



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: 1303801

463 West 3600 South  
Salt Lake City, UT 84115

American West Analytical Laboratories received 16 sample(s) on 3/30/2013 for the analyses presented in the following report.

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web: www.awal-labs.com

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

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

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

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

Thank You,

Approved by: \_\_\_\_\_  
Laboratory Director or designee



## TPH (DRO) Case Narrative

**Client:** Utah Division of Water Quality  
**Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Set ID:** 1303801

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### Sample Receipt Information:

**Date of Receipt:** 3/30/2013  
**Date of Collection:** 3/30/2013  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8015D /3510C  
**Analysis:** Total Petroleum Hydrocarbon (DRO - C10-28)

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

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

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

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



## Semivolatile Case Narrative

**Client:** Utah Division of Water Quality  
**Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Set ID:** 1303801

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### **Sample Receipt Information:**

**Date of Receipt:** 3/30/2013  
**Date of Collection:** 3/30/2013  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8270D/3510C  
**Analysis:** Semivolatile Organics

**General Set Comments:** No analytes were observed above 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 and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions: On sample 1303801-001BMSD, the RPDs for 1,4-Dichlorobenzene and 2-Chlorophenol were outside of their control limits due to suspected sample non-homogeneity or matrix interference.

**Surrogates:** All surrogate recoveries were within established limits, with the following exceptions: On samples 1303801-001B and -002B, multiple surrogates were outside of their control limits due to sample matrix interference.

**Corrective Action:** None required.



## Volatile Case Narrative

**Client:** Utah Division of Water Quality  
**Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Set ID:** 1303801

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

### Sample Receipt Information:

**Date of Receipt:** 3/30/2013  
**Date of Collection:** 3/30/2013  
**Sample Condition:** Intact  
**C-O-C Discrepancies:** None  
**Method:** SW-846 8260C/5030C  
**Analysis:** Volatile Organic Compounds

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

**Holding Time and Preservation Requirements:** All samples were received in appropriate containers. All samples, except for 1303801-016A, were received unpreserved with a pH >2. Analysis was performed within 7 day holding time. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

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

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

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

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

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

**Surrogates:** All surrogate recoveries were within established limits.

**Corrective Action:** None required.



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-001C  
**Client Sample ID:** East of I-15 / 4920392  
**Collection Date:** 3/30/2013 735h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 1736h      **Extracted:** 4/1/2013 849h  
**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	0.526	< 0.526	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.201	0.4211	47.7	10-190	

web: www.awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-003C  
**Client Sample ID:** 50' from 0397 / 4920508  
**Collection Date:** 3/30/2013 845h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 1853h      **Extracted:** 4/1/2013 849h  
**Units:** mg/L      **Dilution Factor:** 1      **Method:** SW8015D

463 West 3600 South  
Salt Lake City, UT 84115

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

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.167	0.4000	41.7	10-190	

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Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-004C  
**Client Sample ID:** North Boom / 4920397  
**Collection Date:** 3/30/2013 850h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 1913h      **Extracted:** 4/1/2013 849h  
**Units:** mg/L      **Dilution Factor:** 1      **Method:** SW8015D

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

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.149	0.4000	37.2	10-190	

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QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-005C  
**Client Sample ID:** W. Boom 5 / 4920499  
**Collection Date:** 3/30/2013 855h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 1932h      **Extracted:** 4/1/2013 849h  
**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	< 0.500	

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.169	0.4000	42.1	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:** 1303801-006C  
**Client Sample ID:** W. Boom 4 / 4920498  
**Collection Date:** 3/30/2013 900h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 1951h      **Extracted:** 4/1/2013 849h  
**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	<b>0.566</b>			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.155	0.4000	38.7	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:** 1303801-009C  
**Client Sample ID:** W. Boom 2 / 4920496  
**Collection Date:** 3/30/2013 920h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 2050h      **Extracted:** 4/1/2013 849h  
**Units:** mg/L      **Dilution Factor:** 1      **Method:** SW8015D

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

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.208	0.4000	51.9	10-190	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-010C  
**Client Sample ID:** 50' From 0396 / 4920505  
**Collection Date:** 3/30/2013 925h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 2109h      **Extracted:** 4/1/2013 849h  
**Units:** mg/L      **Dilution Factor:** 1      **Method:** SW8015D

463 West 3600 South  
Salt Lake City, UT 84115

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

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Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.241	0.4000	60.2	10-190	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-011C  
**Client Sample ID:** W. Boom 1 / 4920396  
**Collection Date:** 3/30/2013 930h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 2226h      **Extracted:** 4/1/2013 1026h  
**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	<b>0.735</b>			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.243	0.4000	60.8	10-190	

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Jose Rocha  
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## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-012C  
**Client Sample ID:** East of Boom / 4920395  
**Collection Date:** 3/30/2013 945h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 2246h      **Extracted:** 4/1/2013 1026h  
**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	<b>3.83</b>			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.215	0.4000	53.6	10-190	

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Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-013C  
**Client Sample ID:** Between Weirs / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/1/2013 2305h      **Extracted:** 4/1/2013 1026h  
**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	<b>5.56</b>			
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 4-Bromofluorobenzene	460-00-4	0.186	0.4000	46.4	10-190	

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer





## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality      **Contact:** Chris Bittner  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392  
**Collection Date:** 3/30/2013 735h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1122h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

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Laboratory Director

Jose Rocha  
QA Officer

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



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495  
**Collection Date:** 3/30/2013 750h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/5/2013 1242h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
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:** 1303801-003B  
**Client Sample ID:** 50' from 0397 / 4920508  
**Collection Date:** 3/30/2013 845h  
**Received Date:** 3/30/2013 1130h

## Analytical Results

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

**Analyzed:** 4/5/2013 1308h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
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:** 1303801-004B  
**Client Sample ID:** North Boom / 4920397  
**Collection Date:** 3/30/2013 850h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1335h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-005B  
**Client Sample ID:** W. Boom 5 / 4920499  
**Collection Date:** 3/30/2013 855h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1402h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
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:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498  
**Collection Date:** 3/30/2013 900h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1430h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



# ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-007B  
**Client Sample ID:** 50' from WB 4 / 4920502  
**Collection Date:** 3/30/2013 905h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/5/2013 1457h      **Extracted:** 3/31/2013 1431h  
**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	<b>0.330</b>	
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:** 1303801-008B  
**Client Sample ID:** W. Boom 3 / 4920497  
**Collection Date:** 3/30/2013 910h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1525h      **Extracted:** 3/31/2013 1431h  
**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	<b>0.370</b>	
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:** 1303801-009B  
**Client Sample ID:** W. Boom 2 / 4920496  
**Collection Date:** 3/30/2013 920h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1553h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	< 0.100	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	< 0.100	



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-010B  
**Client Sample ID:** 50' From 0396 / 4920505  
**Collection Date:** 3/30/2013 925h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/5/2013 1621h      **Extracted:** 3/31/2013 1431h  
**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	< 0.100	
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:** 1303801-011B  
**Client Sample ID:** W. Boom 1 / 4920396  
**Collection Date:** 3/30/2013 930h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1648h      **Extracted:** 3/31/2013 1431h  
**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	<b>0.320</b>	
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:** 1303801-012B  
**Client Sample ID:** East of Boom / 4920395  
**Collection Date:** 3/30/2013 945h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/5/2013 1716h      **Extracted:** 3/31/2013 1431h  
**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	<b>2.86</b>	
2-Methylnaphthalene	91-57-6	0.100	<b>2.04</b>	
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	<b>1.09</b>	
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:** 1303801-013B  
**Client Sample ID:** Between Weirs / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/5/2013 1744h      **Extracted:** 3/31/2013 1431h  
**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	<b>3.50</b>	
2-Methylnaphthalene	91-57-6	0.100	<b>2.45</b>	
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	<b>0.480</b>	
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	<b>0.940</b>	
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:** 1303801-014B  
**Client Sample ID:** Between Weirs Dup / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/5/2013 1812h      **Extracted:** 3/31/2013 1431h  
**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	4.57	
2-Methylnaphthalene	91-57-6	0.100	3.19	
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	0.590	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	1.20	
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:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392  
**Collection Date:** 3/30/2013 735h  
**Received Date:** 3/30/2013 1130h

## Analytical Results

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

**Analyzed:** 4/6/2013 922h **Extracted:** 3/31/2013 1431h  
**Units:** µg/L **Dilution Factor:** 1 **Method:** SW8270D

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

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



**Lab Sample ID:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 4/6/2013 922h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

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Kyle F. Gross  
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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:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 4/6/2013 922h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 4/6/2013 922h      **Extracted:** 3/31/2013 1431h  
**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
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: 5-Eicosene, (E)-	074685-30-6		6.23	JN
TIC: Acetamide, N-[3.beta.-(dime...	015112-55-7		15.3	JN



**Lab Sample ID:** 1303801-001B  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 4/6/2013 922h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	48.9	80.00	61.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	5.97	40.00	14.9	10-124	
Surr: 2-Fluorophenol	367-12-4	0.880	80.00	1.10	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	0.110	40.00	0.275	10-180	S
Surr: Phenol-d6	13127-88-3	1.74	80.00	2.18	10-122	S
Surr: Terphenyl-d14	1718-51-0	40.8	40.00	102	10-221	

*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.*

*S - Surrogate recoveries outside the control limits. Reanalysis yielded similar results indicating matrix interference. Additional sample was not available for re-prep.*

*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:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495  
**Collection Date:** 3/30/2013 750h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/6/2013 1041h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 4/6/2013 1041h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 4/6/2013 1041h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 4/6/2013 1041h      **Extracted:** 3/31/2013 1431h  
**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-Heneicosyl formate	077899-03-7		4.23	JN
TIC: 9-Octadecenamide, (Z)-	000301-02-0		16.8	JN
TIC: N,3-Diphenyl-1,2-carbazoled...	022315-13-5		20.1	JN



**Lab Sample ID:** 1303801-002B  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 4/6/2013 1041h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	49.4	80.00	61.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	3.33	40.00	8.33	10-124	S
Surr: 2-Fluorophenol	367-12-4	0.810	80.00	1.01	10-106	S
Surr: Nitrobenzene-d5	4165-60-0	0.750	40.00	1.88	10-180	S
Surr: Phenol-d6	13127-88-3	1.26	80.00	1.58	10-122	S
Surr: Terphenyl-d14	1718-51-0	37.4	40.00	93.6	10-221	

*J - This flag indicates an estimated value.*

*N - This flag indicates presumptive evidence of a compound.*

*S - Surrogate recoveries outside the control limits. Rreanalysis yielded similar results indicating matrix interference. Additional sample was not available for re-prep.*

*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

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-003B

**Client Sample ID:** 50' from 0397 / 4920508

**Collection Date:** 3/30/2013 845h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1107h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

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Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1,1'-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:** 1303801-003B

**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 4/6/2013 1107h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-003B  
**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 4/6/2013 1107h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-003B

**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 4/6/2013 1107h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

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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: Cyclotetradecane	000295-17-0		7.27	JN



**Lab Sample ID:** 1303801-003B

**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 4/6/2013 1107h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	61.6	80.00	77.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.2	40.00	58.0	10-124	
Surr: 2-Fluorophenol	367-12-4	29.9	80.00	37.3	10-106	
Surr: Nitrobenzene-d5	4165-60-0	21.2	40.00	53.0	10-180	
Surr: Phenol-d6	13127-88-3	21.1	80.00	26.4	10-122	
Surr: Terphenyl-d14	1718-51-0	35.9	40.00	89.7	10-221	

*J - This flag indicates an estimated value.*

*N - This flag indicates presumptive evidence of a compound.*

*This sample was analyzed for TICs.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-004B

**Client Sample ID:** North Boom / 4920397

**Collection Date:** 3/30/2013 850h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1134h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-004B

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 4/6/2013 1134h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-004B

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 4/6/2013 1134h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-004B

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 4/6/2013 1134h

**Extracted:** 3/31/2013 1431h

**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	
TIC: 1-Heneicosanol	015594-90-8		4.37	JN



**Lab Sample ID:** 1303801-004B

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 4/6/2013 1134h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	60.9	80.00	76.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	20.1	40.00	50.3	10-124	
Surr: 2-Fluorophenol	367-12-4	23.9	80.00	29.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.9	40.00	42.2	10-180	
Surr: Phenol-d6	13127-88-3	18.5	80.00	23.2	10-122	
Surr: Terphenyl-d14	1718-51-0	37.5	40.00	93.8	10-221	

*J - This flag indicates an estimated value.*

*N - This flag indicates presumptive evidence of a compound.*

*This sample was analyzed for TICs.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-005B

**Client Sample ID:** W. Boom 5 / 4920499

**Collection Date:** 3/30/2013 855h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1506h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-005B  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 4/6/2013 1506h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-005B  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 4/6/2013 1506h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-005B  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 4/6/2013 1506h      **Extracted:** 3/31/2013 1431h  
**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	
TIC: 1-Heneicosyl formate	077899-03-7		5.75	JN
TIC: 9-Octadecenamido, (Z)-	000301-02-0		40.8	JN



**Lab Sample ID:** 1303801-005B  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 4/6/2013 1506h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	70.5	80.00	88.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.3	40.00	53.3	10-124	
Surr: 2-Fluorophenol	367-12-4	29.4	80.00	36.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.3	40.00	45.6	10-180	
Surr: Phenol-d6	13127-88-3	21.9	80.00	27.4	10-122	
Surr: Terphenyl-d14	1718-51-0	36.3	40.00	90.9	10-221	

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

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498  
**Collection Date:** 3/30/2013 900h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/6/2013 1532h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/6/2013 1532h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/6/2013 1532h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/6/2013 1532h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

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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-Octadecanol	000112-92-5		5.63	JN
TIC: 9-Octadecenamide, (Z)-	000301-02-0		24.9	JN
TIC: syn-Tricyclo[5.1.0.0(2,4)]o...	1000161-99-5		5.48	JN



**Lab Sample ID:** 1303801-006B  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/6/2013 1532h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	67.7	80.00	84.7	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.6	40.00	49.1	10-124	
Surr: 2-Fluorophenol	367-12-4	25.2	80.00	31.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	17.2	40.00	43.0	10-180	
Surr: Phenol-d6	13127-88-3	19.4	80.00	24.3	10-122	
Surr: Terphenyl-d14	1718-51-0	33.1	40.00	82.7	10-221	

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

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Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-007B  
**Client Sample ID:** 50' from WB 4 / 4920502  
**Collection Date:** 3/30/2013 905h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/6/2013 1559h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-007B  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 4/6/2013 1559h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-007B  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 4/6/2013 1559h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-007B  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 4/6/2013 1559h      **Extracted:** 3/31/2013 1431h  
**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(2H)-Naphthalenone, 3,4-di...	006939-35-1		6.02	JN
TIC: 1,3-Dihydroxy-6,7-dihydro-5..	052903-70-5		6.97	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		4.59	JN



**Lab Sample ID:** 1303801-007B

**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 4/6/2013 1559h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: Benzene, 1,4-bis(1-methylet...	001605-18-1		5.53	JN
TIC: Bromoacetic acid, octadecyl...	018992-03-5		6.07	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	70.0	80.00	87.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	20.0	40.00	50.1	10-124	
Surr: 2-Fluorophenol	367-12-4	26.4	80.00	33.0	10-106	
Surr: Nitrobenzene-d5	4165-60-0	16.6	40.00	41.6	10-180	
Surr: Phenol-d6	13127-88-3	19.7	80.00	24.6	10-122	
Surr: Terphenyl-d14	1718-51-0	35.6	40.00	88.9	10-221	

*J - This flag indicates an estimated value.*

*N - This flag indicates presumptive evidence of a compound.*

*This sample was analyzed for TICs.*

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-008B

**Client Sample ID:** W. Boom 3 / 4920497

**Collection Date:** 3/30/2013 910h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1625h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-008B  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/6/2013 1625h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-008B  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/6/2013 1625h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-008B  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/6/2013 1625h      **Extracted:** 3/31/2013 1431h  
**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: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		8.52	JN
TIC: 1,3,5-Cycloheptatriene, 3,4...	1000156-99-7		8.09	JN
TIC: 1-Docosene	001599-67-3		7.72	JN



**Lab Sample ID:** 1303801-008B  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/6/2013 1625h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		4.74	JN
TIC: 9-Octadecenamamide, (Z)-	000301-02-0		5.33	JN
TIC: Octadecanoic acid	000057-11-4		4.58	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	73.6	80.00	92.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.5	40.00	46.2	10-124	
Surr: 2-Fluorophenol	367-12-4	24.7	80.00	30.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.9	40.00	37.2	10-180	
Surr: Phenol-d6	13127-88-3	18.9	80.00	23.6	10-122	
Surr: Terphenyl-d14	1718-51-0	41.0	40.00	103	10-221	

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

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## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-009B

**Client Sample ID:** W. Boom 2 / 4920496

**Collection Date:** 3/30/2013 920h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1652h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

463 West 3600 South

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

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



**Lab Sample ID:** 1303801-009B  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/6/2013 1652h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-009B  
**Client Sample ID:** W. Boom 2 / 4920496

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**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:** 1303801-009B  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/6/2013 1652h      **Extracted:** 3/31/2013 1431h  
**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-Octadecanol	000112-92-5		6.40	JN
TIC: 9-Octadecenamide, (Z)-	000301-02-0		24.4	JN



**Lab Sample ID:** 1303801-009B  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/6/2013 1652h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	69.2	80.00	86.5	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	26.9	40.00	67.2	10-124	
Surr: 2-Fluorophenol	367-12-4	30.9	80.00	38.7	10-106	
Surr: Nitrobenzene-d5	4165-60-0	22.2	40.00	55.5	10-180	
Surr: Phenol-d6	13127-88-3	23.2	80.00	29.1	10-122	
Surr: Terphenyl-d14	1718-51-0	37.0	40.00	92.5	10-221	

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

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Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-010B

**Client Sample ID:** 50' From 0396 / 4920505

**Collection Date:** 3/30/2013 925h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1904h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-010B  
**Client Sample ID:** 50' From 0396 / 4920505

**Analyzed:** 4/6/2013 1904h      **Extracted:** 3/31/2013 1431h  
**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	
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Anthracene	120-12-7	10.0	< 10.0	
Aramite	140-57-8	10.0	< 10.0	
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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	



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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	



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**Analyzed:** 4/6/2013 1904h      **Extracted:** 3/31/2013 1431h  
**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: Dichloroacetic acid, heptad...	1000282-98-2		5.58	JN



**Lab Sample ID:** 1303801-010B

**Client Sample ID:** 50' From 0396 / 4920505

**Analyzed:** 4/6/2013 1904h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 2,4,6-Tribromophenol	118-79-6	66.0	80.00	82.4	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	28.4	40.00	70.9	10-124	
Surr: 2-Fluorophenol	367-12-4	30.5	80.00	38.2	10-106	
Surr: Nitrobenzene-d5	4165-60-0	23.4	40.00	58.6	10-180	
Surr: Phenol-d6	13127-88-3	23.4	80.00	29.2	10-122	
Surr: Terphenyl-d14	1718-51-0	46.2	40.00	116	10-221	

*J - This flag indicates an estimated value.*

*N - This flag indicates presumptive evidence of a compound.*

*This sample was analyzed for TICs.*

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-011B

**Client Sample ID:** W. Boom 1 / 4920396

**Collection Date:** 3/30/2013 930h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1930h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-011B  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/6/2013 1930h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-011B  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/6/2013 1930h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-011B  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/6/2013 1930h      **Extracted:** 3/31/2013 1431h  
**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: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		4.14	JN
TIC: 1,3-Dihydroxy-6,7-dihydro-5...	052903-70-5		5.15	JN
TIC: Benzoic acid, 2-ethylhexyl ...	005444-75-7		4.53	JN



**Lab Sample ID:** 1303801-011B  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/6/2013 1930h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
TIC: Dichloroacetic acid, heptad...	1000282-98-2		6.89	JN		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.7	80.00	70.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	18.2	40.00	45.4	10-124	
Surr: 2-Fluorophenol	367-12-4	20.3	80.00	25.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	14.8	40.00	37.0	10-180	
Surr: Phenol-d6	13127-88-3	16.2	80.00	20.2	10-122	
Surr: Terphenyl-d14	1718-51-0	37.7	40.00	94.2	10-221	

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

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality

**Contact:** Chris Bittner

**Project:** MP 44.9

**Lab Sample ID:** 1303801-012B

**Client Sample ID:** East of Boom / 4920395

**Collection Date:** 3/30/2013 945h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 4/6/2013 1957h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-012B

**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/6/2013 1957h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

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Kyle F. Gross  
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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:** 1303801-012B

**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/6/2013 1957h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-012B

**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/6/2013 1957h

**Extracted:** 3/31/2013 1431h

**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...	051015-28-2		32.7	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	010468-61-8		13.1	JN
TIC: 1,3,5-Cycloheptatriene, 3,4...	1000156-99-7		26.2	JN



**Lab Sample ID:** 1303801-012B  
**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/6/2013 1957h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 1H-Inden-1-ol, 2,3-dihydro-...	038393-92-9		11.6	JN
TIC: 1H-Inden-1-one, 2,3-dihydro-3,4,...	035322-84-0		11.8	JN
TIC: 1-Isopropyl-3-tert-butylben...	020033-12-9		16.4	JN
TIC: 2-Ethyl-1-H-indene	017059-50-6		14.3	JN
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		16.1	JN
TIC: Benzene, 1,2,4-tripropyl-	041898-97-9		19.6	JN
TIC: Benzene, hexamethyl-	000087-85-4		14.9	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	56.1	80.00	70.2	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	19.7	40.00	49.3	10-124	
Surr: 2-Fluorophenol	367-12-4	26.5	80.00	33.1	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.0	40.00	49.9	10-180	
Surr: Phenol-d6	13127-88-3	20.4	80.00	25.5	10-122	
Surr: Terphenyl-d14	1718-51-0	41.6	40.00	104	10-221	

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

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-013B  
**Client Sample ID:** Between Weirs / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/6/2013 2023h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-013B

**Client Sample ID:** Between Weirs / 4920394

**Analyzed:** 4/6/2013 2023h

**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8270D

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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:** 1303801-013B

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**Extracted:** 3/31/2013 1431h

**Units:** µg/L

**Dilution Factor:** 1

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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:** 1303801-013B  
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**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: 1(2H)-Naphthalenone, 3,4-di...	006939-35-1		41.1	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	032281-65-5		15.8	JN
TIC: 1,2,3-Trimethylindene	004773-83-5		21.6	JN



**Lab Sample ID:** 1303801-013B  
**Client Sample ID:** Between Weirs / 4920394

**Analyzed:** 4/6/2013 2023h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 2,3-Dihydro-5-hydroxy-4-met...	025932-78-9		16.7	JN
TIC: 2-Ethyl-1-H-indene	017059-50-6		15.9	JN
TIC: 7-Ethyl-3,4-dihydro-1(2H)-n...	022531-06-2		15.6	JN
TIC: Benzamide, N-methyl-N-(3-ni...	1000295-26-8		22.0	JN
TIC: Benzene, 1,2-diethyl-3,4-di...	054410-75-2		19.5	JN
TIC: Benzene, 1,4-bis(1-methylet...	001605-18-1		25.4	JN
TIC: -Hydroxymethylene-2-indoli...	063273-23-4		19.0	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	75.3	80.00	94.1	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	22.9	40.00	57.4	10-124	
Surr: 2-Fluorophenol	367-12-4	24.7	80.00	30.8	10-106	
Surr: Nitrobenzene-d5	4165-60-0	20.6	40.00	51.4	10-180	
Surr: Phenol-d6	13127-88-3	18.3	80.00	22.8	10-122	
Surr: Terphenyl-d14	1718-51-0	47.2	40.00	118	10-221	

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

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Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-014B  
**Client Sample ID:** Between Weirs Dup / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/6/2013 2049h      **Extracted:** 3/31/2013 1431h  
**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:** 1303801-014B

**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/6/2013 2049h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-014B

**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/6/2013 2049h

**Extracted:** 3/31/2013 1431h

**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:** 1303801-014B

**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/6/2013 2049h

**Extracted:** 3/31/2013 1431h

**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: 1(2H)-Naphthalenone, 3,4-di...	051015-28-2		39.6	JN
TIC: 1(2H)-Naphthalenone, 3,4-dihydro...	010468-61-8		21.5	JN
TIC: 2-Ethyl-1-H-indene	017059-50-6		17.2	JN



**Lab Sample ID:** 1303801-014B  
**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/6/2013 2049h      **Extracted:** 3/31/2013 1431h  
**Units:** µg/L      **Dilution Factor:** 1      **Method:** SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: 5,8-Dimethyl-1,2,3,4-tetra...	032820-12-5		21.3	JN
TIC: 7-Ethyl-3,4-dihydro-1(2H)-n...	022531-06-2		16.5	JN
TIC: Benzene, 1,2-diethyl-3,4-di...	054410-75-2		22.6	JN
TIC: Benzene, 1,4-bis(1-methylethenyl)-	001605-18-1		19.3	JN
TIC: Benzene, 1-methoxy-4-(1-met...	018272-83-8		15.8	JN
TIC: Benzo[b]thiophene, 7-ethyl-...	016587-44-3		18.6	JN
TIC: Dodecane	000112-40-3		16.0	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	54.2	80.00	67.8	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	17.0	40.00	42.4	10-124	
Surr: 2-Fluorophenol	367-12-4	27.1	80.00	33.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	19.9	40.00	49.6	10-180	
Surr: Phenol-d6	13127-88-3	18.9	80.00	23.6	10-122	
Surr: Terphenyl-d14	1718-51-0	40.1	40.00	100	10-221	

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

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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:** 1303801-001A  
**Client Sample ID:** East of I-15 / 4920392  
**Collection Date:** 3/30/2013 735h  
**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 3/31/2013 2025h

**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:** 1303801-001A  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 3/31/2013 2025h

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

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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:** 1303801-001A  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 3/31/2013 2025h

**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:** 1303801-001A  
**Client Sample ID:** East of I-15 / 4920392

**Analyzed:** 3/31/2013 2025h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.2	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.1	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.7	50.00	97.4	80-124	
Surr: Toluene-d8	2037-26-5	48.1	50.00	96.3	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-002A  
**Client Sample ID:** S. Marina / 4920495  
**Collection Date:** 3/30/2013 750h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 3/31/2013 2044h

**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:** 1303801-002A  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 3/31/2013 2044h

**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:** 1303801-002A  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 3/31/2013 2044h

**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:** 1303801-002A  
**Client Sample ID:** S. Marina / 4920495

**Analyzed:** 3/31/2013 2044h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.1	50.00	108	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.3	50.00	103	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.2	50.00	96.4	80-124	
Surr: Toluene-d8	2037-26-5	48.9	50.00	97.8	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-003A  
**Client Sample ID:** 50' from 0397 / 4920508  
**Collection Date:** 3/30/2013 845h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 3/31/2013 2238h

**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:** 1303801-003A  
**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 3/31/2013 2238h

**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:** 1303801-003A  
**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 3/31/2013 2238h

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

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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:** 1303801-003A  
**Client Sample ID:** 50' from 0397 / 4920508

**Analyzed:** 3/31/2013 2238h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.0	50.00	110	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.6	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.0	50.00	96.1	80-124	
Surr: Toluene-d8	2037-26-5	48.1	50.00	96.3	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-004A

**Client Sample ID:** North Boom / 4920397

**Collection Date:** 3/30/2013 850h

**Received Date:** 3/30/2013 1130h

### Analytical Results

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

**Analyzed:** 3/31/2013 2257h

**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:** 1303801-004A

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 3/31/2013 2257h

**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:** 1303801-004A

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 3/31/2013 2257h

**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:** 1303801-004A

**Client Sample ID:** North Boom / 4920397

**Analyzed:** 3/31/2013 2257h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.6	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.5	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.8	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	48.4	50.00	96.9	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-005A  
**Client Sample ID:** W. Boom 5 / 4920499  
**Collection Date:** 3/30/2013 855h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 3/31/2013 2316h

**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:** 1303801-005A  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 3/31/2013 2316h

**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:** 1303801-005A  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 3/31/2013 2316h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

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 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:** 1303801-005A  
**Client Sample ID:** W. Boom 5 / 4920499

**Analyzed:** 3/31/2013 2316h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.8	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.4	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.0	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.7	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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Jose Rocha  
QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-006A  
**Client Sample ID:** W. Boom 4 / 4920498  
**Collection Date:** 3/30/2013 900h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 1651h

**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:** 1303801-006A  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/1/2013 1651h

**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:** 1303801-006A  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/1/2013 1651h

**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:** 1303801-006A  
**Client Sample ID:** W. Boom 4 / 4920498

**Analyzed:** 4/1/2013 1651h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.4	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.9	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.9	50.00	97.9	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.7	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-007A  
**Client Sample ID:** 50' from WB 4 / 4920502  
**Collection Date:** 3/30/2013 905h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 3/31/2013 2354h

**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:** 1303801-007A  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 3/31/2013 2354h

**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:** 1303801-007A  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 3/31/2013 2354h

**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:** 1303801-007A  
**Client Sample ID:** 50' from WB 4 / 4920502

**Analyzed:** 3/31/2013 2354h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.7	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.8	50.00	99.7	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.6	50.00	101	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.5	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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Jose Rocha  
 QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-008A  
**Client Sample ID:** W. Boom 3 / 4920497  
**Collection Date:** 3/30/2013 910h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/1/2013 013h

**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:** 1303801-008A  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/1/2013 013h

**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:** 1303801-008A  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/1/2013 013h

**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:** 1303801-008A  
**Client Sample ID:** W. Boom 3 / 4920497

**Analyzed:** 4/1/2013 013h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.4	50.00	113	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	51.1	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.1	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	48.7	50.00	97.4	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-009A  
**Client Sample ID:** W. Boom 2 / 4920496  
**Collection Date:** 3/30/2013 920h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 032h

**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:** 1303801-009A  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/1/2013 032h

**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:** 1303801-009A  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/1/2013 032h

**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:** 1303801-009A  
**Client Sample ID:** W. Boom 2 / 4920496

**Analyzed:** 4/1/2013 032h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.6	50.00	111	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.1	50.00	100	80-128	
Surr: Dibromofluoromethane	1868-53-7	47.6	50.00	95.2	80-124	
Surr: Toluene-d8	2037-26-5	48.2	50.00	96.5	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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Jose Rocha  
QA Officer



# ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-010A  
**Client Sample ID:** 50' From 0396 / 4920505  
**Collection Date:** 3/30/2013 925h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/1/2013 051h

**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
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:** 1303801-010A  
**Client Sample ID:** 50' From 0396 / 4920505

**Analyzed:** 4/1/2013 051h

**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:** 1303801-010A  
**Client Sample ID:** 50' From 0396 / 4920505

**Analyzed:** 4/1/2013 051h

**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:** 1303801-010A  
**Client Sample ID:** 50' From 0396 / 4920505

**Analyzed:** 4/1/2013 051h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.8	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.5	50.00	99.0	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.3	50.00	96.5	80-124	
Surr: Toluene-d8	2037-26-5	48.3	50.00	96.7	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-011A  
**Client Sample ID:** W. Boom 1 / 4920396  
**Collection Date:** 3/30/2013 930h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 110h

**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:** 1303801-011A  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/1/2013 110h

**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:** 1303801-011A  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/1/2013 110h

**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:** 1303801-011A  
**Client Sample ID:** W. Boom 1 / 4920396

**Analyzed:** 4/1/2013 110h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	55.8	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.9	50.00	99.9	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.5	50.00	97.0	80-124	
Surr: Toluene-d8	2037-26-5	47.6	50.00	95.3	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-012A  
**Client Sample ID:** East of Boom / 4920395  
**Collection Date:** 3/30/2013 945h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/1/2013 128h

**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	<b>8.96</b>	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	<b>7.62</b>	
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:** 1303801-012A  
**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/1/2013 128h

**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:** 1303801-012A  
**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/1/2013 128h

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

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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	<b>8.71</b>	
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	<b>2.59</b>	
o-Xylene	95-47-6	2.00	<b>6.61</b>	
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	<b>2.61</b>	
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	<b>15.3</b>	



**Lab Sample ID:** 1303801-012A  
**Client Sample ID:** East of Boom / 4920395

**Analyzed:** 4/1/2013 128h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	56.2	50.00	112	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	48.3	50.00	96.6	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.1	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	47.7	50.00	95.4	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-013A  
**Client Sample ID:** Between Weirs / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 147h

**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	<b>3.72</b>	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	<b>2.69</b>	
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:** 1303801-013A  
**Client Sample ID:** Between Weirs / 4920394

**Analyzed:** 4/1/2013 147h

**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:** 1303801-013A  
**Client Sample ID:** Between Weirs / 4920394

**Analyzed:** 4/1/2013 147h

**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	<b>2.96</b>	
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	<b>2.18</b>	



**Lab Sample ID:** 1303801-013A  
**Client Sample ID:** Between Weirs / 4920394

**Analyzed:** 4/1/2013 147h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.3	50.00	109	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	48.4	50.00	96.8	80-128	
Surr: Dibromofluoromethane	1868-53-7	47.2	50.00	94.4	80-124	
Surr: Toluene-d8	2037-26-5	47.9	50.00	95.8	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-014A  
**Client Sample ID:** Between Weirs Dup / 4920394  
**Collection Date:** 3/30/2013 950h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

## Analytical Results

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

**Analyzed:** 4/1/2013 206h

**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	<b>3.83</b>	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	<b>2.67</b>	
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:** 1303801-014A  
**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/1/2013 206h

**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:** 1303801-014A  
**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/1/2013 206h

**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	<b>2.92</b>	
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	<b>2.25</b>	



**Lab Sample ID:** 1303801-014A  
**Client Sample ID:** Between Weirs Dup / 4920394

**Analyzed:** 4/1/2013 206h

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

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.2	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.4	50.00	98.9	80-128	
Surr: Dibromofluoromethane	1868-53-7	48.4	50.00	96.7	80-124	
Surr: Toluene-d8	2037-26-5	48.8	50.00	97.6	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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QA Officer



## ORGANIC ANALYTICAL REPORT

**Client:** Utah Division of Water Quality  
**Project:** MP 44.9  
**Lab Sample ID:** 1303801-015A  
**Client Sample ID:** Field Blank  
**Collection Date:** 3/30/2013 825h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 225h

**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:** 1303801-015A

**Client Sample ID:** Field Blank

**Analyzed:** 4/1/2013 225h

**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:** 1303801-015A

**Client Sample ID:** Field Blank

**Analyzed:** 4/1/2013 225h

**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:** 1303801-015A

**Client Sample ID:** Field Blank

**Analyzed:** 4/1/2013 225h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	50.0	50.00	99.9	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	49.0	50.00	98.0	80-128	
Surr: Dibromofluoromethane	1868-53-7	44.8	50.00	89.7	80-124	
Surr: Toluene-d8	2037-26-5	47.0	50.00	93.9	77-129	

*The pH of the sample was >2. Analysis was performed within the 7 day holding time.*

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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:** 1303801-016A  
**Client Sample ID:** Trip Blank  
**Collection Date:** 3/30/2013 730h  
**Received Date:** 3/30/2013 1130h

**Contact:** Chris Bittner

### Analytical Results

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

**Analyzed:** 4/1/2013 244h

**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:** 1303801-016A

**Client Sample ID:** Trip Blank

**Analyzed:** 4/1/2013 244h

**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:** 1303801-016A

**Client Sample ID:** Trip Blank

**Analyzed:** 4/1/2013 244h

**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:** 1303801-016A

**Client Sample ID:** Trip Blank

**Analyzed:** 4/1/2013 244h

**Units:** µg/L

**Dilution Factor:** 1

**Method:** SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
<b>Surrogate</b>	<b>CAS</b>	<b>Result</b>	<b>Amount Spiked</b>	<b>% REC</b>	<b>Limits</b>	<b>Qual</b>
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.2	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.3	50.00	101	80-128	
Surr: Dibromofluoromethane	1868-53-7	47.7	50.00	95.4	80-124	
Surr: Toluene-d8	2037-26-5	48.5	50.00	97.1	77-129	

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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24496	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.72	2.000	0	85.8	48-118				4/1/2013 1716h
LCS-24496	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.225	0.4000		56.3	18-95				4/1/2013 1716h



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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24496	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				4/1/2013 1657h
MB-24496	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.183	0.4000		45.8	18-95				4/1/2013 1657h



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Jose Rocha  
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## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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
1303801-002CMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.88	2.051	0	91.5	60-161				4/1/2013 1814h
1303801-002CMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.239	0.4103		58.2	10-190				4/1/2013 1814h



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QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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
1303801-002CMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.80	2.051	0	87.9	60-161	4.02	25		4/1/2013 1834h
1303801-002CMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.225	0.4103		54.9	10-190				4/1/2013 1834h



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## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24490	1,2,4-Trichlorobenzene	µg/L	SW8270D	48.8	80.00	0	61.0	10-104				4/6/2013 855h
LCS-24490	1,4-Dichlorobenzene	µg/L	SW8270D	36.1	80.00	0	45.1	10-118				4/6/2013 855h
LCS-24490	2,4,6-Trichlorophenol	µg/L	SW8270D	68.3	80.00	0	85.4	17-119				4/6/2013 855h
LCS-24490	2,4-Dimethylphenol	µg/L	SW8270D	57.3	80.00	0	71.7	10-131				4/6/2013 855h
LCS-24490	2,4-Dinitrotoluene	µg/L	SW8270D	89.6	80.00	0	112	42-219				4/6/2013 855h
LCS-24490	2-Chloronaphthalene	µg/L	SW8270D	63.2	80.00	0	79.0	23-126				4/6/2013 855h
LCS-24490	2-Chlorophenol	µg/L	SW8270D	48.5	80.00	0	60.6	15-128				4/6/2013 855h
LCS-24490	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	88.4	80.00	0	110	30-198				4/6/2013 855h
LCS-24490	4-Chloro-3-methylphenol	µg/L	SW8270D	69.9	80.00	0	87.4	29-148				4/6/2013 855h
LCS-24490	4-Nitrophenol	µg/L	SW8270D	33.2	80.00	0	41.6	10-157				4/6/2013 855h
LCS-24490	Acenaphthene	µg/L	SW8270D	63.6	80.00	0	79.4	20-116				4/6/2013 855h
LCS-24490	Benzo(a)pyrene	µg/L	SW8270D	138	80.00	0	172	10-221				4/6/2013 855h
LCS-24490	N-Nitrosodi-n-propylamine	µg/L	SW8270D	46.6	80.00	0	58.3	20-148				4/6/2013 855h
LCS-24490	Pentachlorophenol	µg/L	SW8270D	83.8	80.00	0	105	21-153				4/6/2013 855h
LCS-24490	Phenol	µg/L	SW8270D	25.1	80.00	0	31.4	10-131				4/6/2013 855h
LCS-24490	Pyrene	µg/L	SW8270D	81.3	80.00	0	102	37-150				4/6/2013 855h
LCS-24490	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	87.8	80.00		110	10-165				4/6/2013 855h
LCS-24490	Surr: 2-Fluorobiphenyl	%REC	SW8270D	27.4	40.00		68.6	10-118				4/6/2013 855h
LCS-24490	Surr: 2-Fluorophenol	%REC	SW8270D	31.2	80.00		39.0	10-121				4/6/2013 855h
LCS-24490	Surr: Nitrobenzene-d5	%REC	SW8270D	25.4	40.00		63.5	10-127				4/6/2013 855h
LCS-24490	Surr: Phenol-d6	%REC	SW8270D	26.0	80.00		32.5	10-124				4/6/2013 855h
LCS-24490	Surr: Terphenyl-d14	%REC	SW8270D	41.0	40.00		102	51-221				4/6/2013 855h
LCS-24490	Acenaphthene	µg/L	SW8270D	58.2	80.00	0	72.8	23-159				4/5/2013 1055h
LCS-24490	Benzo(a)pyrene	µg/L	SW8270D	86.8	80.00	0	108	26-223				4/5/2013 1055h
LCS-24490	Pentachlorophenol	µg/L	SW8270D	128	80.00	0	160	10-249				4/5/2013 1055h
LCS-24490	Pyrene	µg/L	SW8270D	78.6	80.00	0	98.3	28-204				4/5/2013 1055h



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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:** 1303801

**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-24490	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h

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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:** 1303801

**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-24490	2-Methylphenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	2-Picoline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Acenaphthene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Acenaphthylene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Acetophenone	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Aniline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Anthracene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h

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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24490	Aramite	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Atrazine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Azobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzaldehyde	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Benzoic acid	µg/L	SW8270D	< 20.0				-				4/6/2013 829h
MB-24490	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Caprolactam	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Carbazole	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Chrysene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Dibenzofuran	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Dimethoate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h

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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24490	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Dinoseb	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Diphenylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Disulfoton	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Famphur	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Fluoranthene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Fluorene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachloroethane	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachlorophene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Hexachloropropene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Indene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Isodrin	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Isophorone	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Isosafrole	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Kepone	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Methapyrilene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Naphthalene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	n-Decane	µg/L	SW8270D	< 10.0				-				4/6/2013 829h

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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24490	Nitrobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	n-Octadecane	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	o-Toluidine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Parathion	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Methyl parathion	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Phenacetin	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Phenanthrene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Phenol	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Phorate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pronamide	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pyrene	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Pyridine	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Quinoline	µg/L	SW8270D	< 10.0				-				4/6/2013 829h

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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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-24490	Safrole	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Thionazin	µg/L	SW8270D	< 10.0				-				4/6/2013 829h
MB-24490	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	64.7	80.00		80.9	10-165				4/6/2013 829h
MB-24490	Surr: 2-Fluorobiphenyl	%REC	SW8270D	21.0	40.00		52.4	10-118				4/6/2013 829h
MB-24490	Surr: 2-Fluorophenol	%REC	SW8270D	21.1	80.00		26.4	10-121				4/6/2013 829h
MB-24490	Surr: Nitrobenzene-d5	%REC	SW8270D	15.9	40.00		39.6	10-127				4/6/2013 829h
MB-24490	Surr: Phenol-d6	%REC	SW8270D	16.1	80.00		20.2	10-124				4/6/2013 829h
MB-24490	Surr: Terphenyl-d14	%REC	SW8270D	43.5	40.00		109	51-221				4/6/2013 829h
MB-24490	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Acenaphthene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Acenaphthylene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Anthracene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Chrysene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Fluoranthene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Fluorene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				4/5/2013 1029h
MB-24490	Indene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Naphthalene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h

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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:** 1303801  
**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-24490	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				4/5/2013 1029h
MB-24490	Phenanthrene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h
MB-24490	Pyrene	µg/L	SW8270D	< 0.100				-				4/5/2013 1029h



