



Jim Harris
Utah Division of Water Quality
PO Box 144870
SLC, UT 84114
TEL: (801) 538-6329

RE: Chevron (Willard Incident)

Dear Jim Harris:

Lab Set ID: 1303414

463 West 3600 South
Salt Lake City, UT 84115

American West Analytical Laboratories received 6 sample(s) on 3/19/2013 for the analyses presented in the following report.

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

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

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

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

Thank You,

Approved by: _____
Laboratory Director or designee



Inorganic Case Narrative

Client: Utah Division of Water Quality
Contact: Jim Harris
Project: Chevron (Willard Incident)
Lab Set ID: 1303414

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/19/2013
Date of Collection: 3/19/2013
Sample Condition: Intact
C-O-C Discrepancies: None

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

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

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

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

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

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

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

Corrective Action: None required.



TPH (DRO) and (ORO) Case Narrative

Client: Utah Division of Water Quality
Contact: Jim Harris
Project: Chevron (Willard Incident)
Lab Set ID: 1303414

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Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt:	3/19/2013
Date of Collection:	3/19/2013
Sample Condition:	Intact
C-O-C Discrepancies:	None
Method:	SW-846 8015D /3510C
Analysis:	Total Petroleum Hydrocarbon (DRO - C10-28) Total Petroleum Hydrocarbon (ORO - C28-36)

General Set Comments: Multiple samples exhibited TPH-DRO above their 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 the RPD (Relative Percent Difference) were inside established limits for TPH-ORO, indicating no apparent matrix interferences. The MS and MSD percent recoveries for TPH-DRO on sample 1303414-002B were outside of the control limits indicating suspected sample non-homogeneity.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Semivolatile Case Narrative

Client: Utah Division of Water Quality
Contact: Jim Harris
Project: Chevron (Willard Incident)
Lab Set ID: 1303414

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Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/19/2013
Date of Collection: 3/19/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8270D/3510C
Analysis: Semivolatile Organics

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

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

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

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

Batch QC Requirements: MB, LCS, LCSD, 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/LCSD percent recoveries were within control limits, indicating that the preparation and analysis were in control. The RPD for 1,4-Dichlorobenzene on LCSD-24195 was outside of the control limits.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries were inside established limits, indicating no apparent matrix interferences. Multiple RPDs (Relative Percent Differences) on sample 1303414-003BMSD were outside of the control limits due to suspected sample non-homogeneity or matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Volatile Case Narrative

Client: Utah Division of Water Quality
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Lab Set ID: 1303414

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Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 3/19/2013
Date of Collection: 3/19/2013
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

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

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

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

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

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

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

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

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



Product ID Case Narrative

Client: Utah Division of Water Quality
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Sample Receipt Information:

Date of Receipt:	3/19/2013
Date of Collection:	3/19/2013
Sample Condition:	Intact
C-O-C Discrepancies	None
Method:	SW-846 8015D Modified/3580A
Analysis:	Product Identification

General Set Comments: This set contained one sample, "Source Ab. Culvert" (1303414-001A). The sample was diluted 10X and an aliquot of these dilutions was analyzed on a Gas Chromatograph equipped with a Flame Ionization Detector (GC/FID).

Analytical Methodology: The data generated from Product ID analysis is purely qualitative. The GC column employed separates petroleum hydrocarbons ranging from C₆-C₂₈. The sample chromatogram is compared to a library of chromatograms, analyzed under identical conditions, as follows:

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

- A piano hydrocarbon standard ranging C₁₀-C₂₅
- Unleaded gasoline at various weatherings (i.e. 25, 50, 75% & unweathered)
- Diesel at various weatherings (i.e. 25, 50, 75% & unweathered)
- Kerosene at various weatherings (i.e. 25, 50, 75% & unweathered)
- Mineral Spirits at various weatherings (i.e. 25, 50, 75% & unweathered)
- Oils (i.e. Synthetic Oil , 5W-30, 10W-30, 20W-50 & Used Motor Oil)
- Turpentine
- Fuel Oil (Nos. 1 through 6)
- Military Fuels (JP-4, 5 & 8), Jet & Aviation Fuels
- Synthetic Transmission Fluid

Results & Discussion: Based on the chromatographic evidence, "Source Ab. Culvert" (1303414-001A) was identified as 80% diesel and 20 % biodiesel.



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-002B
Client Sample ID: Between Weirs
Collection Date: 3/19/2013 1100h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/21/2013 244h **Extracted:** 3/19/2013 2030h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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Jose Rocha
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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	4.69	
2-Methylnaphthalene	91-57-6	0.100	2.84	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
Fluorene	86-73-7	0.100	< 0.100	
Indene	95-13-6	0.100	< 0.100	
Indeno(1,2,3-cd)pyrene	193-39-5	0.100	< 0.100	
Naphthalene	91-20-3	0.100	3.22	
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:** Jim Harris
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-003B
Client Sample ID: Outside Boom
Collection Date: 3/19/2013 1035h
Received Date: 3/19/2013 1549h

Analytical Results

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

Analyzed: 3/21/2013 310h **Extracted:** 3/19/2013 2030h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	< 0.100	
2-Methylnaphthalene	91-57-6	0.100	< 0.100	
Acenaphthene	83-32-9	0.100	< 0.100	
Acenaphthylene	208-96-8	0.100	< 0.100	
Anthracene	120-12-7	0.100	< 0.100	
Benz(a)anthracene	56-55-3	0.100	< 0.100	
Benzo(a)pyrene	50-32-8	0.100	< 0.100	
Benzo(b)fluoranthene	205-99-2	0.100	< 0.100	
Benzo(g,h,i)perylene	191-24-2	0.100	< 0.100	
Benzo(k)fluoranthene	207-08-9	0.100	< 0.100	
Chrysene	218-01-9	0.100	< 0.100	
Dibenz(a,h)anthracene	53-70-3	0.100	< 0.100	
Fluoranthene	206-44-0	0.100	< 0.100	
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:** Jim Harris
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-004B
Client Sample ID: Inside Boom
Collection Date: 3/19/2013 1045h
Received Date: 3/19/2013 1549h

Analytical Results

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

Analyzed: 3/21/2013 430h **Extracted:** 3/19/2013 2030h
Units: µg/L **Dilution Factor:** 1 **Method:** SW8270D

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
1-Methylnaphthalene	90-12-0	0.100	1.29	
2-Methylnaphthalene	91-57-6	0.100	0.900	
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	0.240	
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	0.140	
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	0.820	
Phenanthrene	85-01-8	0.100	< 0.100	
Pyrene	129-00-0	0.100	0.270	



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-002B
Client Sample ID: Between Weirs
Collection Date: 3/19/2013 1100h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/20/2013 330h **Extracted:** 3/19/2013 2030h
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: 1303414-002B

Client Sample ID: Between Weirs

Analyzed: 3/20/2013 330h

Extracted: 3/19/2013 2030h

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: 1303414-002B

Client Sample ID: Between Weirs

Analyzed: 3/20/2013 330h

Extracted: 3/19/2013 2030h

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: 1303414-002B

Client Sample ID: Between Weirs

Analyzed: 3/20/2013 330h

Extracted: 3/19/2013 2030h

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	21.6	
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: 3H-1,3-Benzodiazepine, 4,5-dihyd...	046035-38-5		47.1	JN
TIC: Benzene, (1-methyldecyl)-	004536-88-3		47.7	JN
TIC: Benzene, 1,2,3-trimethyl-	000526-73-8		45.5	JN



Lab Sample ID: 1303414-002B

Client Sample ID: Between Weirs

Analyzed: 3/20/2013 330h

Extracted: 3/19/2013 2030h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: Docosane	000629-97-0		50.2	JN
TIC: Dodecanoic acid	000143-07-7		37.5	JN
TIC: Eicosane	000112-95-8		32.4	JN
TIC: Heneicosane	000629-94-7		32.3	JN
TIC: Indolebutyric acid	000133-32-4		56.5	JN
TIC: Pentanoic acid, methyl ester	000624-24-8		106	JN
TIC: Propanamide, N-(2-fluorophenyl)-...	284679-89-6		67.8	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	46.3	80.00	57.9	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	23.4	40.00	58.5	10-124	
Surr: 2-Fluorophenol	367-12-4	32.8	80.00	40.9	10-106	
Surr: Nitrobenzene-d5	4165-60-0	17.2	40.00	43.1	10-180	
Surr: Phenol-d6	13127-88-3	28.0	80.00	35.0	10-122	
Surr: Terphenyl-d14	1718-51-0	36.9	40.00	92.2	10-199	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-003B
Client Sample ID: Outside Boom
Collection Date: 3/19/2013 1035h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/20/2013 357h **Extracted:** 3/19/2013 2030h
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: 1303414-003B

Client Sample ID: Outside Boom

Analyzed: 3/20/2013 357h

Extracted: 3/19/2013 2030h

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: 1303414-003B

Client Sample ID: Outside Boom

Analyzed: 3/20/2013 357h

Extracted: 3/19/2013 2030h

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: 1303414-003B

Client Sample ID: Outside Boom

Analyzed: 3/20/2013 357h

Extracted: 3/19/2013 2030h

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-Heneicosyl formate	077899-03-7		11.5	JN
TIC: Docosane	000629-97-0		5.70	JN
TIC: Heneicosane	000629-94-7		6.30	JN



Lab Sample ID: 1303414-003B

Client Sample ID: Outside Boom

Analyzed: 3/20/2013 357h

Extracted: 3/19/2013 2030h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: n-Hexadecanoic acid	000057-10-3		9.89	JN
TIC: Octadecanoic acid	000057-11-4		5.14	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	54.1	80.00	67.6	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.4	40.00	53.4	10-124	
Surr: 2-Fluorophenol	367-12-4	34.0	80.00	42.4	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.4	40.00	46.1	10-180	
Surr: Phenol-d6	13127-88-3	27.8	80.00	34.8	10-122	
Surr: Terphenyl-d14	1718-51-0	33.1	40.00	82.8	10-199	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

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

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality

Contact: Jim Harris

Project: Chevron (Willard Incident)

Lab Sample ID: 1303414-004B

Client Sample ID: Inside Boom

Collection Date: 3/19/2013 1045h

Received Date: 3/19/2013 1549h

Analytical Results

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

Analyzed: 3/20/2013 517h

Extracted: 3/19/2013 2030h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

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Laboratory Director

Jose Rocha

QA Officer

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



Lab Sample ID: 1303414-004B

Client Sample ID: Inside Boom

Analyzed: 3/20/2013 517h

Extracted: 3/19/2013 2030h

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: 1303414-004B

Client Sample ID: Inside Boom

Analyzed: 3/20/2013 517h

Extracted: 3/19/2013 2030h

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	11.9	
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: 1303414-004B

Client Sample ID: Inside Boom

Analyzed: 3/20/2013 517h

Extracted: 3/19/2013 2030h

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	79.5	
Naphthalene	91-20-3	10.0	< 10.0	
Nitrobenzene	98-95-3	10.0	< 10.0	
Nitroquinoline-1-oxide	56-57-5	10.0	< 10.0	
O,O,O-Triethyl phosphorothioate	126-68-1	10.0	< 10.0	
o-Toluidine	95-53-4	10.0	< 10.0	
Parathion	56-38-2	10.0	< 10.0	
Methyl parathion	298-00-0	10.0	< 10.0	
Pentachlorobenzene	608-93-5	10.0	< 10.0	
Pentachloronitrobenzene	82-68-8	10.0	< 10.0	
Pentachlorophenol	87-86-5	10.0	< 10.0	
Phenacetin	62-44-2	10.0	< 10.0	
Phenanthrene	85-01-8	10.0	< 10.0	
Phenol	108-95-2	10.0	< 10.0	
Phorate	298-02-2	10.0	< 10.0	
Pronamide	23950-58-5	10.0	< 10.0	
Pyrene	129-00-0	10.0	< 10.0	
Pyridine	110-86-1	10.0	< 10.0	
Quinoline	91-22-5	10.0	< 10.0	
Safrole	94-59-7	10.0	< 10.0	
Tetraethyl dithiopyrophosphate	3689-24-5	10.0	< 10.0	
Thionazin	297-97-2	10.0	< 10.0	
TIC: Benzene, 1,3,5-trimethyl-	000108-67-8		13.1	JN
TIC: Dodecane, 2-methyl-	001560-97-0		12.2	JN
TIC: Eicosane	000112-95-8		67.1	JN



Lab Sample ID: 1303414-004B

Client Sample ID: Inside Boom

Analyzed: 3/20/2013 517h

Extracted: 3/19/2013 2030h

Units: µg/L

Dilution Factor: 1

Method: SW8270D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
TIC: Heneicosane	000629-94-7		49.0	JN
TIC: Heptadecane	000629-78-7		15.5	JN
TIC: Hexadecane	000544-76-3		22.1	JN
TIC: Nonadecane	000629-92-5		80.5	JN
TIC: Tetradecane	000629-59-4		32.4	JN
TIC: Tridecane	000629-50-5		11.9	JN
TIC: Tridecane, 5-propyl-	055045-11-9		28.2	JN

Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 2,4,6-Tribromophenol	118-79-6	59.2	80.00	74.0	14-159	
Surr: 2-Fluorobiphenyl	321-60-8	21.7	40.00	54.2	10-124	
Surr: 2-Fluorophenol	367-12-4	27.6	80.00	34.5	10-106	
Surr: Nitrobenzene-d5	4165-60-0	18.5	40.00	46.3	10-180	
Surr: Phenol-d6	13127-88-3	21.5	80.00	26.9	10-122	
Surr: Terphenyl-d14	1718-51-0	36.3	40.00	90.8	10-199	

J - This flag indicates an estimated value.

N - This flag indicates presumptive evidence of a compound.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-002A
Client Sample ID: Between Weirs
Collection Date: 3/19/2013 1100h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/19/2013 2154h

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	46.5	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	107	
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	3.27	
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: 1303414-002A

Client Sample ID: Between Weirs

Analyzed: 3/19/2013 2154h

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	5.93	
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	8.52	
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	24.5	
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: 1303414-002A

Client Sample ID: Between Weirs

Analyzed: 3/19/2013 2154h

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	3.55	
m,p-Xylene	179601-23-1	2.00	172	
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	2.59	
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	7.20	
Naphthalene	91-20-3	2.00	8.43	
o-Xylene	95-47-6	2.00	67.5	
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	87.9	
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	239	



Lab Sample ID: 1303414-002A

Client Sample ID: Between Weirs

Analyzed: 3/19/2013 2154h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.1	50.00	106	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	48.8	50.00	97.6	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.9	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	49.2	50.00	98.4	77-129	

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Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-003A
Client Sample ID: Outside Boom
Collection Date: 3/19/2013 1035h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/19/2013 1844h

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: 1303414-003A

Client Sample ID: Outside Boom

Analyzed: 3/19/2013 1844h

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: 1303414-003A

Client Sample ID: Outside Boom

Analyzed: 3/19/2013 1844h

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	2.11	
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	2.11	



Lab Sample ID: 1303414-003A

Client Sample ID: Outside Boom

Analyzed: 3/19/2013 1844h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	52.2	50.00	104	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	52.2	50.00	104	80-128	
Surr: Dibromofluoromethane	1868-53-7	50.9	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	50.4	50.00	101	77-129	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-004A
Client Sample ID: Inside Boom
Collection Date: 3/19/2013 1045h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/19/2013 2135h

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	9.55	
1,2,4-Trichlorobenzene	120-82-1	2.00	< 2.00	
1,2,4-Trimethylbenzene	95-63-6	2.00	20.6	
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: 1303414-004A

Client Sample ID: Inside Boom

Analyzed: 3/19/2013 2135h

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	3.95	
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: 1303414-004A

Client Sample ID: Inside Boom

Analyzed: 3/19/2013 2135h

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	28.4	
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	11.1	
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	11.7	
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	39.5	



Lab Sample ID: 1303414-004A

Client Sample ID: Inside Boom

Analyzed: 3/19/2013 2135h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	54.2	50.00	108	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	50.9	50.00	102	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.7	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	50.4	50.00	101	77-129	

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Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-005A
Client Sample ID: Trip Blank
Collection Date: 3/19/2013
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/19/2013 2057h

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: 1303414-005A

Client Sample ID: Trip Blank

Analyzed: 3/19/2013 2057h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Jose Rocha
QA Officer

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



Lab Sample ID: 1303414-005A

Client Sample ID: Trip Blank

Analyzed: 3/19/2013 2057h

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: 1303414-005A

Client Sample ID: Trip Blank

Analyzed: 3/19/2013 2057h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.5	50.00	107	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.9	50.00	108	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.6	50.00	103	80-124	
Surr: Toluene-d8	2037-26-5	50.5	50.00	101	77-129	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Utah Division of Water Quality
Project: Chevron (Willard Incident)
Lab Sample ID: 1303414-006A
Client Sample ID: Field Blank
Collection Date: 3/19/2013 930h
Received Date: 3/19/2013 1549h

Contact: Jim Harris

Analytical Results

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

Analyzed: 3/19/2013 2116h

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: 1303414-006A

Client Sample ID: Field Blank

Analyzed: 3/19/2013 2116h

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: 1303414-006A

Client Sample ID: Field Blank

Analyzed: 3/19/2013 2116h

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: 1303414-006A

Client Sample ID: Field Blank

Analyzed: 3/19/2013 2116h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

Compound	CAS Number	Reporting Limit	Analytical Result	Qual		
Surrogate	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4	17060-07-0	53.3	50.00	107	72-151	
Surr: 4-Bromofluorobenzene	460-00-4	53.0	50.00	106	80-128	
Surr: Dibromofluoromethane	1868-53-7	51.1	50.00	102	80-124	
Surr: Toluene-d8	2037-26-5	50.0	50.00	99.9	77-129	

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: WC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS1-R51679	Chemical Oxygen Demand	mg/L	HACH 8000	314	300.0	0	105	85-115				3/20/2013 1000h
LCS2-R51679	Chemical Oxygen Demand	mg/L	HACH 8000	110	100.0	0	110	85-115				3/20/2013 1000h
LCS3-R51679	Chemical Oxygen Demand	mg/L	HACH 8000	11.0	10.00	0	110	85-115				3/20/2013 1000h
LCS-R51679	Chemical Oxygen Demand	mg/L	HACH 8000	1,010	1,000	0	101	85-115				3/20/2013 1000h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: WC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-R51679	Chemical Oxygen Demand	mg/L	HACH 8000	< 10.0				-				3/20/2013 1000h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: WC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-004CMS	Chemical Oxygen Demand	mg/L	HACH 8000	55.0	50.00	9.000	92.0	85-115				3/20/2013 1000h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: WC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-004CMSD	Chemical Oxygen Demand	mg/L	HACH 8000	52.0	50.00	9.000	86.0	85-115	5.61	10		3/20/2013 1000h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: GC
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24250	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.816	0.9000	0	90.7	10-200				3/22/2013 1016h
LCS-24250	Surr: C27	%REC	SW8015D	0.193	0.2000		96.7	10-200				3/22/2013 1016h
LCS-24200	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	1.46	2.000	0	73.2	48-118				3/20/2013 040h
LCS-24200	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.173	0.4000		43.2	18-95				3/20/2013 040h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: GC
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24250	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	< 0.500				-				3/22/2013 952h
MB-24250	Surr: C27	%REC	SW8015D	0.193	0.2000		96.4	10-200				3/22/2013 952h
MB-24200	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	< 0.500				-				3/20/2013 021h
MB-24200	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.161	0.4000		40.2	18-95				3/20/2013 021h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: GC
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303453-002BMS	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.714	0.9000	0	79.3	10-200				3/22/2013 1215h
1303453-002BMS	Surr: C27	%REC	SW8015D	0.188	0.2000		93.9	10-200				3/22/2013 1215h
1303414-002BMS	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	2.77	2.000	1.419	67.3	60-161			³	3/20/2013 435h
1303414-002BMS	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.194	0.4000		48.4	10-190				3/20/2013 435h

³ - Matrix spike recoveries indicate suspected sample non-homogeneity. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: GC
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303453-002BMSD	Oil Range Organics (ORO) (C28-C36)	mg/L	SW8015D	0.624	0.9000	0	69.3	10-200	13.5	30		3/22/2013 1238h
1303453-002BMSD	Surr: C27	%REC	SW8015D	0.163	0.2000		81.6	10-200				3/22/2013 1238h
1303414-002BMSD	Diesel Range Organics (DRO) (C10-C28)	mg/L	SW8015D	2.52	2.000	1.419	54.8	60-161	9.48	25	³	3/20/2013 455h
1303414-002BMSD	Surr: 4-Bromofluorobenzene	%REC	SW8015D	0.174	0.4000		43.6	10-190				3/20/2013 455h

