December 26, 2013

API # 05-103-09710

Location: PCU T27-18G

XTO Energy (XTO) completed closure on November 19, 2013 of the two Partially Buried Tank Pits on the PCU T27-18G location in accordance with COGCC 900 and 1000 Series Rules.

The out of service Partially Buried Tanks (PBT) at the subject site were removed from this location (see Figure 1). As approved in REM #7997, a discrete soil sample was collected from beneath the former tank locations at the low point of the excavation and sampled for an abbreviated Table 910-1 analyte list (TPH & BTEX) to assess COGCC compliance. Results were below Table 910-1 concentration levels (see Table 1) and therefore confirm COGCC compliance.

Soil sample results from beneath the tanks confirm no groundwater impact potential exists (see Table 1). Available information for the area indicates that the uppermost groundwater bearing zone is greater than 100 feet below the ground surface for this PBT location.

XTO herein requests a Notice of Completion (NOC) for the PCU T27-18G location listed in the October 3, 2013 COGCC approved Form 27, REM #7997.

XTO Energy Inc. • Piceance Field Office • 21459 County Road 5 • Rifle, CO 81650 • (970) 675-4000 • Fax (970) 675-4150

Table 1
Location: PCU T27-18G
Lab Summary - Partially Buried Tank

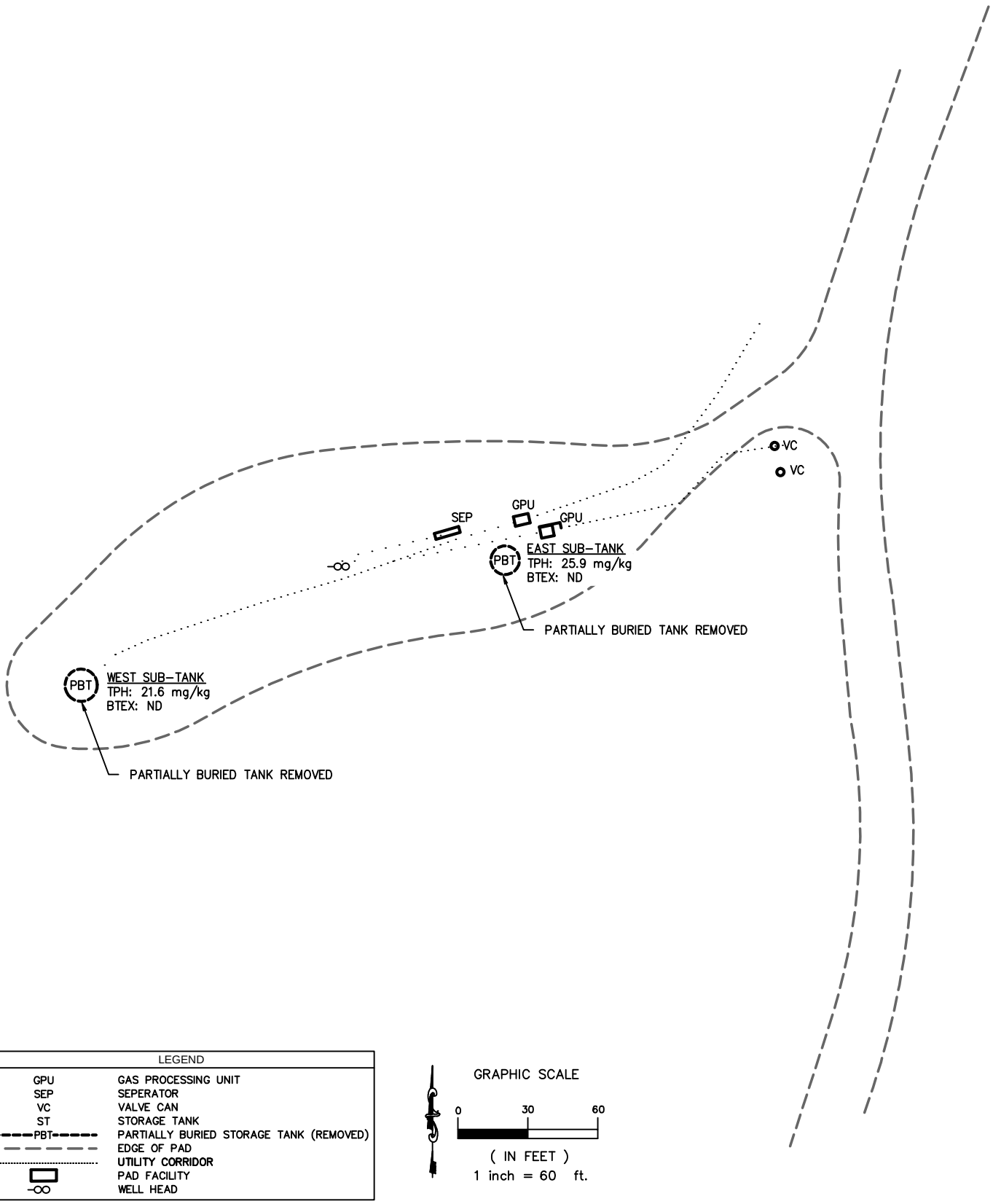
Last update 10/3/2013

Analytical Parameter	Subtank		COGCC
(with units)	***East Subtank 9/25/13***	***West Subtank 9/24/13***	***Table 910-1 Concentration Levels***
Accutest Job #	**D50939**	**D50876**	-
Sample type (**C**omposite/**D**iscrete)	**D**	**D**	-
TPH (GRO) (mg/Kg)	ND	ND	-
TPH (DRO) (mg/Kg)	25.9	21.6	-
TPH (GRO + DRO) (mg/Kg)	25.9	21.6	500
Benzene (mg/Kg)	ND	ND	0.170
Toluene (mg/Kg)	ND	ND	85
Ethylbenzene (mg/Kg)	ND	ND	100
Xylenes (total) (mg/Kg)	ND	ND	175
% Solids	85.1	84.4	-

Notes:

1) ND = not detectible to the laboratory detection limit.
2) Results highlighted in yellow exceed Table 910-1 concentration levels.
3) "-" indicates no analysis.
4) See Figure(s) for sample locations.

\\hyper-v03\lkwd-co\sdsk\proj\xto environmental\1309-07 pcu f27-18g\pbt samp.dwg,12/23/13



LEGEND	
GPU	GAS PROCESSING UNIT
SEP	SEPERATOR
VC	VALVE CAN
ST	STORAGE TANK
PBT	PARTIALLY BURIED STORAGE TANK (REMOVED)
	EDGE OF PAD
	UTILITY CORRIDOR
	PAD FACILITY
	WELL HEAD

GRAPHIC SCALE

0 30 60

(IN FEET)

1 inch = 60 ft.

GPS: DK	CHECKED: JH	FIGURE 1	DATE	REVISIONS
DATE: 12/23/13	DRAWN: DF			
FILE NAME: pbt samp		SHEET NO. 1 of 1		
PROJECT NO. 1309-07		SCALE: 1" = 60'		

KRW CONSULTING, INC.
8000 W. 14TH AVENUE, SUITE 200
LAKEWOOD, COLORADO
(303) 239-9011

FIGURE 1
PICEANCE CREEK
PCU T27-18G PBT
PARTIALLY BURIED TANK
SAMPLE LOCATIONS
PREPARED FOR XTO ENERGY

Mountain States ACCUTEST LABORATORIES

10/01/13

Technical Report for

XTO Energy

XTO PCU T27-18G

East Subtank

Accutest Job Number: D50939

Sampling Date: 09/25/13

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue
Lakewood, CO 80214
dknudson@krwconsulting.com; jhess@krwconsulting.com;
crachak@krwconsulting.com; rrasnic@krwconsulting.com;
ATTN: Dwayne Knudson

Total number of pages in report: **58**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

Sections: 1 2 3 4 5 6 7 8 9 10 11

Table of Contents

Sample Summary

XTO Energy

Job No: D50939

XTO PCU T27-18G
Project No: East Subtank

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D50939-1	09/25/13	10:15	DS	09/26/13	SO	Soil	EAST SUBTANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	XTO Energy	**Job No**	D50939
Site:	XTO PCU T27-18G	**Report Date**	10/1/2013 8:54:20 AM

On 09/26/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.3 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D50939 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO **Batch ID:** V5V1761

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50939-1MS, D50939-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix: SO **Batch ID:** GGB1227

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50910-2MS, D50910-2MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO **Batch ID:** OP8643

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50939-1MS, D50939-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540B-2011 M

Matrix: SO **Batch ID:** GN22056

- The data for SM2540B-2011 M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D50939
Account: XTO Energy
Project: XTO PCU T27-18G
Collected: 09/25/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D50939-1	**EAST SUBTANK**					
TPH-DRO (C10-C28)		25.9	7.8	5.9	mg/kg	SW846-8015B

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	EAST SUBTANK		
Lab Sample ID:	D50939-1	**Date Sampled:**	09/25/13
Matrix:	SO - Soil	**Date Received:**	09/26/13
Method:	SW846 8260B	**Percent Solids:**	85.1
Project:	XTO PCU T27-18G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V29282.D	1	09/27/13	BD	n/a	n/a	V5V1761
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.07 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.067	0.033	mg/kg	
108-88-3	Toluene	ND	0.13	0.067	mg/kg	
100-41-4	Ethylbenzene	ND	0.13	0.025	mg/kg	
1330-20-7	Xylene (total)	ND	0.27	0.13	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		64-130%
460-00-4	4-Bromofluorobenzene	100%		62-131%
17060-07-0	1,2-Dichloroethane-D4	102%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	EAST SUBTANK		
Lab Sample ID:	D50939-1	**Date Sampled:**	09/25/13
Matrix:	SO - Soil	**Date Received:**	09/26/13
Method:	SW846 8015B	**Percent Solids:**	85.1
Project:	XTO PCU T27-18G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB22322.D	1	09/26/13	EV	n/a	n/a	GGB1227
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	83%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID: EAST SUBTANK
Lab Sample ID: D50939-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: XTO PCU T27-18G

Date Sampled: 09/25/13
Date Received: 09/26/13
Percent Solids: 85.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH013482.D	1	09/27/13	TU	09/27/13	OP8643	GFH714
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	25.9	7.8	5.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		20-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST LABORATORIES
4036 Youngfield Street, Wheat Ridge, CO 80033
TEL 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # D50939

Client / Reporting Information

Company Name: KRW Consulting
Street Address: 8000 West 14th Street; Suite 200
City: Lakewood, CO 80214
Project Contact: Dwayne Knudson
Phone #: 970-488-1098
Sampler(s) Name(s): DAVID SANDERS 970-488-1098

Project Information

Project Name: XTO PCU T27-18G
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager: Joe Hess

Billing Information (if different from Report to)

Company Name: XTO Energy
Street Address: 21459 CR 5
City: Rifle, CO 81650
Attention: Jessica Dooling

Requested Analysis (see TEST CODE sheet)

TPH(GRO+DRO), BTEX

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	LAB USE ONLY
	EAST SUBTANK		9/25/13	10:15	DLS	SO	3					X					01

9/26/13

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [x] Std. 5 Business Days (By contract only)
- [ ] 3 Day Emergency
- [ ] 2 Day Emergency
- [ ] 1 Day Emergency
- [ ]

Emergency & Rush T/A data available VIA Labiink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] COMMBN
- [ ] COMMBN+
- [ ]
- [ ] State Forms Required
- [ ] Send Forms to State
- [ ] Report by Fax
- [x] Report by PDF ONLY
- [ ] EDD Format

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial BN = Results/QC/Narrative (+ = chromatograms)

Comments / Special Instructions

Please email to: KRW Piceance Team

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/25/13 1630	1 Service Center	2		2 9/26/13 1205
3			3	4		4
5			5			

Custody Seal # HDLW6 Intact / Not intact | Preserved where applicable | On Ice | Cooler Temp. 3.3

5.1 5

D50939: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D50939 **Client:** KRW **Immediate Client Services Action Required:** No

Date / Time Received: 9/26/2013 12:00:00 PM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: XTO **Airbill #'s:** CO

Cooler Security

	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

5.1

5

D50939: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1761-MB	5V29279.D	1	09/27/13	BD	n/a	n/a	V5V1761

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50939-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	25	ug/kg	
100-41-4	Ethylbenzene	ND	100	19	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	97%	64-130%
460-00-4	4-Bromofluorobenzene	89%	62-131%
17060-07-0	1,2-Dichloroethane-D4	108%	70-130%

Blank Spike Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1761-BS	5V29280.D	1	09/27/13	BD	n/a	n/a	V5V1761

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50939-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2680	107	70-130
100-41-4	Ethylbenzene	2500	2710	108	70-130
108-88-3	Toluene	2500	2620	105	70-130
1330-20-7	Xylene (total)	7500	8600	115	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	64-130%
460-00-4	4-Bromofluorobenzene	101%	62-131%
17060-07-0	1,2-Dichloroethane-D4	96%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1761-BS	5V29281.D	1	09/27/13	BD	n/a	n/a	V5V1761

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50939-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	97%	64-130%
460-00-4	4-Bromofluorobenzene	91%	62-131%
17060-07-0	1,2-Dichloroethane-D4	91%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50939-1MS	5V29283.D	1	09/27/13	BD	n/a	n/a	V5V1761
D50939-1MSD	5V29284.D	1	09/27/13	BD	n/a	n/a	V5V1761
D50939-1	5V29282.D	1	09/27/13	BD	n/a	n/a	V5V1761

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50939-1

CAS No.	Compound	D50939-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3330	3660	110	3600	108	2	64-139/30
100-41-4	Ethylbenzene	ND		3330	3650	109	3480	104	5	68-136/30
108-88-3	Toluene	ND		3330	3420	103	3270	98	4	60-130/30
1330-20-7	Xylene (total)	ND		10000	11700	117	11200	112	4	58-142/30

CAS No.	Surrogate Recoveries	MS	MSD	D50939-1	Limits
2037-26-5	Toluene-D8	92%	90%	92%	64-130%
460-00-4	4-Bromofluorobenzene	105%	111%	100%	62-131%
17060-07-0	1,2-Dichloroethane-D4	95%	95%	102%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50939-1MS	5V29285.D	1	09/27/13	BD	n/a	n/a	V5V1761
D50939-1MSD	5V29286.D	1	09/27/13	BD	n/a	n/a	V5V1761
D50939-1	5V29282.D	1	09/27/13	BD	n/a	n/a	V5V1761

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50939-1

CAS No.	Compound	D50939-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD

CAS No.	Surrogate Recoveries	MS	MSD	D50939-1	Limits
2037-26-5	Toluene-D8	93%	97%	92%	64-130%
460-00-4	4-Bromofluorobenzene	104%	103%	100%	62-131%
17060-07-0	1,2-Dichloroethane-D4	90%	89%	102%	70-130%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092713.S\
Data File : 5V29282.D
Acq On : 27 Sep 2013 2:48 pm
Operator : BRETD
Sample : D50939-1
Misc : MS6455,V5V1761,5.072,,100,5,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 30 08:49:01 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

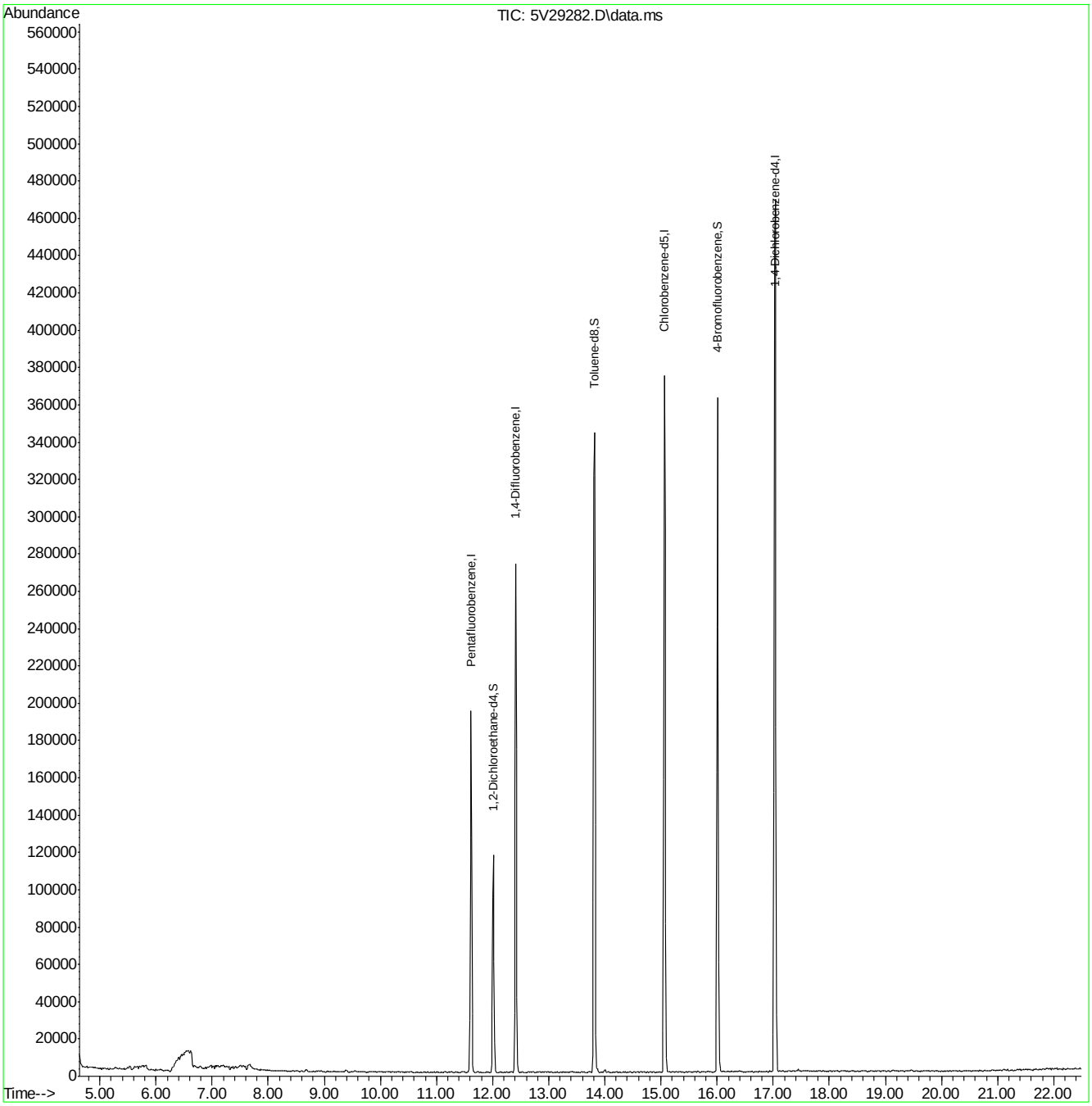
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	131144	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	179761	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	191917	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.036	152	148126	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	12.013	102	13627	51.13	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.26%			
64) Toluene-d8	13.817	98	200854	46.20	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.40%			
72) 4-Bromofluorobenzene	16.009	95	101465	50.07	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.14%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.006	TIC	-8622m	57.17	ug/l	

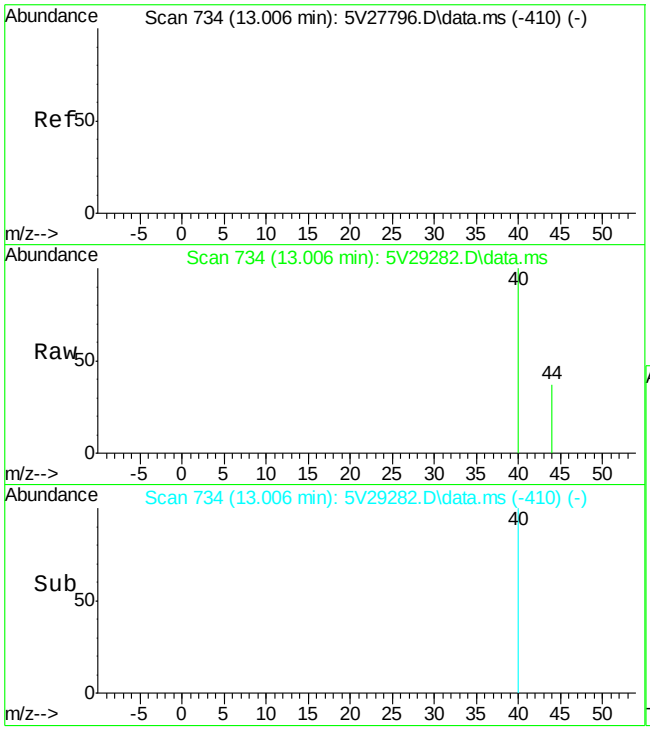
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092713.S\
Data File : 5V29282.D
Acq On : 27 Sep 2013 2:48 pm
Operator : BRETD
Sample : D50939-1
Misc : MS6455,V5V1761,5.072,,100,5,1
ALS Vial : 8 Sample Multiplier: 1

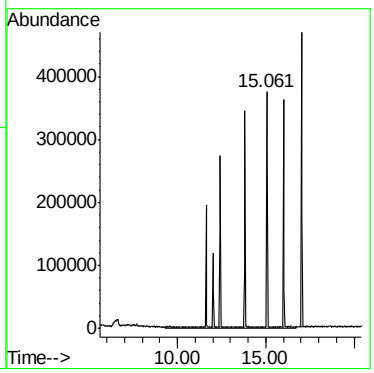
Quant Time: Sep 30 08:49:01 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

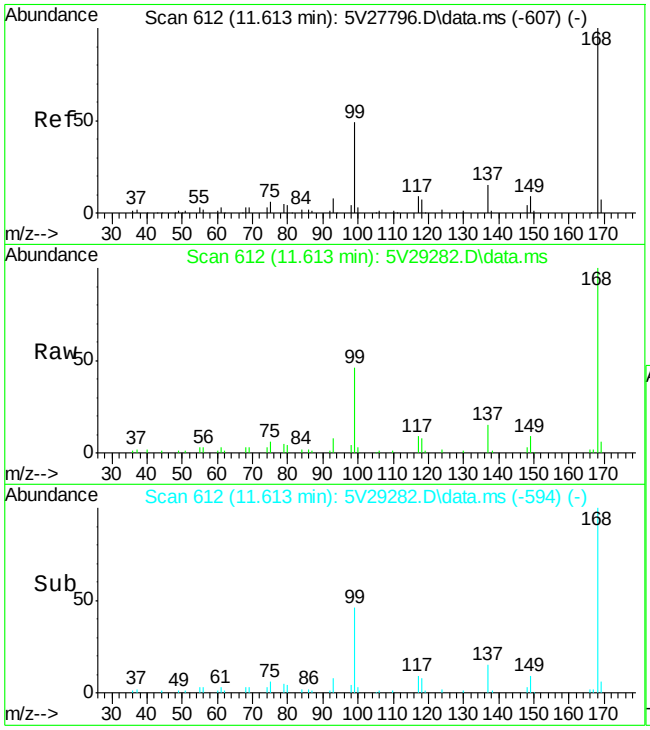




#1
TVH-Gasoline
Concen: 57.17 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

Tgt Ion:TIC Resp: -8622

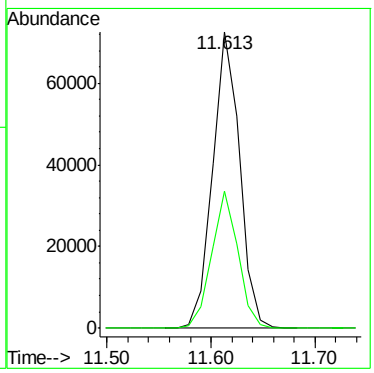


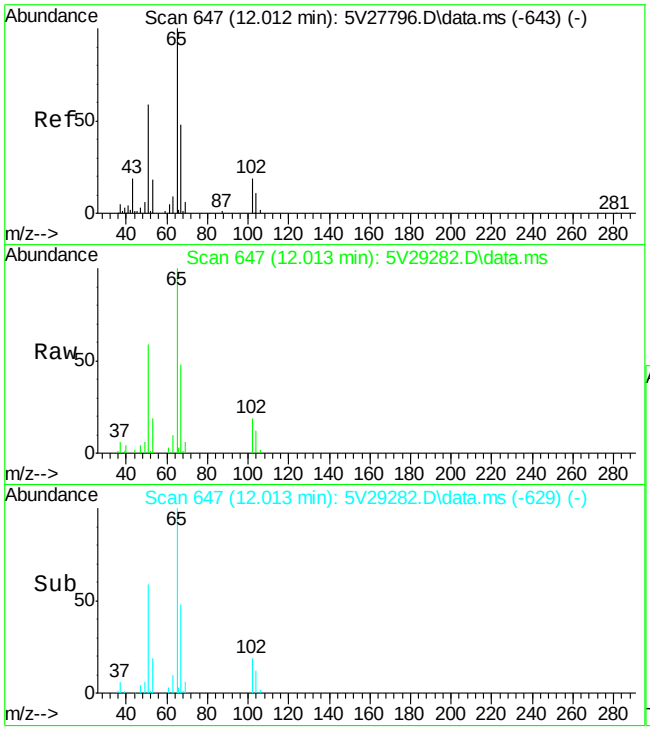


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

Tgt Ion:168 Resp: 131144

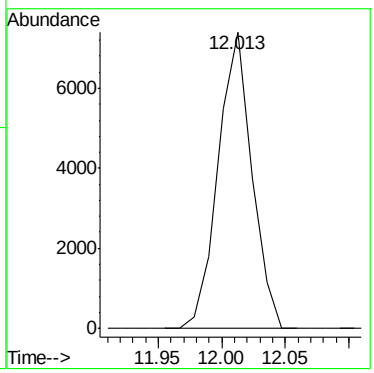
Ion	Ratio	Lower	Upper
168	100		
99	45.1	41.4	62.2

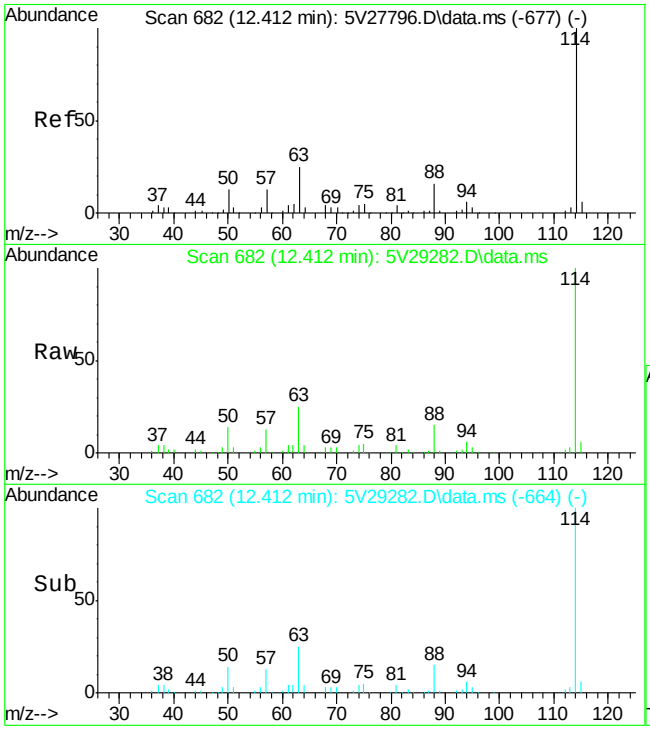




#35
1,2-Dichloroethane-d4
Concen: 51.13 ug/l
RT: 12.013 min Scan# 647
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