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Kyle F. Gross  
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## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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
1303801-001BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	56.5	80.00	0	70.6	20-107				4/6/2013 948h
1303801-001BMS	1,4-Dichlorobenzene	µg/L	SW8270D	42.5	80.00	0	53.2	11-90				4/6/2013 948h
1303801-001BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	67.9	80.00	0	84.8	10-223				4/6/2013 948h
1303801-001BMS	2,4-Dimethylphenol	µg/L	SW8270D	49.9	80.00	0	62.4	10-176				4/6/2013 948h
1303801-001BMS	2,4-Dinitrotoluene	µg/L	SW8270D	84.2	80.00	0	105	21-191				4/6/2013 948h
1303801-001BMS	2-Chloronaphthalene	µg/L	SW8270D	71.1	80.00	0	88.9	12-132				4/6/2013 948h
1303801-001BMS	2-Chlorophenol	µg/L	SW8270D	55.9	80.00	0	69.9	20-107				4/6/2013 948h
1303801-001BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	87.6	80.00	0	110	20-250				4/6/2013 948h
1303801-001BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	67.4	80.00	0	84.2	10-136				4/6/2013 948h
1303801-001BMS	4-Nitrophenol	µg/L	SW8270D	32.2	80.00	0	40.2	10-135				4/6/2013 948h
1303801-001BMS	Acenaphthene	µg/L	SW8270D	66.4	80.00	0	83.0	21-113				4/6/2013 948h
1303801-001BMS	Benzo(a)pyrene	µg/L	SW8270D	128	80.00	0	160	15-169				4/6/2013 948h
1303801-001BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	51.4	80.00	0	64.2	10-133				4/6/2013 948h
1303801-001BMS	Pentachlorophenol	µg/L	SW8270D	32.8	80.00	0	41.0	10-131				4/6/2013 948h
1303801-001BMS	Phenol	µg/L	SW8270D	28.9	80.00	0	36.1	10-71				4/6/2013 948h
1303801-001BMS	Pyrene	µg/L	SW8270D	78.4	80.00	0	98.0	23-150				4/6/2013 948h
1303801-001BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	71.7	80.00		89.7	14-159				4/6/2013 948h
1303801-001BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	30.4	40.00		76.0	10-124				4/6/2013 948h
1303801-001BMS	Surr: 2-Fluorophenol	%REC	SW8270D	35.4	80.00		44.2	10-106				4/6/2013 948h
1303801-001BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	28.8	40.00		72.0	10-180				4/6/2013 948h
1303801-001BMS	Surr: Phenol-d6	%REC	SW8270D	28.3	80.00		35.4	10-122				4/6/2013 948h
1303801-001BMS	Surr: Terphenyl-d14	%REC	SW8270D	39.5	40.00		98.7	10-221				4/6/2013 948h
1303801-001BMS	Acenaphthene	µg/L	SW8270D	63.2	80.00	0	79.0	21-113				4/5/2013 1148h
1303801-001BMS	Benzo(a)pyrene	µg/L	SW8270D	85.0	80.00	0	106	15-169				4/5/2013 1148h
1303801-001BMS	Pentachlorophenol	µg/L	SW8270D	83.0	80.00	0	104	10-249				4/5/2013 1148h
1303801-001BMS	Pyrene	µg/L	SW8270D	75.0	80.00	0	93.8	23-150				4/5/2013 1148h



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Laboratory Director

Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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
1303801-001BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	45.7	80.00	0	57.2	20-107	21	25		4/6/2013 1014h
1303801-001BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	31.5	80.00	0	39.4	11-90	29.7	25	@	4/6/2013 1014h
1303801-001BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	61.9	80.00	0	77.4	10-223	9.18	25		4/6/2013 1014h
1303801-001BMSD	2,4-Dimethylphenol	µg/L	SW8270D	41.9	80.00	0	52.4	10-176	17.4	25		4/6/2013 1014h
1303801-001BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	90.4	80.00	0	113	21-191	7.07	25		4/6/2013 1014h
1303801-001BMSD	2-Chloronaphthalene	µg/L	SW8270D	55.9	80.00	0	69.9	12-132	24	25		4/6/2013 1014h
1303801-001BMSD	2-Chlorophenol	µg/L	SW8270D	42.9	80.00	0	53.6	20-107	26.3	25	@	4/6/2013 1014h
1303801-001BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	90.6	80.00	0	113	20-250	3.25	25		4/6/2013 1014h
1303801-001BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	63.7	80.00	0	79.6	10-136	5.6	25		4/6/2013 1014h
1303801-001BMSD	4-Nitrophenol	µg/L	SW8270D	34.2	80.00	0	42.8	10-135	6.18	25		4/6/2013 1014h
1303801-001BMSD	Acenaphthene	µg/L	SW8270D	60.6	80.00	0	75.7	21-113	9.25	25		4/6/2013 1014h
1303801-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	126	80.00	0	157	15-169	1.93	25		4/6/2013 1014h
1303801-001BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	45.0	80.00	0	56.2	10-133	13.3	25		4/6/2013 1014h
1303801-001BMSD	Pentachlorophenol	µg/L	SW8270D	33.6	80.00	0	42.0	10-131	2.26	25		4/6/2013 1014h
1303801-001BMSD	Phenol	µg/L	SW8270D	22.5	80.00	0	28.1	10-71	24.9	25		4/6/2013 1014h
1303801-001BMSD	Pyrene	µg/L	SW8270D	78.6	80.00	0	98.3	23-150	0.344	25		4/6/2013 1014h
1303801-001BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	72.7	80.00		90.9	14-159				4/6/2013 1014h
1303801-001BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	26.4	40.00		66.1	10-124				4/6/2013 1014h
1303801-001BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	25.2	80.00		31.6	10-106				4/6/2013 1014h
1303801-001BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	24.5	40.00		61.3	10-180				4/6/2013 1014h
1303801-001BMSD	Surr: Phenol-d6	%REC	SW8270D	22.2	80.00		27.8	10-122				4/6/2013 1014h
1303801-001BMSD	Surr: Terphenyl-d14	%REC	SW8270D	40.1	40.00		100	10-221				4/6/2013 1014h
1303801-001BMSD	Acenaphthene	µg/L	SW8270D	57.6	80.00	0	72.0	21-113	9.27	25		4/5/2013 1215h
1303801-001BMSD	Benzo(a)pyrene	µg/L	SW8270D	87.6	80.00	0	110	15-169	3.01	25		4/5/2013 1215h
1303801-001BMSD	Pentachlorophenol	µg/L	SW8270D	83.4	80.00	0	104	10-249	0.481	25		4/5/2013 1215h
1303801-001BMSD	Pyrene	µg/L	SW8270D	78.2	80.00	0	97.8	23-150	4.18	25		4/5/2013 1215h

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



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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:** 1303801  
**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 033113A	1,1,1-Trichloroethane	µg/L	SW8260C	21.9	20.00	0	109	59-156				3/31/2013 1928h
LCS VOC 033113A	1,1-Dichloroethene	µg/L	SW8260C	17.3	20.00	0	86.4	46-171				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichlorobenzene	µg/L	SW8260C	21.6	20.00	0	108	67-135				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichloroethane	µg/L	SW8260C	20.4	20.00	0	102	60-137				3/31/2013 1928h
LCS VOC 033113A	1,2-Dichloropropane	µg/L	SW8260C	20.5	20.00	0	102	59-135				3/31/2013 1928h
LCS VOC 033113A	Benzene	µg/L	SW8260C	20.3	20.00	0	102	62-127				3/31/2013 1928h
LCS VOC 033113A	Chlorobenzene	µg/L	SW8260C	21.5	20.00	0	107	63-140				3/31/2013 1928h
LCS VOC 033113A	Chloroform	µg/L	SW8260C	21.2	20.00	0	106	67-132				3/31/2013 1928h
LCS VOC 033113A	Ethylbenzene	µg/L	SW8260C	21.8	20.00	0	109	55-133				3/31/2013 1928h
LCS VOC 033113A	Isopropylbenzene	µg/L	SW8260C	22.8	20.00	0	114	60-147				3/31/2013 1928h
LCS VOC 033113A	Methyl tert-butyl ether	µg/L	SW8260C	19.8	20.00	0	98.8	37-189				3/31/2013 1928h
LCS VOC 033113A	Methylene chloride	µg/L	SW8260C	18.7	20.00	0	93.4	32-185				3/31/2013 1928h
LCS VOC 033113A	Naphthalene	µg/L	SW8260C	20.7	20.00	0	104	28-136				3/31/2013 1928h
LCS VOC 033113A	Tetrahydrofuran	µg/L	SW8260C	15.9	20.00	0	79.6	43-146				3/31/2013 1928h
LCS VOC 033113A	Toluene	µg/L	SW8260C	21.2	20.00	0	106	64-129				3/31/2013 1928h
LCS VOC 033113A	Trichloroethene	µg/L	SW8260C	21.5	20.00	0	107	54-152				3/31/2013 1928h
LCS VOC 033113A	Xylenes, Total	µg/L	SW8260C	66.5	60.00	0	111	52-134				3/31/2013 1928h
LCS VOC 033113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	51.1	50.00		102	76-138				3/31/2013 1928h
LCS VOC 033113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.0	50.00		99.9	77-121				3/31/2013 1928h
LCS VOC 033113A	Surr: Dibromofluoromethane	%REC	SW8260C	50.4	50.00		101	67-128				3/31/2013 1928h
LCS VOC 033113A	Surr: Toluene-d8	%REC	SW8260C	48.9	50.00		97.8	81-135				3/31/2013 1928h
LCS VOC 040113A	1,1,1-Trichloroethane	µg/L	SW8260C	20.9	20.00	0	105	59-156				4/1/2013 1535h
LCS VOC 040113A	1,1-Dichloroethene	µg/L	SW8260C	15.8	20.00	0	79.2	46-171				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichlorobenzene	µg/L	SW8260C	21.9	20.00	0	109	67-135				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichloroethane	µg/L	SW8260C	19.9	20.00	0	99.7	60-137				4/1/2013 1535h
LCS VOC 040113A	1,2-Dichloropropane	µg/L	SW8260C	21.0	20.00	0	105	59-135				4/1/2013 1535h
LCS VOC 040113A	Benzene	µg/L	SW8260C	20.2	20.00	0	101	62-127				4/1/2013 1535h

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## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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 040113A	Chlorobenzene	µg/L	SW8260C	21.4	20.00	0	107	63-140				4/1/2013 1535h
LCS VOC 040113A	Chloroform	µg/L	SW8260C	21.0	20.00	0	105	67-132				4/1/2013 1535h
LCS VOC 040113A	Ethylbenzene	µg/L	SW8260C	21.8	20.00	0	109	55-133				4/1/2013 1535h
LCS VOC 040113A	Isopropylbenzene	µg/L	SW8260C	22.6	20.00	0	113	60-147				4/1/2013 1535h
LCS VOC 040113A	Methyl tert-butyl ether	µg/L	SW8260C	16.6	20.00	0	83.2	37-189				4/1/2013 1535h
LCS VOC 040113A	Methylene chloride	µg/L	SW8260C	17.7	20.00	0	88.6	32-185				4/1/2013 1535h
LCS VOC 040113A	Naphthalene	µg/L	SW8260C	20.3	20.00	0	102	28-136				4/1/2013 1535h
LCS VOC 040113A	Tetrahydrofuran	µg/L	SW8260C	14.3	20.00	0	71.5	43-146				4/1/2013 1535h
LCS VOC 040113A	Toluene	µg/L	SW8260C	21.0	20.00	0	105	64-129				4/1/2013 1535h
LCS VOC 040113A	Trichloroethene	µg/L	SW8260C	21.3	20.00	0	106	54-152				4/1/2013 1535h
LCS VOC 040113A	Xylenes, Total	µg/L	SW8260C	65.8	60.00	0	110	52-134				4/1/2013 1535h
LCS VOC 040113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	49.7	50.00		99.4	76-138				4/1/2013 1535h
LCS VOC 040113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	49.5	50.00		99.0	77-121				4/1/2013 1535h
LCS VOC 040113A	Surr: Dibromofluoromethane	%REC	SW8260C	49.2	50.00		98.3	67-128				4/1/2013 1535h
LCS VOC 040113A	Surr: Toluene-d8	%REC	SW8260C	48.4	50.00		96.8	81-135				4/1/2013 1535h



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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:** 1303801  
**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 033113A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				3/31/2013 2006h
MB VOC 033113A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	2-Butanone	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h

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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:** 1303801  
**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 033113A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	2-Hexanone	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acetone	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Acetonitrile	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acrolein	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Allyl chloride	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Benzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Bromobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromoform	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Bromomethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Butyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroform	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Chloromethane	µg/L	SW8260C	< 3.00				-				3/31/2013 2006h
MB VOC 033113A	Chloroprene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h

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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:** 1303801  
**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 033113A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Cyclohexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				3/31/2013 2006h
MB VOC 033113A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Dibromomethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Ethyl ether	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Iodomethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				3/31/2013 2006h
MB VOC 033113A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				3/31/2013 2006h
MB VOC 033113A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Methylene chloride	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Naphthalene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				3/31/2013 2006h

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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:** 1303801

**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 033113A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Hexane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Octane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	o-Xylene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				3/31/2013 2006h
MB VOC 033113A	Propionitrile	µg/L	SW8260C	< 25.0				-				3/31/2013 2006h
MB VOC 033113A	Propyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Styrene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				3/31/2013 2006h
MB VOC 033113A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Toluene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Trichloroethene	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				3/31/2013 2006h
MB VOC 033113A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				3/31/2013 2006h
MB VOC 033113A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				3/31/2013 2006h
MB VOC 033113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.5	50.00		105	76-138				3/31/2013 2006h
MB VOC 033113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.8	50.00		102	77-121				3/31/2013 2006h
MB VOC 033113A	Surr: Dibromofluoromethane	%REC	SW8260C	47.9	50.00		95.7	67-128				3/31/2013 2006h
MB VOC 033113A	Surr: Toluene-d8	%REC	SW8260C	48.9	50.00		97.7	81-135				3/31/2013 2006h

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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:** 1303801  
**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 040113A	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				4/1/2013 1613h
MB VOC 040113A	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	2-Butanone	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h



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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:** 1303801  
**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 040113A	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	2-Hexanone	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	2-Nitropropane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acetone	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Acetonitrile	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acrolein	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Acrylonitrile	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Allyl chloride	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Benzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Benzyl chloride	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Bromobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromochloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromoform	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Bromomethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Butyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Carbon disulfide	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chlorobenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroform	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Chloromethane	µg/L	SW8260C	< 3.00				-				4/1/2013 1613h
MB VOC 040113A	Chloroprene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h

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Kyle F. Gross  
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Jose Rocha  
QA Officer

## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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 040113A	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Cyclohexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Cyclohexanone	µg/L	SW8260C	< 50.0				-				4/1/2013 1613h
MB VOC 040113A	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Dibromomethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Ethyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Ethyl ether	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Ethylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Iodomethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Isobutyl alcohol	µg/L	SW8260C	< 100				-				4/1/2013 1613h
MB VOC 040113A	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				4/1/2013 1613h
MB VOC 040113A	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	m,p-Xylene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl Acetate	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Methylene chloride	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Naphthalene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Butyl alcohol	µg/L	SW8260C	< 100				-				4/1/2013 1613h

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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:** 1303801  
**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 040113A	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Hexane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Octane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	o-Xylene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Pentachloroethane	µg/L	SW8260C	< 5.00				-				4/1/2013 1613h
MB VOC 040113A	Propionitrile	µg/L	SW8260C	< 25.0				-				4/1/2013 1613h
MB VOC 040113A	Propyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Styrene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				4/1/2013 1613h
MB VOC 040113A	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Toluene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Trichloroethene	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Vinyl acetate	µg/L	SW8260C	< 10.0				-				4/1/2013 1613h
MB VOC 040113A	Vinyl chloride	µg/L	SW8260C	< 1.00				-				4/1/2013 1613h
MB VOC 040113A	Xylenes, Total	µg/L	SW8260C	< 2.00				-				4/1/2013 1613h
MB VOC 040113A	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.5	50.00		107	76-138				4/1/2013 1613h
MB VOC 040113A	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	77-121				4/1/2013 1613h
MB VOC 040113A	Surr: Dibromofluoromethane	%REC	SW8260C	50.2	50.00		100	67-128				4/1/2013 1613h
MB VOC 040113A	Surr: Toluene-d8	%REC	SW8260C	49.0	50.00		98.0	81-135				4/1/2013 1613h



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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:** 1303801  
**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
1303801-001AMS	1,1,1-Trichloroethane	µg/L	SW8260C	21.9	20.00	0	109	67-147				3/31/2013 2103h
1303801-001AMS	1,1-Dichloroethene	µg/L	SW8260C	16.7	20.00	0	83.3	51-152				3/31/2013 2103h
1303801-001AMS	1,2-Dichlorobenzene	µg/L	SW8260C	19.9	20.00	0	99.4	70-130				3/31/2013 2103h
1303801-001AMS	1,2-Dichloroethane	µg/L	SW8260C	20.4	20.00	0	102	39-162				3/31/2013 2103h
1303801-001AMS	1,2-Dichloropropane	µg/L	SW8260C	19.5	20.00	0	97.6	59-135				3/31/2013 2103h
1303801-001AMS	Benzene	µg/L	SW8260C	19.4	20.00	0	96.9	66-145				3/31/2013 2103h
1303801-001AMS	Chlorobenzene	µg/L	SW8260C	19.3	20.00	0	96.7	63-140				3/31/2013 2103h
1303801-001AMS	Chloroform	µg/L	SW8260C	20.1	20.00	0	100	50-146				3/31/2013 2103h
1303801-001AMS	Ethylbenzene	µg/L	SW8260C	20.1	20.00	0	101	69-133				3/31/2013 2103h
1303801-001AMS	Isopropylbenzene	µg/L	SW8260C	20.9	20.00	0	105	60-147				3/31/2013 2103h
1303801-001AMS	Methyl tert-butyl ether	µg/L	SW8260C	18.5	20.00	0	92.5	37-189				3/31/2013 2103h
1303801-001AMS	Methylene chloride	µg/L	SW8260C	18.2	20.00	0	90.9	30-192				3/31/2013 2103h
1303801-001AMS	Naphthalene	µg/L	SW8260C	19.0	20.00	0	95.2	41-131				3/31/2013 2103h
1303801-001AMS	Tetrahydrofuran	µg/L	SW8260C	16.1	20.00	0	80.6	43-146				3/31/2013 2103h
1303801-001AMS	Toluene	µg/L	SW8260C	19.3	20.00	0	96.6	18-192				3/31/2013 2103h
1303801-001AMS	Trichloroethene	µg/L	SW8260C	20.1	20.00	0	100	61-153				3/31/2013 2103h
1303801-001AMS	Xylenes, Total	µg/L	SW8260C	60.7	60.00	0	101	42-167				3/31/2013 2103h
1303801-001AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.5	50.00		109	72-151				3/31/2013 2103h
1303801-001AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.2	50.00		100	80-128				3/31/2013 2103h
1303801-001AMS	Surr: Dibromofluoromethane	%REC	SW8260C	49.7	50.00		99.5	80-124				3/31/2013 2103h
1303801-001AMS	Surr: Toluene-d8	%REC	SW8260C	48.3	50.00		96.5	77-129				3/31/2013 2103h
1303802-012AMS	1,1,1-Trichloroethane	µg/L	SW8260C	104	100.0	0	104	67-147				4/1/2013 1729h
1303802-012AMS	1,1-Dichloroethene	µg/L	SW8260C	78.0	100.0	0	78.0	51-152				4/1/2013 1729h
1303802-012AMS	1,2-Dichlorobenzene	µg/L	SW8260C	104	100.0	0	104	70-130				4/1/2013 1729h
1303802-012AMS	1,2-Dichloroethane	µg/L	SW8260C	104	100.0	0	104	39-162				4/1/2013 1729h
1303802-012AMS	1,2-Dichloropropane	µg/L	SW8260C	98.5	100.0	0	98.5	59-135				4/1/2013 1729h
1303802-012AMS	Benzene	µg/L	SW8260C	95.6	100.0	0	95.6	66-145				4/1/2013 1729h

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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:** 1303801  
**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
1303802-012AMS	Chlorobenzene	µg/L	SW8260C	99.5	100.0	0	99.5	63-140				4/1/2013 1729h
1303802-012AMS	Chloroform	µg/L	SW8260C	104	100.0	0	104	50-146				4/1/2013 1729h
1303802-012AMS	Ethylbenzene	µg/L	SW8260C	102	100.0	0	102	69-133				4/1/2013 1729h
1303802-012AMS	Isopropylbenzene	µg/L	SW8260C	106	100.0	0	106	60-147				4/1/2013 1729h
1303802-012AMS	Methyl tert-butyl ether	µg/L	SW8260C	88.1	100.0	0	88.1	37-189				4/1/2013 1729h
1303802-012AMS	Methylene chloride	µg/L	SW8260C	91.8	100.0	0	91.8	30-192				4/1/2013 1729h
1303802-012AMS	Naphthalene	µg/L	SW8260C	106	100.0	2.240	103	41-131				4/1/2013 1729h
1303802-012AMS	Tetrahydrofuran	µg/L	SW8260C	74.4	100.0	2.350	72.1	43-146				4/1/2013 1729h
1303802-012AMS	Toluene	µg/L	SW8260C	98.8	100.0	0	98.8	18-192				4/1/2013 1729h
1303802-012AMS	Trichloroethene	µg/L	SW8260C	101	100.0	0	101	61-153				4/1/2013 1729h
1303802-012AMS	Xylenes, Total	µg/L	SW8260C	314	300.0	6.970	102	42-167				4/1/2013 1729h
1303802-012AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	273	250.0		109	72-151				4/1/2013 1729h
1303802-012AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	246	250.0		98.3	80-128				4/1/2013 1729h
1303802-012AMS	Surr: Dibromofluoromethane	%REC	SW8260C	258	250.0		103	80-124				4/1/2013 1729h
1303802-012AMS	Surr: Toluene-d8	%REC	SW8260C	240	250.0		96.1	77-129				4/1/2013 1729h



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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:** 1303801  
**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
1303801-001AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	22.0	20.00	0	110	67-147	0.547	25		3/31/2013 2122h
1303801-001AMSD	1,1-Dichloroethene	µg/L	SW8260C	16.9	20.00	0	84.5	51-152	1.43	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	20.0	20.00	0	99.9	70-130	0.451	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichloroethane	µg/L	SW8260C	20.5	20.00	0	103	39-162	0.586	25		3/31/2013 2122h
1303801-001AMSD	1,2-Dichloropropane	µg/L	SW8260C	19.9	20.00	0	99.6	59-135	1.98	25		3/31/2013 2122h
1303801-001AMSD	Benzene	µg/L	SW8260C	19.6	20.00	0	98.0	66-145	1.13	25		3/31/2013 2122h
1303801-001AMSD	Chlorobenzene	µg/L	SW8260C	20.0	20.00	0	99.8	63-140	3.11	25		3/31/2013 2122h
1303801-001AMSD	Chloroform	µg/L	SW8260C	20.3	20.00	0	102	50-146	1.24	25		3/31/2013 2122h
1303801-001AMSD	Ethylbenzene	µg/L	SW8260C	20.5	20.00	0	102	69-133	1.78	25		3/31/2013 2122h
1303801-001AMSD	Isopropylbenzene	µg/L	SW8260C	21.5	20.00	0	107	60-147	2.64	25		3/31/2013 2122h
1303801-001AMSD	Methyl tert-butyl ether	µg/L	SW8260C	17.4	20.00	0	87.2	37-189	5.84	25		3/31/2013 2122h
1303801-001AMSD	Methylene chloride	µg/L	SW8260C	18.3	20.00	0	91.7	30-192	0.931	25		3/31/2013 2122h
1303801-001AMSD	Naphthalene	µg/L	SW8260C	19.3	20.00	0	96.6	41-131	1.36	25		3/31/2013 2122h
1303801-001AMSD	Tetrahydrofuran	µg/L	SW8260C	15.3	20.00	0	76.3	43-146	5.48	25		3/31/2013 2122h
1303801-001AMSD	Toluene	µg/L	SW8260C	19.9	20.00	0	99.7	18-192	3.16	25		3/31/2013 2122h
1303801-001AMSD	Trichloroethene	µg/L	SW8260C	20.1	20.00	0	101	61-153	0.0995	25		3/31/2013 2122h
1303801-001AMSD	Xylenes, Total	µg/L	SW8260C	62.0	60.00	0	103	42-167	2.09	25		3/31/2013 2122h
1303801-001AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	54.1	50.00		108	72-151				3/31/2013 2122h
1303801-001AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	48.9	50.00		97.7	80-128				3/31/2013 2122h
1303801-001AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	50.5	50.00		101	80-124				3/31/2013 2122h
1303801-001AMSD	Surr: Toluene-d8	%REC	SW8260C	48.0	50.00		95.9	77-129				3/31/2013 2122h
1303802-012AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	108	100.0	0	108	67-147	3.67	25		4/1/2013 1748h
1303802-012AMSD	1,1-Dichloroethene	µg/L	SW8260C	81.6	100.0	0	81.6	51-152	4.51	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	105	100.0	0	105	70-130	1.15	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichloroethane	µg/L	SW8260C	105	100.0	0	105	39-162	0.668	25		4/1/2013 1748h
1303802-012AMSD	1,2-Dichloropropane	µg/L	SW8260C	101	100.0	0	101	59-135	2.36	25		4/1/2013 1748h
1303802-012AMSD	Benzene	µg/L	SW8260C	97.6	100.0	0	97.6	66-145	2.12	25		4/1/2013 1748h

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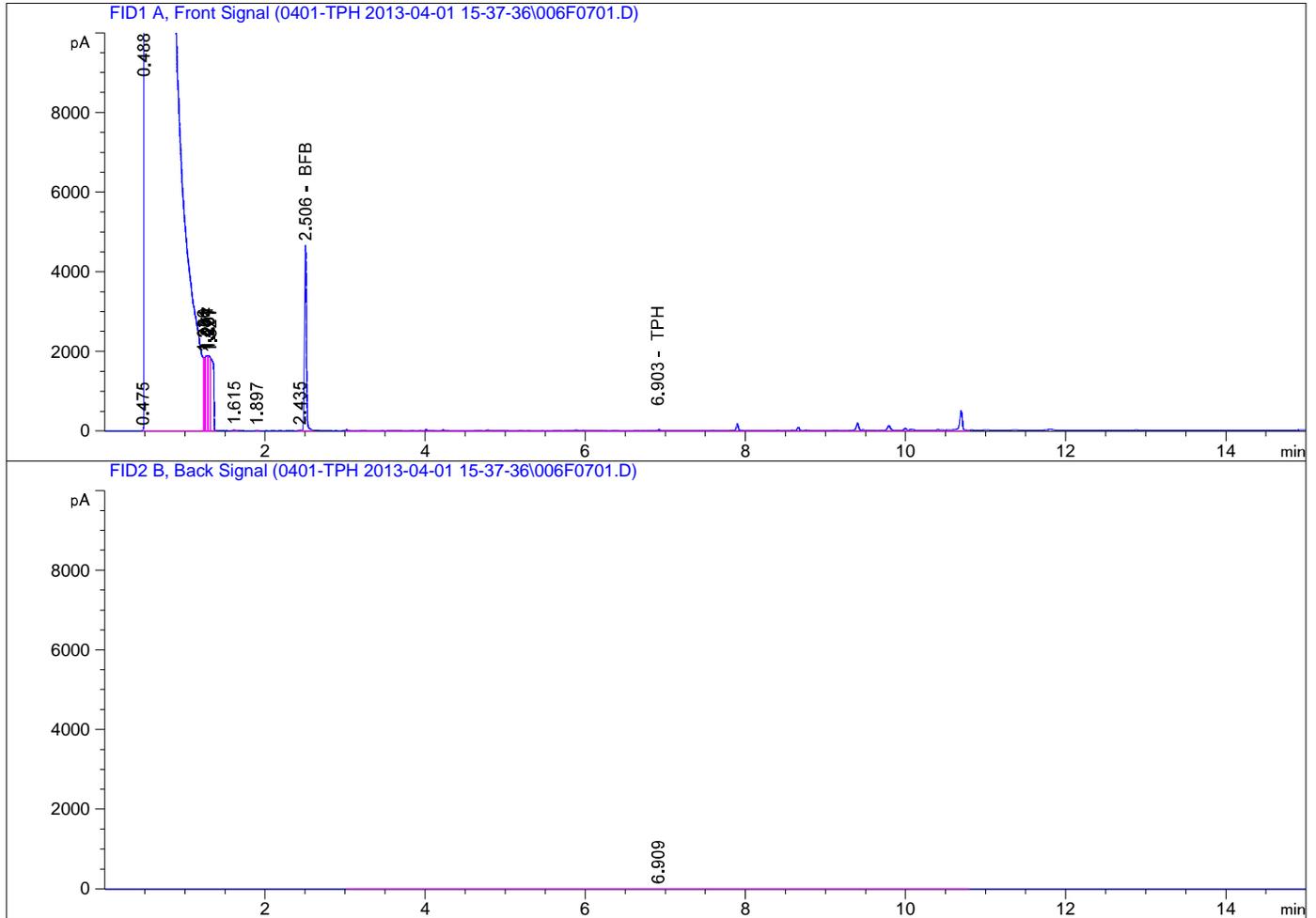
## QC SUMMARY REPORT

**Client:** Utah Division of Water Quality  
**Lab Set ID:** 1303801  
**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
1303802-012AMSD	Chlorobenzene	µg/L	SW8260C	102	100.0	0	102	63-140	2.19	25		4/1/2013 1748h
1303802-012AMSD	Chloroform	µg/L	SW8260C	107	100.0	0	107	50-146	2.9	25		4/1/2013 1748h
1303802-012AMSD	Ethylbenzene	µg/L	SW8260C	105	100.0	0	105	69-133	3.29	25		4/1/2013 1748h
1303802-012AMSD	Isopropylbenzene	µg/L	SW8260C	110	100.0	0	110	60-147	3.75	25		4/1/2013 1748h
1303802-012AMSD	Methyl tert-butyl ether	µg/L	SW8260C	87.9	100.0	0	87.9	37-189	0.227	25		4/1/2013 1748h
1303802-012AMSD	Methylene chloride	µg/L	SW8260C	92.5	100.0	0	92.5	30-192	0.814	25		4/1/2013 1748h
1303802-012AMSD	Naphthalene	µg/L	SW8260C	105	100.0	2.240	103	41-131	0.0948	25		4/1/2013 1748h
1303802-012AMSD	Tetrahydrofuran	µg/L	SW8260C	79.2	100.0	2.350	76.9	43-146	6.25	25		4/1/2013 1748h
1303802-012AMSD	Toluene	µg/L	SW8260C	101	100.0	0	101	18-192	2.6	25		4/1/2013 1748h
1303802-012AMSD	Trichloroethene	µg/L	SW8260C	104	100.0	0	104	61-153	3.47	25		4/1/2013 1748h
1303802-012AMSD	Xylenes, Total	µg/L	SW8260C	321	300.0	6.970	105	42-167	2.24	25		4/1/2013 1748h
1303802-012AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	271	250.0		108	72-151				4/1/2013 1748h
1303802-012AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	244	250.0		97.5	80-128				4/1/2013 1748h
1303802-012AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	256	250.0		102	80-124				4/1/2013 1748h
1303802-012AMSD	Surr: Toluene-d8	%REC	SW8260C	239	250.0		95.6	77-129				4/1/2013 1748h

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Acq. Operator : Seq. Line : 7  
Acq. Instrument : GC C Location : Vial 6  
Injection Date : 4/1/2013 5:36:08 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
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External Standard Report  
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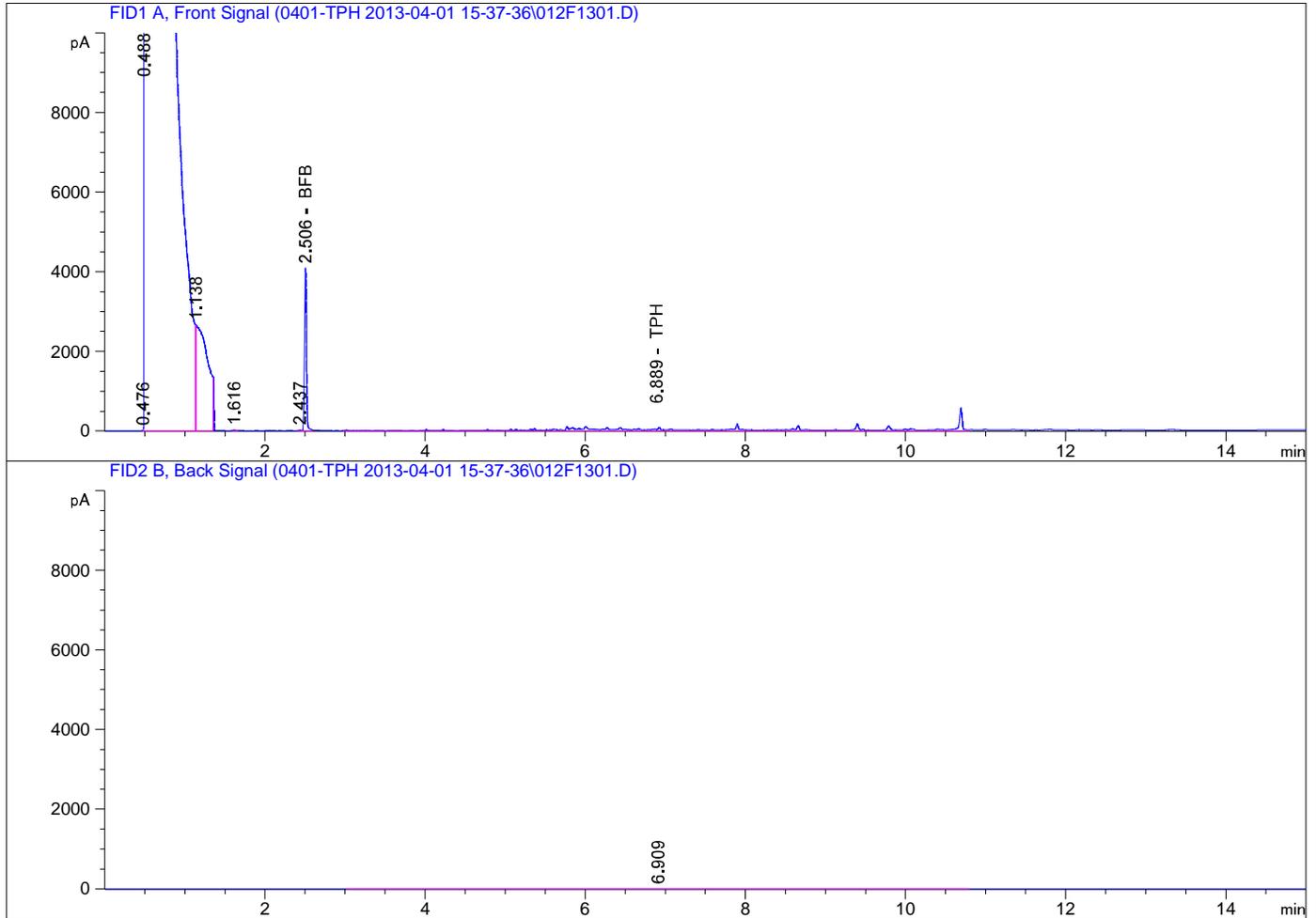
Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs







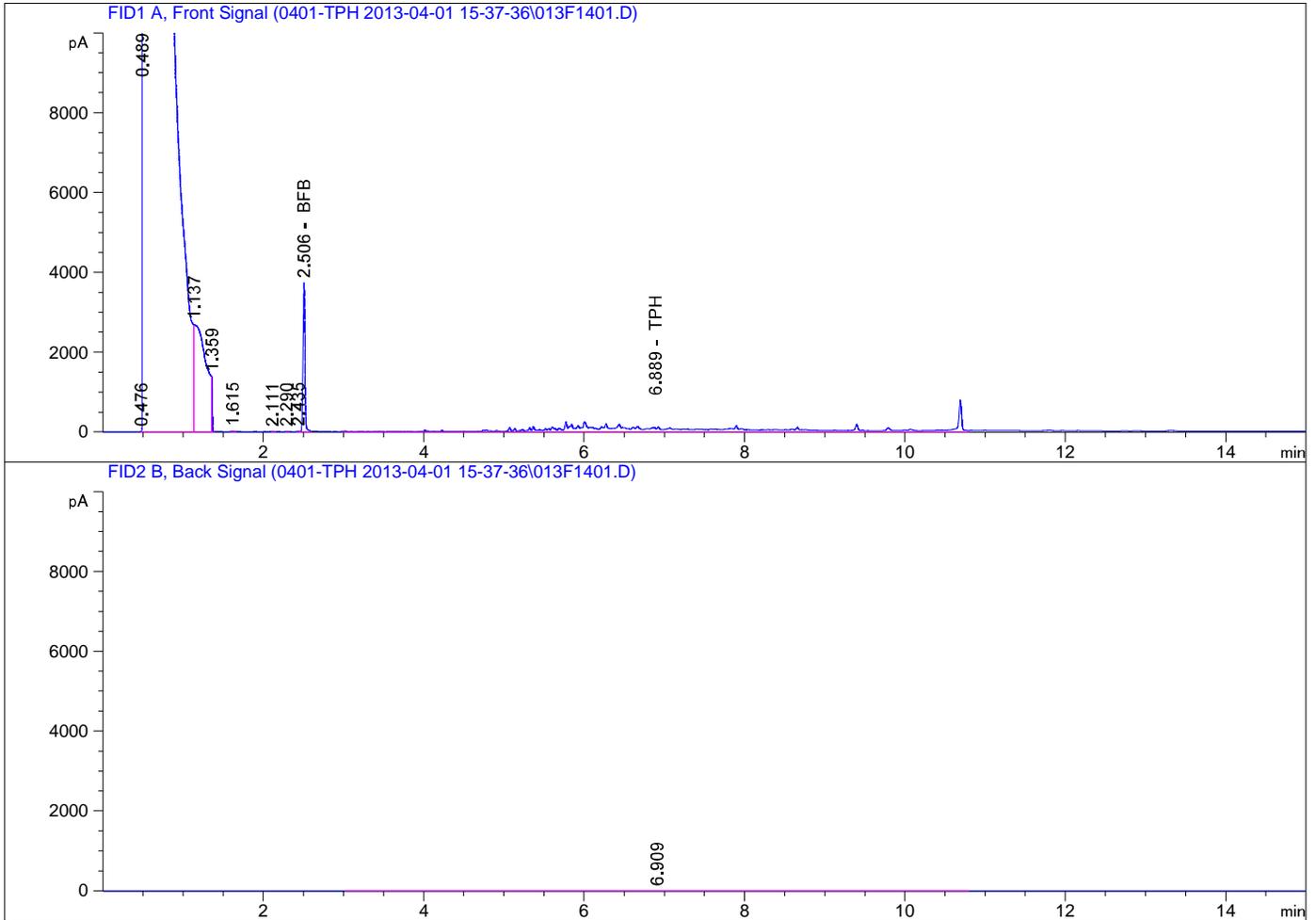
```
=====
Acq. Operator   :                               Seq. Line :   13
Acq. Instrument : GC C                         Location  : Vial 12
Injection Date  : 4/1/2013 7:32:31 PM          Inj       :    1
                                                Inj Volume: 5 µl
Acq. Method     : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M
Last changed    : 3/14/2013 1:57:38 PM
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence
Method)
Last changed    : 4/2/2013 11:21:32 AM
                (modified after loading)
=====
```



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External Standard Report
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```

```
Sorted By       : Signal
Calib. Data Modified : 4/2/2013 11:21:32 AM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs
```

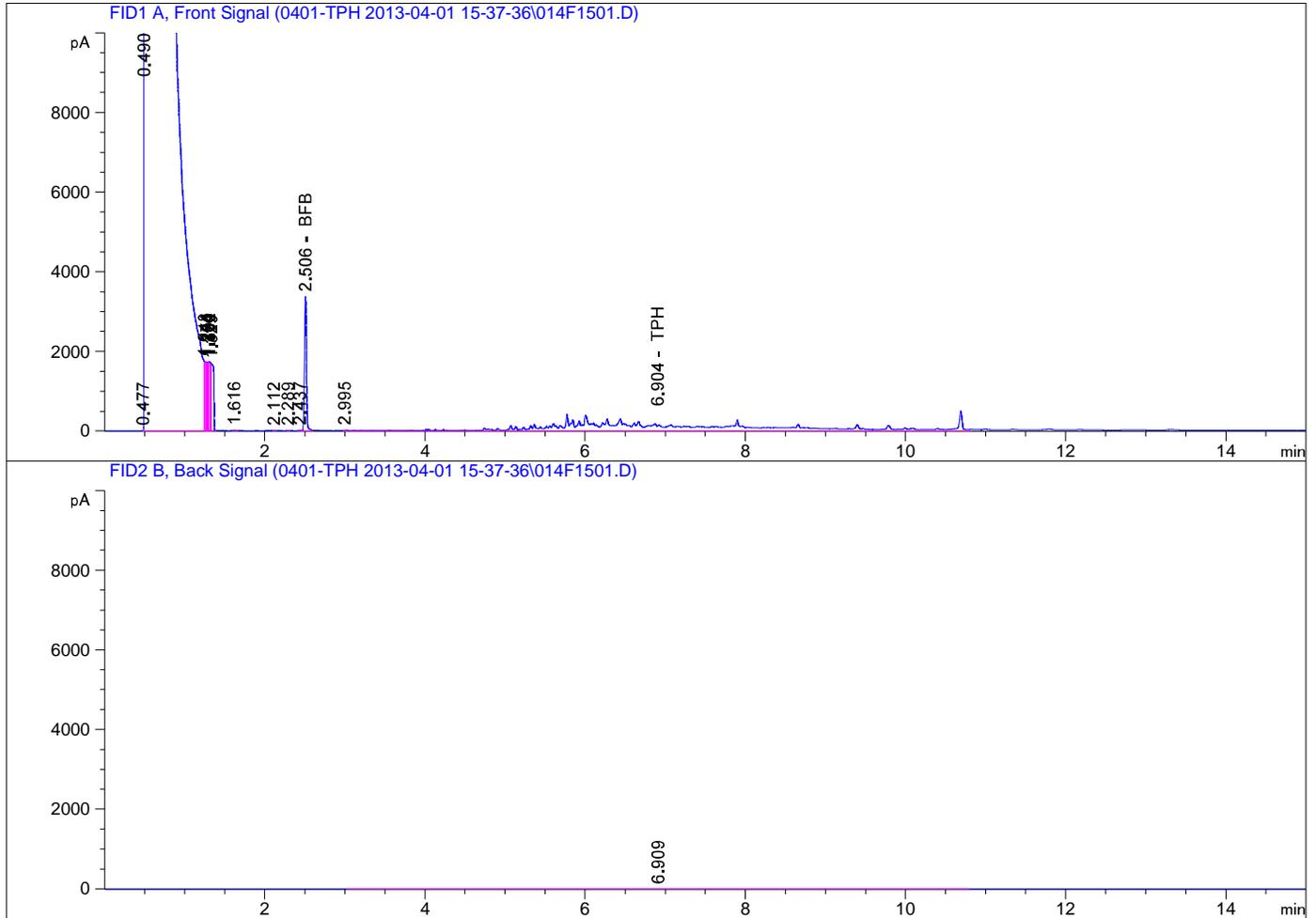
=====  
Acq. Operator : Seq. Line : 14  
Acq. Instrument : GC C Location : Vial 13  
Injection Date : 4/1/2013 7:51:51 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs

=====  
Acq. Operator : Seq. Line : 15  
Acq. Instrument : GC C Location : Vial 14  
Injection Date : 4/1/2013 8:11:14 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====

