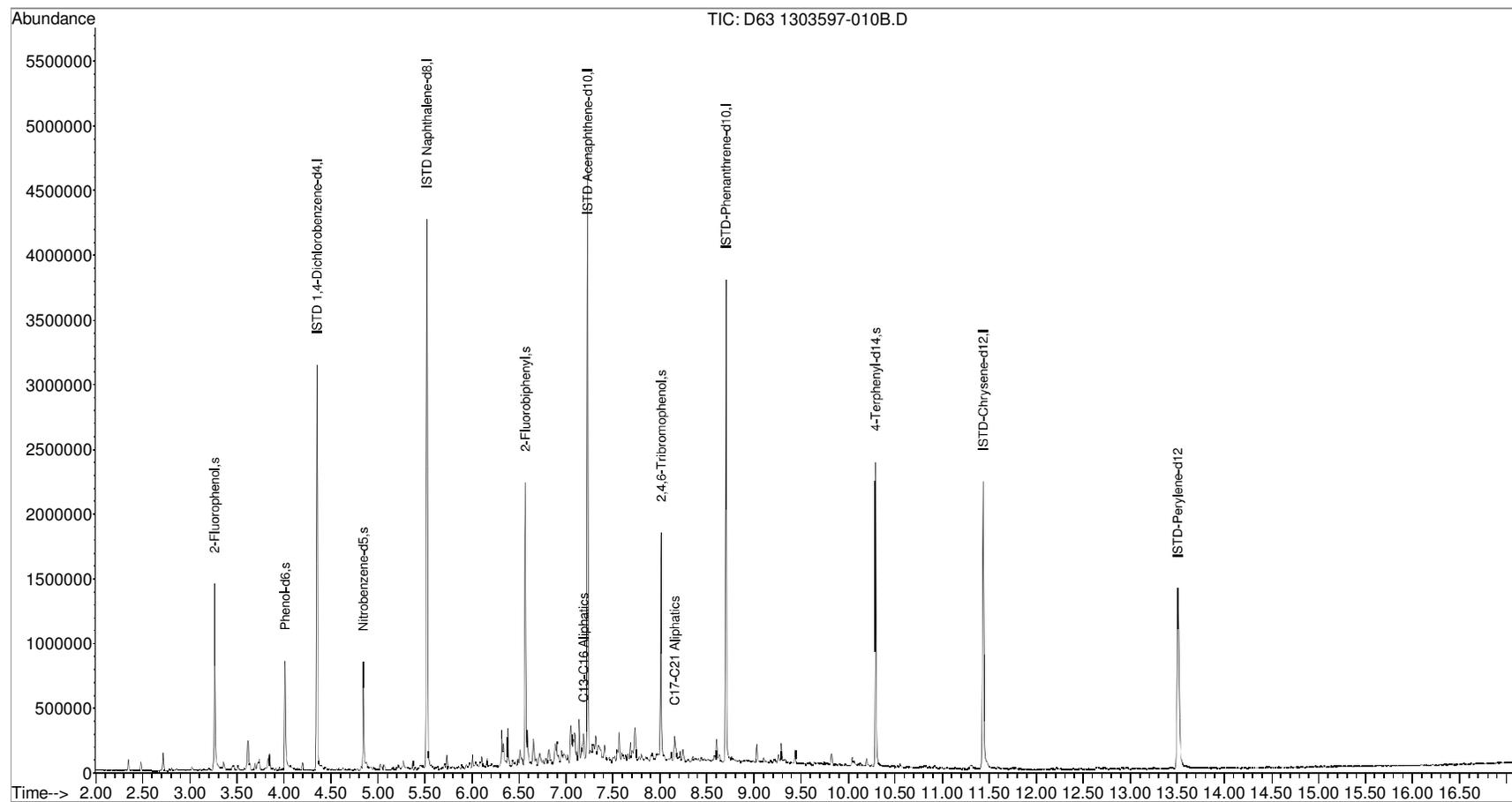
Quant Time: Mar 27 12:10:36 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\27MAR13-A\
Data File : D63 1303597-010B.D
Acq On : 27 Mar 2013 8:22 am
Operator : ALICIA HABERLE
Sample : 1303597-010B
Misc : SAMP
ALS Vial : 5 Sample Multiplier: 1

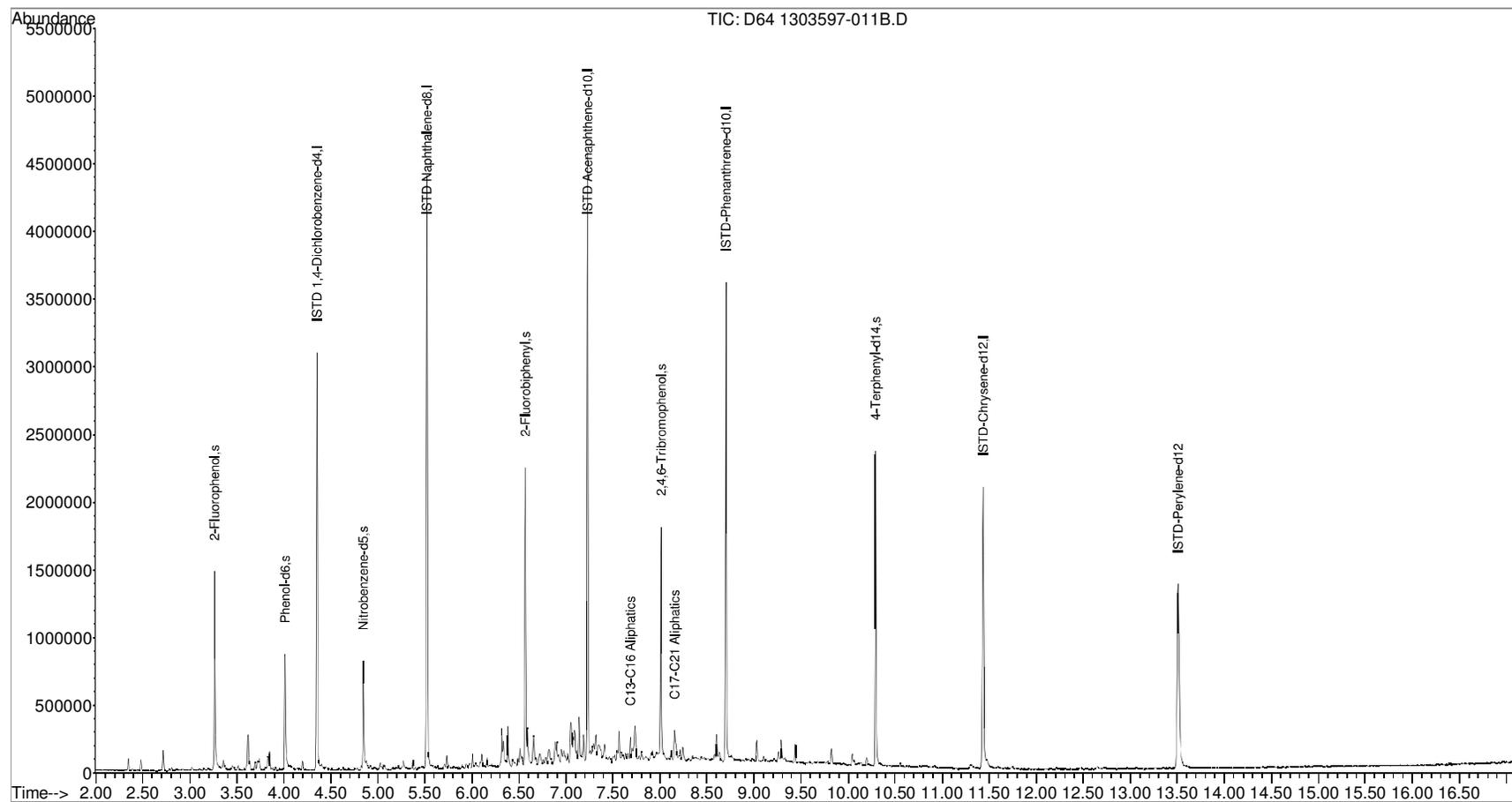
Quant Time: Mar 27 12:48:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 27 12:37:51 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\27MAR13-A\
Data File : D64 1303597-011B.D
Acq On : 27 Mar 2013 8:49 am
Operator : ALICIA HABERLE
Sample : 1303597-011B
Misc : SAMP
ALS Vial : 6 Sample Multiplier: 1

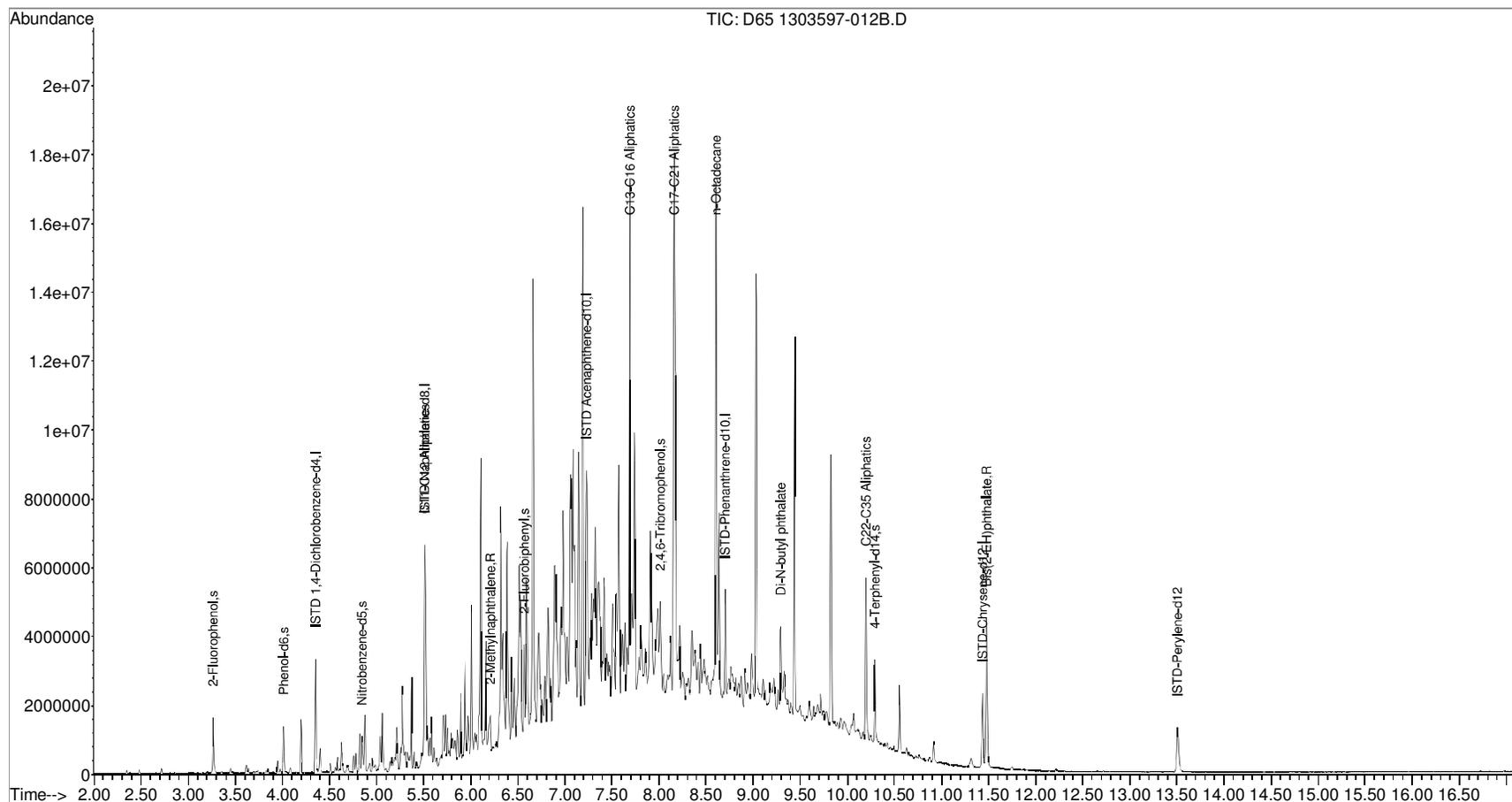
Quant Time: Mar 27 12:49:05 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 27 12:37:51 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\27MAR13-A\
 Data File : D65 1303597-012B.D
 Acq On : 27 Mar 2013 9:15 am
 Operator : ALICIA HABERLE
 Sample : 1303597-012B
 Misc : SAMP
 ALS Vial : 7 Sample Multiplier: 1