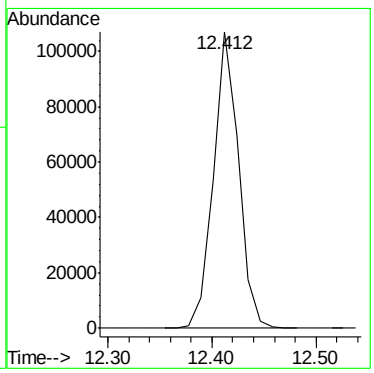
Tgt Ion:102 Resp: 13627

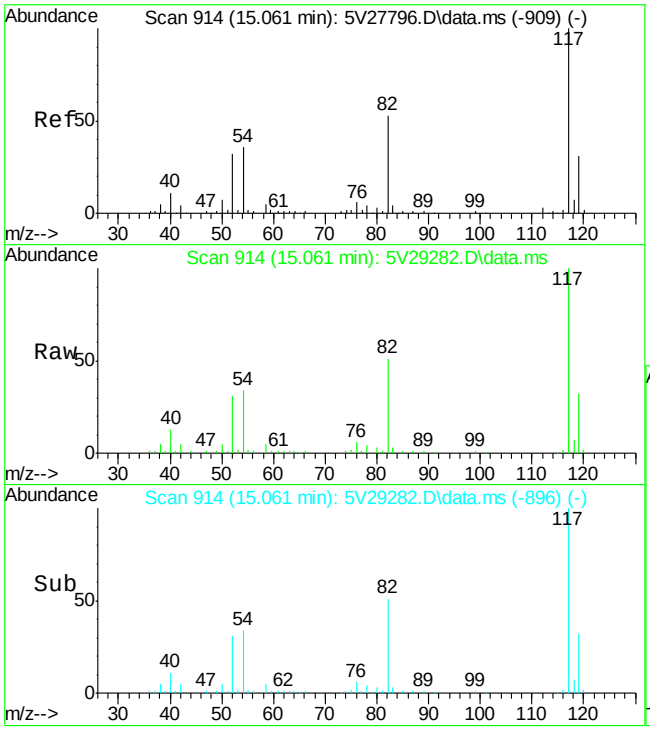




#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

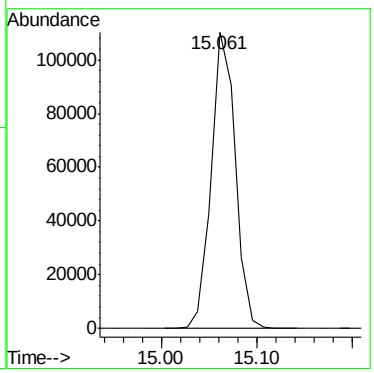
Tgt Ion:114 Resp: 179761

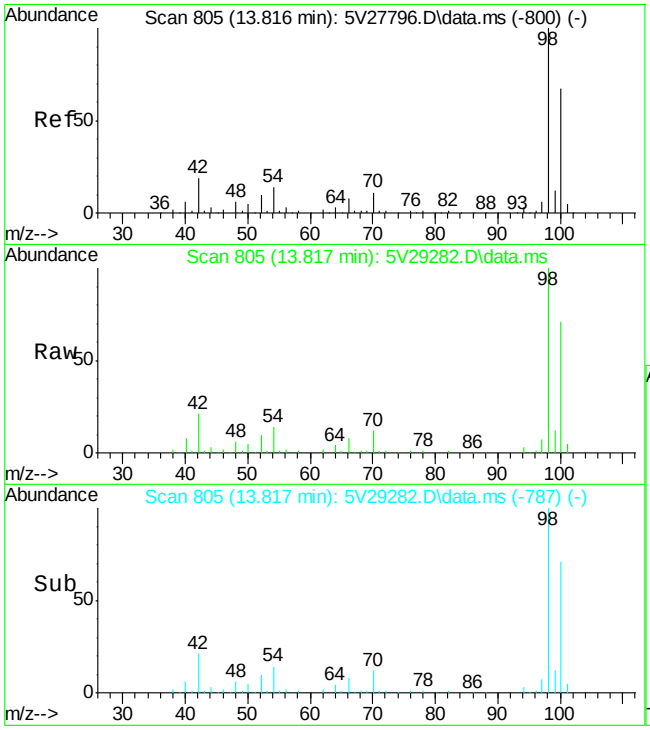




#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

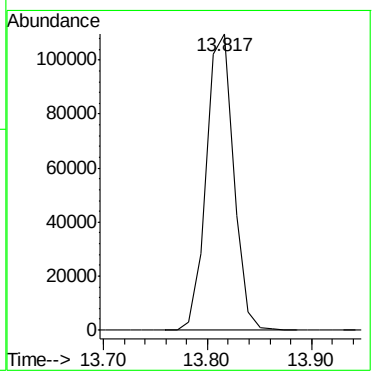
Tgt Ion:117 Resp: 191917

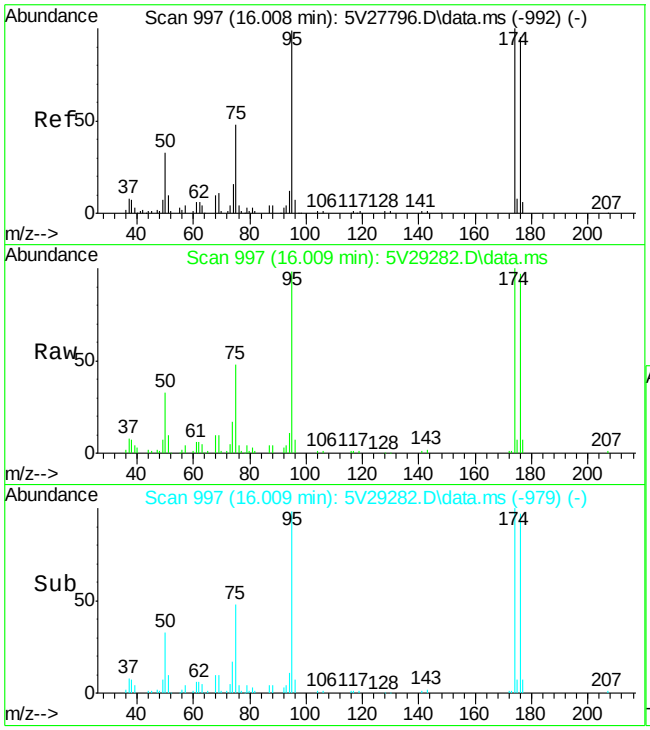




#64
Toluene-d8
Concen: 46.20 ug/l
RT: 13.817 min Scan# 805
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

Tgt Ion: 98 Resp: 200854

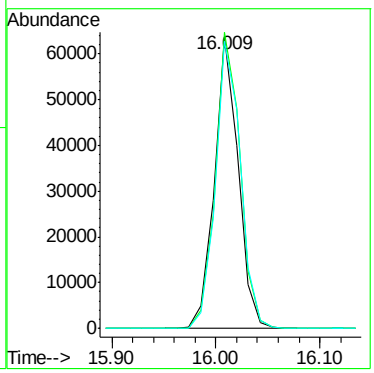


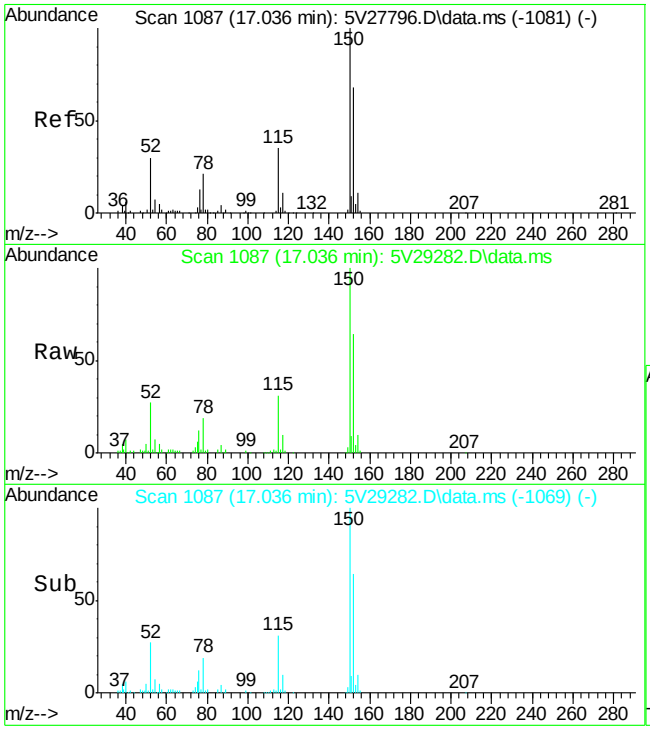


#72
4-Bromofluorobenzene
Concen: 50.07 ug/l
RT: 16.009 min Scan# 997
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

Tgt Ion: 95 Resp: 101465

Ion	Ratio	Lower	Upper
95	100		
174	105.2	85.4	125.4
176	103.5	80.6	120.6

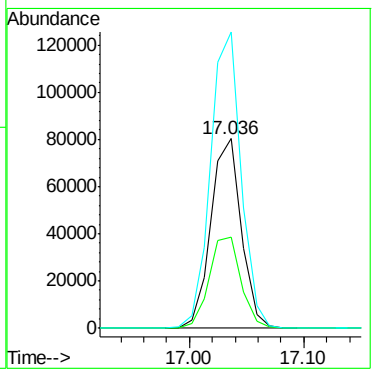




#77
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.036 min Scan# 1087
Delta R.T. 0.000 min
Lab File: 5V29282.D
Acq: 27 Sep 2013 2:48 pm

Tgt Ion:152 Resp: 148126

Ion	Ratio	Lower	Upper
152	100		
115	50.1	43.4	65.2
150	157.2	142.9	214.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092713.S\
Data File : 5V29279.D
Acq On : 27 Sep 2013 1:10 pm
Operator : BRETD
Sample : MB
Misc : MS6455,V5V1761,5.000,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 30 08:46:03 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

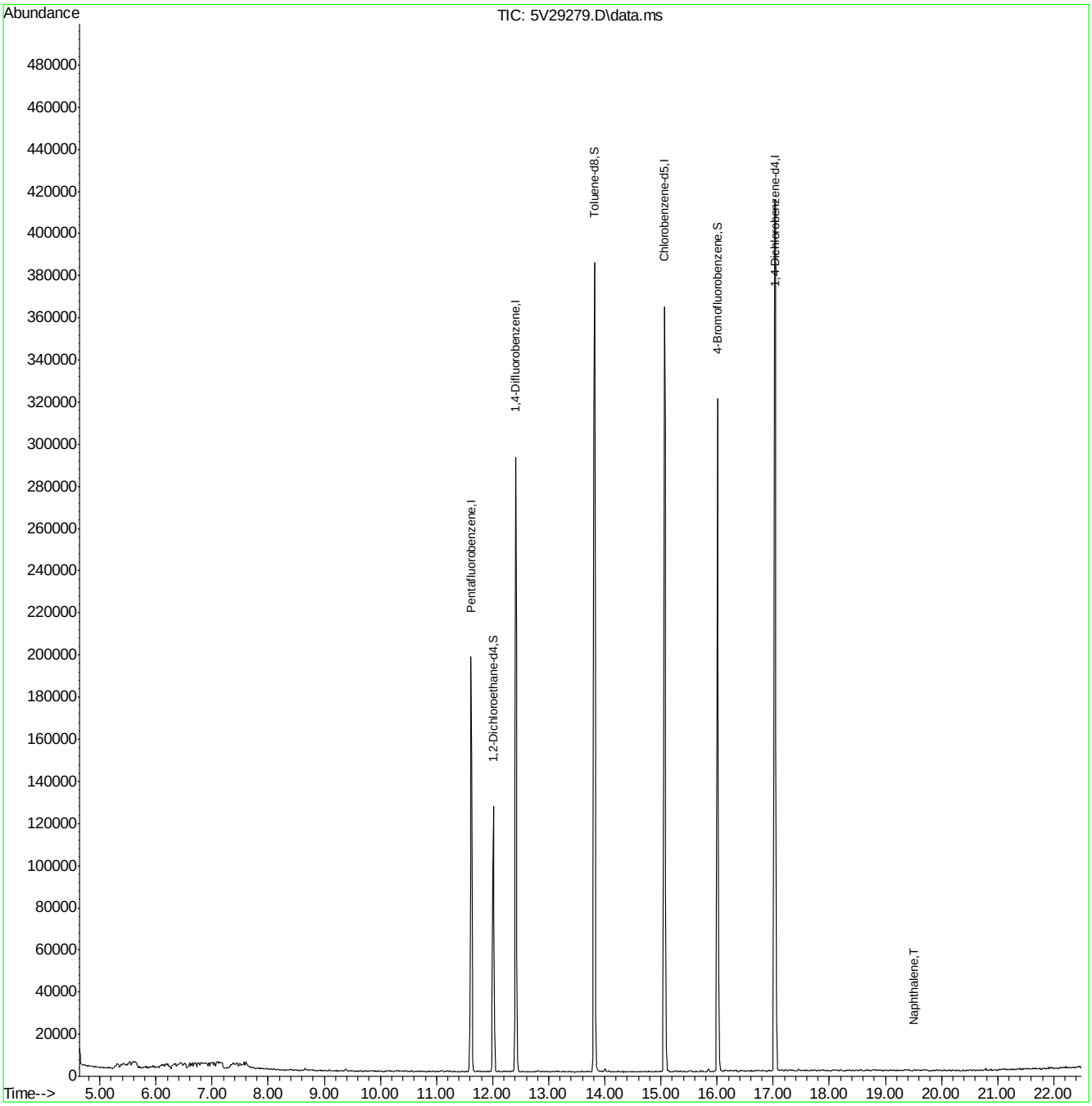
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	134668	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	190938	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	192757	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.036	152	134861	50.00	ug/l	0.00
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	12.012	102	14760	53.94	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 107.88%			
64) Toluene-d8	13.816	98	210999	48.32	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.64%			
72) 4-Bromofluorobenzene	16.008	95	90580	44.50	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 89.00%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.006	TIC	-52748m	53.96	ug/l	
94) Naphthalene	19.513	128	452	0.89	ug/l	100

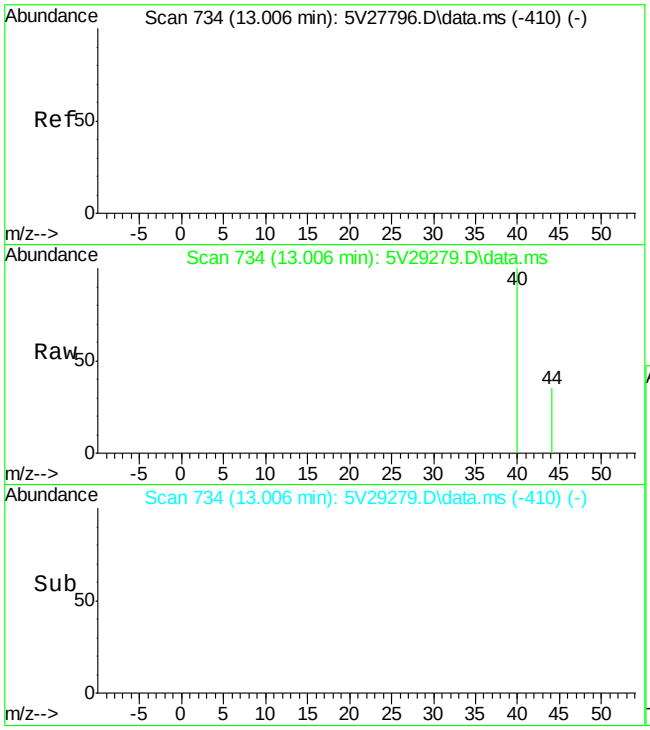
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092713.S\
Data File : 5V29279.D
Acq On : 27 Sep 2013 1:10 pm
Operator : BRETD
Sample : MB
Misc : MS6455,V5V1761,5.000,,100,5,1
ALS Vial : 5 Sample Multiplier: 1

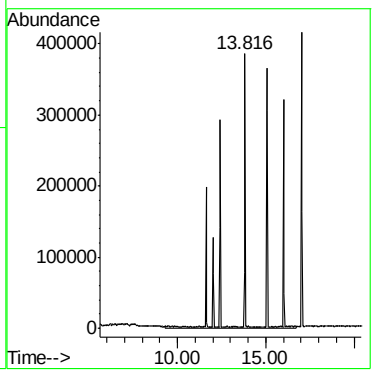
Quant Time: Sep 30 08:46:03 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

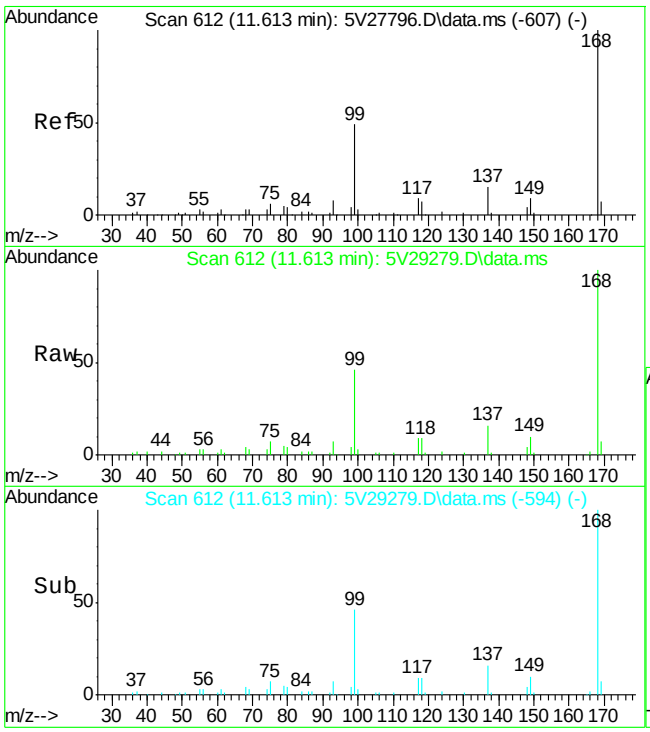




#1
TVH-Gasoline
Concen: 53.96 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion:TIC Resp: -52748

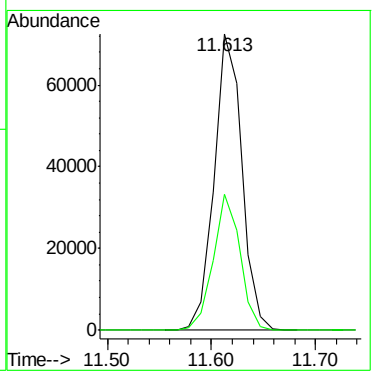


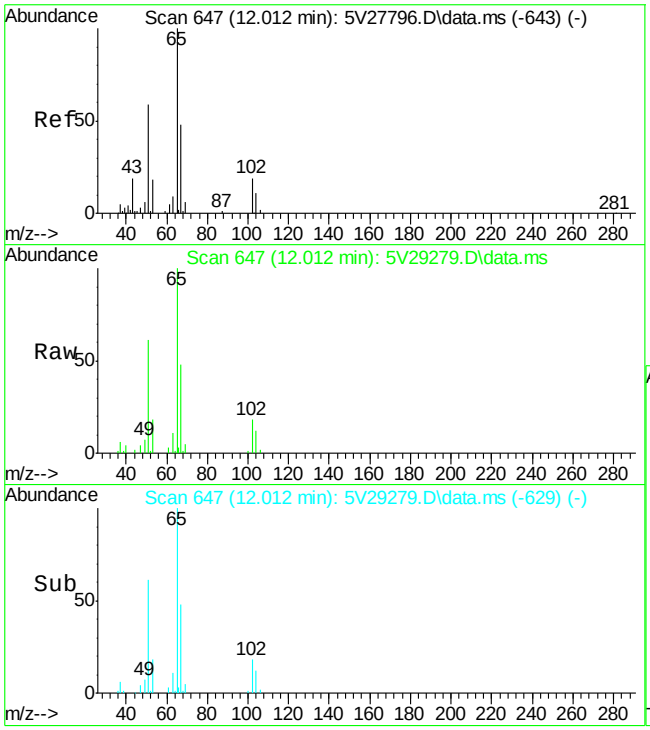


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion:168 Resp: 134668

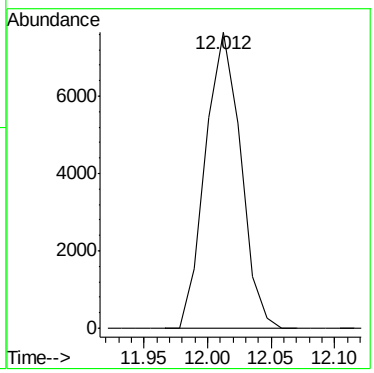
Ion	Ratio	Lower	Upper
168	100		
99	44.4	41.4	62.2

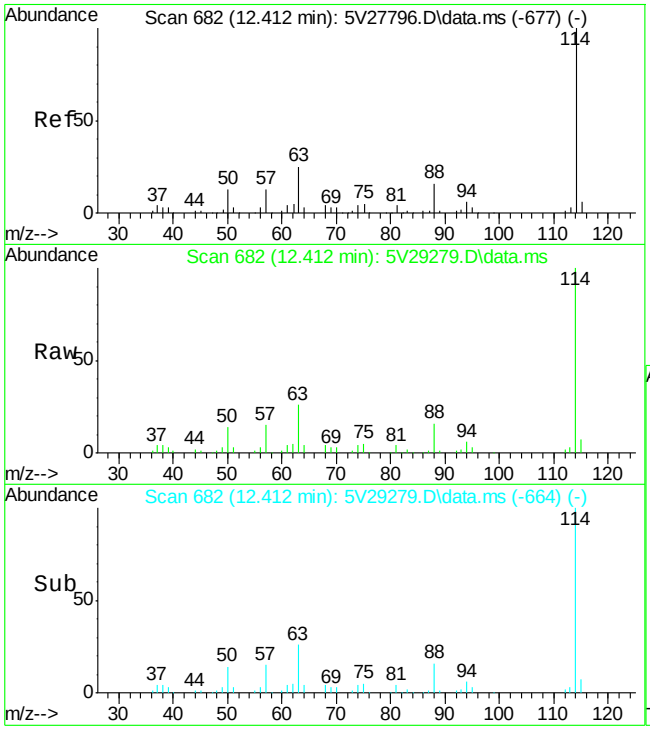




#35
1,2-Dichloroethane-d4
Concen: 53.94 ug/l
RT: 12.012 min Scan# 647
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

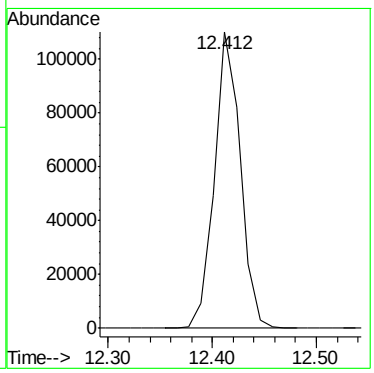
Tgt Ion:102 Resp: 14760

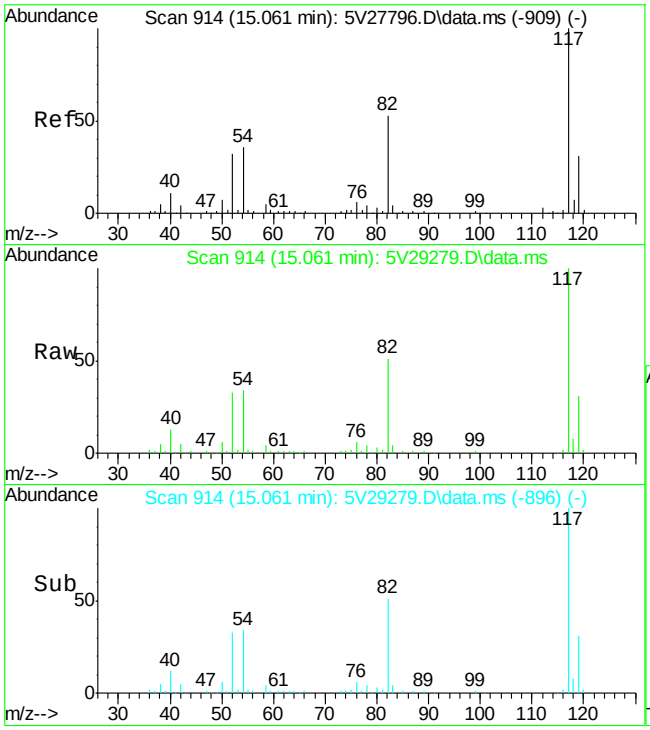




#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

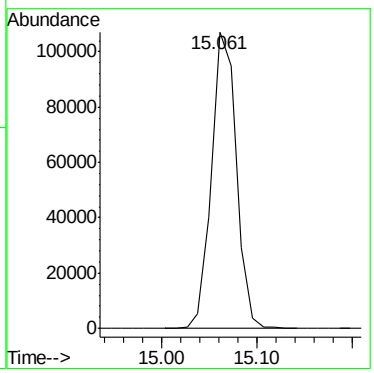
Tgt Ion:114 Resp: 190938

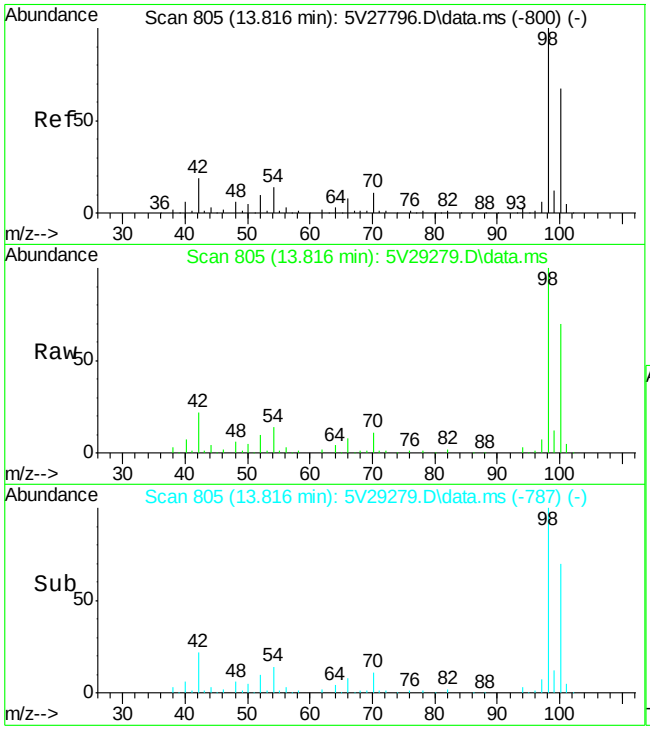




#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

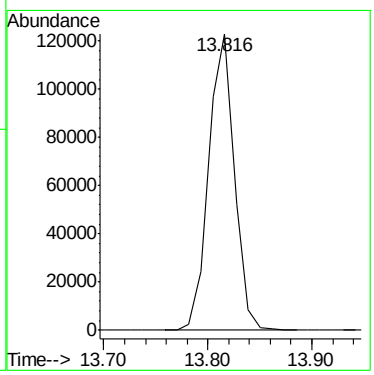
Tgt Ion:117 Resp: 192757

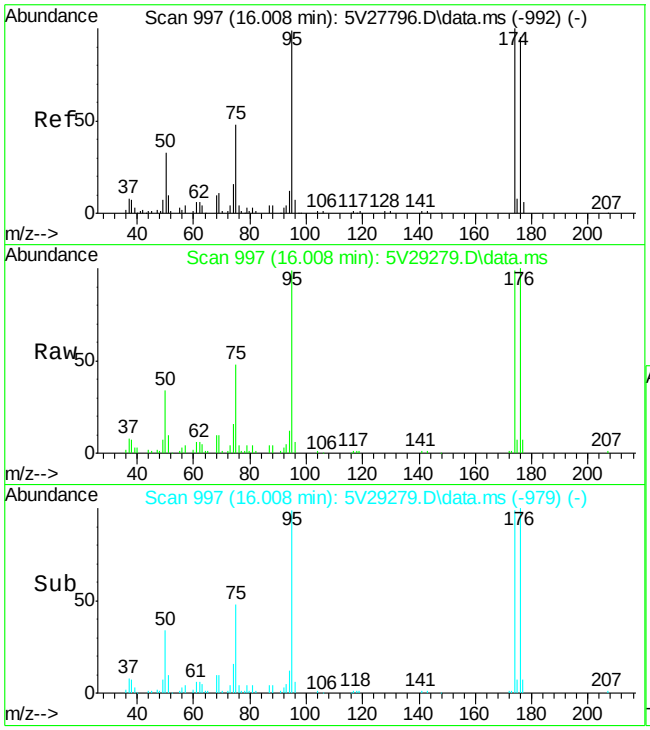




#64
Toluene-d8
Concen: 48.32 ug/l
RT: 13.816 min Scan# 805
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion: 98 Resp: 210999