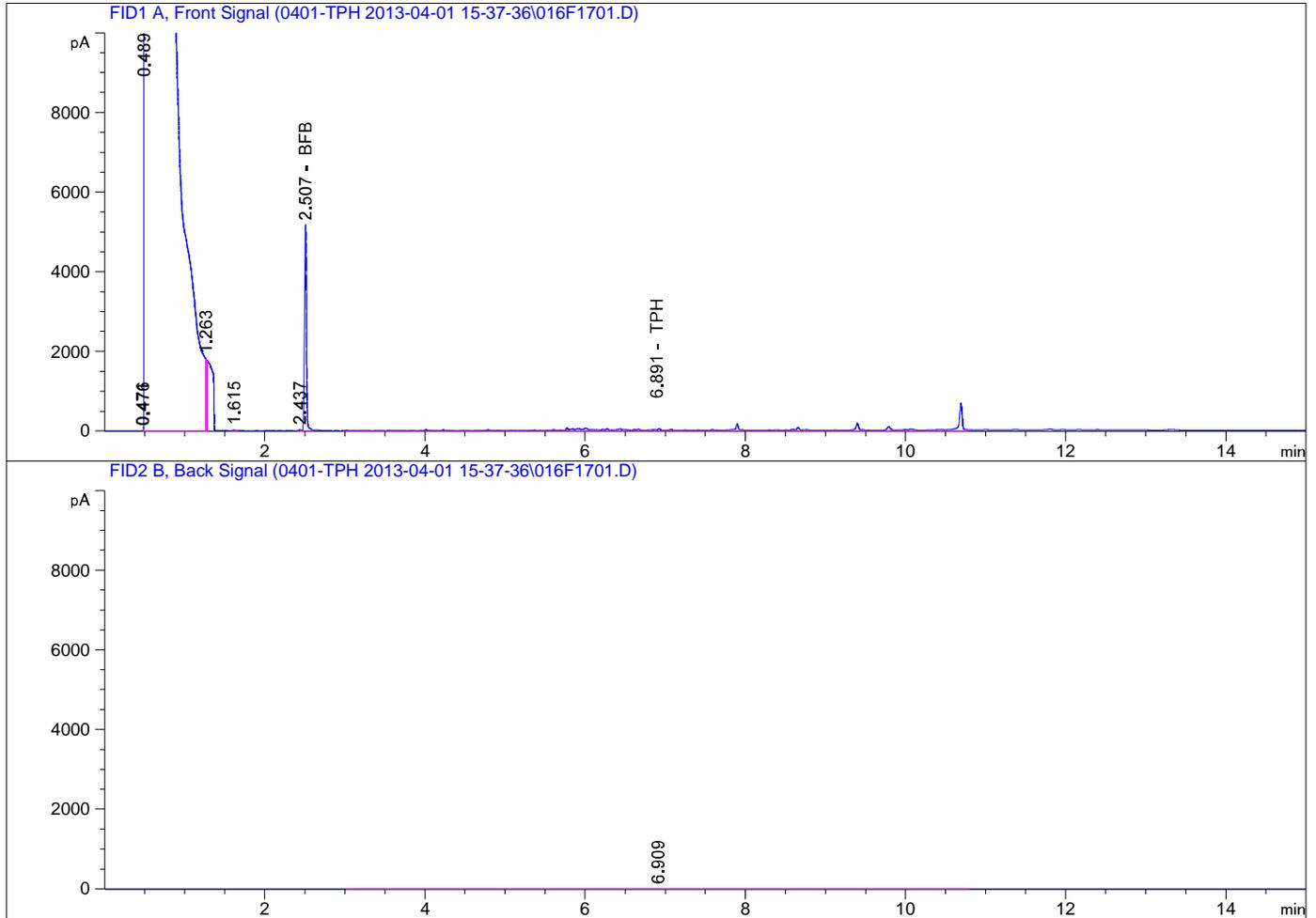


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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs



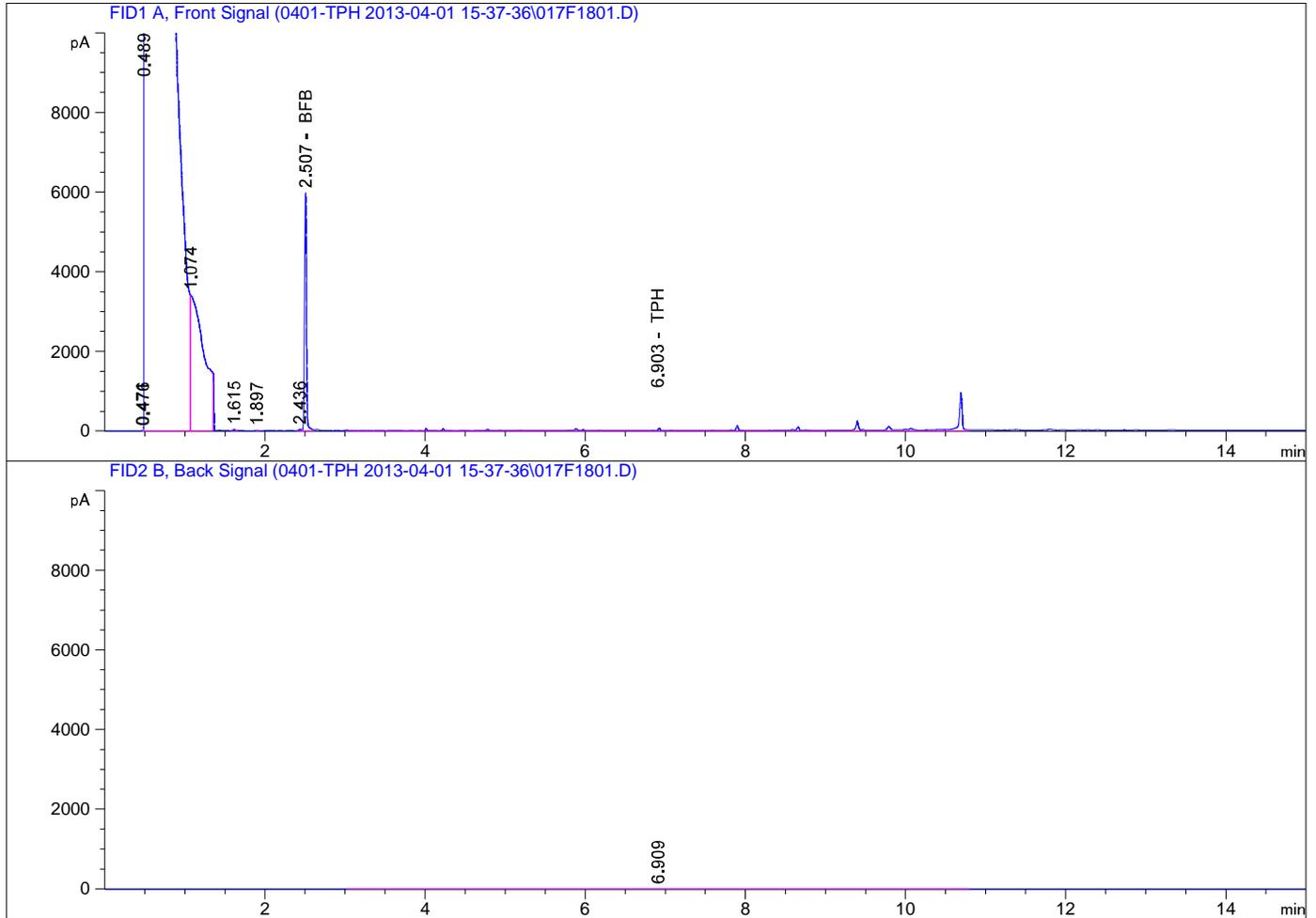
=====  
Acq. Operator : Seq. Line : 17  
Acq. Instrument : GC C Location : Vial 16  
Injection Date : 4/1/2013 8:50:07 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====



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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs

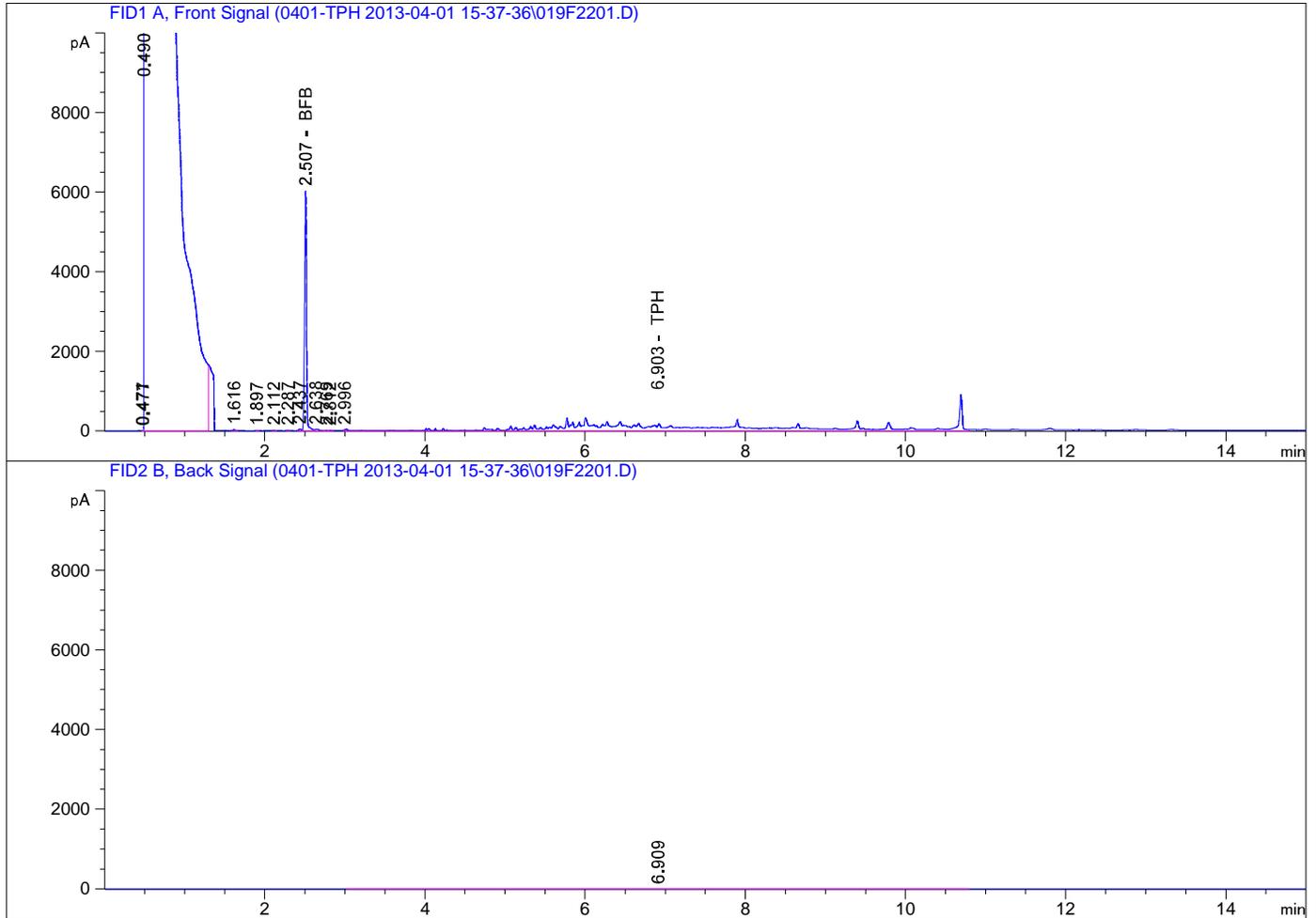
=====  
Acq. Operator : Seq. Line : 18  
Acq. Instrument : GC C Location : Vial 17  
Injection Date : 4/1/2013 9:09:24 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====



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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs

=====  
Acq. Operator : Seq. Line : 22  
Acq. Instrument : GC C Location : Vial 19  
Injection Date : 4/1/2013 10:26:44 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====

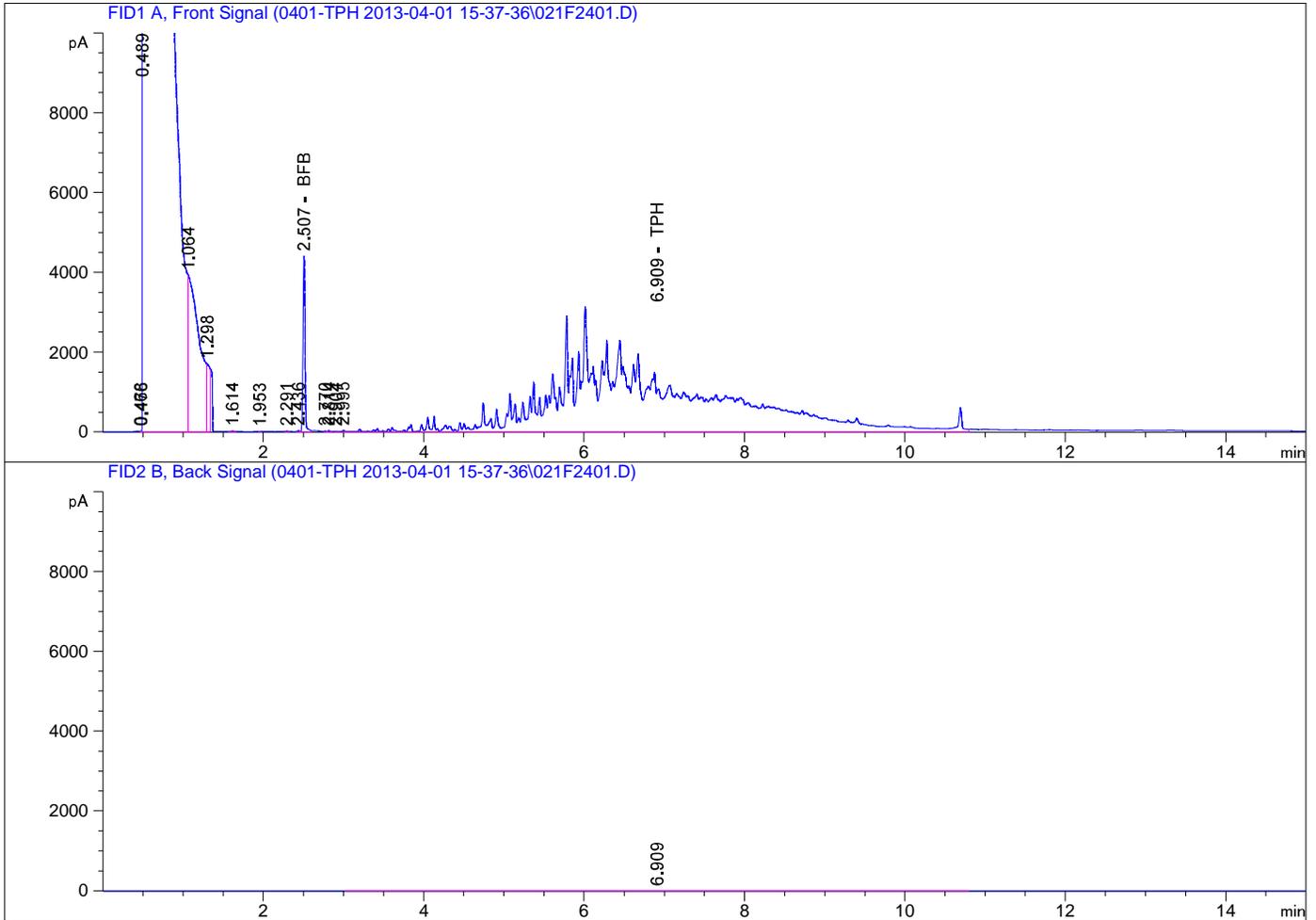


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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs



=====  
Acq. Operator : Seq. Line : 24  
Acq. Instrument : GC C Location : Vial 21  
Injection Date : 4/1/2013 11:05:35 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====

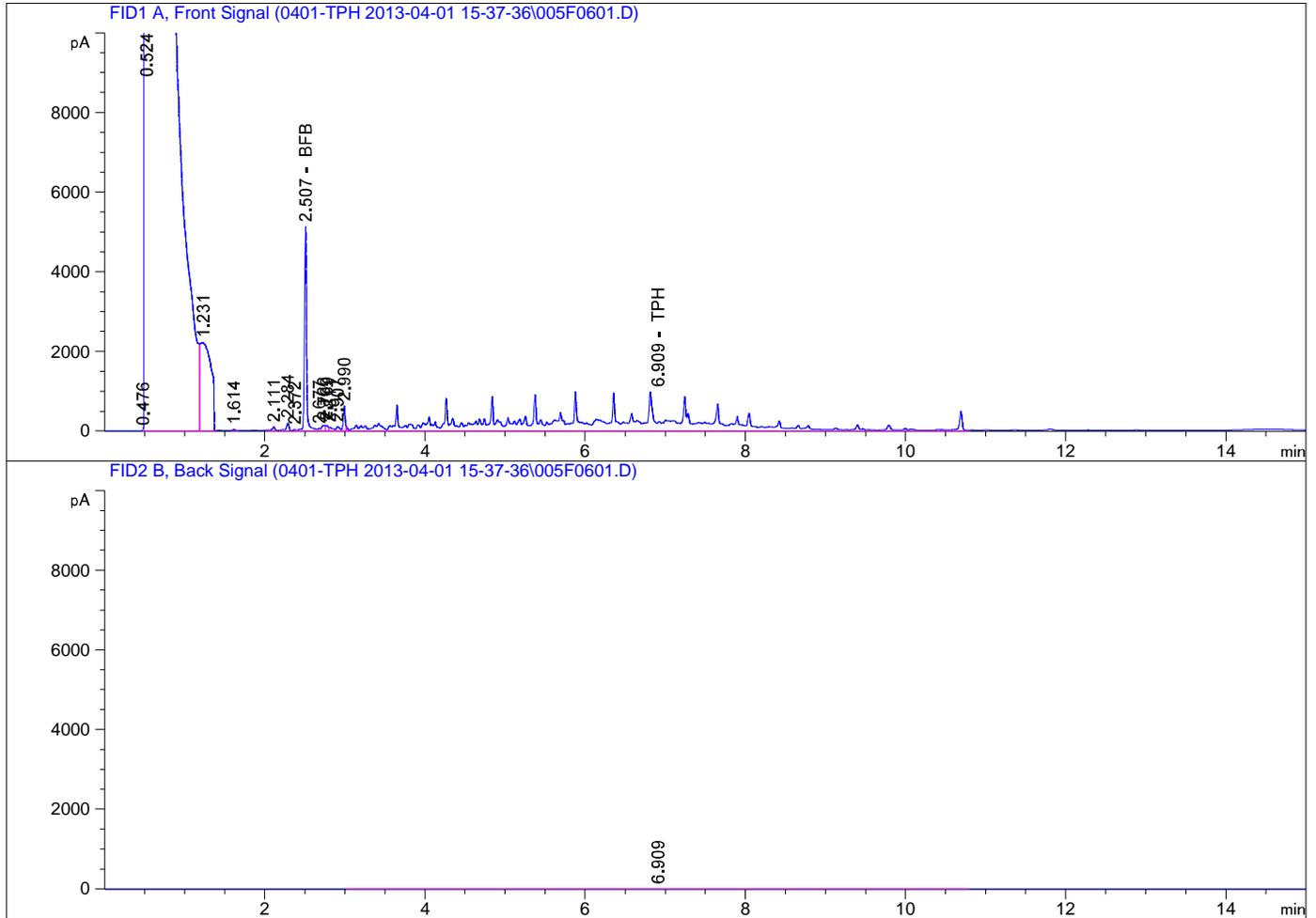


=====  
External Standard Report  
=====

Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs



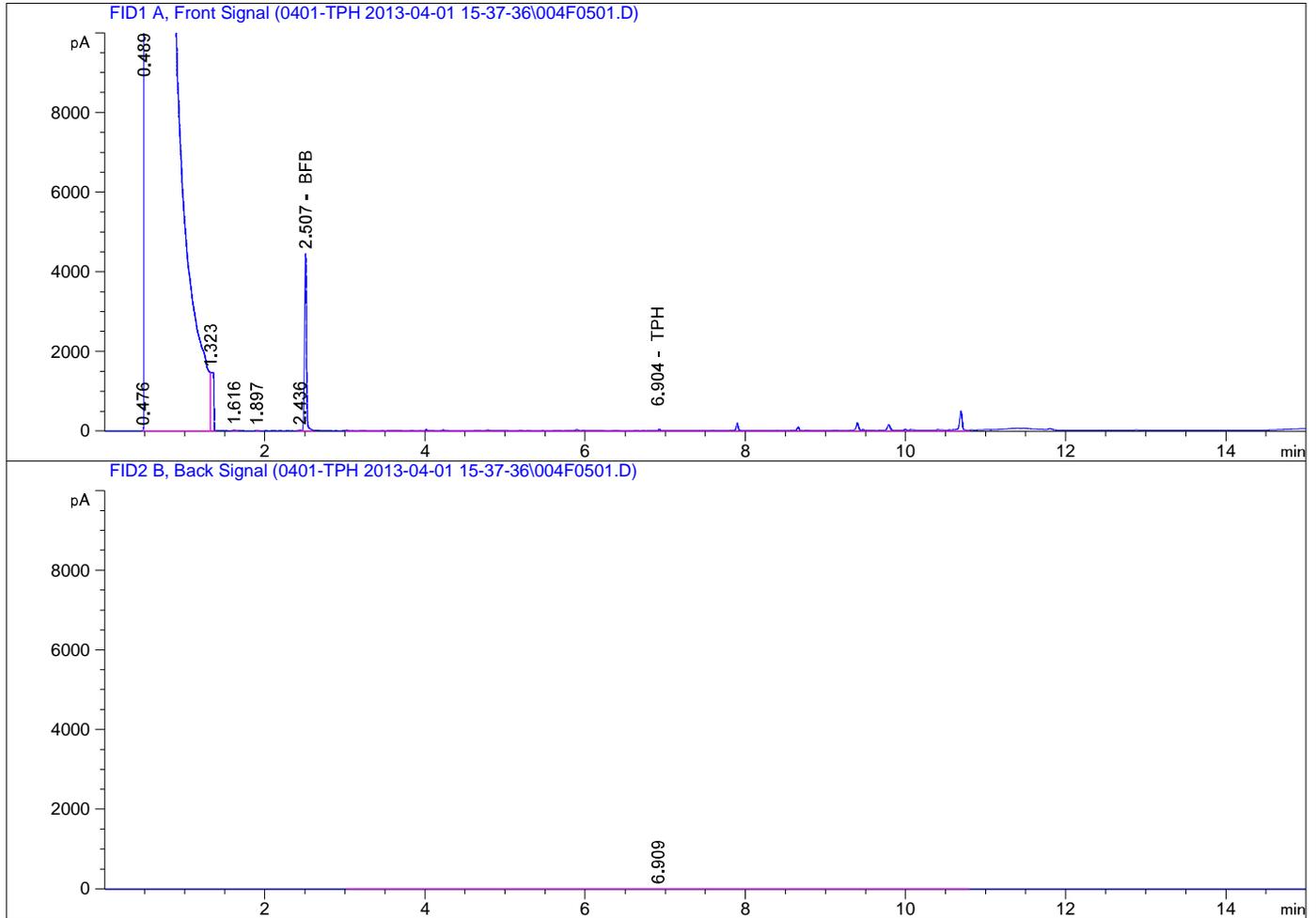
=====  
Acq. Operator : Seq. Line : 6  
Acq. Instrument : GC C Location : Vial 5  
Injection Date : 4/1/2013 5:16:41 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====



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External Standard Report  
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Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
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 4  
Injection Date : 4/1/2013 4:57:22 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====

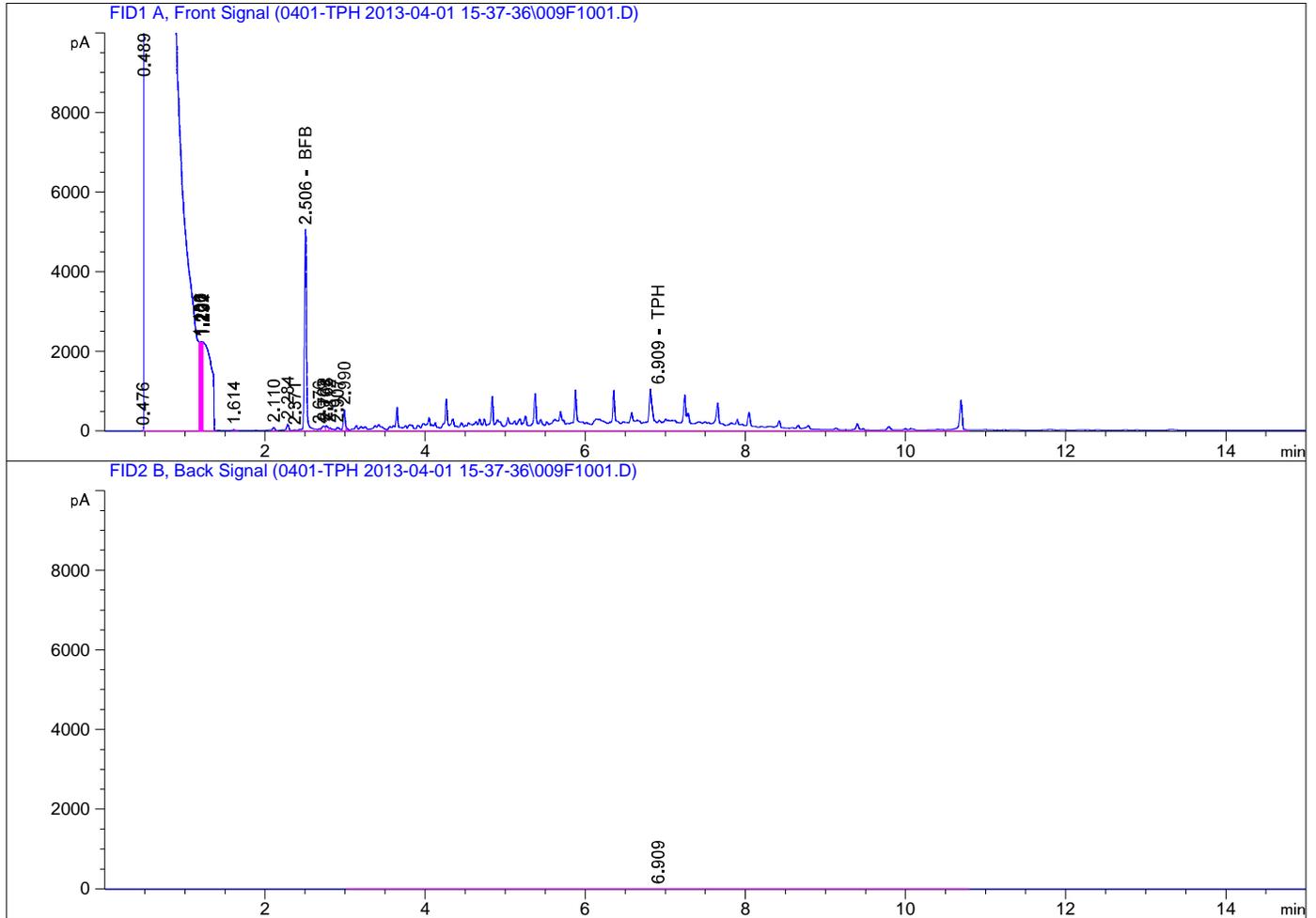


=====  
External Standard Report  
=====

Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs



=====  
Acq. Operator : Seq. Line : 10  
Acq. Instrument : GC C Location : Vial 9  
Injection Date : 4/1/2013 6:34:22 PM Inj : 1  
Inj Volume : 5 µl  
Acq. Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M  
Last changed : 3/14/2013 1:57:38 PM  
Analysis Method : C:\CHEM32\1\DATA\0401-TPH 2013-04-01 15-37-36\TPH-FRONT-1090171B.M (Sequence Method)  
Last changed : 4/2/2013 11:21:32 AM  
(modified after loading)  
=====



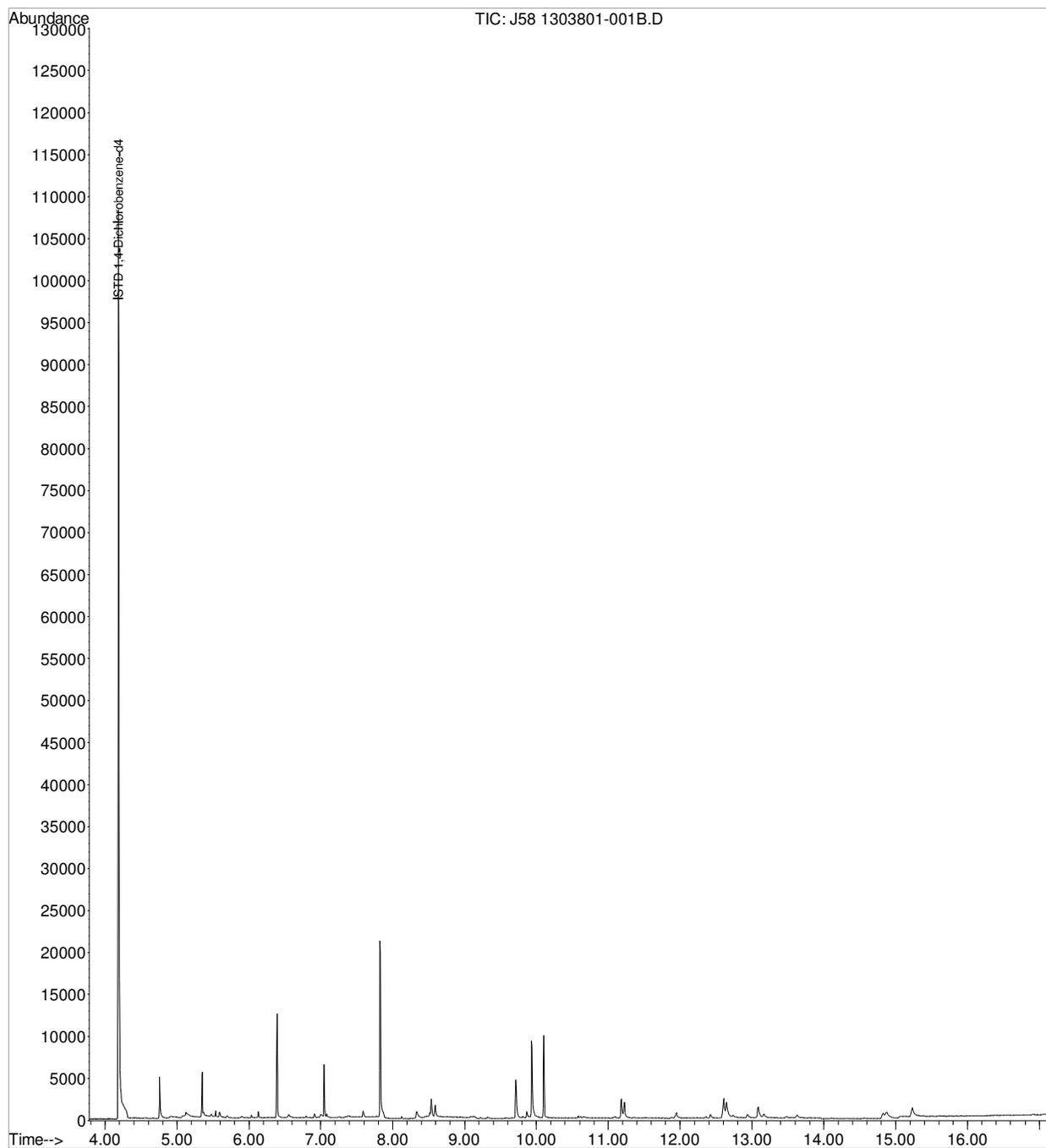
=====  
External Standard Report  
=====

Sorted By : Signal  
Calib. Data Modified : 4/2/2013 11:21:32 AM  
Multiplier: : 1.0000  
Dilution: : 1.0000  
Do not use Multiplier & Dilution Factor with ISTDs

Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J58 1303801-001B.D  
Acq On : 5 Apr 2013 11:22 am  
Operator : ALICIA HABERLE  
Sample : 1303801-001B  
Misc : SAMP  
ALS Vial : 11 Sample Multiplier: 1

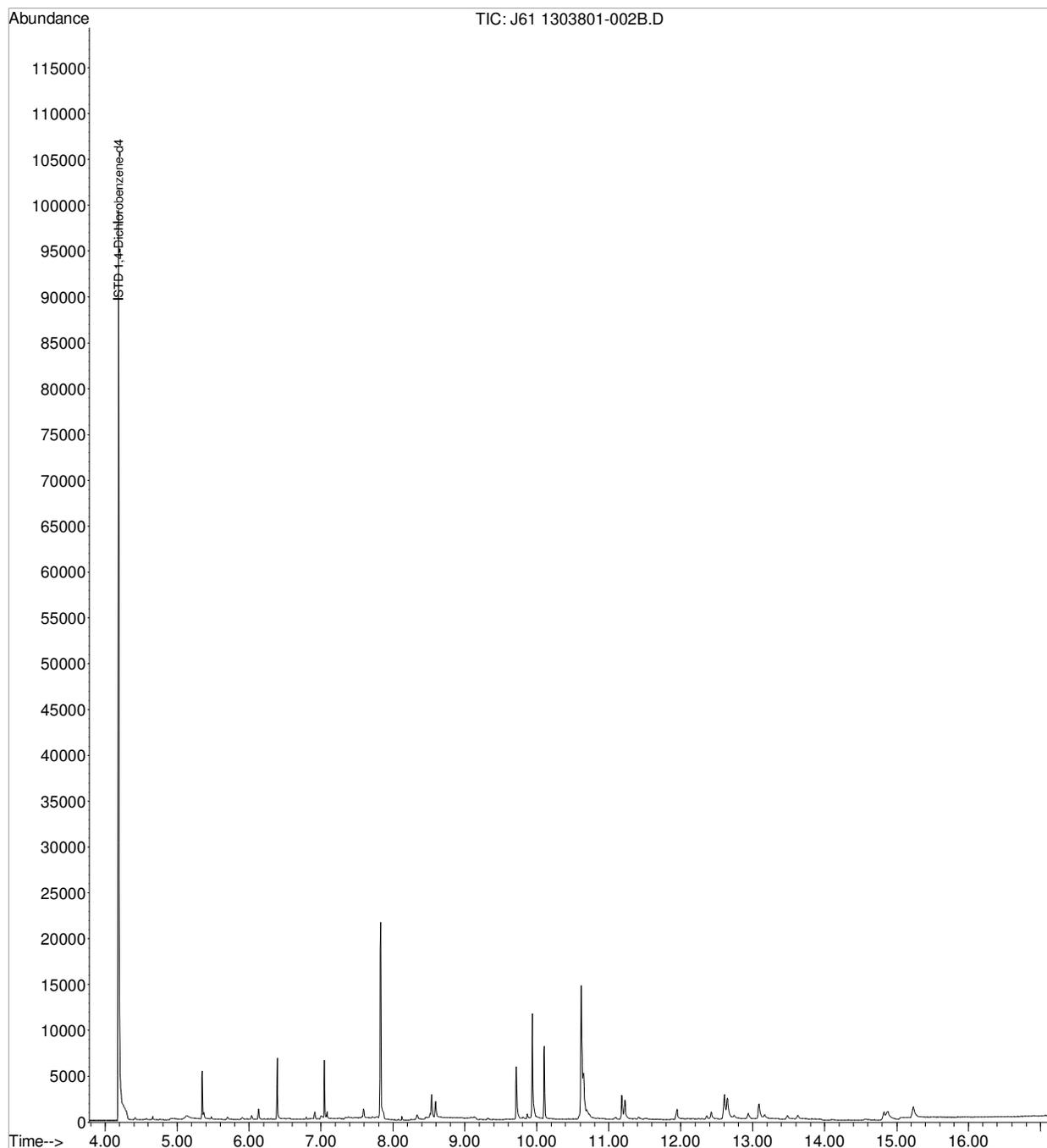
Quant Time: Apr 05 19:45:18 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J61 1303801-002B.D  
Acq On : 5 Apr 2013 12:42 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-002B  
Misc : SAMP  
ALS Vial : 14 Sample Multiplier: 1

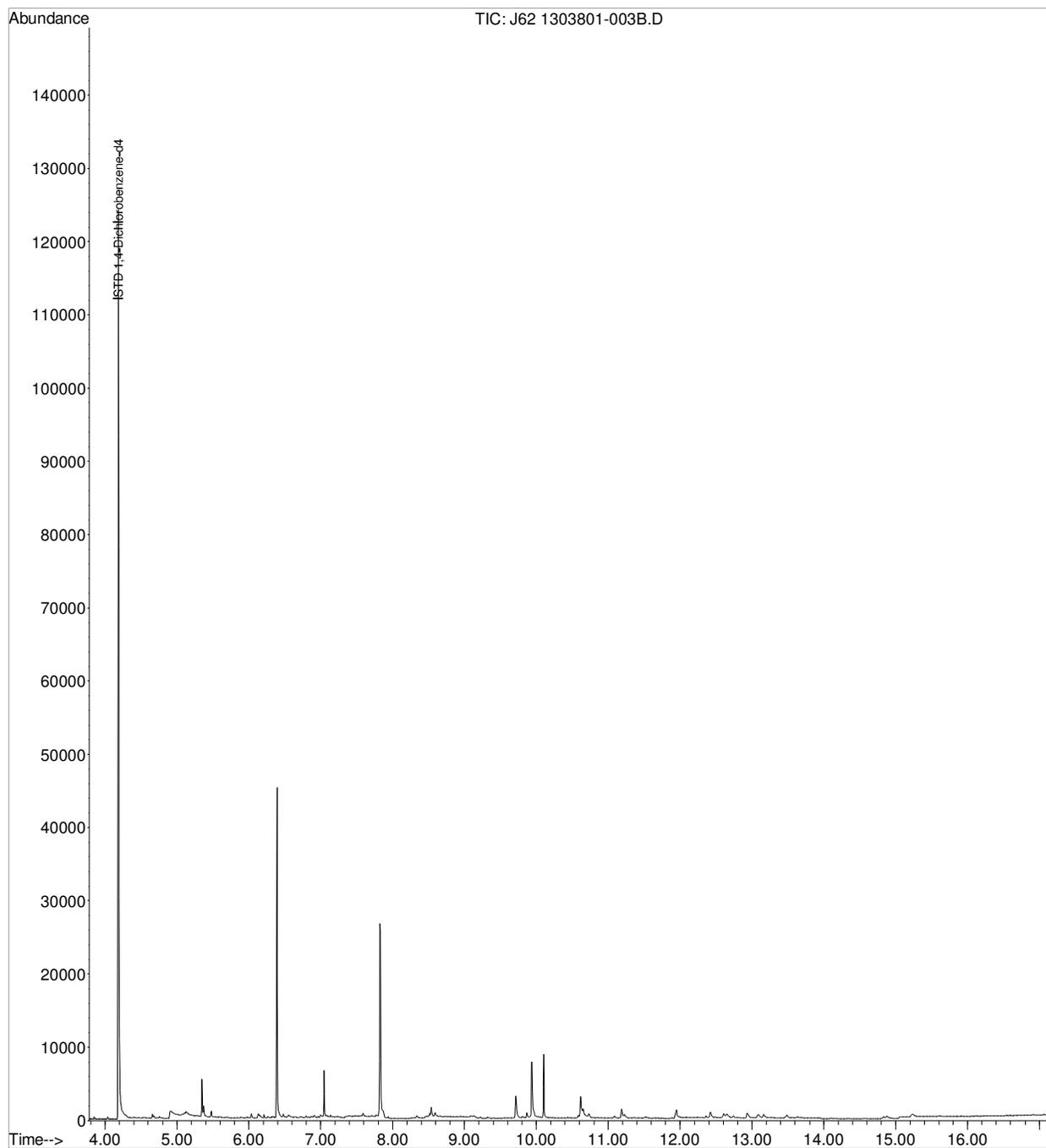
Quant Time: Apr 05 19:48:50 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J62 1303801-003B.D  
Acq On : 5 Apr 2013 1:08 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-003B  
Misc : SAMP  
ALS Vial : 15 Sample Multiplier: 1

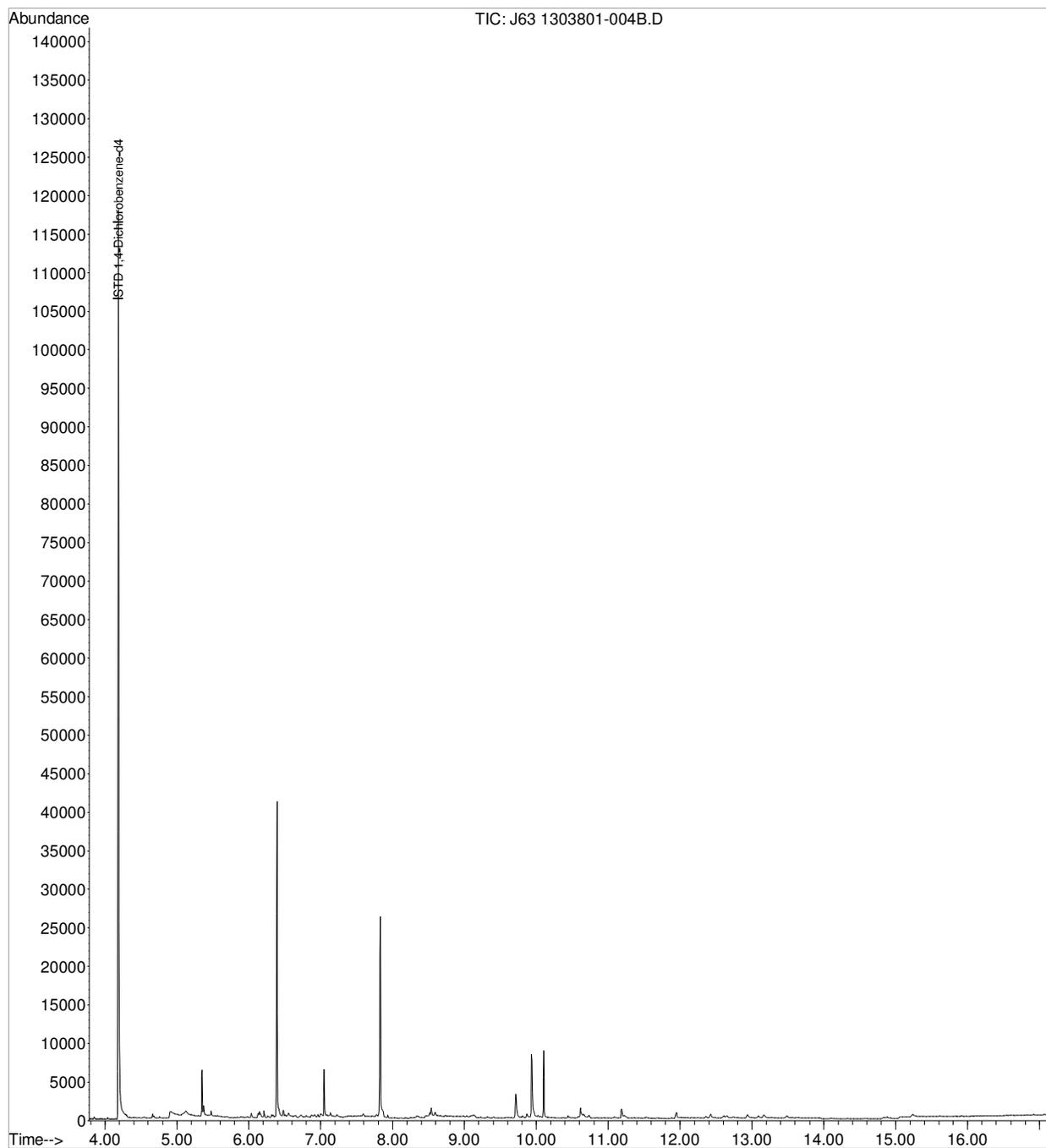
Quant Time: Apr 05 19:49:19 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J63 1303801-004B.D  
Acq On : 5 Apr 2013 1:35 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-004B  
Misc : SAMP  
ALS Vial : 16 Sample Multiplier: 1