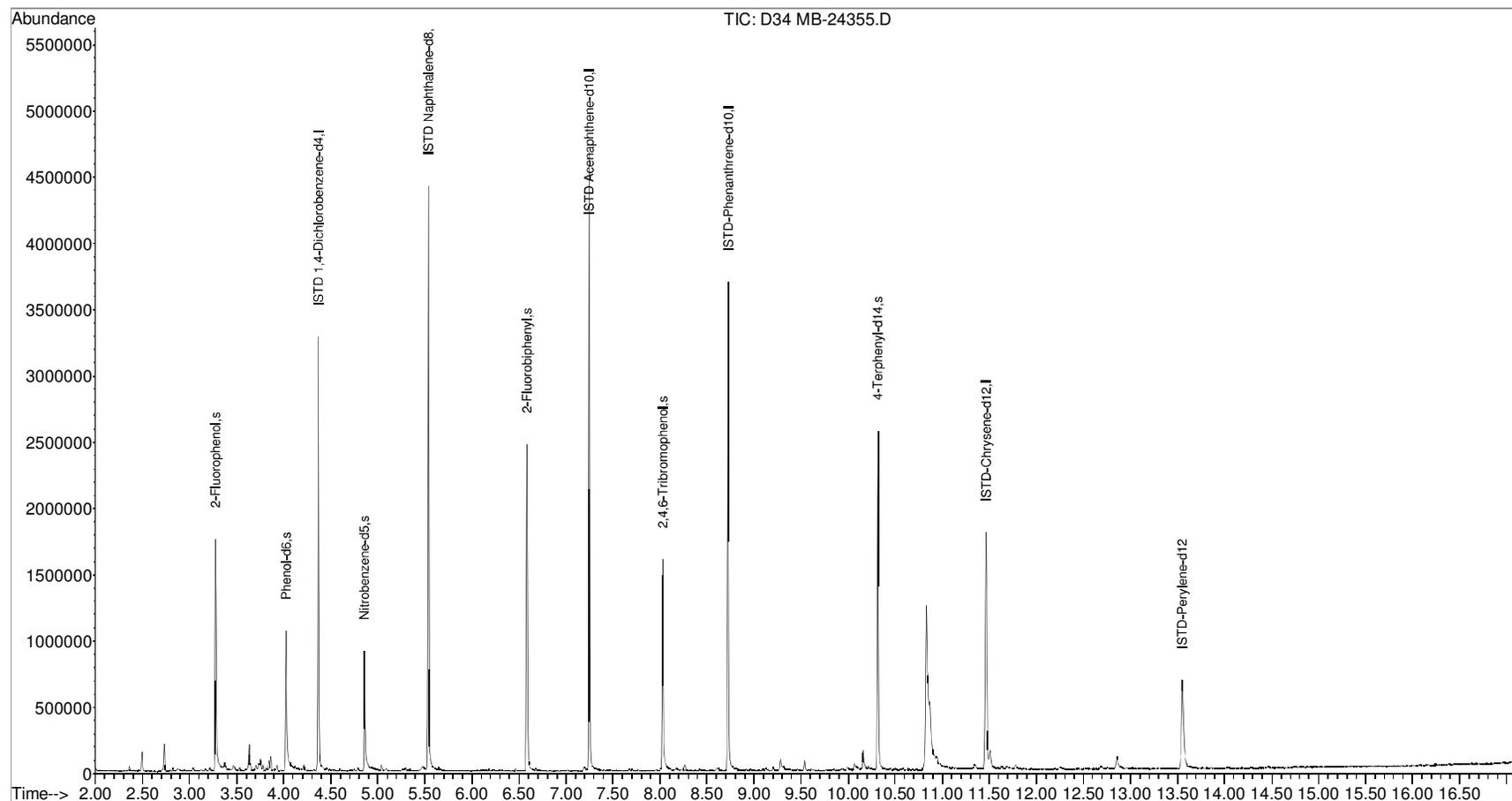
Quant Time: Mar 27 12:50:16 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Mar 27 12:37:51 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D34 MB-24355.D
 Acq On : 26 Mar 2013 2:05 pm
 Operator : ALICIA HABERLE
 Sample : MB-24355
 Misc : MBLK
 ALS Vial : 5 Sample Multiplier: 1

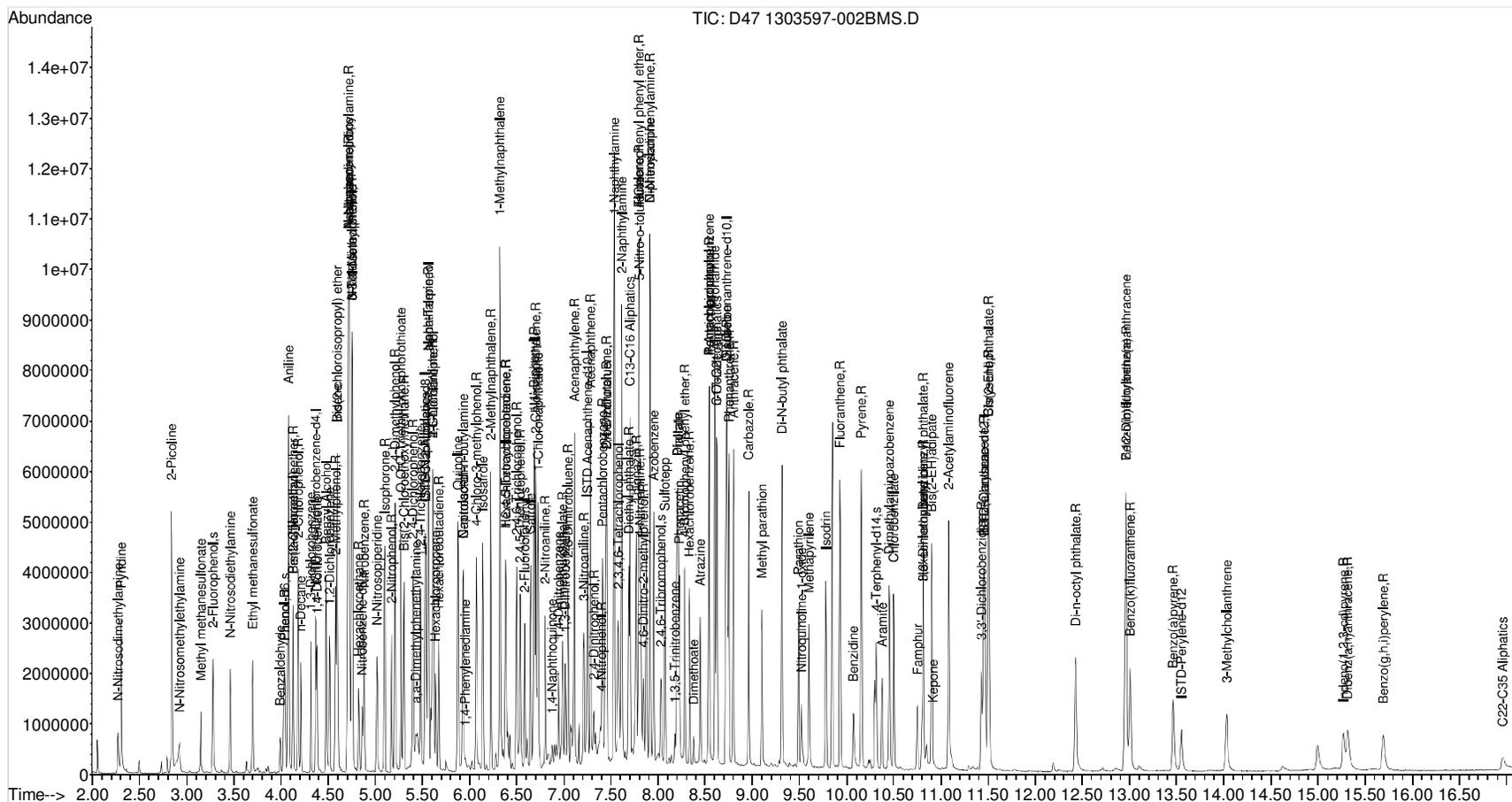
Quant Time: Mar 27 08:26:13 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D47 1303597-002BMS.D
 Acq On : 26 Mar 2013 7:49 pm
 Operator : ALICIA HABERLE
 Sample : 1303597-002BMS
 Misc : MS
 ALS Vial : 18 Sample Multiplier: 1

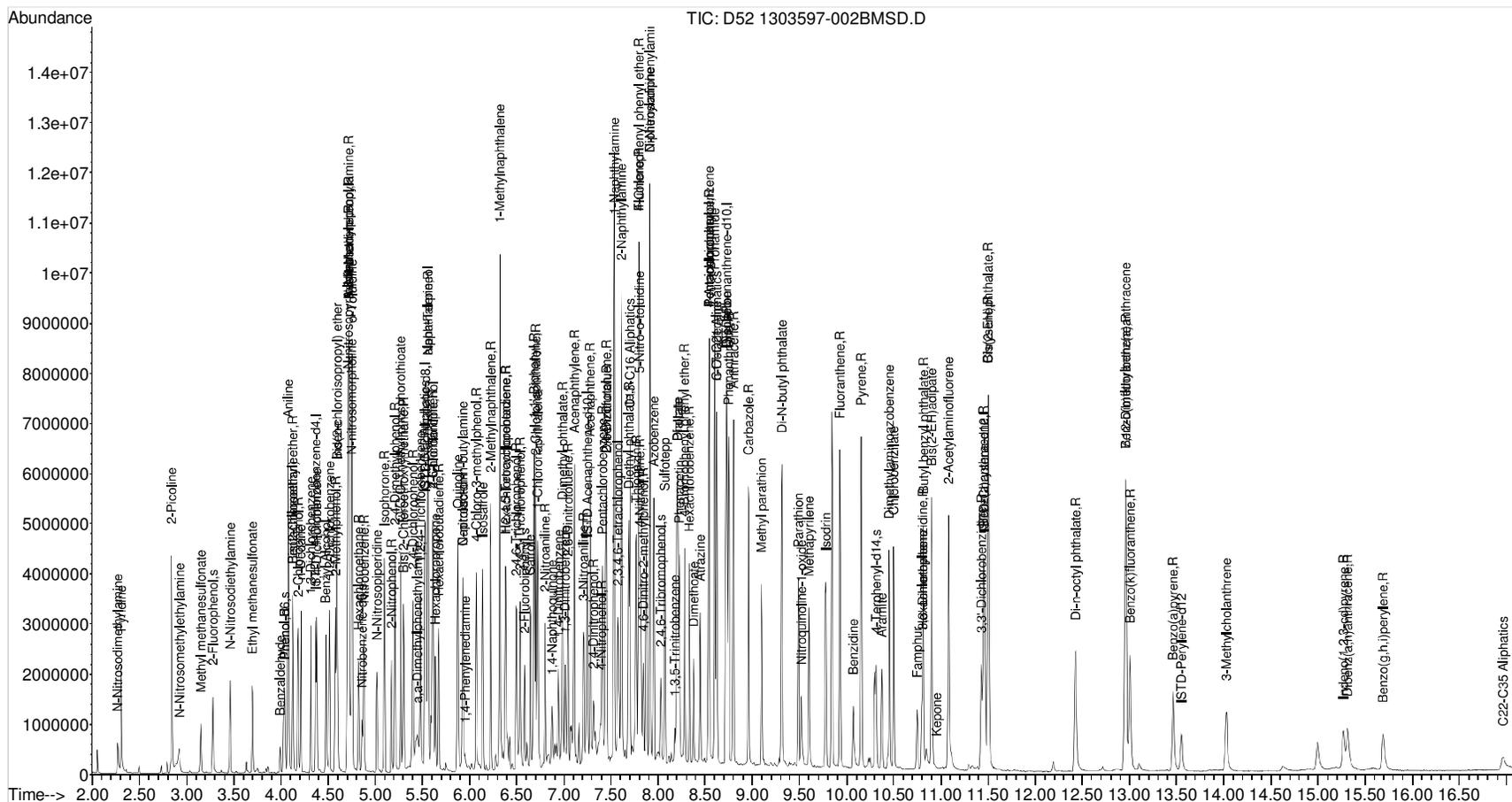
Quant Time: Mar 27 08:36:21 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\26MAR13-A\
 Data File : D52 1303597-002BMSD.D
 Acq On : 26 Mar 2013 10:02 pm
 Operator : ALICIA HABERLE
 Sample : 1303597-002BMSD
 Misc : MSD
 ALS Vial : 23 Sample Multiplier: 1