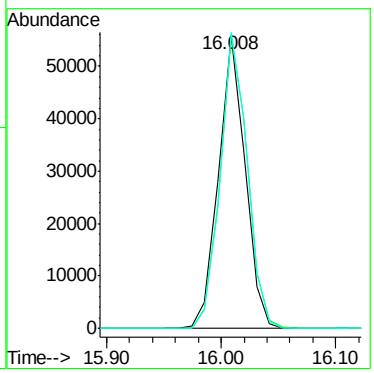


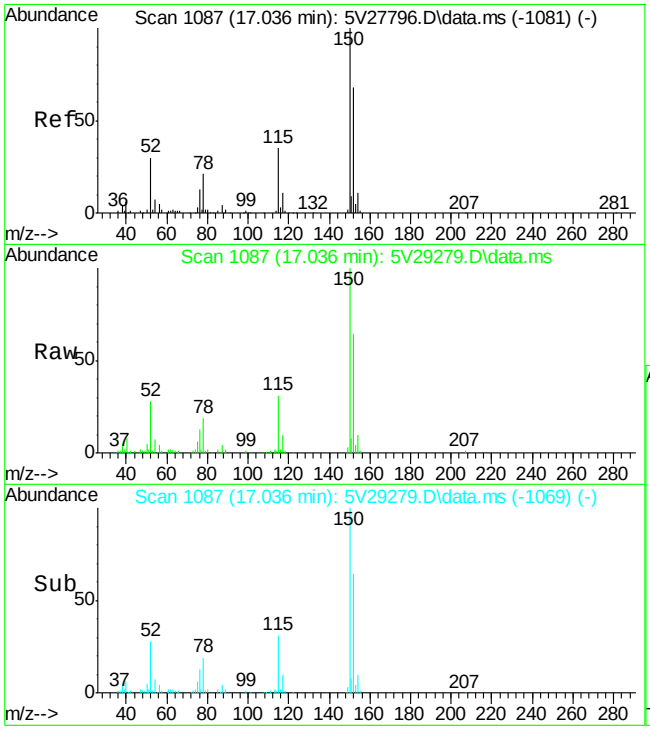


#72
4-Bromofluorobenzene
Concen: 44.50 ug/l
RT: 16.008 min Scan# 997
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion: 95 Resp: 90580

Ion	Ratio	Lower	Upper
95	100		
174	102.4	85.4	125.4
176	101.8	80.6	120.6

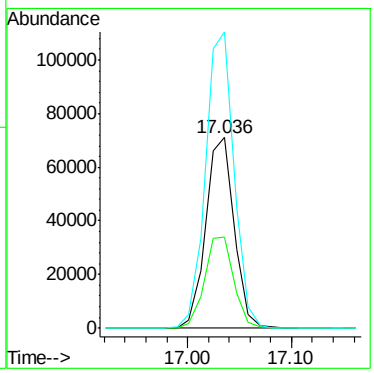


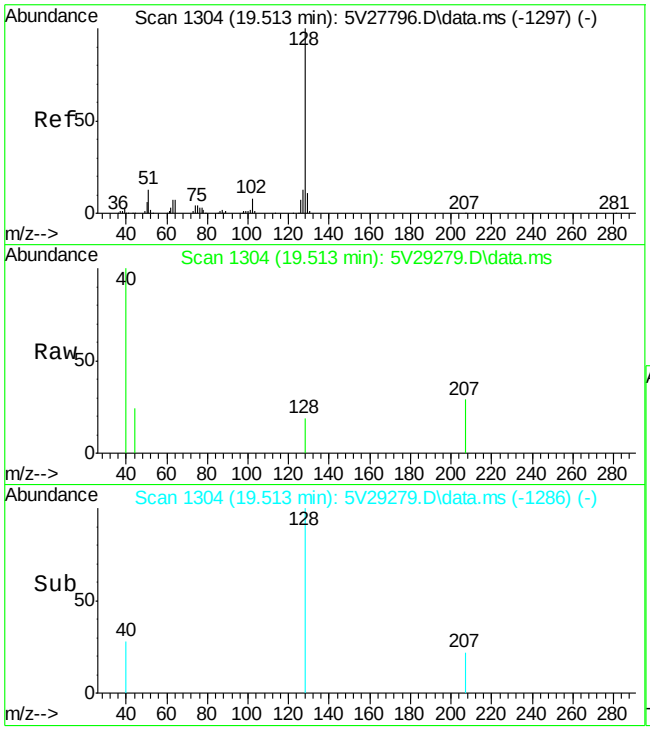


#77
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.036 min Scan# 1087
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion:152 Resp: 134861

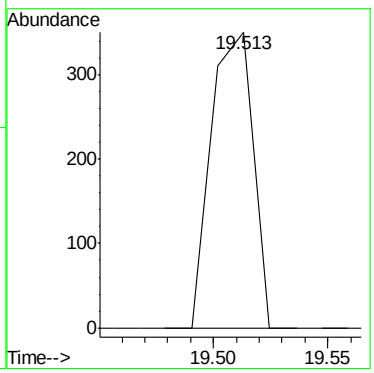
Ion	Ratio	Lower	Upper
152	100		
115	49.0	43.4	65.2
150	156.5	142.9	214.3





#94
Naphthalene
Concen: 0.89 ug/l
RT: 19.513 min Scan# 1304
Delta R.T. 0.000 min
Lab File: 5V29279.D
Acq: 27 Sep 2013 1:10 pm

Tgt Ion:128 Resp: 452



Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1227-MB	GB22305.D	1	09/26/13	EV	n/a	n/a	GGB1227

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50939-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
120-82-1	1,2,4-Trichlorobenzene	86%	60-140%

Blank Spike Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1227-BS	GB22306.D	1	09/26/13	EV	n/a	n/a	GGB1227

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50939-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	108	98	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	89%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50910-2MS	GB22309.D	1	09/26/13	EV	n/a	n/a	GGB1227
D50910-2MSD	GB22310.D	1	09/26/13	EV	n/a	n/a	GGB1227
D50910-2	GB22308.D	1	09/26/13	EV	n/a	n/a	GGB1227

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50939-1

CAS No.	Compound	D50910-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	7.82	J	128	137	101	137	101	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D50910-2	Limits
120-82-1	1,2,4-Trichlorobenzene	93%	92%	82%	60-140%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 09/30/13 08:35

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092613\GB22322.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\092613\GB22322.D\FID2B.CH
Acq On : 26 Sep 2013 9:27 pm Operator: ELISEV
Sample : D50939-1 Inst : GC/MS Ins
Misc : GC3899,GGB1227,5.072,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 27 09:50:07 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 27 09:48:33 2013
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	2501461	82.800	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.35	11377285	86.159	%	m
	Target Compounds					
1) H	TVH-Gasoline	7.29	3356257	0.048	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	0.00	0	N.D.	ug/L	d
6) T	Toluene	7.64	101835	0.275	ug/L	m
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.46	89776	0.238	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.54	16717	0.097	ug/L	m

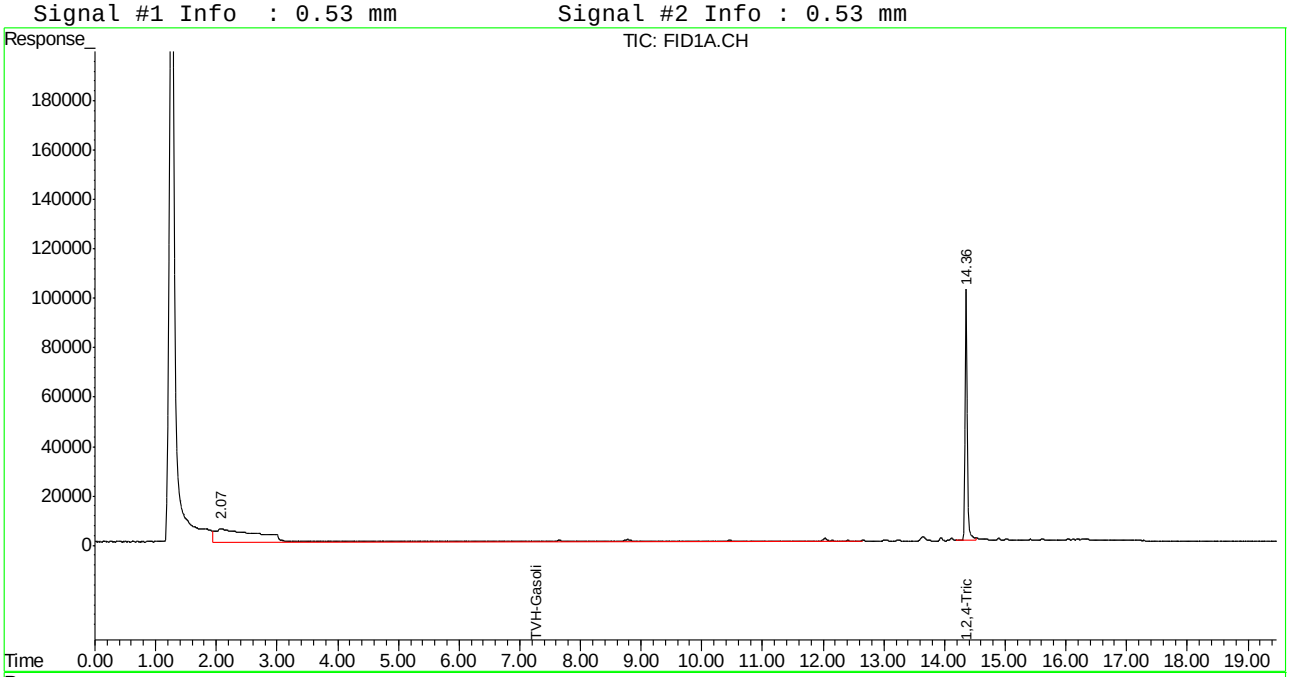
(f)=RT Delta > 1/2 Window (m)=manual int.

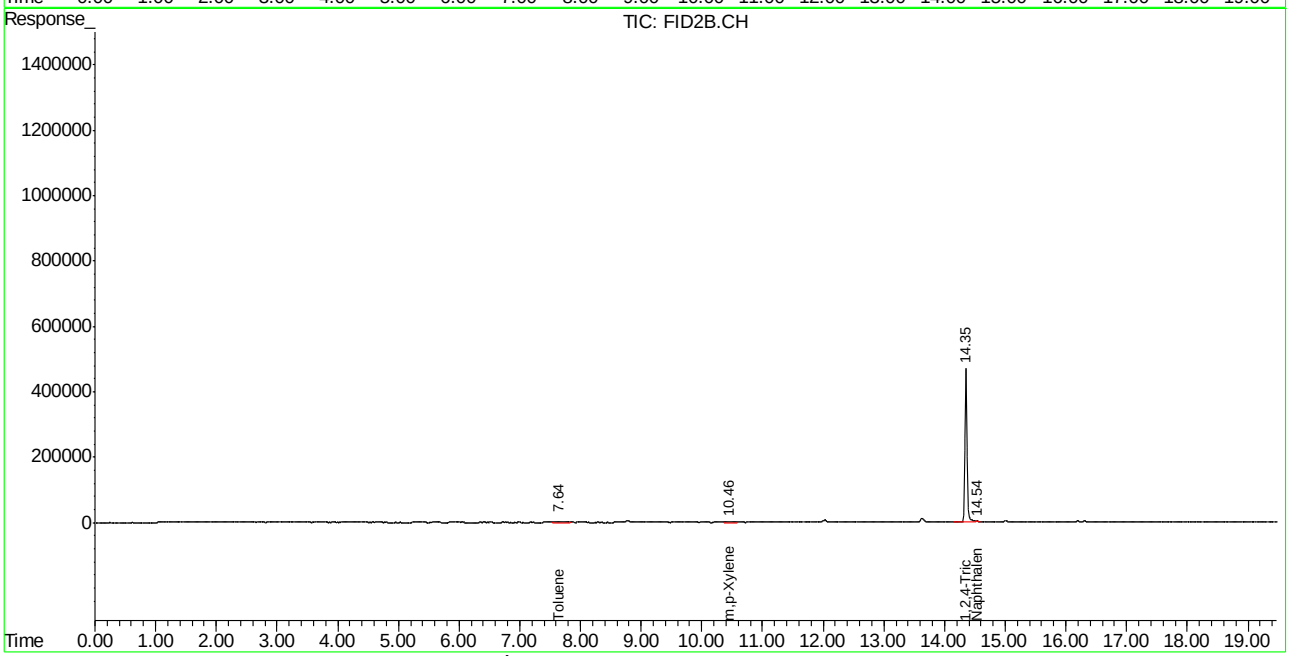
Quantitation Report (QT Reviewed)

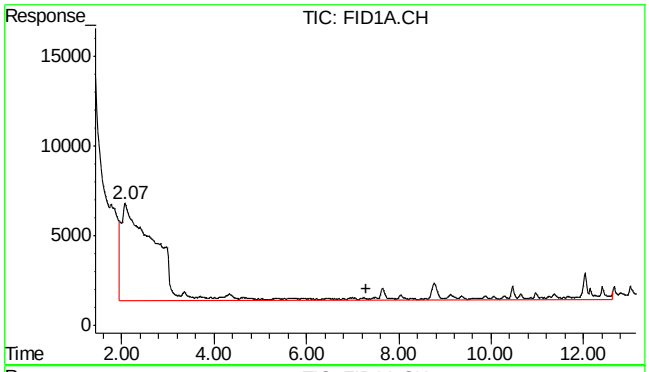
Signal #1 : Y:\1\DATA\092613\GB22322.D\FID1A.CH Vial: 21
Signal #2 : Y:\1\DATA\092613\GB22322.D\FID2B.CH
Acq On : 26 Sep 2013 9:27 pm Operator: ELISEV
Sample : D50939-1 Inst : GC/MS Ins
Misc : GC3899,GGB1227,5.072,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 27 10:26 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 27 09:48:33 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

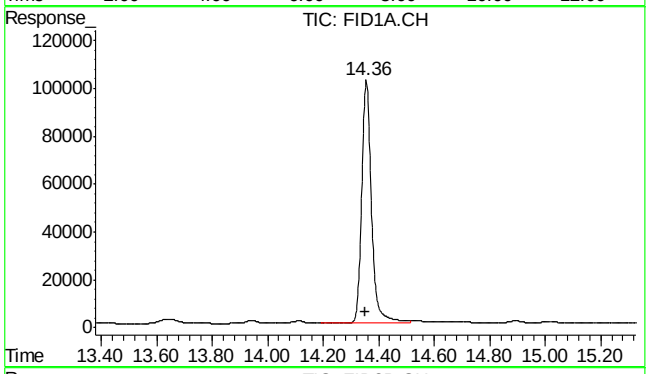






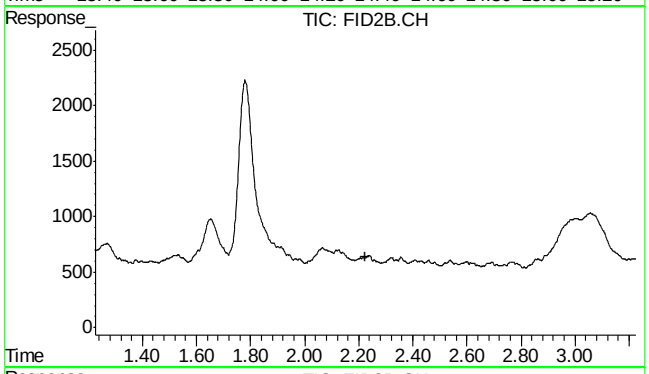
#1 TVH-Gasoline

R.T.: 7.285 min
Delta R.T.: 0.000 min
Response: 3356257
Conc: 0.05 mg/L m



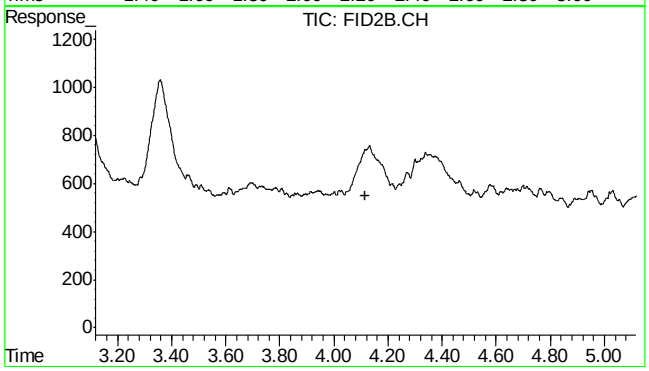
#2 1,2,4-Trichlorobenzene

R.T.: 14.355 min
Delta R.T.: 0.003 min
Response: 2501461
Conc: 82.80 % m



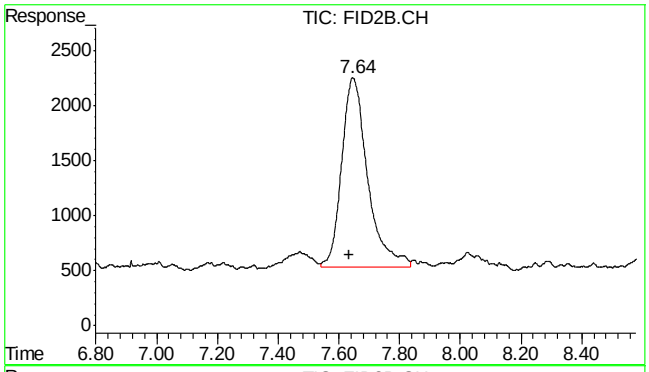
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.225 min
Response: 0
Conc: N.D.



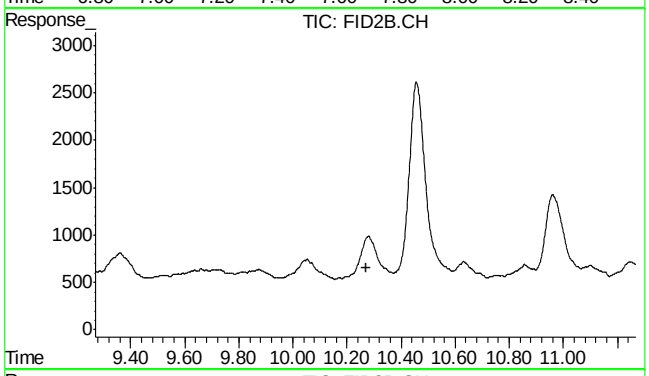
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.117 min
Response: 0
Conc: N.D.



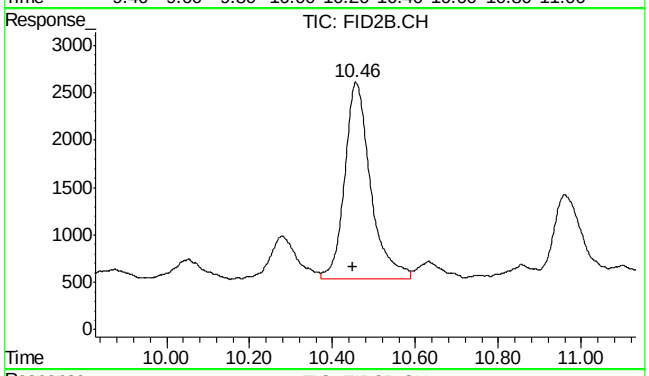
#6 Toluene

R.T.: 7.644 min
Delta R.T.: 0.008 min
Response: 101835
Conc: 0.28 ug/L m



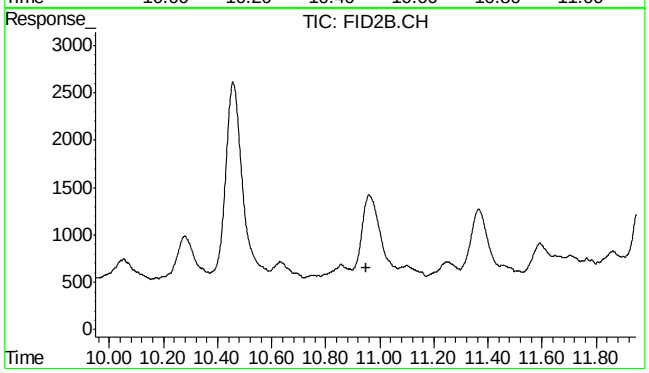
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.269 min
Response: 0
Conc: N.D.