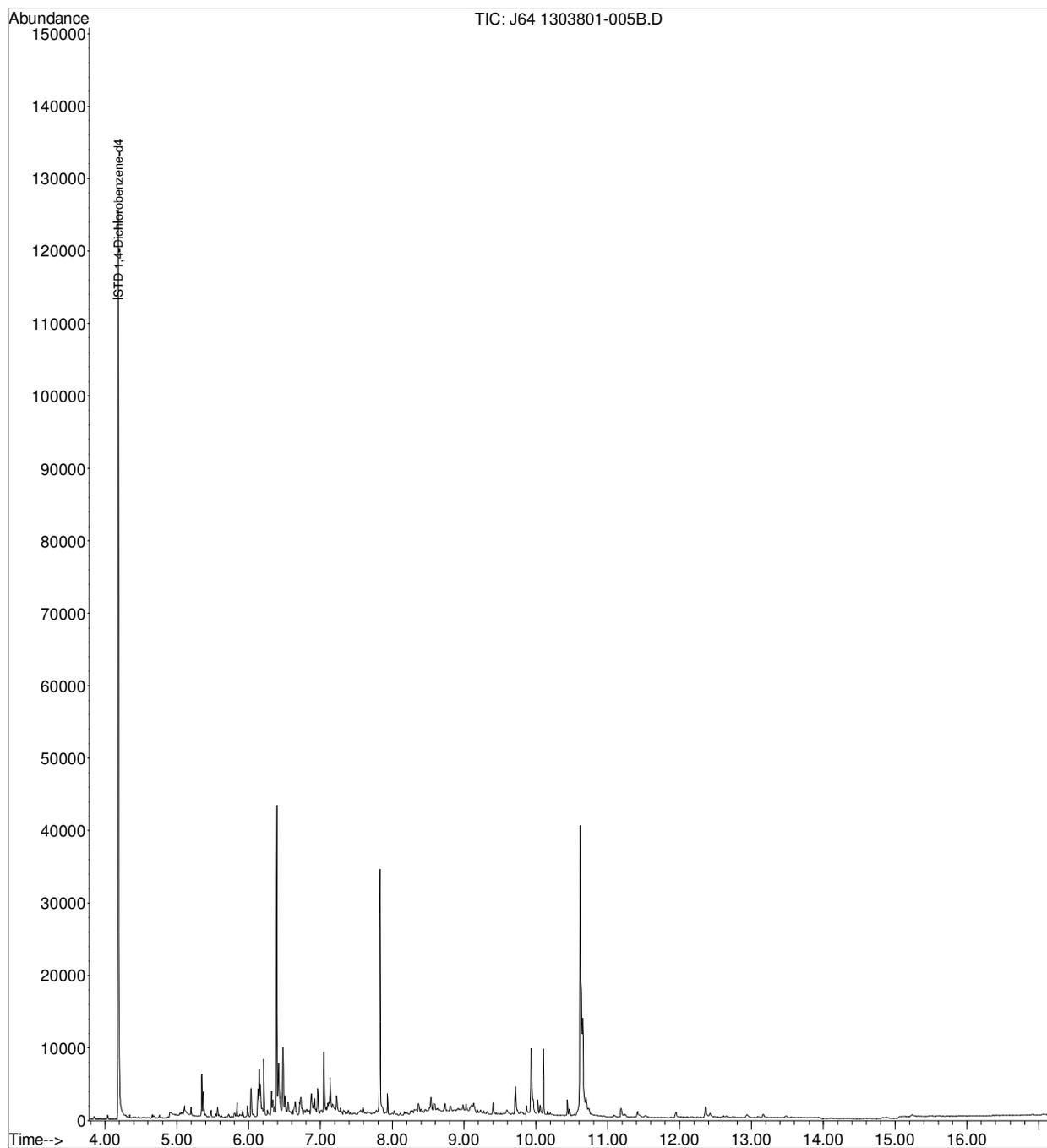
Quant Time: Apr 05 19:49:43 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J64 1303801-005B.D  
Acq On : 5 Apr 2013 2:02 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-005B  
Misc : SAMP  
ALS Vial : 17 Sample Multiplier: 1

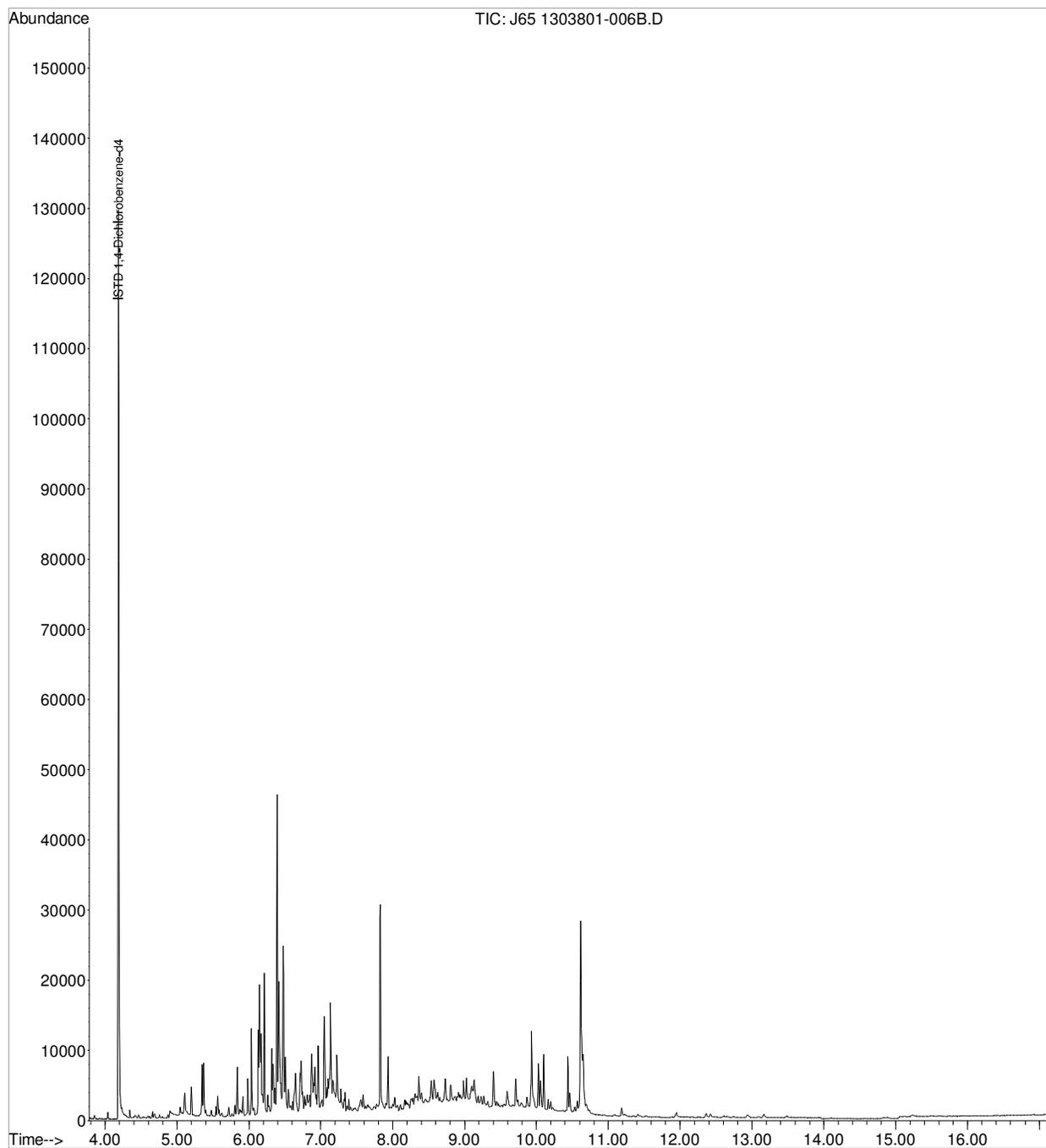
Quant Time: Apr 05 19:50:10 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J65 1303801-006B.D  
Acq On : 5 Apr 2013 2:30 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-006B  
Misc : SAMP  
ALS Vial : 18 Sample Multiplier: 1

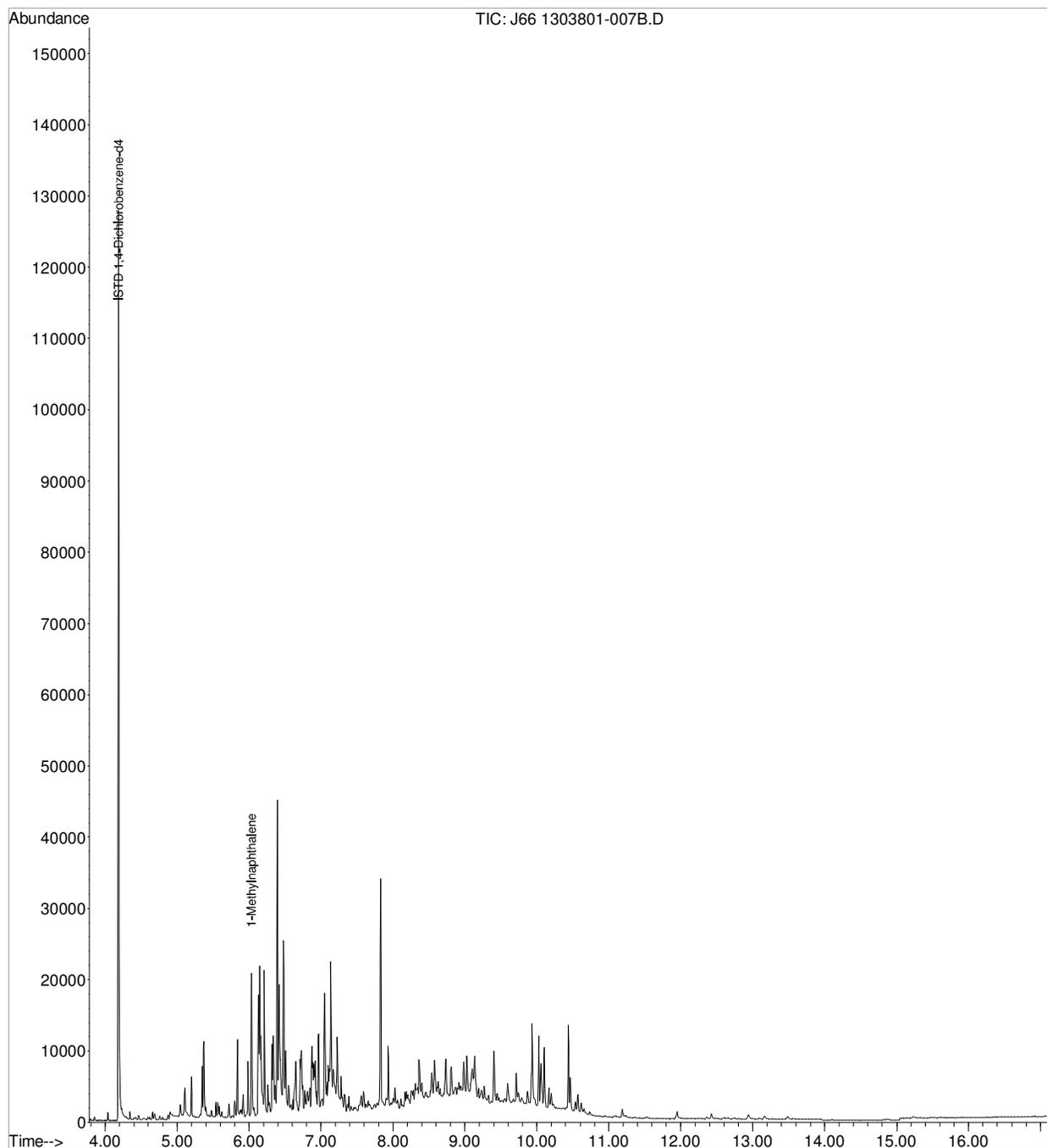
Quant Time: Apr 05 19:50:49 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J66 1303801-007B.D  
Acq On : 5 Apr 2013 2:57 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-007B  
Misc : SAMP  
ALS Vial : 19 Sample Multiplier: 1

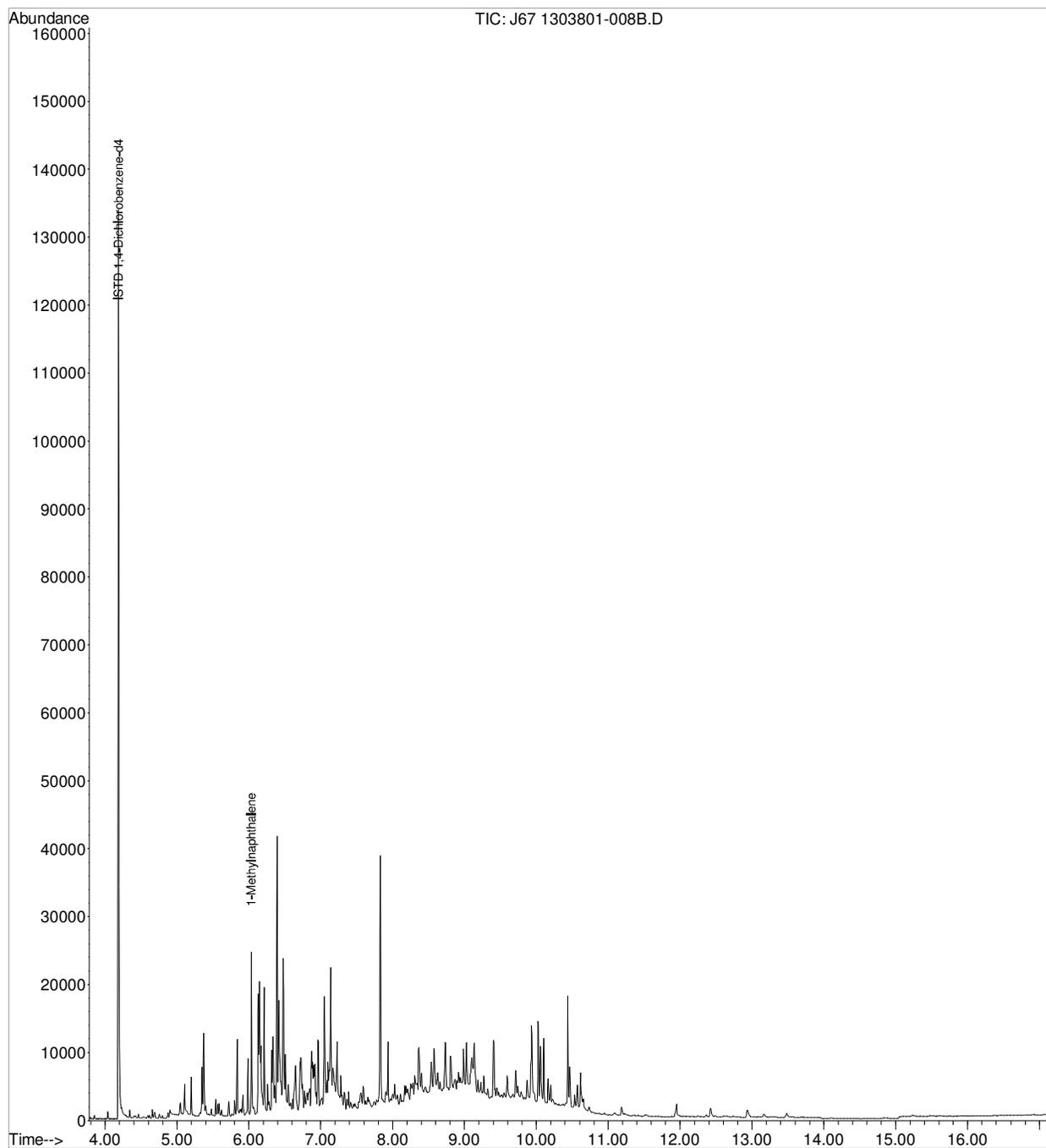
Quant Time: Apr 05 19:51:29 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J67 1303801-008B.D  
Acq On : 5 Apr 2013 3:25 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-008B  
Misc : SAMP  
ALS Vial : 20 Sample Multiplier: 1

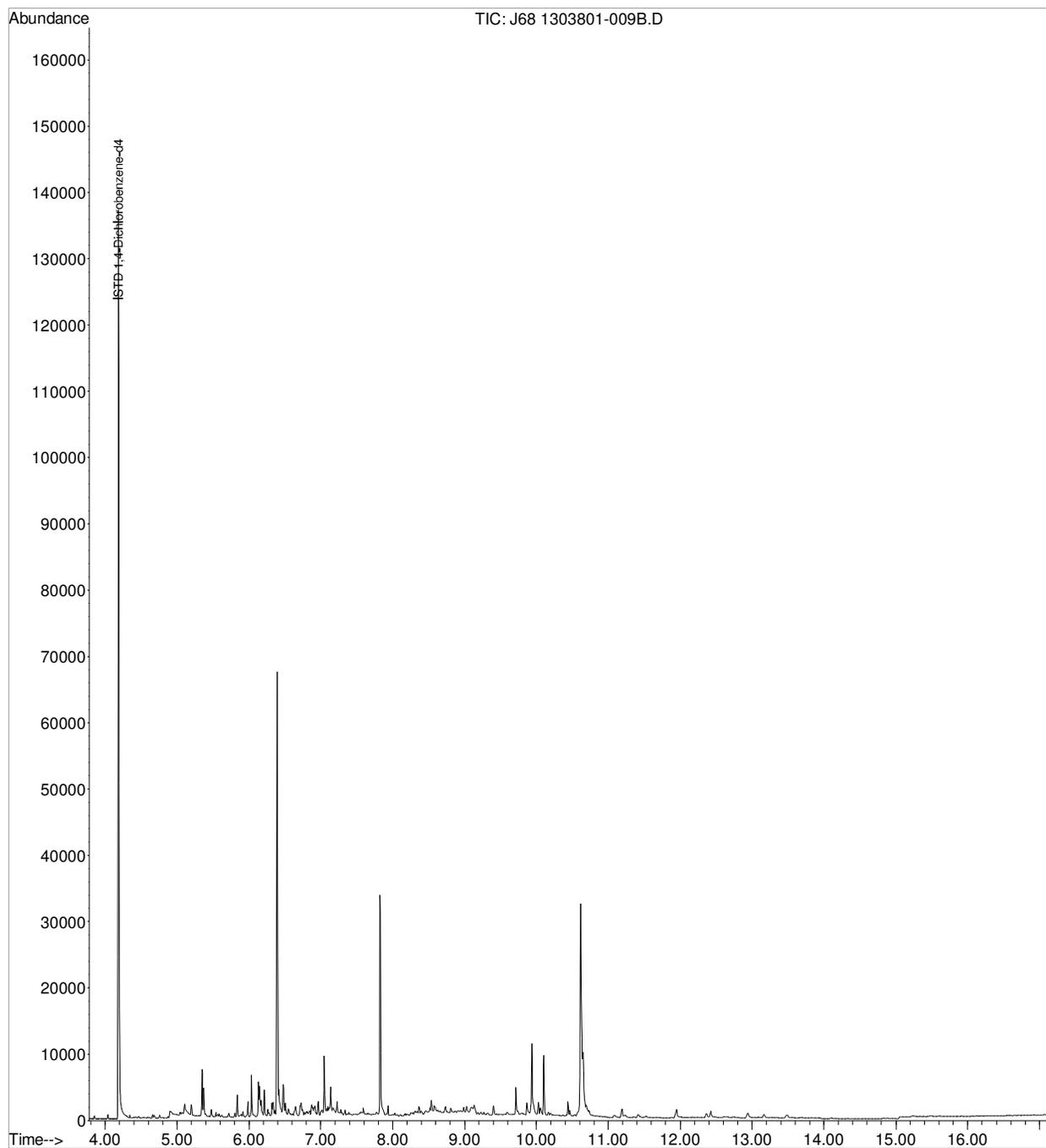
Quant Time: Apr 05 19:52:03 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J68 1303801-009B.D  
Acq On : 5 Apr 2013 3:53 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-009B  
Misc : SAMP  
ALS Vial : 21 Sample Multiplier: 1

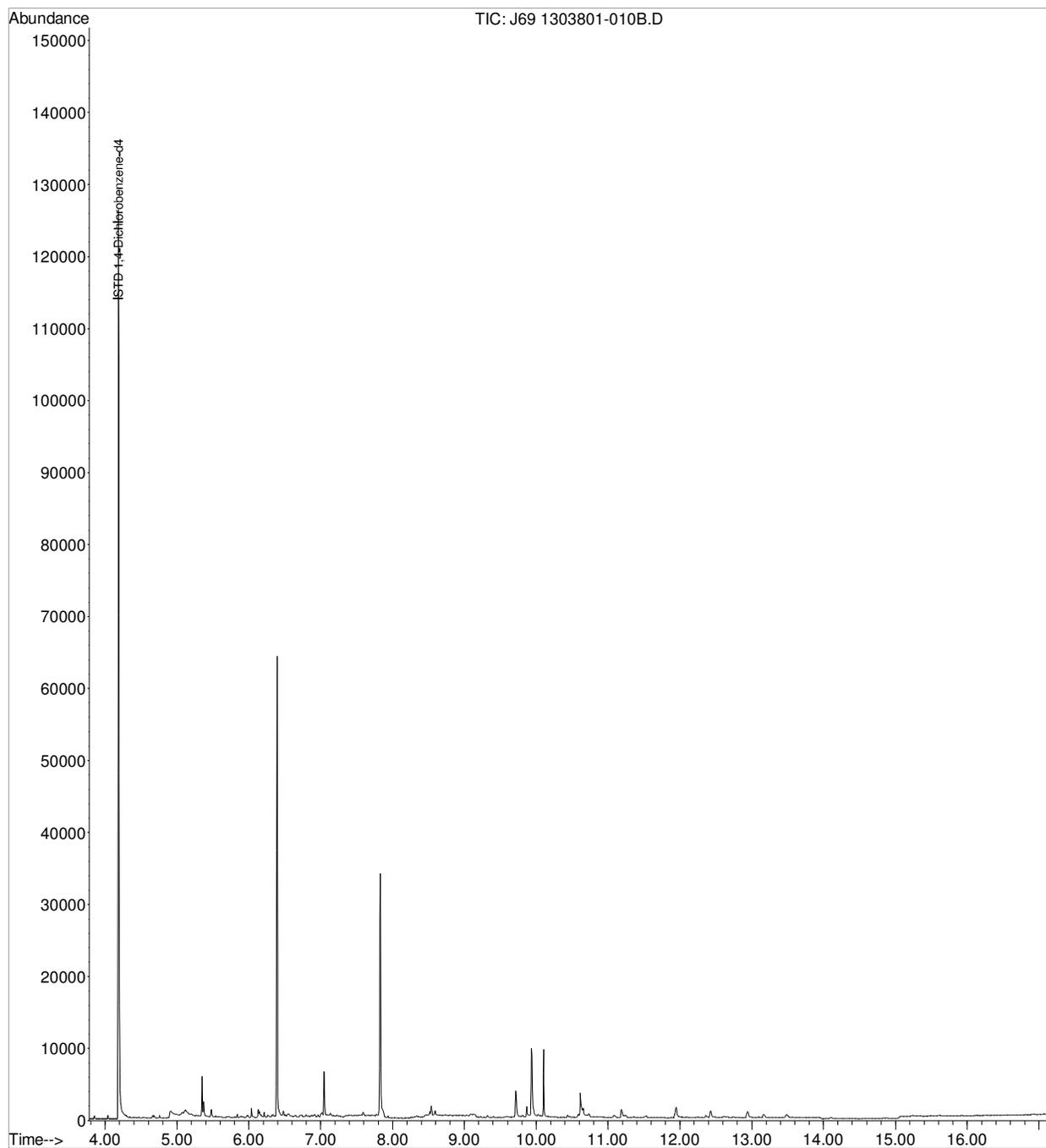
Quant Time: Apr 05 19:52:35 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J69 1303801-010B.D  
Acq On : 5 Apr 2013 4:21 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-010B  
Misc : SAMP  
ALS Vial : 22 Sample Multiplier: 1

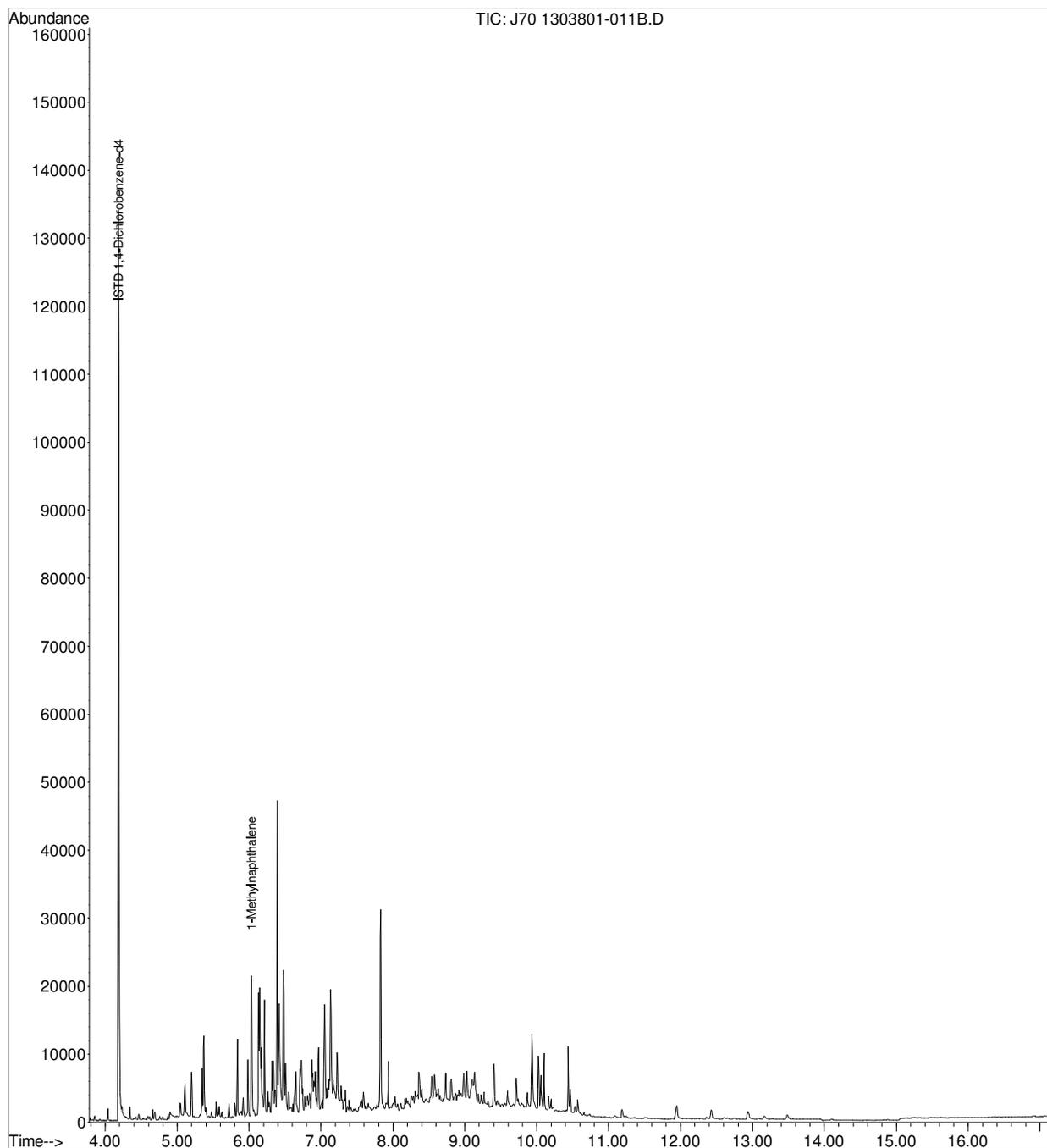
Quant Time: Apr 05 19:53:09 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J70 1303801-011B.D  
Acq On : 5 Apr 2013 4:48 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-011B  
Misc : SAMP  
ALS Vial : 23 Sample Multiplier: 1

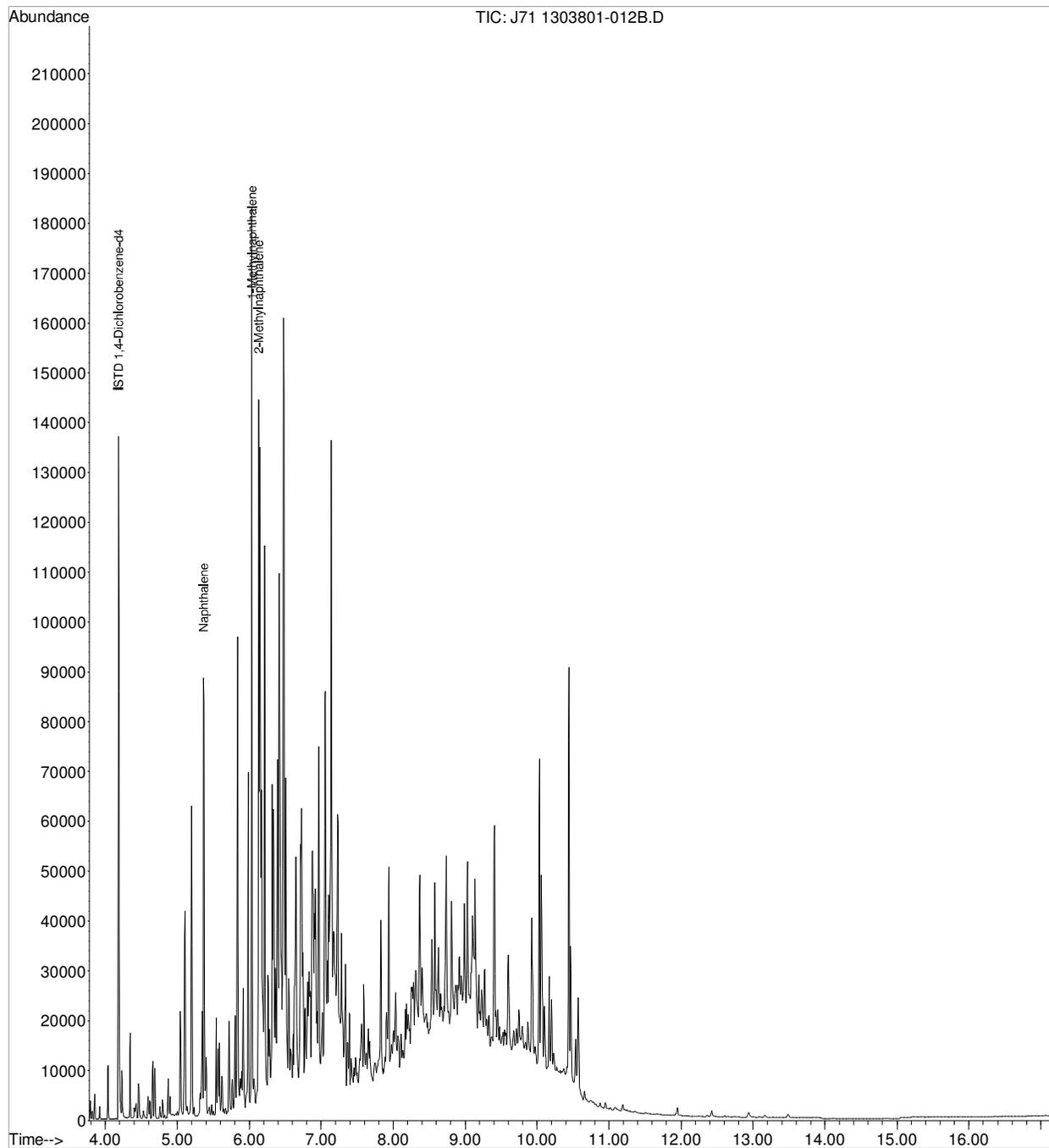
Quant Time: Apr 05 19:54:11 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J71 1303801-012B.D  
Acq On : 5 Apr 2013 5:16 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-012B  
Misc : SAMP  
ALS Vial : 24 Sample Multiplier: 1

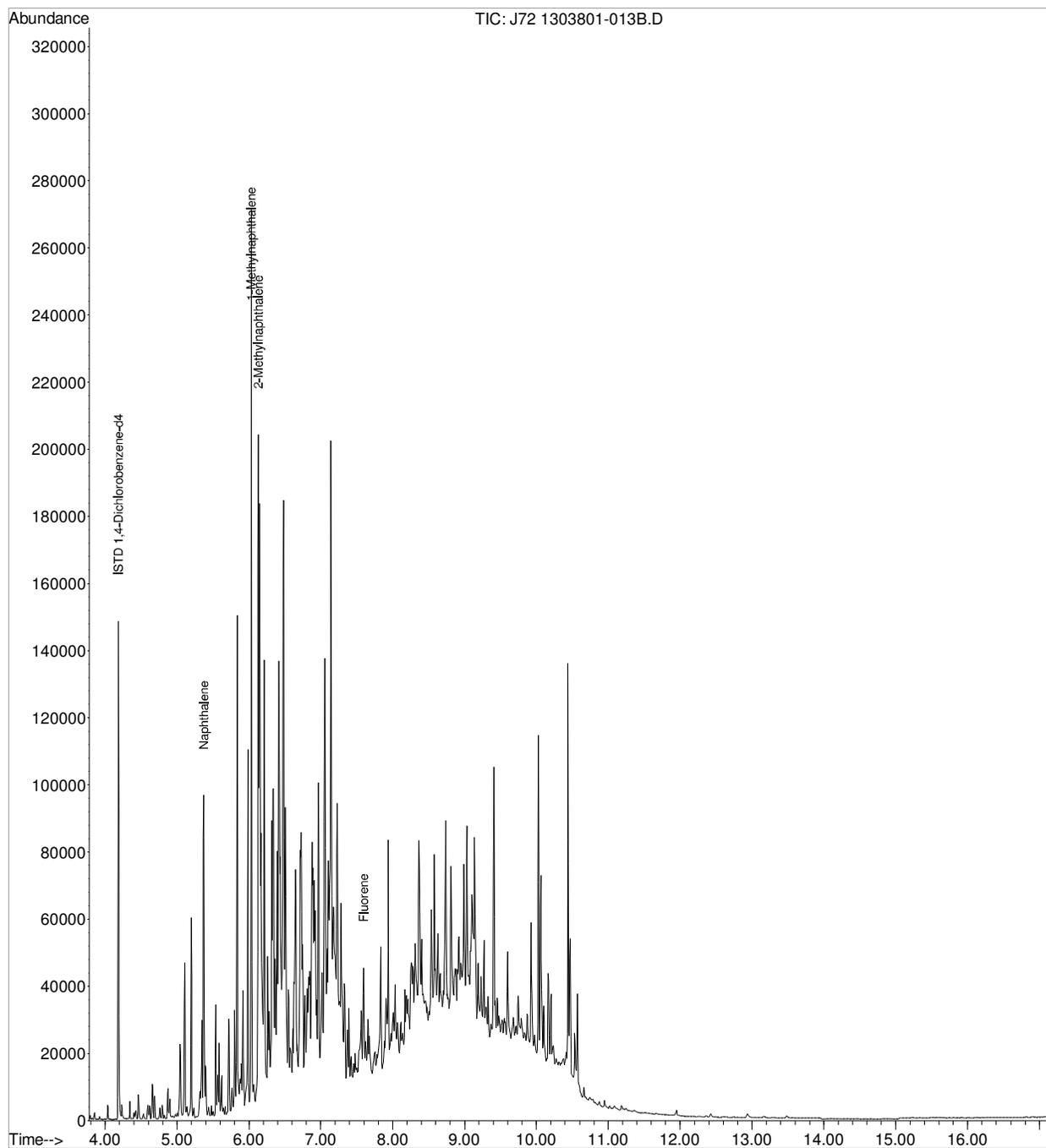
Quant Time: Apr 05 19:55:52 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J72 1303801-013B.D  
Acq On : 5 Apr 2013 5:44 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-013B  
Misc : SAMP  
ALS Vial : 25 Sample Multiplier: 1

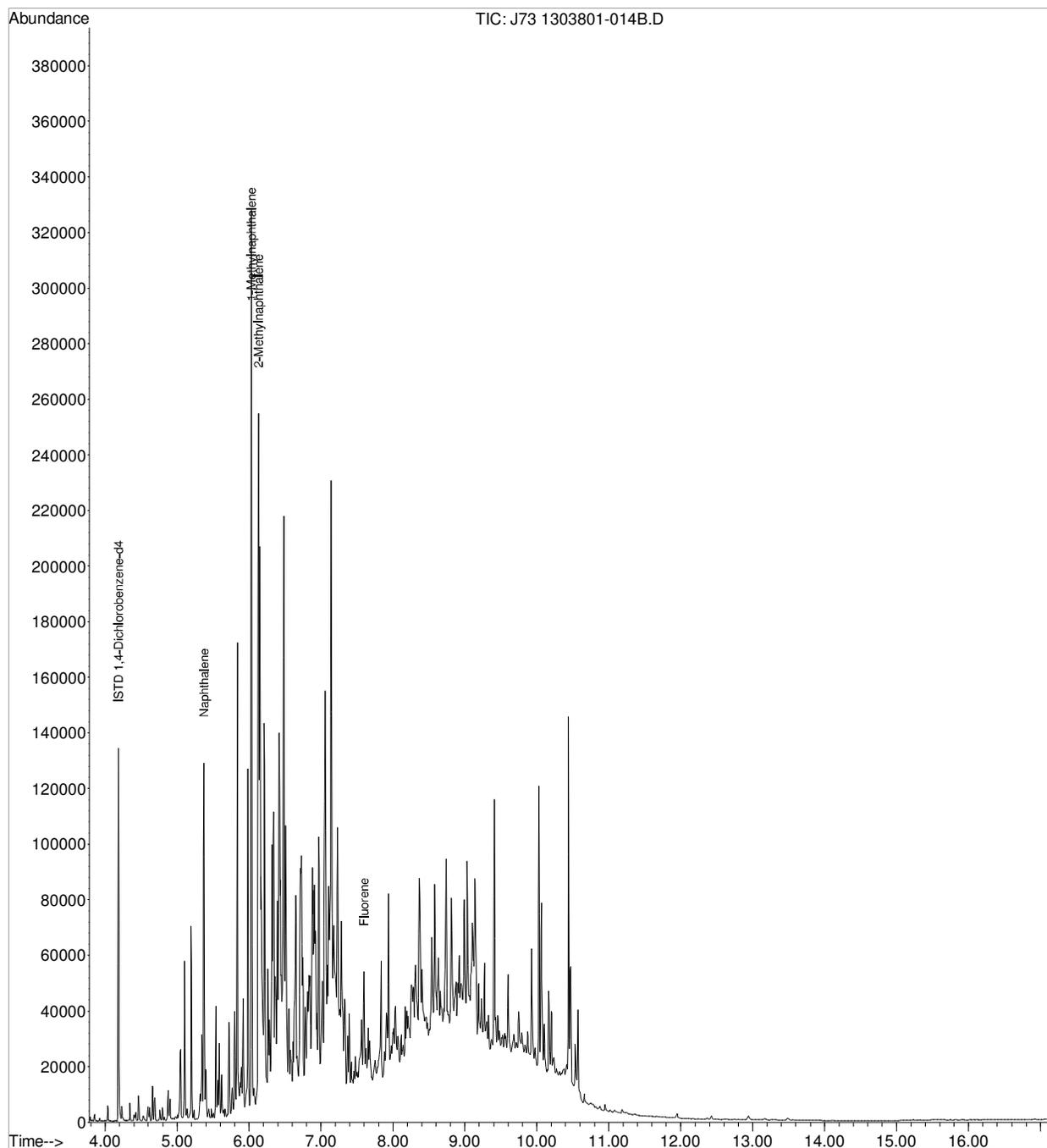
Quant Time: Apr 05 19:56:41 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J73 1303801-014B.D  
Acq On : 5 Apr 2013 6:12 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-014B  
Misc : SAMP  
ALS Vial : 26 Sample Multiplier: 1

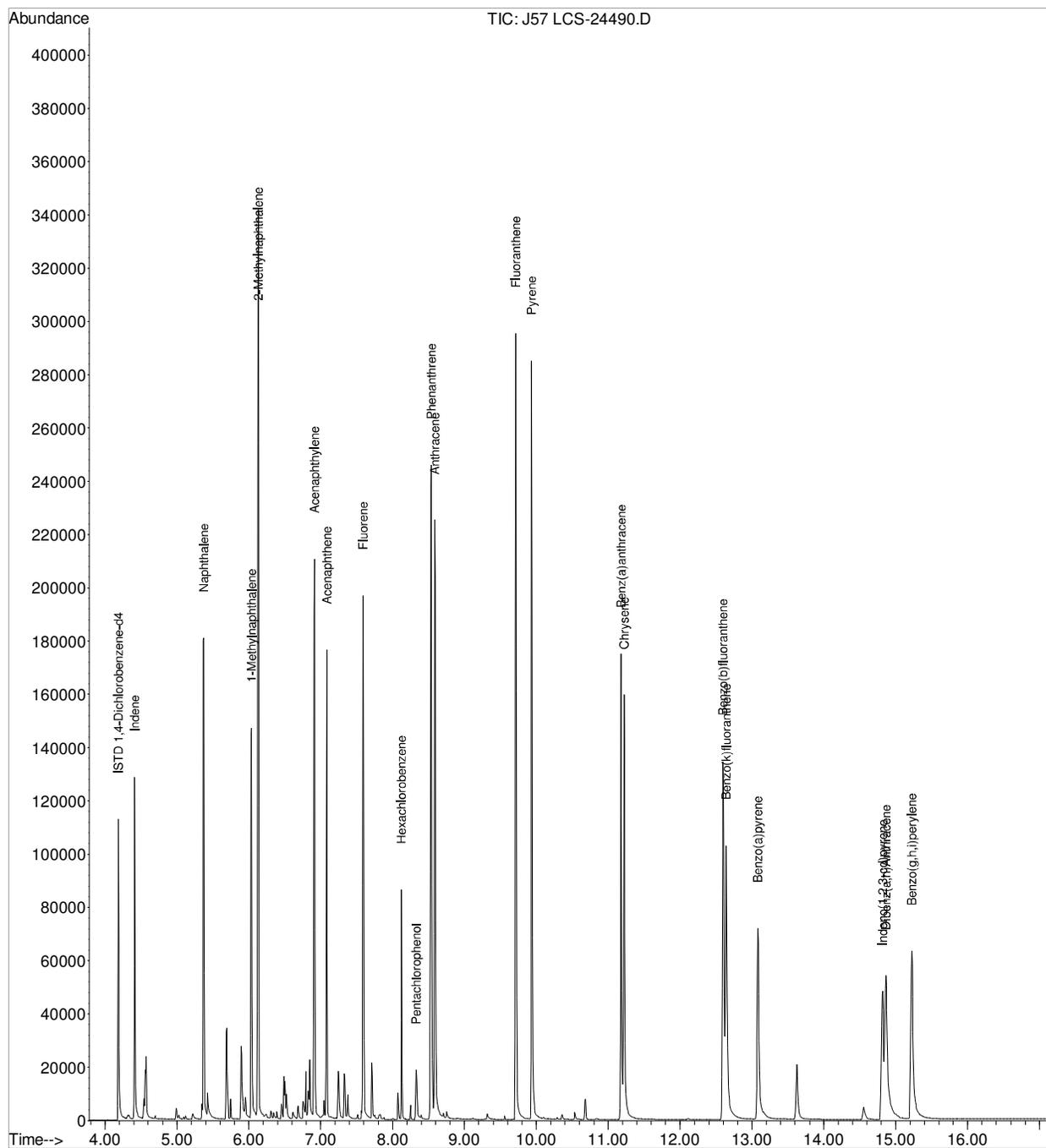
Quant Time: Apr 05 19:57:29 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
 Data File : J57 LCS-24490.D  
 Acq On : 5 Apr 2013 10:55 am  
 Operator : ALICIA HABERLE  
 Sample : LCS-24490  
 Misc : LCS  
 ALS Vial : 10 Sample Multiplier: 1