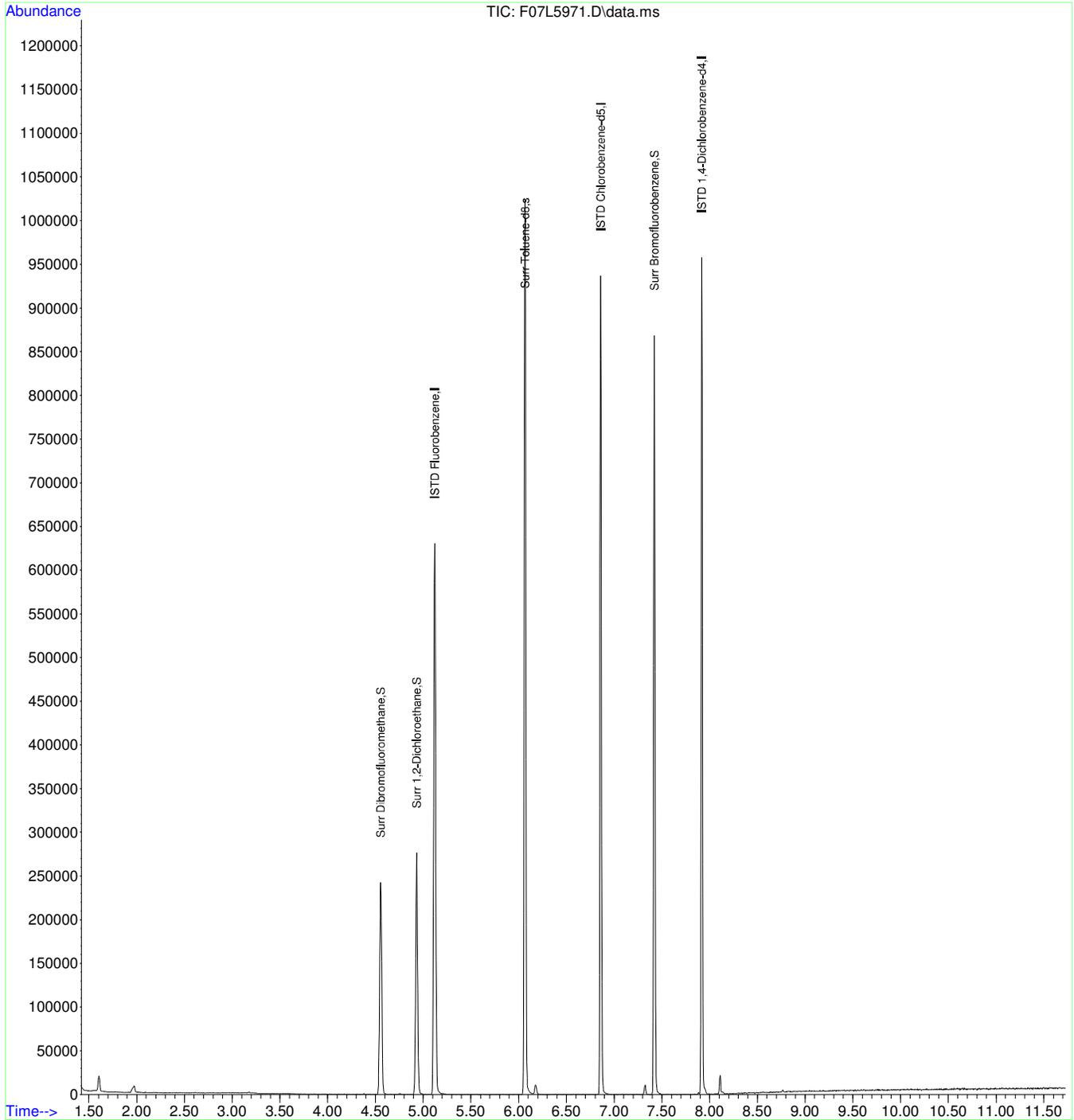
Quant Time: Mar 27 08:36:52 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Sat Mar 23 15:30:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F07L5971.D
Acq On : 24 Mar 2013 7:24 pm
Operator : AAP
Sample : 1303597-001A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 6 Sample Multiplier: 1

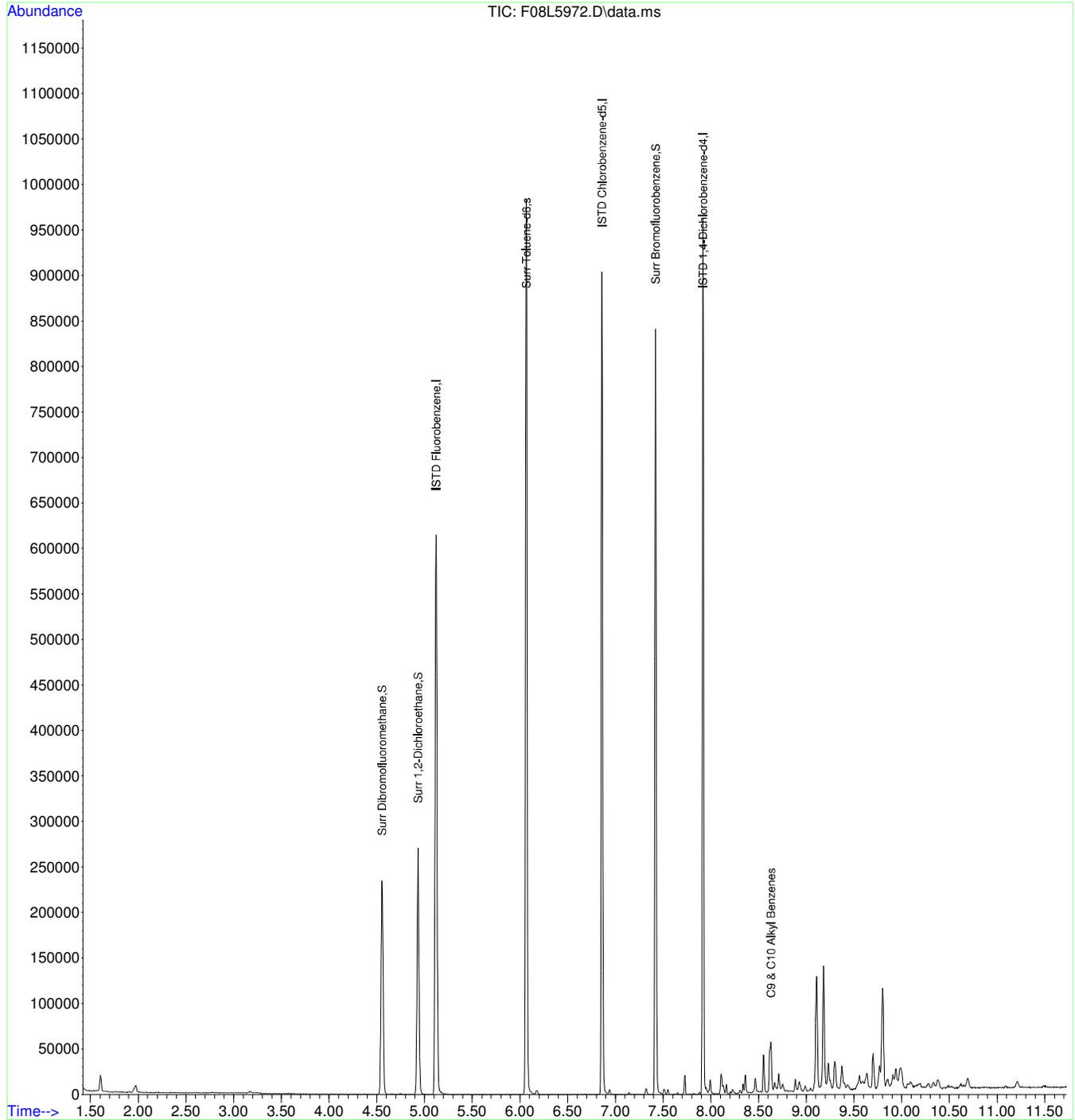
Quant Time: Mar 25 06:33:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F08L5972.D
Acq On : 24 Mar 2013 7:43 pm
Operator : AAP
Sample : 1303597-002A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 7 Sample Multiplier: 1

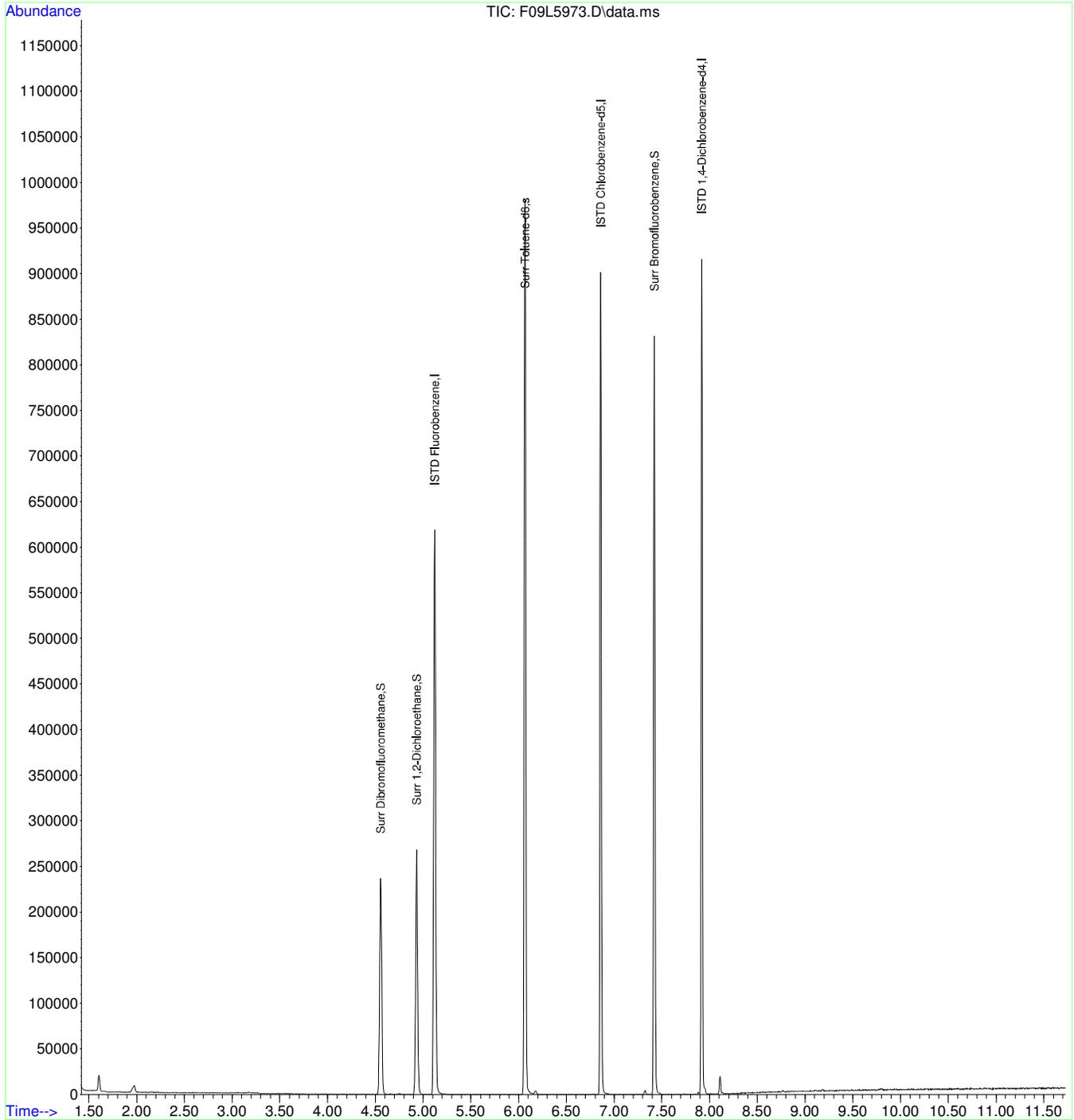
Quant Time: Mar 25 06:33:43 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F09L5973.D
Acq On : 24 Mar 2013 8:02 pm
Operator : AAP
Sample : 1303597-003A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 8 Sample Multiplier: 1