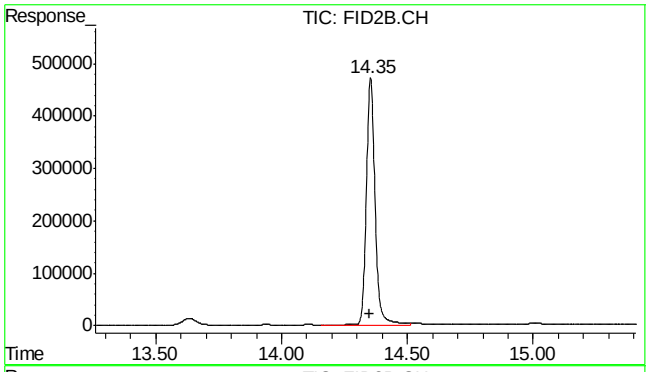
#8 m,p-Xylene

R.T.: 10.457 min
Delta R.T.: 0.008 min
Response: 89776
Conc: 0.24 ug/L



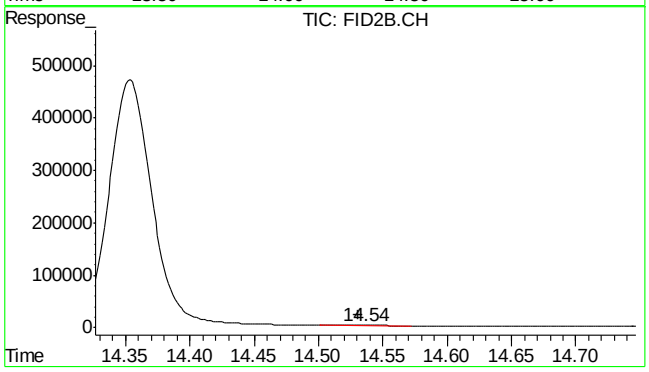
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.948 min
Response: 0
Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.353 min
Delta R.T.: 0.003 min
Response: 11377285
Conc: 86.16 % m



#11 Naphthalene

R.T.: 14.535 min
Delta R.T.: 0.004 min
Response: 16717
Conc: 0.10 ug/L m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson
09/27/13 11:37

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092613\GB22305.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092613\GB22305.D\FID2B.CH
Acq On : 26 Sep 2013 11:26 am Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3899,GGB1227,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 27 09:48:59 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 27 09:48:33 2013
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.36	2601211	86.101	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.36	11801809	89.374	%	m
	Target Compounds					
1) H	TVH-Gasoline	7.29	3836262	0.055	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	0.00	0	N.D.	ug/L	d
6) T	Toluene	7.65	157769	0.426	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.46	186748	0.495	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.54	34581	0.201	ug/L	m

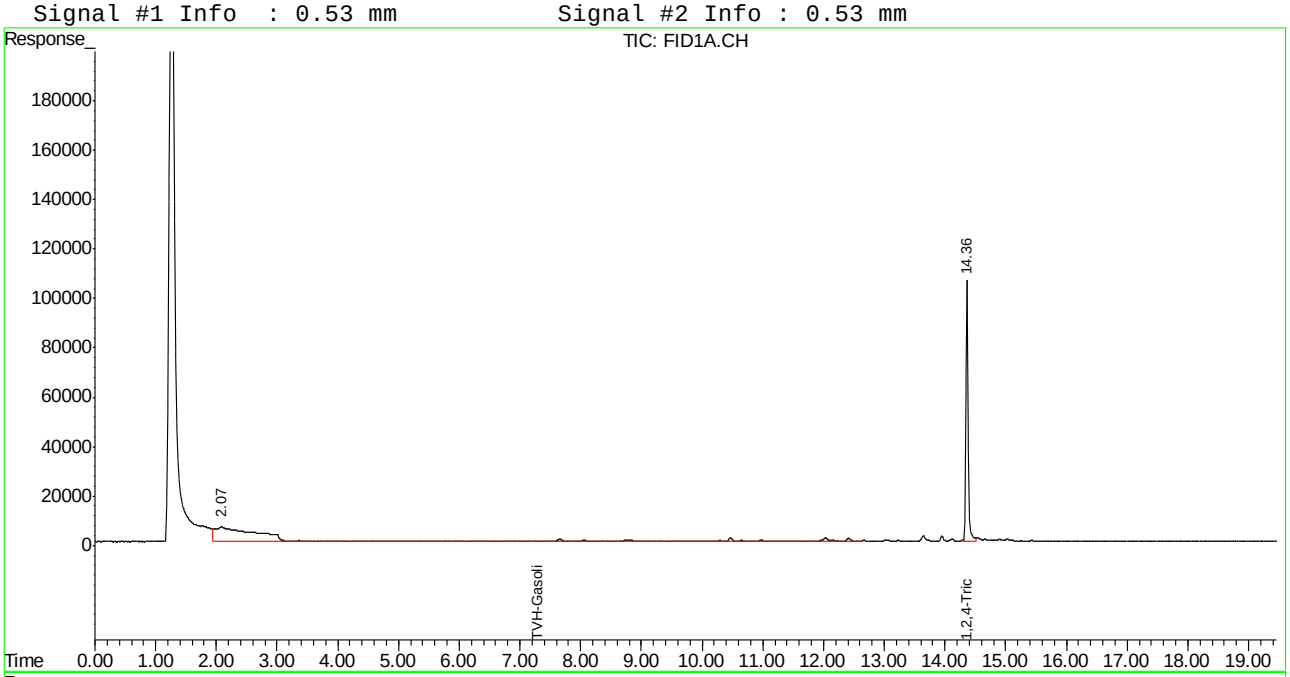
(f)=RT Delta > 1/2 Window (m)=manual int.
GB22305.D TB1125GB1125SOIL.M Fri Sep 27 10:22:14 2013 GC Page 1

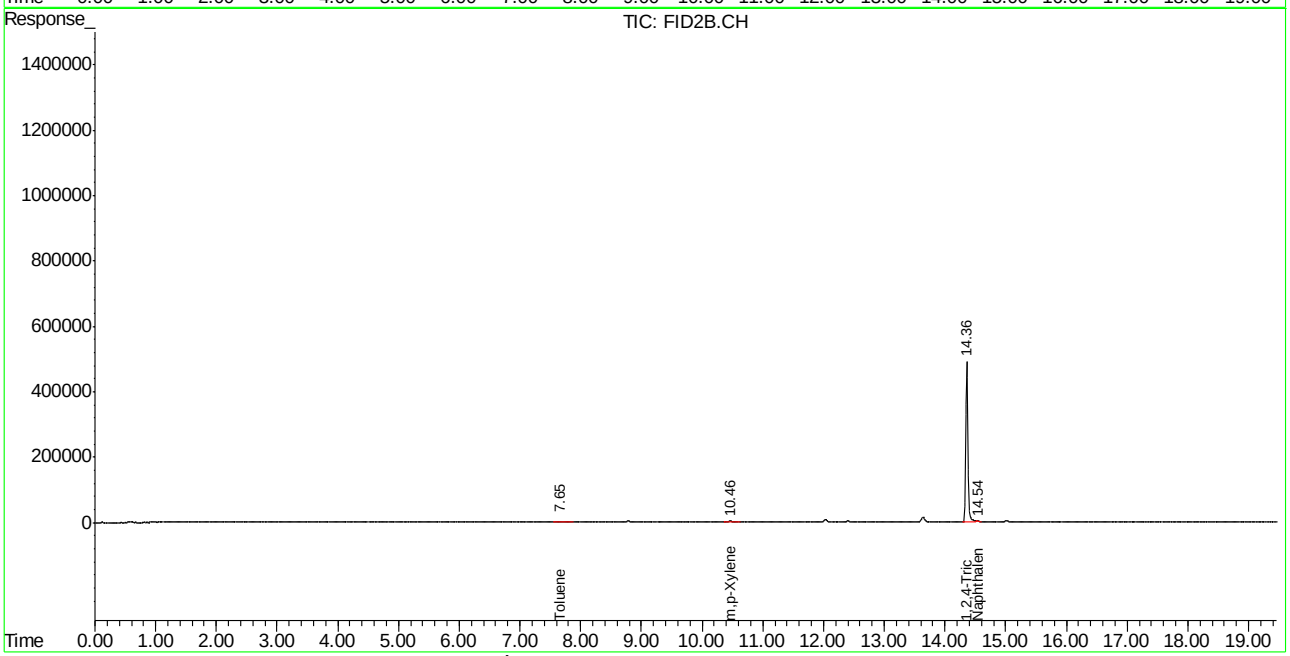
Quantitation Report (QT Reviewed)

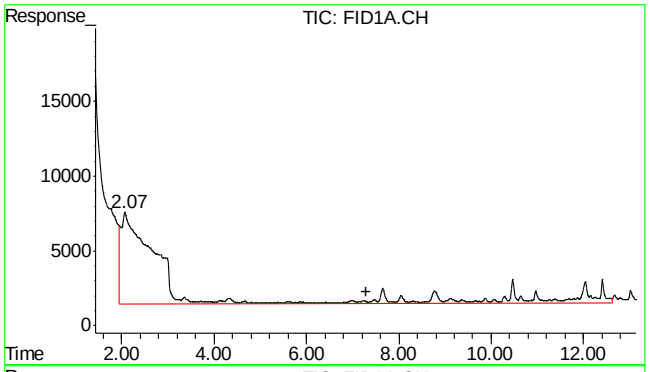
Signal #1 : Y:\1\DATA\092613\GB22305.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092613\GB22305.D\FID2B.CH
Acq On : 26 Sep 2013 11:26 am Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3899,GGB1227,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 27 9:59 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Sep 27 09:48:33 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

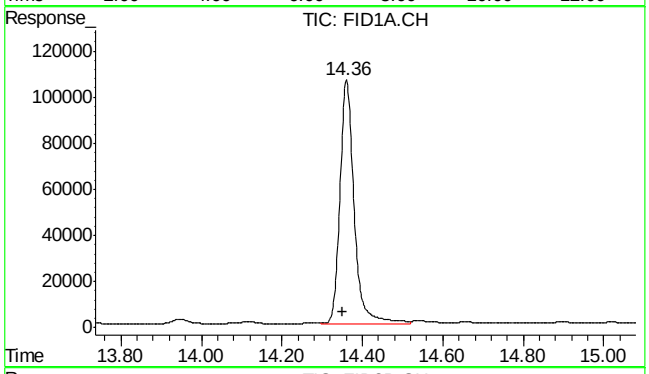






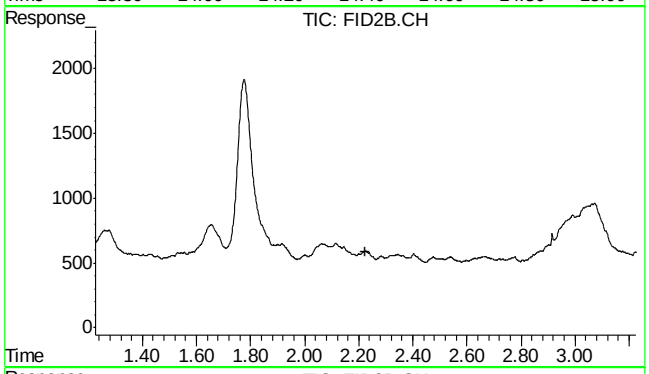
#1 TVH-Gasoline

R.T.: 7.285 min
Delta R.T.: 0.000 min
Response: 3836262
Conc: 0.05 mg/L m



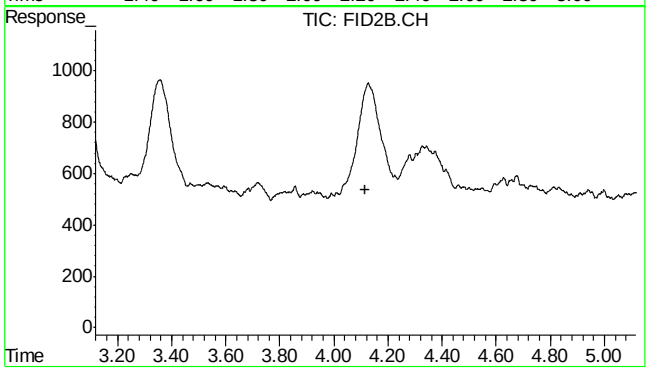
#2 1,2,4-Trichlorobenzene

R.T.: 14.360 min
Delta R.T.: 0.008 min
Response: 2601211
Conc: 86.10 % m



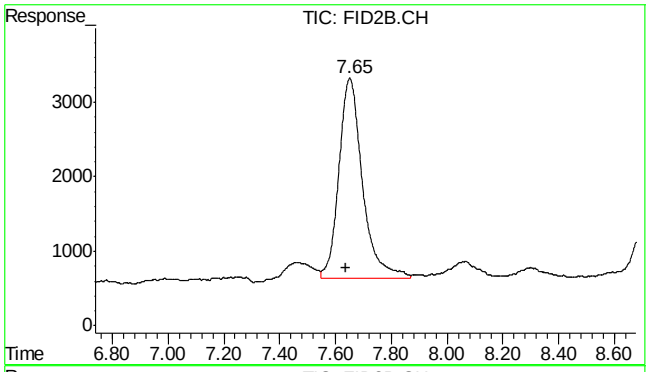
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.225 min
Response: 0
Conc: N.D.



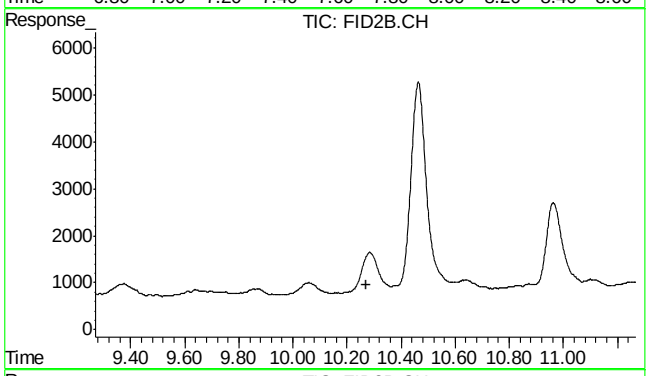
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.117 min
Response: 0
Conc: N.D.



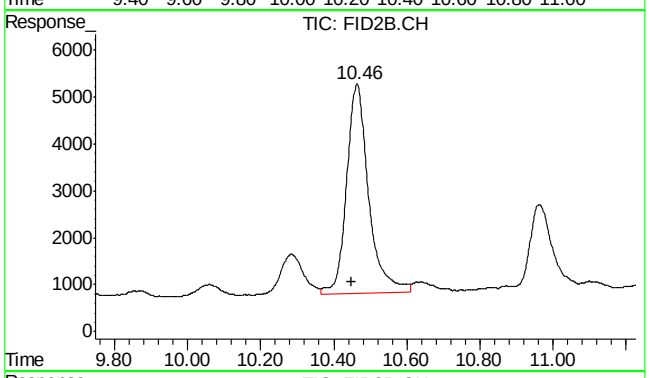
#6 Toluene

R.T.: 7.652 min
Delta R.T.: 0.015 min
Response: 157769
Conc: 0.43 ug/L



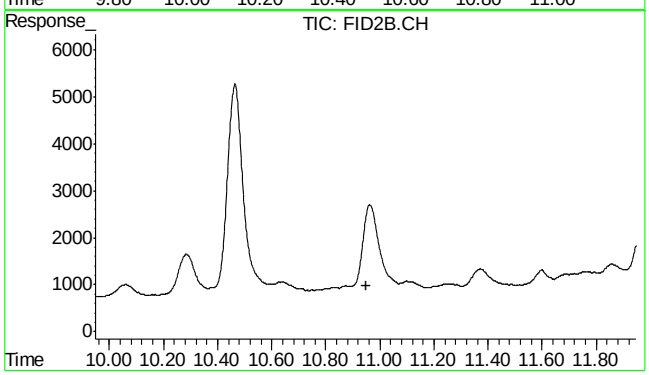
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.269 min
Response: 0
Conc: N.D.



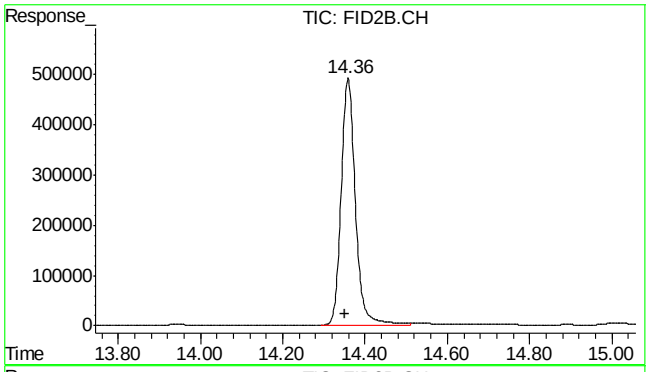
#8 m,p-Xylene

R.T.: 10.464 min
Delta R.T.: 0.015 min
Response: 186748
Conc: 0.49 ug/L



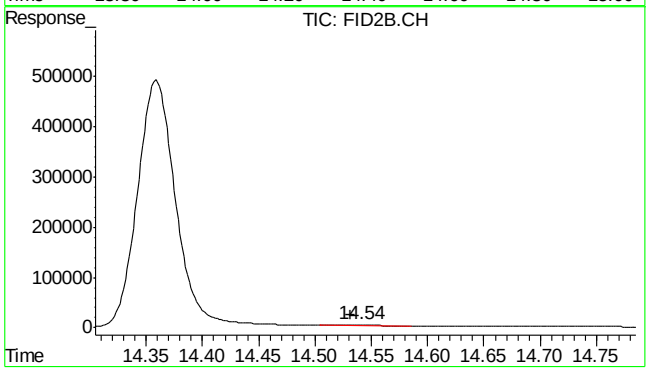
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.948 min
Response: 0
Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.:	14.358 min
Delta R.T.:	0.008 min
Response:	11801809
Conc:	89.37 % m



#11 Naphthalene

R.T.:	14.540 min
Delta R.T.:	0.009 min
Response:	34581
Conc:	0.20 ug/L m

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8643-MB	FH013472.D	1	09/27/13	TU	09/27/13	OP8643	GFH714

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50939-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	84%	20-130%

Blank Spike Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8643-BS	FH013474.D	1	09/27/13	TU	09/27/13	OP8643	GFH714

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50939-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	477	72	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	74%	20-130%

10.2.1 10

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50939
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8643-MS	FH013478.D	1	09/27/13	TU	09/27/13	OP8643	GFH714
OP8643-MSD	FH013480.D	1	09/27/13	TU	09/27/13	OP8643	GFH714
D50939-1	FH013482.D	1	09/27/13	TU	09/27/13	OP8643	GFH714

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50939-1

CAS No.	Compound	D50939-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	25.9		781	398	48	432	52	8	20-150/30

CAS No.	Surrogate Recoveries	MS	MSD	D50939-1	Limits
84-15-1	o-Terphenyl	54%	60%	68%	20-130%

10.3.1

10

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092713.SEC\
Data File : FH013482.D
Signal(s) : FID2B.ch
Acq On : 27 Sep 2013 3:09 pm
Operator : TIMU
Sample : D50939-1
Misc : OP8643,GFH714,30.04,,,1,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 27 15:40:30 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) s	o-Terphenyl	12.182	2346411219	1352.305	ug/ml
Target Compounds					
2) H	TPH-DRO (C10-C28)	9.781	931391385	662.167	ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

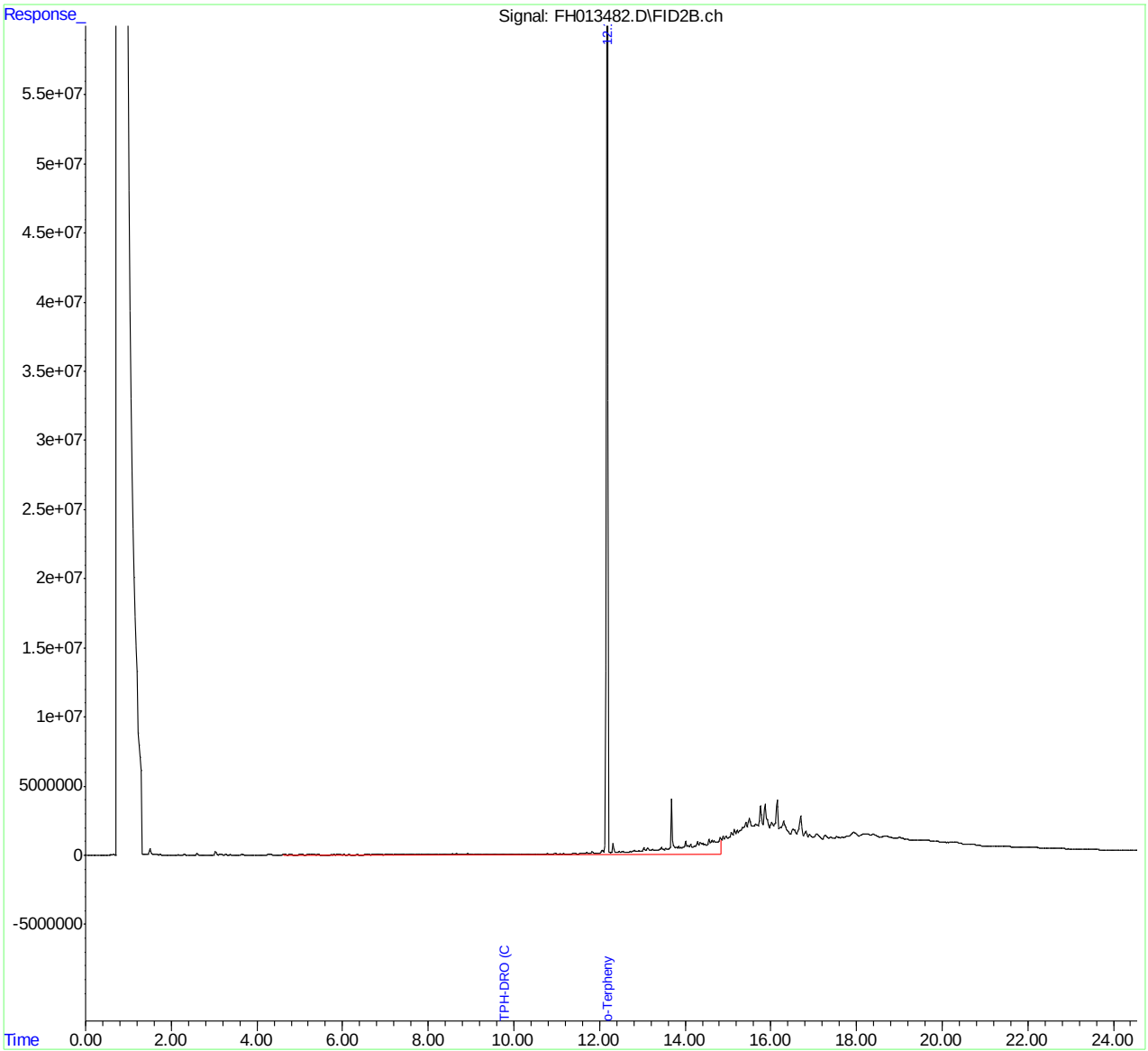
11.1.1 11

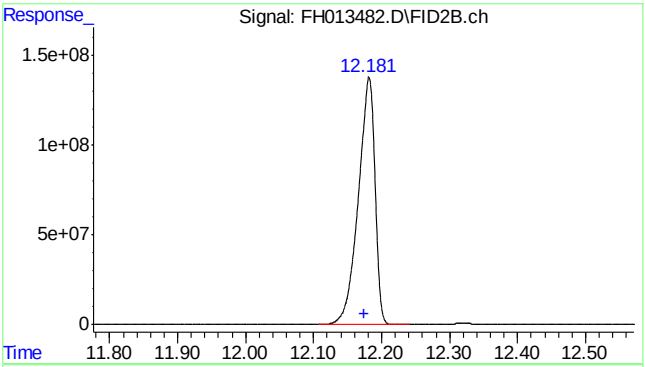
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092713.SEC\
Data File : FH013482.D
Signal(s) : FID2B.ch
Acq On : 27 Sep 2013 3:09 pm
Operator : TIMU
Sample : D50939-1
Misc : OP8643,GFH714,30.04,,,1,1
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 27 15:40:30 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

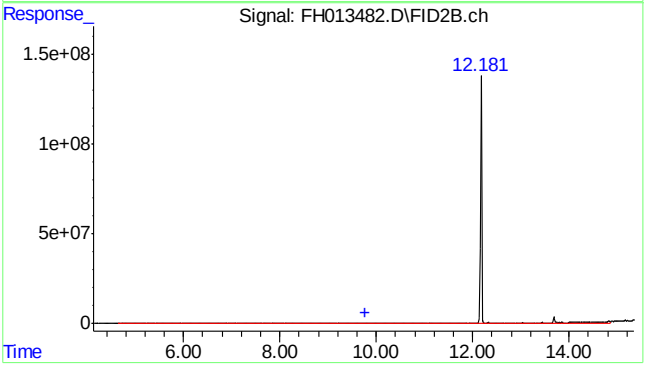
Volume Inj. :
Signal Phase :
Signal Info :





#1 o-Terphenyl

R.T.: 12.182 min
Delta R.T.: 0.007 min
Response: 2346411219
Conc: 1352.31 ug/ml



#2 TPH-DRO (C10-C28)

R.T.: 9.781 min
Delta R.T.: 0.000 min
Response: 931391385
Conc: 662.17 ug/ml m

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092713.SEC\
Data File : FH013472.D
Signal(s) : FID2B.ch
Acq On : 27 Sep 2013 12:09 pm
Operator : TIMU
Sample : OP8643-MB
Misc : OP8643,GFH714,30.00,,,1,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 30 09:07:51 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
1) s	o-Terphenyl	12.185	2901254726	1672.078	ug/ml
Target Compounds					
2) H	TPH-DRO (C10-C28)	9.781	63731791	45.310	ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

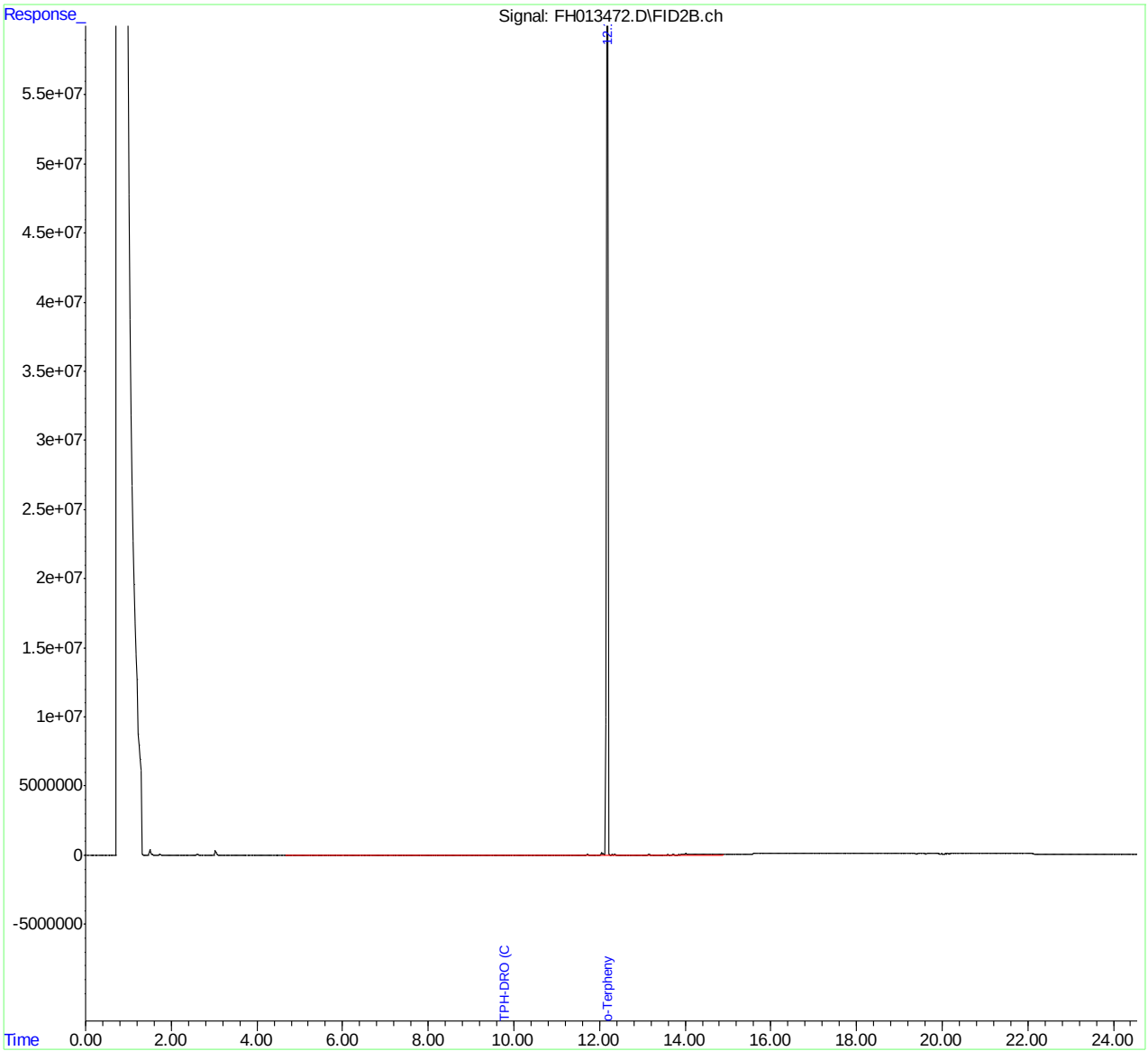
11.2.1 11

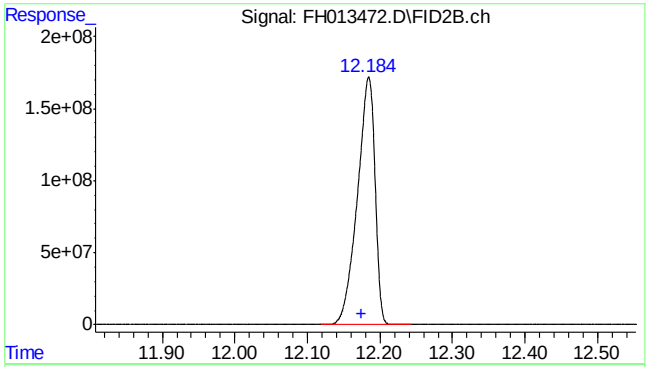
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092713.SEC\
Data File : FH013472.D
Signal(s) : FID2B.ch
Acq On : 27 Sep 2013 12:09 pm
Operator : TIMU
Sample : OP8643-MB
Misc : OP8643,GFH714,30.00,,,1,1
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: Sep 30 09:07:51 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH689R.M
Quant Title : DRO-ORO REAR
QLast Update : Wed Sep 11 09:58:51 2013
Response via : Initial Calibration
Integrator: ChemStation