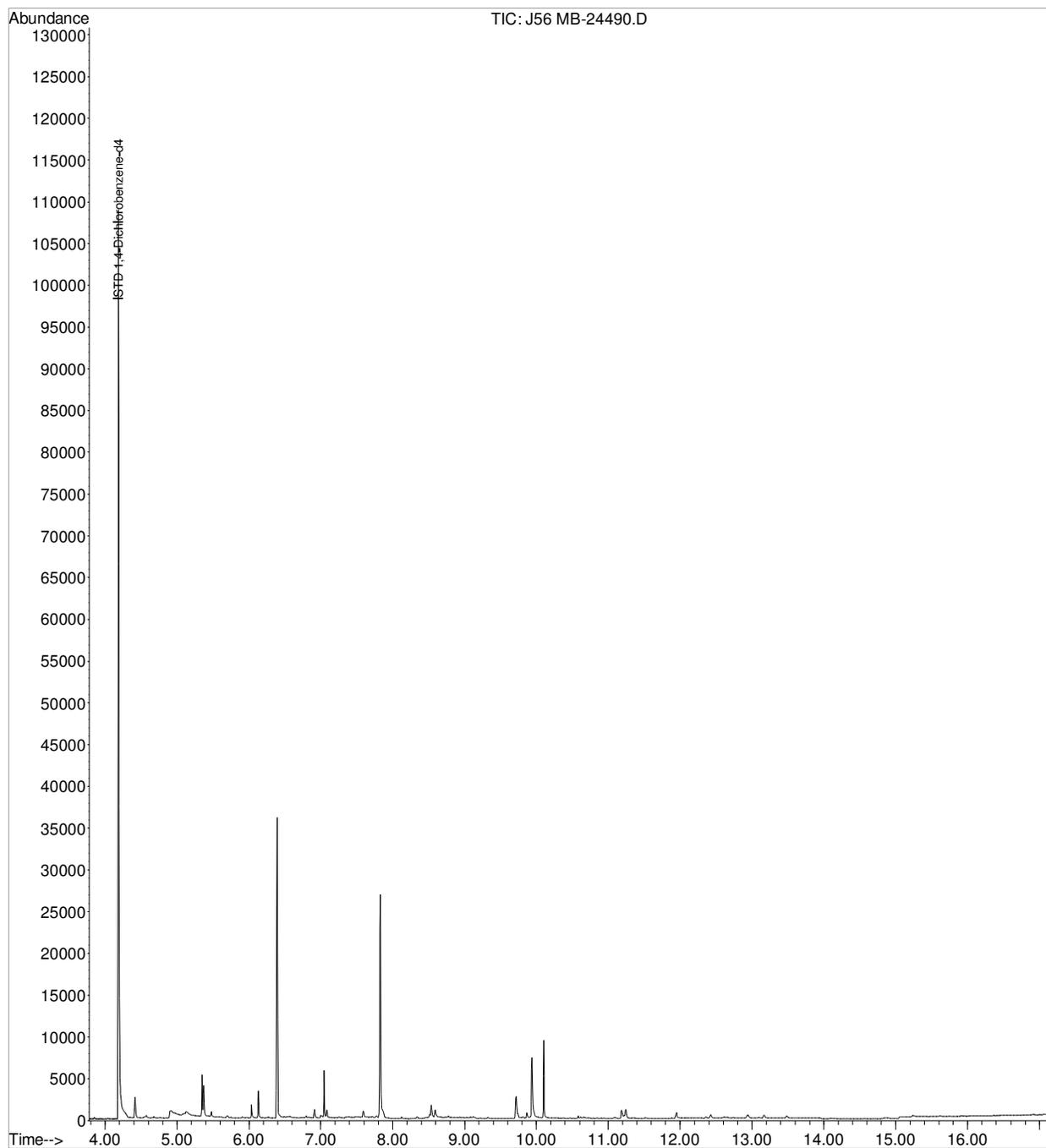
Quant Time: Apr 05 16:31:03 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Fri Apr 05 06:03:17 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
Data File : J56 MB-24490.D  
Acq On : 5 Apr 2013 10:29 am  
Operator : ALICIA HABERLE  
Sample : MB-24490  
Misc : MBLK  
ALS Vial : 9 Sample Multiplier: 1

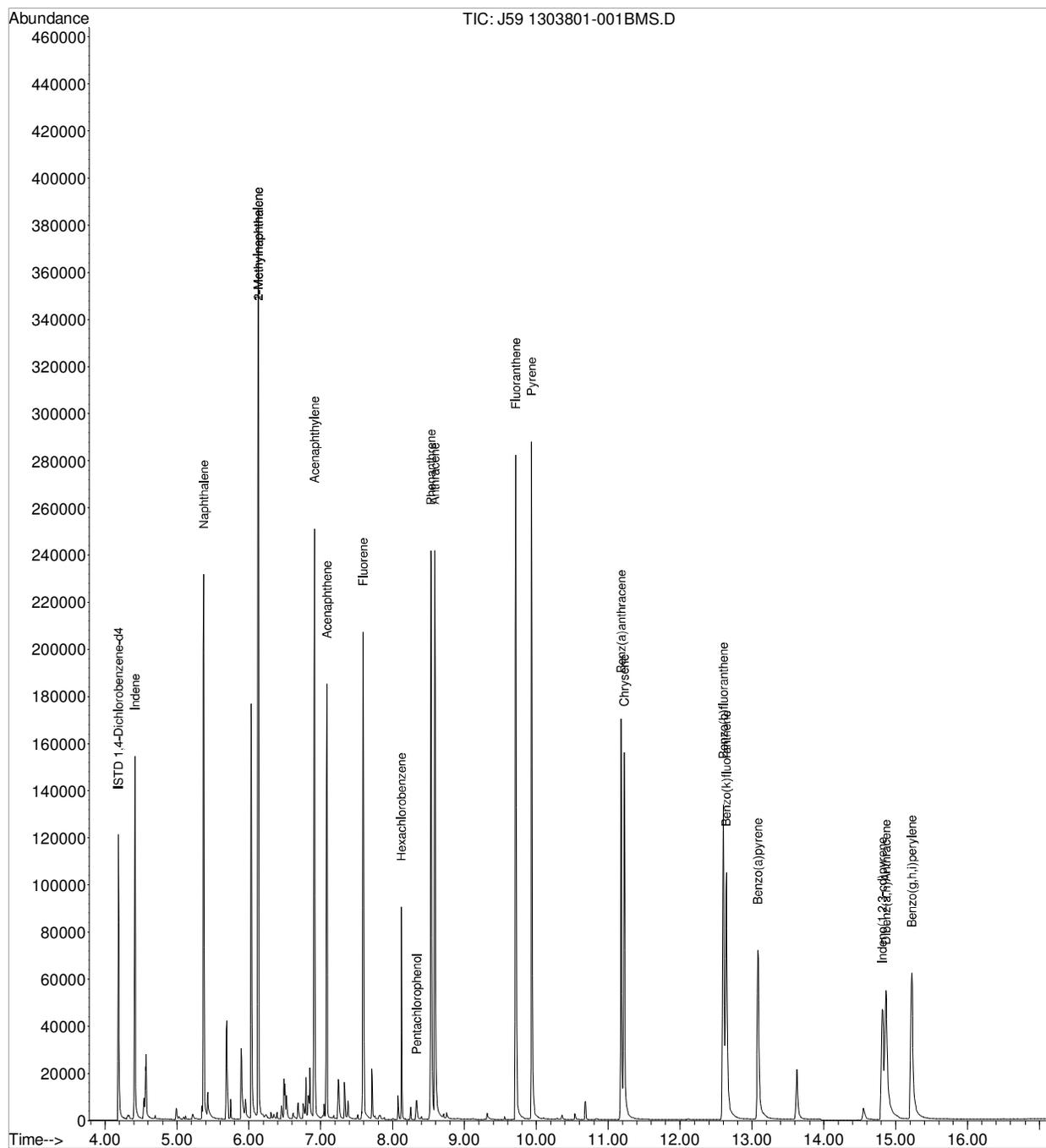
Quant Time: Apr 05 19:44:04 2013  
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Fri Apr 05 06:03:17 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
 Data File : J59 1303801-001BMS.D  
 Acq On : 5 Apr 2013 11:48 am  
 Operator : ALICIA HABERLE  
 Sample : 1303801-001BMS  
 Misc : MS  
 ALS Vial : 12 Sample Multiplier: 1

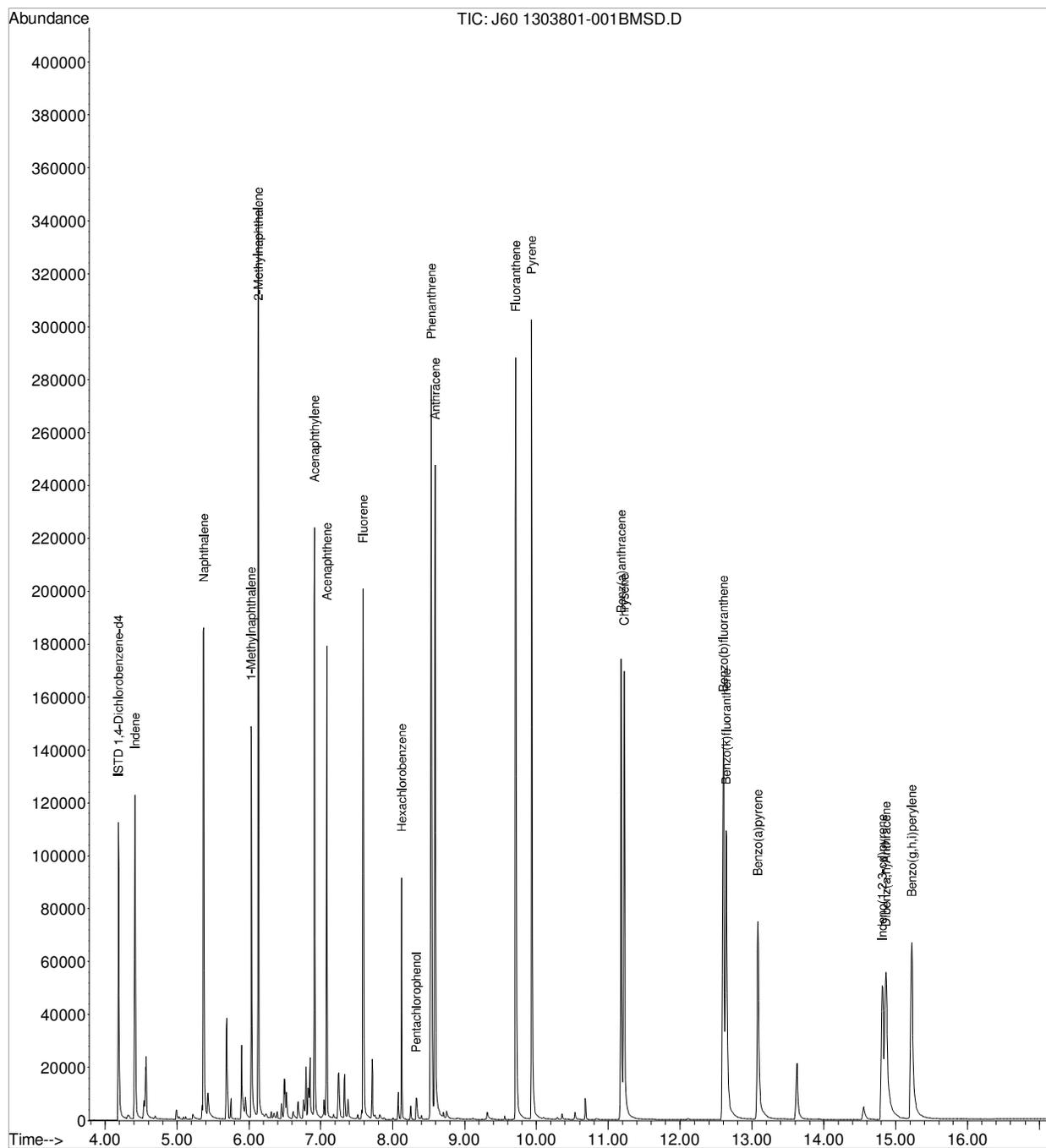
Quant Time: Apr 05 16:31:06 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Fri Apr 05 06:03:17 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\05APR13-A\  
 Data File : J60 1303801-001BMSD.D  
 Acq On : 5 Apr 2013 12:15 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-001BMSD  
 Misc : MSD  
 ALS Vial : 13 Sample Multiplier: 1

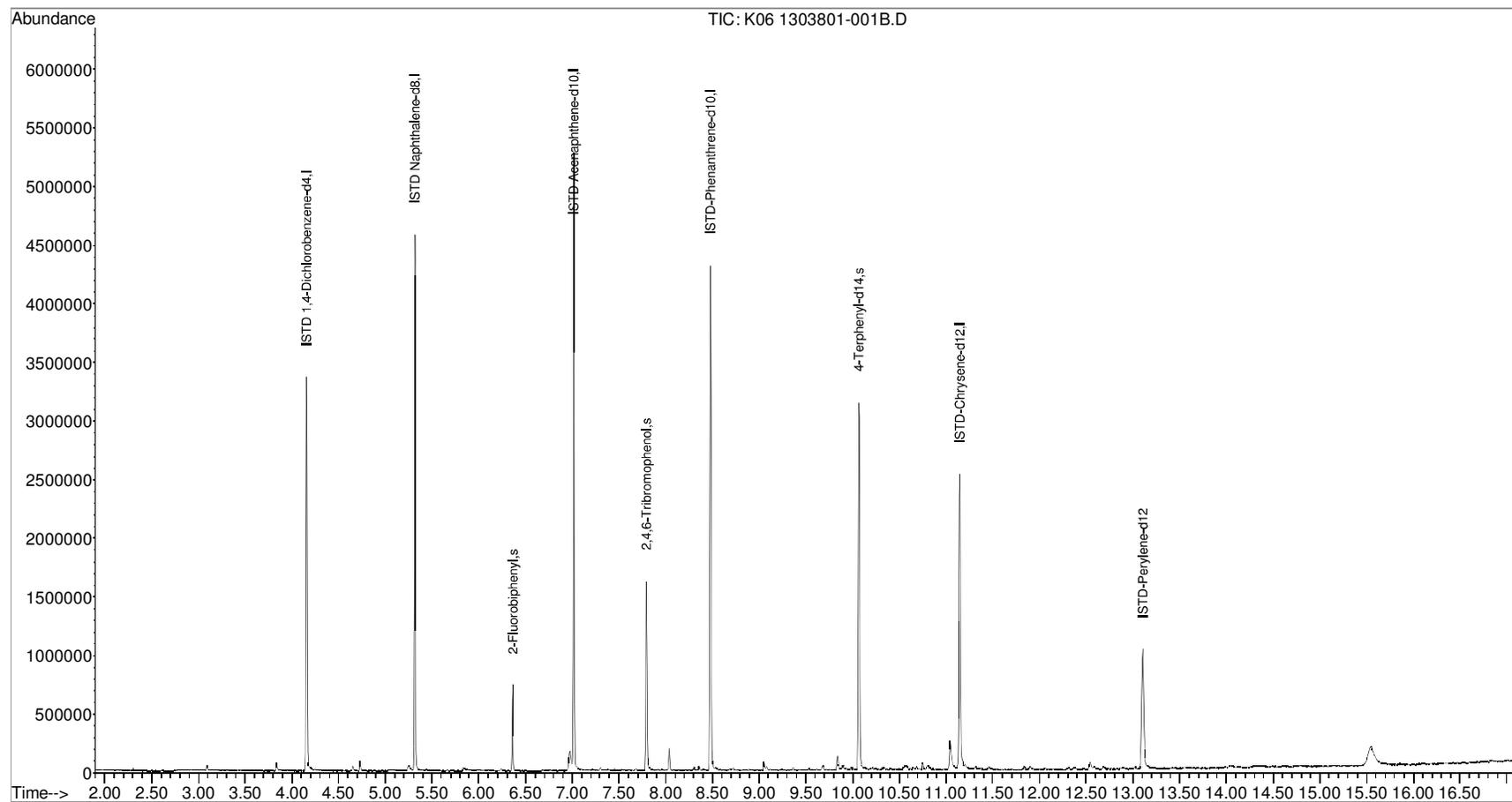
Quant Time: Apr 05 16:31:07 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Fri Apr 05 06:03:17 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K06 1303801-001B.D  
Acq On : 6 Apr 2013 9:22 am  
Operator : ALICIA HABERLE  
Sample : 1303801-001B  
Misc : SAMP  
ALS Vial : 7 Sample Multiplier: 1

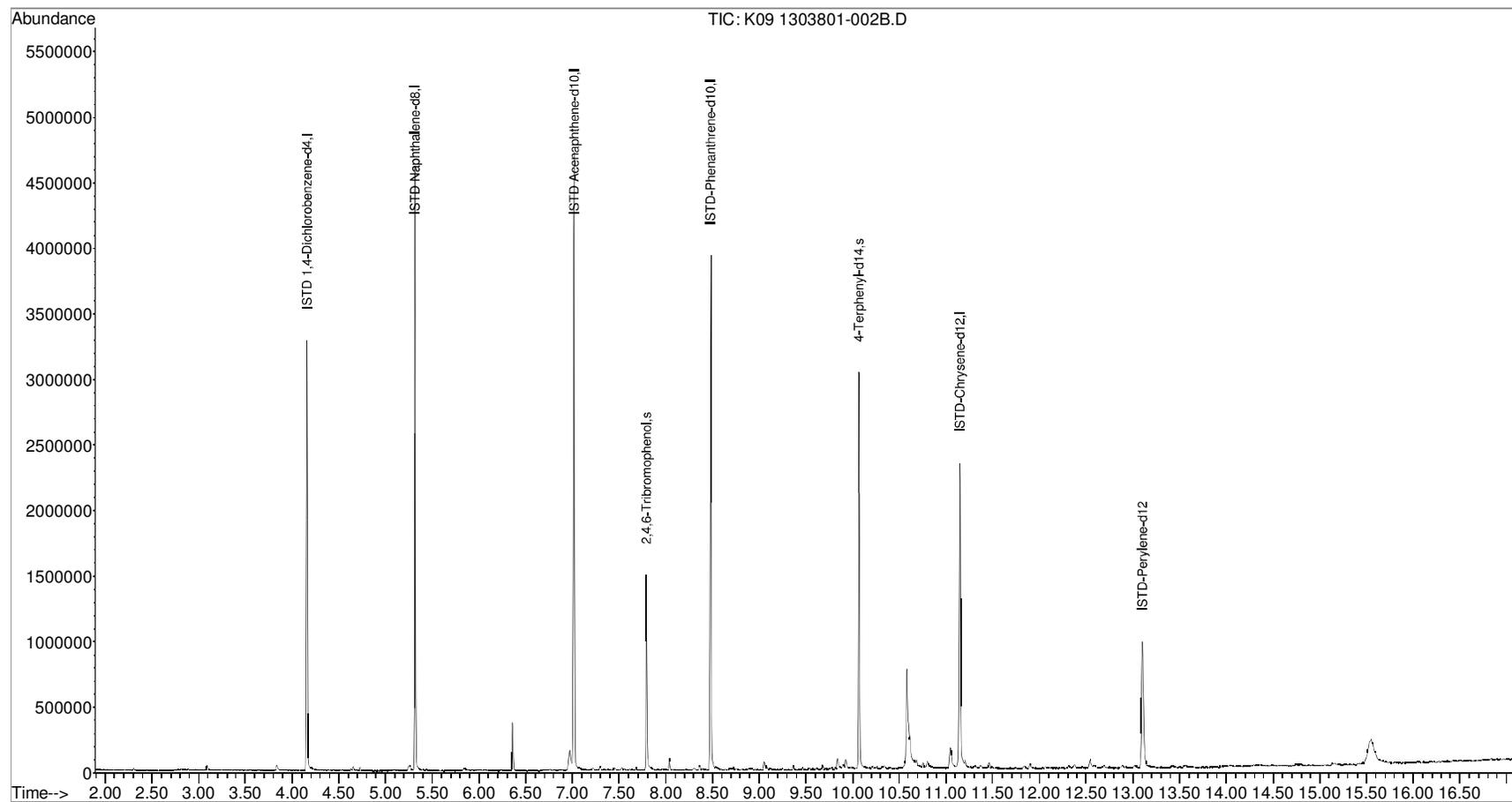
Quant Time: Apr 07 06:31:10 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K09 1303801-002B.D  
Acq On : 6 Apr 2013 10:41 am  
Operator : ALICIA HABERLE  
Sample : 1303801-002B  
Misc : SAMP  
ALS Vial : 10 Sample Multiplier: 1

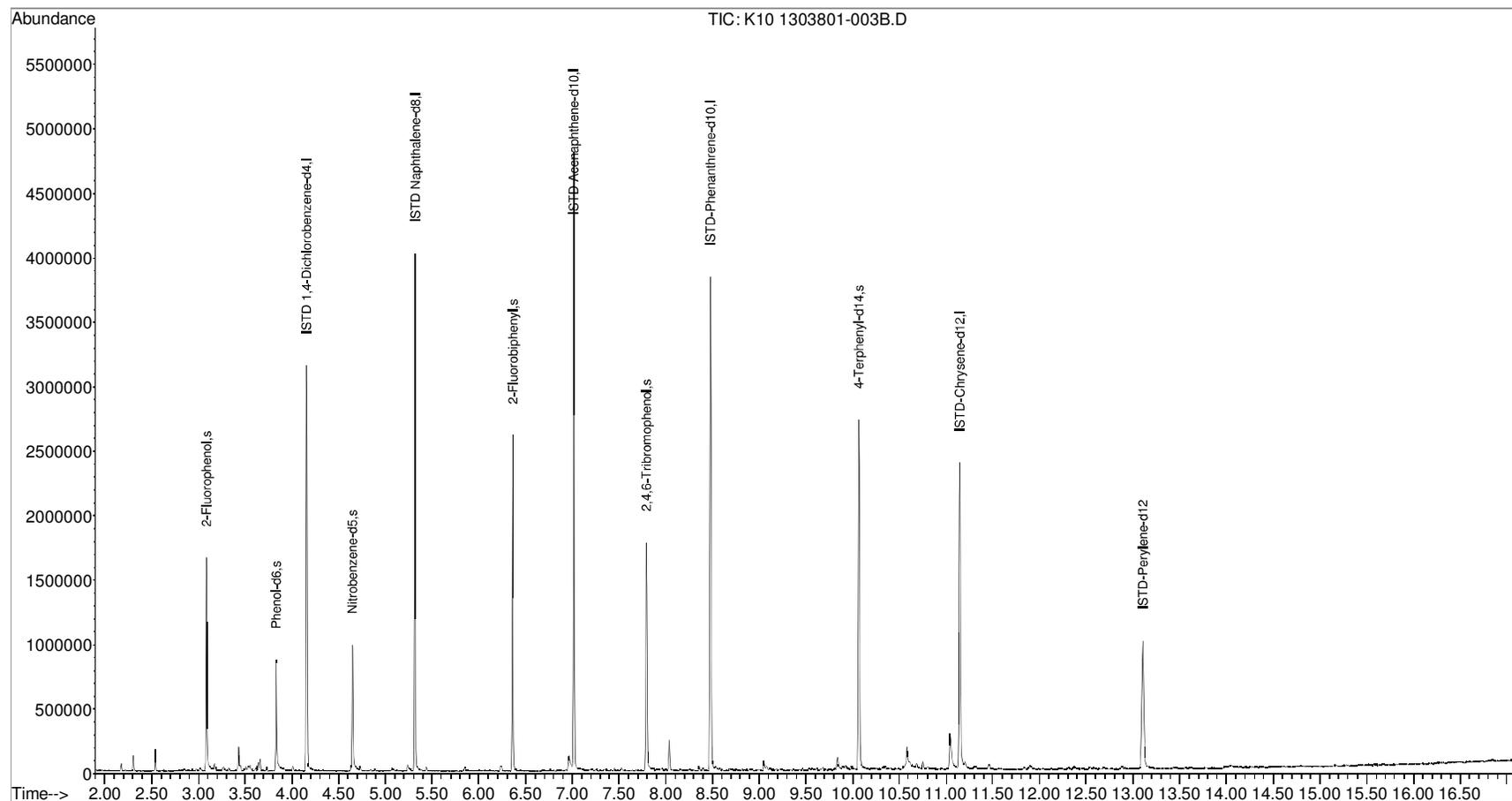
Quant Time: Apr 07 06:32:50 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K10 1303801-003B.D  
Acq On : 6 Apr 2013 11:07 am  
Operator : ALICIA HABERLE  
Sample : 1303801-003B  
Misc : SAMP  
ALS Vial : 11 Sample Multiplier: 1

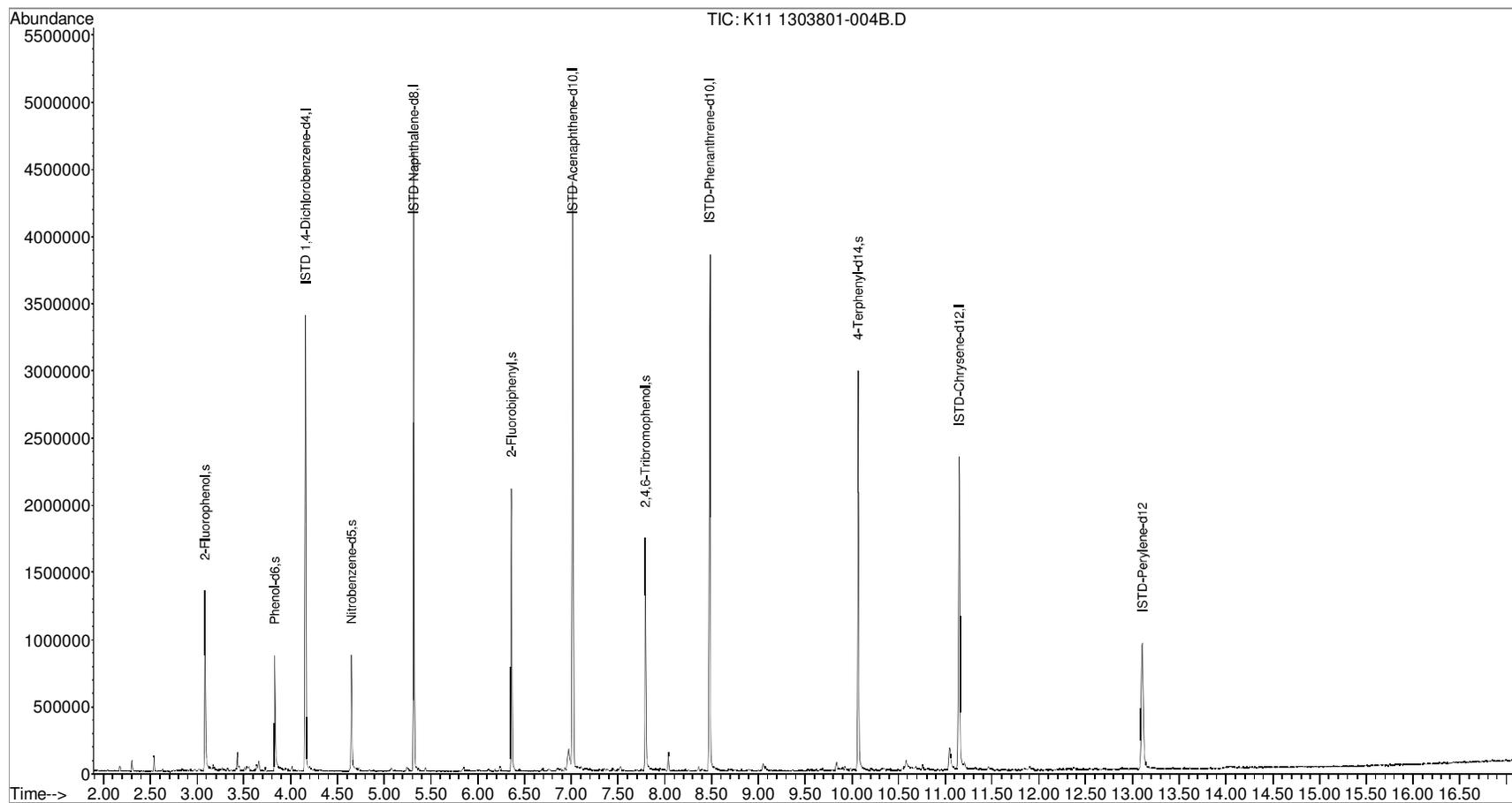
Quant Time: Apr 07 06:35:01 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K11 1303801-004B.D  
Acq On : 6 Apr 2013 11:34 am  
Operator : ALICIA HABERLE  
Sample : 1303801-004B  
Misc : SAMP  
ALS Vial : 12 Sample Multiplier: 1

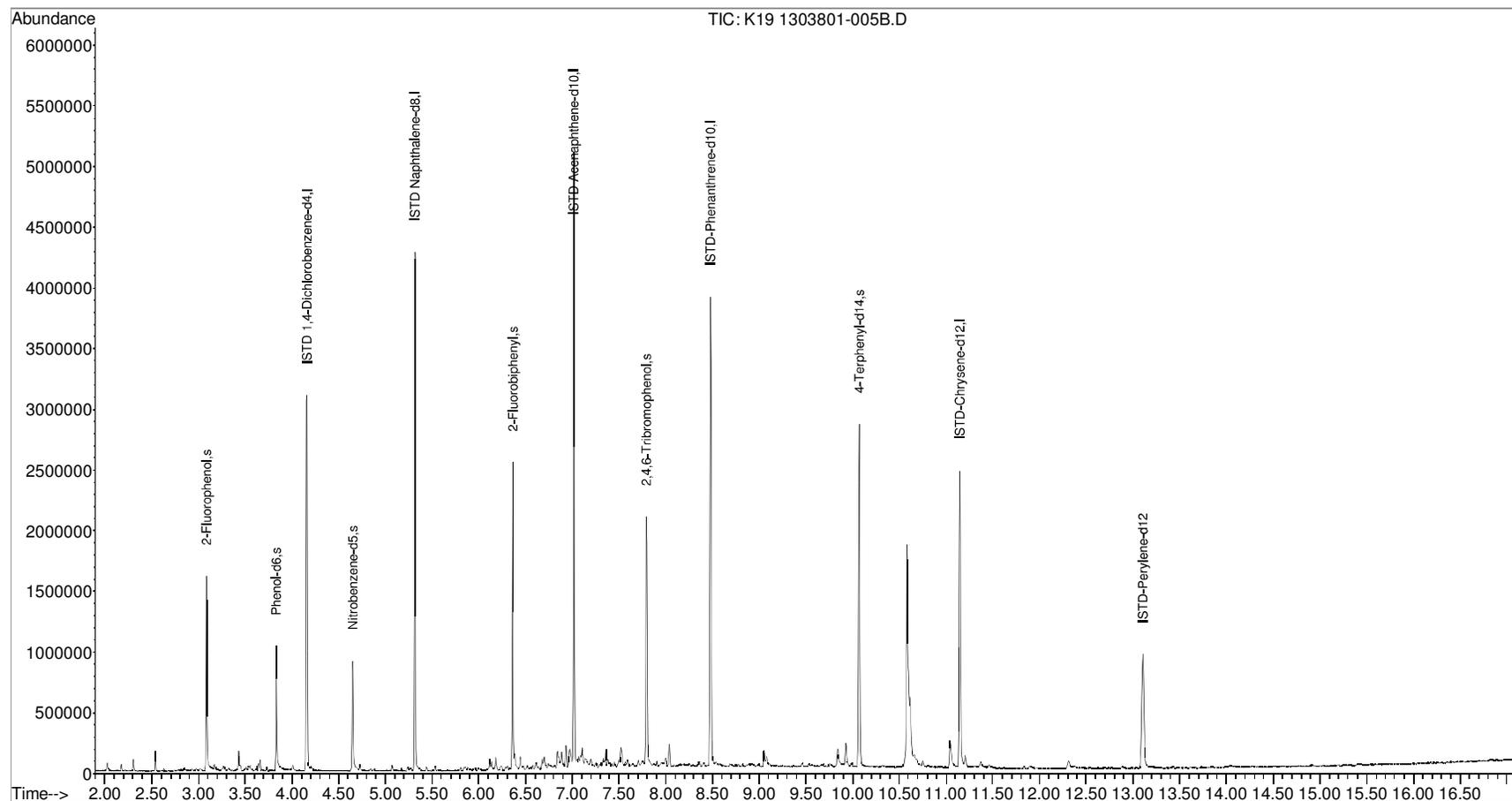
Quant Time: Apr 07 06:35:23 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K19 1303801-005B.D  
Acq On : 6 Apr 2013 3:06 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-005B  
Misc : SAMP  
ALS Vial : 20 Sample Multiplier: 1

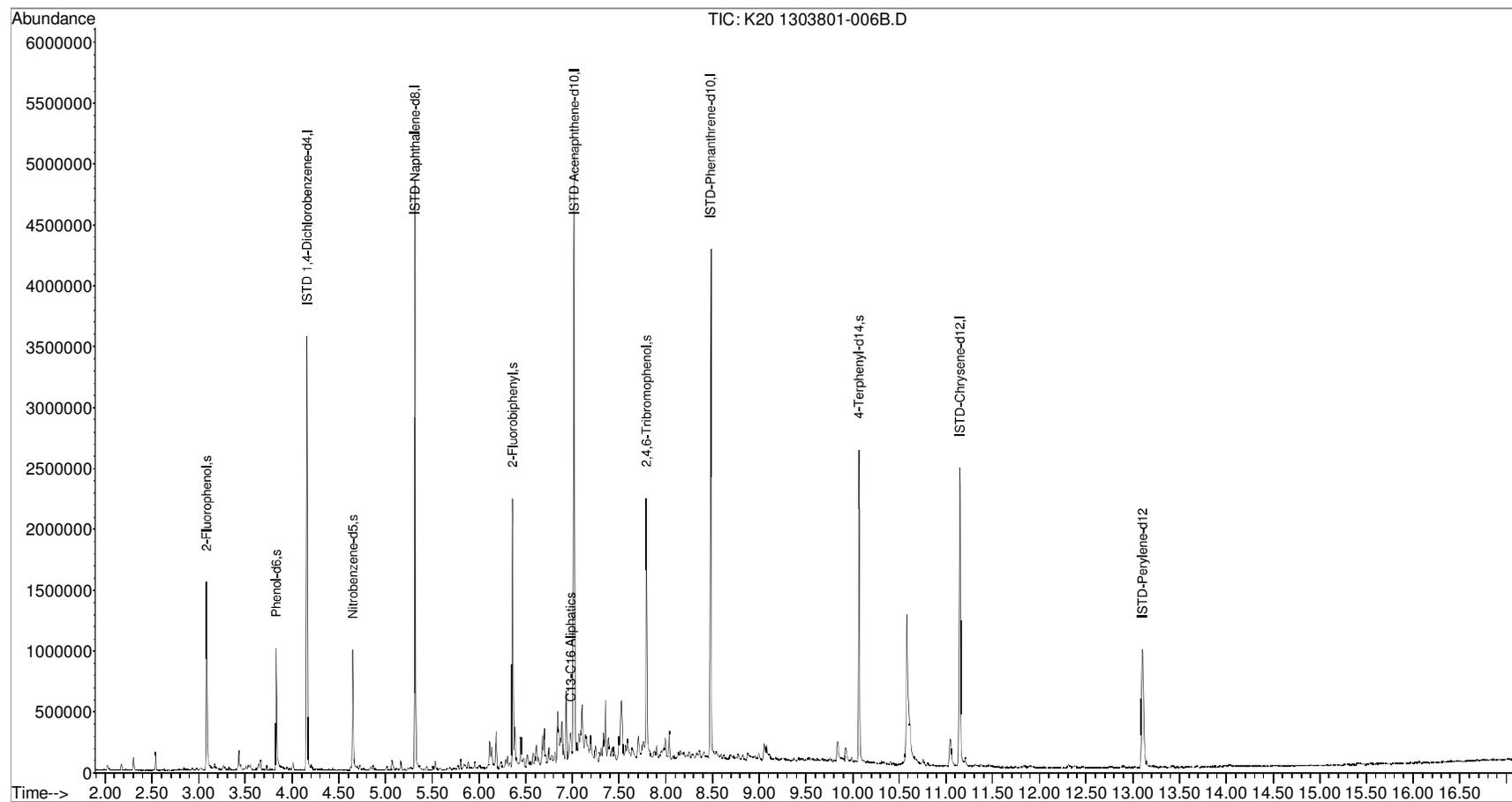
Quant Time: Apr 07 06:36:54 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K20 1303801-006B.D  
 Acq On : 6 Apr 2013 3:32 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-006B  
 Misc : SAMP  
 ALS Vial : 21 Sample Multiplier: 1

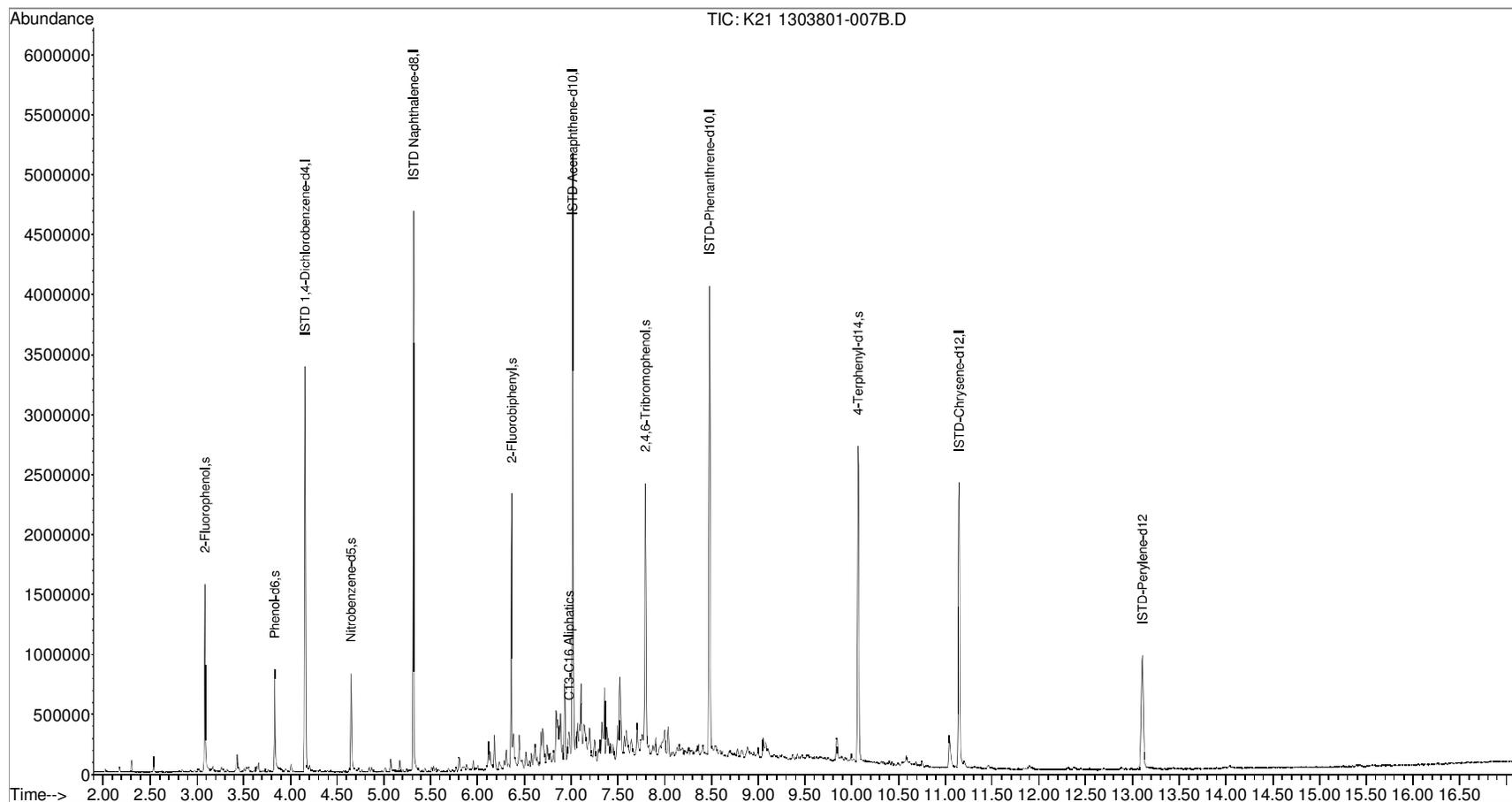
Quant Time: Apr 07 06:37:39 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K21 1303801-007B.D  
 Acq On : 6 Apr 2013 3:59 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-007B  
 Misc : SAMP  
 ALS Vial : 22 Sample Multiplier: 1

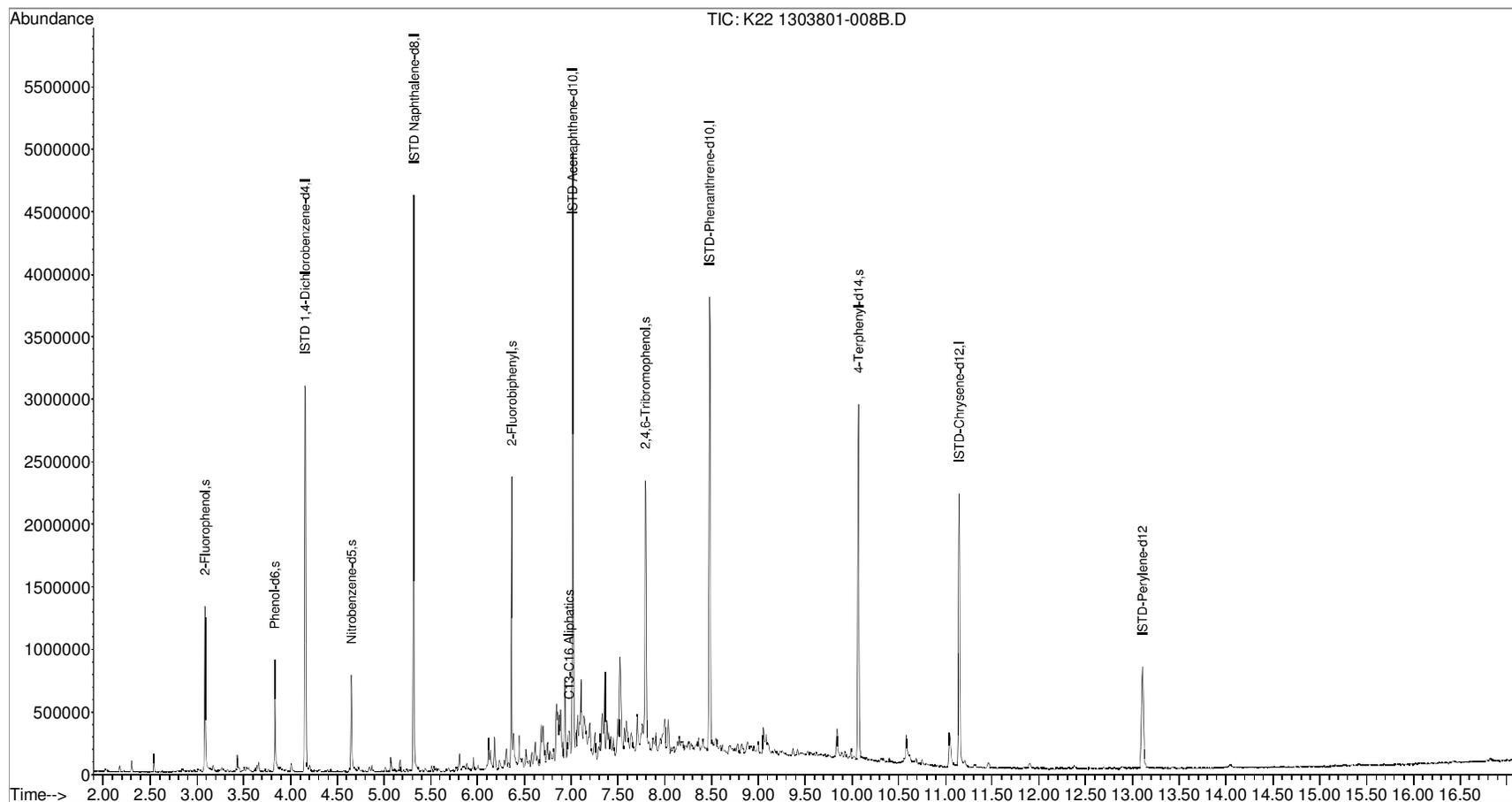
Quant Time: Apr 07 06:38:19 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K22 1303801-008B.D  
 Acq On : 6 Apr 2013 4:25 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-008B  
 Misc : SAMP  
 ALS Vial : 23 Sample Multiplier: 1