³ - Matrix spike recoveries and indicate suspected sample non-homogeneity. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: LCS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCS-24195	1,2,4-Trichlorobenzene	µg/L	SW8270D	39.0	80.00	0	48.8	10-104				3/19/2013 2206h
LCS-24195	1,4-Dichlorobenzene	µg/L	SW8270D	24.9	80.00	0	31.1	10-118				3/19/2013 2206h
LCS-24195	2,4,6-Trichlorophenol	µg/L	SW8270D	72.1	80.00	0	90.2	17-119				3/19/2013 2206h
LCS-24195	2,4-Dimethylphenol	µg/L	SW8270D	65.8	80.00	0	82.2	10-131				3/19/2013 2206h
LCS-24195	2,4-Dinitrotoluene	µg/L	SW8270D	83.4	80.00	0	104	42-219				3/19/2013 2206h
LCS-24195	2-Chloronaphthalene	µg/L	SW8270D	64.2	80.00	0	80.2	23-126				3/19/2013 2206h
LCS-24195	2-Chlorophenol	µg/L	SW8270D	53.1	80.00	0	66.3	15-128				3/19/2013 2206h
LCS-24195	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	83.4	80.00	0	104	30-198				3/19/2013 2206h
LCS-24195	4-Chloro-3-methylphenol	µg/L	SW8270D	71.2	80.00	0	89.0	29-148				3/19/2013 2206h
LCS-24195	4-Nitrophenol	µg/L	SW8270D	41.9	80.00	0	52.4	10-157				3/19/2013 2206h
LCS-24195	Acenaphthene	µg/L	SW8270D	67.0	80.00	0	83.8	20-116				3/19/2013 2206h
LCS-24195	Benzo(a)pyrene	µg/L	SW8270D	81.9	80.00	0	102	10-221				3/19/2013 2206h
LCS-24195	N-Nitrosodi-n-propylamine	µg/L	SW8270D	55.4	80.00	0	69.2	20-148				3/19/2013 2206h
LCS-24195	Pentachlorophenol	µg/L	SW8270D	82.8	80.00	0	104	21-153				3/19/2013 2206h
LCS-24195	Phenol	µg/L	SW8270D	32.2	80.00	0	40.2	10-131				3/19/2013 2206h
LCS-24195	Pyrene	µg/L	SW8270D	76.0	80.00	0	94.9	37-150				3/19/2013 2206h
LCS-24195	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	79.5	80.00		99.3	10-165				3/19/2013 2206h
LCS-24195	Surr: 2-Fluorobiphenyl	%REC	SW8270D	29.4	40.00		73.5	10-118				3/19/2013 2206h
LCS-24195	Surr: 2-Fluorophenol	%REC	SW8270D	36.2	80.00		45.2	10-121				3/19/2013 2206h
LCS-24195	Surr: Nitrobenzene-d5	%REC	SW8270D	23.4	40.00		58.6	10-127				3/19/2013 2206h
LCS-24195	Surr: Phenol-d6	%REC	SW8270D	31.2	80.00		39.0	10-124				3/19/2013 2206h
LCS-24195	Surr: Terphenyl-d14	%REC	SW8270D	38.2	40.00		95.6	51-221				3/19/2013 2206h
LCS-24195	Acenaphthene	µg/L	SW8270D	74.8	80.00	0	93.5	23-159				3/21/2013 004h
LCS-24195	Benzo(a)pyrene	µg/L	SW8270D	78.4	80.00	0	98.0	26-223				3/21/2013 004h
LCS-24195	Pentachlorophenol	µg/L	SW8270D	121	80.00	0	151	10-249				3/21/2013 004h
LCS-24195	Pyrene	µg/L	SW8270D	81.2	80.00	0	102	28-204				3/21/2013 004h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: LCSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
LCSD-24195	1,2,4-Trichlorobenzene	µg/L	SW8270D	47.6	80.00	0	59.4	10-104	19.7	25		3/19/2013 2232h
LCSD-24195	1,4-Dichlorobenzene	µg/L	SW8270D	33.9	80.00	0	42.3	10-118	30.6	25	@	3/19/2013 2232h
LCSD-24195	2,4,6-Trichlorophenol	µg/L	SW8270D	76.8	80.00	0	96.0	17-119	6.3	25		3/19/2013 2232h
LCSD-24195	2,4-Dimethylphenol	µg/L	SW8270D	69.4	80.00	0	86.7	10-131	5.27	25		3/19/2013 2232h
LCSD-24195	2,4-Dinitrotoluene	µg/L	SW8270D	90.1	80.00	0	113	42-219	7.66	25		3/19/2013 2232h
LCSD-24195	2-Chloronaphthalene	µg/L	SW8270D	74.1	80.00	0	92.6	23-126	14.4	25		3/19/2013 2232h
LCSD-24195	2-Chlorophenol	µg/L	SW8270D	58.2	80.00	0	72.8	15-128	9.31	25		3/19/2013 2232h
LCSD-24195	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	89.2	80.00	0	111	30-198	6.72	25		3/19/2013 2232h
LCSD-24195	4-Chloro-3-methylphenol	µg/L	SW8270D	75.7	80.00	0	94.7	29-148	6.17	25		3/19/2013 2232h
LCSD-24195	4-Nitrophenol	µg/L	SW8270D	46.9	80.00	0	58.7	10-157	11.3	25		3/19/2013 2232h
LCSD-24195	Acenaphthene	µg/L	SW8270D	71.9	80.00	0	89.9	20-116	7.01	25		3/19/2013 2232h
LCSD-24195	Benzo(a)pyrene	µg/L	SW8270D	88.9	80.00	0	111	10-221	8.24	25		3/19/2013 2232h
LCSD-24195	N-Nitrosodi-n-propylamine	µg/L	SW8270D	60.0	80.00	0	75.0	20-148	8.04	25		3/19/2013 2232h
LCSD-24195	Pentachlorophenol	µg/L	SW8270D	88.7	80.00	0	111	21-153	6.84	25		3/19/2013 2232h
LCSD-24195	Phenol	µg/L	SW8270D	33.9	80.00	0	42.4	10-131	5.3	25		3/19/2013 2232h
LCSD-24195	Pyrene	µg/L	SW8270D	82.7	80.00	0	103	37-150	8.49	25		3/19/2013 2232h
LCSD-24195	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	86.0	80.00		107	10-165				3/19/2013 2232h
LCSD-24195	Surr: 2-Fluorobiphenyl	%REC	SW8270D	33.4	40.00		83.6	10-118				3/19/2013 2232h
LCSD-24195	Surr: 2-Fluorophenol	%REC	SW8270D	38.4	80.00		48.0	10-121				3/19/2013 2232h
LCSD-24195	Surr: Nitrobenzene-d5	%REC	SW8270D	26.8	40.00		67.1	10-127				3/19/2013 2232h
LCSD-24195	Surr: Phenol-d6	%REC	SW8270D	33.1	80.00		41.4	10-124				3/19/2013 2232h
LCSD-24195	Surr: Terphenyl-d14	%REC	SW8270D	42.1	40.00		105	51-221				3/19/2013 2232h
LCSD-24195	Acenaphthene	µg/L	SW8270D	64.0	80.00	0	80.0	23-159	15.6	25		3/21/2013 031h
LCSD-24195	Benzo(a)pyrene	µg/L	SW8270D	72.4	80.00	0	90.5	26-223	7.96	25		3/21/2013 031h
LCSD-24195	Pentachlorophenol	µg/L	SW8270D	113	80.00	0	141	10-249	6.86	25		3/21/2013 031h
LCSD-24195	Pyrene	µg/L	SW8270D	75.4	80.00	0	94.3	28-204	7.41	25		3/21/2013 031h

@ - High RPD observed.



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	1,1'-Biphenyl	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,2,4,5-Tetrachlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,2,4-Trichlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,2-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,3,5-Trinitrobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,3-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,3-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,4-Dichlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,4-Dinitrobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,4-Naphthoquinone	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1,4-Phenylenediamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	1-Naphthylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,3,4,6-Tetrachlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4,5-Trichlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4,6-Trichlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4-Dichlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4-Dimethylphenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4-Dinitrophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,4-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,6-Dichlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2,6-Dinitrotoluene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Acetylaminofluorene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Chloronaphthalene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Chlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Methylnaphthalene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h

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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	2-Methylphenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Naphthylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Nitrophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	2-Picoline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	3&4-Methylphenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	3,3'-Dichlorobenzidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	3,3'-Dimethylbenzidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	3-Methylcholanthrene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	3-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Aminobiphenyl	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Bromophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Chloro-3-methylphenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Chloroaniline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Chlorophenyl phenyl ether	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Nitroaniline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	4-Nitrophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	5-Nitro-o-toluidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	7,12-Dimethylbenz(a)anthracene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	a,a-Dimethylphenethylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Acenaphthene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Acenaphthylene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Acetophenone	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	alpha-Terpineol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Aniline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Anthracene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	Aramite	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Atrazine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Azobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benz(a)anthracene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzaldehyde	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzo(a)pyrene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzo(b)fluoranthene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzo(g,h,i)perylene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzo(k)fluoranthene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Benzoic acid	µg/L	SW8270D	< 20.0				-				3/19/2013 2139h
MB-24195	Benzyl alcohol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Bis(2-chloroethoxy)methane	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Bis(2-chloroethyl) ether	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Bis(2-chloroisopropyl) ether	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Bis(2-ethylhexyl) phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	bis(2-ethylhexyl)adipate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Butyl benzyl phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Caprolactam	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Carbazole	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Chlorobenzilate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Chrysene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Diallate (cis or trans)	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Dibenz(a,h)anthracene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Dibenzofuran	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Diethyl phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Dimethoate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	Dimethyl phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Dimethylaminoazobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Di-n-butyl phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Di-n-octyl phthalate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Dinoseb	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Diphenylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Disulfoton	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Ethyl methanesulfonate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Famphur	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Fluoranthene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Fluorene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachlorobutadiene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachlorocyclopentadiene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachloroethane	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachlorophene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Hexachloropropene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Indene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Isodrin	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Isophorone	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Isosafrole	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Kepone	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Methapyrilene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Methyl methanesulfonate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Naphthalene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	n-Decane	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h

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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	Nitrobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Nitroquinoline-1-oxide	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosodiethylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosodimethylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosodi-n-butylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosodiphenylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosodi-n-propylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosomethylethylamine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosomorpholine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosopiperidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	N-Nitrosopyrrolidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	n-Octadecane	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	O,O,O-Triethyl phosphorothioate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	o-Toluidine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Parathion	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Methyl parathion	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pentachlorobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pentachloronitrobenzene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pentachlorophenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Phenacetin	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Phenanthrene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Phenol	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Phorate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pronamide	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pyrene	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Pyridine	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Quinoline	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h

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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: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	Safrole	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Tetraethyl dithiopyrophosphate	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Thionazin	µg/L	SW8270D	< 10.0				-				3/19/2013 2139h
MB-24195	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	59.6	80.00		74.6	10-165				3/19/2013 2139h
MB-24195	Surr: 2-Fluorobiphenyl	%REC	SW8270D	19.5	40.00		48.8	10-118				3/19/2013 2139h
MB-24195	Surr: 2-Fluorophenol	%REC	SW8270D	27.3	80.00		34.1	10-121				3/19/2013 2139h
MB-24195	Surr: Nitrobenzene-d5	%REC	SW8270D	16.4	40.00		41.1	10-127				3/19/2013 2139h
MB-24195	Surr: Phenol-d6	%REC	SW8270D	21.9	80.00		27.4	10-124				3/19/2013 2139h
MB-24195	Surr: Terphenyl-d14	%REC	SW8270D	43.2	40.00		108	51-221				3/19/2013 2139h
MB-24195	1-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	2-Methylnaphthalene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Acenaphthene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Acenaphthylene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Anthracene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Benz(a)anthracene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Benzo(a)pyrene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Benzo(b)fluoranthene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Benzo(g,h,i)perylene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Benzo(k)fluoranthene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Chrysene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Dibenz(a,h)anthracene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Fluoranthene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Fluorene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Hexachlorobenzene	µg/L	SW8270D	< 1.00				-				3/20/2013 2337h
MB-24195	Indene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Indeno(1,2,3-cd)pyrene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Naphthalene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h

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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: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MBLK

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
MB-24195	Pentachlorophenol	µg/L	SW8270D	< 1.00				-				3/20/2013 2337h
MB-24195	Phenanthrene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h
MB-24195	Pyrene	µg/L	SW8270D	< 0.100				-				3/20/2013 2337h



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-003BMS	1,2,4-Trichlorobenzene	µg/L	SW8270D	41.5	80.00	0	51.8	20-107				3/20/2013 424h
1303414-003BMS	1,4-Dichlorobenzene	µg/L	SW8270D	37.9	80.00	0	47.3	11-90				3/20/2013 424h
1303414-003BMS	2,4,6-Trichlorophenol	µg/L	SW8270D	46.8	80.00	0	58.5	10-223				3/20/2013 424h
1303414-003BMS	2,4-Dimethylphenol	µg/L	SW8270D	45.1	80.00	0	56.4	10-176				3/20/2013 424h
1303414-003BMS	2,4-Dinitrotoluene	µg/L	SW8270D	58.6	80.00	0	73.2	21-191				3/20/2013 424h
1303414-003BMS	2-Chloronaphthalene	µg/L	SW8270D	50.1	80.00	0	62.6	12-132				3/20/2013 424h
1303414-003BMS	2-Chlorophenol	µg/L	SW8270D	44.7	80.00	0	55.8	20-107				3/20/2013 424h
1303414-003BMS	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	52.7	80.00	0	65.8	20-250				3/20/2013 424h
1303414-003BMS	4-Chloro-3-methylphenol	µg/L	SW8270D	49.8	80.00	0	62.2	10-136				3/20/2013 424h
1303414-003BMS	4-Nitrophenol	µg/L	SW8270D	37.9	80.00	0	47.4	10-135				3/20/2013 424h
1303414-003BMS	Acenaphthene	µg/L	SW8270D	49.2	80.00	0	61.5	21-113				3/20/2013 424h
1303414-003BMS	Benzo(a)pyrene	µg/L	SW8270D	55.5	80.00	0	69.4	15-169				3/20/2013 424h
1303414-003BMS	N-Nitrosodi-n-propylamine	µg/L	SW8270D	44.0	80.00	0	55.0	10-133				3/20/2013 424h
1303414-003BMS	Pentachlorophenol	µg/L	SW8270D	25.8	80.00	0	32.3	10-131				3/20/2013 424h
1303414-003BMS	Phenol	µg/L	SW8270D	29.2	80.00	0	36.5	10-71				3/20/2013 424h
1303414-003BMS	Pyrene	µg/L	SW8270D	54.7	80.00	0	68.4	23-150				3/20/2013 424h
1303414-003BMS	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	48.0	80.00		60.0	14-159				3/20/2013 424h
1303414-003BMS	Surr: 2-Fluorobiphenyl	%REC	SW8270D	22.8	40.00		57.0	10-124				3/20/2013 424h
1303414-003BMS	Surr: 2-Fluorophenol	%REC	SW8270D	36.5	80.00		45.7	10-106				3/20/2013 424h
1303414-003BMS	Surr: Nitrobenzene-d5	%REC	SW8270D	20.5	40.00		51.2	10-180				3/20/2013 424h
1303414-003BMS	Surr: Phenol-d6	%REC	SW8270D	28.1	80.00		35.1	10-122				3/20/2013 424h
1303414-003BMS	Surr: Terphenyl-d14	%REC	SW8270D	26.6	40.00		66.5	10-199				3/20/2013 424h
1303414-003BMS	Acenaphthene	µg/L	SW8270D	51.2	80.00	0	64.0	21-113				3/21/2013 337h
1303414-003BMS	Benzo(a)pyrene	µg/L	SW8270D	60.4	80.00	0	75.5	15-169				3/21/2013 337h
1303414-003BMS	Pentachlorophenol	µg/L	SW8270D	80.8	80.00	0	101	10-131				3/21/2013 337h
1303414-003BMS	Pyrene	µg/L	SW8270D	60.4	80.00	0	75.5	23-150				3/21/2013 337h



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSSV
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-003BMSD	1,2,4-Trichlorobenzene	µg/L	SW8270D	47.1	80.00	0	58.9	20-107	12.8	25		3/20/2013 450h
1303414-003BMSD	1,4-Dichlorobenzene	µg/L	SW8270D	37.5	80.00	0	46.9	11-90	0.982	25		3/20/2013 450h
1303414-003BMSD	2,4,6-Trichlorophenol	µg/L	SW8270D	29.4	80.00	0	36.7	10-223	45.7	25	@	3/20/2013 450h
1303414-003BMSD	2,4-Dimethylphenol	µg/L	SW8270D	35.6	80.00	0	44.5	10-176	23.4	25		3/20/2013 450h
1303414-003BMSD	2,4-Dinitrotoluene	µg/L	SW8270D	77.9	80.00	0	97.4	21-191	28.3	25	@	3/20/2013 450h
1303414-003BMSD	2-Chloronaphthalene	µg/L	SW8270D	59.0	80.00	0	73.7	12-132	16.3	25		3/20/2013 450h
1303414-003BMSD	2-Chlorophenol	µg/L	SW8270D	33.3	80.00	0	41.6	20-107	29.3	25	@	3/20/2013 450h
1303414-003BMSD	4,6-Dinitro-2-methylphenol	µg/L	SW8270D	32.1	80.00	0	40.1	20-250	48.5	25	@	3/20/2013 450h
1303414-003BMSD	4-Chloro-3-methylphenol	µg/L	SW8270D	37.7	80.00	0	47.1	10-136	27.7	25	@	3/20/2013 450h
1303414-003BMSD	4-Nitrophenol	µg/L	SW8270D	41.8	80.00	0	52.2	10-135	9.66	25		3/20/2013 450h
1303414-003BMSD	Acenaphthene	µg/L	SW8270D	61.5	80.00	0	76.9	21-113	22.3	25		3/20/2013 450h
1303414-003BMSD	Benzo(a)pyrene	µg/L	SW8270D	72.6	80.00	0	90.7	15-169	26.6	25	@	3/20/2013 450h
1303414-003BMSD	N-Nitrosodi-n-propylamine	µg/L	SW8270D	51.5	80.00	0	64.4	10-133	15.8	25		3/20/2013 450h
1303414-003BMSD	Pentachlorophenol	µg/L	SW8270D	17.3	80.00	0	21.6	10-131	39.6	25	@	3/20/2013 450h
1303414-003BMSD	Phenol	µg/L	SW8270D	31.3	80.00	0	39.1	10-71	6.71	25		3/20/2013 450h
1303414-003BMSD	Pyrene	µg/L	SW8270D	70.8	80.00	0	88.6	23-150	25.8	25	@	3/20/2013 450h
1303414-003BMSD	Surr: 2,4,6-Tribromophenol	%REC	SW8270D	31.3	80.00		39.2	14-159				3/20/2013 450h
1303414-003BMSD	Surr: 2-Fluorobiphenyl	%REC	SW8270D	27.5	40.00		68.8	10-124				3/20/2013 450h
1303414-003BMSD	Surr: 2-Fluorophenol	%REC	SW8270D	33.6	80.00		42.0	10-106				3/20/2013 450h
1303414-003BMSD	Surr: Nitrobenzene-d5	%REC	SW8270D	24.0	40.00		60.1	10-180				3/20/2013 450h
1303414-003BMSD	Surr: Phenol-d6	%REC	SW8270D	30.2	80.00		37.7	10-122				3/20/2013 450h
1303414-003BMSD	Surr: Terphenyl-d14	%REC	SW8270D	34.2	40.00		85.5	10-199				3/20/2013 450h
1303414-003BMSD	Acenaphthene	µg/L	SW8270D	57.2	80.00	0	71.5	21-113	11.1	25		3/21/2013 403h
1303414-003BMSD	Benzo(a)pyrene	µg/L	SW8270D	65.4	80.00	0	81.8	15-169	7.95	25		3/21/2013 403h
1303414-003BMSD	Pentachlorophenol	µg/L	SW8270D	68.4	80.00	0	85.5	10-131	16.6	25		3/21/2013 403h
1303414-003BMSD	Pyrene	µg/L	SW8270D	67.4	80.00	0	84.2	23-150	11	25		3/21/2013 403h

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



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
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 031913B	1,1,1-Trichloroethane	µg/L	SW8260C	23.9	20.00	0	119	59-156				3/19/2013 1728h
LCS VOC 031913B	1,1-Dichloroethene	µg/L	SW8260C	25.7	20.00	0	129	46-171				3/19/2013 1728h
LCS VOC 031913B	1,2-Dichlorobenzene	µg/L	SW8260C	21.9	20.00	0	109	67-135				3/19/2013 1728h
LCS VOC 031913B	1,2-Dichloroethane	µg/L	SW8260C	22.0	20.00	0	110	60-137				3/19/2013 1728h
LCS VOC 031913B	1,2-Dichloropropane	µg/L	SW8260C	21.4	20.00	0	107	59-135				3/19/2013 1728h
LCS VOC 031913B	Benzene	µg/L	SW8260C	22.9	20.00	0	114	62-127				3/19/2013 1728h
LCS VOC 031913B	Chlorobenzene	µg/L	SW8260C	22.3	20.00	0	112	63-140				3/19/2013 1728h
LCS VOC 031913B	Chloroform	µg/L	SW8260C	22.5	20.00	0	112	67-132				3/19/2013 1728h
LCS VOC 031913B	Ethylbenzene	µg/L	SW8260C	22.3	20.00	0	112	55-133				3/19/2013 1728h
LCS VOC 031913B	Isopropylbenzene	µg/L	SW8260C	22.7	20.00	0	113	60-147				3/19/2013 1728h
LCS VOC 031913B	Methyl tert-butyl ether	µg/L	SW8260C	21.8	20.00	0	109	37-189				3/19/2013 1728h
LCS VOC 031913B	Methylene chloride	µg/L	SW8260C	23.2	20.00	0	116	32-185				3/19/2013 1728h
LCS VOC 031913B	Naphthalene	µg/L	SW8260C	21.2	20.00	0	106	28-136				3/19/2013 1728h
LCS VOC 031913B	Tetrahydrofuran	µg/L	SW8260C	19.6	20.00	0	98.0	43-146				3/19/2013 1728h
LCS VOC 031913B	Toluene	µg/L	SW8260C	22.6	20.00	0	113	64-128				3/19/2013 1728h
LCS VOC 031913B	Trichloroethene	µg/L	SW8260C	22.5	20.00	0	113	54-152				3/19/2013 1728h
LCS VOC 031913B	Xylenes, Total	µg/L	SW8260C	67.8	60.00	0	113	52-134				3/19/2013 1728h
LCS VOC 031913B	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	50.5	50.00		101	76-138				3/19/2013 1728h
LCS VOC 031913B	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.5	50.00		101	77-121				3/19/2013 1728h
LCS VOC 031913B	Surr: Dibromofluoromethane	%REC	SW8260C	51.5	50.00		103	67-128				3/19/2013 1728h
LCS VOC 031913B	Surr: Toluene-d8	%REC	SW8260C	50.3	50.00		101	81-135				3/19/2013 1728h



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
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 031913B	1,1,1,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1,1-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1,1,2,2-Tetrachloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1,2-Trichloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,1-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2,3-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2,3-Trichloropropane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2,3-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2,4-Trichlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2,4-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2-Dibromo-3-chloropropane	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	1,2-Dibromoethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2-Dichloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,3,5-Trimethylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,3-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,3-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,4-Dichlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	1,4-Dioxane	µg/L	SW8260C	< 50.0				-				3/19/2013 1825h
MB VOC 031913B	2,2-Dichloropropane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	2-Butanone	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	2-Chloroethyl vinyl ether	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h



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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: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
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 031913B	2-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	2-Hexanone	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	2-Nitropropane	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	4-Chlorotoluene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	4-Isopropyltoluene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	4-Methyl-2-pentanone	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Acetone	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Acetonitrile	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Acrolein	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Acrylonitrile	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Allyl chloride	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Benzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Benzyl chloride	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Bis(2-chloroisopropyl) ether	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Bromobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Bromochloromethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Bromodichloromethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Bromoform	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Bromomethane	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Butyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Carbon disulfide	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Carbon tetrachloride	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Chlorobenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Chloroethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Chloroform	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Chloromethane	µg/L	SW8260C	< 3.00				-				3/19/2013 1825h
MB VOC 031913B	Chloroprene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
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 031913B	cis-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	cis-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Cyclohexane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Cyclohexanone	µg/L	SW8260C	< 50.0				-				3/19/2013 1825h
MB VOC 031913B	Dibromochloromethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Dibromomethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Dichlorodifluoromethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Ethyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Ethyl ether	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Ethyl methacrylate	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Ethylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Hexachlorobutadiene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Iodomethane	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Isobutyl alcohol	µg/L	SW8260C	< 100				-				3/19/2013 1825h
MB VOC 031913B	Isopropyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Isopropyl alcohol	µg/L	SW8260C	< 40.0				-				3/19/2013 1825h
MB VOC 031913B	Isopropylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	m,p-Xylene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Methacrylonitrile	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Methyl Acetate	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Methyl methacrylate	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Methyl tert-butyl ether	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Methylcyclohexane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Methylene chloride	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	n-Amyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Naphthalene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	n-Butyl alcohol	µg/L	SW8260C	< 100				-				3/19/2013 1825h

Report Date: 3/25/2013 Page 76 of 118



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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: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
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 031913B	n-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	n-Hexane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	n-Octane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	n-Propylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	o-Xylene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Pentachloroethane	µg/L	SW8260C	< 5.00				-				3/19/2013 1825h
MB VOC 031913B	Propionitrile	µg/L	SW8260C	< 25.0				-				3/19/2013 1825h
MB VOC 031913B	Propyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	sec-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Styrene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	tert-Butyl alcohol	µg/L	SW8260C	< 20.0				-				3/19/2013 1825h
MB VOC 031913B	tert-Butylbenzene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Tetrachloroethene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Tetrahydrofuran	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Toluene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	trans-1,2-Dichloroethene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	trans-1,3-Dichloropropene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	trans-1,4-Dichloro-2-butene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Trichloroethene	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Trichlorofluoromethane	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Vinyl acetate	µg/L	SW8260C	< 10.0				-				3/19/2013 1825h
MB VOC 031913B	Vinyl chloride	µg/L	SW8260C	< 1.00				-				3/19/2013 1825h
MB VOC 031913B	Xylenes, Total	µg/L	SW8260C	< 2.00				-				3/19/2013 1825h
MB VOC 031913B	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.0	50.00		104	76-138				3/19/2013 1825h
MB VOC 031913B	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.4	50.00		101	77-121				3/19/2013 1825h
MB VOC 031913B	Surr: Dibromofluoromethane	%REC	SW8260C	50.6	50.00		101	67-128				3/19/2013 1825h
MB VOC 031913B	Surr: Toluene-d8	%REC	SW8260C	50.0	50.00		99.9	81-135				3/19/2013 1825h