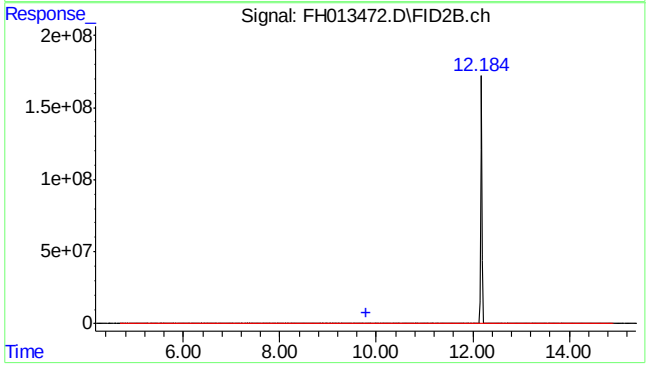
Volume Inj. :
Signal Phase :
Signal Info :





#1 o-Terphenyl

R.T.: 12.185 min
Delta R.T.: 0.010 min
Response: 2901254726
Conc: 1672.08 ug/ml



#2 TPH-DRO (C10-C28)

R.T.: 9.781 min
Delta R.T.: 0.000 min
Response: 63731791
Conc: 45.31 ug/ml m

Mountain States ACCUTEST LABORATORIES

10/01/13

Technical Report for

XTO Energy

XTO PCU T27-18G

West Subtank

Accutest Job Number: D50876

Sampling Date: 09/24/13

Report to:

KRW Consulting, Inc.
8000 West 14th Avenue
Lakewood, CO 80214
dknudson@krwconsulting.com; jhess@krwconsulting.com;
crachak@krwconsulting.com; rrasnic@krwconsulting.com;
ATTN: Dwayne Knudson

Total number of pages in report: **56**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

Sections: 1 2 3 4 5 6 7 8 9 10 11

Table of Contents

Sample Summary

XTO Energy

Job No: D50876

XTO PCU T27-18G
Project No: West Subtank

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
D50876-1	09/24/13	11:25	DLS	09/25/13	SO	Soil	WEST SUBTANK

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	XTO Energy	**Job No**	D50876
Site:	XTO PCU T27-18G	**Report Date**	10/1/2013 8:51:50 AM

On 09/25/2013, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D50876 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO **Batch ID:** V5V1759

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50828-1MS, D50828-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix: SO **Batch ID:** GGB1226

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50875-1MS, D50875-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO **Batch ID:** OP8637

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D50876-1MS, D50876-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540B-2011 M

Matrix: SO **Batch ID:** GN22035

- The data for SM2540B-2011 M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Job Number: D50876
Account: XTO Energy
Project: XTO PCU T27-18G
Collected: 09/24/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D50876-1	**WEST SUBTANK**					
TPH-DRO (C10-C28)		21.6	7.9	5.9	mg/kg	SW846-8015B

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	WEST SUBTANK		
Lab Sample ID:	D50876-1	**Date Sampled:**	09/24/13
Matrix:	SO - Soil	**Date Received:**	09/25/13
Method:	SW846 8260B	**Percent Solids:**	84.4
Project:	XTO PCU T27-18G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V29262.D	1	09/26/13	BD	n/a	n/a	V5V1759
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.067	0.034	mg/kg	
108-88-3	Toluene	ND	0.13	0.067	mg/kg	
100-41-4	Ethylbenzene	ND	0.13	0.026	mg/kg	
1330-20-7	Xylene (total)	ND	0.27	0.13	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		64-130%
460-00-4	4-Bromofluorobenzene	99%		62-131%
17060-07-0	1,2-Dichloroethane-D4	104%		70-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	WEST SUBTANK		
Lab Sample ID:	D50876-1	**Date Sampled:**	09/24/13
Matrix:	SO - Soil	**Date Received:**	09/25/13
Method:	SW846 8015B	**Percent Solids:**	84.4
Project:	XTO PCU T27-18G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB22299.D	1	09/25/13	EV	n/a	n/a	GGB1226
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	87%		60-140%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	WEST SUBTANK		
Lab Sample ID:	D50876-1	**Date Sampled:**	09/24/13
Matrix:	SO - Soil	**Date Received:**	09/25/13
Method:	SW846-8015B SW846 3546	**Percent Solids:**	84.4
Project:	XTO PCU T27-18G		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH013421.D	1	09/26/13	TU	09/26/13	OP8637	GFH713
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	21.6	7.9	5.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		20-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

PAGE 1 OF 1

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL. 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking # | Bottle Order Control #

Accutest Quote # | Accutest Job # D50876

Client / Reporting Information

Company Name: KRW Consulting
Street Address: 8000 West 14th Street; Suite 200
City: Lakewood, CO 80214
Project Contact: Dwayne Knudson
Phone #: 970-488-1098
Sampler(s) Name(s): DAVID SANDERS 970-488-1098

Project Information

Project Name: XTO PCU T27-18G
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager: Joe Hess

Billing Information (if different from Report to)

Company Name: XTO Energy
Street Address: 21459 CR 5
City: Rifle, CO 81650
Attention: Jessica Dooling

Requested Analysis (see TEST CODE sheet)

TPH(GRO+DRO)
BTEX

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	LAB USE ONLY
	WEST SUBTANK		9/24/13	11:25	DLS	SO	3					X					01

9/25/13

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [x] Std. 5 Business Days (By contract only)
- [ ] 3 Day Emergency
- [ ] 2 Day Emergency
- [ ] 1 Day Emergency
- [ ]

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] COMMBN
- [ ] COMMBN+
- [ ]
- [ ] State Forms Required
- [ ] Send Forms to State
- [ ] Report by Fax
- [x] Report by PDF ONLY
- [ ] EDD Format

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial BN = Results/QC/Narrative (+ = chromatograms)

Comments / Special Instructions

Please email to:
KRW Piceance Team

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/24/13 1630	1 Rifle Service Center	2		2 9-25-13
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	[ ] Intact [ ] Not intact	Preserved where applicable [x] On Ice [ ] Cooler Temp. 4.0

D50876: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D50876 **Client:** KRW **Immediate Client Services Action Required:** No

Date / Time Received: 9/25/2013 11:15:00 AM **No. Coolers:** 1 **Client Service Action Required at Login:** No

Project: XTO **Airbill #'s:** CO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	
2. Trip Blank listed on COC:	☐		☐	
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume rec'd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:(303) 425-6021
4036 Youngfield Street
F: (303) 425-6854
Wheat Ridge, CO
www/accutest.com

5.1

5

D50876: Chain of Custody
Page 2 of 2

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1759-MB	5V29253.D	1	09/26/13	BD	n/a	n/a	V5V1759

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50876-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	25	ug/kg	
100-41-4	Ethylbenzene	ND	100	19	ug/kg	
108-88-3	Toluene	ND	100	50	ug/kg	
1330-20-7	Xylene (total)	ND	200	100	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	100%	64-130%
460-00-4	4-Bromofluorobenzene	86%	62-131%
17060-07-0	1,2-Dichloroethane-D4	102%	70-130%

Blank Spike Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1759-BS	5V29254.D	1	09/26/13	BD	n/a	n/a	V5V1759

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50876-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	2500	2710	108	70-130
100-41-4	Ethylbenzene	2500	2820	113	70-130
108-88-3	Toluene	2500	2750	110	70-130
1330-20-7	Xylene (total)	7500	8810	117	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	101%	64-130%
460-00-4	4-Bromofluorobenzene	103%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50828-1MS	5V29256.D	1	09/26/13	BD	n/a	n/a	V5V1759
D50828-1MSD	5V29257.D	1	09/26/13	BD	n/a	n/a	V5V1759
D50828-1	5V29255.D	1	09/26/13	BD	n/a	n/a	V5V1759

The QC reported here applies to the following samples: **Method:** SW846 8260B

D50876-1

CAS No.	Compound	D50828-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3400	3540	104	3560	105	1	64-139/30
100-41-4	Ethylbenzene	ND		3400	3540	104	3520	104	1	68-136/30
108-88-3	Toluene	ND		3400	3410	100	3320	98	3	60-130/30
1330-20-7	Xylene (total)	ND		10200	11400	112	11200	110	2	58-142/30

CAS No.	Surrogate Recoveries	MS	MSD	D50828-1	Limits
2037-26-5	Toluene-D8	95%	94%	97%	64-130%
460-00-4	4-Bromofluorobenzene	109%	107%	98%	62-131%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	101%	70-130%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29262.D
Acq On : 26 Sep 2013 2:24 pm
Operator : BRETD
Sample : D50876-1
Misc : MS6447,V5V1759,5.087,,100,5,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 27 09:08:09 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

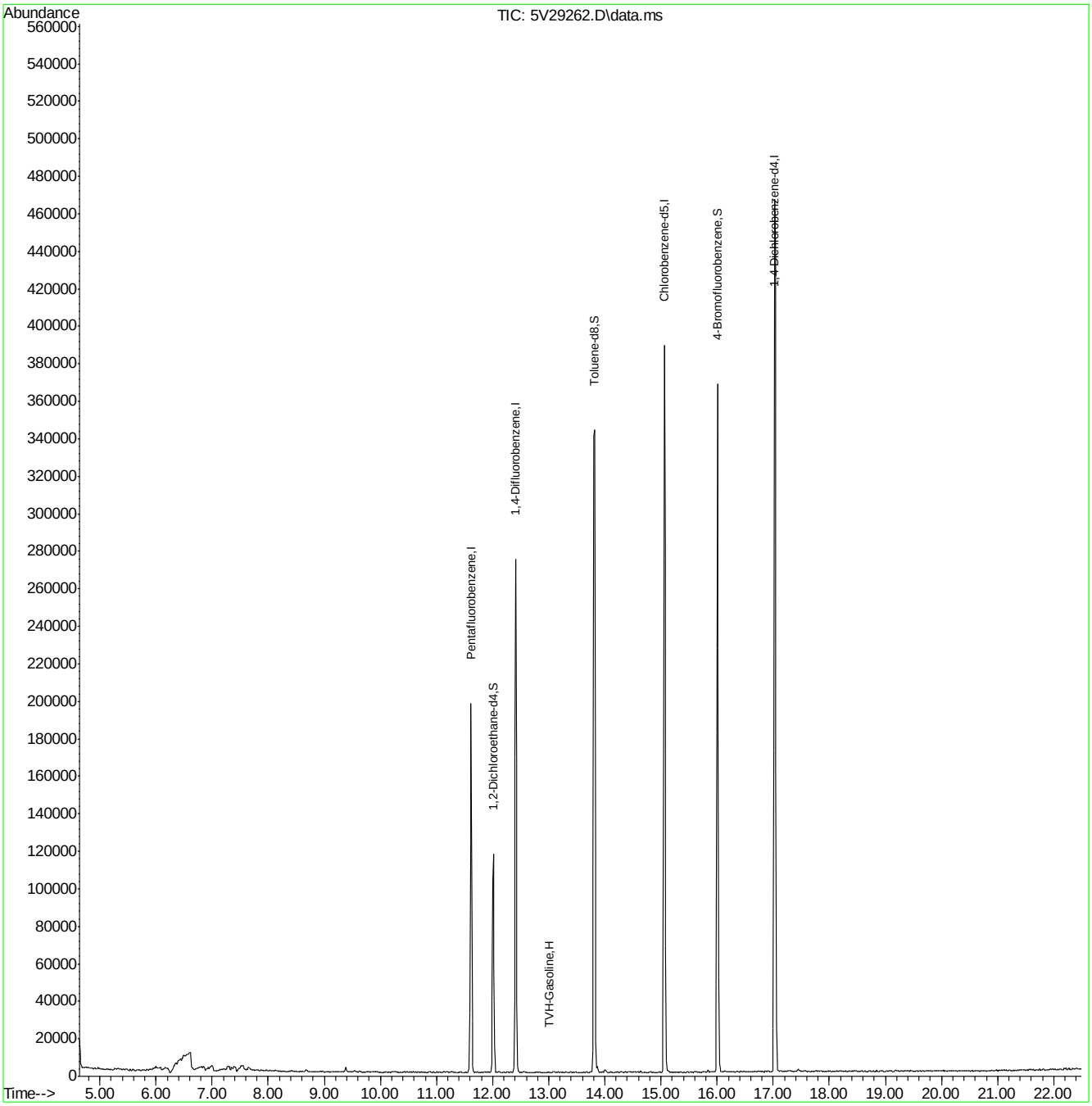
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	131645	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	183844	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	194189	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.025	152	146709	50.00	ug/l	-0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	12.012	102	13975	52.24	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.48%			
64) Toluene-d8	13.816	98	203120	46.17	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 92.34%			
72) 4-Bromofluorobenzene	16.008	95	101868	49.68	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.36%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.006	TIC	10466m	58.56	ug/l	

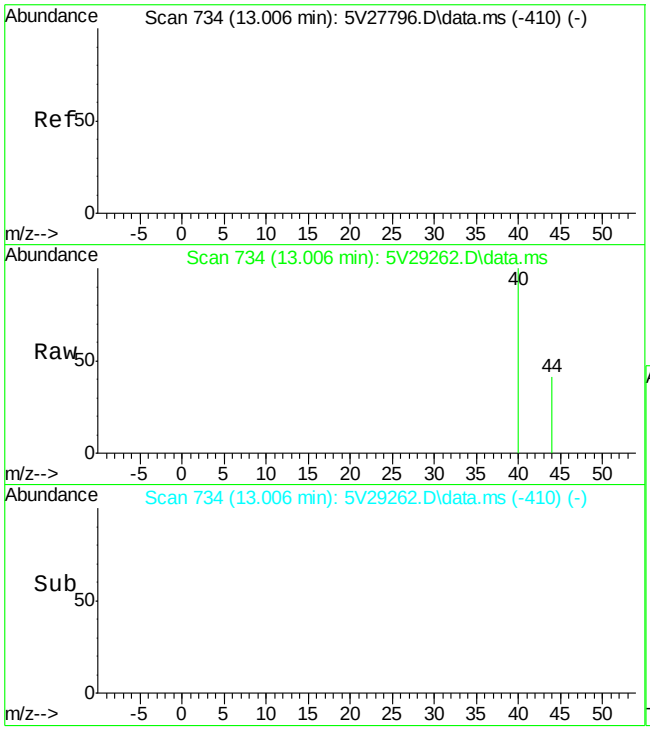
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29262.D
Acq On : 26 Sep 2013 2:24 pm
Operator : BRETD
Sample : D50876-1
Misc : MS6447,V5V1759,5.087,,100,5,1
ALS Vial : 12 Sample Multiplier: 1

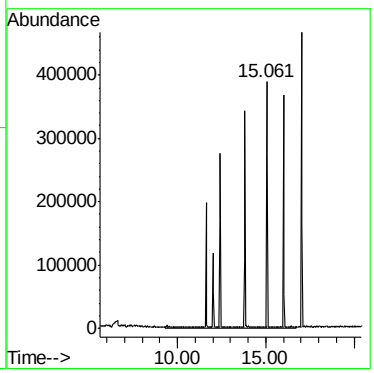
Quant Time: Sep 27 09:08:09 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

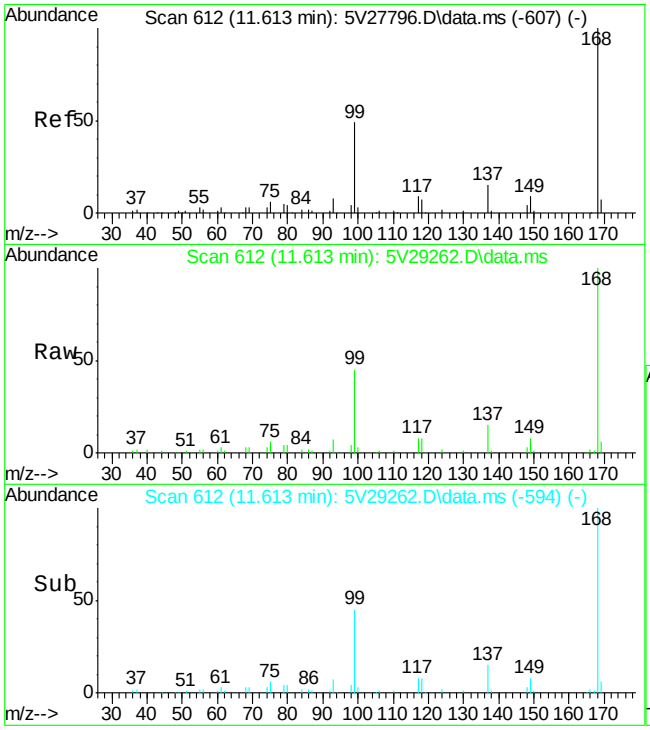




#1
TVH-Gasoline
Concen: 58.56 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

Tgt Ion:TIC Resp: 10466

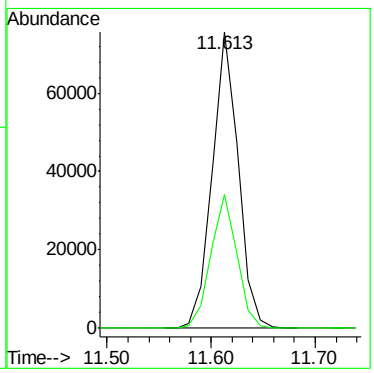


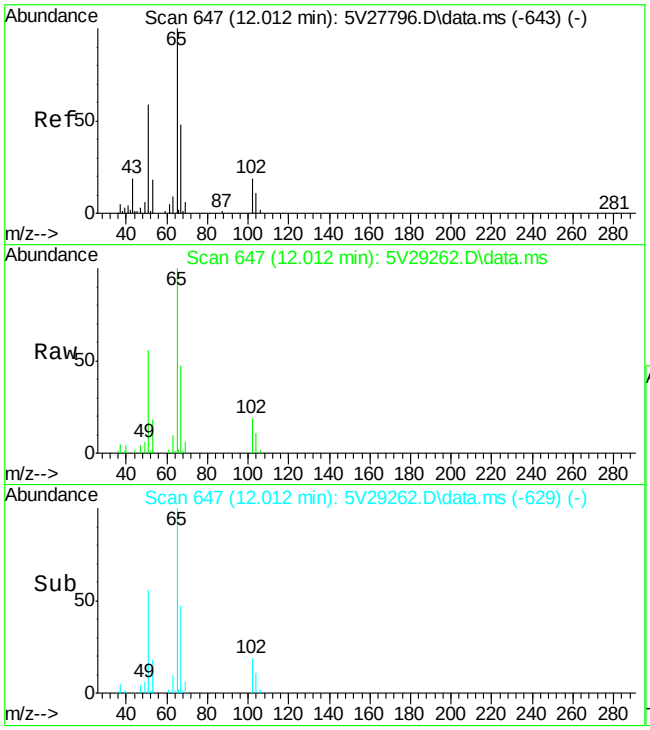


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

Tgt Ion:168 Resp: 131645

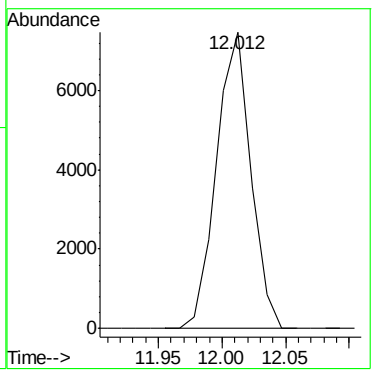
Ion	Ratio	Lower	Upper
168	100		
99	45.2	41.4	62.2

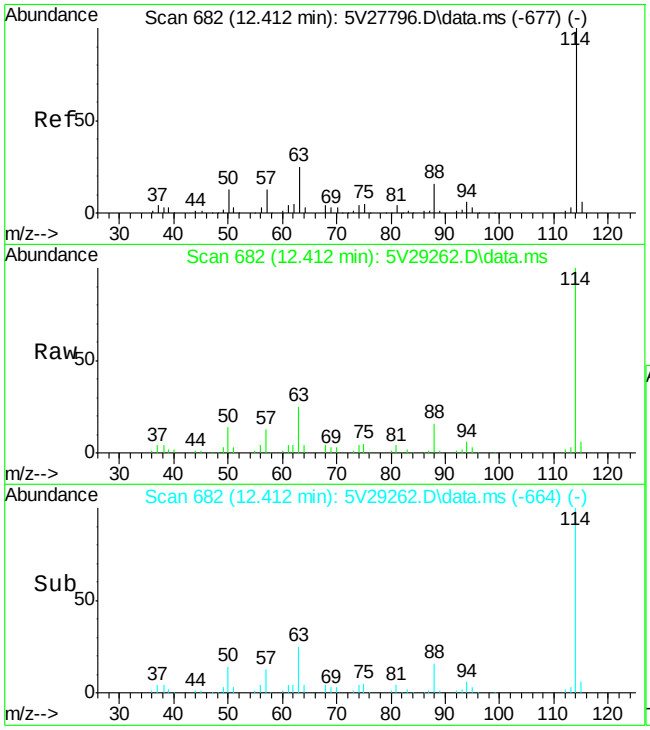




#35
1,2-Dichloroethane-d4
Concen: 52.24 ug/l
RT: 12.012 min Scan# 647
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

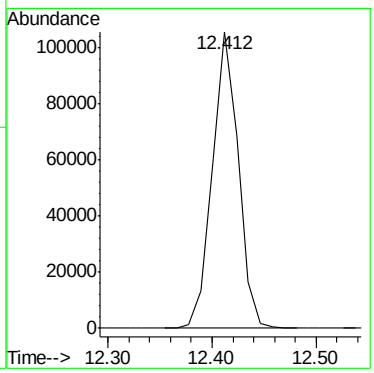
Tgt Ion:102 Resp: 13975

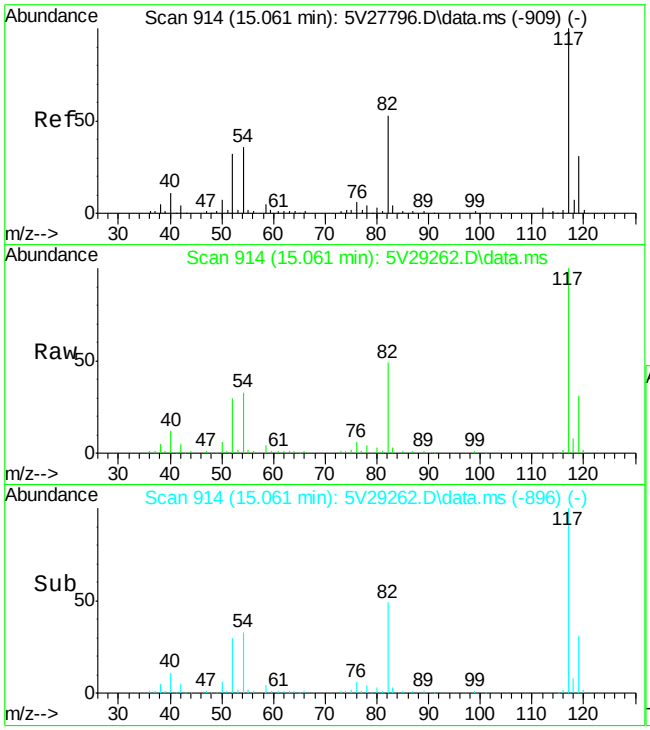




#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

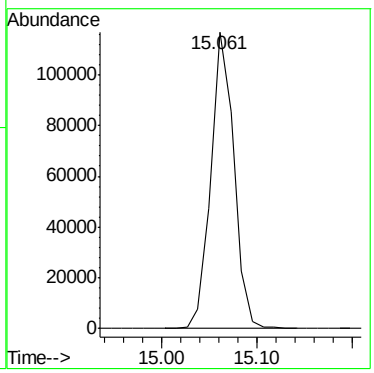
Tgt Ion:114 Resp: 183844

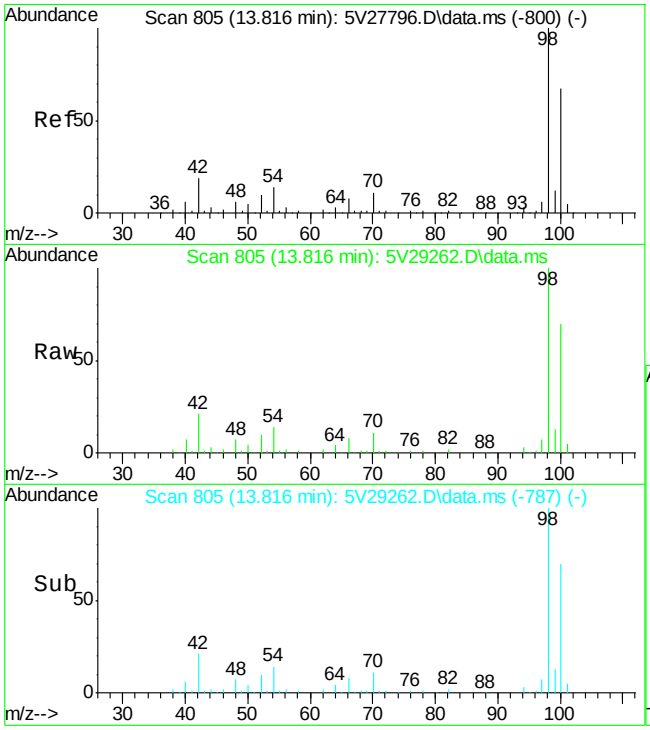




#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

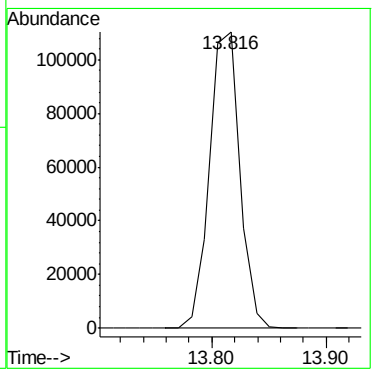
Tgt Ion:117 Resp: 194189

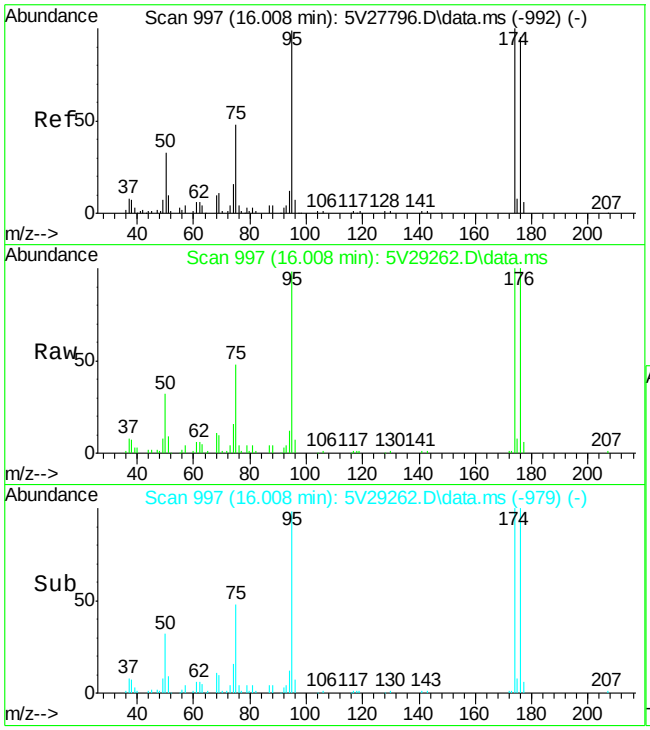




#64
Toluene-d8
Concen: 46.17 ug/l
RT: 13.816 min Scan# 805
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