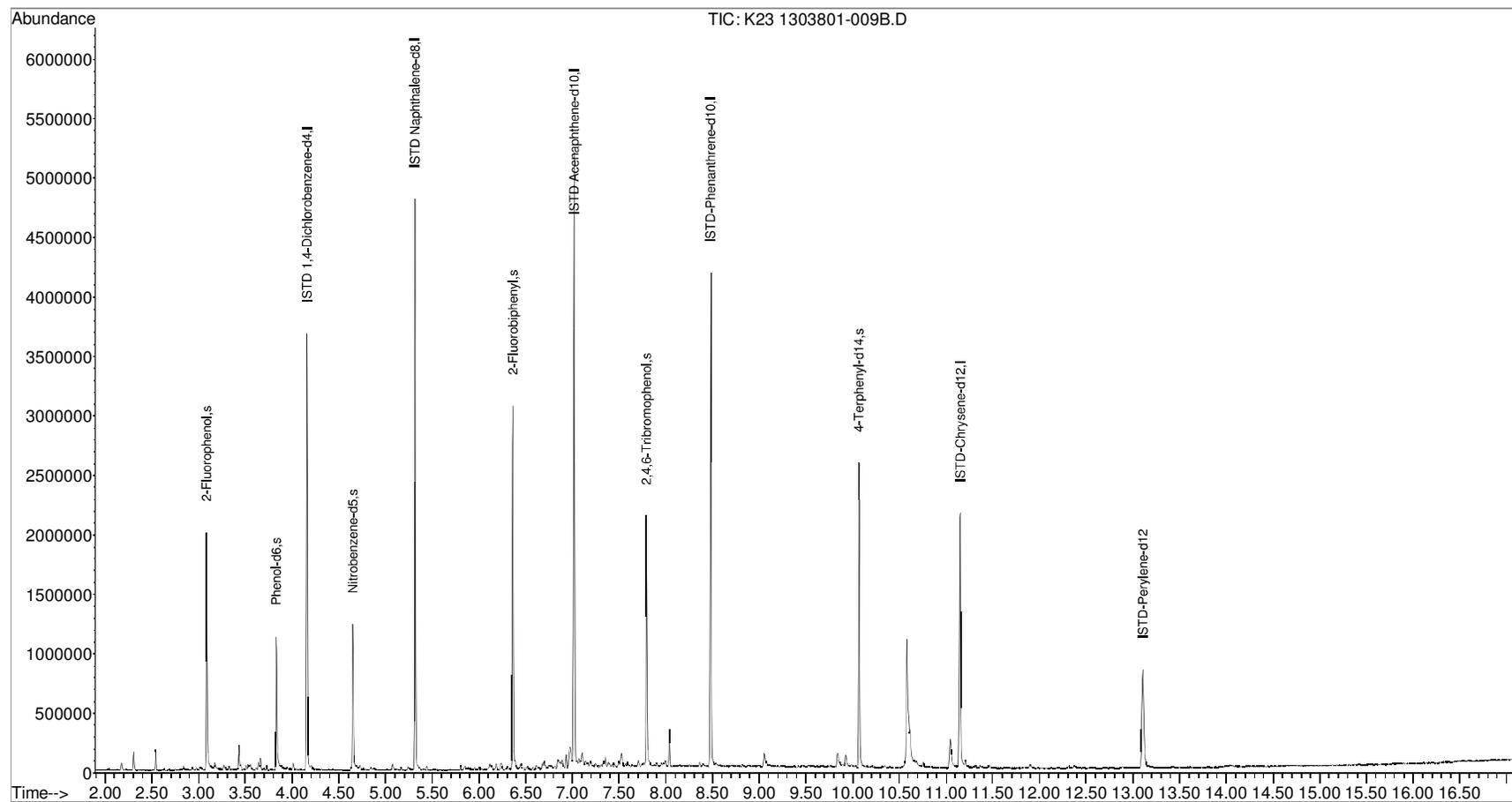
Quant Time: Apr 07 06:38:58 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K23 1303801-009B.D  
Acq On : 6 Apr 2013 4:52 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-009B  
Misc : SAMP  
ALS Vial : 24 Sample Multiplier: 1

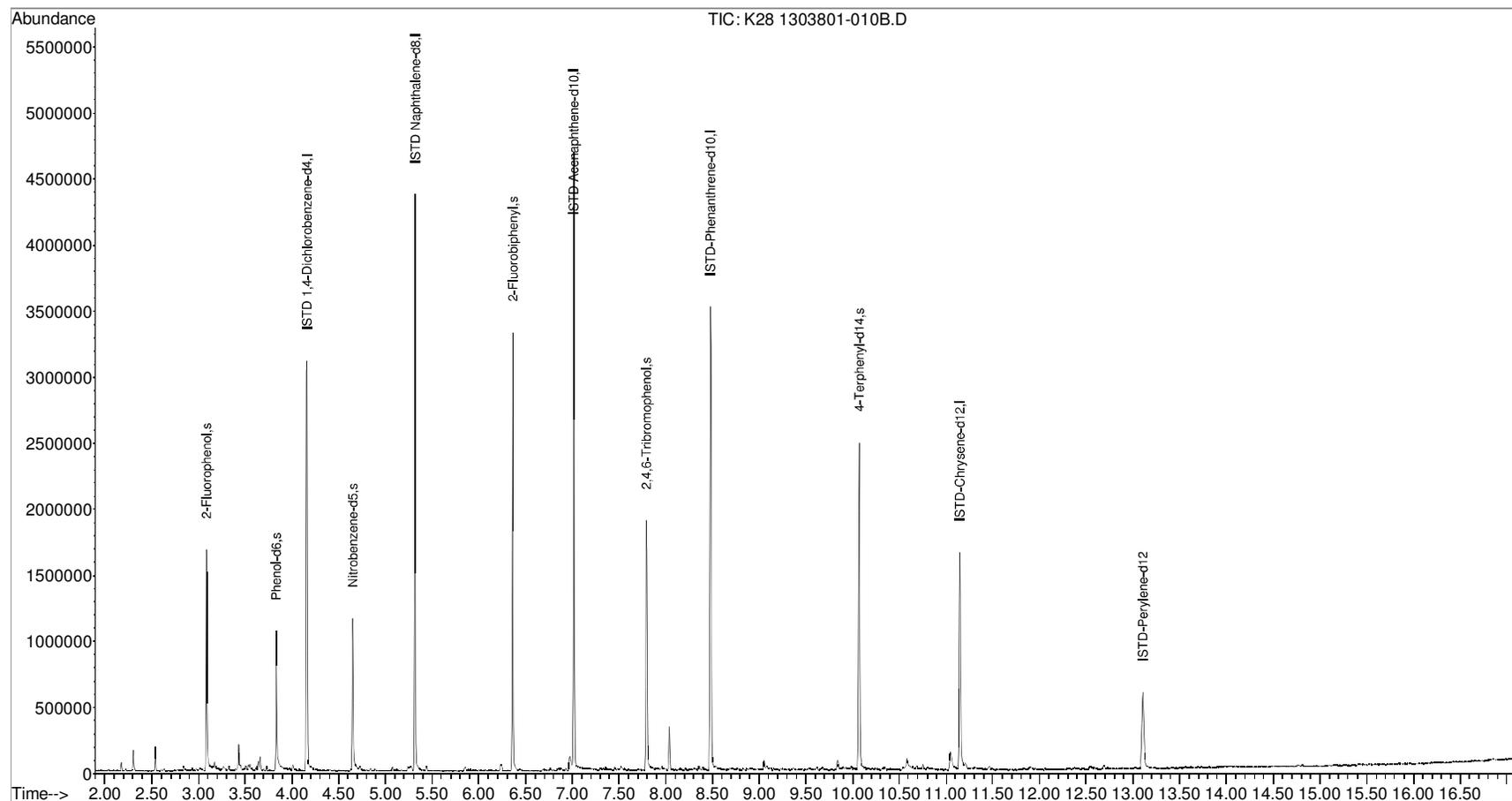
Quant Time: Apr 07 06:39:46 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K28 1303801-010B.D  
 Acq On : 6 Apr 2013 7:04 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-010B  
 Misc : SAMP  
 ALS Vial : 5 Sample Multiplier: 1

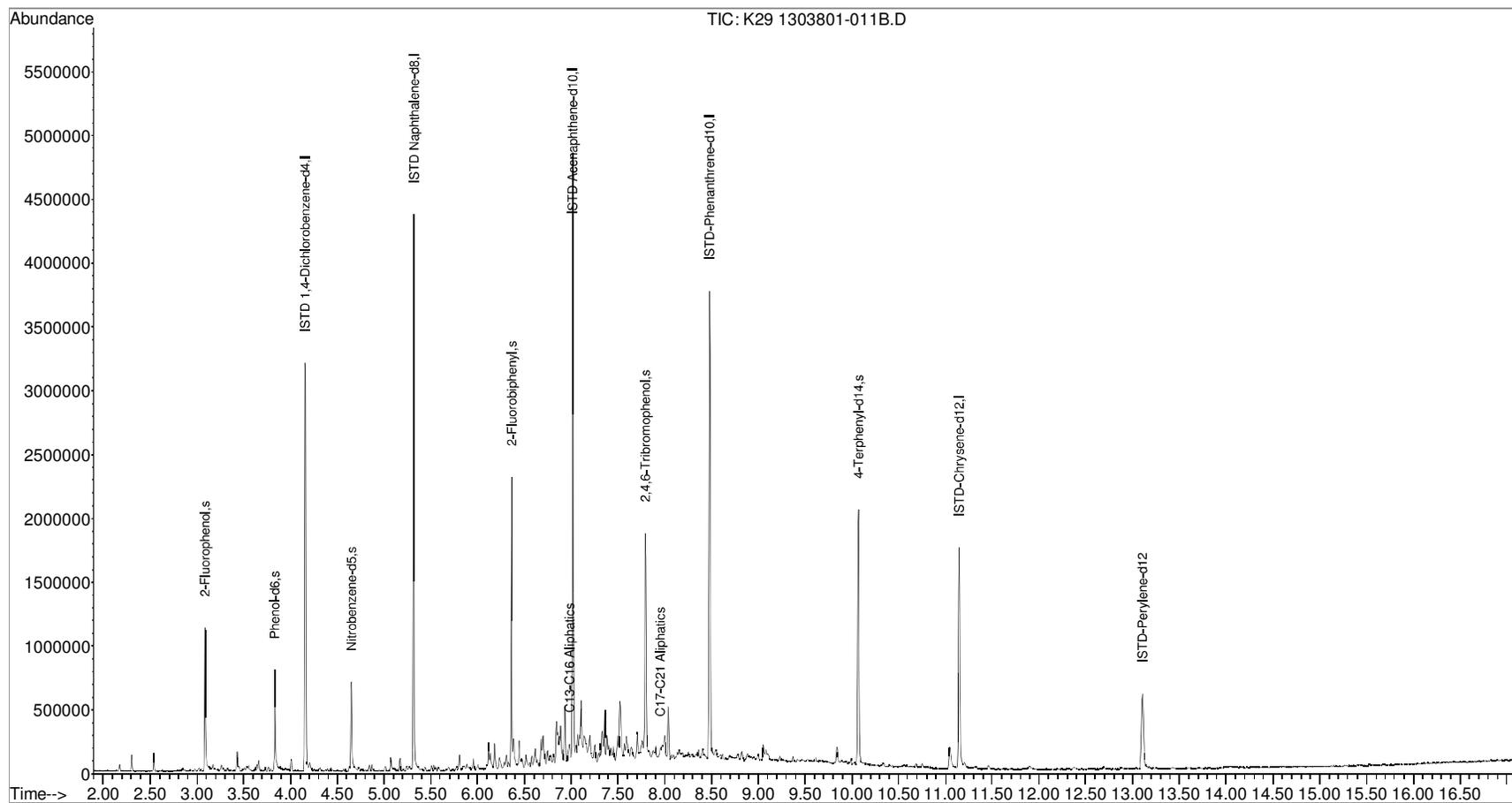
Quant Time: Apr 07 07:29:28 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K29 1303801-011B.D  
 Acq On : 6 Apr 2013 7:30 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-011B  
 Misc : SAMP  
 ALS Vial : 6 Sample Multiplier: 1

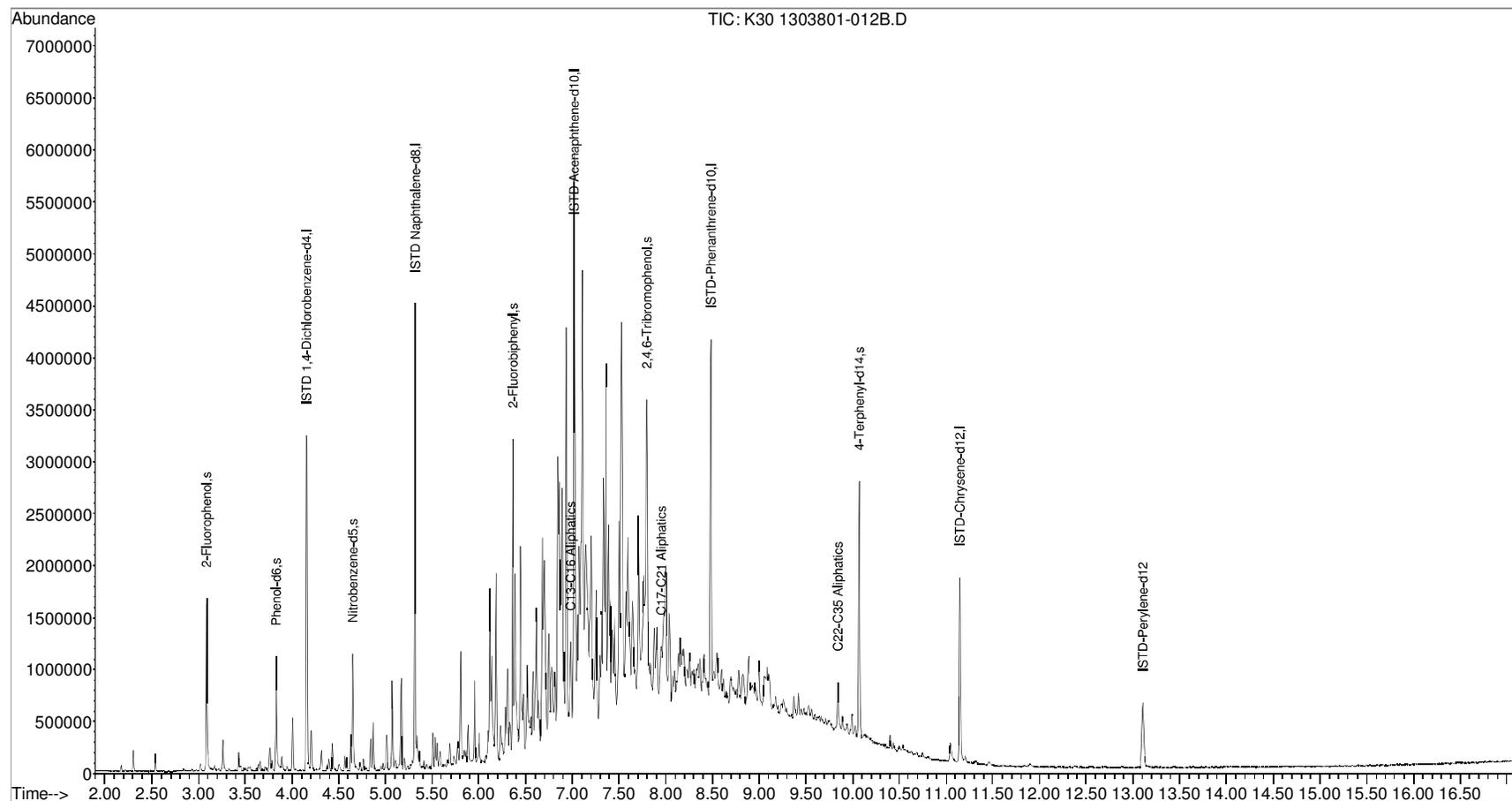
Quant Time: Apr 07 07:30:12 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K30 1303801-012B.D  
Acq On : 6 Apr 2013 7:57 pm  
Operator : ALICIA HABERLE  
Sample : 1303801-012B  
Misc : SAMP  
ALS Vial : 7 Sample Multiplier: 1

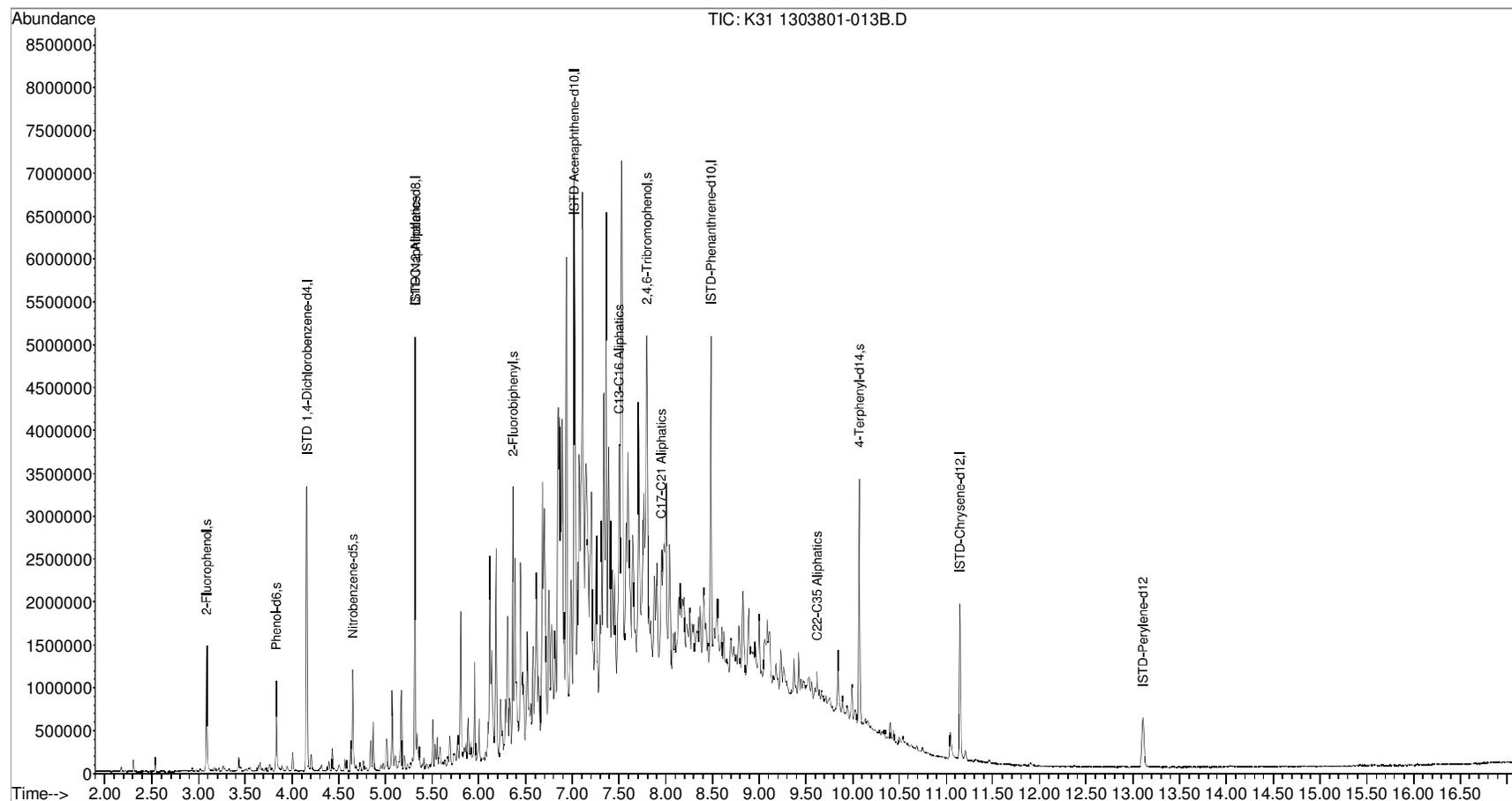
Quant Time: Apr 07 07:31:01 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K31 1303801-013B.D  
 Acq On : 6 Apr 2013 8:23 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-013B  
 Misc : SAMP  
 ALS Vial : 8 Sample Multiplier: 1

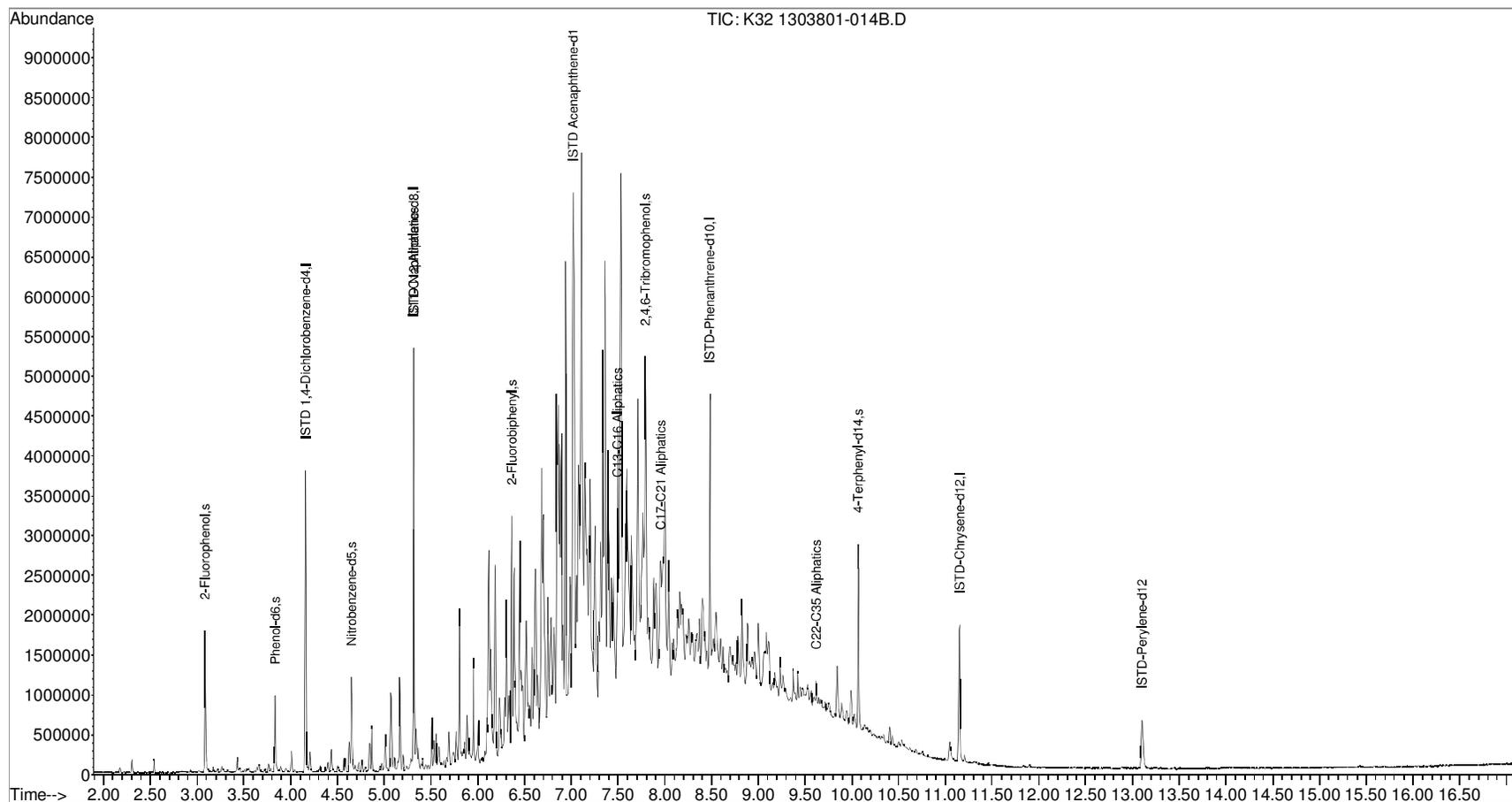
Quant Time: Apr 07 07:32:03 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K32 1303801-014B.D  
 Acq On : 6 Apr 2013 8:49 pm  
 Operator : ALICIA HABERLE  
 Sample : 1303801-014B  
 Misc : SAMP  
 ALS Vial : 9 Sample Multiplier: 1

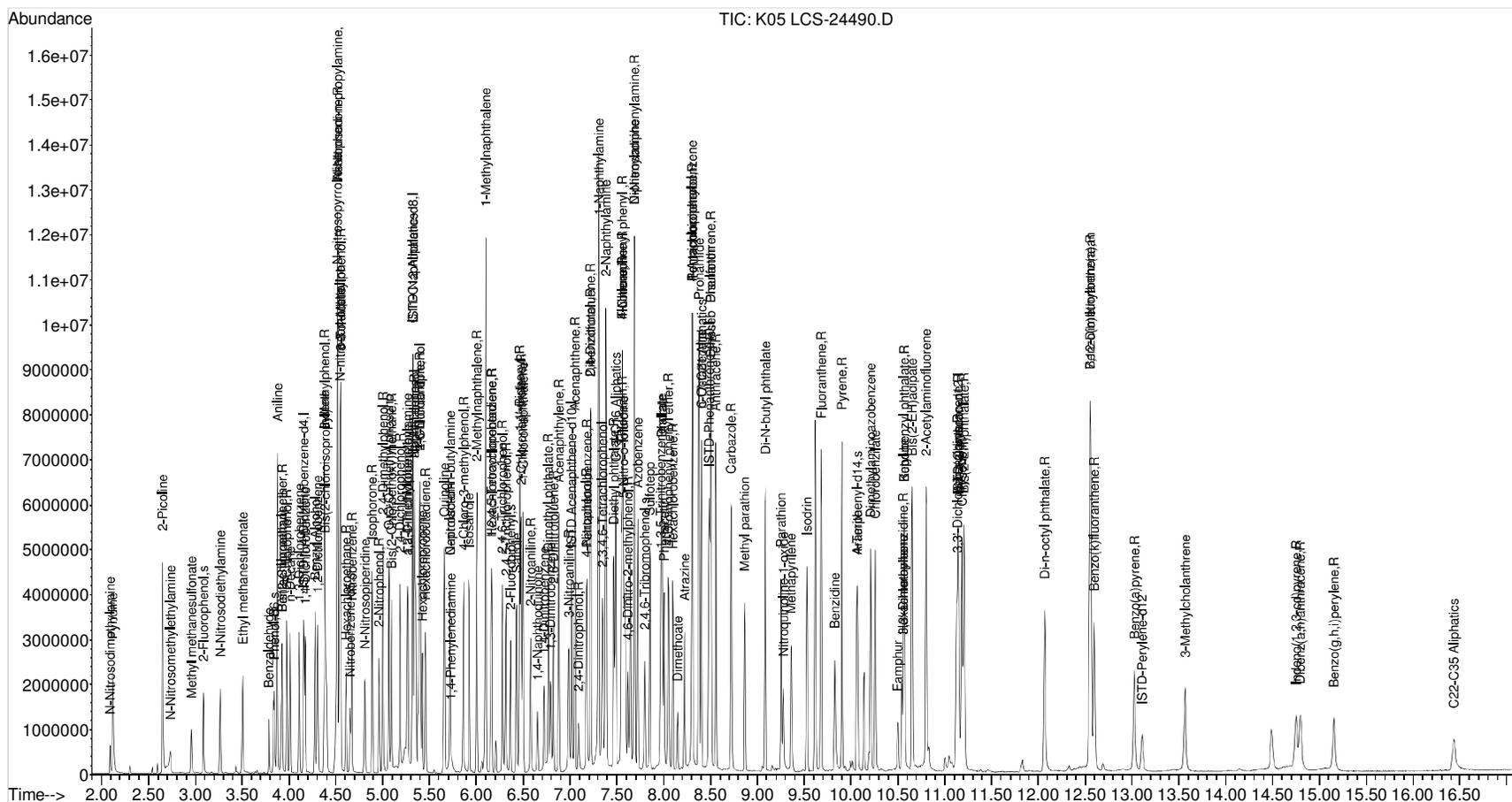
Quant Time: Apr 07 07:32:50 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K05 LCS-24490.D  
 Acq On : 6 Apr 2013 8:55 am  
 Operator : ALICIA HABERLE  
 Sample : LCS-24490  
 Misc : LCS  
 ALS Vial : 6 Sample Multiplier: 1

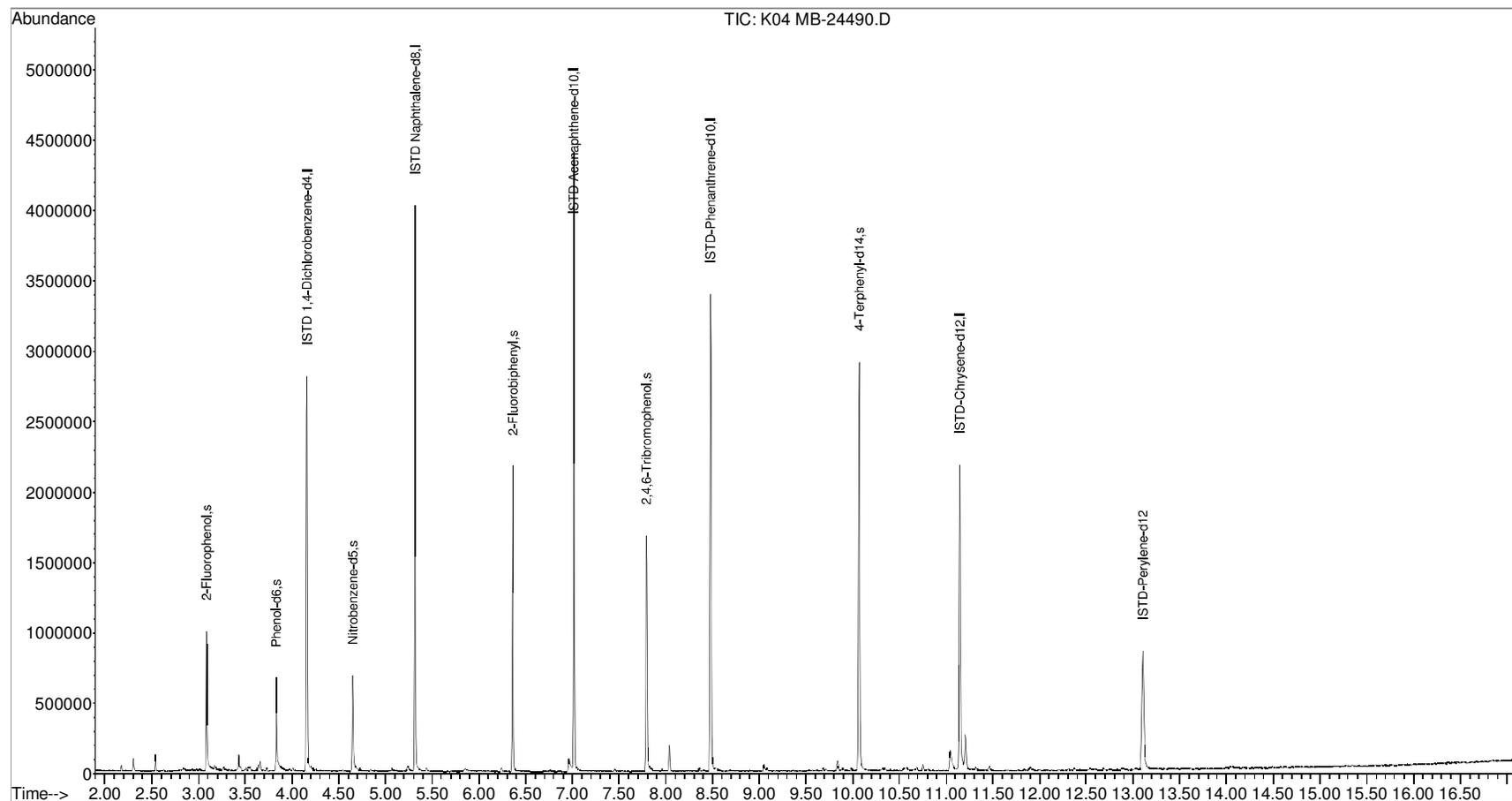
Quant Time: Apr 07 06:30:41 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
Data File : K04 MB-24490.D  
Acq On : 6 Apr 2013 8:29 am  
Operator : ALICIA HABERLE  
Sample : MB-24490  
Misc : MBLK  
ALS Vial : 5 Sample Multiplier: 1

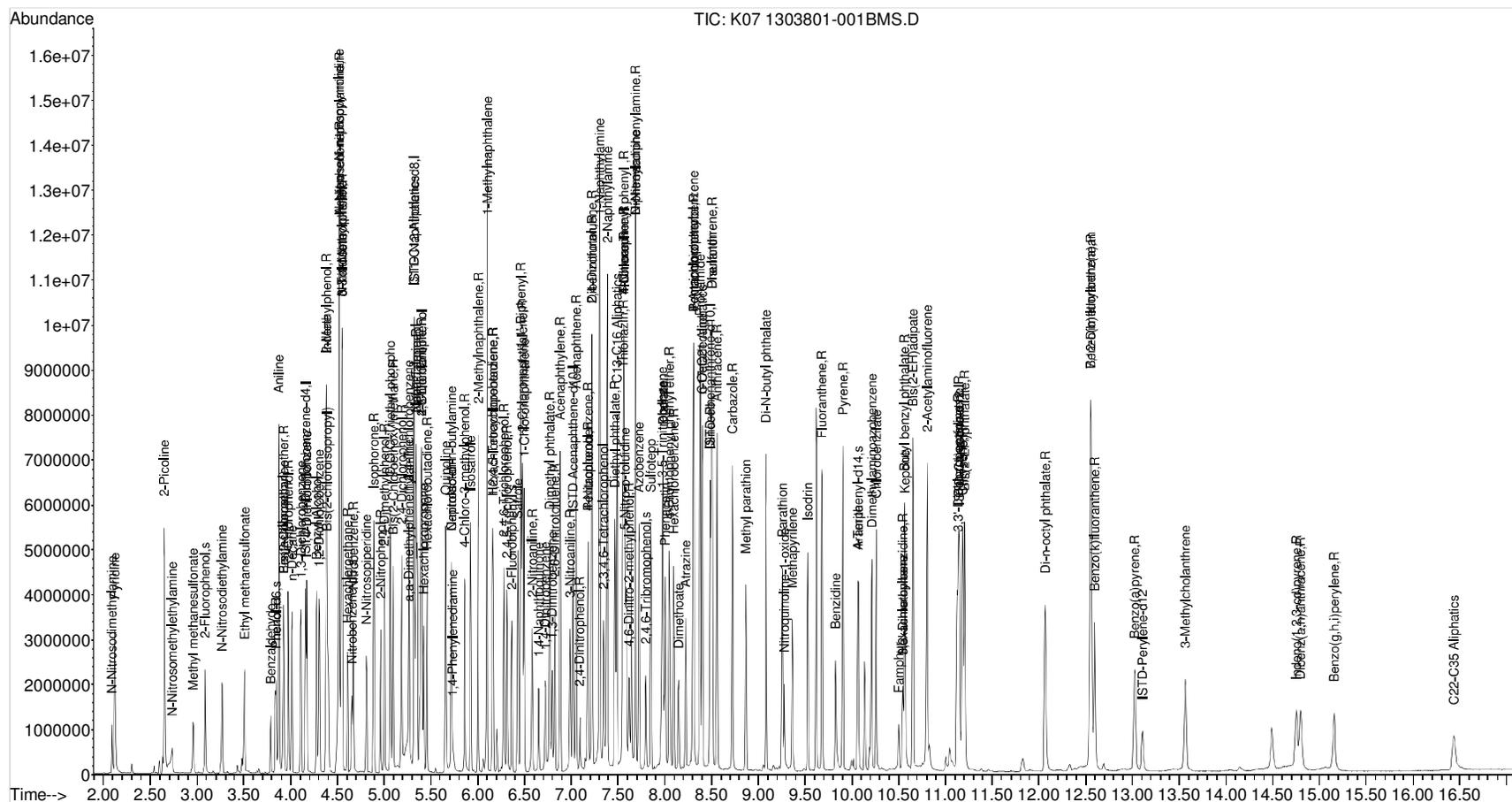
Quant Time: Apr 07 06:29:57 2013  
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
QLast Update : Sat Apr 06 14:20:03 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K07 1303801-001BMS.D  
 Acq On : 6 Apr 2013 9:48 am  
 Operator : ALICIA HABERLE  
 Sample : 1303801-001BMS  
 Misc : MS  
 ALS Vial : 8 Sample Multiplier: 1

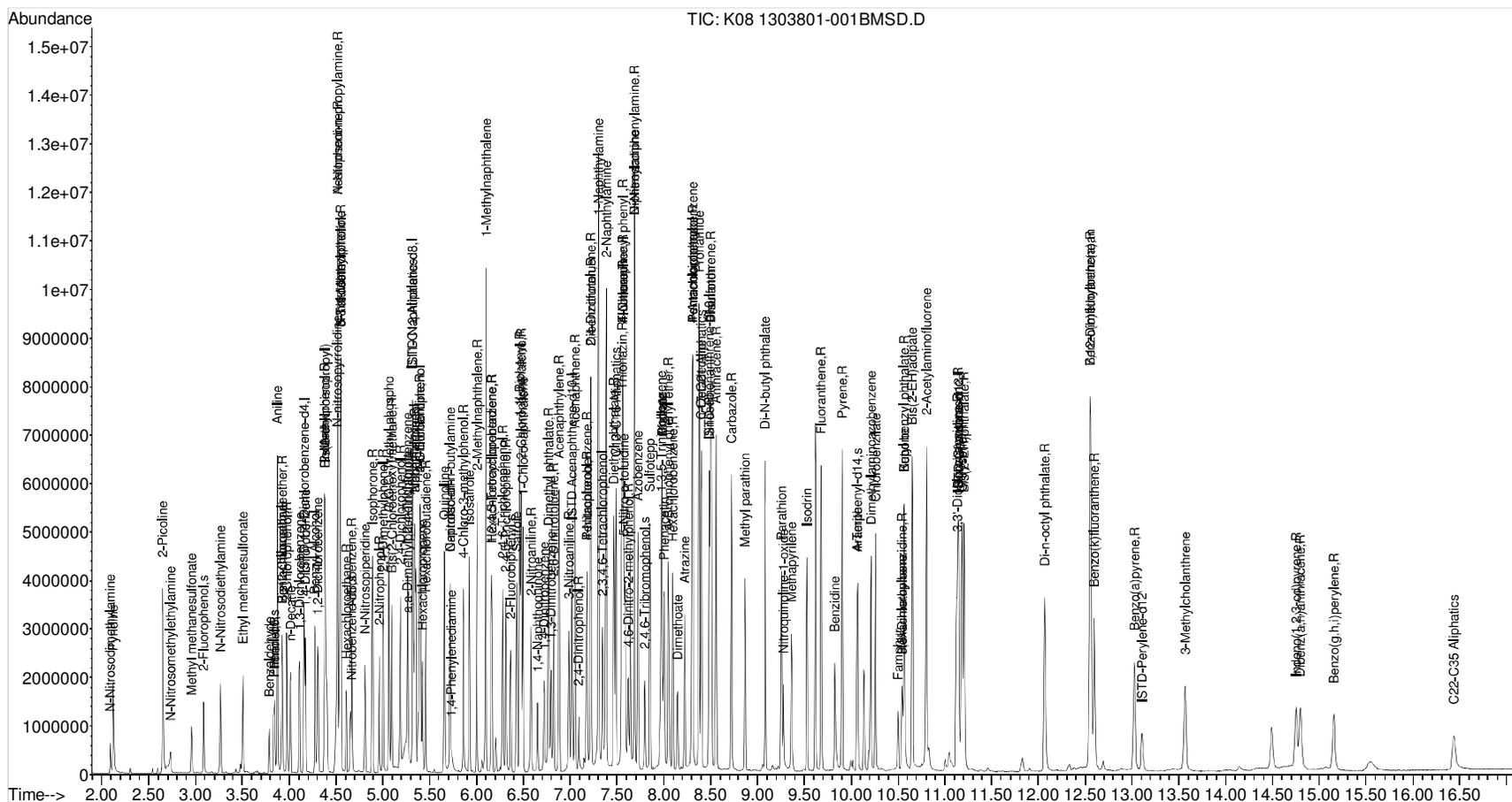
Quant Time: Apr 07 06:31:43 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\APR 13\06APR13-A\  
 Data File : K08 1303801-001BMSD.D  
 Acq On : 6 Apr 2013 10:14 am  
 Operator : ALICIA HABERLE  
 Sample : 1303801-001BMSD  
 Misc : MSD  
 ALS Vial : 9 Sample Multiplier: 1