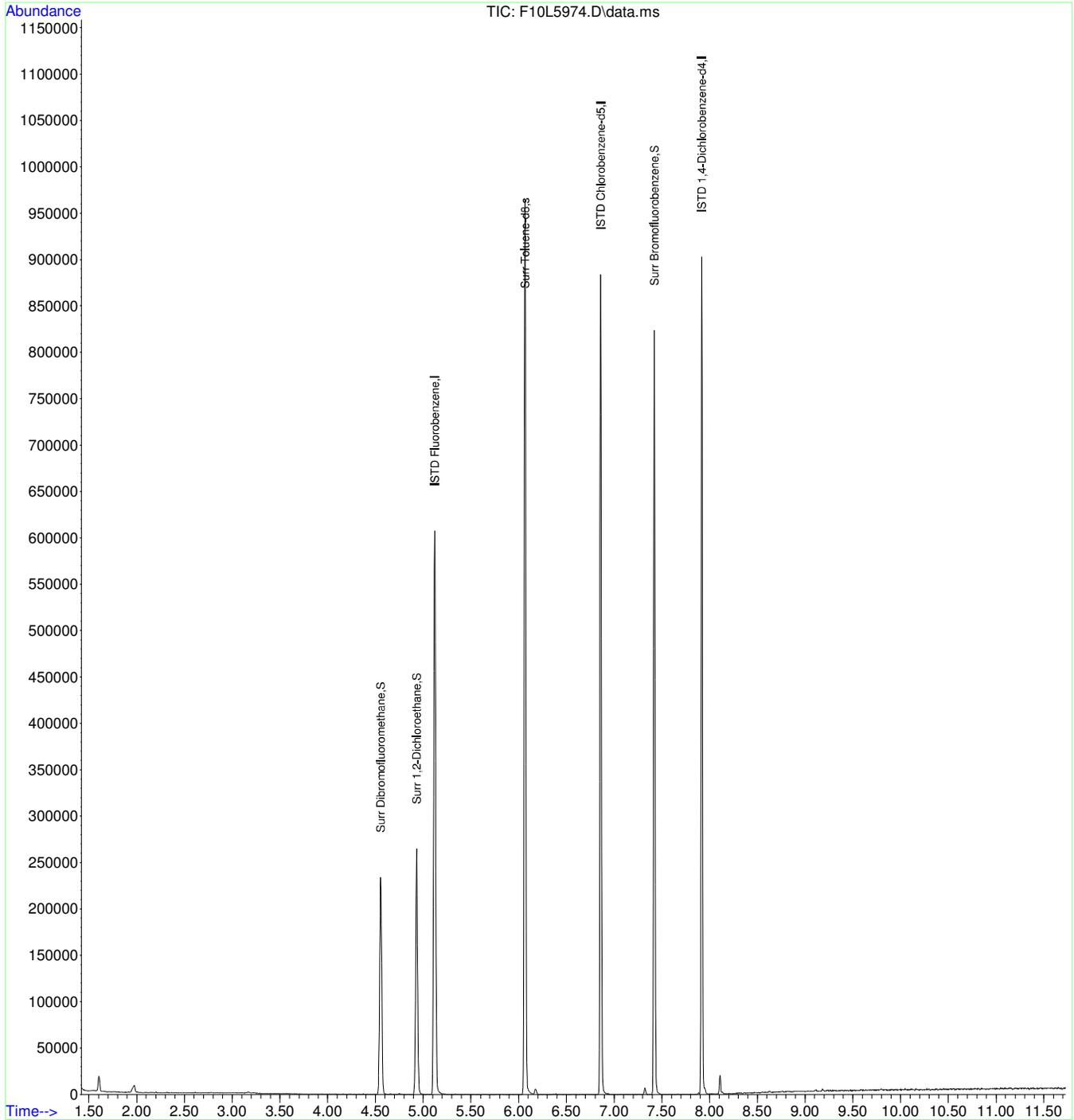
Quant Time: Mar 25 06:33:59 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F10L5974.D
Acq On : 24 Mar 2013 8:21 pm
Operator : AAP
Sample : 1303597-004A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 9 Sample Multiplier: 1

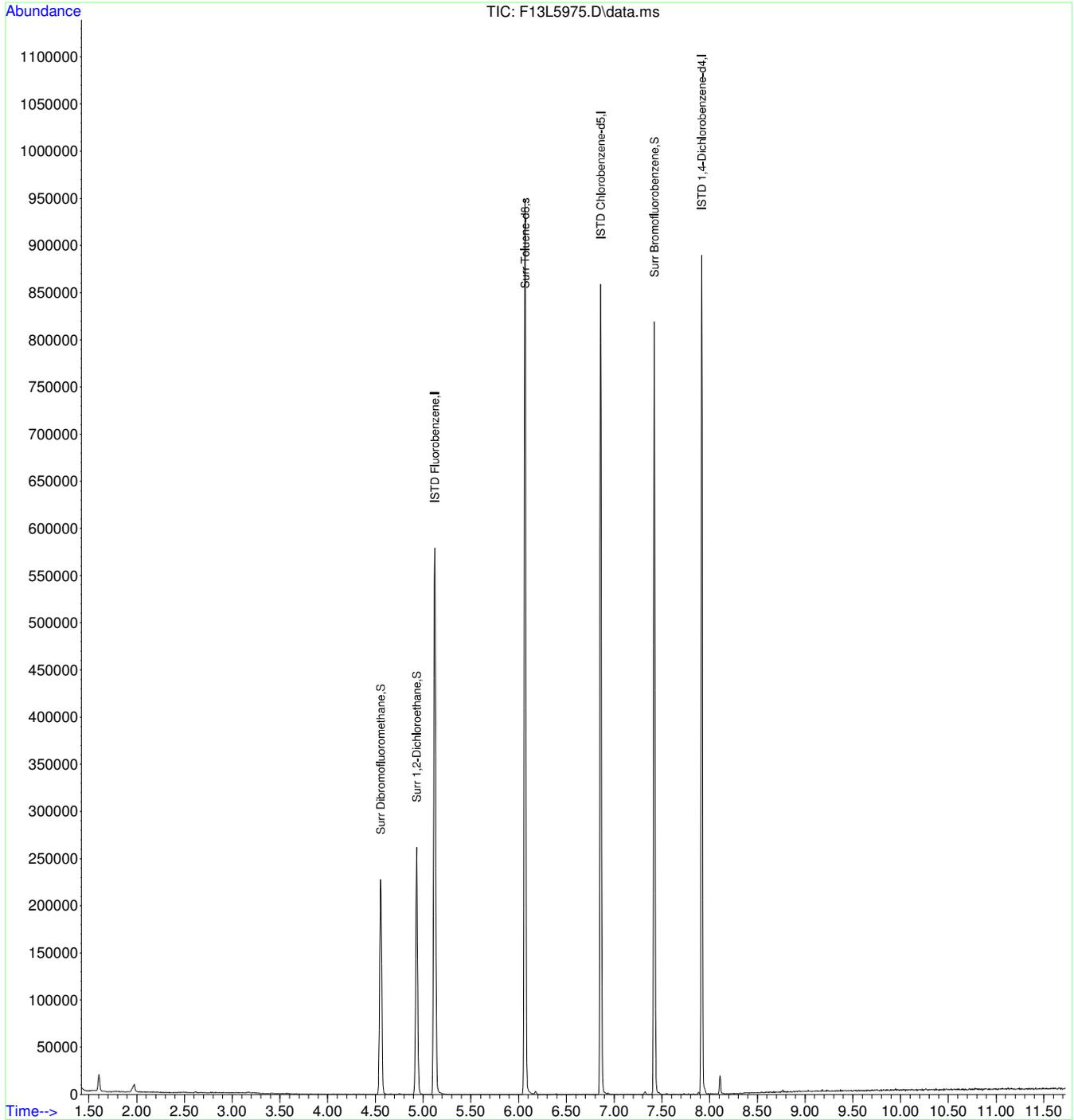
Quant Time: Mar 25 06:34:13 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F13L5975.D
Acq On : 24 Mar 2013 9:18 pm
Operator : AAP
Sample : 1303597-005A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 12 Sample Multiplier: 1

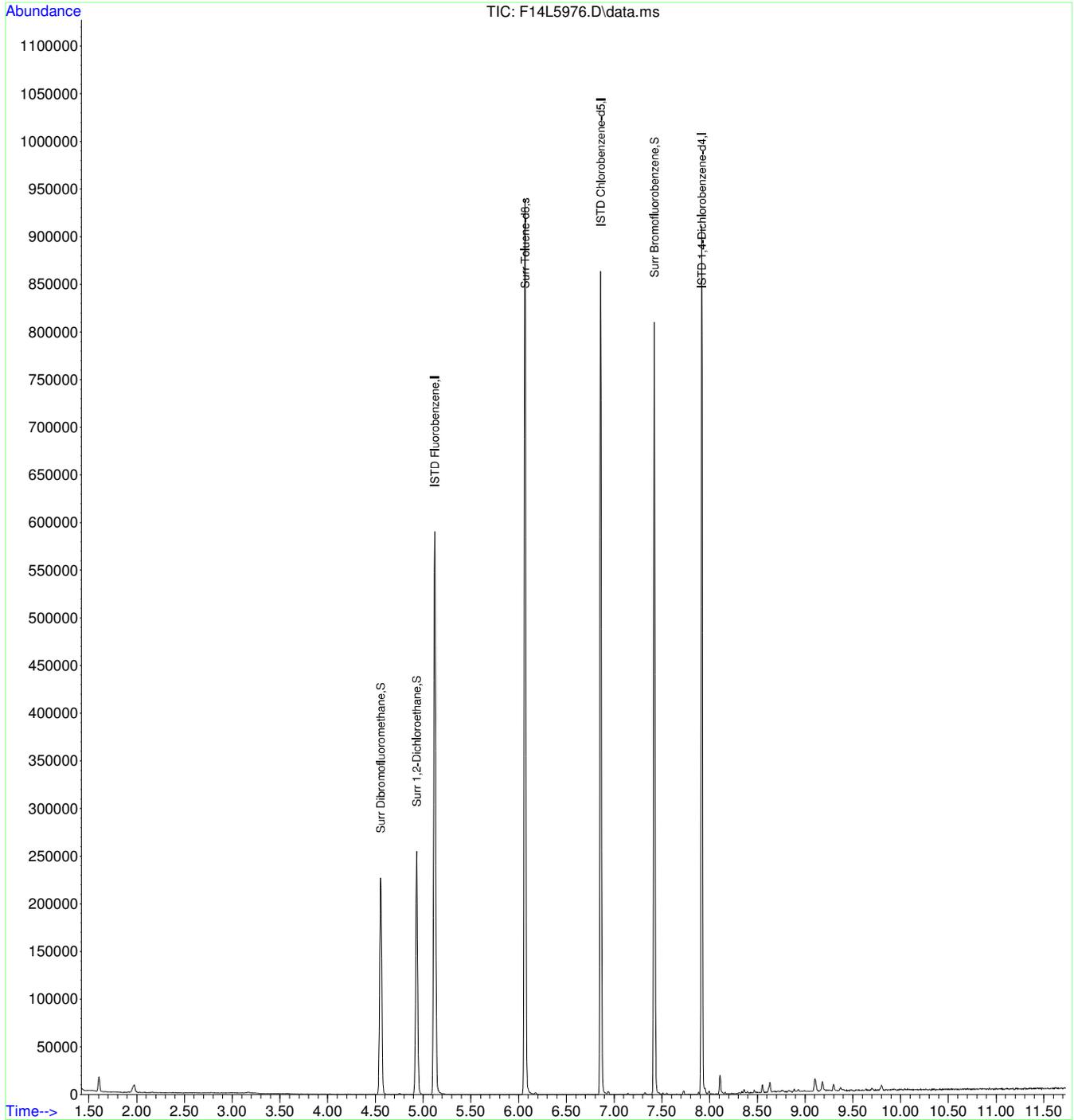
Quant Time: Mar 25 06:34:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F14L5976.D
Acq On : 24 Mar 2013 9:37 pm
Operator : AAP
Sample : 1303597-006A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 13 Sample Multiplier: 1