Tgt Ion: 98 Resp: 203120

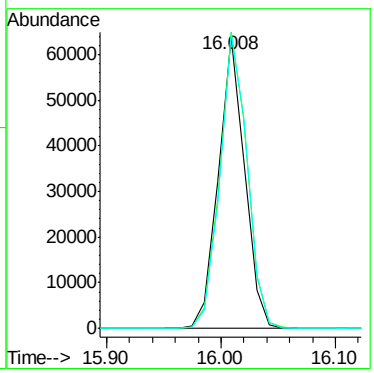


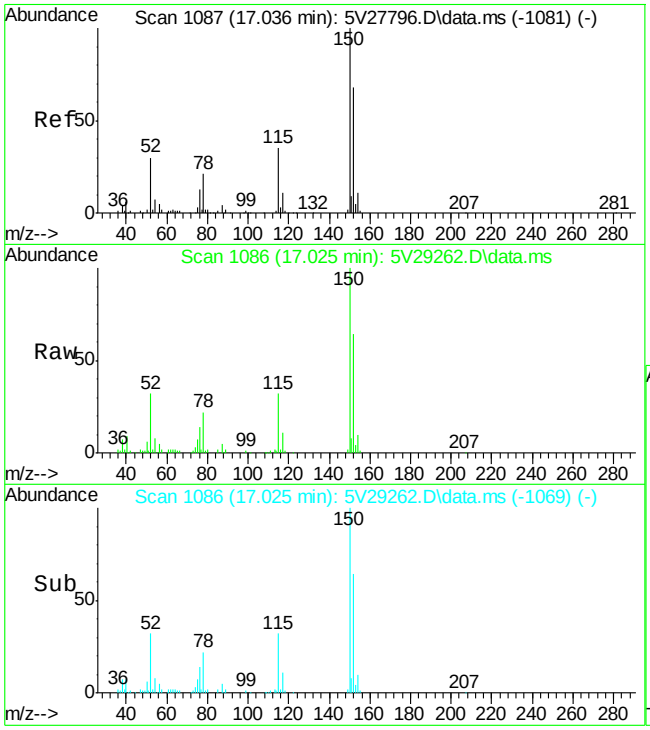


#72
4-Bromofluorobenzene
Concen: 49.68 ug/l
RT: 16.008 min Scan# 997
Delta R.T. 0.000 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

Tgt Ion: 95 Resp: 101868

Ion	Ratio	Lower	Upper
95	100		
174	105.7	85.4	125.4
176	104.8	80.6	120.6

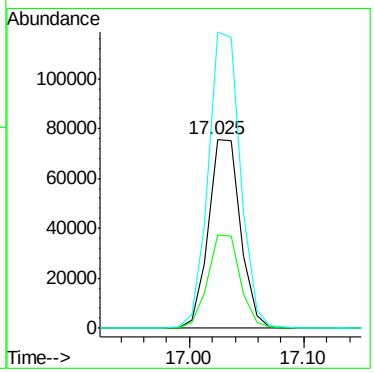




#77
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.025 min Scan# 1086
Delta R.T. -0.011 min
Lab File: 5V29262.D
Acq: 26 Sep 2013 2:24 pm

Tgt Ion:152 Resp: 146709

Ion	Ratio	Lower	Upper
152	100		
115	49.6	43.4	65.2
150	157.1	142.9	214.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29253.D
Acq On : 26 Sep 2013 9:33 am
Operator : BRETD
Sample : MB
Misc : MS6447,V5V1759,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 09:34:37 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

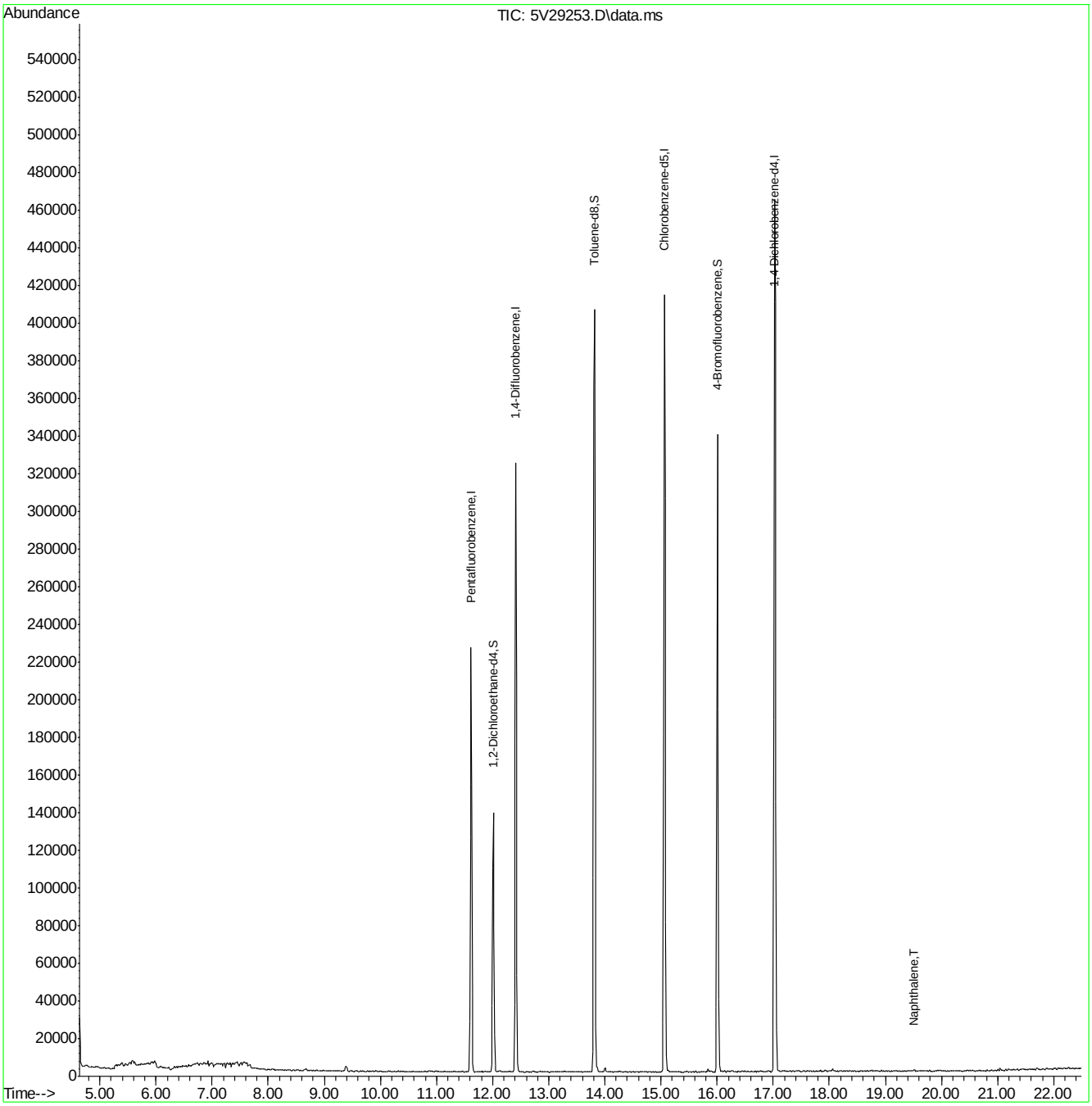
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
2) Pentafluorobenzene	11.613	168	152367	50.00	ug/l	0.00
37) 1,4-Difluorobenzene	12.412	114	213561	50.00	ug/l	0.00
56) Chlorobenzene-d5	15.061	117	205133	50.00	ug/l	0.00
77) 1,4-Dichlorobenzene-d4	17.024	152	139005	50.00	ug/l	-0.01
System Monitoring Compounds						
35) 1,2-Dichloroethane-d4	12.012	102	15843	51.17	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.34%			
64) Toluene-d8	13.816	98	232139	49.95	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 99.90%			
72) 4-Bromofluorobenzene	16.008	95	93439	43.14	ug/l	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 86.28%			
Target Compounds						Qvalue
1) TVH-Gasoline	13.006	TIC	-47449m	54.34	ug/l	
94) Naphthalene	19.513	128	836	0.94	ug/l	100

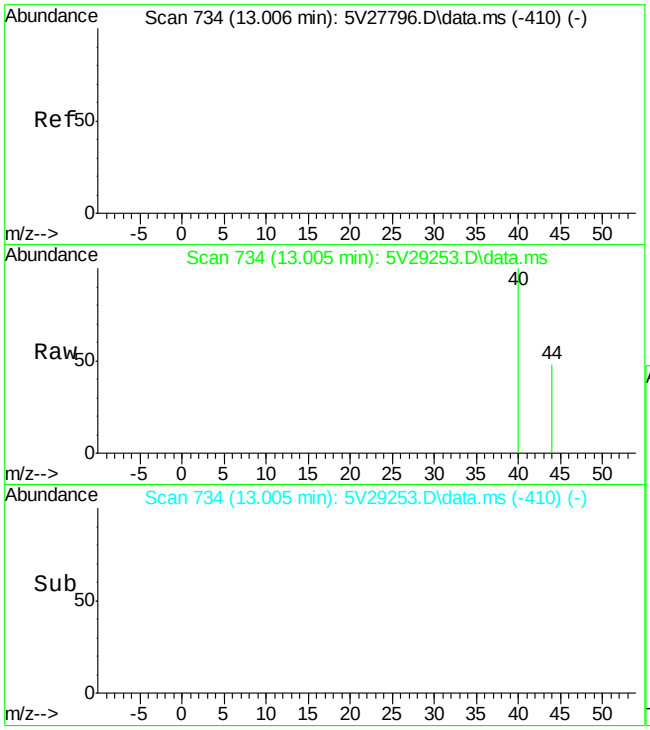
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V5092613.S\
Data File : 5V29253.D
Acq On : 26 Sep 2013 9:33 am
Operator : BRETD
Sample : MB
Misc : MS6447,V5V1759,5.000,,100,5,1
ALS Vial : 3 Sample Multiplier: 1

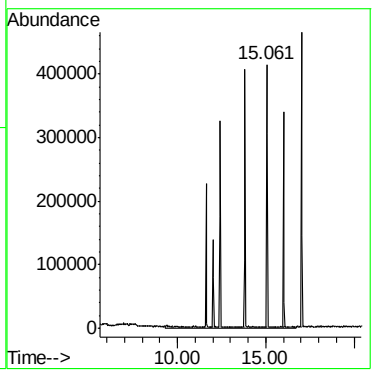
Quant Time: Sep 27 09:34:37 2013
Quant Method : C:\msdchem\1\METHODS\V5AP1728TVH1728.M
Quant Title : 8260
QLast Update : Tue Aug 20 09:59:22 2013
Response via : Initial Calibration

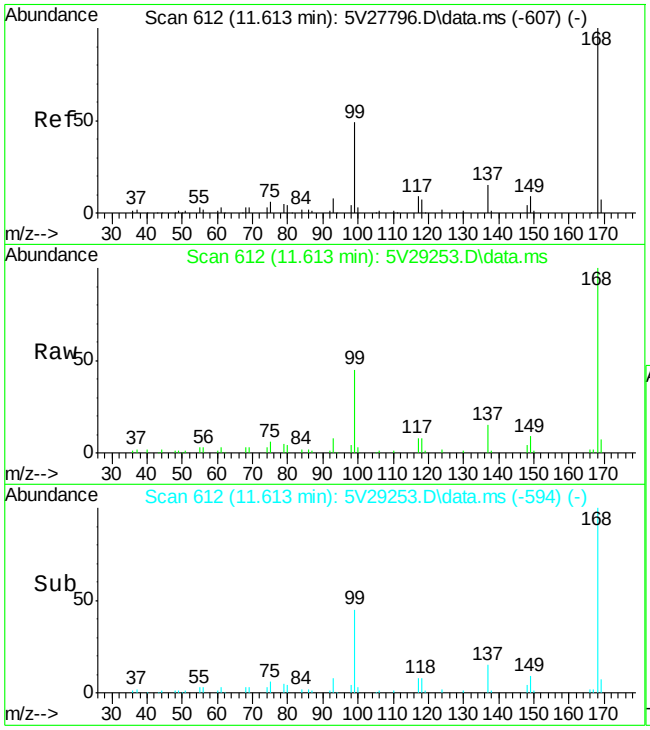




#1
TVH-Gasoline
Concen: 54.34 ug/l m
RT: 13.006 min Scan# 734
Delta R.T. 0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion:TIC Resp: -47449

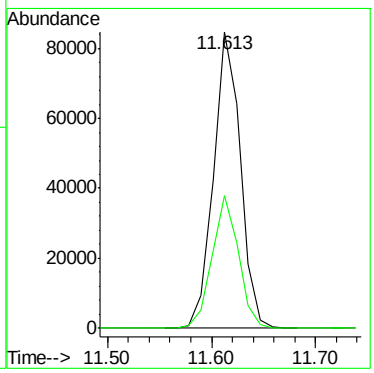


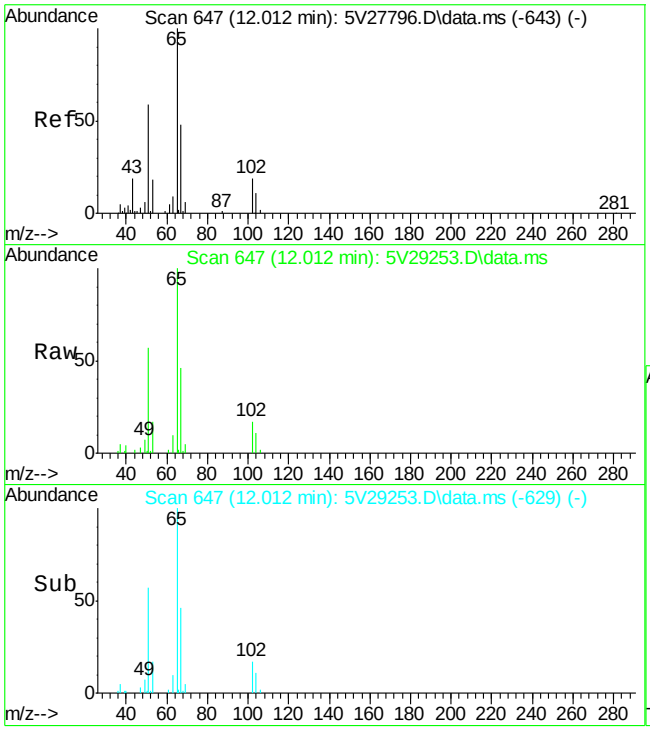


#2
Pentafluorobenzene
Concen: 50.00 ug/l
RT: 11.613 min Scan# 612
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion:168 Resp: 152367

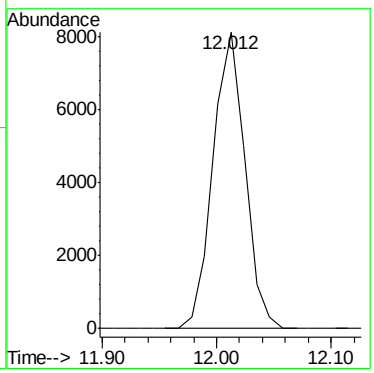
Ion	Ratio	Lower	Upper
168	100		
99	44.0	41.4	62.2

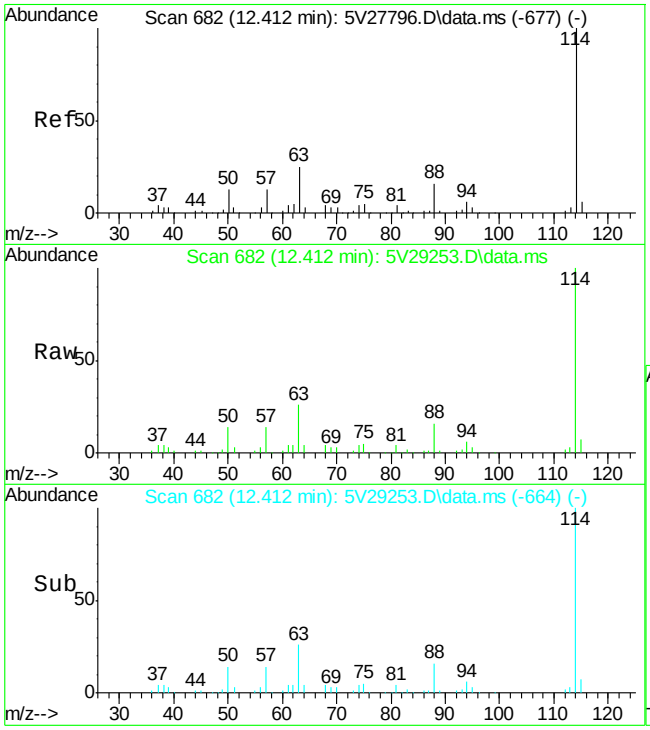




#35
1,2-Dichloroethane-d4
Concen: 51.17 ug/l
RT: 12.012 min Scan# 647
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

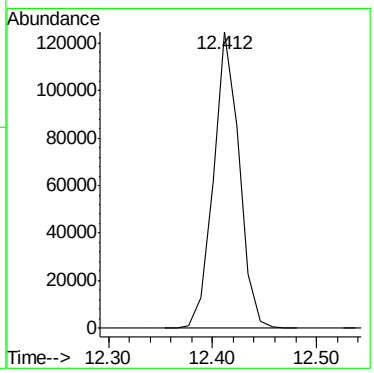
Tgt Ion:102 Resp: 15843

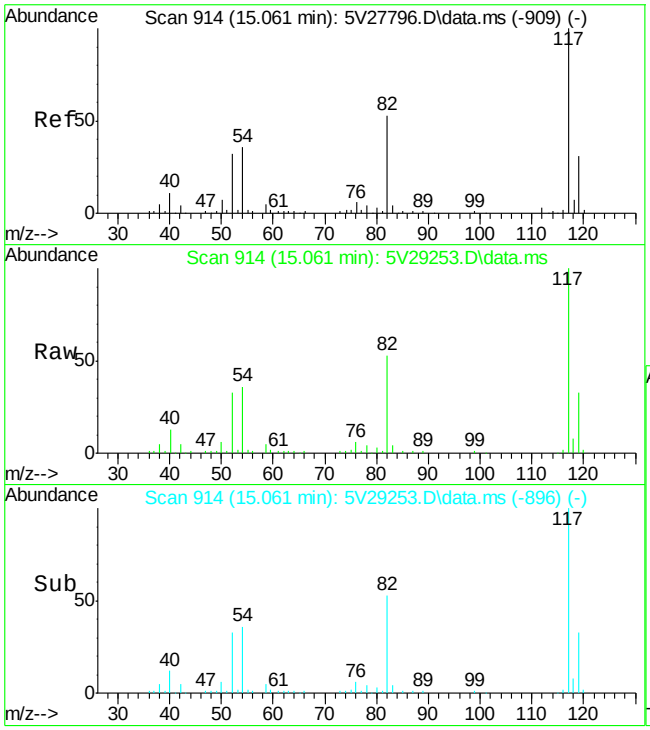




#37
1,4-Difluorobenzene
Concen: 50.00 ug/l
RT: 12.412 min Scan# 682
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

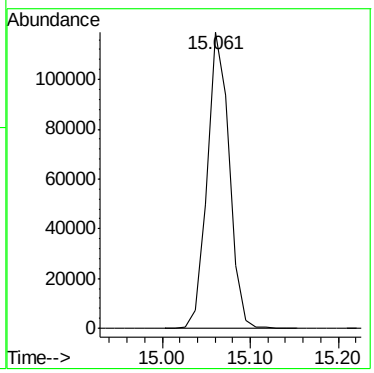
Tgt Ion:114 Resp: 213561

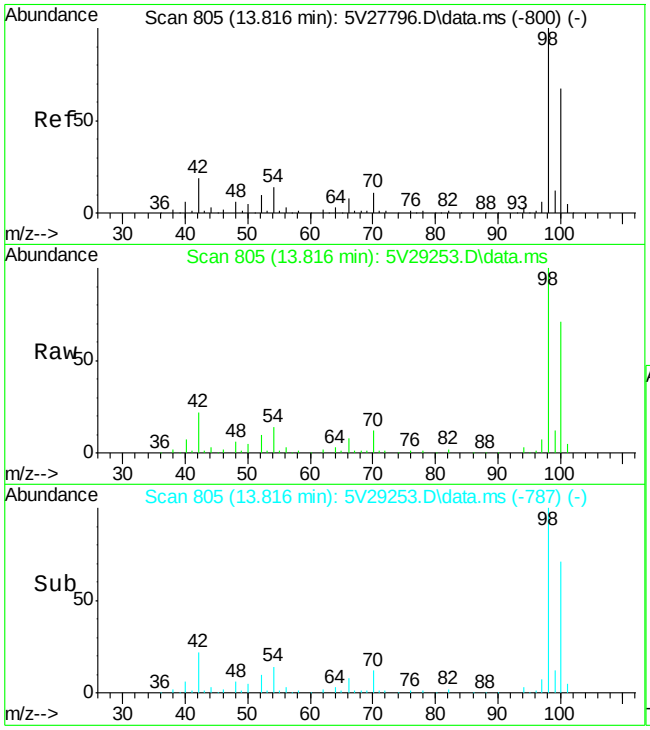




#56
Chlorobenzene-d5
Concen: 50.00 ug/l
RT: 15.061 min Scan# 914
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

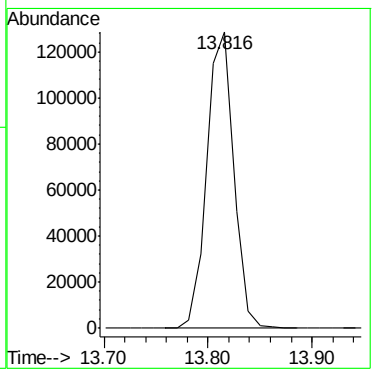
Tgt Ion:117 Resp: 205133

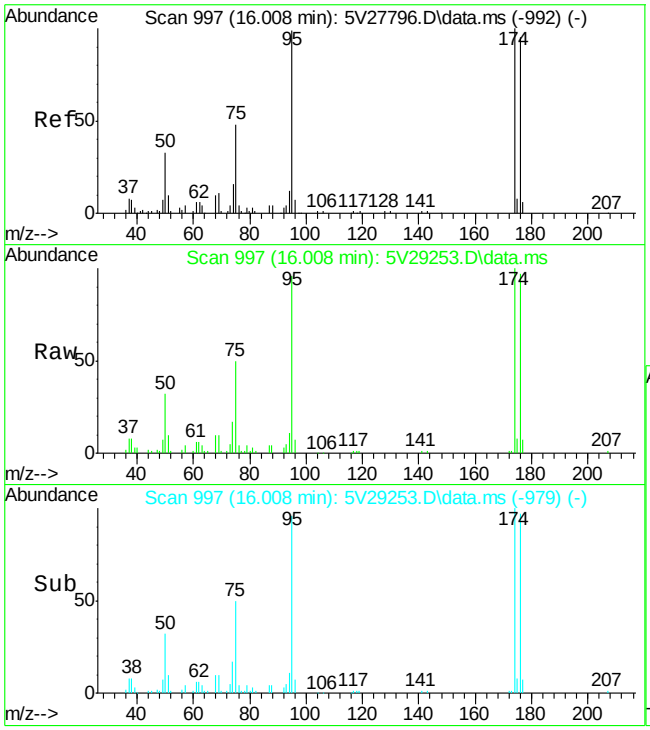




#64
Toluene-d8
Concen: 49.95 ug/l
RT: 13.816 min Scan# 805
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion: 98 Resp: 232139

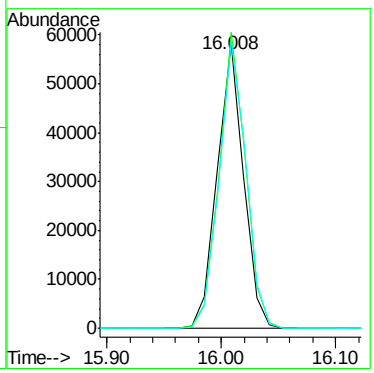


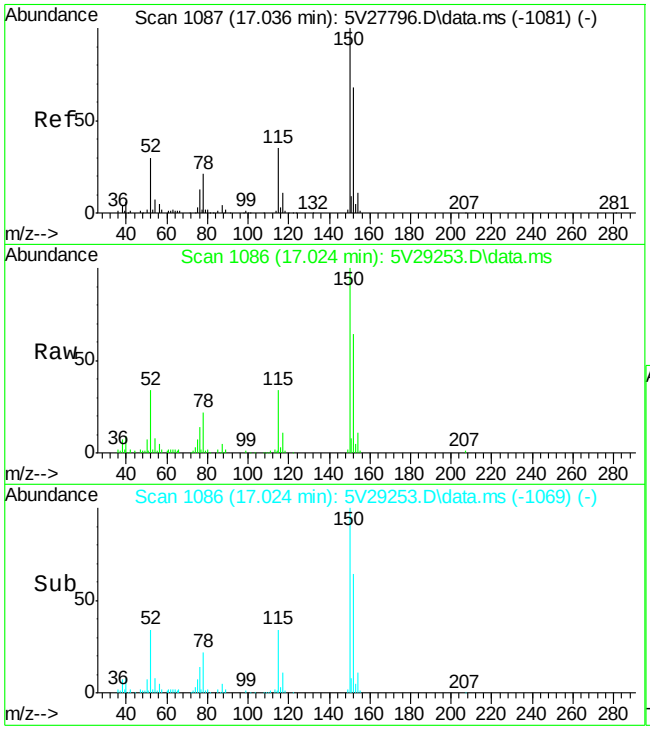


#72
4-Bromofluorobenzene
Concen: 43.14 ug/l
RT: 16.008 min Scan# 997
Delta R.T. -0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion: 95 Resp: 93439