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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: 1303414
Project: Chevron (Willard Incident)

Contact: Jim Harris
Dept: MSVOA
QC Type: MS

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-003AMS	1,1,1-Trichloroethane	µg/L	SW8260C	27.0	20.00	0	135	67-147				3/19/2013 1922h
1303414-003AMS	1,1-Dichloroethene	µg/L	SW8260C	28.5	20.00	0	142	51-152				3/19/2013 1922h
1303414-003AMS	1,2-Dichlorobenzene	µg/L	SW8260C	22.5	20.00	0	113	70-130				3/19/2013 1922h
1303414-003AMS	1,2-Dichloroethane	µg/L	SW8260C	23.3	20.00	0	117	39-162				3/19/2013 1922h
1303414-003AMS	1,2-Dichloropropane	µg/L	SW8260C	22.0	20.00	0	110	59-135				3/19/2013 1922h
1303414-003AMS	Benzene	µg/L	SW8260C	24.3	20.00	0	122	66-145				3/19/2013 1922h
1303414-003AMS	Chlorobenzene	µg/L	SW8260C	23.0	20.00	0	115	63-140				3/19/2013 1922h
1303414-003AMS	Chloroform	µg/L	SW8260C	24.1	20.00	0	121	50-146				3/19/2013 1922h
1303414-003AMS	Ethylbenzene	µg/L	SW8260C	23.8	20.00	0	119	69-133				3/19/2013 1922h
1303414-003AMS	Isopropylbenzene	µg/L	SW8260C	24.2	20.00	0	121	60-147				3/19/2013 1922h
1303414-003AMS	Methyl tert-butyl ether	µg/L	SW8260C	22.7	20.00	0	114	37-189				3/19/2013 1922h
1303414-003AMS	Methylene chloride	µg/L	SW8260C	25.1	20.00	0	126	30-192				3/19/2013 1922h
1303414-003AMS	Naphthalene	µg/L	SW8260C	20.6	20.00	0	103	41-131				3/19/2013 1922h
1303414-003AMS	Tetrahydrofuran	µg/L	SW8260C	19.4	20.00	0	96.8	43-146				3/19/2013 1922h
1303414-003AMS	Toluene	µg/L	SW8260C	24.4	20.00	0	122	18-192				3/19/2013 1922h
1303414-003AMS	Trichloroethene	µg/L	SW8260C	23.6	20.00	0	118	61-153				3/19/2013 1922h
1303414-003AMS	Xylenes, Total	µg/L	SW8260C	73.7	60.00	2.110	119	42-167				3/19/2013 1922h
1303414-003AMS	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	53.5	50.00		107	72-151				3/19/2013 1922h
1303414-003AMS	Surr: 4-Bromofluorobenzene	%REC	SW8260C	51.1	50.00		102	80-128				3/19/2013 1922h
1303414-003AMS	Surr: Dibromofluoromethane	%REC	SW8260C	53.2	50.00		106	80-124				3/19/2013 1922h
1303414-003AMS	Surr: Toluene-d8	%REC	SW8260C	50.8	50.00		102	77-129				3/19/2013 1922h



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QC SUMMARY REPORT

Client: Utah Division of Water Quality
Lab Set ID: 1303414
Project: Chevron (Willard Incident)

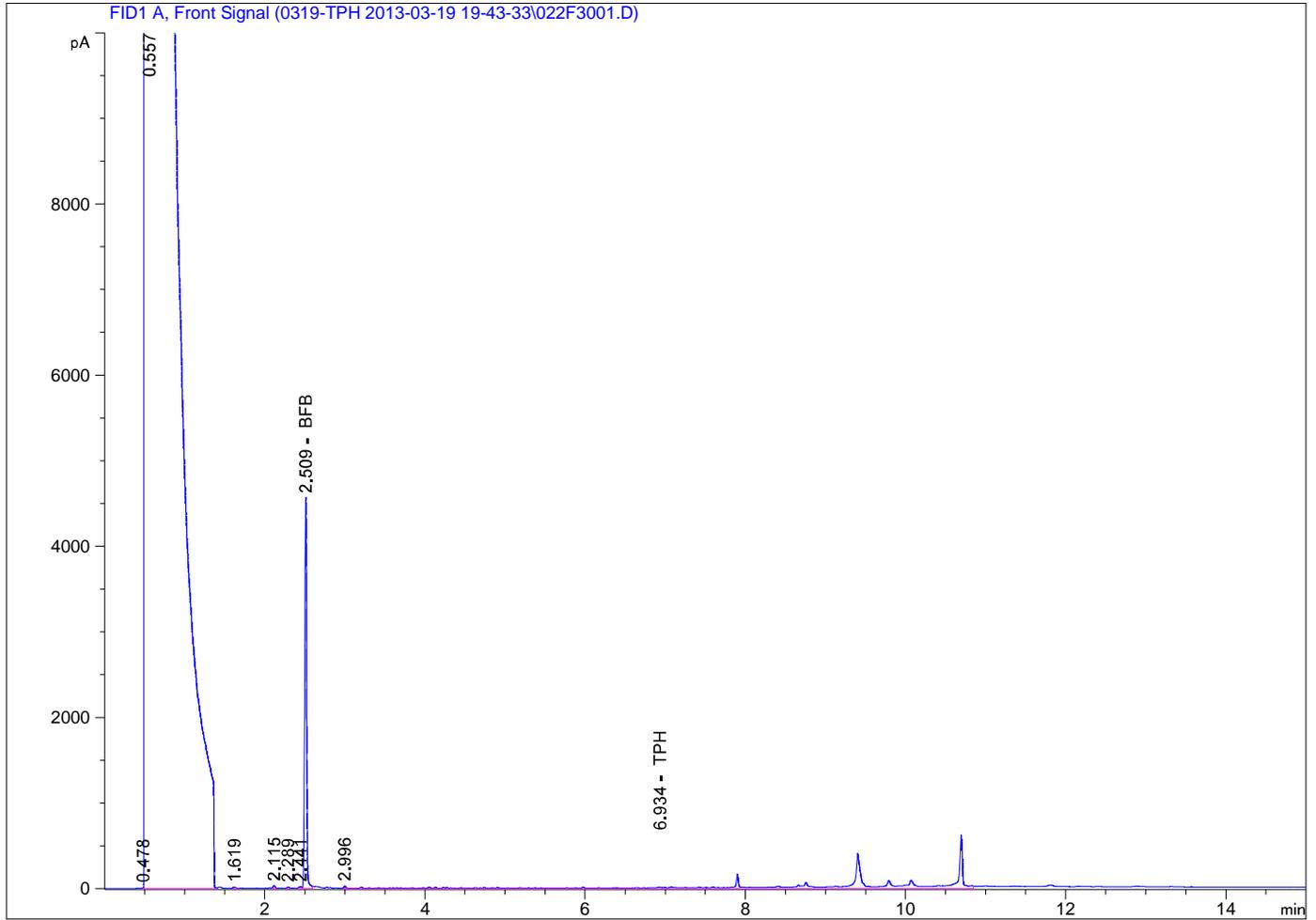
Contact: Jim Harris
Dept: MSVOA
QC Type: MSD

Sample ID	Analyte	Units	Method	Result	Amount Spiked	Original Amount	%REC	Limits	%RPD	RPD Limit	Qual	Date Analyzed
1303414-003AMSD	1,1,1-Trichloroethane	µg/L	SW8260C	24.8	20.00	0	124	67-147	8.46	25		3/19/2013 1941h
1303414-003AMSD	1,1-Dichloroethene	µg/L	SW8260C	26.8	20.00	0	134	51-152	6.3	25		3/19/2013 1941h
1303414-003AMSD	1,2-Dichlorobenzene	µg/L	SW8260C	20.7	20.00	0	104	70-130	8.47	25		3/19/2013 1941h
1303414-003AMSD	1,2-Dichloroethane	µg/L	SW8260C	21.5	20.00	0	108	39-162	8.02	25		3/19/2013 1941h
1303414-003AMSD	1,2-Dichloropropane	µg/L	SW8260C	20.1	20.00	0	101	59-135	8.84	25		3/19/2013 1941h
1303414-003AMSD	Benzene	µg/L	SW8260C	22.2	20.00	0	111	66-145	9.42	25		3/19/2013 1941h
1303414-003AMSD	Chlorobenzene	µg/L	SW8260C	21.0	20.00	0	105	63-140	9.19	25		3/19/2013 1941h
1303414-003AMSD	Chloroform	µg/L	SW8260C	22.0	20.00	0	110	50-146	9.29	25		3/19/2013 1941h
1303414-003AMSD	Ethylbenzene	µg/L	SW8260C	21.7	20.00	0	109	69-133	9.35	25		3/19/2013 1941h
1303414-003AMSD	Isopropylbenzene	µg/L	SW8260C	22.0	20.00	0	110	60-147	9.3	25		3/19/2013 1941h
1303414-003AMSD	Methyl tert-butyl ether	µg/L	SW8260C	22.5	20.00	0	113	37-189	0.884	25		3/19/2013 1941h
1303414-003AMSD	Methylene chloride	µg/L	SW8260C	23.4	20.00	0	117	30-192	6.97	25		3/19/2013 1941h
1303414-003AMSD	Naphthalene	µg/L	SW8260C	19.0	20.00	0	95.0	41-131	7.94	25		3/19/2013 1941h
1303414-003AMSD	Tetrahydrofuran	µg/L	SW8260C	24.0	20.00	0	120	43-146	21.3	25		3/19/2013 1941h
1303414-003AMSD	Toluene	µg/L	SW8260C	22.4	20.00	0	112	18-192	8.67	25		3/19/2013 1941h
1303414-003AMSD	Trichloroethene	µg/L	SW8260C	21.8	20.00	0	109	61-153	7.91	25		3/19/2013 1941h
1303414-003AMSD	Xylenes, Total	µg/L	SW8260C	67.3	60.00	2.110	109	42-167	9.02	25		3/19/2013 1941h
1303414-003AMSD	Surr: 1,2-Dichloroethane-d4	%REC	SW8260C	52.8	50.00		106	72-151				3/19/2013 1941h
1303414-003AMSD	Surr: 4-Bromofluorobenzene	%REC	SW8260C	50.8	50.00		102	80-128				3/19/2013 1941h
1303414-003AMSD	Surr: Dibromofluoromethane	%REC	SW8260C	52.2	50.00		104	80-124				3/19/2013 1941h
1303414-003AMSD	Surr: Toluene-d8	%REC	SW8260C	49.7	50.00		99.4	77-129				3/19/2013 1941h

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Acq. Operator	:		Seq. Line	:	30
Acq. Instrument	:	GC C	Location	:	Vial 22
Injection Date	:	3/20/2013 5:14:54 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M (Sequence Method)			
Last changed	:	3/20/2013 8:30:37 AM (modified after loading)			

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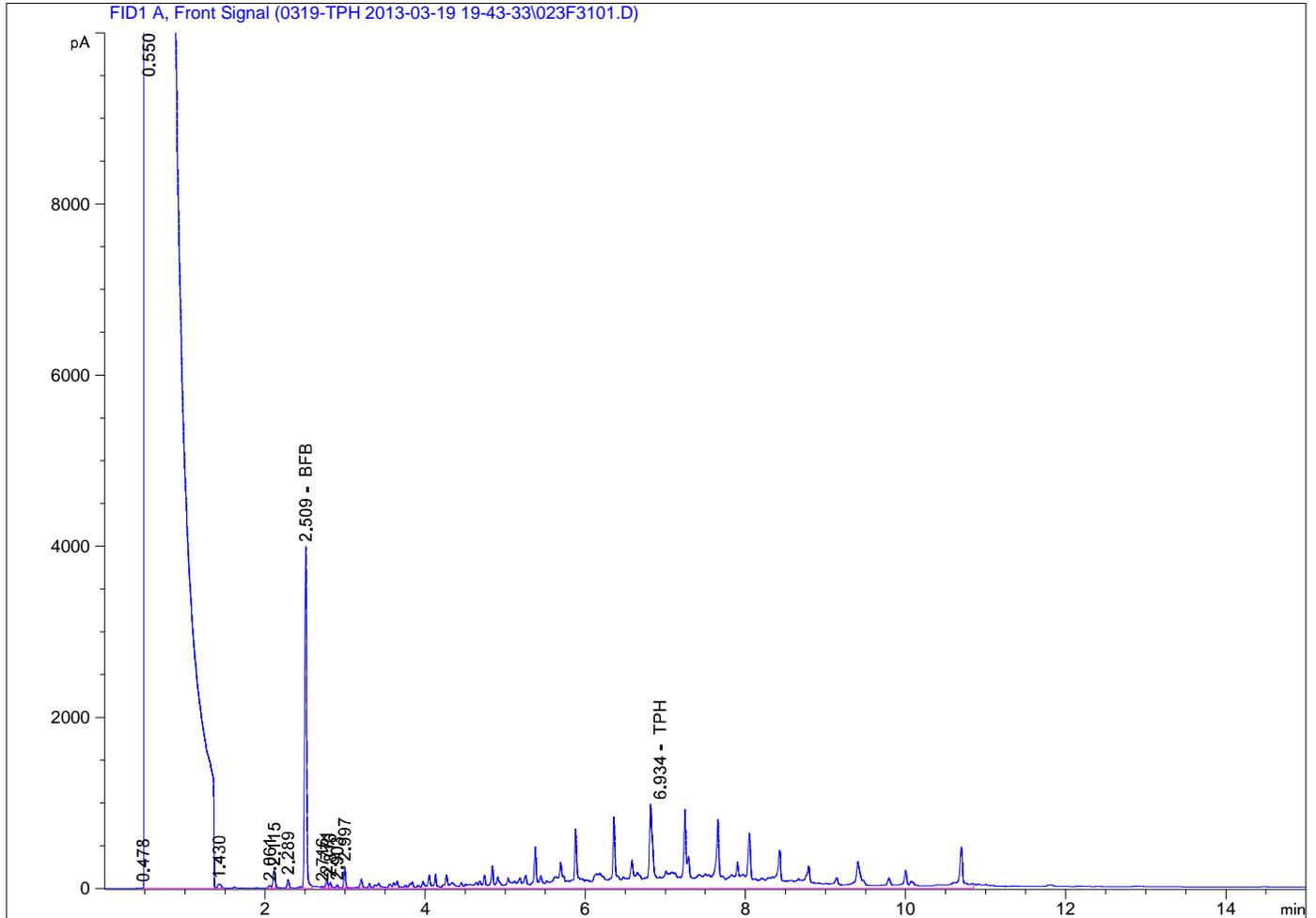
External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/2013 8:30:37 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Operator	:		Seq. Line	:	31
Acq. Instrument	:	GC C	Location	:	Vial 23
Injection Date	:	3/20/2013 5:34:35 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M (Sequence Method)			
Last changed	:	3/20/2013 8:30:37 AM (modified after loading)			

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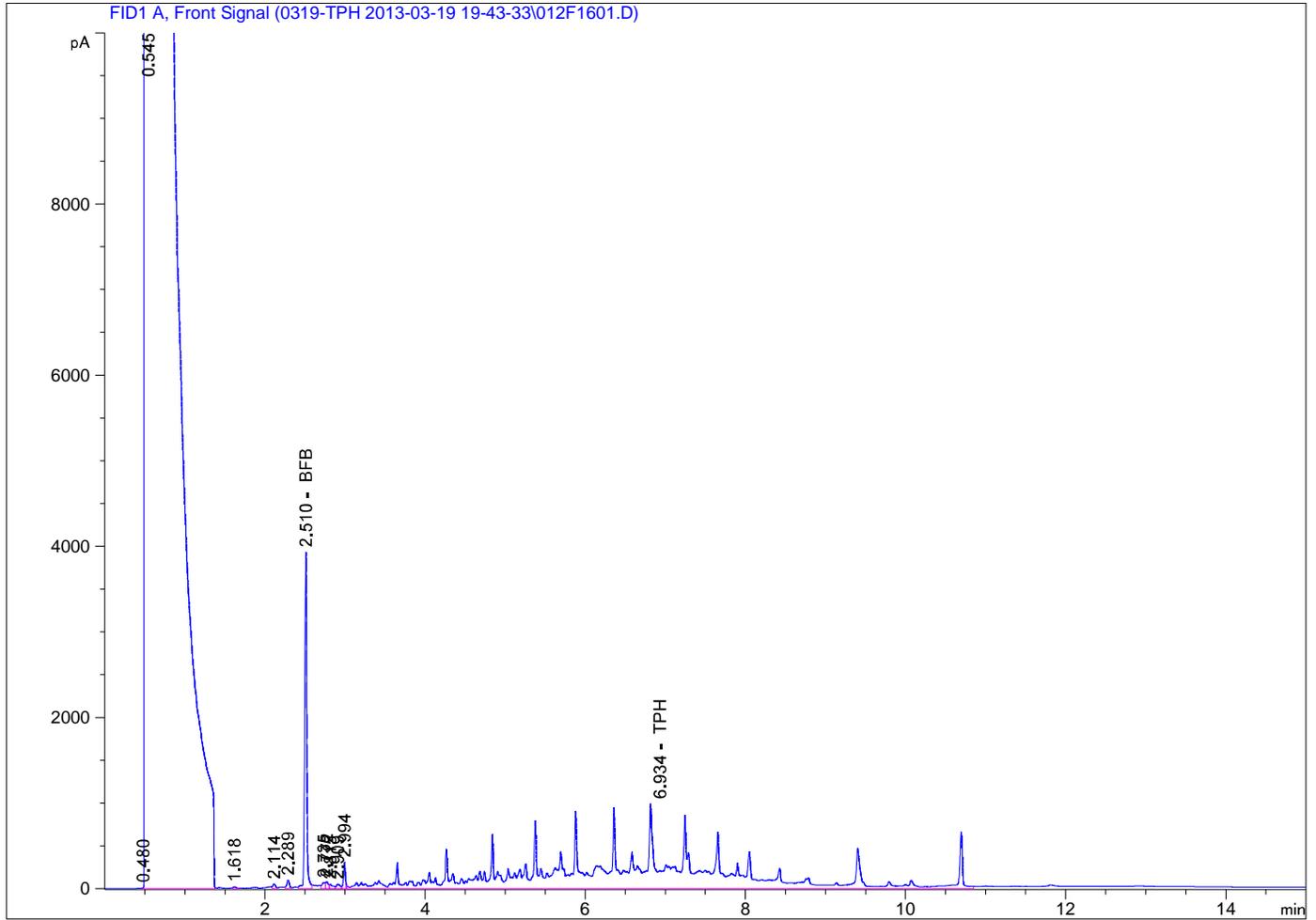
External Standard Report

Sorted By : Signal
Calib. Data Modified : 3/20/2013 8:30:37 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

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Acq. Operator	:		Seq. Line	:	16
Acq. Instrument	:	GC C	Location	:	Vial 12
Injection Date	:	3/20/2013 12:40:43 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M (Sequence Method)			
Last changed	:	3/20/2013 8:30:37 AM (modified after loading)			

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External Standard Report

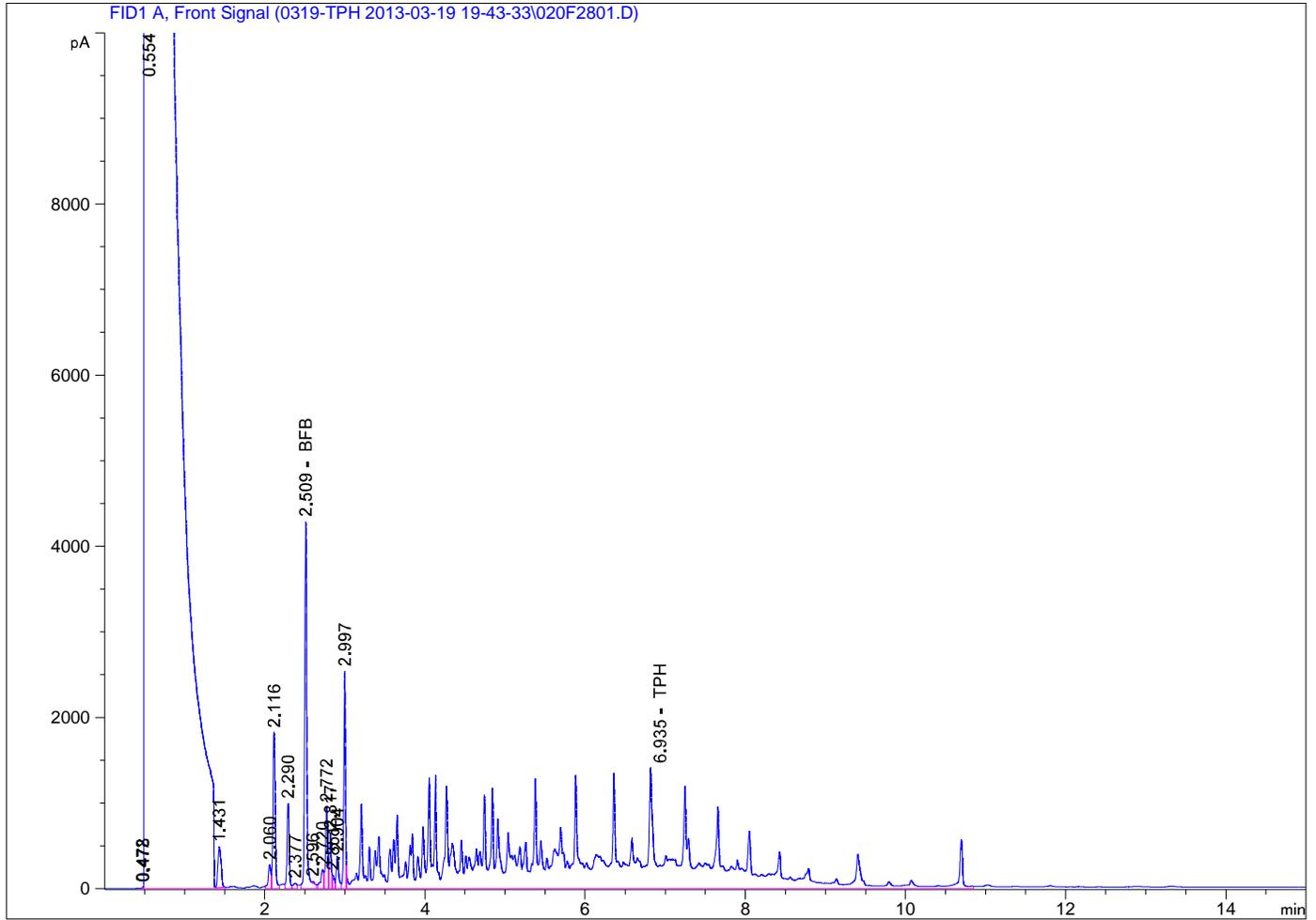
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Sorted By : Signal
Calib. Data Modified : 3/20/2013 8:30:37 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