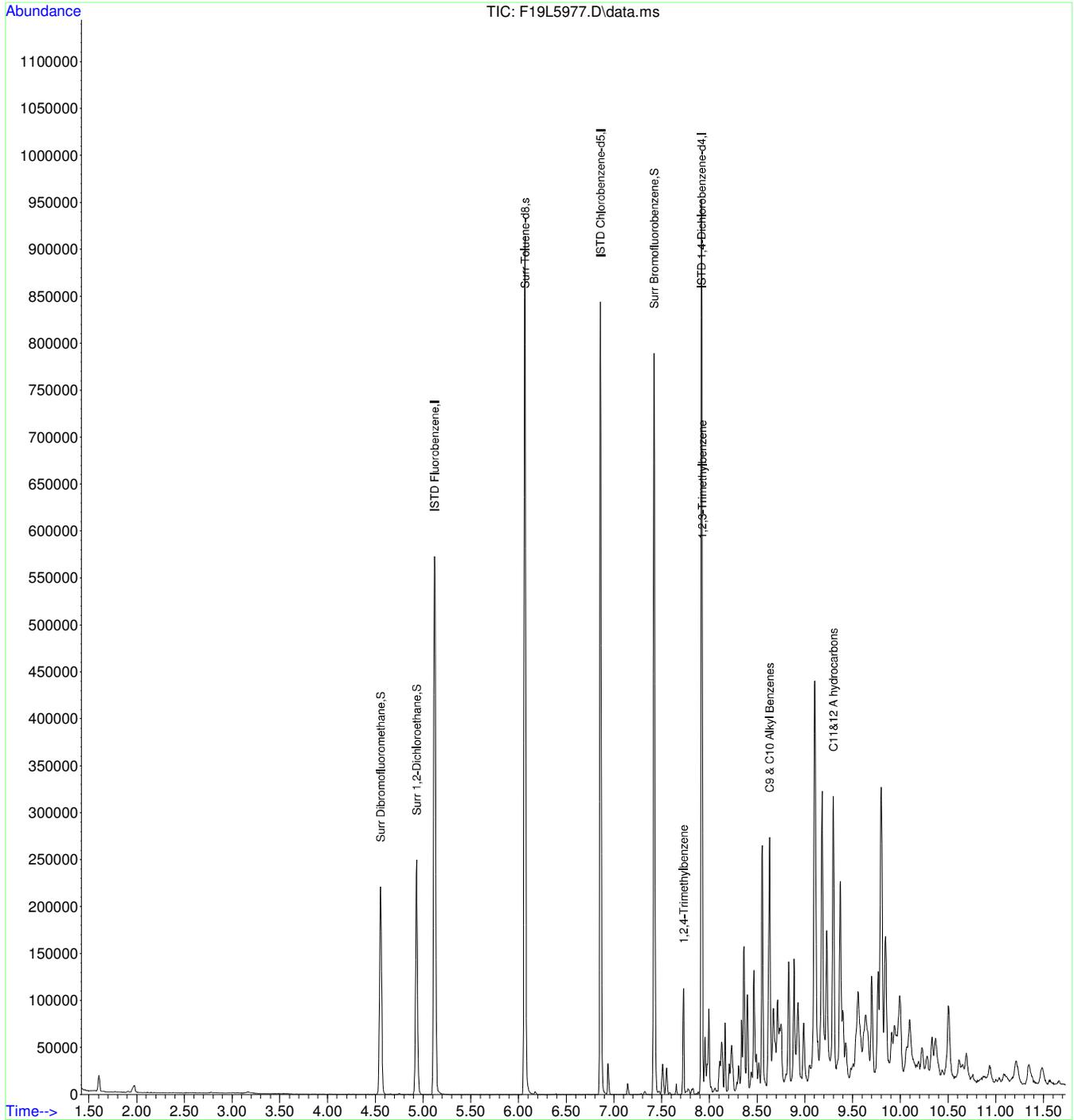
Quant Time: Mar 25 06:34:56 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F19L5977.D
Acq On : 24 Mar 2013 11:12 pm
Operator : AAP
Sample : 1303597-007A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 18 Sample Multiplier: 1

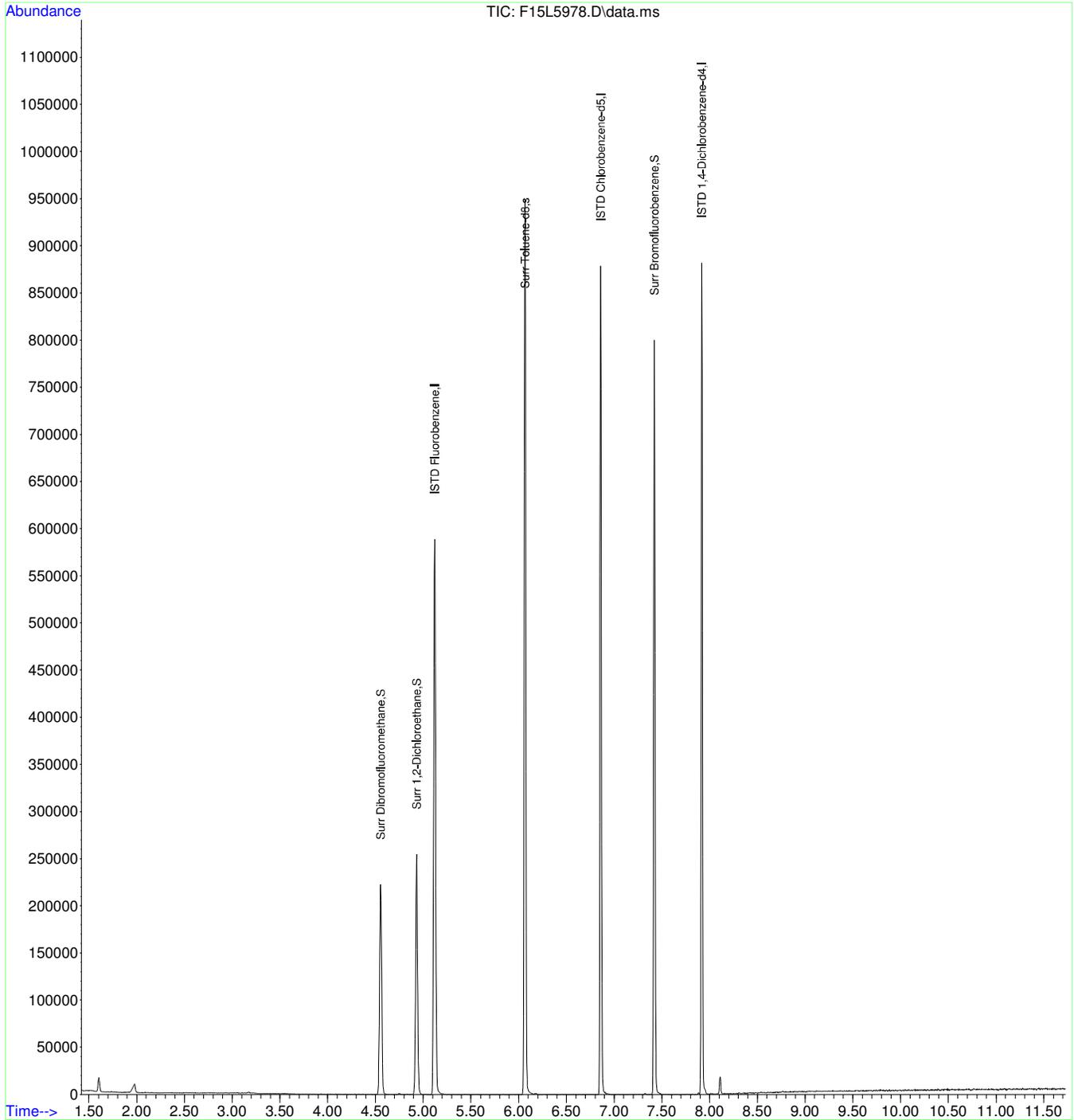
Quant Time: Mar 25 06:36:54 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F15L5978.D
Acq On : 24 Mar 2013 9:56 pm
Operator : AAP
Sample : 1303597-008A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 14 Sample Multiplier: 1

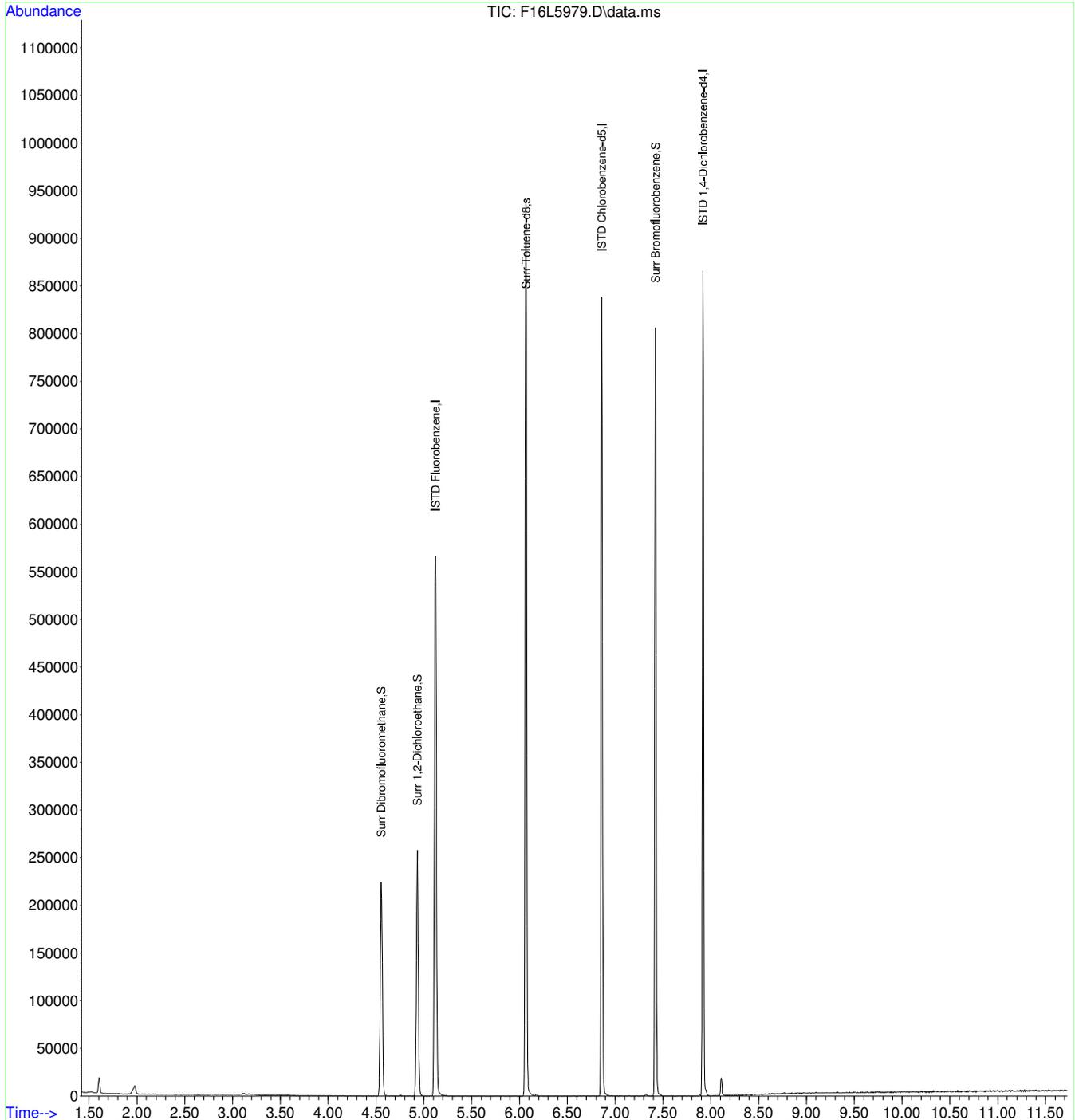
Quant Time: Mar 25 06:35:11 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F16L5979.D
Acq On : 24 Mar 2013 10:15 pm
Operator : AAP
Sample : 1303597-009A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 15 Sample Multiplier: 1