Ion	Ratio	Lower	Upper
95	100		
174	104.3	85.4	125.4
176	102.8	80.6	120.6

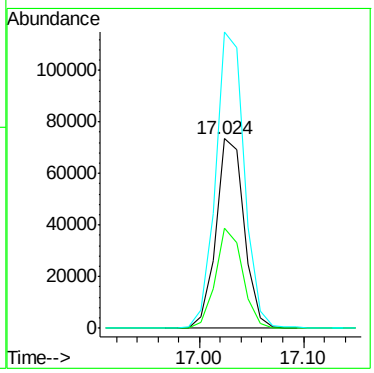


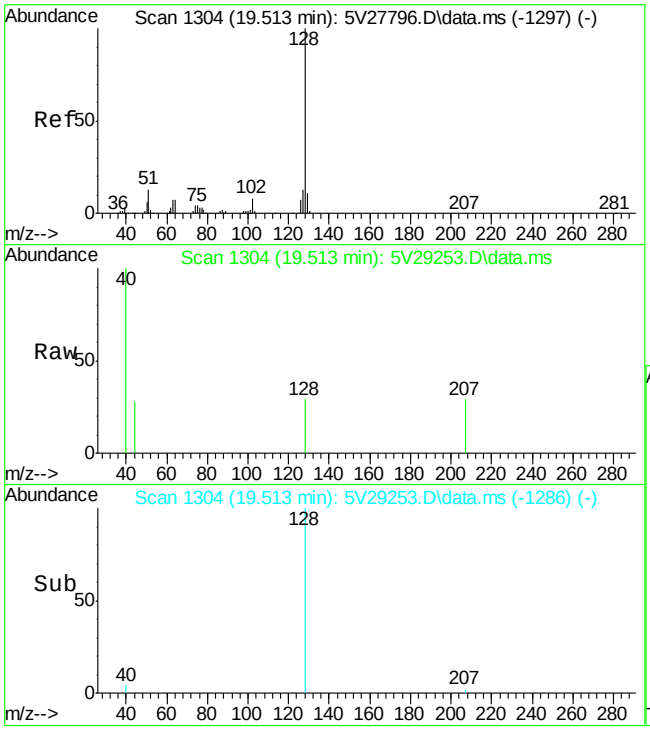


#77
1,4-Dichlorobenzene-d4
Concen: 50.00 ug/l
RT: 17.024 min Scan# 1086
Delta R.T. -0.011 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion:152 Resp: 139005

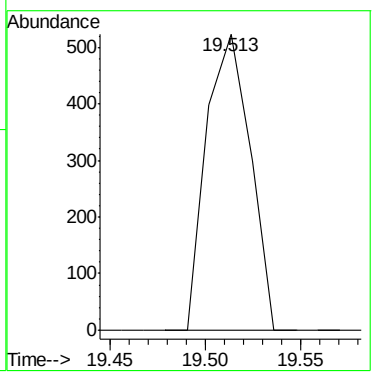
Ion	Ratio	Lower	Upper
152	100		
115	50.7	43.4	65.2
150	159.2	142.9	214.3





#94
Naphthalene
Concen: 0.94 ug/l
RT: 19.513 min Scan# 1304
Delta R.T. 0.000 min
Lab File: 5V29253.D
Acq: 26 Sep 2013 9:33 am

Tgt Ion:128 Resp: 836



Mountain States ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1226-MB	GB22292.D	1	09/25/13	EV	n/a	n/a	GGB1226

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50876-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	10	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
120-82-1	1,2,4-Trichlorobenzene	82%	60-140%

Blank Spike Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB1226-BS	GB22293.D	1	09/25/13	EV	n/a	n/a	GGB1226

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50876-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	112	102	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	93%	60-140%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D50875-1MS	GB22295.D	1	09/25/13	EV	n/a	n/a	GGB1226
D50875-1MSD	GB22296.D	1	09/25/13	EV	n/a	n/a	GGB1226
D50875-1	GB22294.D	1	09/25/13	EV	n/a	n/a	GGB1226

The QC reported here applies to the following samples: **Method:** SW846 8015B

D50876-1

CAS No.	Compound	D50875-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		159	159	100	159	100	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D50875-1	Limits
120-82-1	1,2,4-Trichlorobenzene	90%	87%	82%	60-140%

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 09/26/13 10:35

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092513\GB22299.D\FID1A.CH Vial: 11
Signal #2 : Y:\1\DATA\092513\GB22299.D\FID2B.CH
Acq On : 25 Sep 2013 8:10 pm Operator: ELISEV
Sample : D50876-1 Inst : GC/MS Ins
Misc : GC3898,GGB1226,5.087,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 09:09:21 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Sep 26 09:08:31 2013
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.35	2615371	86.570	%	m
10) S	1,2,4-Trichlorobenzene (P)	14.35	11742234	88.923	%	m
	Target Compounds					
1) H	TVH-Gasoline	7.29	3240696	0.046	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	0.00	0	N.D.	ug/L	d
6) T	Toluene	7.63	92788	0.251	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.45	89627	0.237	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.53	29022	0.168	ug/L	m

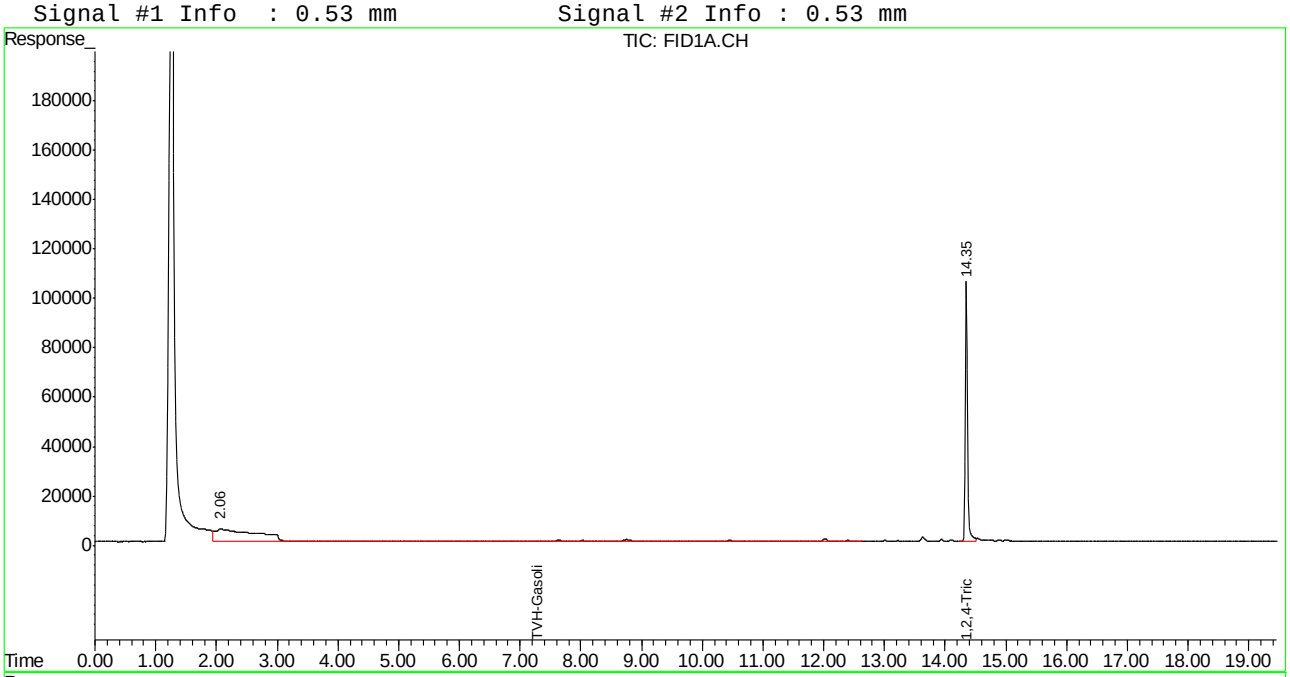
(f)=RT Delta > 1/2 Window (m)=manual int.

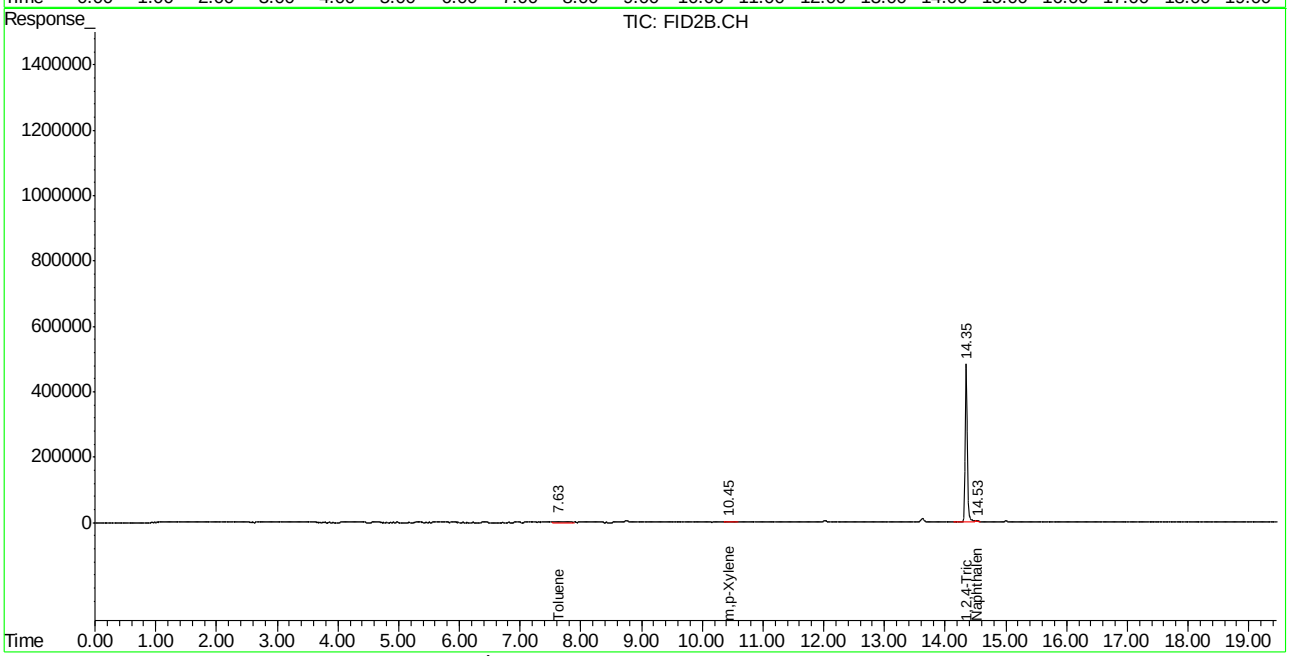
Quantitation Report (QT Reviewed)

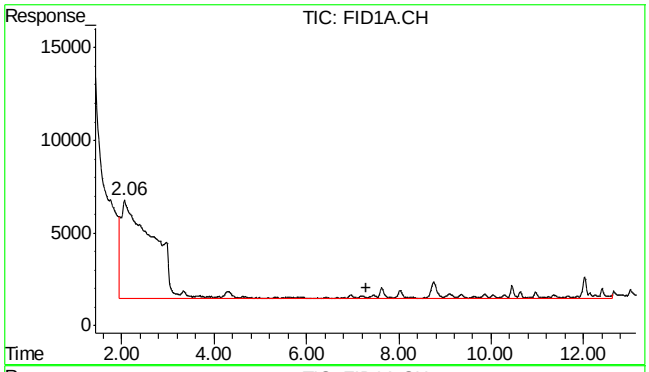
Signal #1 : Y:\1\DATA\092513\GB22299.D\FID1A.CH Vial: 11
Signal #2 : Y:\1\DATA\092513\GB22299.D\FID2B.CH
Acq On : 25 Sep 2013 8:10 pm Operator: ELISEV
Sample : D50876-1 Inst : GC/MS Ins
Misc : GC3898,GGB1226,5.087,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 9:27 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Sep 26 09:08:31 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

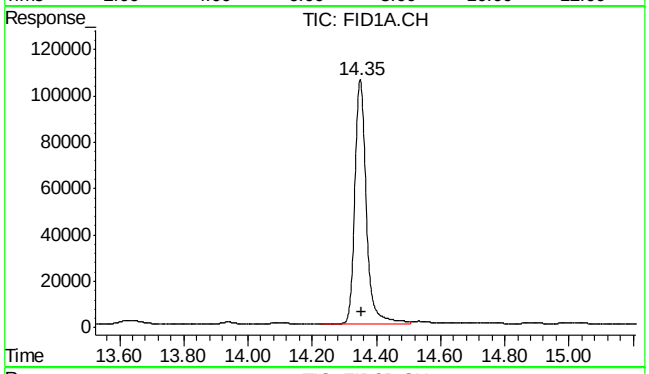






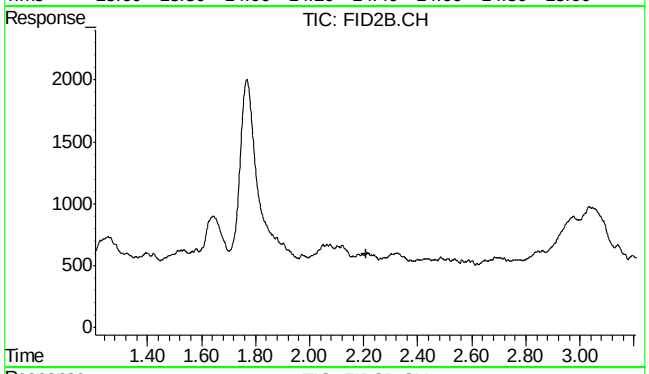
#1 TVH-Gasoline

R.T.: 7.285 min
Delta R.T.: 0.000 min
Response: 3240696
Conc: 0.05 mg/L m



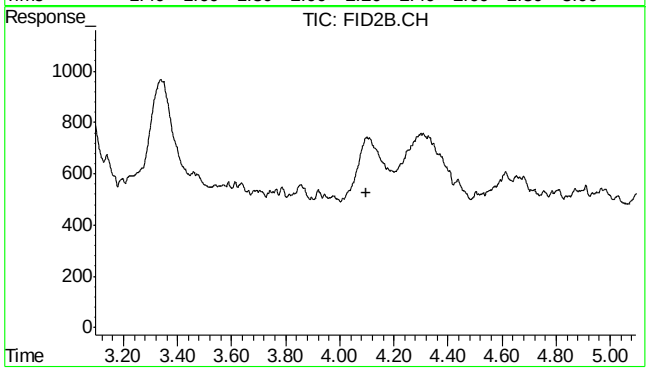
#2 1,2,4-Trichlorobenzene

R.T.: 14.349 min
Delta R.T.: -0.004 min
Response: 2615371
Conc: 86.57 % m



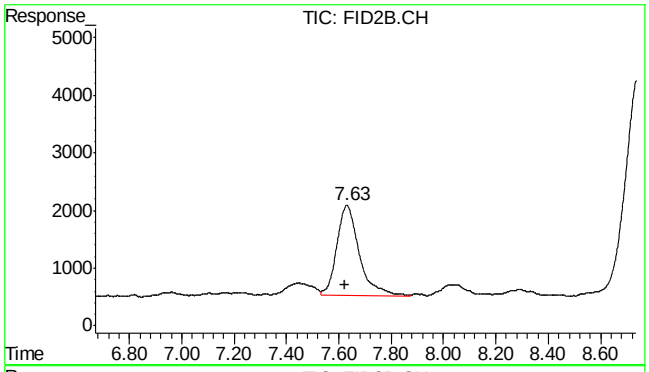
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.208 min
Response: 0
Conc: N.D.



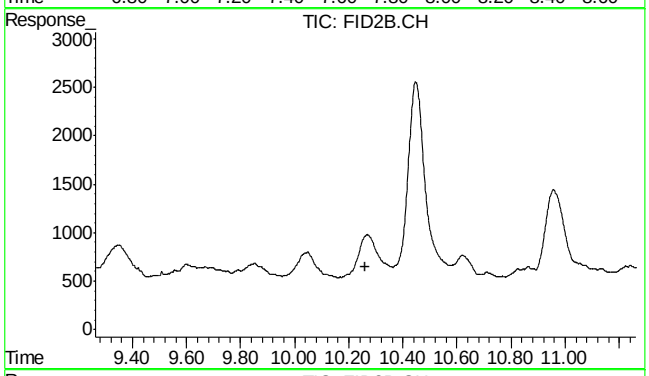
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.096 min
Response: 0
Conc: N.D.



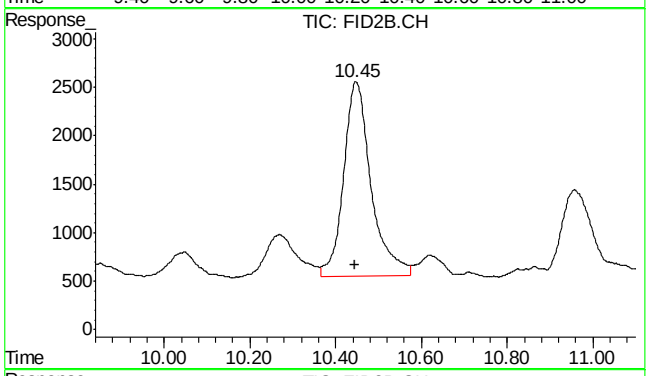
#6 Toluene

R.T.: 7.631 min
Delta R.T.: 0.007 min
Response: 92788
Conc: 0.25 ug/L



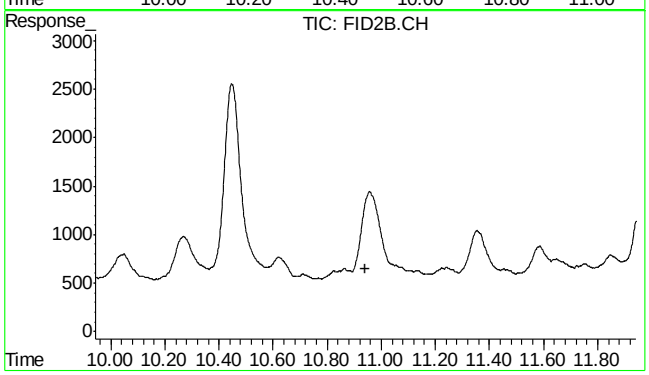
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.262 min
Response: 0
Conc: N.D.



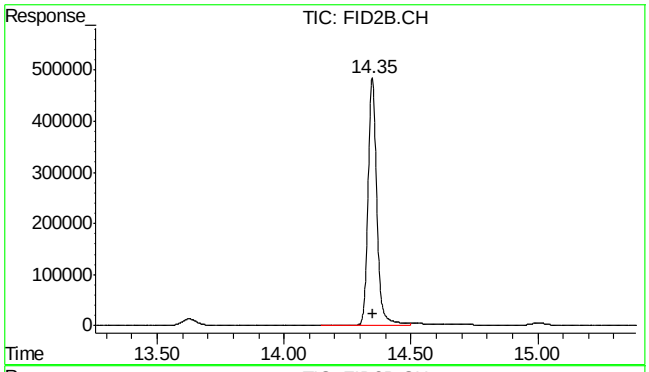
#8 m,p-Xylene

R.T.: 10.448 min
Delta R.T.: 0.003 min
Response: 89627
Conc: 0.24 ug/L



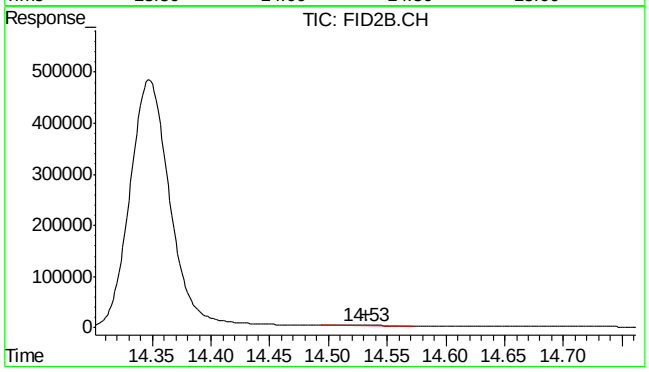
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.942 min
Response: 0
Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.347 min
Delta R.T.: -0.004 min
Response: 11742234
Conc: 88.92 % m



#11 Naphthalene

R.T.: 14.530 min
Delta R.T.: -0.002 min
Response: 29022
Conc: 0.17 ug/L m

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson 09/26/13 10:35

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\092513\GB22292.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092513\GB22292.D\FID2B.CH
Acq On : 25 Sep 2013 4:02 pm Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3898,GGB1226,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 09:08:53 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Sep 26 09:08:31 2013
Response via : Initial Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

	Compound	R.T.	Response	Conc	Units	
	System Monitoring Compounds					
2) S	1,2,4-Trichlorobenzene	14.35	2482510	82.172 %		m
10) S	1,2,4-Trichlorobenzene (P)	14.34	11169238	84.584 %		m
	Target Compounds					
1) H	TVH-Gasoline	7.29	3858904	0.055	mg/L	
4) T	Methyl-t-butyl-ether	0.00	0	N.D.	ug/L	d
5) T	Benzene	0.00	0	N.D.	ug/L	d
6) T	Toluene	7.63	160724	0.434	ug/L	
7) T	Ethylbenzene	0.00	0	N.D.	ug/L	d
8) T	m,p-Xylene	10.44	196710	0.521	ug/L	
9) T	o-Xylene	0.00	0	N.D.	ug/L	d
11) T	Naphthalene	14.53	33133	0.192	ug/L	m

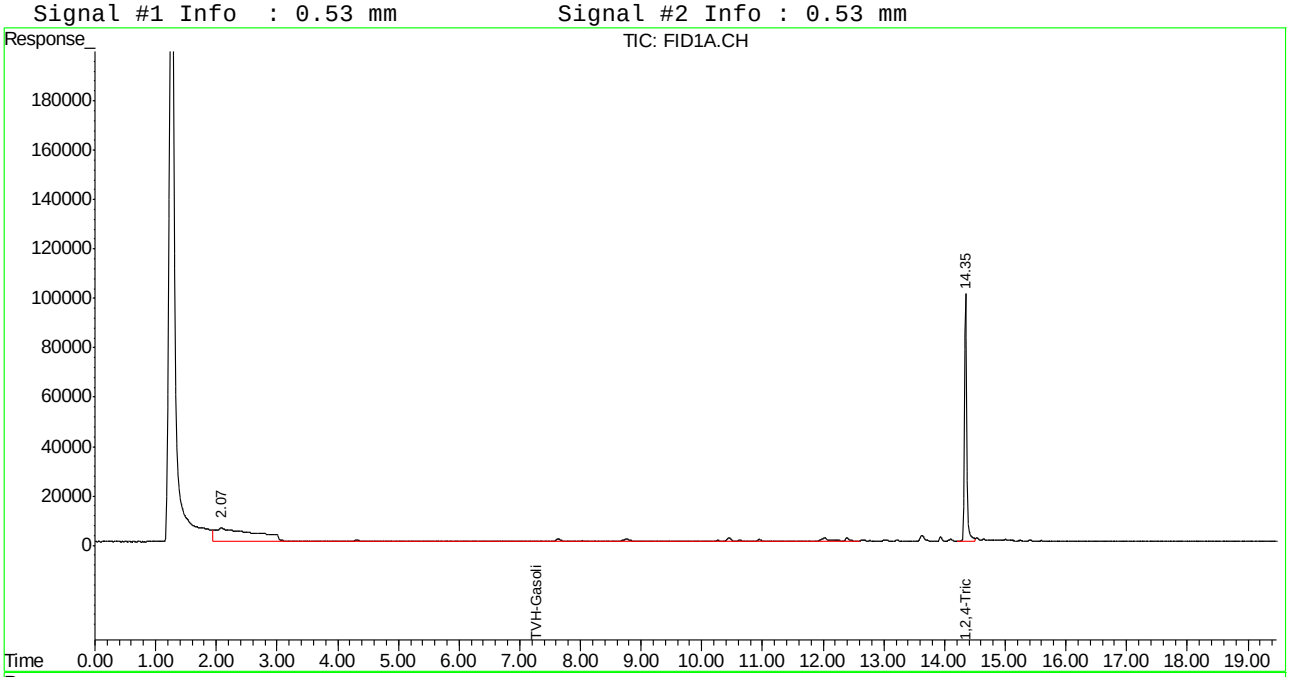
(f)=RT Delta > 1/2 Window (m)=manual int.