=====

Acq. Operator	:		Seq. Line	:	28
Acq. Instrument	:	GC C	Location	:	Vial 20
Injection Date	:	3/20/2013 4:35:47 AM	Inj	:	1
			Inj Volume	:	5 µl
Acq. Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M			
Last changed	:	3/14/2013 1:57:38 PM			
Analysis Method	:	C:\CHEM32\1\DATA\0319-TPH 2013-03-19 19-43-33\TPH-FRONT-1090171B.M (Sequence Method)			
Last changed	:	3/20/2013 8:30:37 AM (modified after loading)			

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External Standard Report

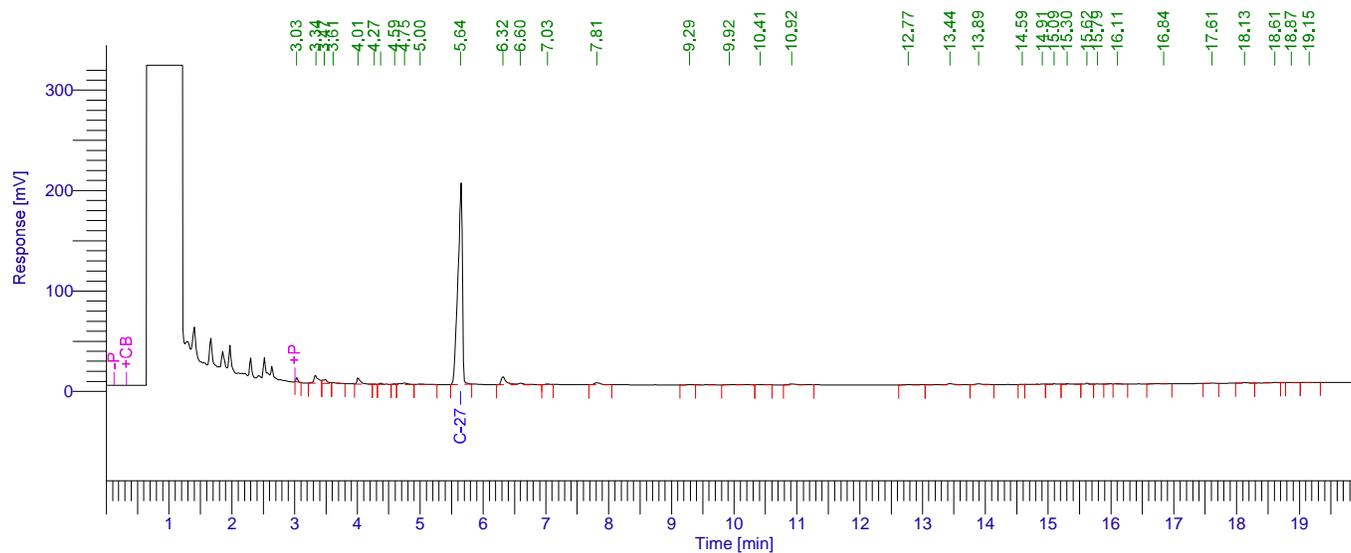
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Sorted By : Signal
Calib. Data Modified : 3/20/2013 8:30:37 AM
Multiplier: : 1.0000
Dilution: : 1.0000
Do not use Multiplier & Dilution Factor with ISTDs

Software Version : 6.3.1.0504
 Sample Name : 1303414-002B
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 32

Date : 3/22/2013 2:25:40 PM
 Data Acquisition Time : 3/22/2013 10:40:10 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g032.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

injection amount: 5µL

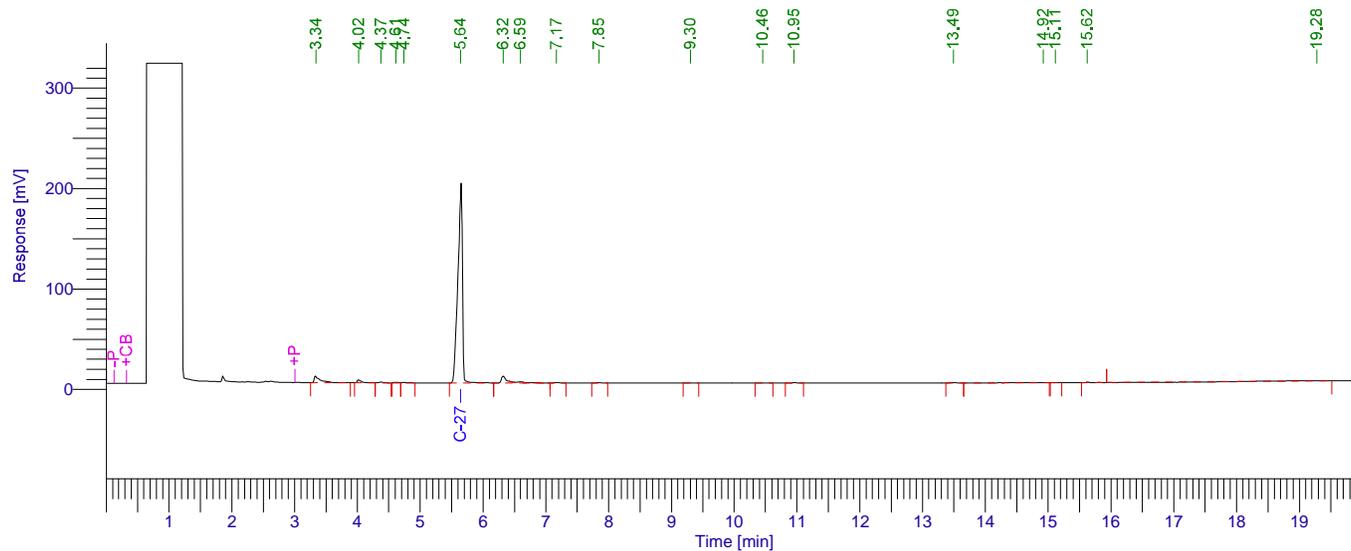
time [min]	component name	height [µV]	area [µV-s]	raw amt µg/mL	target µg/mL	% recs
5.643	C-27	199662	980560	97.76933	100.00	97.8
11.311	ORO	10605	80736	13.24970	100.00	13.2 <PQL
						111.0

Report stored in ASCII file: C:\gc#2\ORO\0320g032.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303414-003B
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 33

Date : 3/22/2013 2:26:05 PM
 Data Acquisition Time : 3/22/2013 11:03:54 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g033.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

injection temp: 340C detector temp: 360C Range: 2

injection amount: 5 μ L

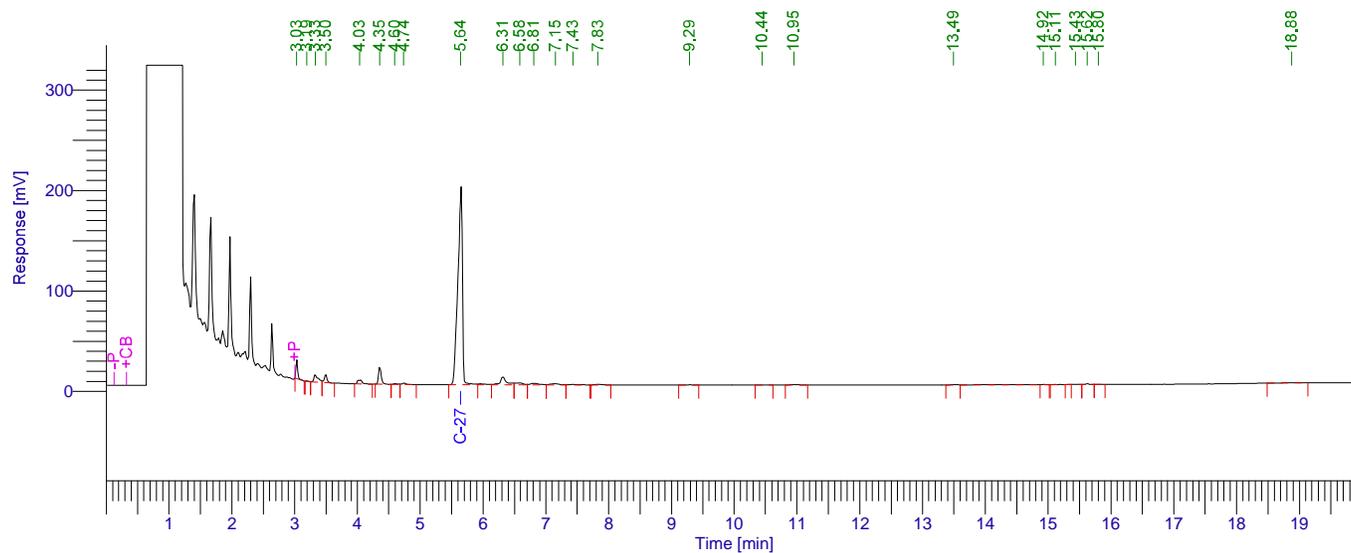
time [min]	component name	height [μ V]	area [μ V-s]	raw amt μ g/mL	target μ g/mL	% recs
5.643	C-27	199226	993703	99.03142	100.00	99.0
11.311	ORO	3554	28202	8.24884	100.00	8.2 <PQL
						107.3

Report stored in ASCII file: C:\gc#2\ORO\0320g033.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303414-004B
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 34

Date : 3/22/2013 2:26:26 PM
 Data Acquisition Time : 3/22/2013 11:27:36 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g034.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

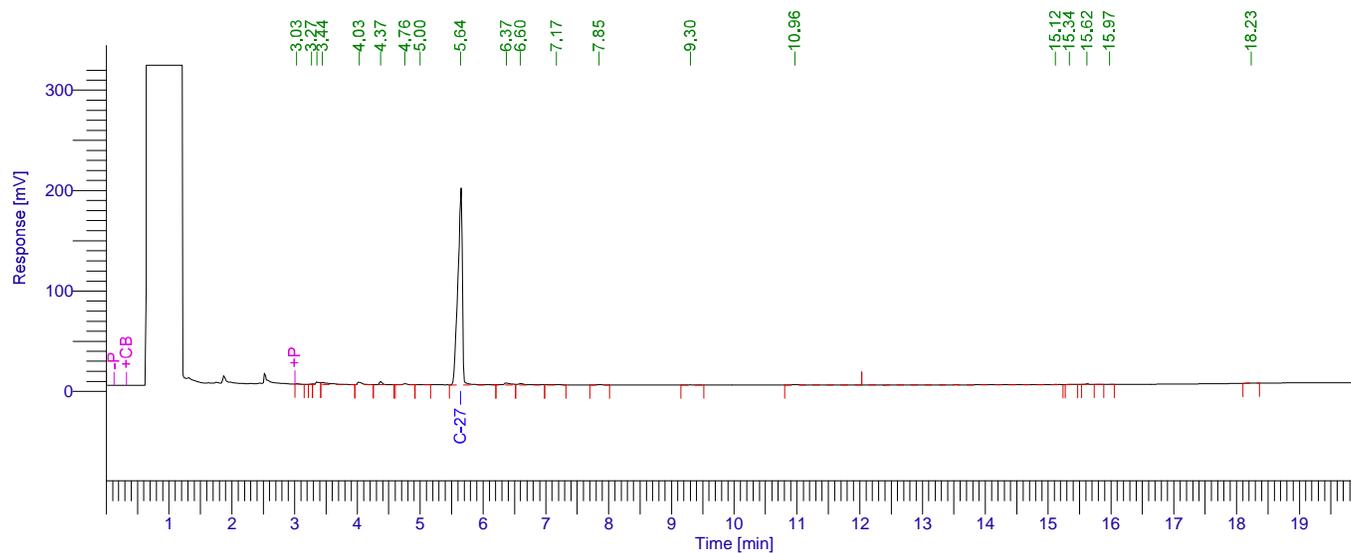
time [min]	component name	height [µV]	area [µV-s]	raw amt µg/mL	target µg/mL	% recs
5.643	C-27	197782	987061	98.39365	100.00	98.4
11.311	ORO	8447	66518	11.89669	100.00	11.9 <PQL
						110.3

Report stored in ASCII file: C:\gc#2\ORO\0320g034.TX0

Software Version : 6.3.1.0504
 Sample Name : MB-24250
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 30

Date : 3/22/2013 2:24:51 PM
 Data Acquisition Time : 3/22/2013 9:52:38 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g030.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

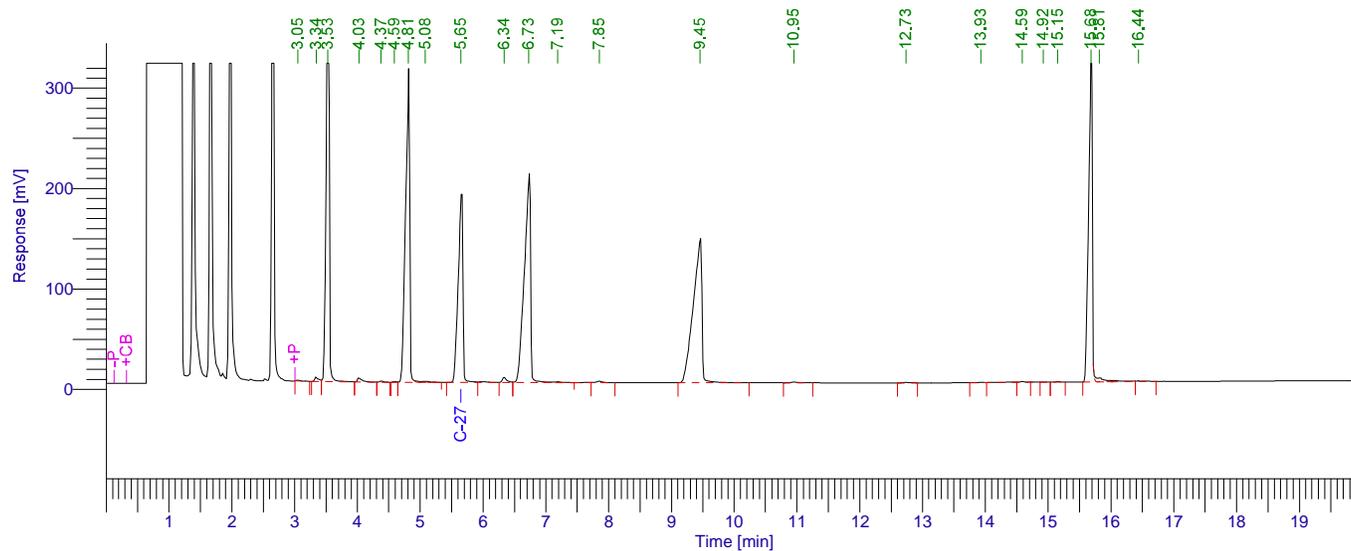
time [min]	component name	height [µV]	area [µV·s]	raw amt µg/mL	target µg/mL	% recs
5.642	C-27	195204	965801	96.35175	100.00	96.4
11.311	ORO	3662	26792	8.11465	100.00	8.1 <PQL
						104.5

Report stored in ASCII file: C:\gc#2\ORO\0320g030.TX0

Software Version : 6.3.1.0504
 Sample Name : LCS-24250
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 31

Date : 3/22/2013 2:25:19 PM
 Data Acquisition Time : 3/22/2013 10:16:26 AM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g031.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

injection amount: 5 μ L

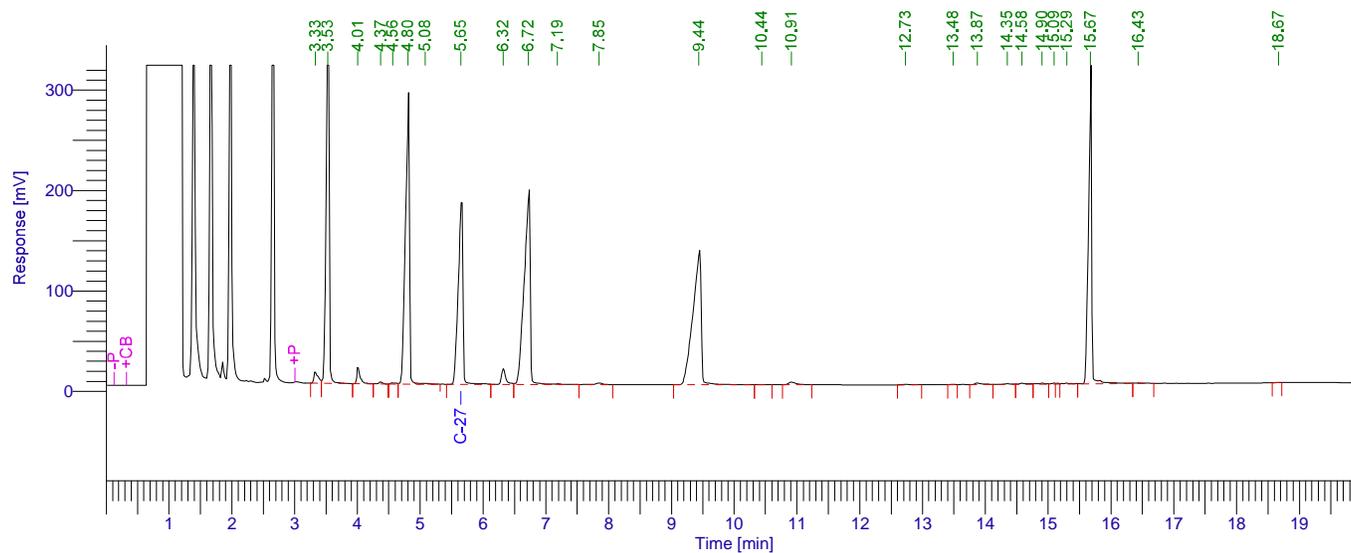
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.650	C-27	183777	969153	96.67374	100.00	96.7
11.311	ORO	725212	4342891	4.08e+02	100.00	408.4
						505.1

Report stored in ASCII file: C:\gc#2\ORO\0320g031.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303453-002BMS
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 36

Date : 3/22/2013 2:27:18 PM
 Data Acquisition Time : 3/22/2013 12:15:06 PM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g036.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

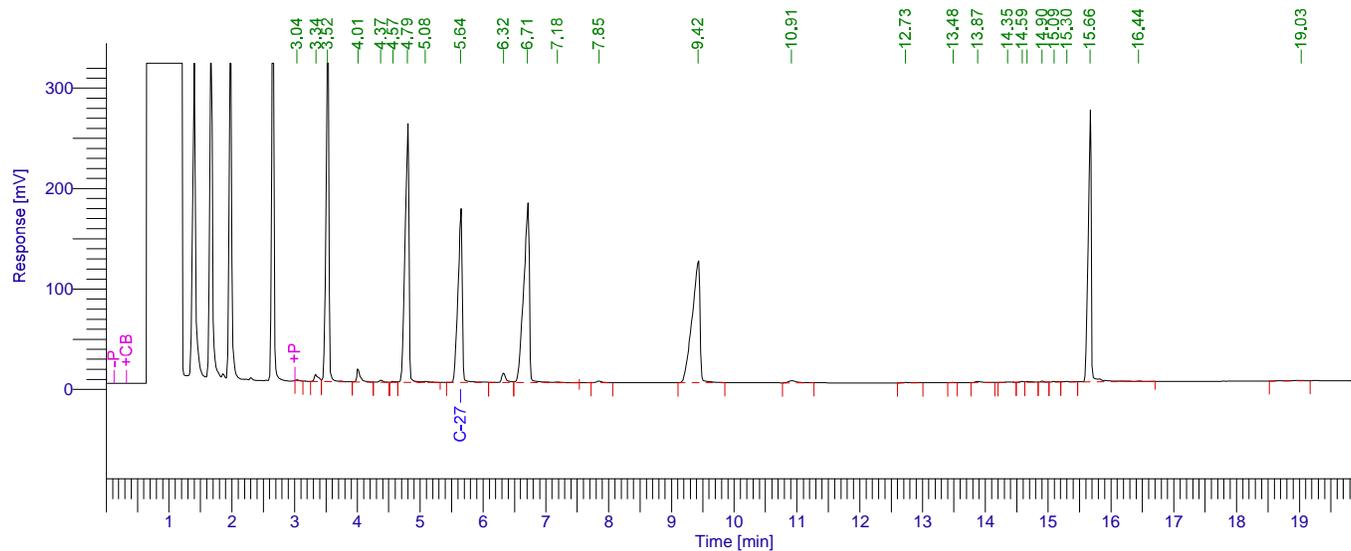
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.650	C-27	177948	940149	93.88740	100.00	93.9
11.311	ORO	620088	3782471	3.57e+02	100.00	357.5
						451.4

Report stored in ASCII file: C:\gc#2\ORO\0320g036.TX0

Software Version : 6.3.1.0504
 Sample Name : 1303453-002BMSD
 Instrument Name : 900 interface
 Rack/Vial : 0/0
 Sample Amount : 1.000000
 Cycle : 37

Date : 3/22/2013 2:27:40 PM
 Data Acquisition Time : 3/22/2013 12:38:51 PM
 Channel : B
 Operator : awaluser
 Dilution Factor : 1.000000

Result File : C:\gc#2\ORO\0320g037.rst
 Sequence File : C:\sequences\0320-ORO.seq



ORO Analysis (FID)

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

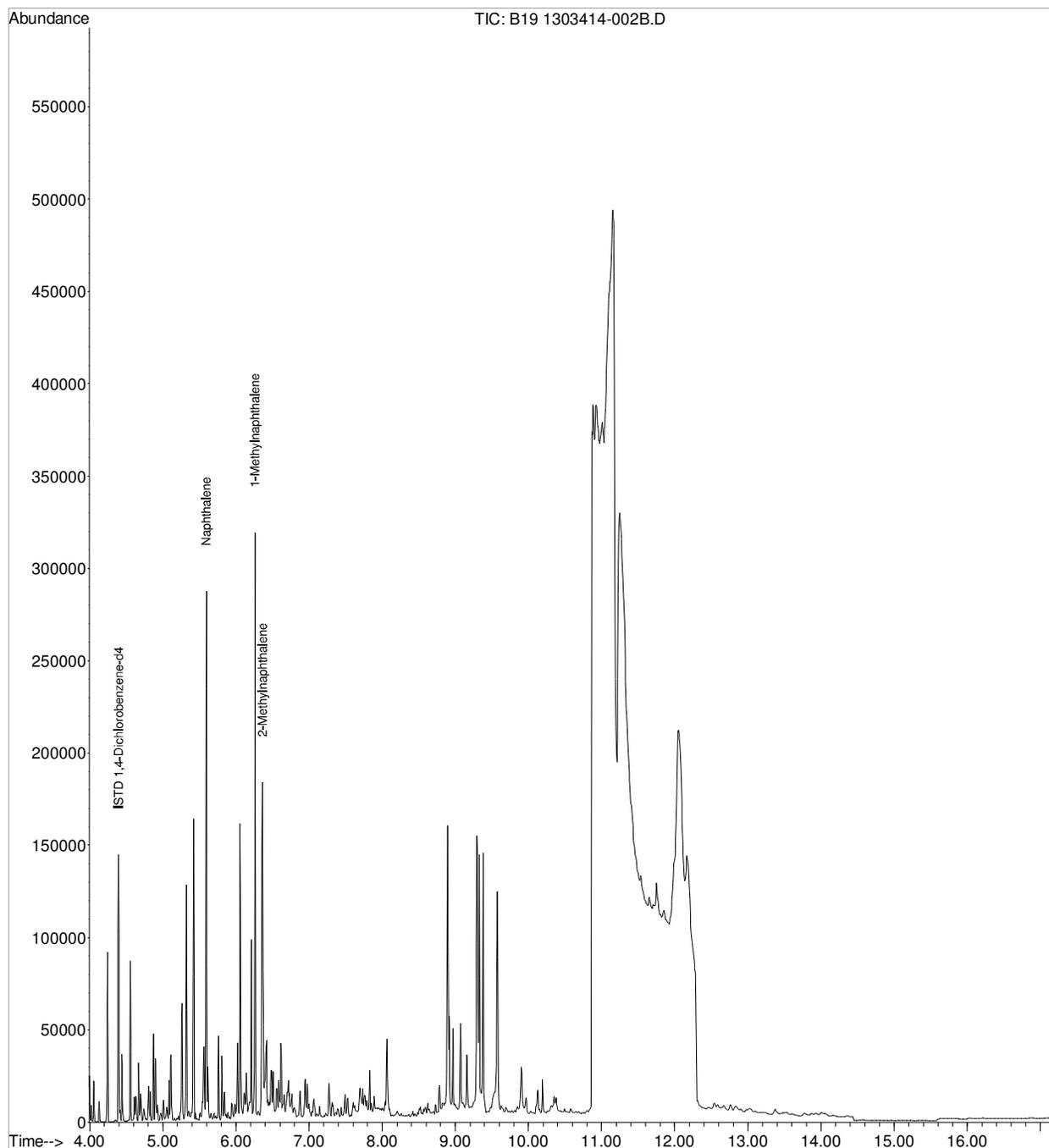
time [min]	component name	height [μ V]	area [μ V·s]	raw amt μ g/mL	target μ g/mL	% recs
5.641	C-27	168485	812170	81.57967	100.00	81.6
11.311	ORO	583983	3284095	3.12e+02	100.00	312.0
						393.6