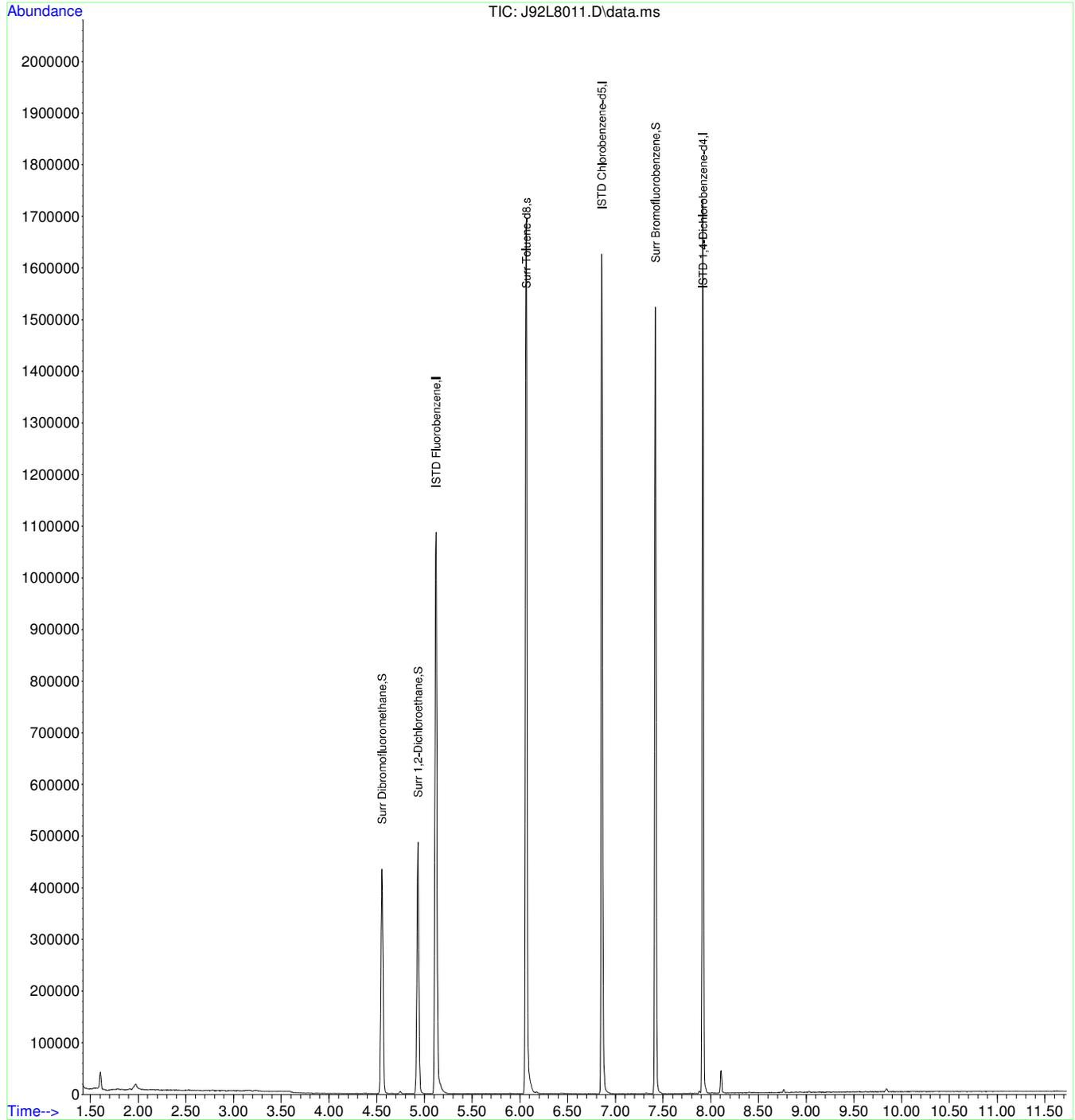
Quant Time: Apr 07 06:32:22 2013  
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULLSV 03-19-13.M  
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B  
 QLast Update : Sat Apr 06 14:20:03 2013  
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : J92L8011.D  
Acq On : 31 Mar 2013 8:25 pm  
Operator : AAP  
Sample : 1303801-001A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 6 Sample Multiplier: 1

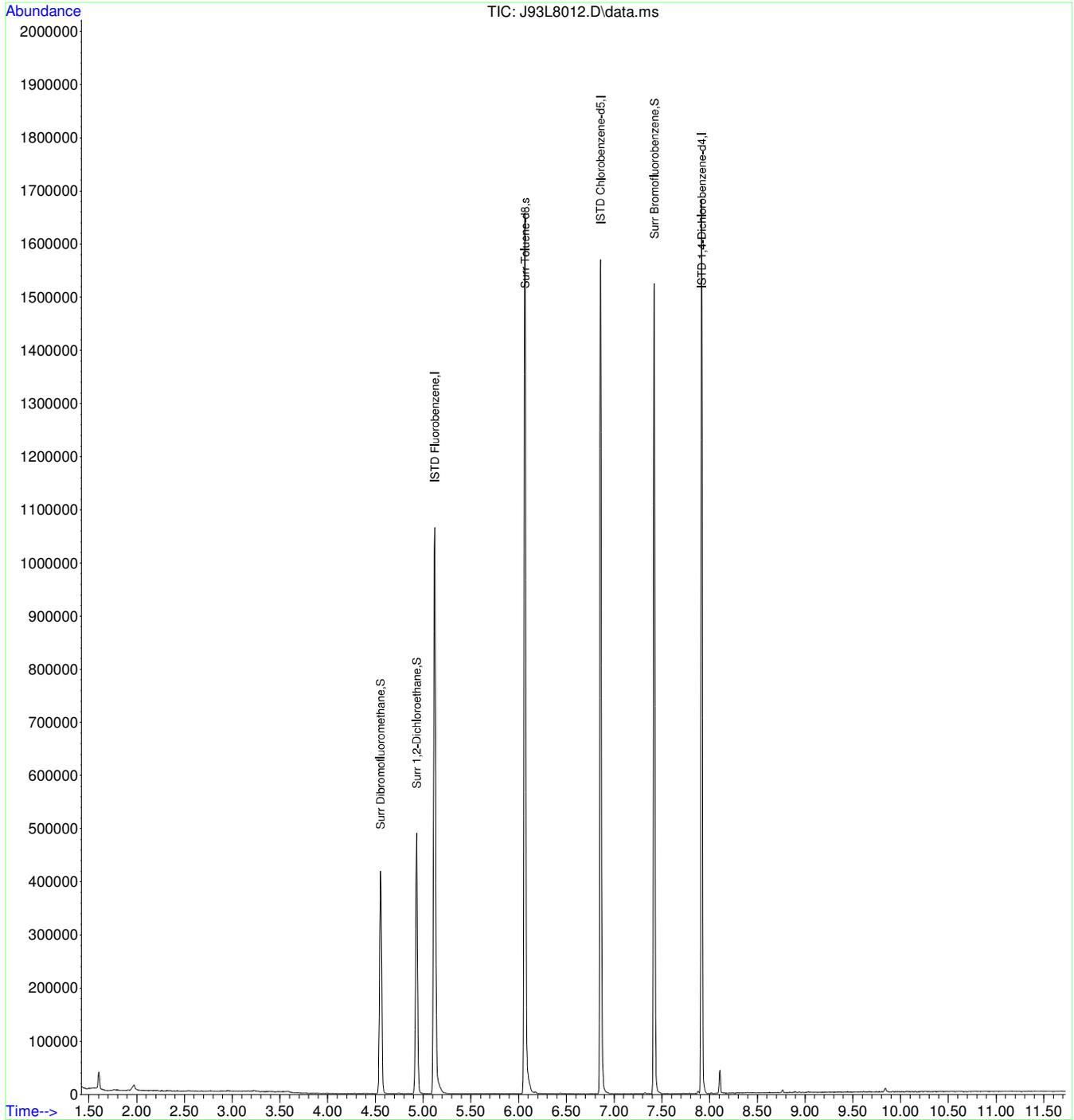
Quant Time: Apr 01 11:25:14 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : J93L8012.D  
Acq On : 31 Mar 2013 8:44 pm  
Operator : AAP  
Sample : 1303801-002A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 7 Sample Multiplier: 1

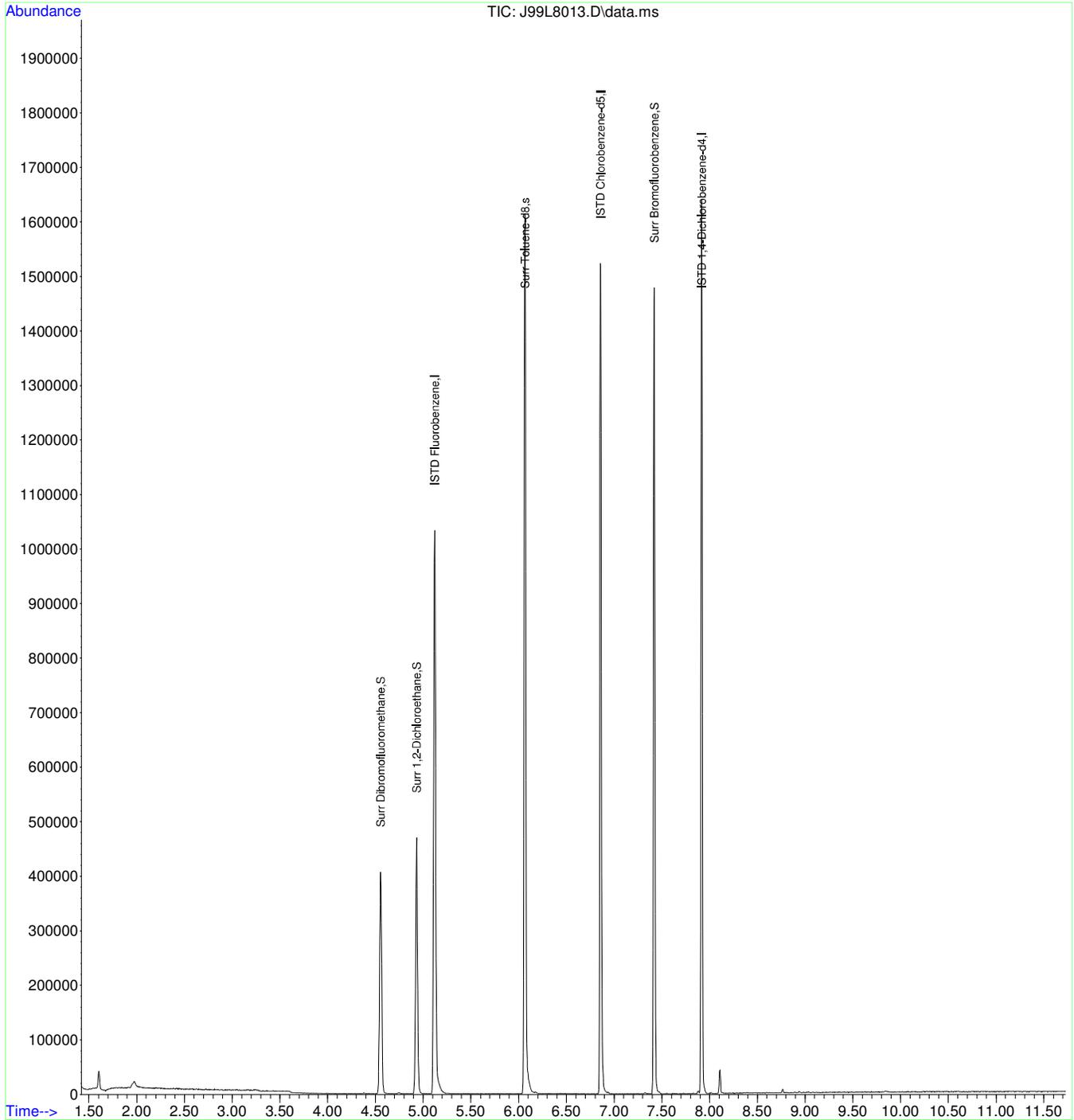
Quant Time: Apr 01 11:25:31 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : J99L8013.D  
Acq On : 31 Mar 2013 10:38 pm  
Operator : AAP  
Sample : 1303801-003A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 12 Sample Multiplier: 1

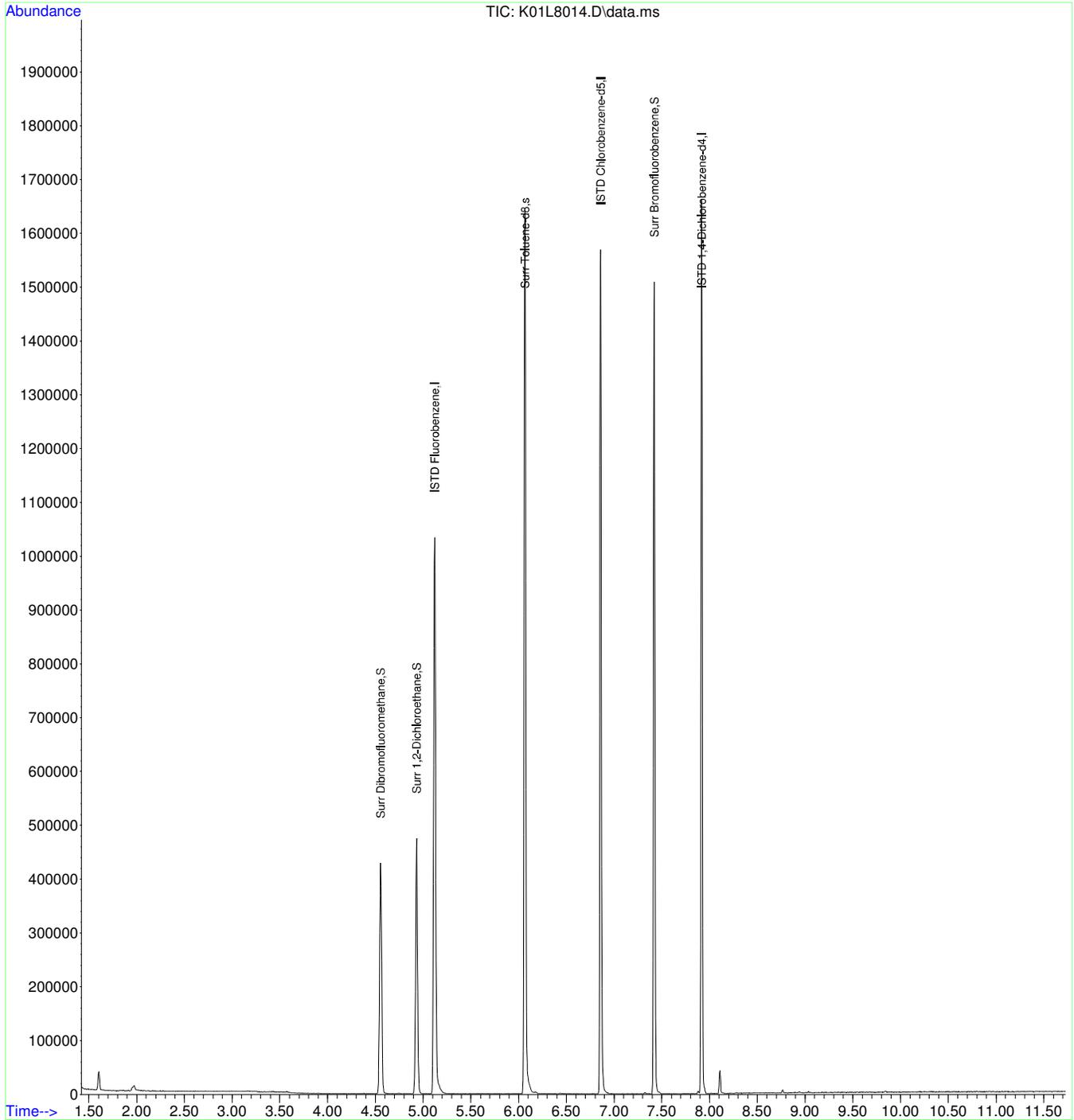
Quant Time: Apr 01 11:26:16 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K01L8014.D  
Acq On : 31 Mar 2013 10:57 pm  
Operator : AAP  
Sample : 1303801-004A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 13 Sample Multiplier: 1

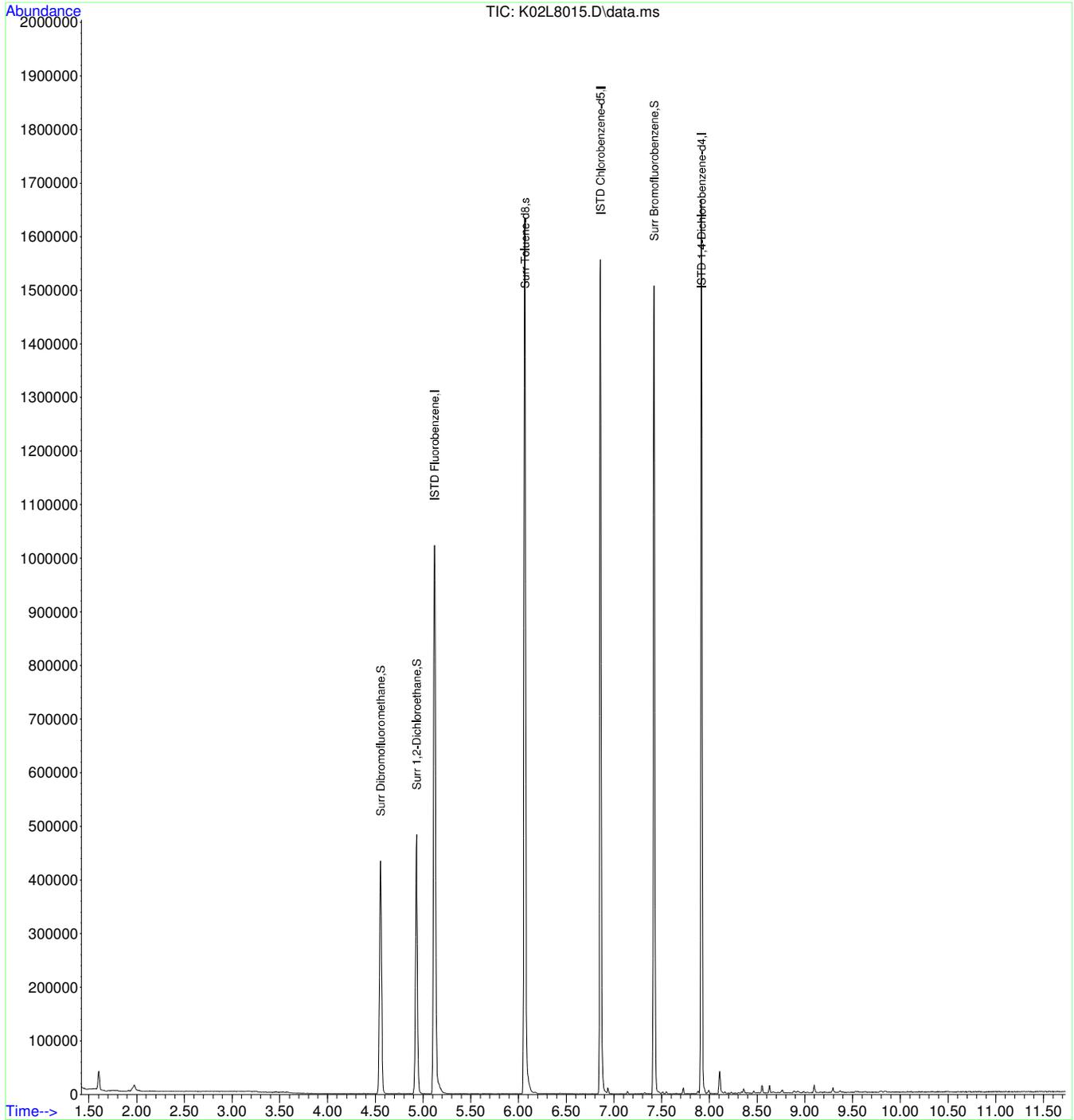
Quant Time: Apr 01 11:26:33 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K02L8015.D  
Acq On : 31 Mar 2013 11:16 pm  
Operator : AAP  
Sample : 1303801-005A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 14 Sample Multiplier: 1

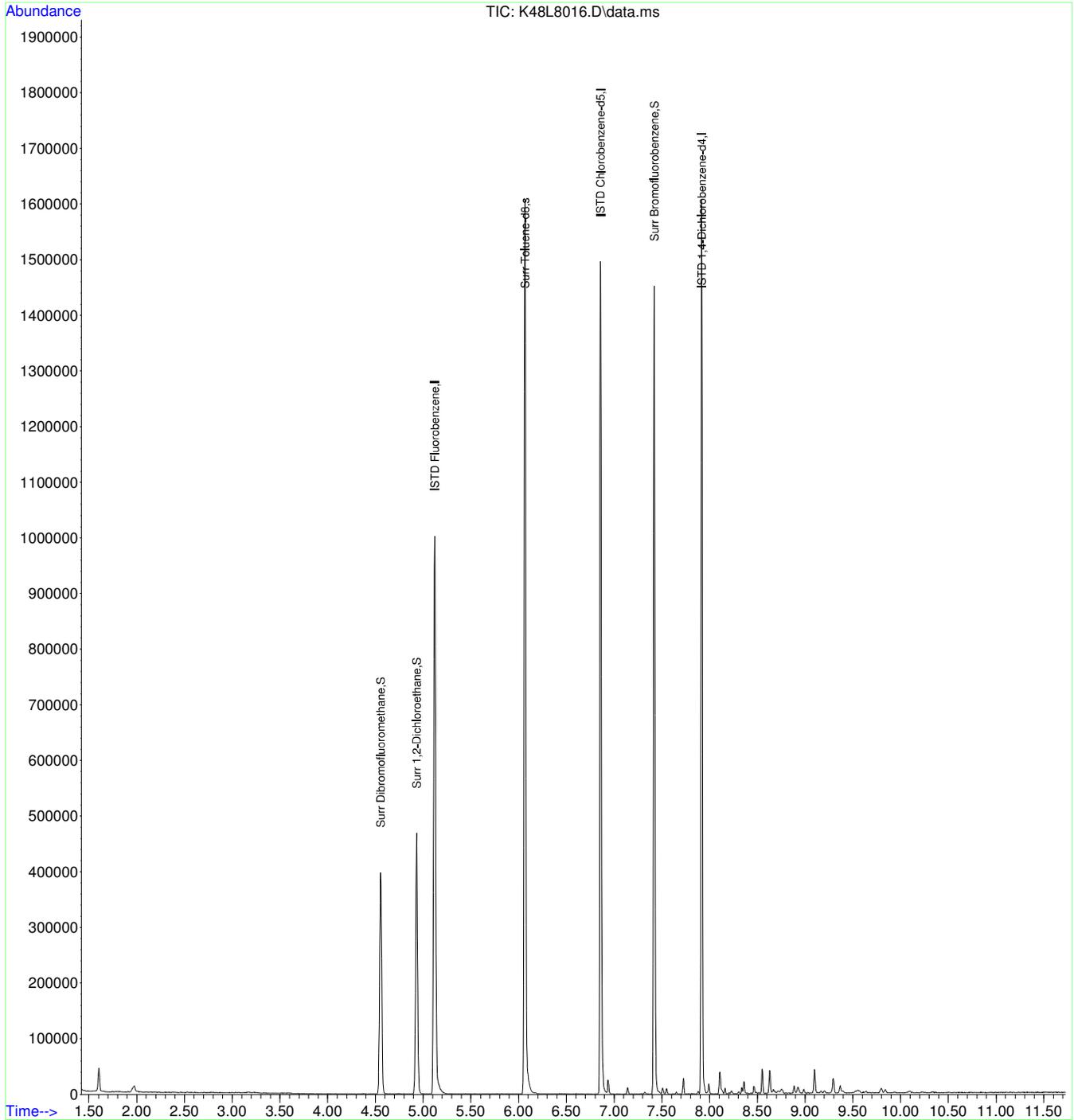
Quant Time: Apr 01 11:26:50 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\  
Data File : K48L8016.D  
Acq On : 1 Apr 2013 4:51 pm  
Operator : AAP  
Sample : 1303801-006A  
Misc : SAMP 5.0ML 3OF3 SB  
ALS Vial : 7 Sample Multiplier: 1

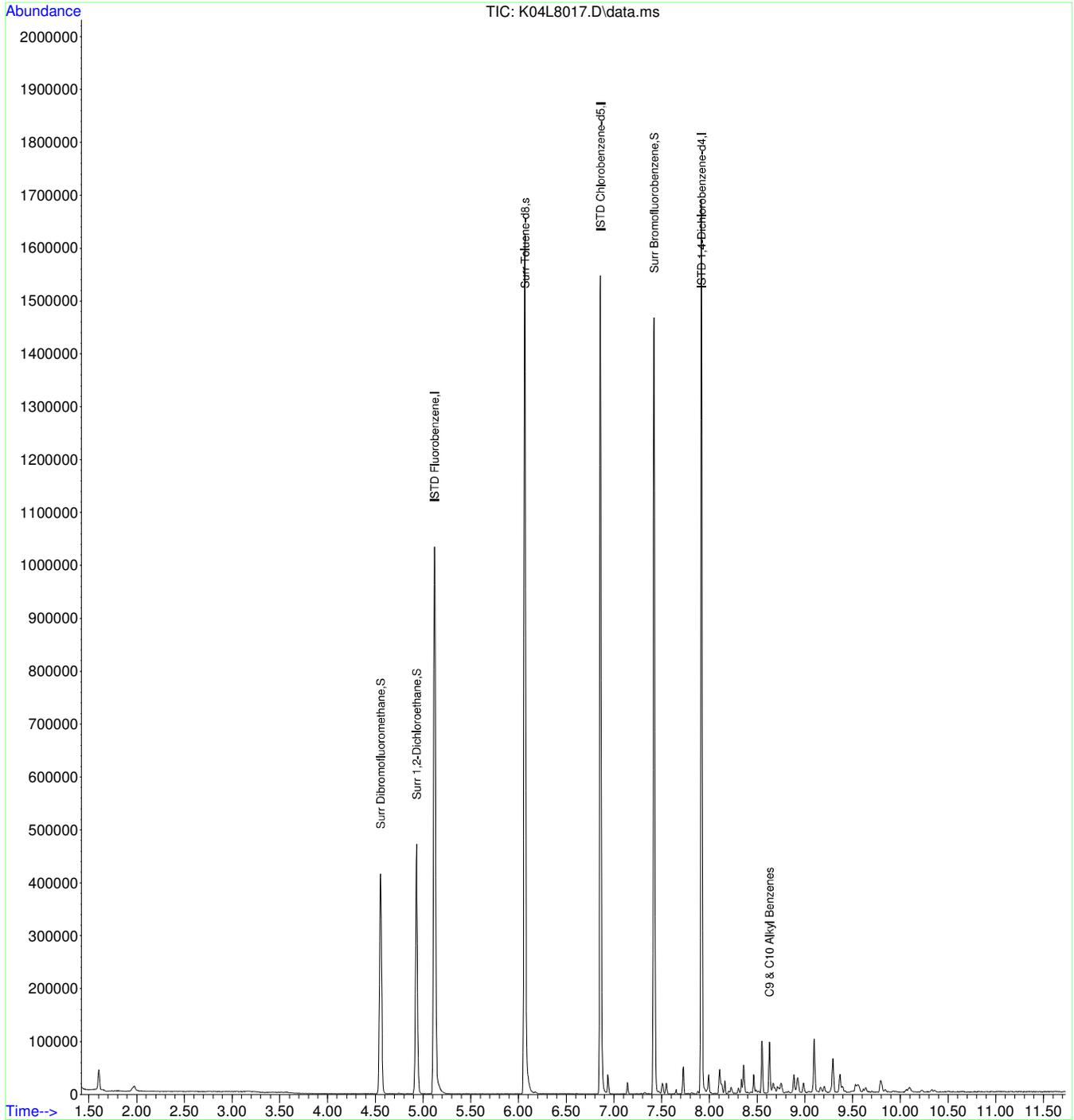
Quant Time: Apr 02 08:36:43 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K04L8017.D  
Acq On : 31 Mar 2013 11:54 pm  
Operator : AAP  
Sample : 1303801-007A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 16 Sample Multiplier: 1

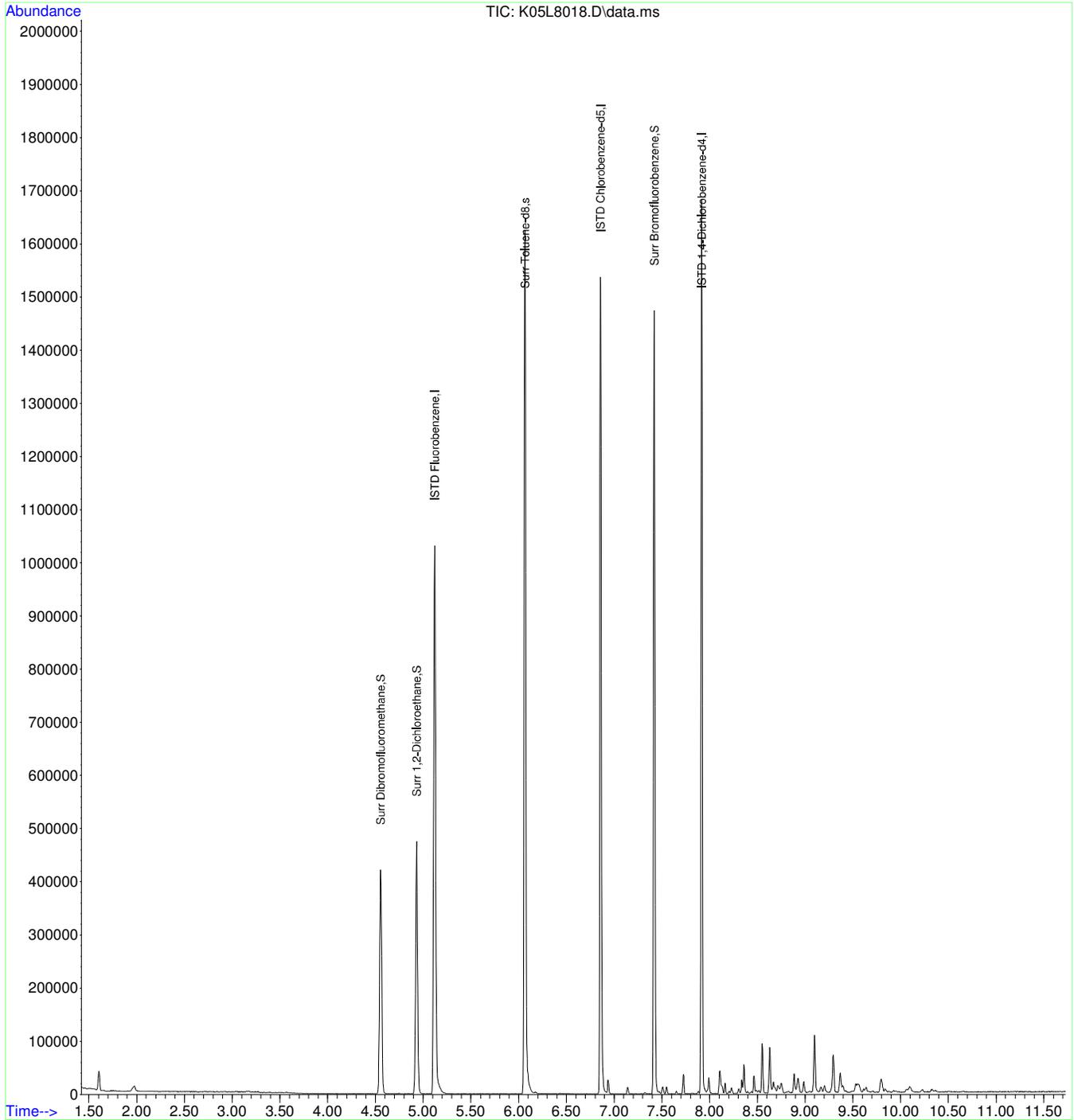
Quant Time: Apr 01 11:34:35 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K05L8018.D  
Acq On : 1 Apr 2013 12:13 am  
Operator : AAP  
Sample : 1303801-008A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 17 Sample Multiplier: 1

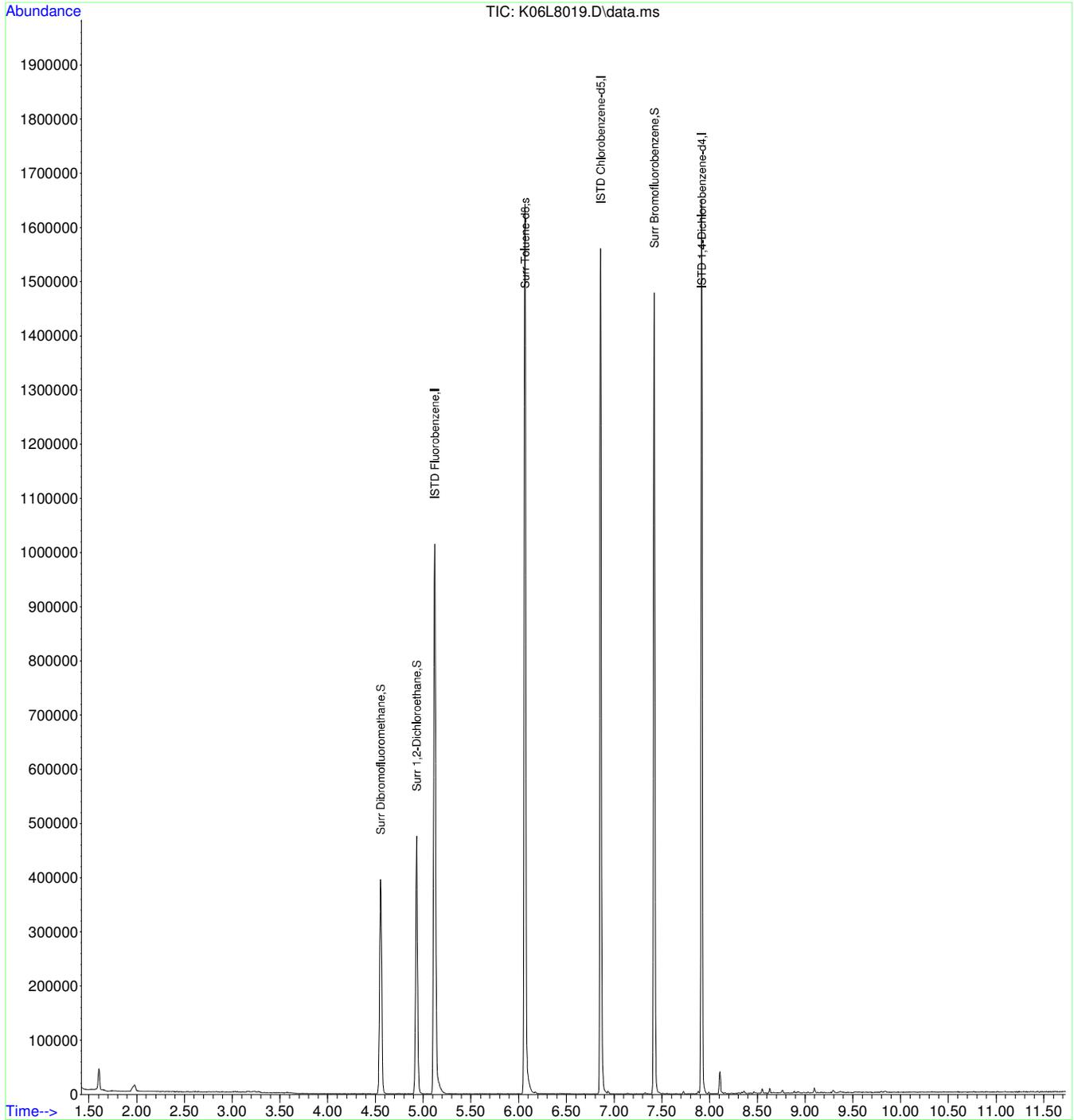
Quant Time: Apr 01 11:34:56 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K06L8019.D  
Acq On : 1 Apr 2013 12:32 am  
Operator : AAP  
Sample : 1303801-009A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 18 Sample Multiplier: 1

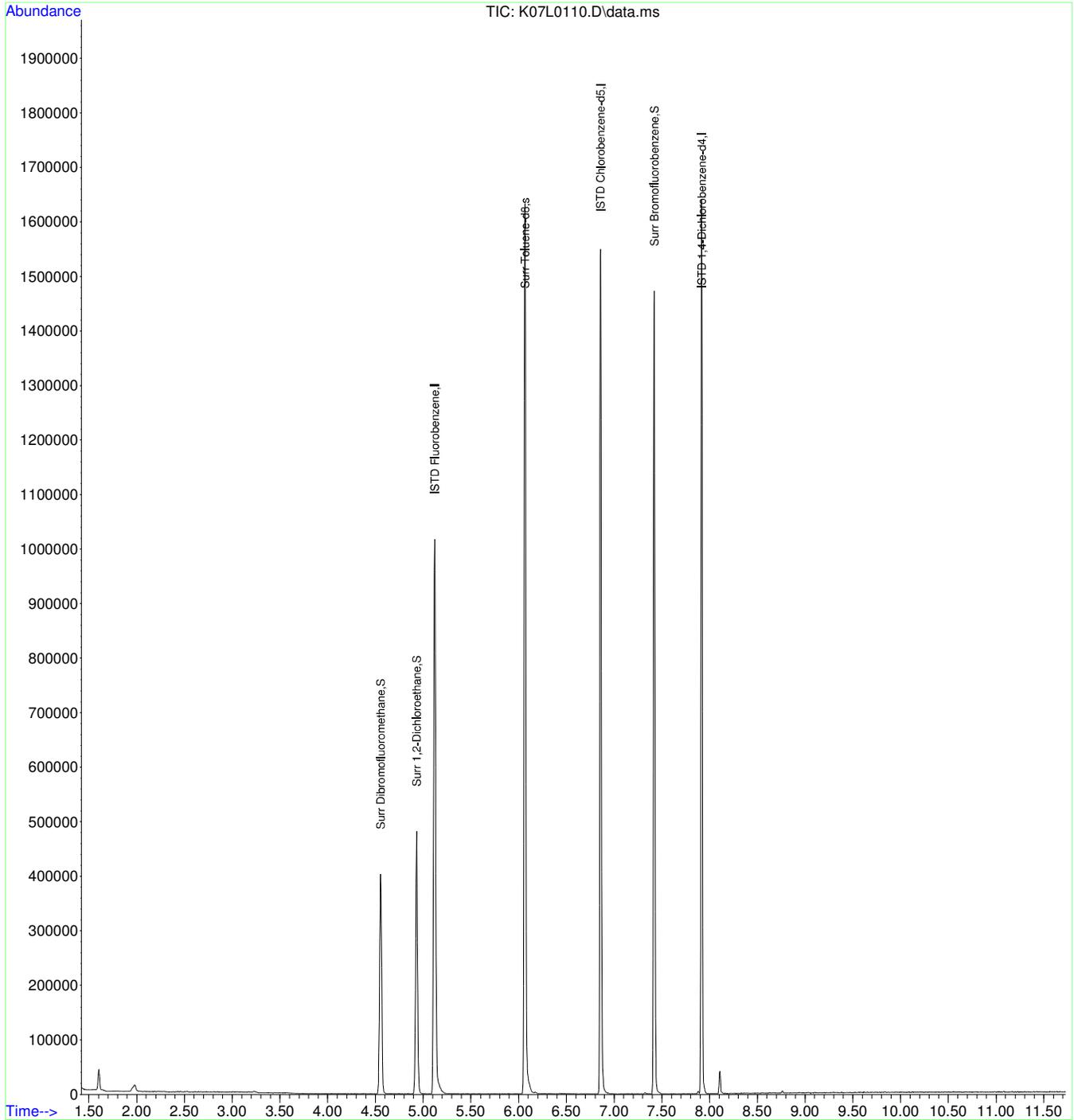
Quant Time: Apr 01 11:35:10 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K07L0110.D  
Acq On : 1 Apr 2013 12:51 am  
Operator : AAP  
Sample : 1303801-010A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 19 Sample Multiplier: 1

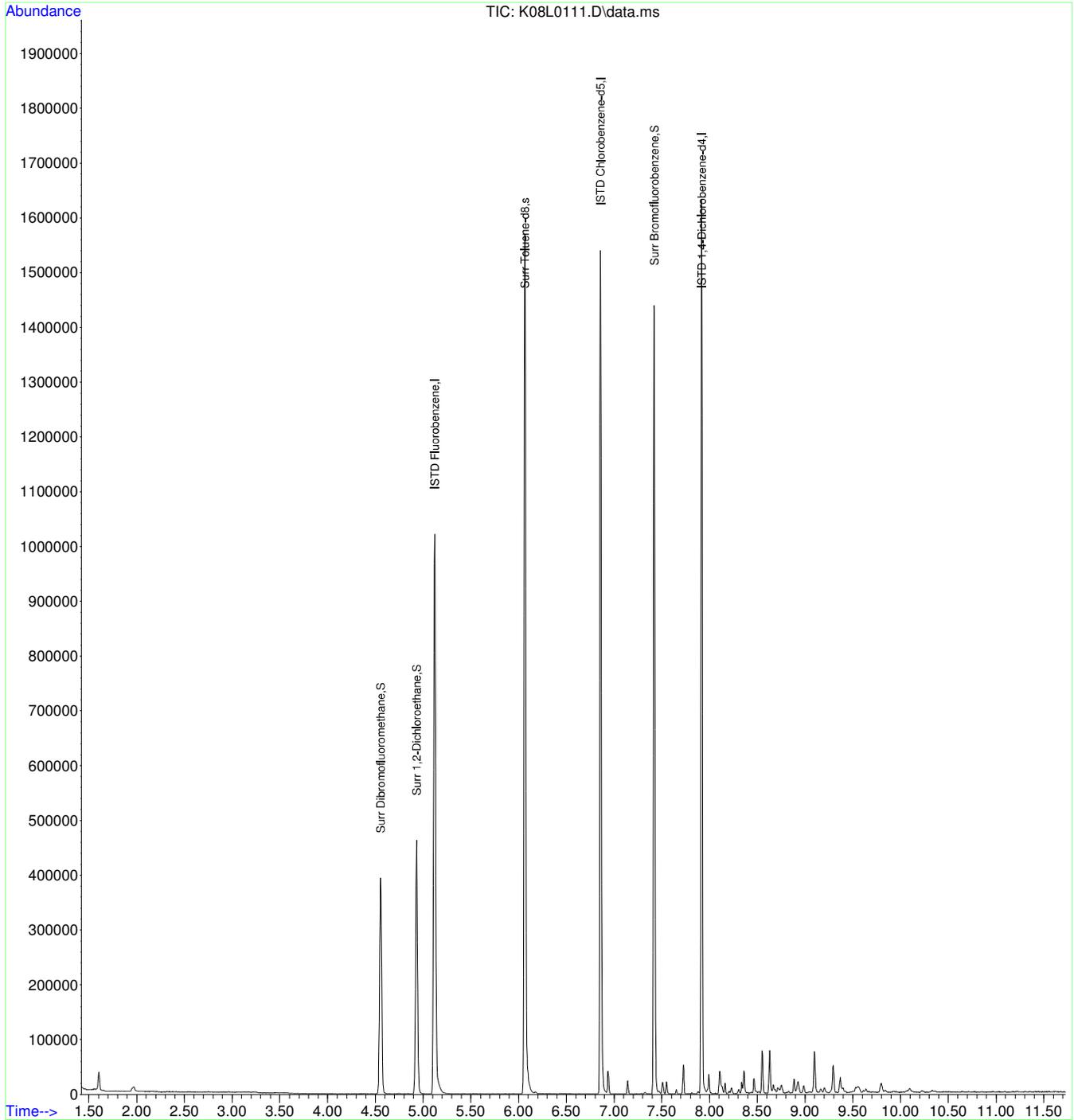
Quant Time: Apr 01 11:35:30 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K08L0111.D  
Acq On : 1 Apr 2013 1:10 am  
Operator : AAP  
Sample : 1303801-011A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 20 Sample Multiplier: 1