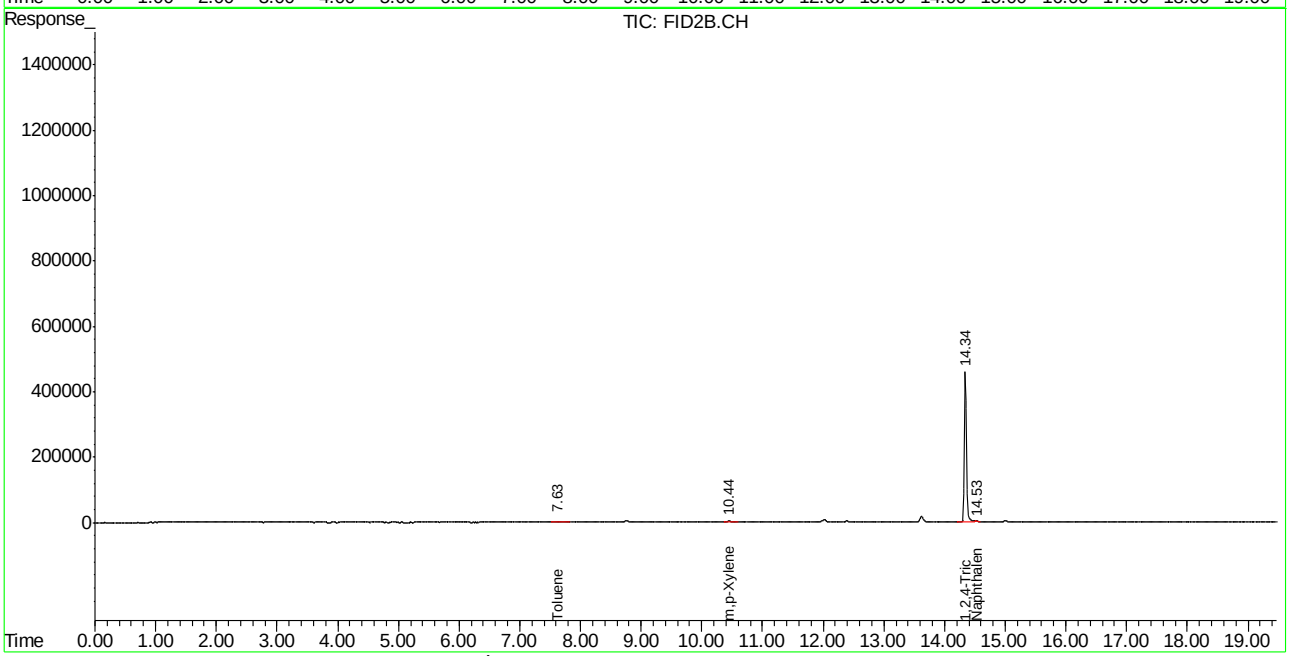
Quantitation Report (QT Reviewed)

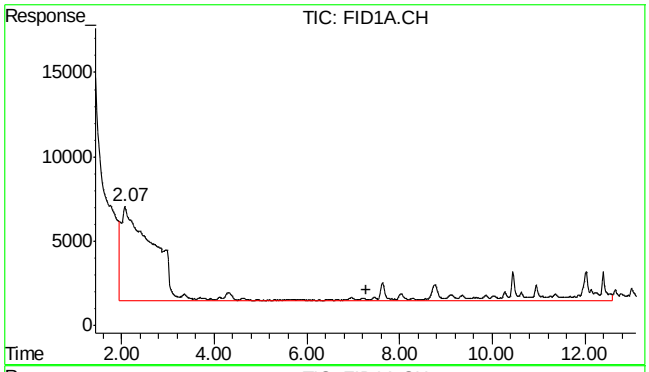
Signal #1 : Y:\1\DATA\092513\GB22292.D\FID1A.CH Vial: 4
Signal #2 : Y:\1\DATA\092513\GB22292.D\FID2B.CH
Acq On : 25 Sep 2013 4:02 pm Operator: ELISEV
Sample : MB, S Inst : GC/MS Ins
Misc : GC3898,GGB1226,5.000,,100,5,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Sep 26 9:17 2013 Quant Results File: TB1125GB1125SOIL.RES

Quant Method : C:\MSDCHEM\1...\TB1125GB1125SOIL.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Sep 26 09:08:31 2013
Response via : Multiple Level Calibration
DataAcq Meth : TVB4.M

Volume Inj. :
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm

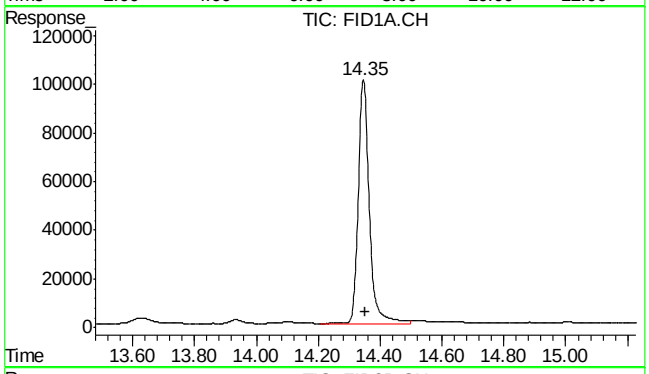






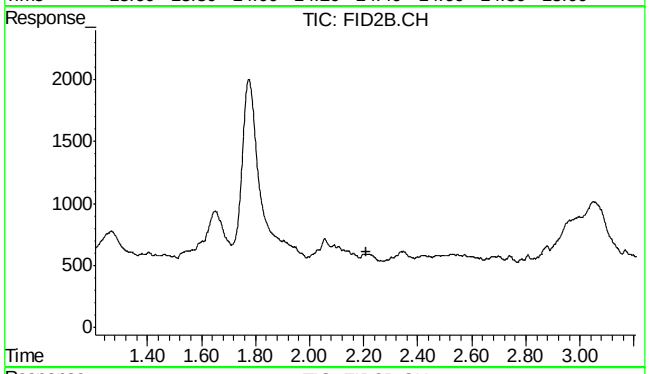
#1 TVH-Gasoline

R.T.: 7.285 min
Delta R.T.: 0.000 min
Response: 3858904
Conc: 0.06 mg/L m



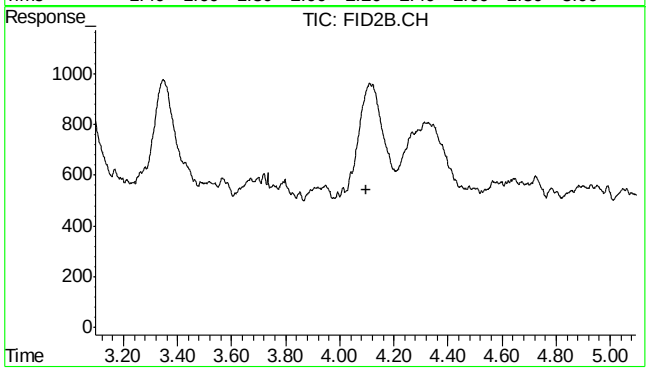
#2 1,2,4-Trichlorobenzene

R.T.: 14.345 min
Delta R.T.: -0.008 min
Response: 2482510
Conc: 82.17 % m



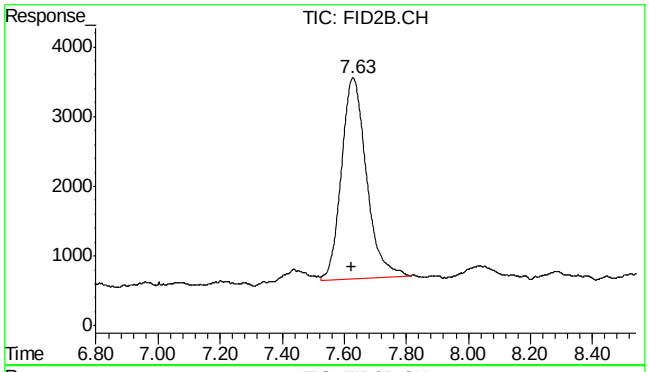
#4 Methyl-t-butyl-ether

R.T.: 0.000 min
Exp R.T. : 2.208 min
Response: 0
Conc: N.D.



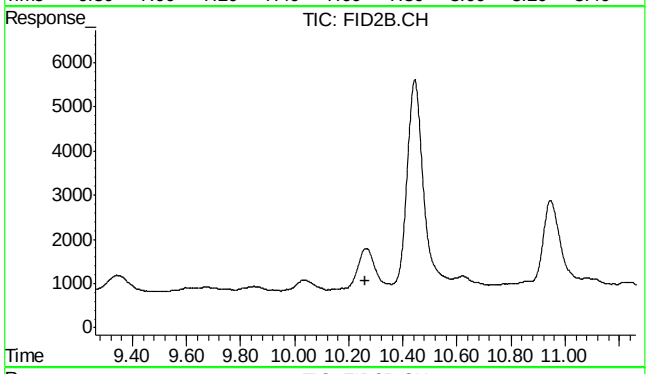
#5 Benzene

R.T.: 0.000 min
Exp R.T. : 4.096 min
Response: 0
Conc: N.D.



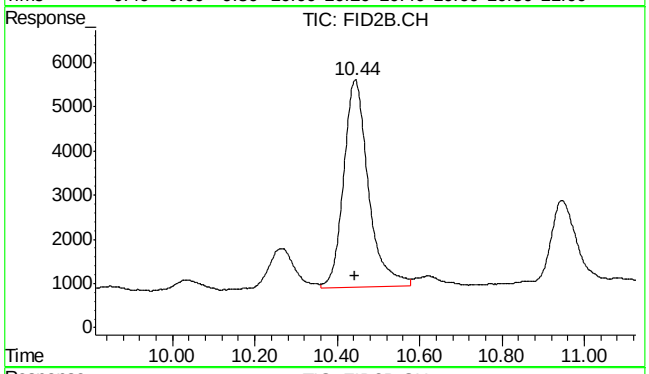
#6 Toluene

R.T.: 7.629 min
Delta R.T.: 0.005 min
Response: 160724
Conc: 0.43 ug/L



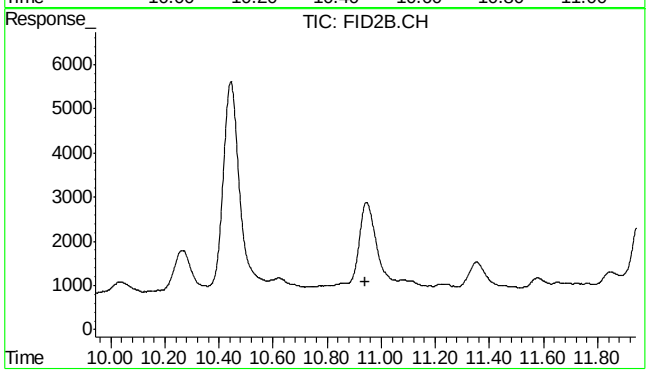
#7 Ethylbenzene

R.T.: 0.000 min
Exp R.T. : 10.262 min
Response: 0
Conc: N.D.



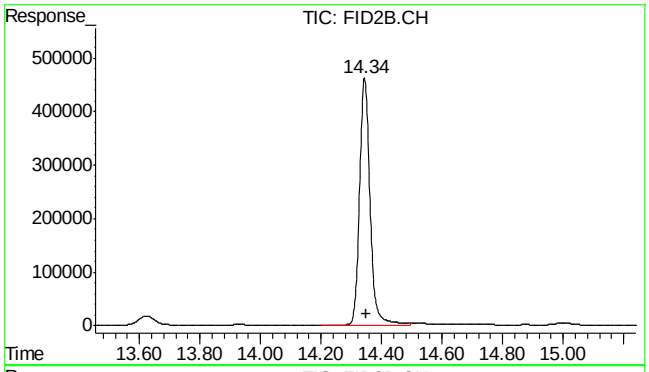
#8 m,p-Xylene

R.T.: 10.444 min
Delta R.T.: 0.000 min
Response: 196710
Conc: 0.52 ug/L



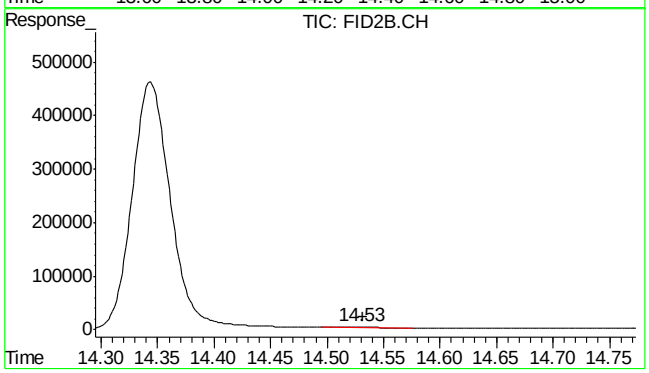
#9 o-Xylene

R.T.: 0.000 min
Exp R.T. : 10.942 min
Response: 0
Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.:	14.343 min
Delta R.T.:	-0.008 min
Response:	11169238
Conc:	84.58 % m



#11 Naphthalene

R.T.:	14.528 min
Delta R.T.:	-0.004 min
Response:	33133
Conc:	0.19 ug/L m

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8637-MB	FH013413.D	1	09/26/13	TU	09/26/13	OP8637	GFH713

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50876-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	6.7	5.0	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	95%	20-130%

Blank Spike Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8637-BS	FH013415.D	1	09/26/13	TU	09/26/13	OP8637	GFH713

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50876-1

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	595	89	42-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	93%	20-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D50876
Account: XTOKRWR XTO Energy
Project: XTO PCU T27-18G

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8637-MS	FH013417.D	1	09/26/13	TU	09/26/13	OP8637	GFH713
OP8637-MSD	FH013419.D	1	09/26/13	TU	09/26/13	OP8637	GFH713
D50876-1	FH013421.D	1	09/26/13	TU	09/26/13	OP8637	GFH713

The QC reported here applies to the following samples: **Method:** SW846-8015B

D50876-1

CAS No.	Compound	D50876-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	21.6		788	483	59	568	69	16	20-150/30

CAS No.	Surrogate Recoveries	MS	MSD	D50876-1	Limits
84-15-1	o-Terphenyl	65%	76%	86%	20-130%

10.3.1
10

* = Outside of Control Limits.

Mountain States ACCUTEST LABORATORIES

GC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Judy Melson
09/27/13 11:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092613\
Data File : FH013421.D
Signal(s) : FID1A.ch
Acq On : 26 Sep 2013 2:00 pm
Operator : TIMU
Sample : D50876-1
Misc : OP8637,GFH713,30.00,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 26 15:14:51 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH695F.M
Quant Title : DRO-ORO FRONT
QLast Update : Mon Sep 16 12:19:38 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
2) s	o-Terphenyl	12.823	2361180608	1728.137	ug/mlm
Target Compounds					
1) H	TPH-DRO (C10-C28)	10.473	657203367	547.916	ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

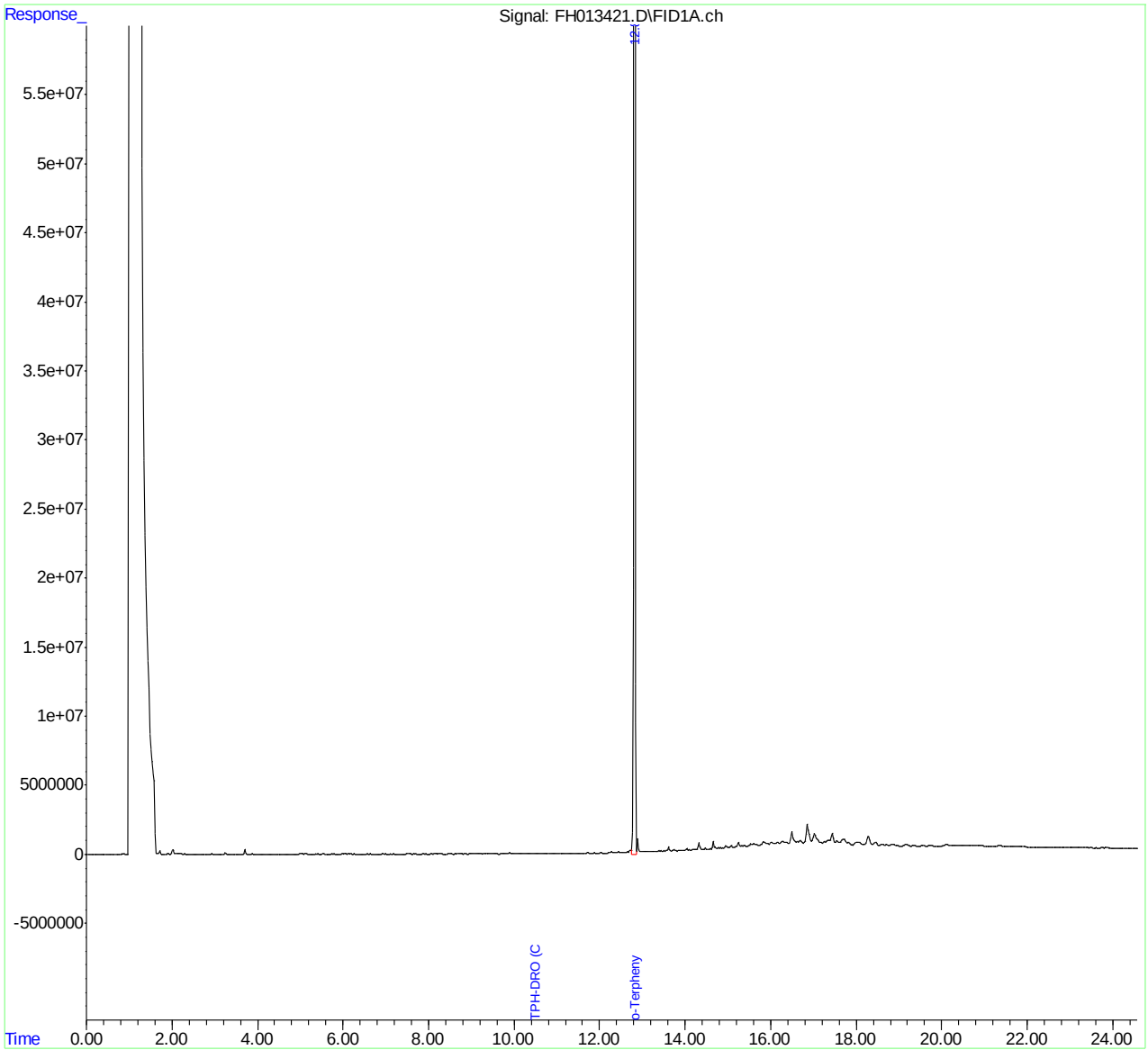
11.1.1 11

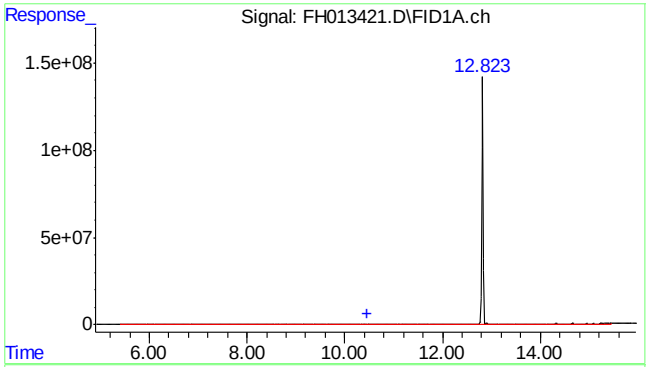
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092613\
Data File : FH013421.D
Signal(s) : FID1A.ch
Acq On : 26 Sep 2013 2:00 pm
Operator : TIMU
Sample : D50876-1
Misc : OP8637,GFH713,30.00,,,1,1
ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 26 15:14:51 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH695F.M
Quant Title : DRO-ORO FRONT
QLast Update : Mon Sep 16 12:19:38 2013
Response via : Initial Calibration
Integrator: ChemStation

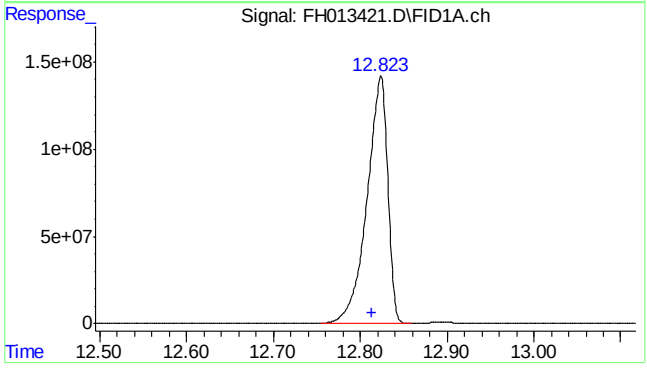
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 10.473 min
Delta R.T.: 0.000 min
Response: 657203367
Conc: 547.92 ug/ml m



#2 o-Terphenyl

R.T.: 12.823 min
Delta R.T.: 0.010 min
Response: 2361180608
Conc: 1728.14 ug/ml m

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092613\
Data File : FH013413.D
Signal(s) : FID1A.ch
Acq On : 26 Sep 2013 11:28 am
Operator : TIMU
Sample : OP8637-MB
Misc : OP8637,GFH713,30.00,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 26 12:06:12 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH695F.M
Quant Title : DRO-ORO FRONT
QLast Update : Mon Sep 16 12:19:38 2013
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
System Monitoring Compounds					
2) s	o-Terphenyl	12.827	2596844402	1900.618	ug/ml
Target Compounds					
1) H	TPH-DRO (C10-C28)	10.473	32545653	27.134	ug/ml

(f)=RT Delta > 1/2 Window (m)=manual int.

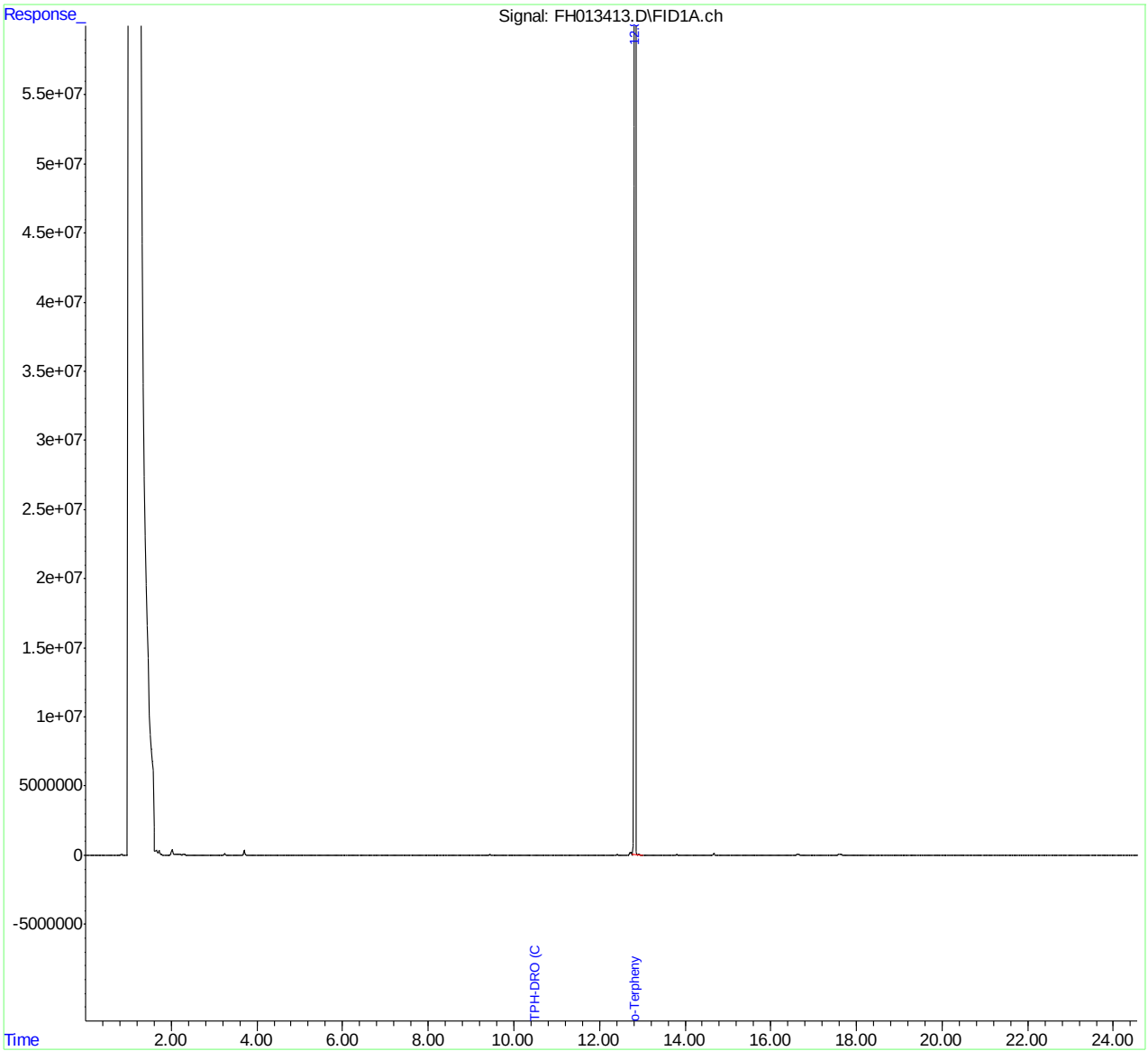
11.2.1 11

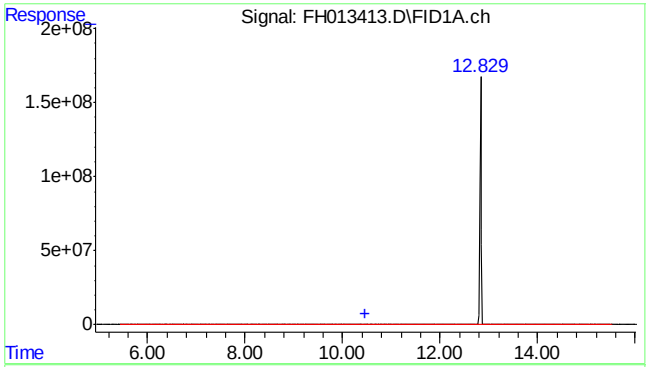
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\FH092613\
Data File : FH013413.D
Signal(s) : FID1A.ch
Acq On : 26 Sep 2013 11:28 am
Operator : TIMU
Sample : OP8637-MB
Misc : OP8637,GFH713,30.00,,,1,1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 26 12:06:12 2013
Quant Method : C:\msdchem\1\METHODS\DRO-GFH695F.M
Quant Title : DRO-ORO FRONT
QLast Update : Mon Sep 16 12:19:38 2013
Response via : Initial Calibration
Integrator: ChemStation

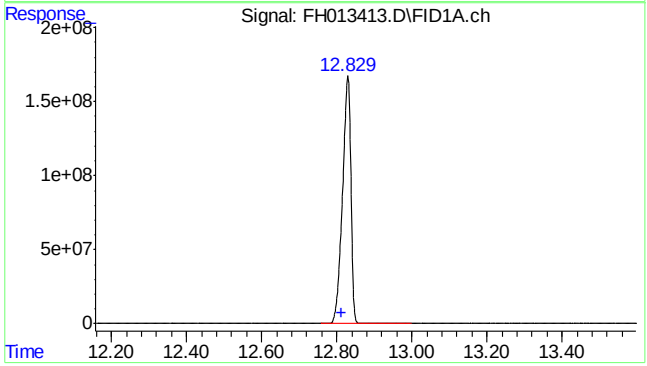
Volume Inj. :
Signal Phase :
Signal Info :





#1 TPH-DRO (C10-C28)

R.T.: 10.473 min
Delta R.T.: 0.000 min
Response: 32545653
Conc: 27.13 ug/ml m



#2 o-Terphenyl

R.T.: 12.827 min
Delta R.T.: 0.014 min
Response: 2596844402
Conc: 1900.62 ug/ml