Report stored in ASCII file: C:\gc#2\ORO\0320g037.TX0

Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
Data File : B19 1303414-002B.D
Acq On : 21 Mar 2013 2:44 am
Operator : ALICIA HABERLE
Sample : 1303414-002B
Misc : SAMP
ALS Vial : 12 Sample Multiplier: 1

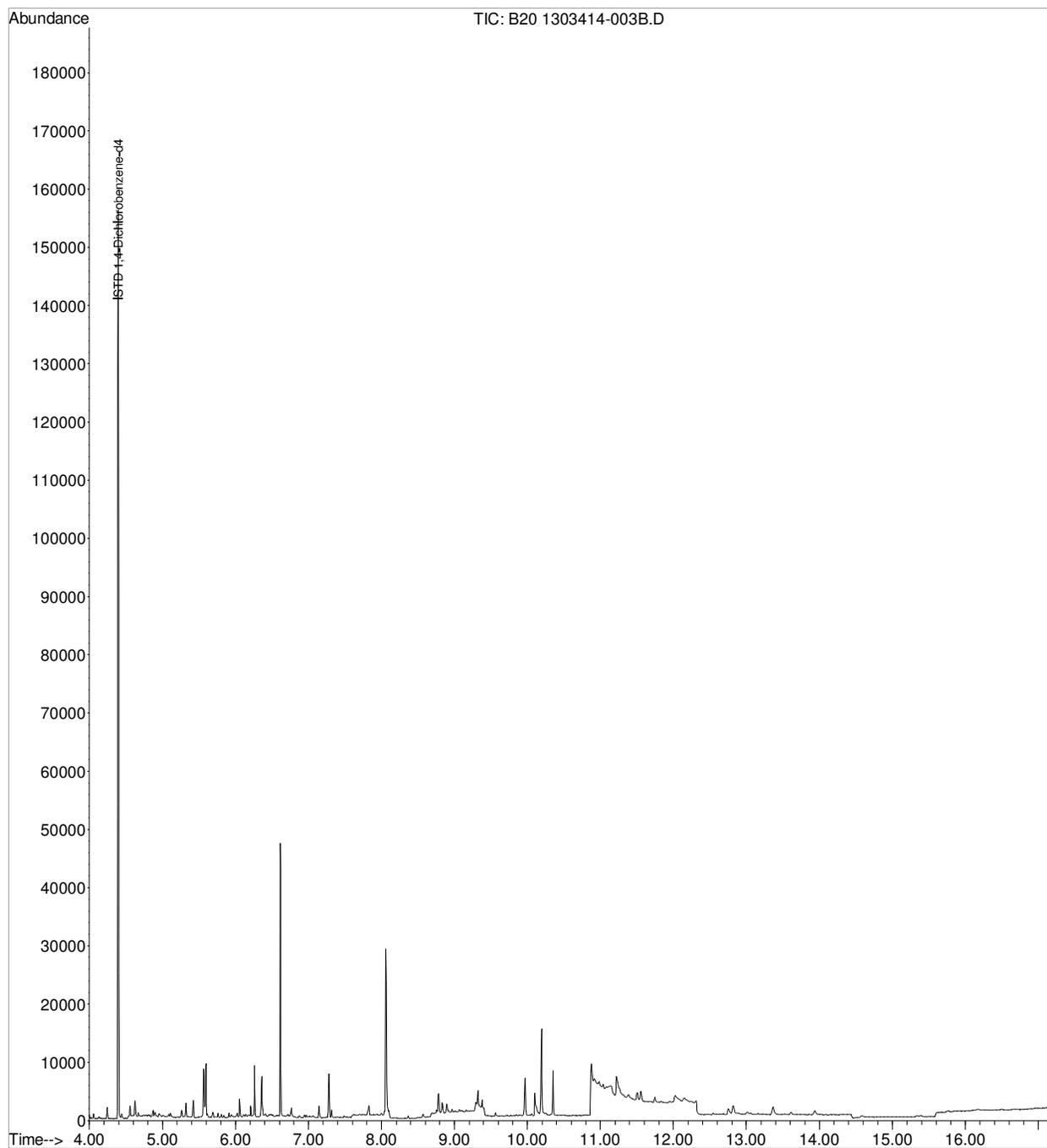
Quant Time: Mar 21 11:40:26 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 20 20:40:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
Data File : B20 1303414-003B.D
Acq On : 21 Mar 2013 3:10 am
Operator : ALICIA HABERLE
Sample : 1303414-003B
Misc : SAMP
ALS Vial : 13 Sample Multiplier: 1

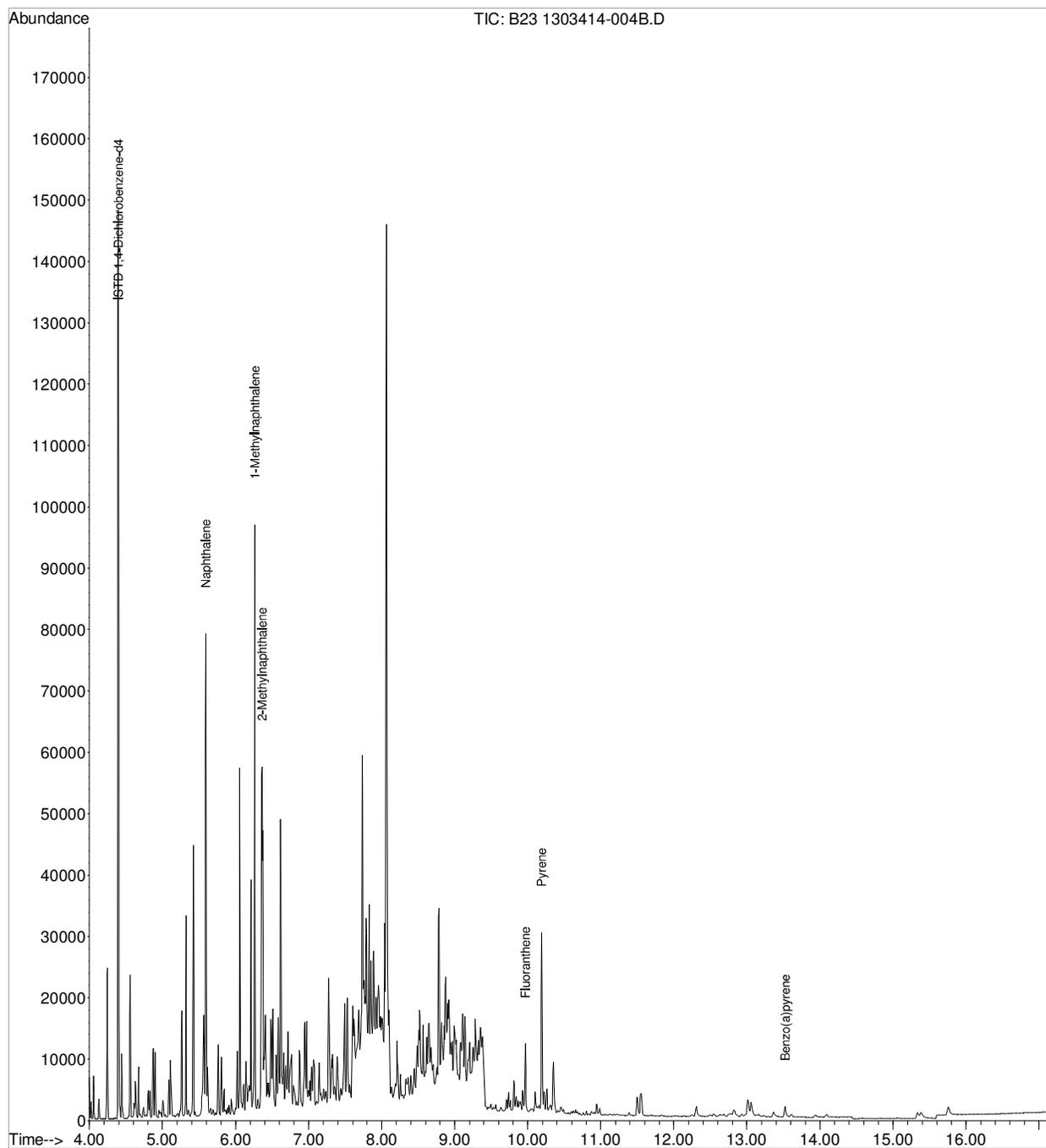
Quant Time: Mar 21 11:46:18 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 20 20:40:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
Data File : B23 1303414-004B.D
Acq On : 21 Mar 2013 4:30 am
Operator : ALICIA HABERLE
Sample : 1303414-004B
Misc : SAMP
ALS Vial : 16 Sample Multiplier: 1

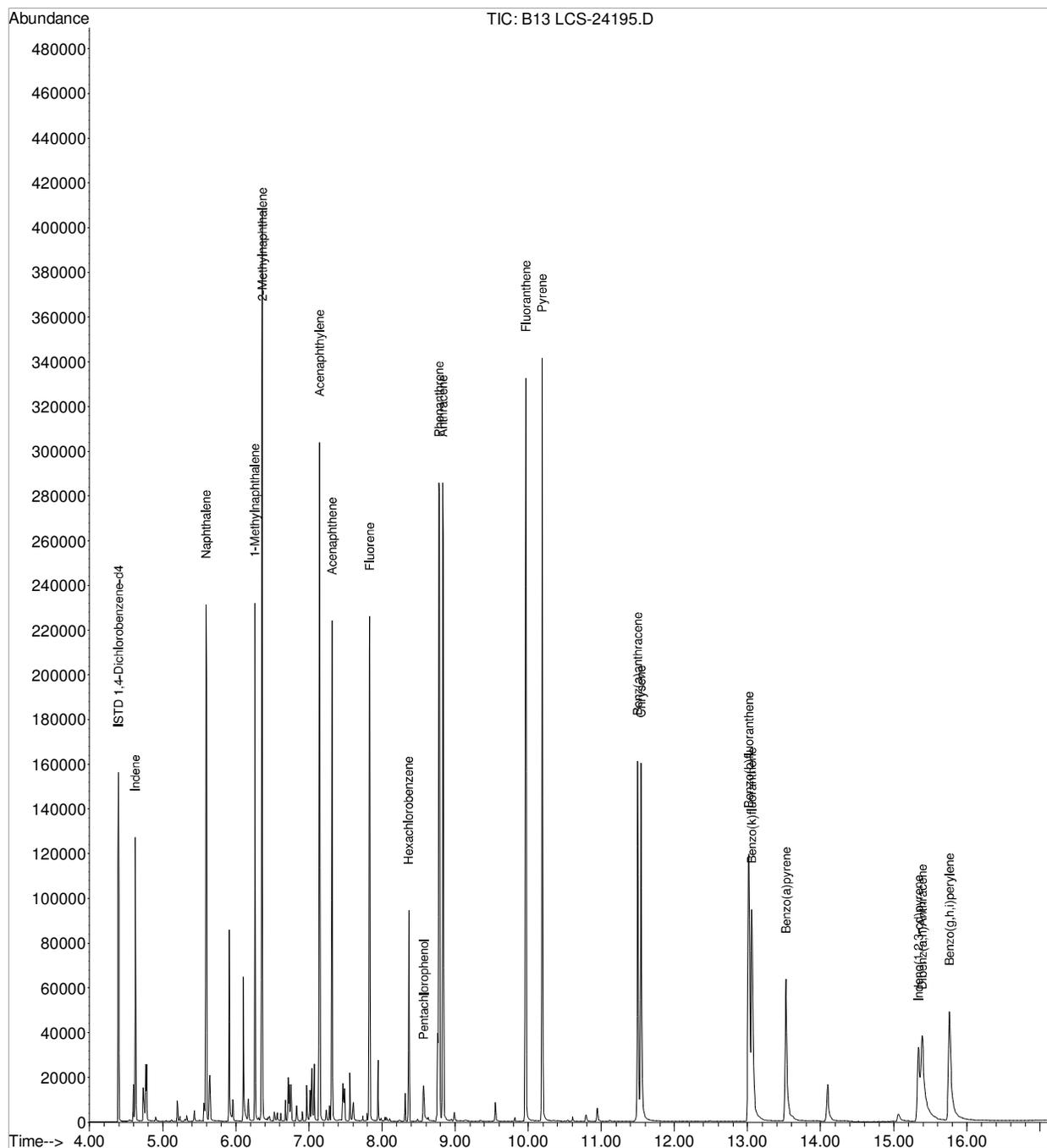
Quant Time: Mar 21 11:49:04 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 20 20:40:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
 Data File : B13 LCS-24195.D
 Acq On : 21 Mar 2013 12:04 am
 Operator : ALICIA HABERLE
 Sample : LCS-24195
 Misc : LCS
 ALS Vial : 6 Sample Multiplier: 1

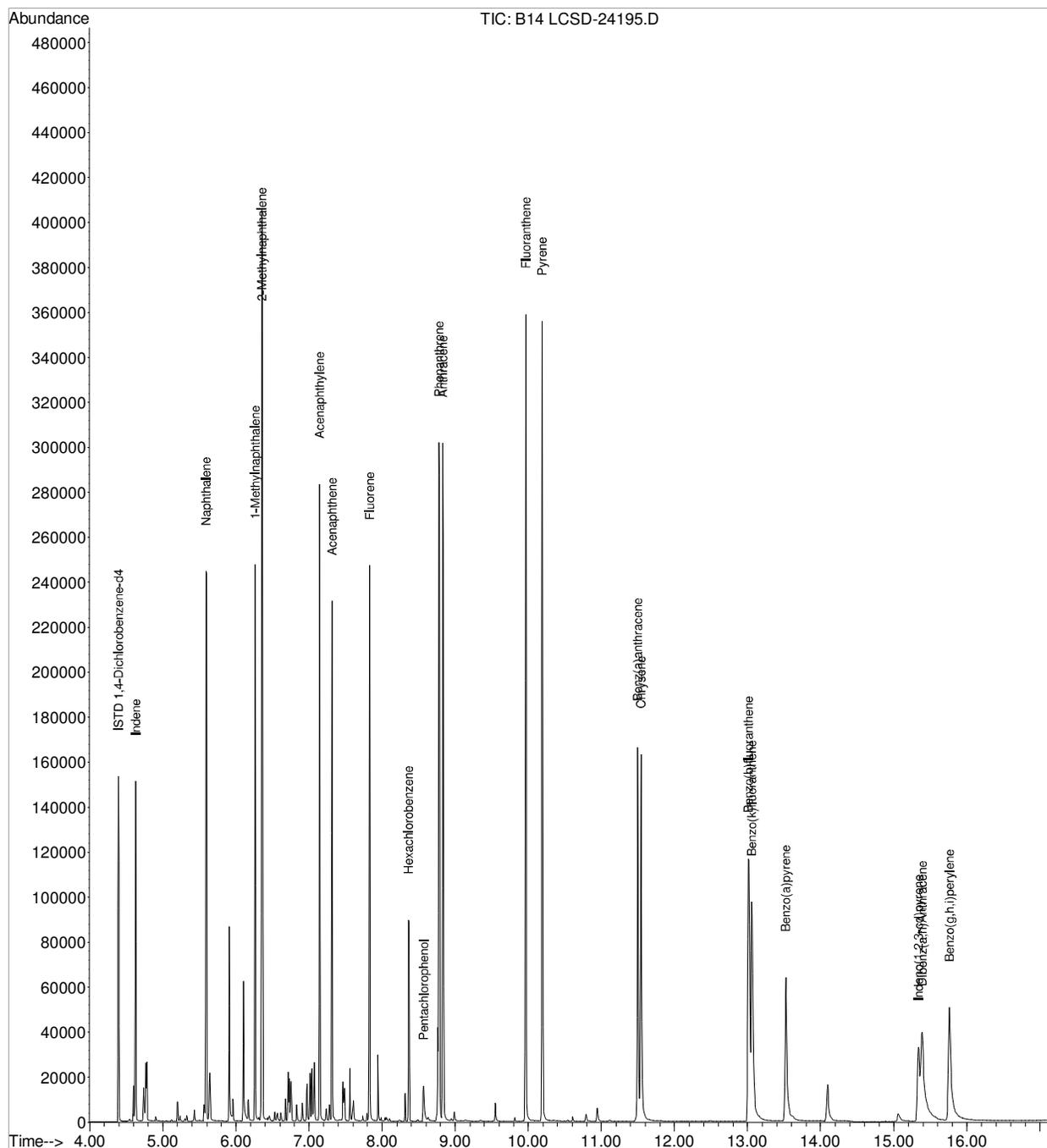
Quant Time: Mar 21 11:32:25 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Mar 20 20:40:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
 Data File : B14 LCSD-24195.D
 Acq On : 21 Mar 2013 12:31 am
 Operator : ALICIA HABERLE
 Sample : LCSD-24195
 Misc : LCSD
 ALS Vial : 7 Sample Multiplier: 1

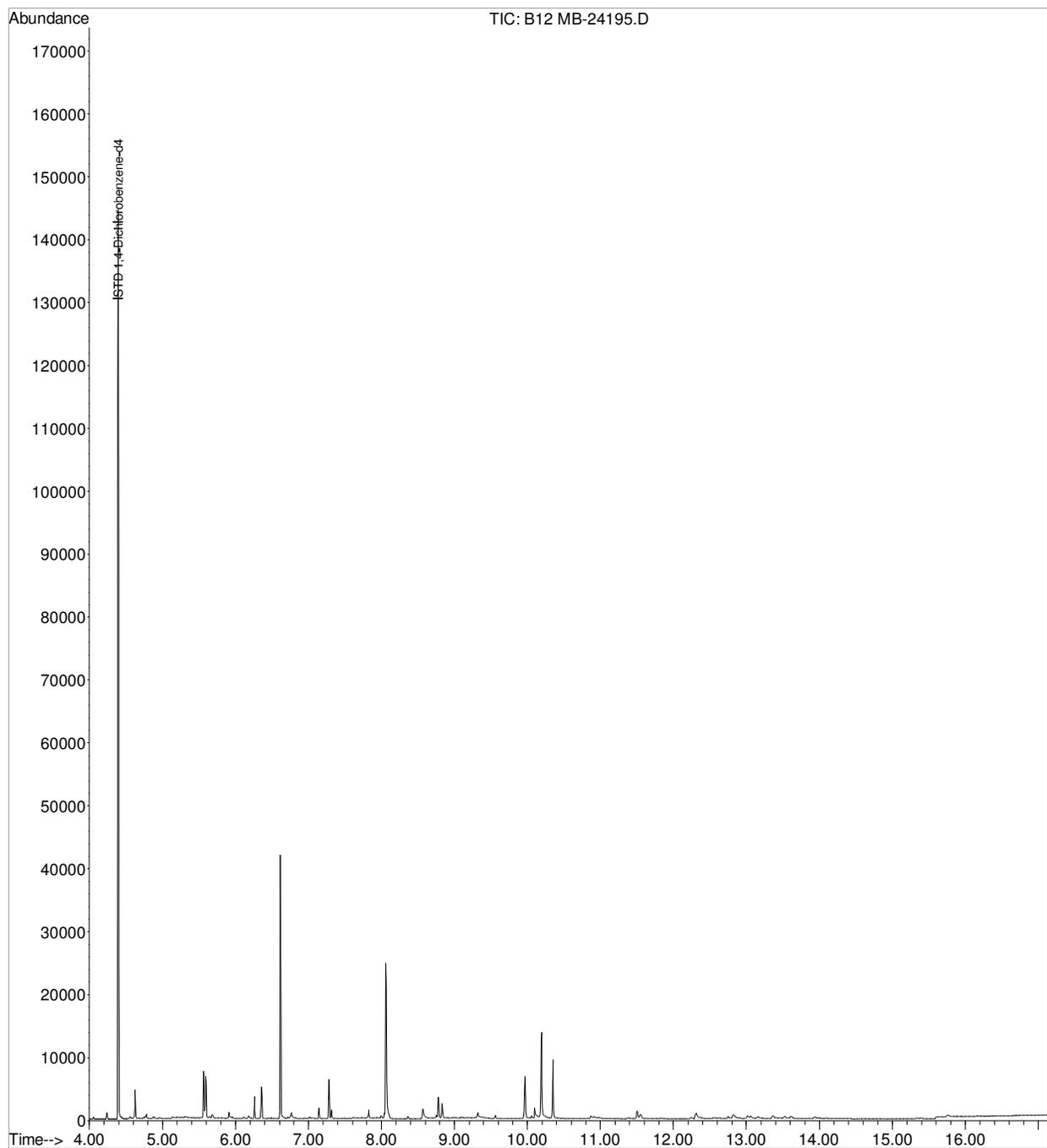
Quant Time: Mar 21 11:32:50 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Mar 20 20:40:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
Data File : B12 MB-24195.D
Acq On : 20 Mar 2013 11:37 pm
Operator : ALICIA HABERLE
Sample : MB-24195
Misc : MBLK
ALS Vial : 5 Sample Multiplier: 1