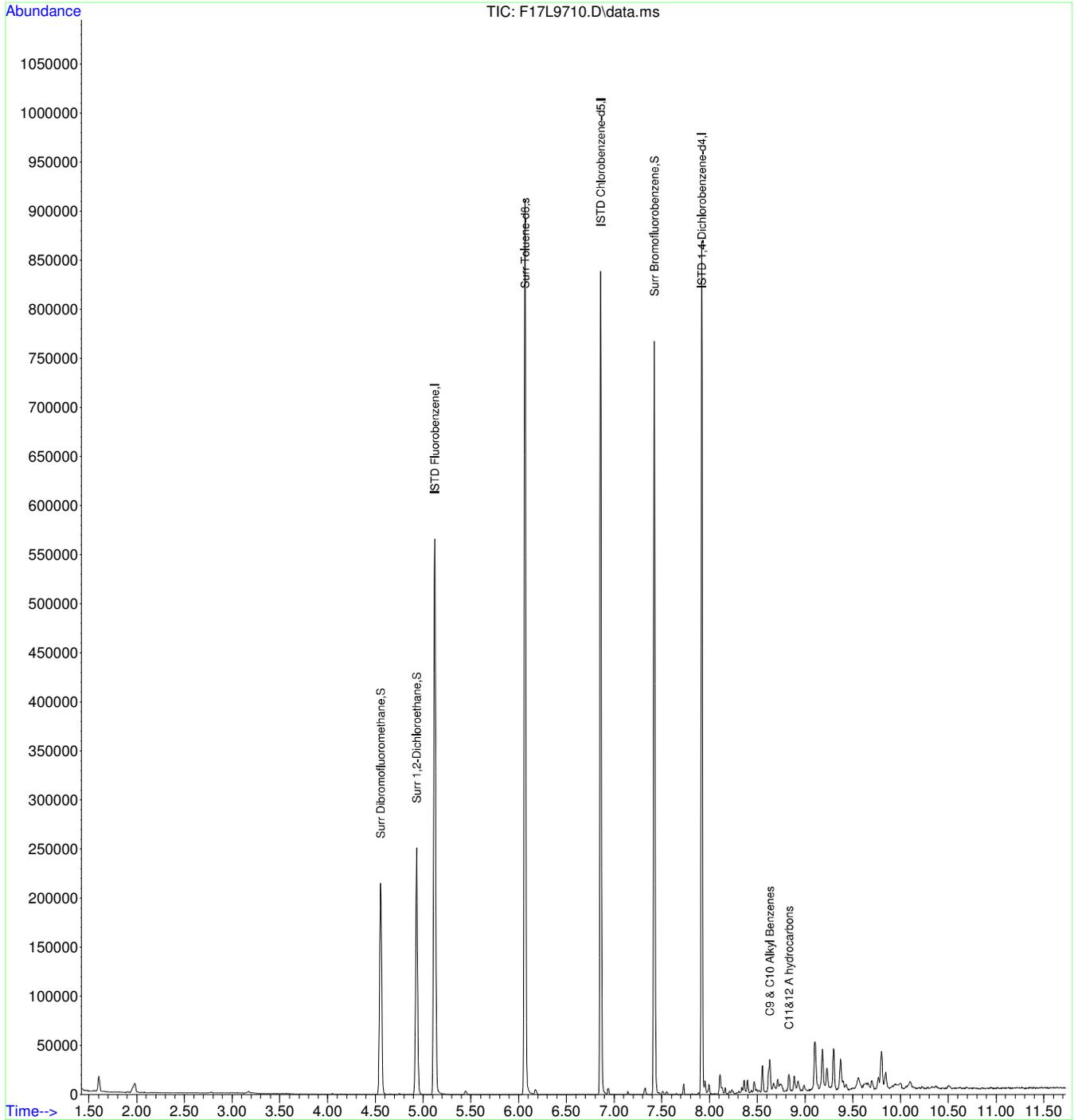
Quant Time: Mar 25 06:35:25 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F17L9710.D
Acq On : 24 Mar 2013 10:34 pm
Operator : AAP
Sample : 1303597-010A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 16 Sample Multiplier: 1

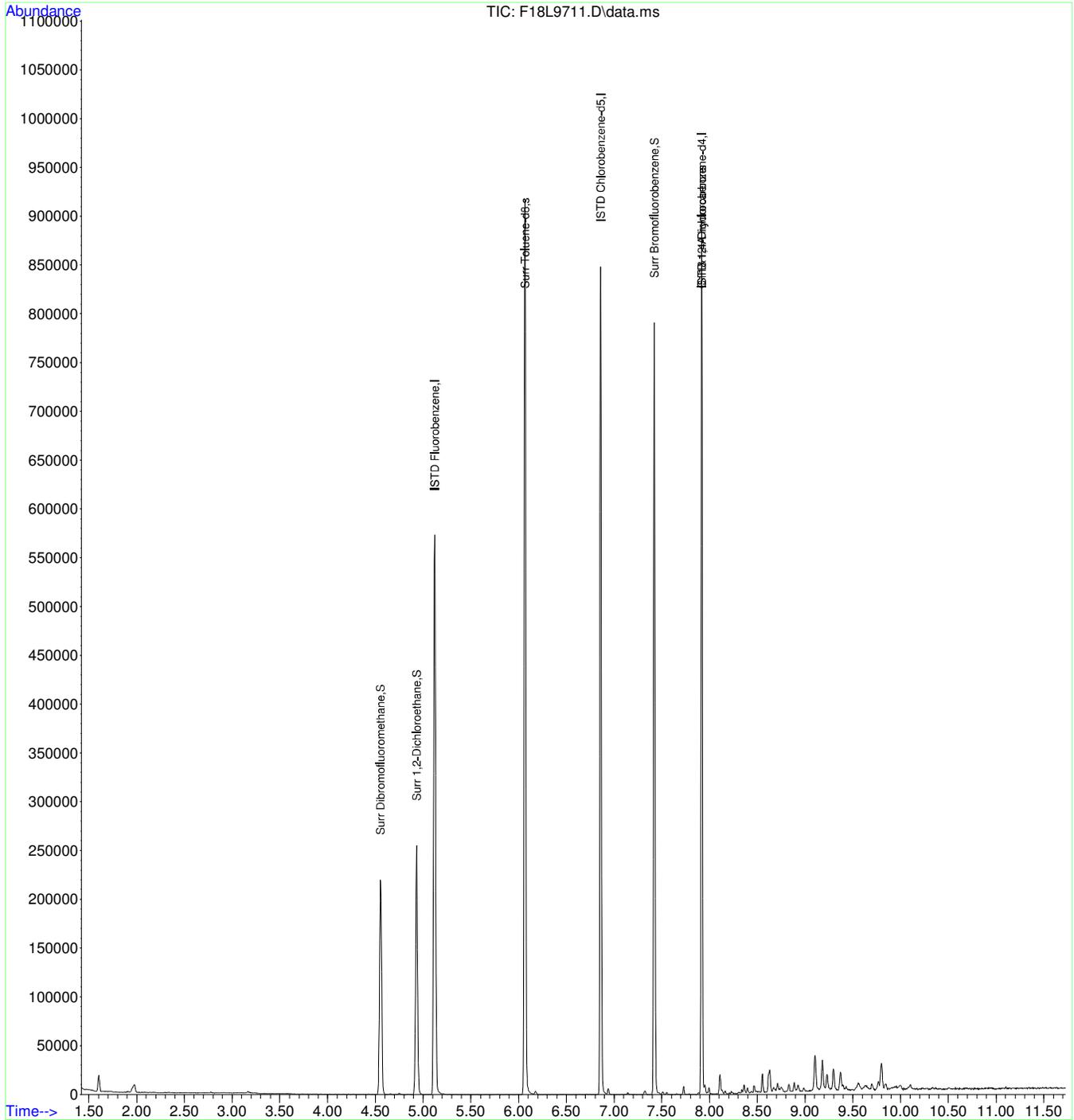
Quant Time: Mar 25 06:35:50 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F18L9711.D
Acq On : 24 Mar 2013 10:53 pm
Operator : AAP
Sample : 1303597-011A
Misc : SAMP 5.0ML 1OF3 SB
ALS Vial : 17 Sample Multiplier: 1