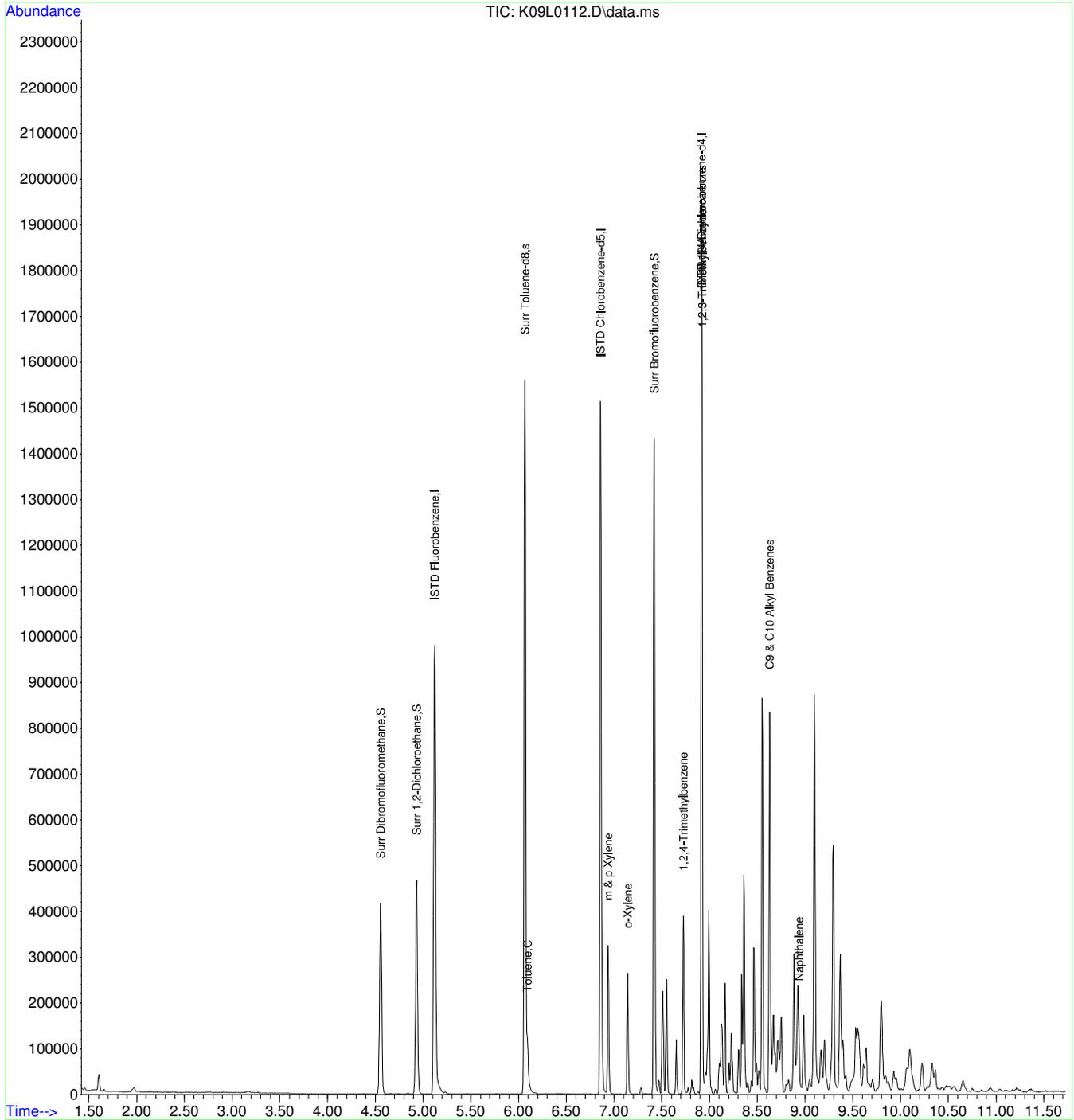
Quant Time: Apr 01 11:35:48 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K09L0112.D  
Acq On : 1 Apr 2013 1:28 am  
Operator : AAP  
Sample : 1303801-012A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 21 Sample Multiplier: 1

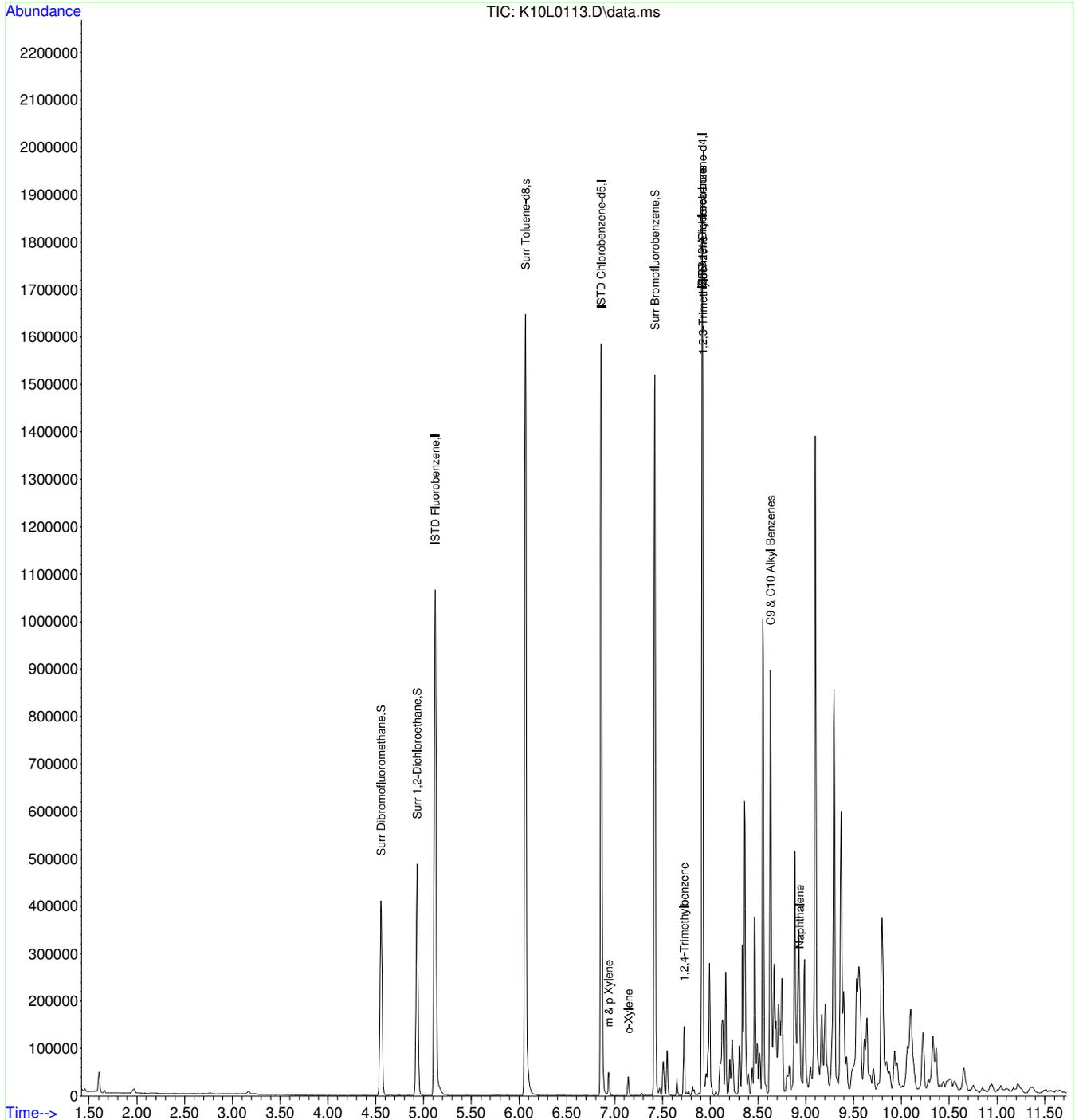
Quant Time: Apr 01 11:36:42 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K10L0113.D  
Acq On : 1 Apr 2013 1:47 am  
Operator : AAP  
Sample : 1303801-013A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 22 Sample Multiplier: 1

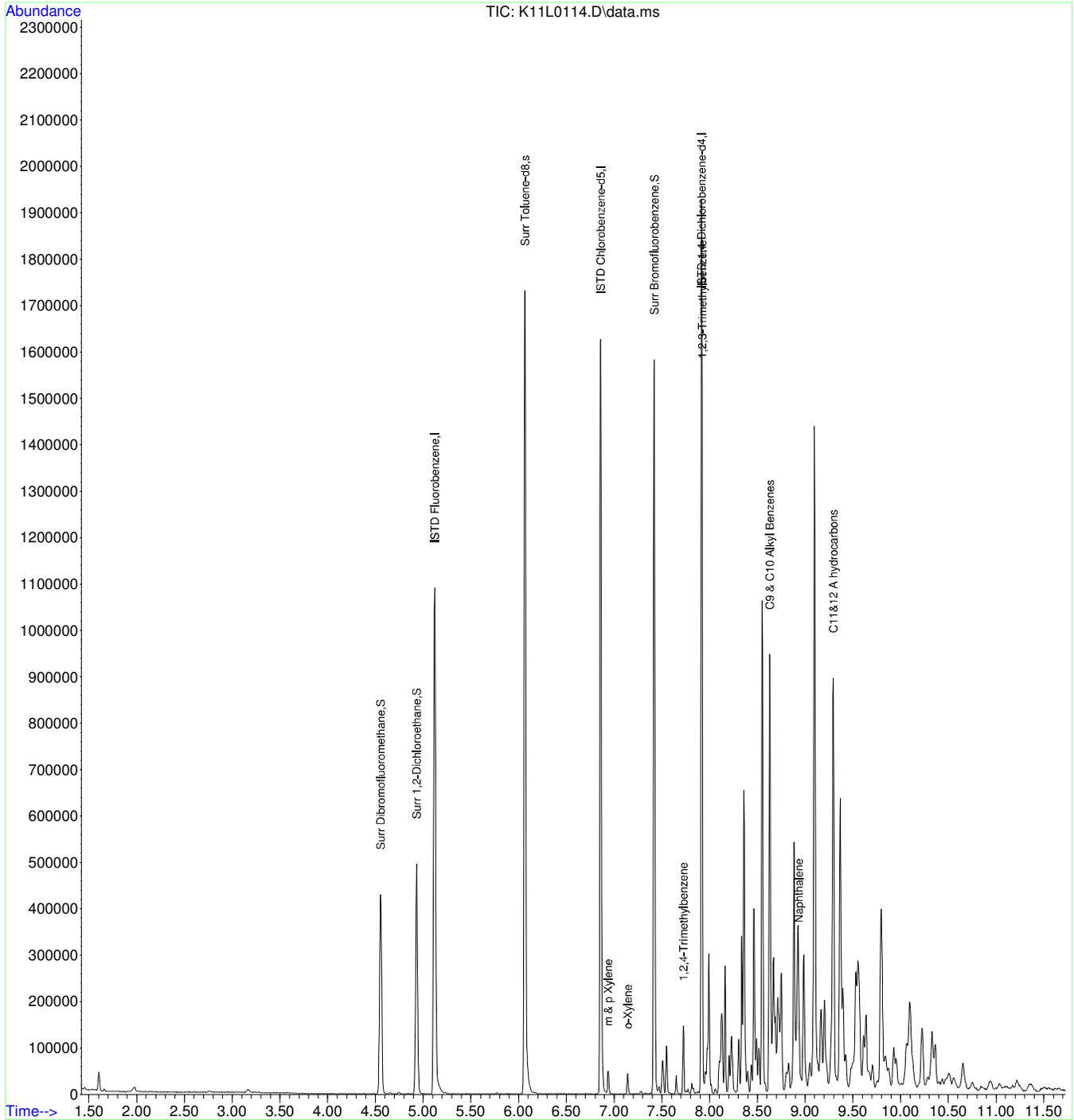
Quant Time: Apr 01 11:42:53 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K11L0114.D  
Acq On : 1 Apr 2013 2:06 am  
Operator : AAP  
Sample : 1303801-014A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 23 Sample Multiplier: 1

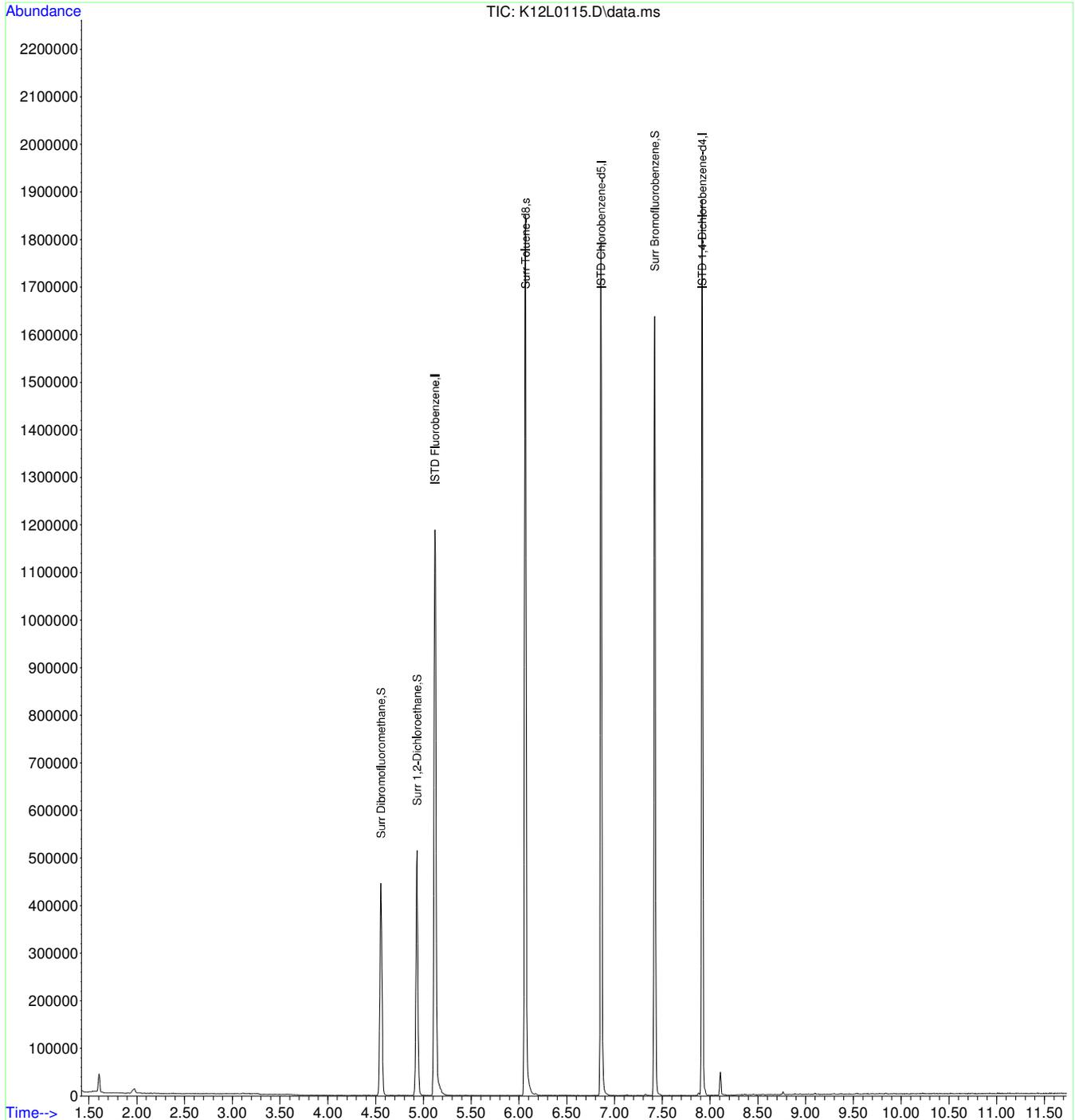
Quant Time: Apr 01 11:43:46 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K12L0115.D  
Acq On : 1 Apr 2013 2:25 am  
Operator : AAP  
Sample : 1303801-015A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 24 Sample Multiplier: 1

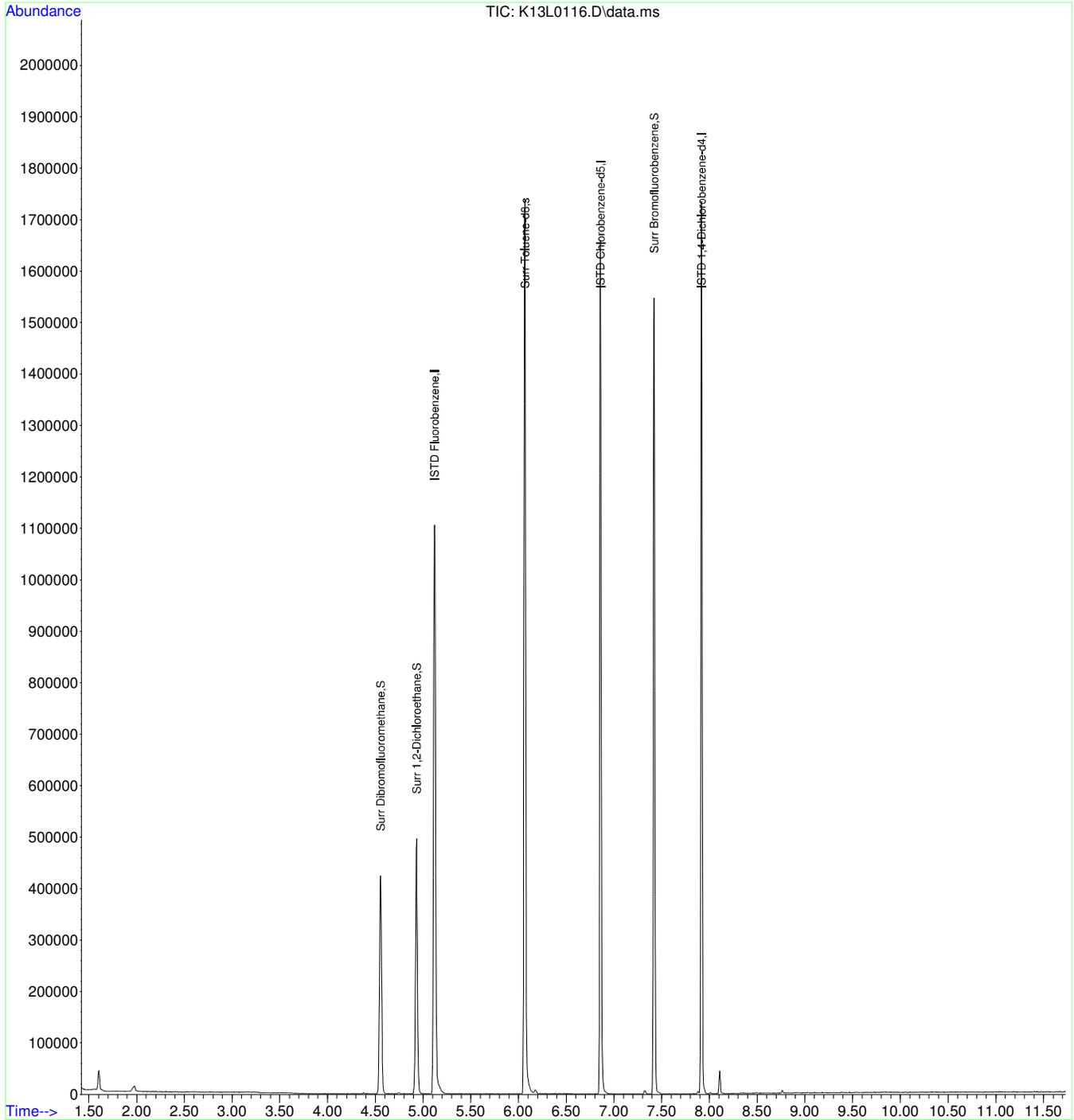
Quant Time: Apr 01 11:44:09 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : K13L0116.D  
Acq On : 1 Apr 2013 2:44 am  
Operator : AAP  
Sample : 1303801-016A  
Misc : SAMP 5.0ML 1OF3 SB  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Apr 01 11:44:25 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration

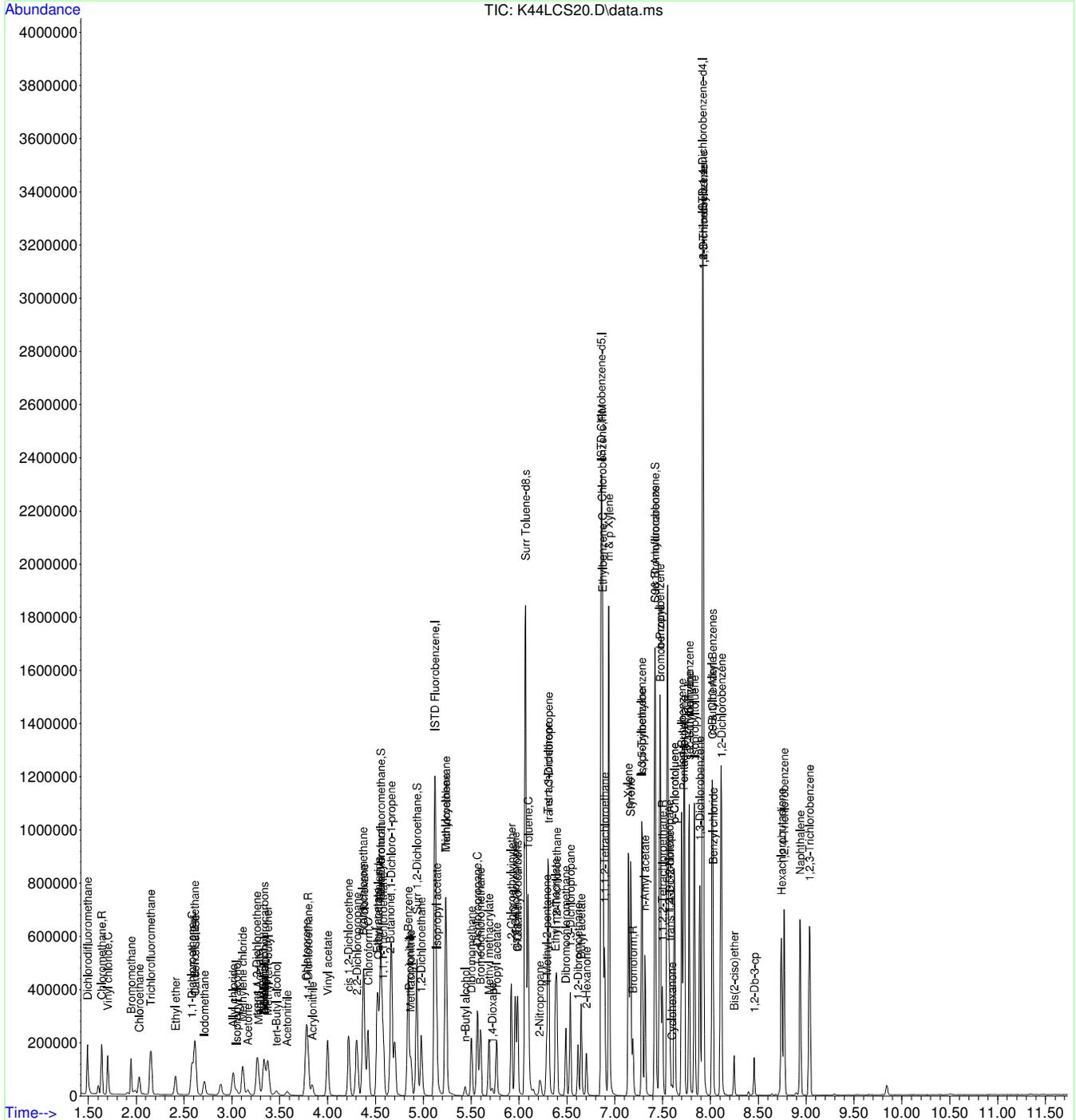




Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\  
Data File : K44LCS20.D  
Acq On : 1 Apr 2013 3:35 pm  
Operator : AAP  
Sample : LCS VOC 040113A  
Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT SB  
ALS Vial : 3 Sample Multiplier: 1

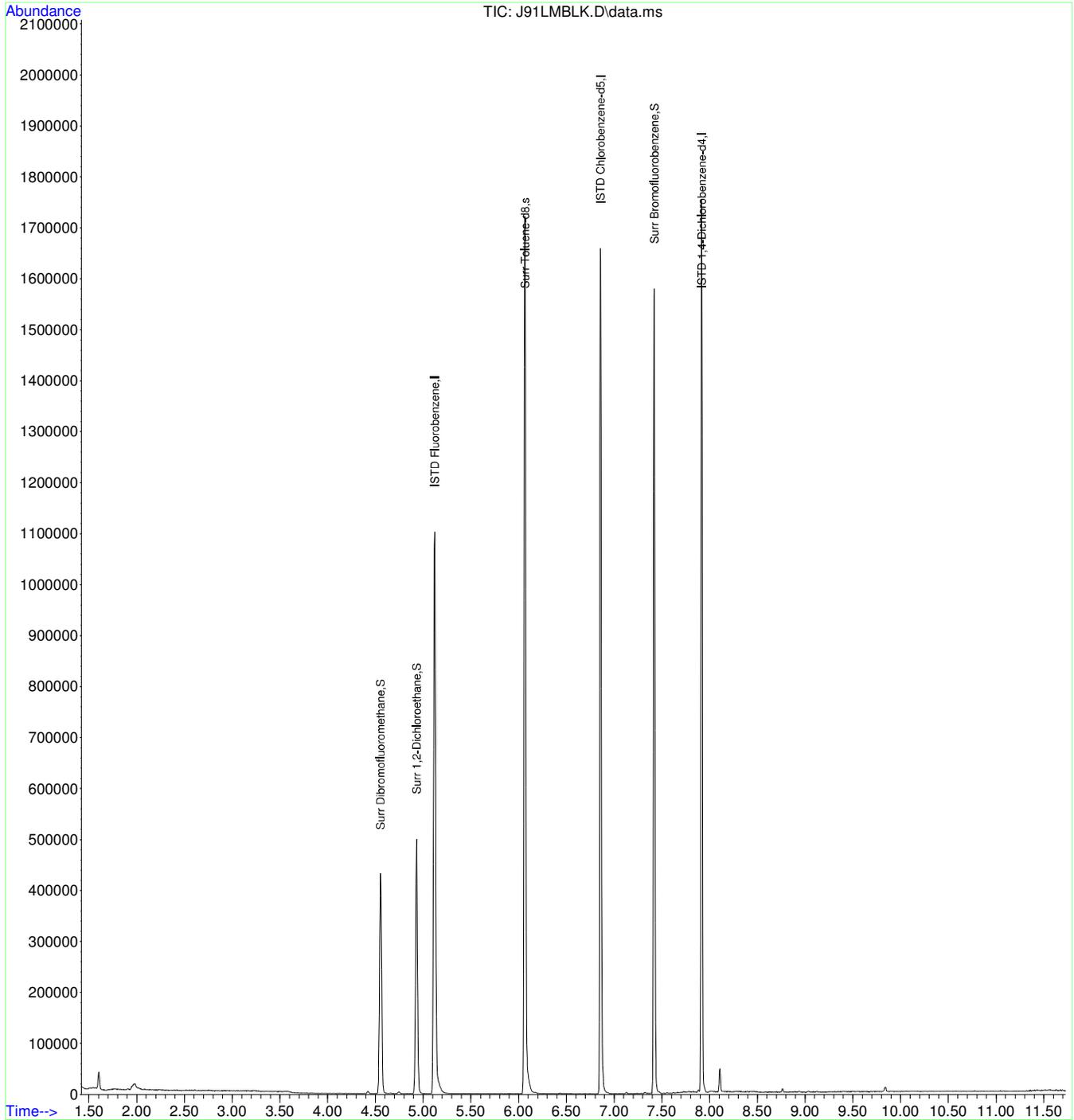
Quant Time: Apr 01 15:47:27 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : J91LMBLK.D  
Acq On : 31 Mar 2013 8:06 pm  
Operator : AAP  
Sample : MB VOC 033113A  
Misc : MBLK 5.0ML SB  
ALS Vial : 5 Sample Multiplier: 1

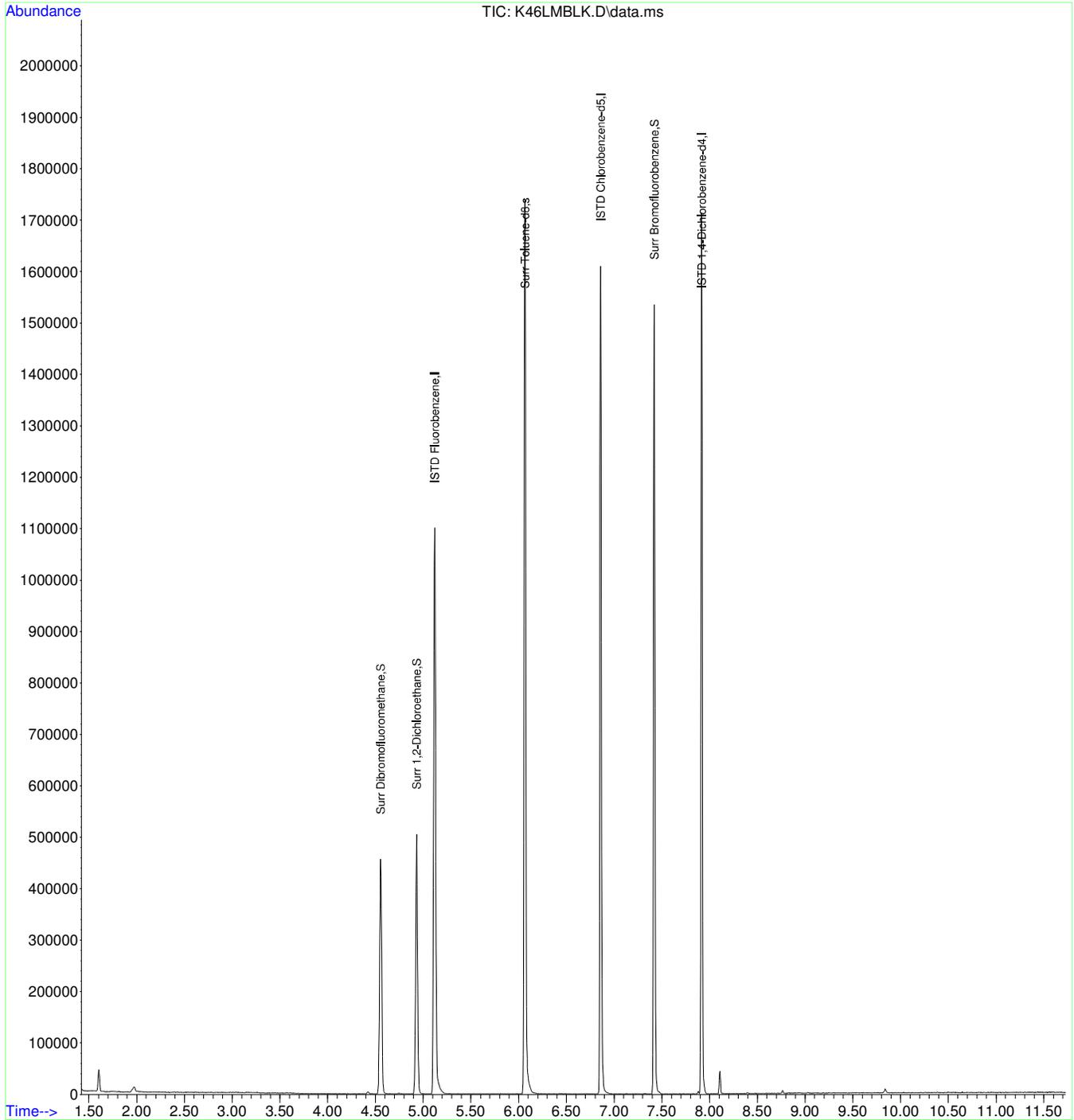
Quant Time: Apr 01 11:24:21 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\  
Data File : K46LMBLK.D  
Acq On : 1 Apr 2013 4:13 pm  
Operator : AAP  
Sample : MB VOC 040113A  
Misc : MBLK 5.0ML SB  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 02 08:35:10 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



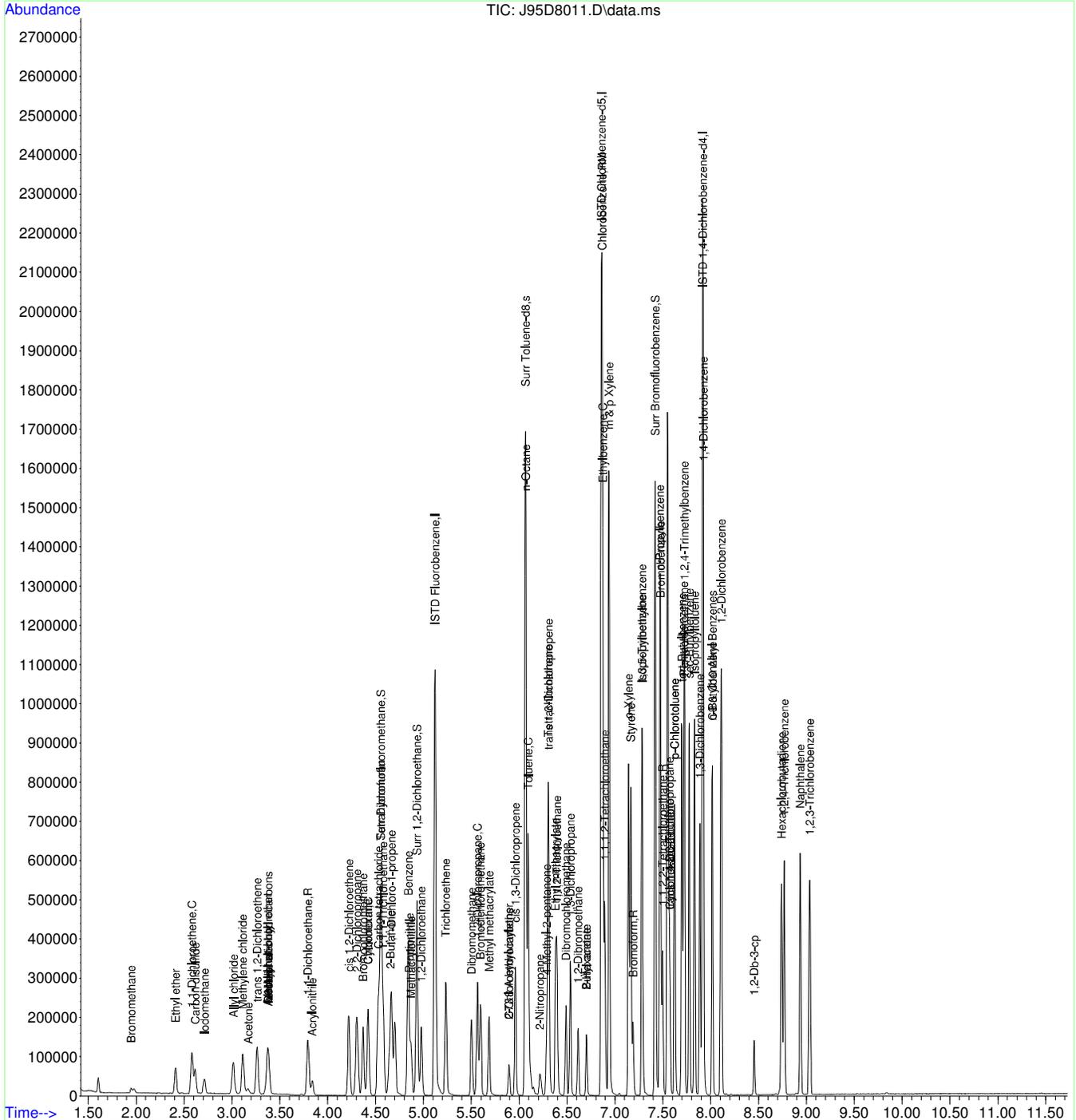




Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\31MAR13\  
Data File : J95D8011.D  
Acq On : 31 Mar 2013 9:22 pm  
Operator : AAP  
Sample : 1303801-001AMSD  
Misc : MSD 5.0ML 3OF3 SB  
ALS Vial : 9 Sample Multiplier: 1

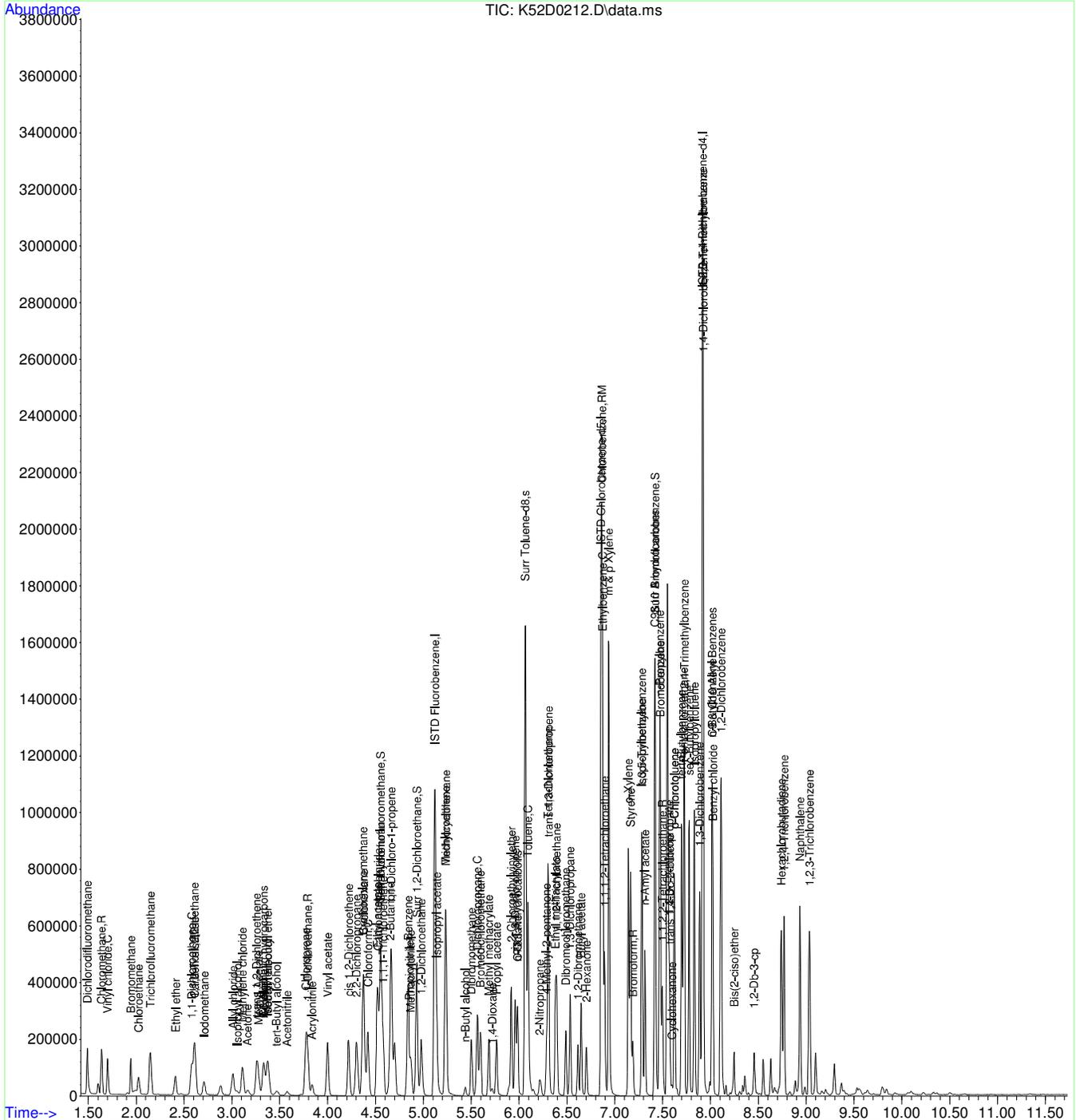
Quant Time: Mar 31 21:34:14 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\APR13-D\01APR13\  
Data File : K52D0212.D  
Acq On : 1 Apr 2013 5:48 pm  
Operator : AAP  
Sample : 1303802-012AMSD  
Misc : MSD 10ML/50ML 30F3 SB  
ALS Vial : 10 Sample Multiplier: 5

Quant Time: Apr 01 18:00:09 2013  
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW\_17.M  
Quant Title : VOA Calibration  
QLast Update : Sat Mar 30 17:43:44 2013  
Response via : Initial Calibration



## WORK ORDER Summary

Work Order: **1303801** Page 1 of 4

**Client:** Utah Division of Water Quality

Due Date: 4/2/2013

**Client ID:** UTD200

**Contact:** Chris Bittner

**Project:** MP 44.9

**QC Level:** III

WO Type: Standard 

**Comments:** Next Day Rush; QC 3. Include TICs on SVOC only. Send partial reports as results become available, bill accordingly.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1303801-001A	East of I-15 / 4920392	3/30/2013 0735h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303801-001B				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>								
1303801-001C				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>								
1303801-002A	S. Marina / 4920495	3/30/2013 0750h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303801-002B				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>								
1303801-002C				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>								
1303801-003A	50' from 0397 / 4920508	3/30/2013 0845h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303801-003B				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>								
1303801-003C				3510-TPH-PR		<input type="checkbox"/>	Walkin-TPH (Liters)	
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	Walkin-TPH (Liters)	
<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>								
1303801-004A	North Boom / 4920397	3/30/2013 0850h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>								
1303801-004B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2

# WORK ORDER Summary

Work Order: **1303801** Page 2 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1303801-004B	North Boom / 4920397	3/30/2013 0850h	3/30/2013 1130h	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	
1303801-004C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				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>				
1303801-005A	W. Boom 5 / 4920499	3/30/2013 0855h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				1303801-005B	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>				
1303801-005C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				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>				
1303801-006A	W. Boom 4 / 4920498	3/30/2013 0900h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				1303801-006B	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>				
1303801-006C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				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>				
1303801-007A	50' from WB 4 / 4920502	3/30/2013 0905h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				1303801-007B	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>				
1303801-007C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				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>				
1303801-008A	W. Boom 3 / 4920497	3/30/2013 0910h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				1303801-008B	3510-SVOA-PR	<input type="checkbox"/>	walkin - semi	2

# WORK ORDER Summary

Work Order: **1303801** Page 3 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1303801-008B	W. Boom 3 / 4920497	3/30/2013 0910h	3/30/2013 1130h	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	
1303801-008C				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>				
				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>				
1303801-009A	W. Boom 2 / 4920496	3/30/2013 0920h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
1303801-009B				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>				
1303801-009C				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>				
1303801-010A	50' From 0396 / 4920505	3/30/2013 0925h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
1303801-010B				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>				
1303801-010C				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>				
1303801-011A	W. Boom 1 / 4920396	3/30/2013 0930h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
1303801-011B				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>				
1303801-011C				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>				
1303801-012A	East of Boom / 4920395	3/30/2013 0945h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2
1303801-012B								

# WORK ORDER Summary

Work Order: **1303801** Page 4 of 4

Client: Utah Division of Water Quality

Due Date: 4/2/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1303801-012B	East of Boom / 4920395	3/30/2013 0945h	3/30/2013 1130h	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	
1303801-012C						<input type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>										
				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>										
1303801-013A	Between Weirs / 4920394	3/30/2013 0950h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303801-013B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>										
				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>										
1303801-013C						<input type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>										
				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>										
1303801-014A	Between Weirs Dup / 4920394	3/30/2013 0950h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303801-014B				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi	2		
<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>										
				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>										
1303801-014C						<input type="checkbox"/>	Walkin-TPH (Liters)			
<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>										
				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>										
1303801-015A	Field Blank	3/30/2013 0825h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										
1303801-016A	Trip Blank	3/30/2013 0730h	3/30/2013 1130h	8260-W	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>										