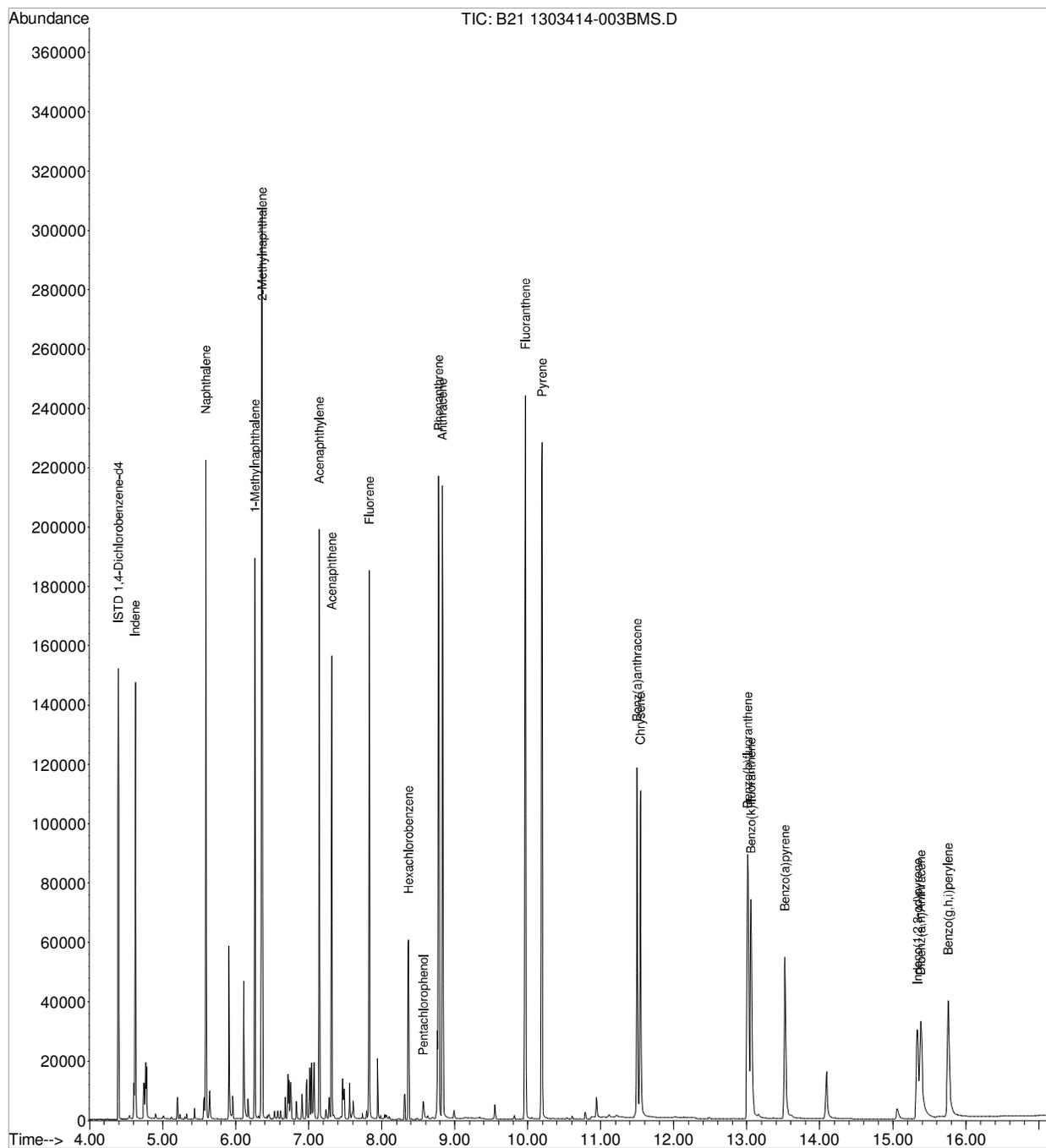
Quant Time: Mar 21 11:31:41 2013
Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Wed Mar 20 20:40:07 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
 Data File : B21 1303414-003BMS.D
 Acq On : 21 Mar 2013 3:37 am
 Operator : ALICIA HABERLE
 Sample : 1303414-003BMS
 Misc : MS
 ALS Vial : 14 Sample Multiplier: 1

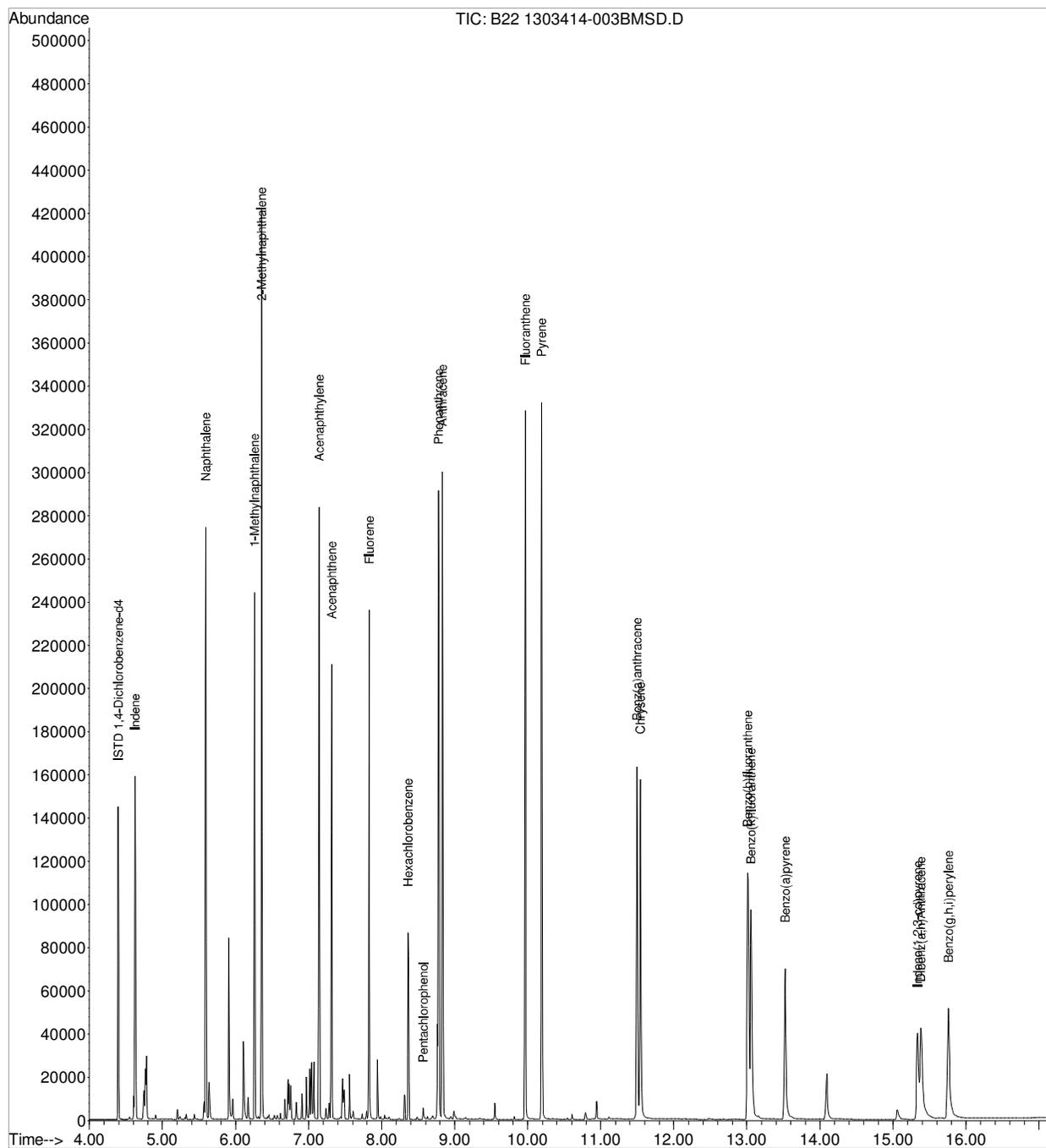
Quant Time: Mar 21 11:18:53 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Mar 20 20:40:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\20MAR13-A\
 Data File : B22 1303414-003BMSD.D
 Acq On : 21 Mar 2013 4:03 am
 Operator : ALICIA HABERLE
 Sample : 1303414-003BMSD
 Misc : MSD
 ALS Vial : 15 Sample Multiplier: 1

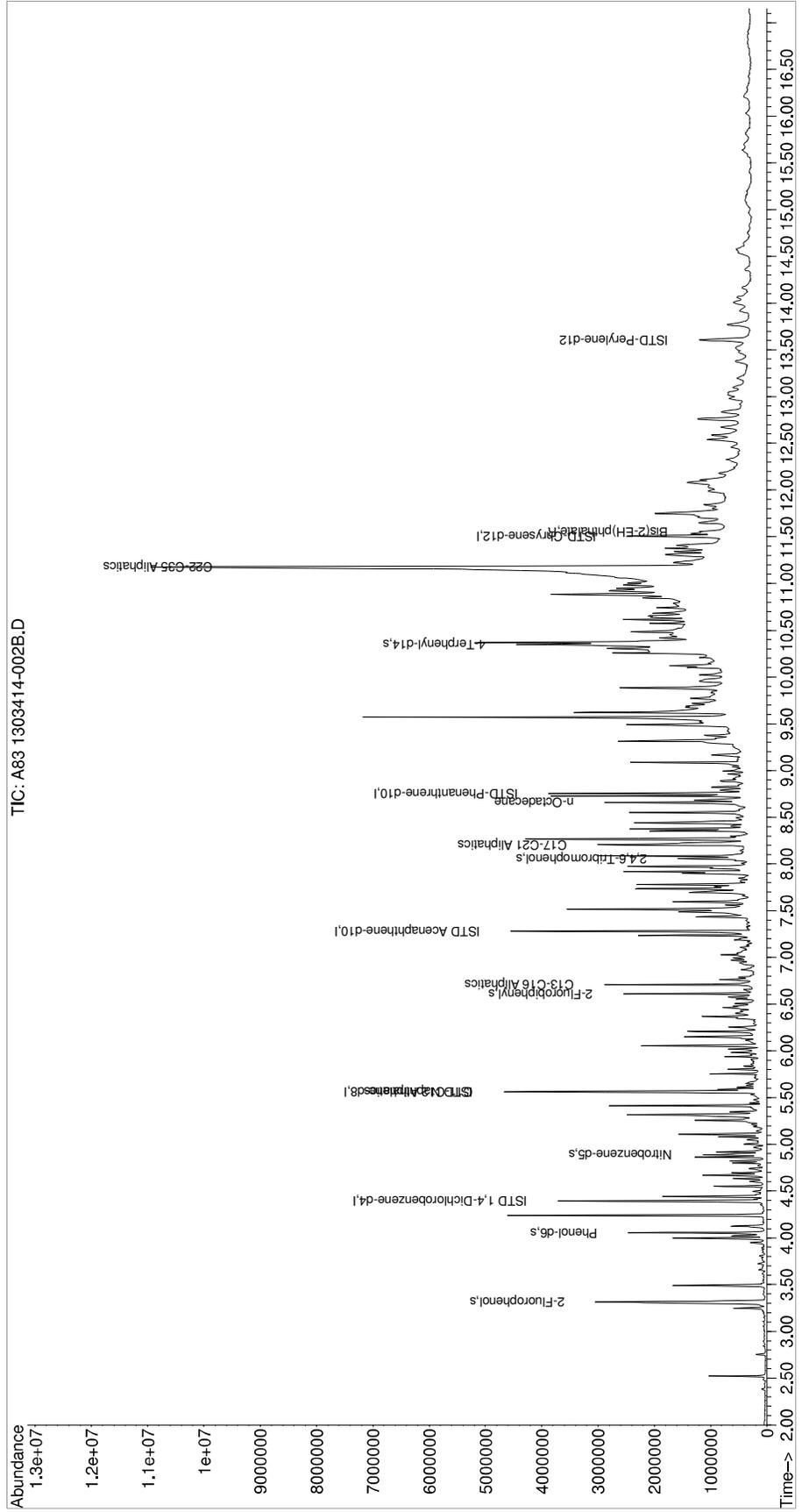
Quant Time: Mar 21 11:18:54 2013
 Quant Method : C:\MSDCHEM\1\METHODS\PAH GWM QUANT SIM 03-20-2013.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Wed Mar 20 20:40:07 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\19MAR13-A\
 Data File : A83 1303414-002B.D
 Acq On : 20 Mar 2013 3:30 am
 Operator : ALICIA HABERLE
 Sample : 1303414-002B
 Misc : SAMP
 ALS Vial : 18 Sample Multiplier: 1

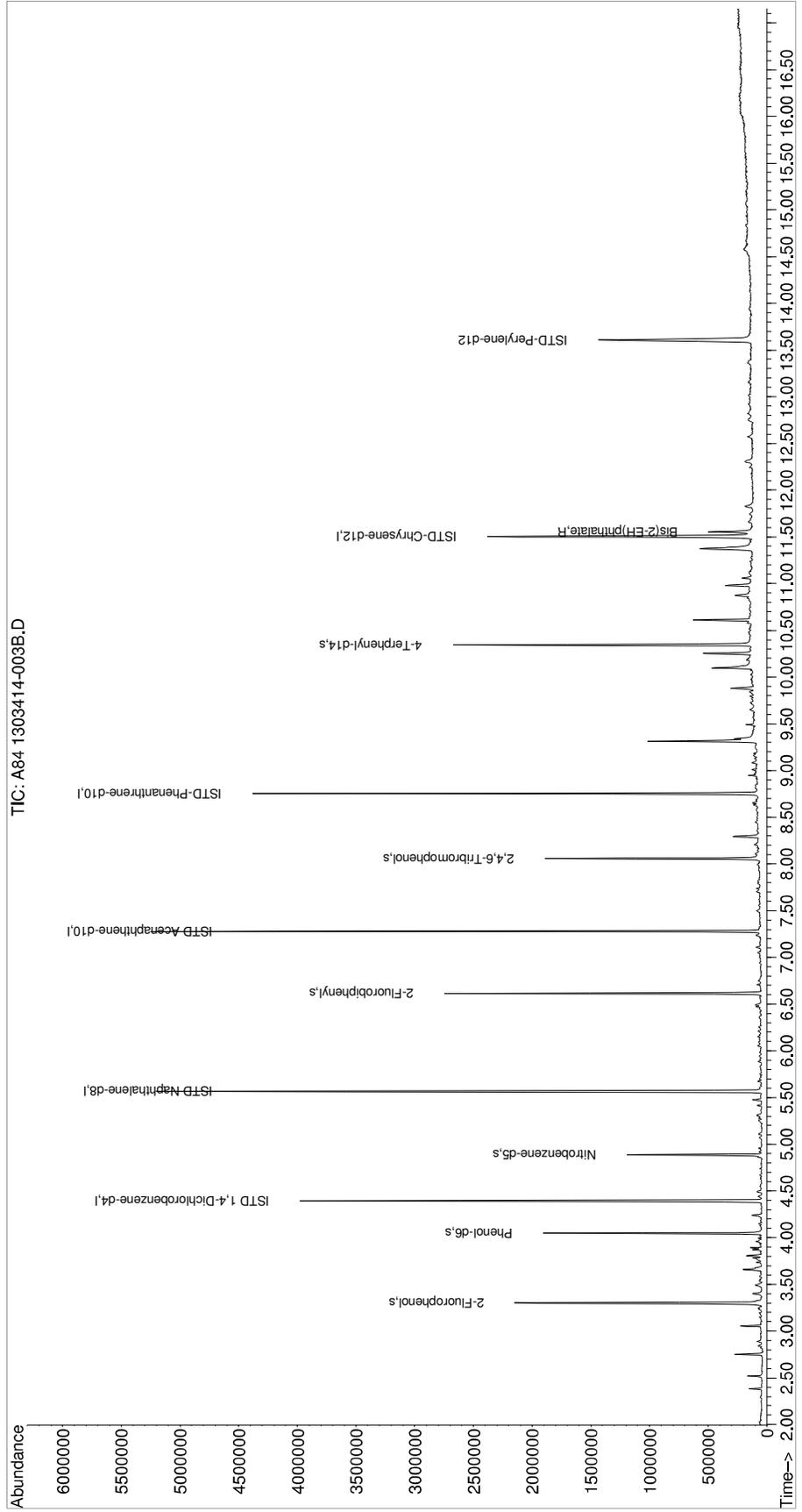
Quant Time: Mar 20 12:19:26 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Mar 19 19:32:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\19MAR13-A\
Data File : A84 1303414-003B.D
Acq On : 20 Mar 2013 3:57 am
Operator : ALICIA HABERLE
Sample : 1303414-003B
Misc : SAMP
ALS Vial : 19 Sample Multiplier: 1

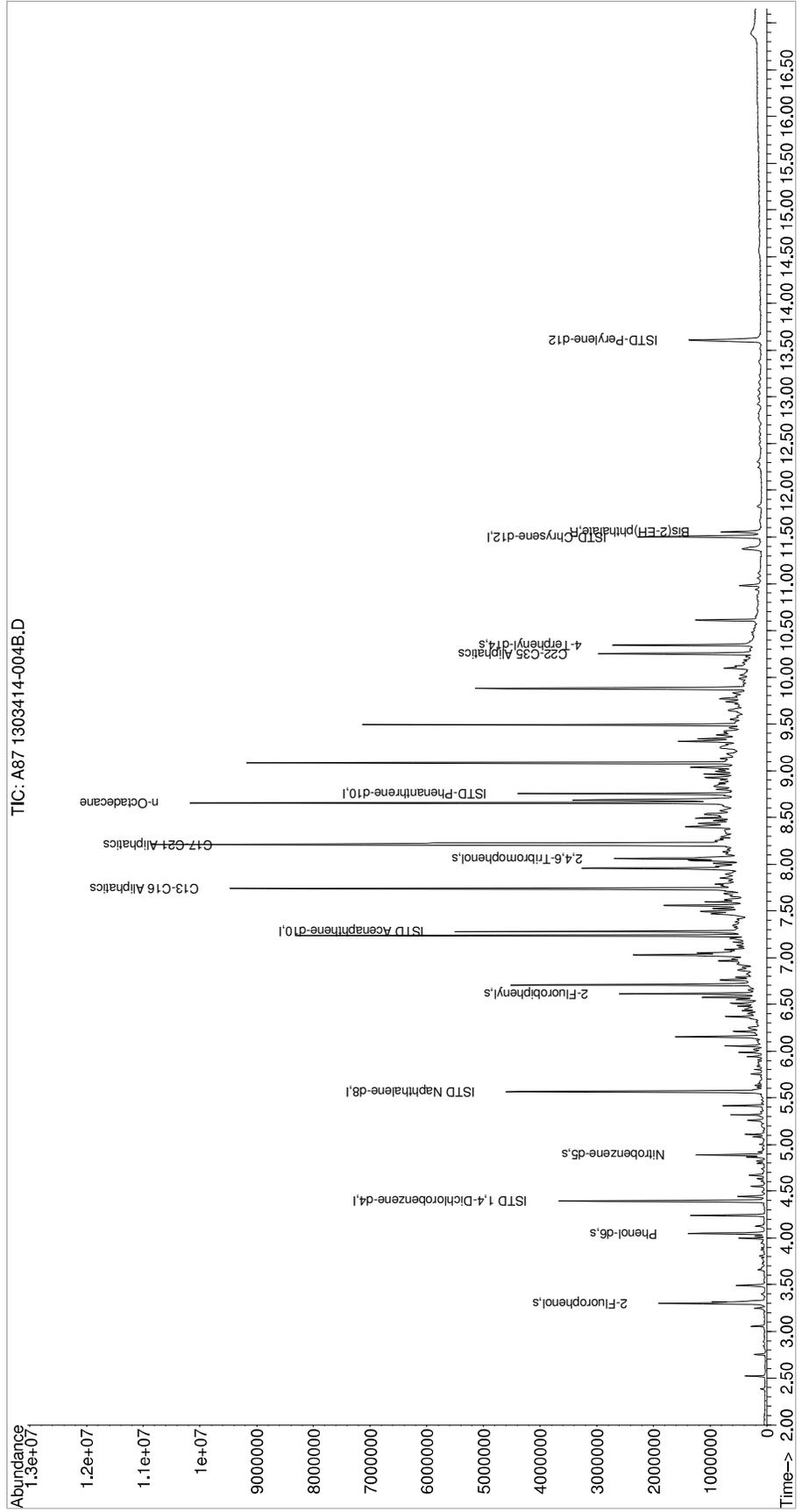
Quant Time: Mar 20 12:20:14 2013
Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULSV 03-19-13.M
Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
QLast Update : Tue Mar 19 19:32:24 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\19MAR13-A\
 Data File : A87 1303414-004B.D
 Acq On : 20 Mar 2013 5:17 am
 Operator : ALICIA HABERLE
 Sample : 1303414-004B
 Misc : SAMP
 ALS Vial : 22 Sample Multiplier: 1

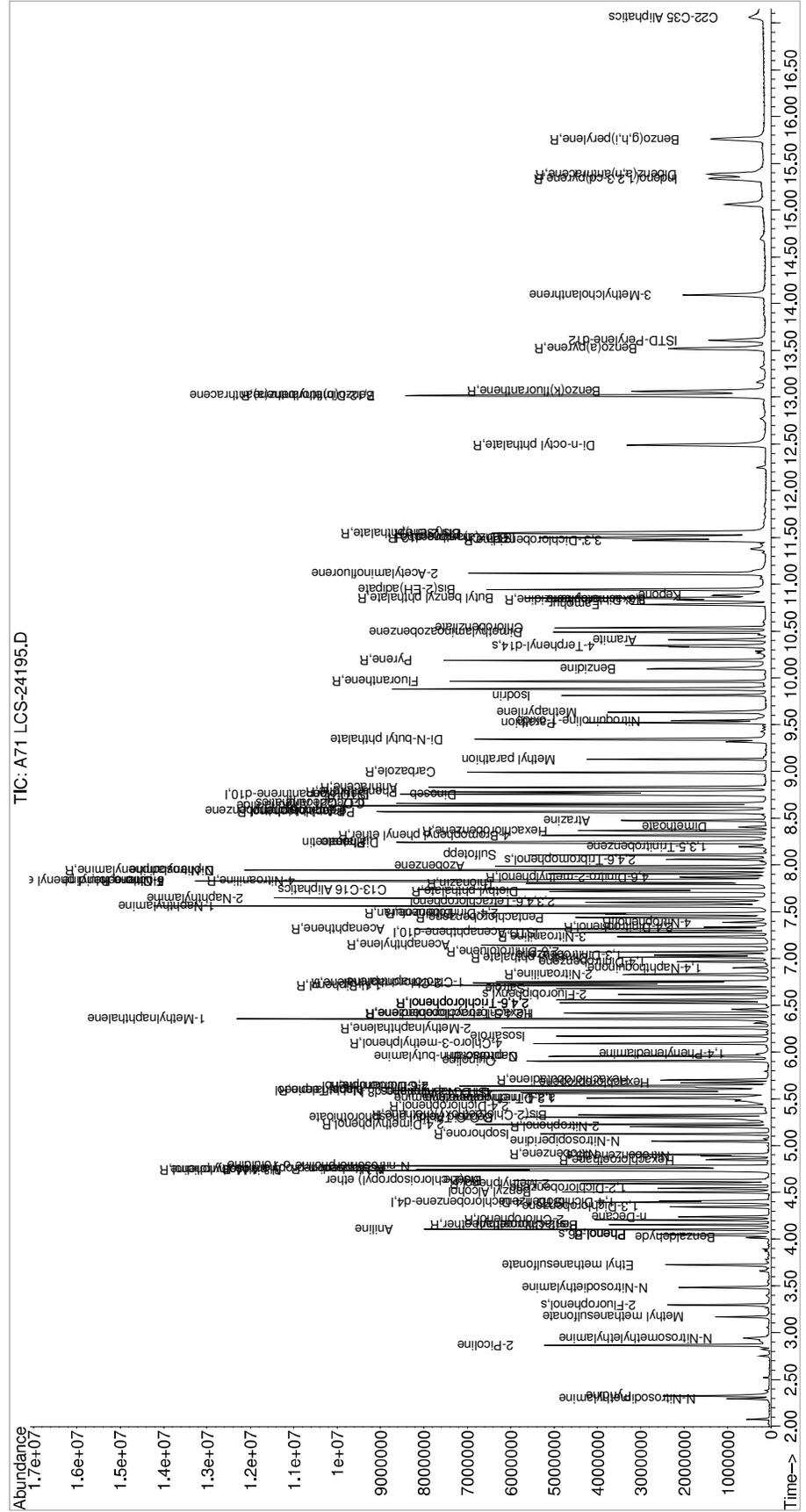
Quant Time: Mar 20 12:22:42 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Mar 19 19:32:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\19MAR13-A\
 Data File : A71 LCS-24195.D
 Acq On : 19 Mar 2013 10:06 pm
 Operator : ALICIA HABERLE
 Sample : LCS-24195
 Misc : LCS
 ALS Vial : 6 Sample Multiplier: 1