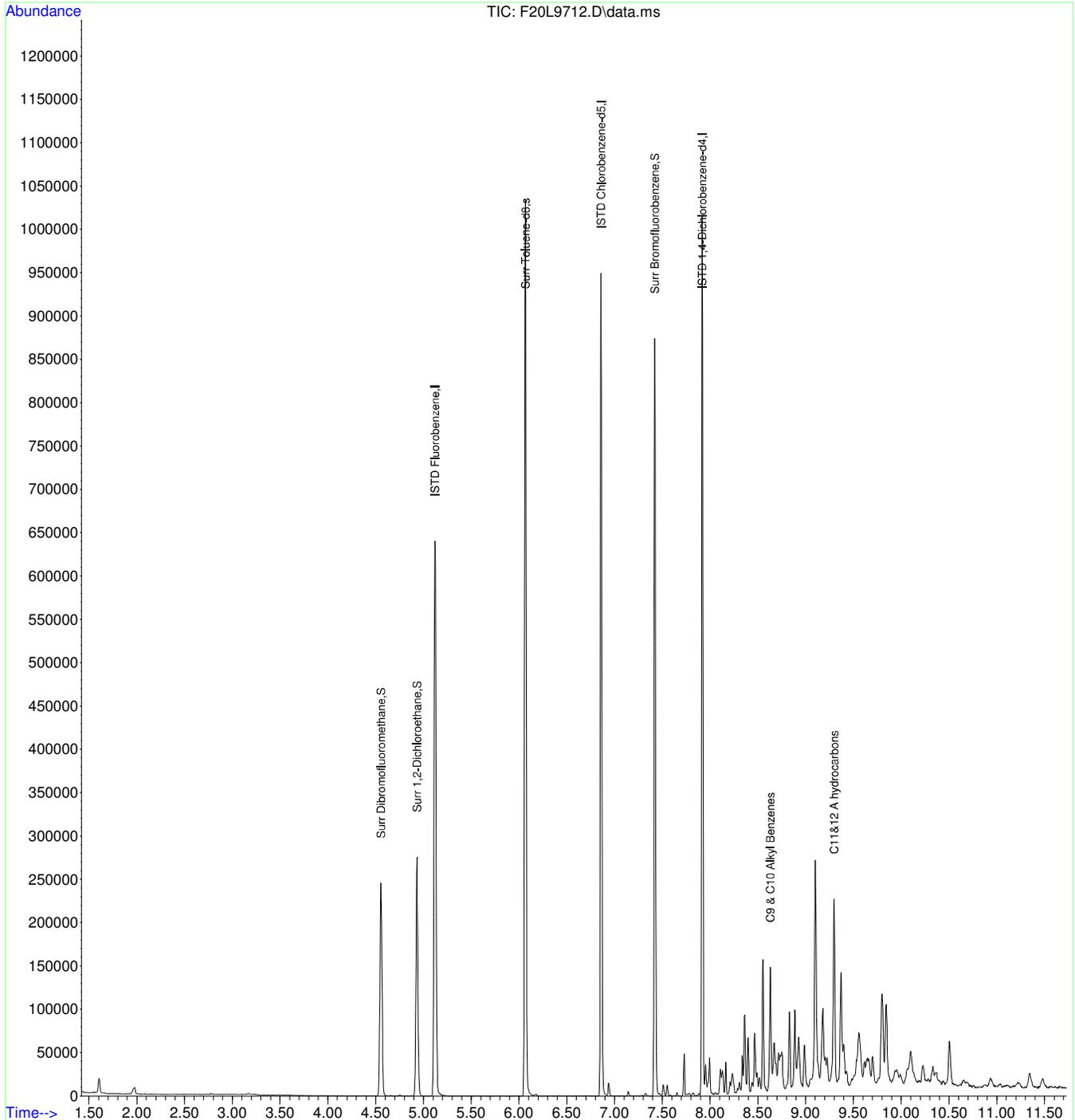
Quant Time: Mar 25 06:36:15 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

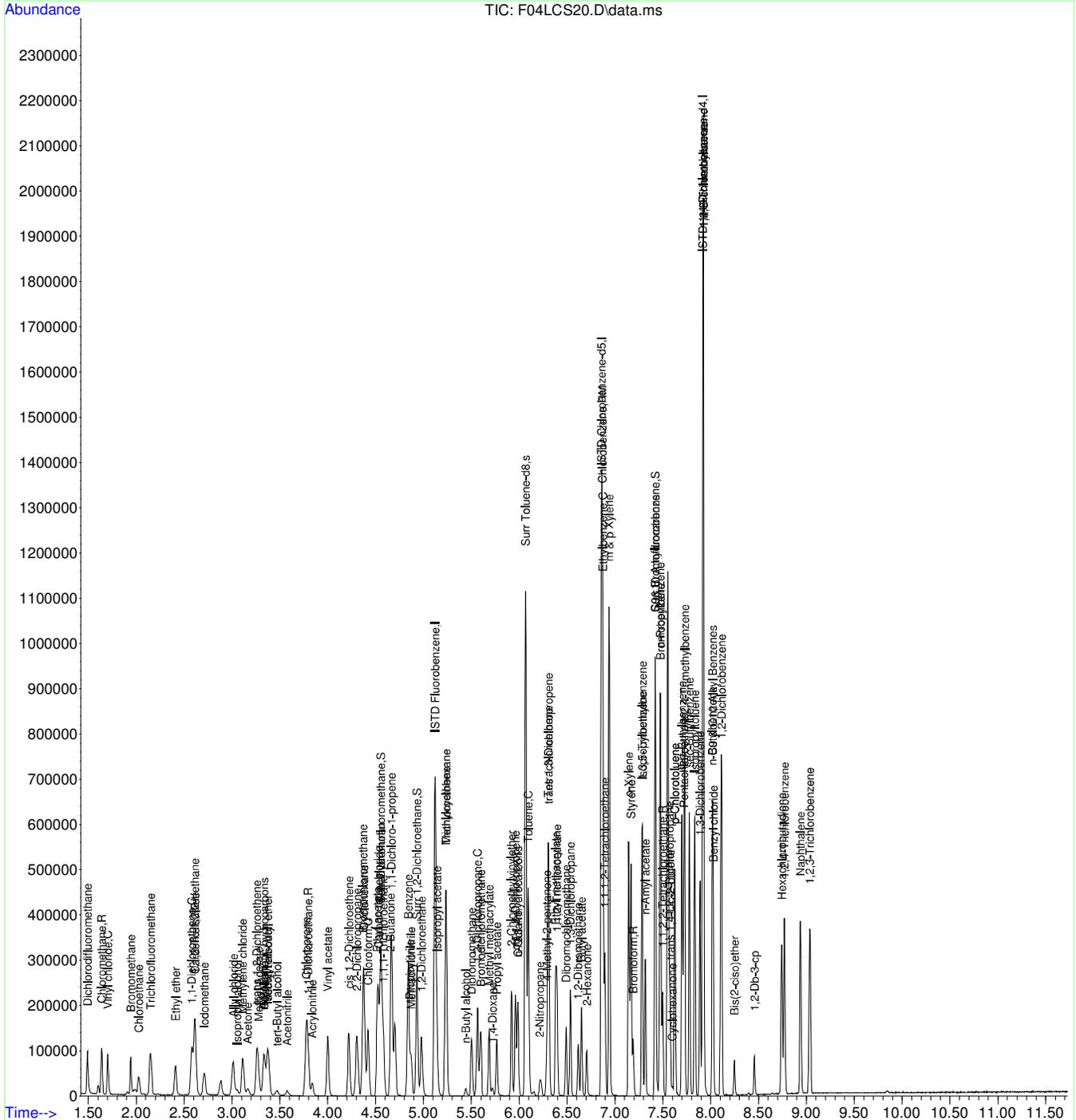
Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F20L9712.D
Acq On : 24 Mar 2013 11:30 pm
Operator : AAP
Sample : 1303597-012A
Misc : SAMP 5.0ML/50ML 1OF3 SB
ALS Vial : 19 Sample Multiplier: 10

Quant Time: Mar 25 06:37:23 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F04LCS20.D
Acq On : 24 Mar 2013 6:27 pm
Operator : AAP
Sample : LCS VOC 032413B
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB
ALS Vial : 3 Sample Multiplier: 1

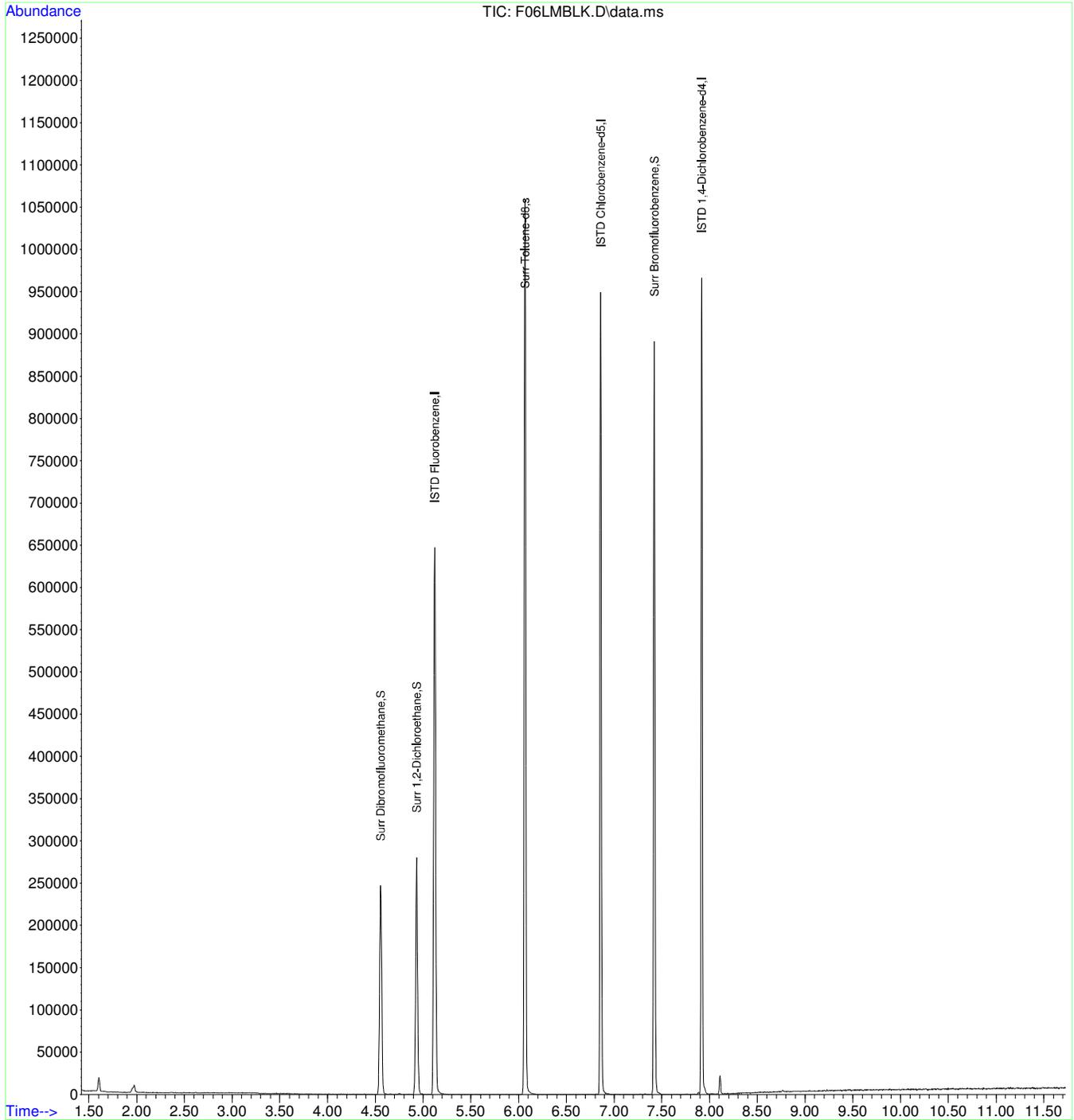
Quant Time: Mar 24 18:39:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