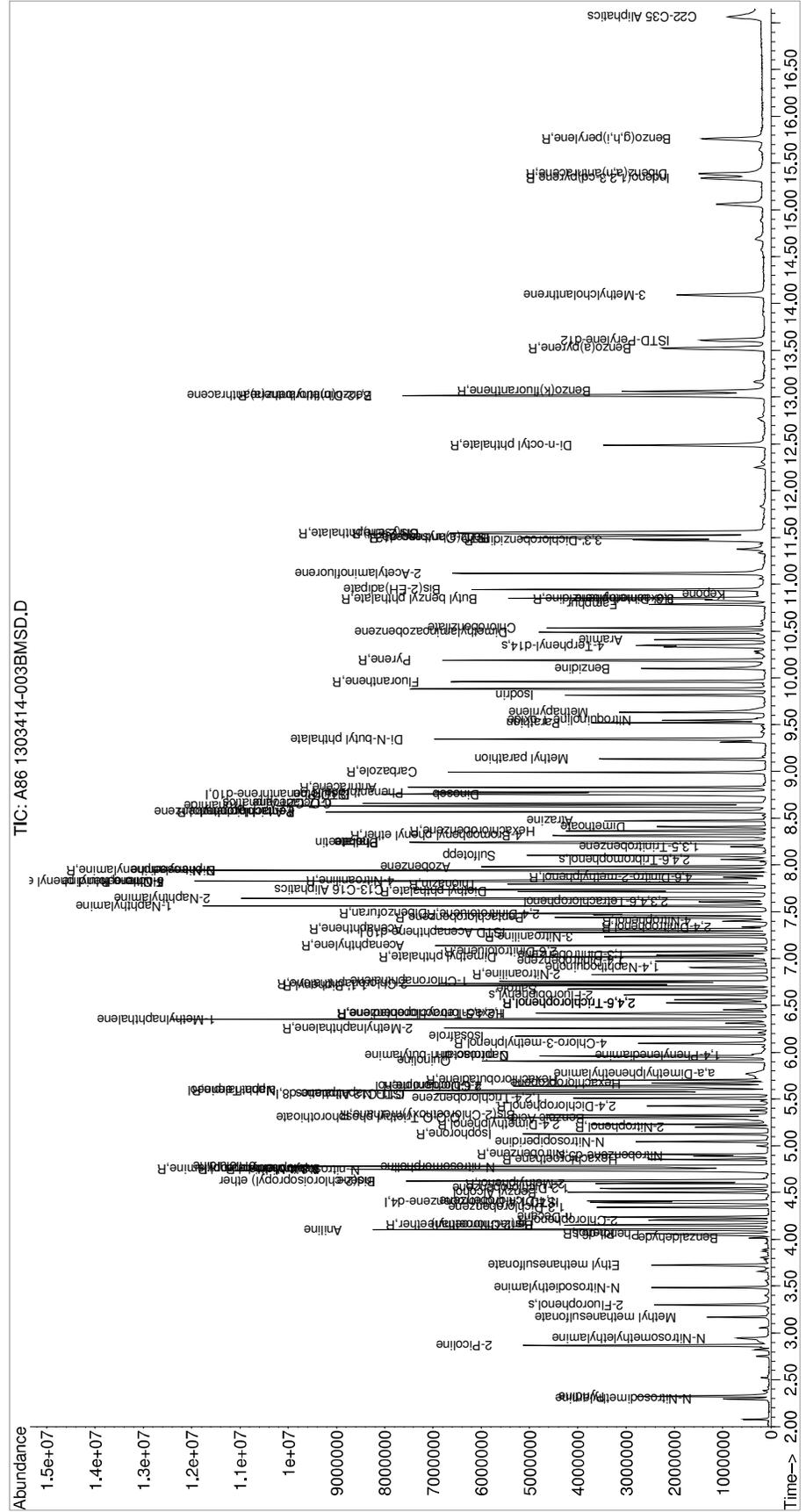
Quant Time: Mar 20 12:01:03 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Mar 19 19:32:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : Z:\MSDCHEM\1\DATA\MAR 13\19MAR13-A\
 Data File : A86 1303414-003BMSD.D
 Acq On : 20 Mar 2013 4:50 am
 Operator : ALICIA HABERLE
 Sample : 1303414-003BMSD
 Misc : MSD
 ALS Vial : 21 Sample Multiplier: 1

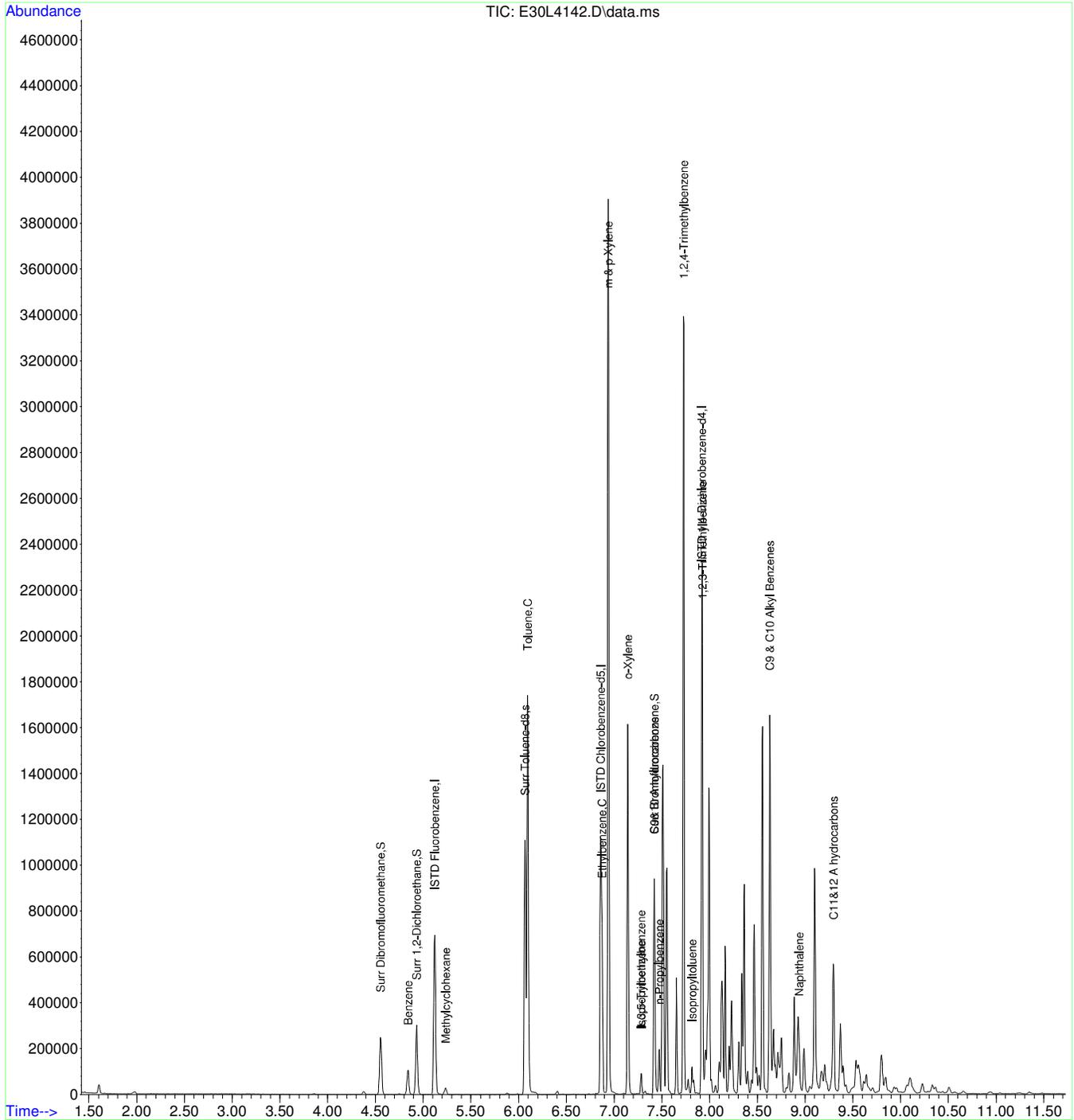
Quant Time: Mar 20 12:21:33 2013
 Quant Method : C:\MSDCHEM\1\METHODS\QUANTFULSV 03-19-13.M
 Quant Title : Semi-Volatile Compounds HP-GCMS 5973-B
 QLast Update : Tue Mar 19 19:32:24 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E30L4142.D
Acq On : 19 Mar 2013 9:54 pm
Operator : AAP
Sample : 1303414-002A
Misc : SAMP 5ML 10F3 AAP
ALS Vial : 45 Sample Multiplier: 1

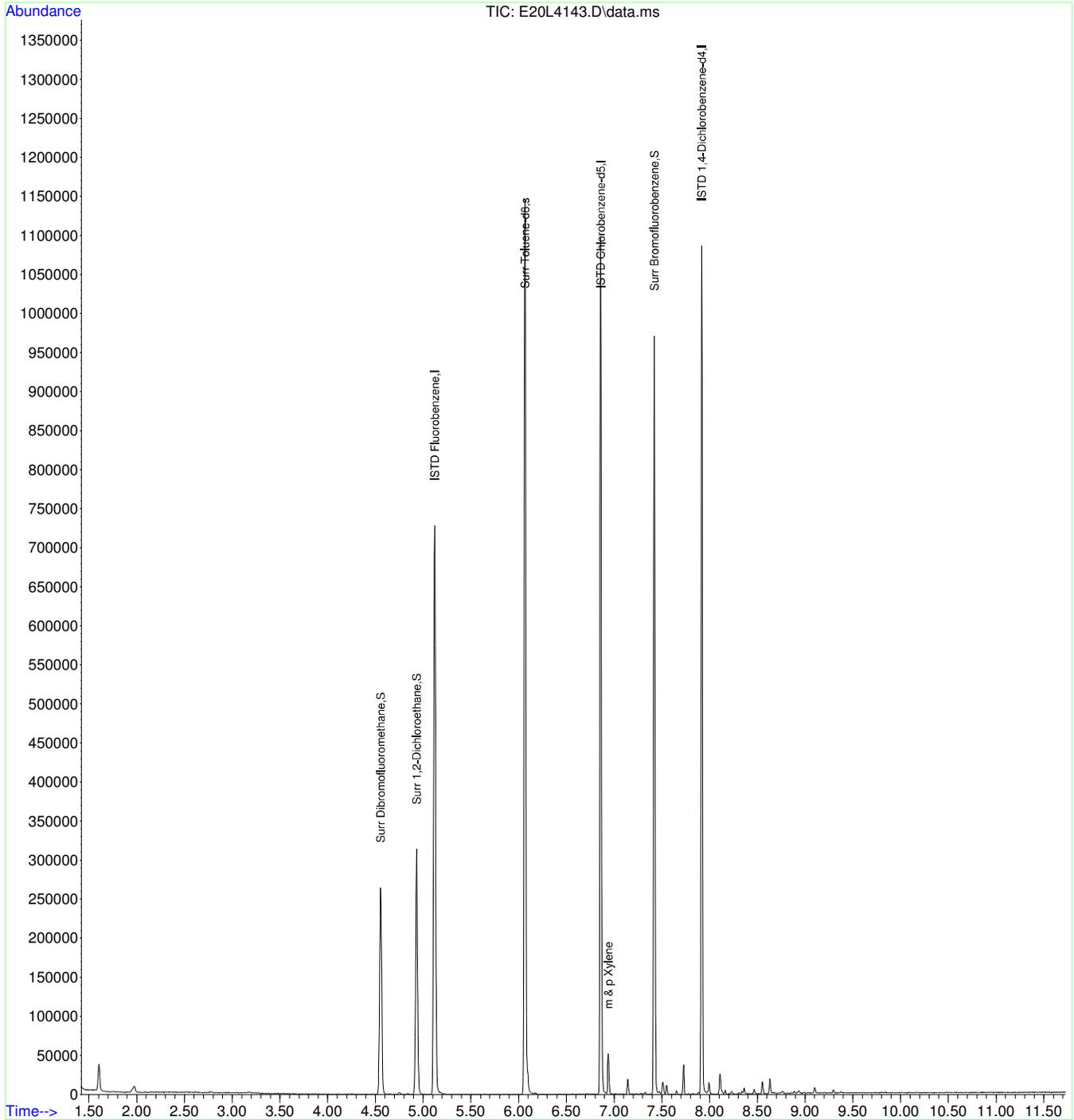
Quant Time: Mar 20 07:31:24 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E20L4143.D
Acq On : 19 Mar 2013 6:44 pm
Operator : AAP
Sample : 1303414-003A
Misc : SAMP 5ML 10F3 AAP
ALS Vial : 35 Sample Multiplier: 1

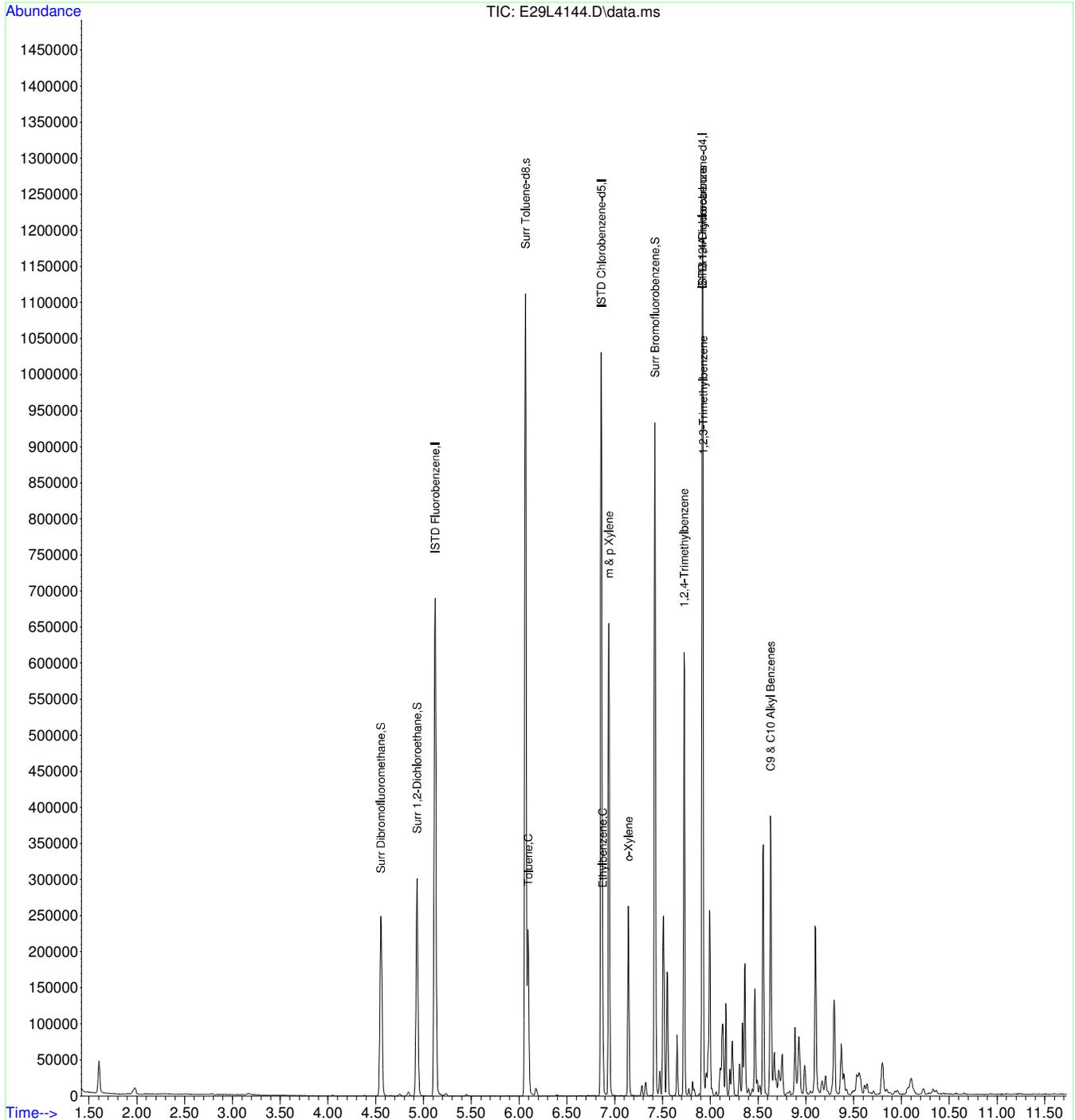
Quant Time: Mar 20 07:26:45 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E29L4144.D
Acq On : 19 Mar 2013 9:35 pm
Operator : AAP
Sample : 1303414-004A
Misc : SAMP 5ML 10F3 AAP
ALS Vial : 44 Sample Multiplier: 1

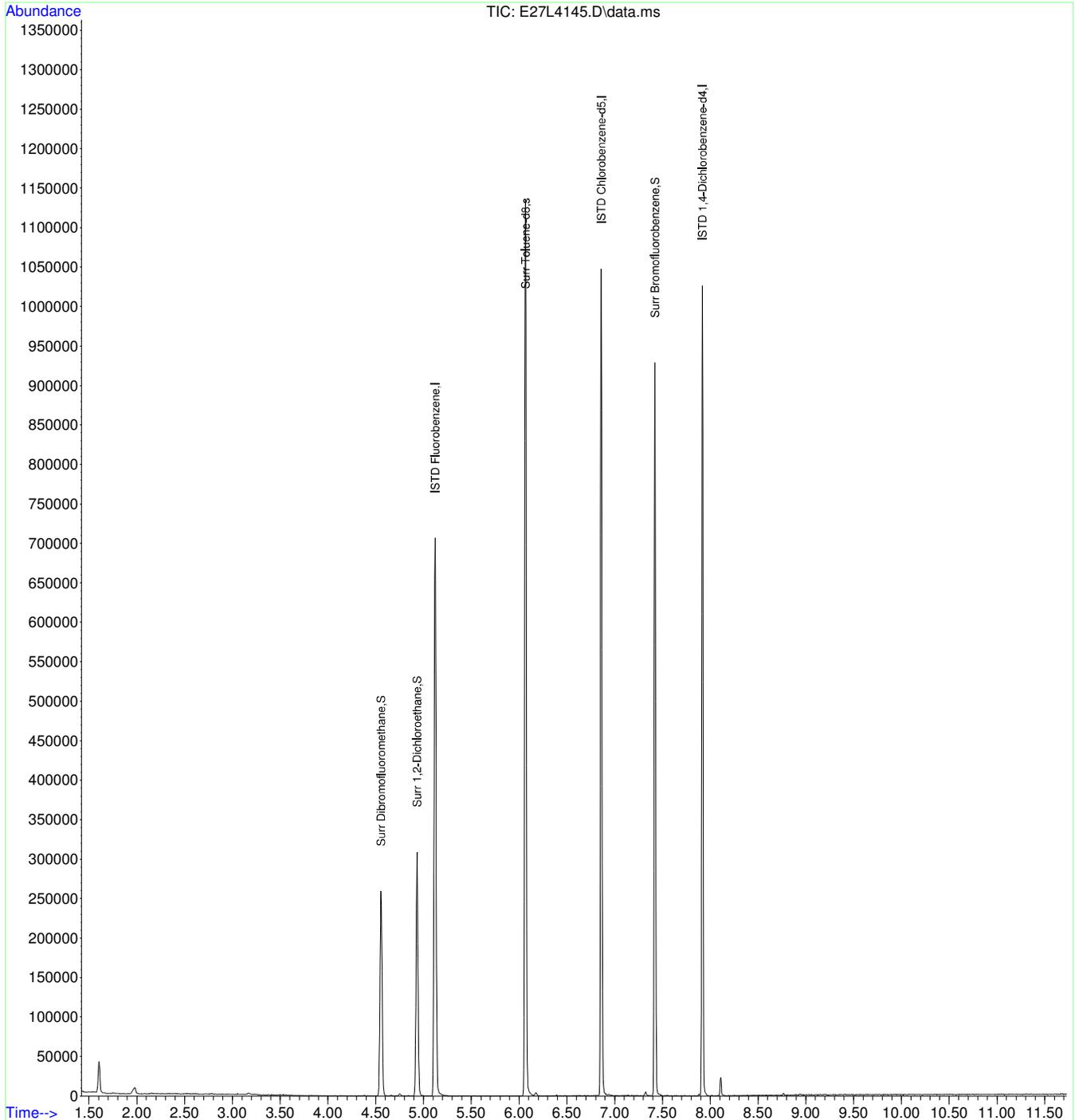
Quant Time: Mar 20 07:29:49 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E27L4145.D
Acq On : 19 Mar 2013 8:57 pm
Operator : AAP
Sample : 1303414-005A
Misc : SAMP 5ML 10F3 AAP
ALS Vial : 42 Sample Multiplier: 1