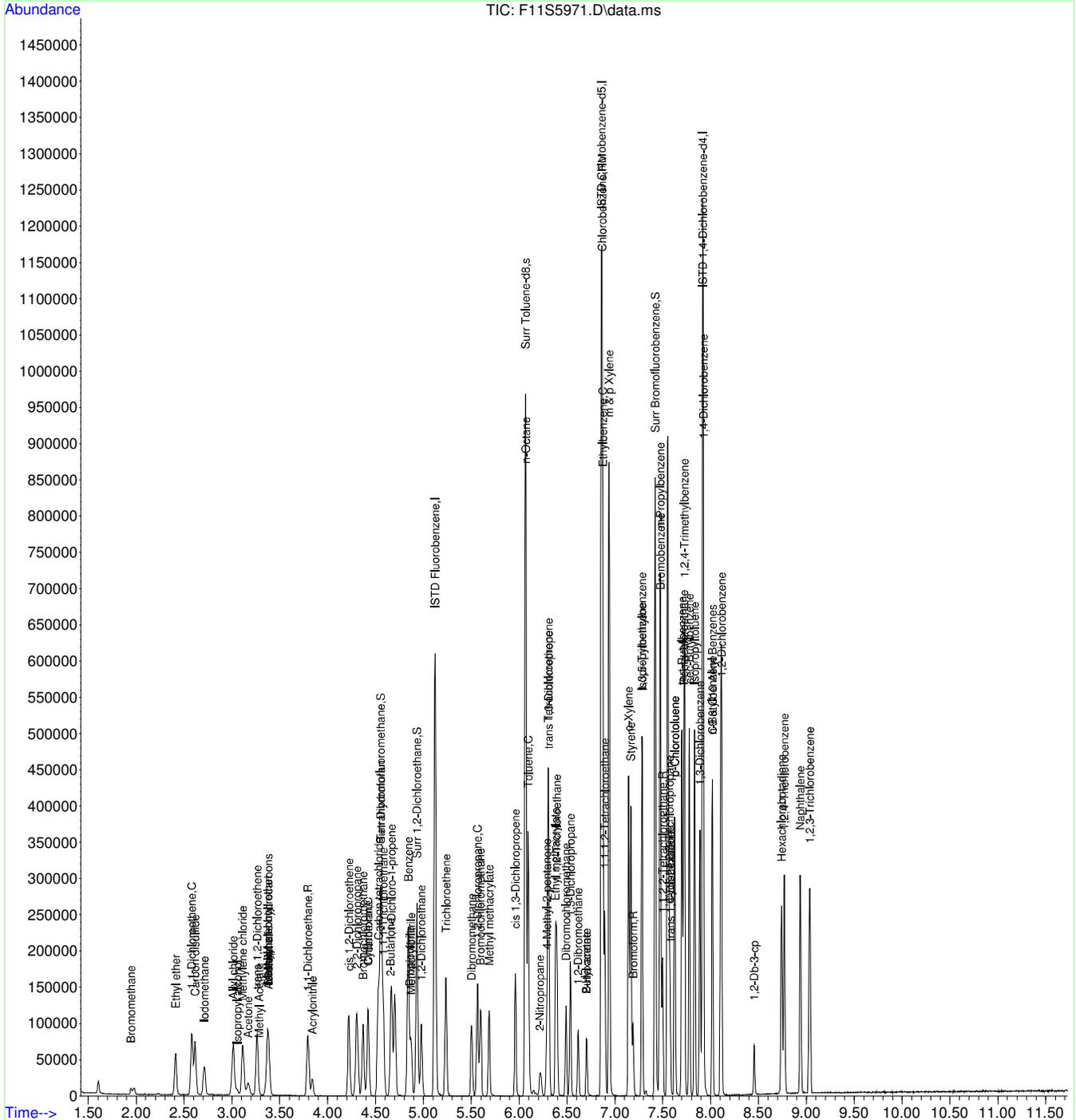
Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F06LMBLK.D
Acq On : 24 Mar 2013 7:05 pm
Operator : AAP
Sample : MB VOC 032413B
Misc : MBLK 5.0ML SB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 25 06:32:44 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



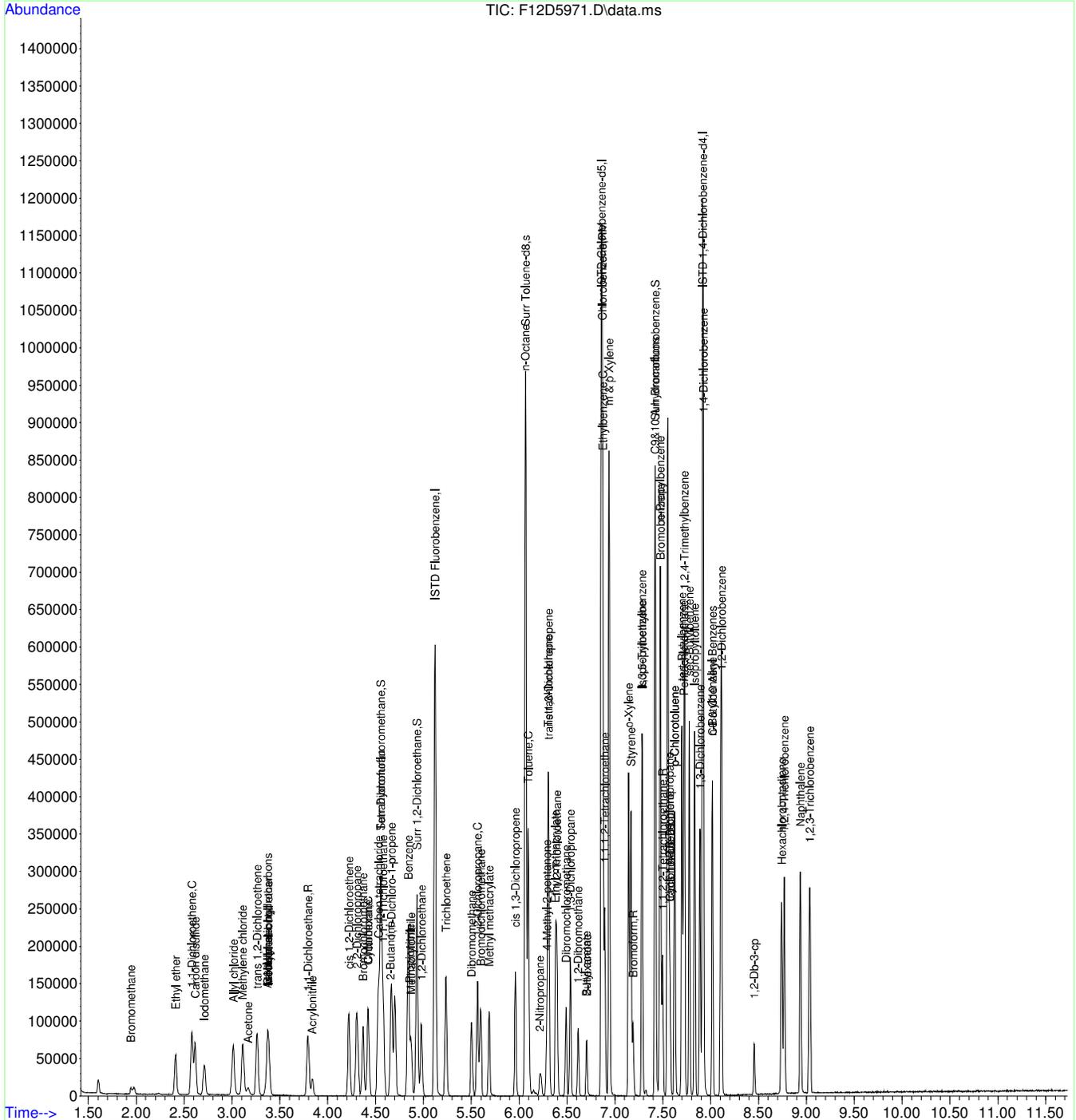
Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
 Data File : F11S5971.D
 Acq On : 24 Mar 2013 8:40 pm
 Operator : AAP
 Sample : 1303597-001MS
 Misc : MS 5.0ML 2OF3 SB
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 24 20:52:00 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
 Quant Title : VOA Calibration
 QLast Update : Sun Mar 24 06:12:19 2013
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\MAR13-D\24MAR13\
Data File : F12D5971.D
Acq On : 24 Mar 2013 8:59 pm
Operator : AAP
Sample : 1303597-001MSD
Misc : MSD 5.0ML 3OF3 SB
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 24 21:11:02 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_14.M
Quant Title : VOA Calibration
QLast Update : Sun Mar 24 06:12:19 2013
Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1303597** Page 1 of 4

Client: Utah Division of Water Quality

Due Date: 3/26/2013

Client ID: UTD200

Contact: Chris Bittner

Project: MP 44.9

QC Level: III

WO Type: Standard 

Comments: Next Day Rush - QC3 / 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	
1303597-001A	East of I-15 / 4920392	3/24/2013 0900h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303597-001B				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: 140 / # 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>								
1303597-001C				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>								
1303597-001D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)	
				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)	
1303597-001E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1
1303597-002A	North Boom / 4920397	3/24/2013 1130h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303597-002B				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: 140 / # 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>								
1303597-002C				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>								
1303597-002D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)	
				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)	
1303597-002E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1
1303597-003A	W. Boom 5 / 4920499	3/24/2013 1145h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303597-003B				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: 140 / # 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>								
1303597-003C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	

WORK ORDER Summary

Work Order: **1303597** Page 2 of 4

Client: Utah Division of Water Quality

Due Date: 3/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage		
1303597-003C	W. Boom 5 / 4920499	3/24/2013 1145h	3/24/2013 1538h	8015-W-TPH(1L)	Aqueous	<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	2	
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>					
1303597-003D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)		
1303597-003E				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)		
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1	
1303597-004A	W. Boom 4 / 4920498	3/24/2013 1200h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3	
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>					
1303597-004B				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: 140 / # 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>					
1303597-004C				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>					
1303597-004D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)		
1303597-004E				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)		
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1	
1303597-005A	W. Boom 3 / 4920497	3/24/2013 1215h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3	
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>					
1303597-005B				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: 140 / # 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>					
1303597-005C				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>					
1303597-005D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)		
1303597-005E				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)		
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1	
1303597-006A	W. Boom 2 / 4920496	3/24/2013 1230h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3	
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>					
1303597-006B				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: 140 / # 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>					
1303597-006C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)		

WORK ORDER Summary

Work Order: **1303597** Page 3 of 4

Client: Utah Division of Water Quality

Due Date: 3/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1303597-006C	W. Boom 2 / 4920496	3/24/2013 1230h	3/24/2013 1538h	8015-W-TPH(1L)	Aqueous	<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	2		
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>										
1303597-006D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)			
1303597-006E				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)			
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1		
1303597-007A	W. Boom 1 / 4920396	3/24/2013 1245h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303597-007B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2		
				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi			
				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>										
1303597-007C				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>										
1303597-007D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)			
				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)			
1303597-007E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1		
1303597-008A	Trip Blank	3/24/2013	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303597-009A	Field Blank	3/24/2013 1330h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303597-010A	East Boom / 4920395	3/24/2013 1345h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303597-010B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2		
				8270-W		<input checked="" type="checkbox"/>	Walkin-Semi			
				8270-W-SIM		<input checked="" type="checkbox"/>	Walkin-Semi			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>										
1303597-010C				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>										
1303597-010D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)			
				8015-W-ORO(1L)		<input type="checkbox"/>	Walkin-oro (Liters)			
1303597-010E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1		
1303597-011A	East Boom Dup / 4920395	3/24/2013 1400h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303597-011B				3510-SVOA-PR		<input type="checkbox"/>	Walkin-Semi	2		

WORK ORDER Summary

Work Order: **1303597** Page 4 of 4

Client: Utah Division of Water Quality

Due Date: 3/26/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage				
1303597-011B	East Boom Dup / 4920395	3/24/2013 1400h	3/24/2013 1538h	8270-W	Aqueous	<input checked="" type="checkbox"/>	Walkin-Semi	2			
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>											
8270-W-SIM					<input checked="" type="checkbox"/>	Walkin-Semi					
1303597-011C				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)					
1303597-011D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)				
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>											
8015-W-ORO(1L)					<input type="checkbox"/>	Walkin-oro (Liters)					
1303597-011E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1			
1303597-012A				Between Weirs / 4920394	3/24/2013 1415h	3/24/2013 1538h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>											
1303597-012B	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: 140 / # 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>							
1303597-012C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)				
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>											
8015-W-TPH(1L)					<input checked="" type="checkbox"/>	Walkin-TPH (Liters)					
1303597-012D				3510-ORO-PR		<input type="checkbox"/>	Walkin-oro (Liters)				
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>											
8015-W-ORO(1L)					<input type="checkbox"/>	Walkin-oro (Liters)					
1303597-012E				COD-HACH8000		<input type="checkbox"/>	ww - cod	1			

Sample Set: 1303597

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except -001	Except -002	Except -003	Except -004	Except -005	Except -006	Except -007	Except -010	Except -011	Except -012	Except	Except	Except	Except	Except
Ammonia	pH <2 H ₂ SO ₄																
COD	pH <2 H ₂ SO ₄		Yes														
Cyanide	PH >12 NaOH																
Metals	pH <2 HNO ₃																
NO ₂ & NO ₃	pH <2 H ₂ SO ₄																
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																
TOC	pH <2 H ₃ PO ₄																
TOX	pH <2 H ₂ SO ₄																
T PO ₄	pH <2 H ₂ SO ₄																
TPH	pH <2 HCL																

- 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