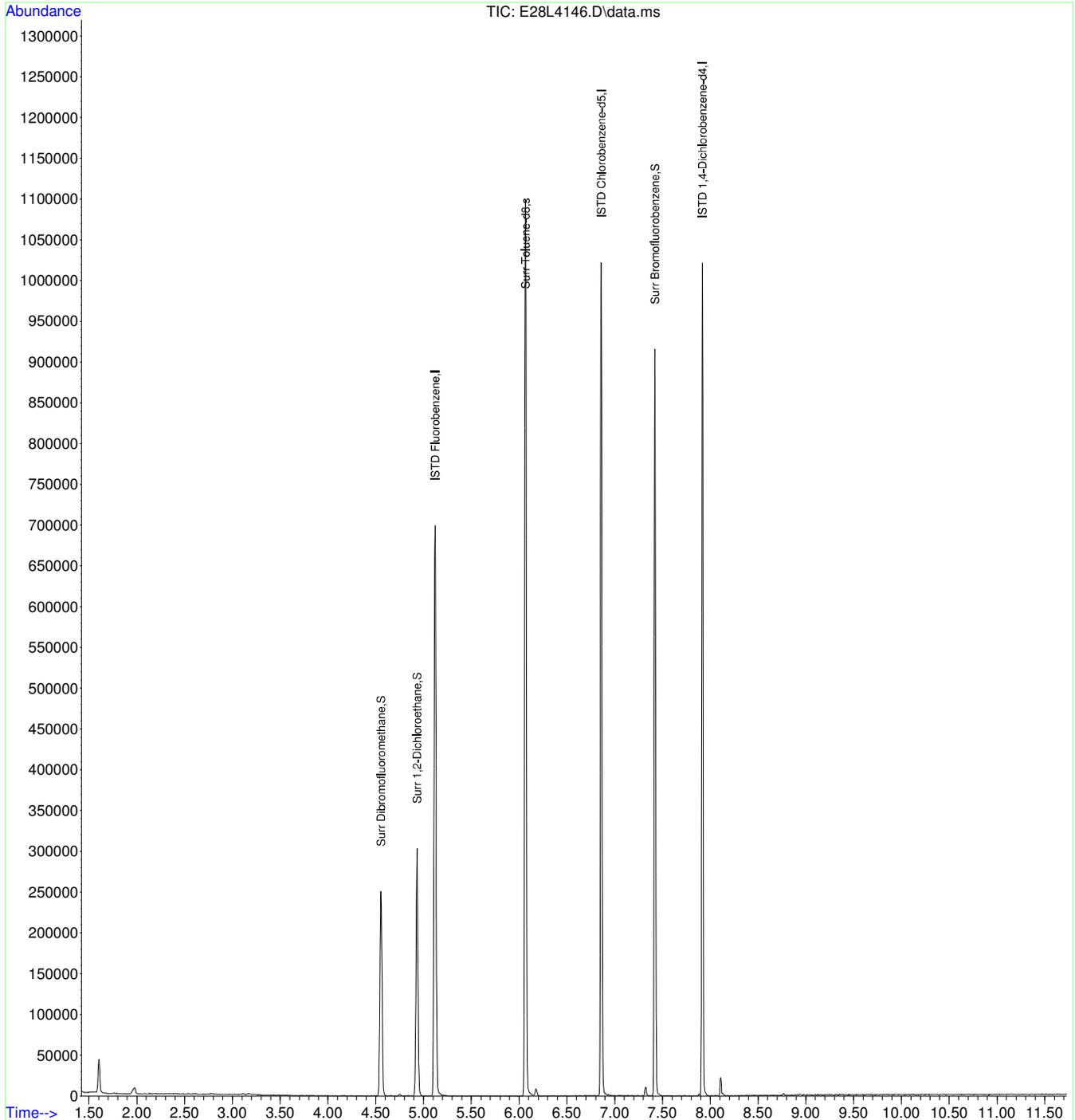
Quant Time: Mar 20 07:28:32 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E28L4146.D
Acq On : 19 Mar 2013 9:16 pm
Operator : AAP
Sample : 1303414-006A
Misc : SAMP 5ML 10F3 AAP
ALS Vial : 43 Sample Multiplier: 1

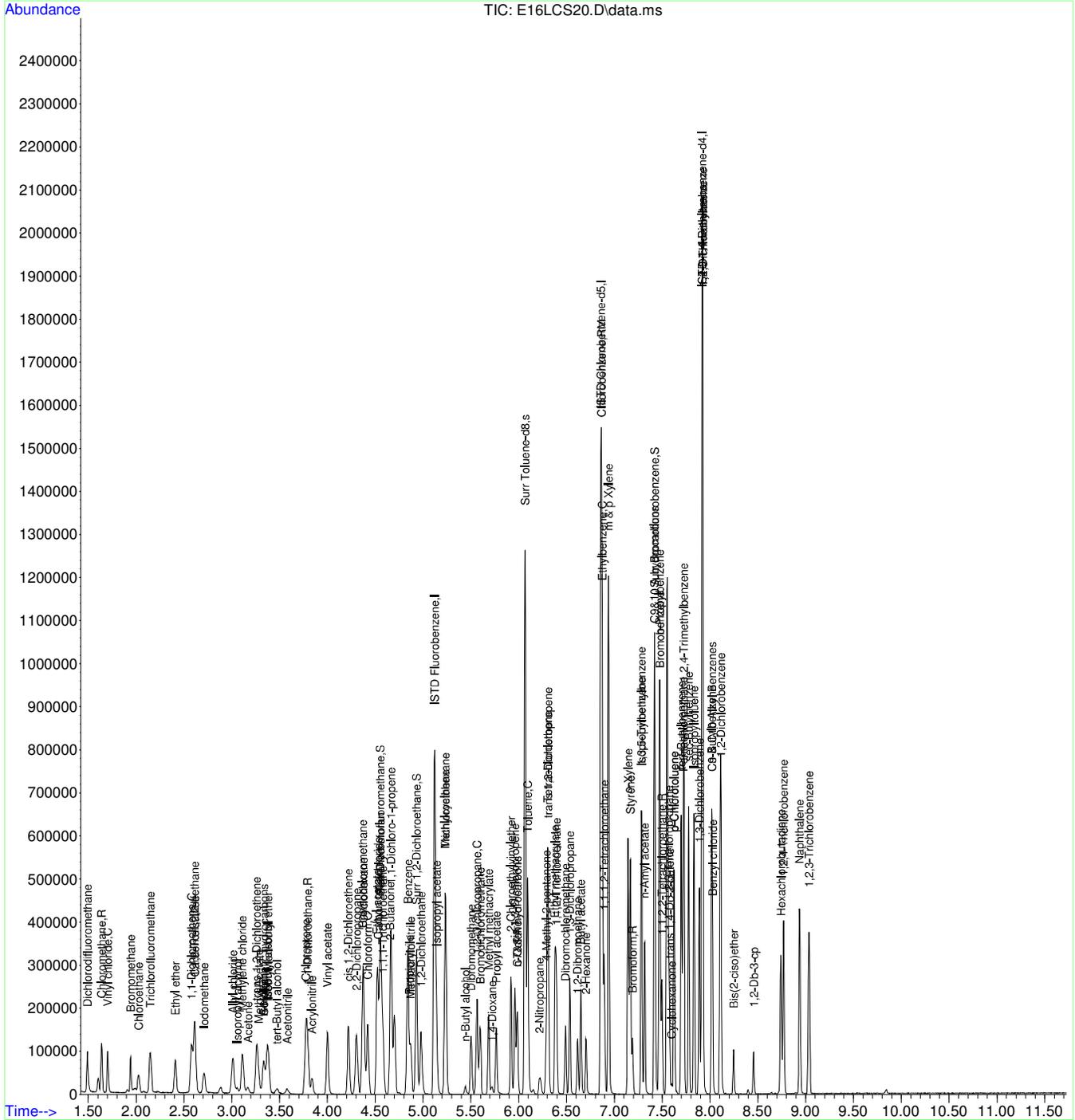
Quant Time: Mar 20 07:28:55 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
 Data File : E16LCS20.D
 Acq On : 19 Mar 2013 5:28 pm
 Operator : AAP
 Sample : LCS VOC 031913B
 Misc : LCS SEE COVERSHEET FOR ID AND AMOUNT JO
 ALS Vial : 32 Sample Multiplier: 1

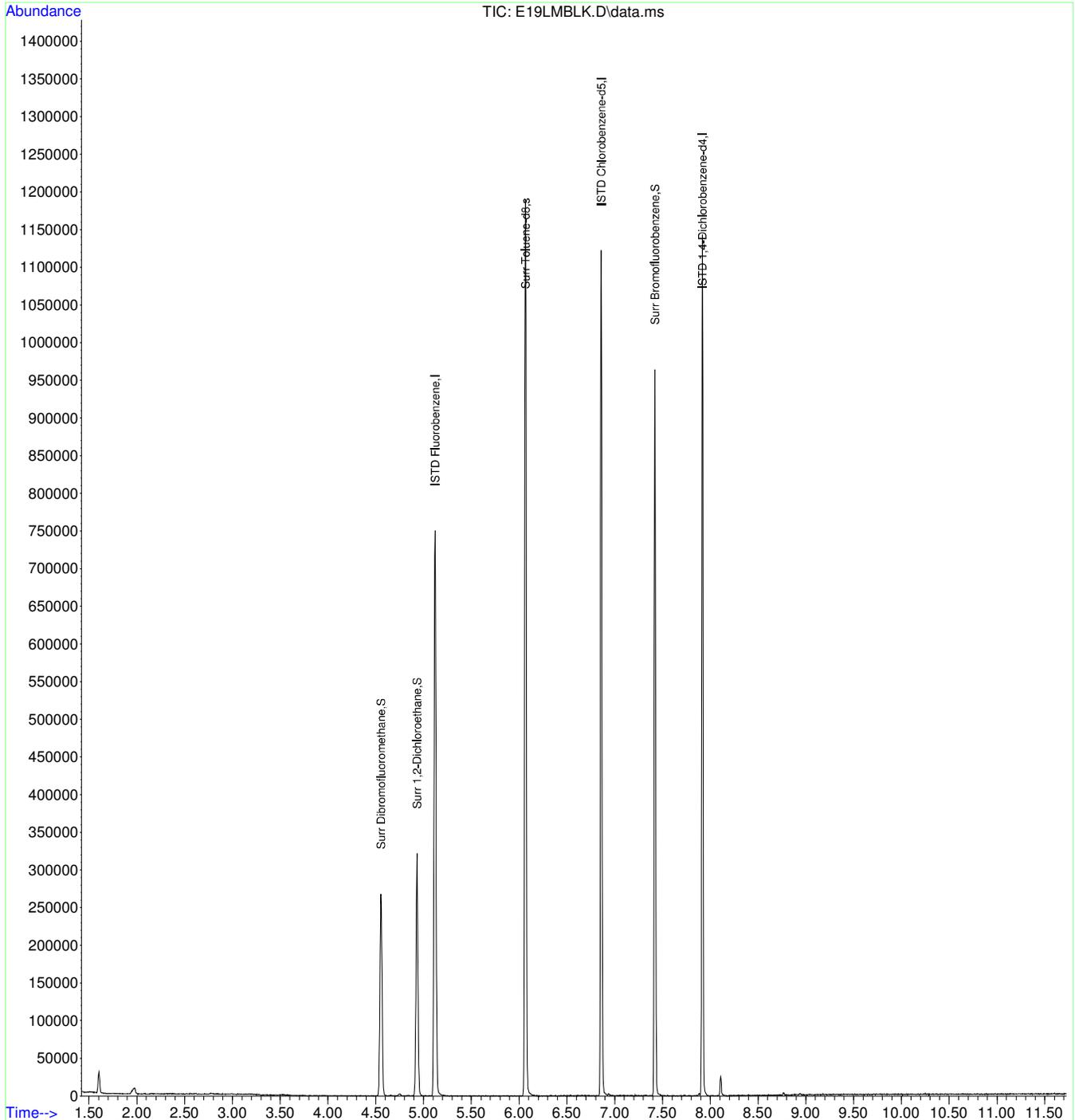
Quant Time: Mar 19 17:40:48 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
 Quant Title : VOA Calibration
 QLast Update : Wed Mar 13 09:17:53 2013
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

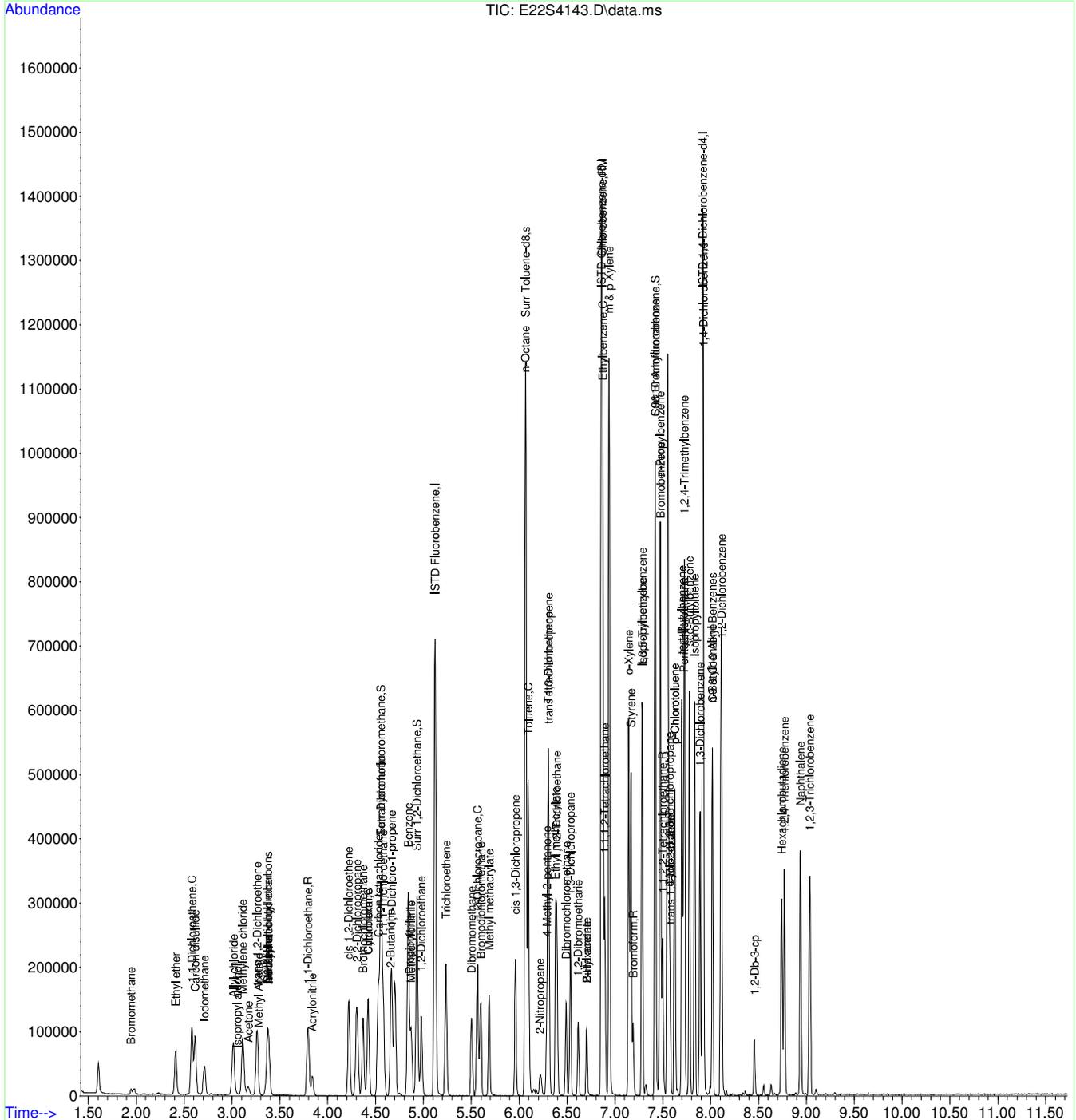
Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
Data File : E19LMBLK.D
Acq On : 19 Mar 2013 6:25 pm
Operator : AAP
Sample : MB VOC 031913B
Misc : MBLK 5.0ML JO
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Mar 20 07:24:19 2013
Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
Quant Title : VOA Calibration
QLast Update : Wed Mar 13 09:17:53 2013
Response via : Initial Calibration



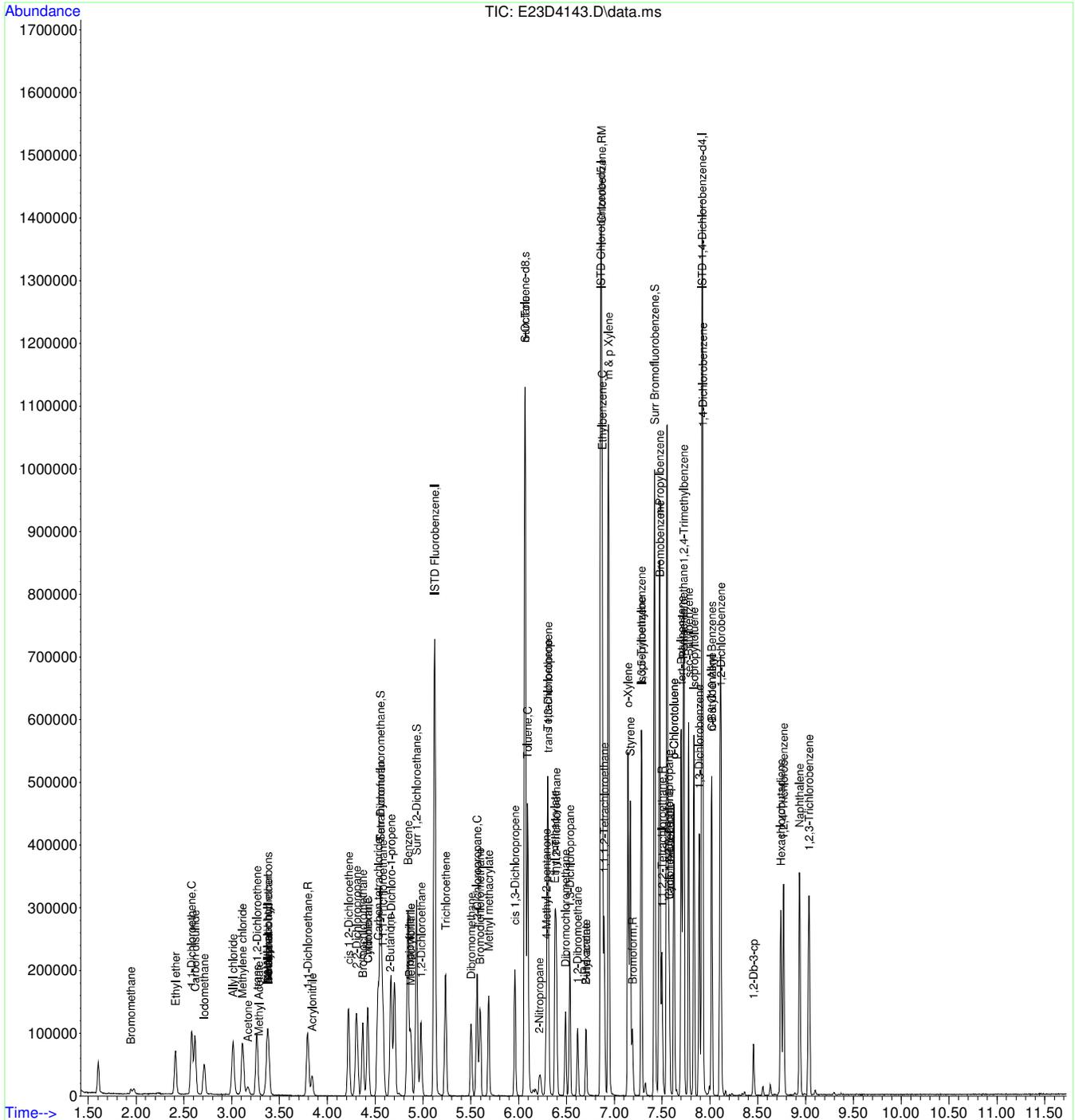
Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
 Data File : E22S4143.D
 Acq On : 19 Mar 2013 7:22 pm
 Operator : AAP
 Sample : 1303414-003AMS
 Misc : MS 5ML 20F3 AAP
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 19 19:34:42 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
 Quant Title : VOA Calibration
 QLast Update : Wed Mar 13 09:17:53 2013
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\MAR13-D\19MAR13\
 Data File : E23D4143.D
 Acq On : 19 Mar 2013 7:41 pm
 Operator : AAP
 Sample : 1303414-003AMSD
 Misc : MSD 5ML 3OF3 AAP
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 19 19:53:31 2013
 Quant Method : C:\MSDCHEM\1\METHODS\DFULLW_13.M
 Quant Title : VOA Calibration
 QLast Update : Wed Mar 13 09:17:53 2013
 Response via : Initial Calibration



WORK ORDER Summary

Work Order: **1303414** Page 1 of 2

Client: Utah Division of Water Quality

Due Date: 3/20/2013

Client ID: UTD200

Contact: Jim Harris

Project: Chevron (Willard Incident)

QC Level: II+

WO Type: Standard

Comments: Next Day Rush; QC 2+. Partial reports as results become available, and bill accordingly. Fill out DWQ SIM spreadsheet.;

DB

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage				
1303414-001A	Source Ab. Culvert	3/19/2013 1130h	3/19/2013 1549h	3580-ID-WASTE-O	Oil	<input type="checkbox"/>	hall - Product ID	1			
1303414-001B				8015-PRODUCT ID		<input checked="" type="checkbox"/>	hall - Product ID				
						<input type="checkbox"/>	hold	9			
1303414-002A	Between Weirs	3/19/2013 1100h	3/19/2013 1549h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3			
1303414-002B				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>							
				3510-ORO-PR		<input type="checkbox"/>	walkin - semi/tph/oro	6			
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi/tph/oro				
				3510-TPH-PR		<input type="checkbox"/>	walkin - semi/tph/oro				
				8015-W-ORO(1L)		<input type="checkbox"/>	walkin - semi/tph/oro				
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>							
				8270-W		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>							
1303414-002C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>							
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1			
1303414-003A	Outside Boom	3/19/2013 1035h	3/19/2013 1549h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3			
1303414-003B				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>							
				3510-ORO-PR		<input type="checkbox"/>	walkin - semi/tph/oro	6			
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi/tph/oro				
				3510-TPH-PR		<input type="checkbox"/>	walkin - semi/tph/oro				
				8015-W-ORO(1L)		<input type="checkbox"/>	walkin - semi/tph/oro				
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>							
				8270-W		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>							
1303414-003C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi/tph/oro				
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>							
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1			
1303414-004A	Inside Boom	3/19/2013 1045h	3/19/2013 1549h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3			
1303414-004B				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>							
				3510-ORO-PR		<input type="checkbox"/>	walkin - semi/tph/oro	6			
				3510-SVOA-PR		<input type="checkbox"/>	walkin - semi/tph/oro				

WORK ORDER Summary

Work Order: **1303414** Page 2 of 2

Client: Utah Division of Water Quality

Due Date: 3/20/2013

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1303414-004B	Inside Boom	3/19/2013 1045h	3/19/2013 1549h	3510-TPH-PR	Aqueous	<input type="checkbox"/>	walkin - semi/tph/oro	6		
				8015-W-ORO(1L)		<input type="checkbox"/>	walkin - semi/tph/oro			
				8015-W-TPH(1L)		<input checked="" type="checkbox"/>	walkin - semi/tph/oro			
				<i>Test Group: 8015-W-TPH1L; # of Analytes: 1 / # of Surr: 1</i>						
				8270-W		<input checked="" type="checkbox"/>	walkin - semi/tph/oro			
				<i>Test Group: 8270-W-Custom; # of Analytes: 140 / # of Surr: 6</i>						
1303414-004C				8270-W-SIM		<input checked="" type="checkbox"/>	walkin - semi/tph/oro			
				<i>Test Group: 8270-W-PNA-SIM; # of Analytes: 19 / # of Surr:</i>						
				COD-HACH8000		<input type="checkbox"/>	ww - cod	1		
1303414-005A	Trip Blank	3/19/2013	3/19/2013 1549h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						
1303414-006A	Field Blank	3/19/2013 0930h	3/19/2013 1549h	8260-W	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3		
				<i>Test Group: 8260-W-Full; # of Analytes: 103 / # of Surr: 4</i>						

Sample Set: 1303414

Preservation Check Sheet

Sample Set Extension and pH

Bottle Type	Preservative	All OK	Except -001	Except -002	Except -003	Except -004	Except									
Ammonia	pH <2 H ₂ SO ₄															
COD	pH <2 H ₂ SO ₄		yes	yes	yes	yes										
Cyanide	pH >12 NaOH															
Metals	pH <2 HNO ₃															
NO ₂ & NO ₃	pH <2 H ₂ SO ₄															
Nutrients	pH <2 H ₂ SO ₄															
O & G	pH <2 HCL															
Phenols	pH <2 H ₂ SO ₄															
Sulfide	pH > 9NaOH, Zn Acetate															
TKN	pH <2 H ₂ SO ₄															
TOC	pH <2 H ₃ PO ₄															
TOX	pH <2 H ₂ SO ₄															
T PO ₄	pH <2 H ₂ SO ₄															
TPH	pH <2 HCL															

DB 3/19/13

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

Frequency: All samples requiring preservation