Mountain States ACCUTEST LABORATORIES

03/05/12

Technical Report for

XTO Energy

FRU 297-32A

1108-12A

Accutest Job Number: D32156

Sampling Date: 02/21/12

Report to:

dknudson@krwconsulting.com

Total number of pages in report: **32**

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.

Brad Madadian
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Sample Summary

XTO Energy

Job No: D32156

FRU 297-32A
Project No: 1108-12A

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
D32156-1	02/21/12	15:35	DS	02/24/12	SO	Soil	CUT 1 M/B DAY 7 (2/21)
D32156-2	02/21/12	15:25	DS	02/24/12	SO	Soil	CUT 1 M/B DAY 6 (2/20)
D32156-3	02/21/12	15:15	DS	02/24/12	SO	Soil	CUT 1 M/B DAY 5 (2/17)
D32156-4	02/21/12	15:00	DS	02/24/12	SO	Soil	CUT 1 M/B DAY 4 (2/16)

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

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	XTO Energy	**Job No**	D32156
Site:	FRU 297-32A	**Report Date**	2/28/2012 12:07:46 PM

On 02/24/2012, 4 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.2 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D32156 was assigned to the project. The lab sample IDs, client sample IDs, 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:** V5V1176

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32151-1MS, D32151-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8015B

Matrix SO **Batch ID:** GGB847

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32152-1MS, D32152-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix SO **Batch ID:** OP5426

- All samples were extracted and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D32154-1MS, D32154-1MSD were used as the QC samples indicated.

Wet Chemistry By Method SM19 2540B M

Matrix SO **Batch ID:** GN13831

- The data for SM19 2540B 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.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 7 (2/21)		
Lab Sample ID:	D32156-1	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8260B	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19599.D	1	02/24/12	BR	n/a	n/a	V5V1176
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.12 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0827	0.066	0.029	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	79%		61-130%
460-00-4	4-Bromofluorobenzene	82%		53-131%
17060-07-0	1,2-Dichloroethane-D4	101%		62-130%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 7 (2/21)		
Lab Sample ID:	D32156-1	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8015B	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15081.D	1	02/26/12	SK	n/a	n/a	GGB847
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)	33.4	13	6.6	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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 7 (2/21)		
Lab Sample ID:	D32156-1	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001723.D	1	02/28/12	TR	02/24/12	OP5426	GFH88
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	237	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		43-136%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 6 (2/20)		
Lab Sample ID:	D32156-2	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8260B	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19600.D	1	02/24/12	BR	n/a	n/a	V5V1176
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.20 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0916	0.065	0.029	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	86%		61-130%
460-00-4	4-Bromofluorobenzene	90%		53-131%
17060-07-0	1,2-Dichloroethane-D4	113%		62-130%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 6 (2/20)		
Lab Sample ID:	D32156-2	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8015B	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15082.D	1	02/26/12	SK	n/a	n/a	GGB847
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.2 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	31.7	13	6.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	95%		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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 6 (2/20)		
Lab Sample ID:	D32156-2	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	85.2
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001725.D	1	02/28/12	TR	02/24/12	OP5426	GFH88
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	186	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		43-136%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 5 (2/17)		
Lab Sample ID:	D32156-3	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8260B	**Percent Solids:**	82.7
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19601.D	1	02/24/12	BR	n/a	n/a	V5V1176
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.10 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0998	0.070	0.031	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	94%		61-130%
460-00-4	4-Bromofluorobenzene	97%		53-131%
17060-07-0	1,2-Dichloroethane-D4	125%		62-130%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 5 (2/17)		
Lab Sample ID:	D32156-3	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8015B	**Percent Solids:**	82.7
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15083.D	1	02/26/12	SK	n/a	n/a	GGB847
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)	31.9	14	7.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	89%		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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 5 (2/17)		
Lab Sample ID:	D32156-3	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	82.7
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001727.D	1	02/28/12	TR	02/24/12	OP5426	GFH88
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	318	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	112%		43-136%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 4 (2/16)		
Lab Sample ID:	D32156-4	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8260B	**Percent Solids:**	82.4
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V19602.D	1	02/24/12	BR	n/a	n/a	V5V1176
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.28 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.0877	0.068	0.030	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	92%		61-130%
460-00-4	4-Bromofluorobenzene	95%		53-131%
17060-07-0	1,2-Dichloroethane-D4	121%		62-130%

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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 4 (2/16)		
Lab Sample ID:	D32156-4	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846 8015B	**Percent Solids:**	82.4
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB15084.D	1	02/26/12	SK	n/a	n/a	GGB847
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.3 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	26.3	14	6.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	93%		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

Report of Analysis

Client Sample ID:	CUT 1 M/B DAY 4 (2/16)		
Lab Sample ID:	D32156-4	**Date Sampled:**	02/21/12
Matrix:	SO - Soil	**Date Received:**	02/24/12
Method:	SW846-8015B SW846 3546	**Percent Solids:**	82.4
Project:	FRU 297-32A		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH001729.D	1	02/28/12	TR	02/24/12	OP5426	GFH88
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	194	16	10	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		43-136%

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

Accutest Laboratories Mountain States
4036 Youngfield Street Wheat Ridge, Co 80033
TEL. 303-425-6021 877-737-4521
FAX 303-425-6021

PAGE 1 OF 1

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job # D32156

Client / Reporting Information

Company Name: KRW Consulting Inc
Street Address: 8000 W 14th Ave Ste 200
City: Lakewood State: Co Zip: 80214
Project Contact: Duayn Knudson E-mail:
Phone #: 970 488 1098 Fax #:
Sampler(s) Name(s): David Sanders Phone #: 9704881098

Project Information

Project Name: XTO FRU 897-32A
Street:
City:
Project#: 1108-12A
Client PO#:
Project Manager: Joe Hess

Billing Information (If different from Report to)

Company Name: XTO Energy
Street Address: 21459 County Rd 5
City: Rifle State: Co Zip: 81650
Attention: Jessica Dooling PO#:

Requested Analysis (see TEST CODE sheet)

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	Bisulfite	TPH (GRO)	TPH (ORO)	Benzene	LAB USE ONLY
	Cut 1 m/B Day 7 (2/21)		2/21/12	15:35	DS	SO	3					X					X	X	X	01
	Cut 1 m/B Day 6 (2/20)		2/21/12	1525	DS	SO	3					X					X	X	X	02
	Cut 1 m/B Day 5 (2/17)		2/21/12	15:15	DS	SO	3					X					X	X	X	03
	Cut 1 m/B Day 4 (2/16)		2/21/12	15:00	DS	SO	3					X					X	X	X	04

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day R/ SH
- [x] 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)
- [ ] Commercial "B" +Narrative
- [ ] FULLT1 (Level 3+4)
- [ ] State Forms
- [ ] EDD Format
- [x] PDF

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

Please email results to XTO/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		2/22/12	Rifle Service Center	2	2/22/12	American Courier
3			3	4		4
5			5			

Custody Seal # HD CO Intact / Not Intact Preserved where applicable On Ice Cooler Temp. 3.2

D32156: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D32156 **Client:** KRW **Immediate Client Services Action Required:** No

Date / Time Received: 2/24/2012 2:02:00 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

D32156: 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: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1176-MB	5V19588.D	1	02/24/12	BR	n/a	n/a	V5V1176

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	22	ug/kg	

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	93%	61-130%
460-00-4	4-Bromofluorobenzene	86%	53-131%
17060-07-0	1,2-Dichloroethane-D4	118%	62-130%

Blank Spike Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V1176-BS	5V19589.D	1	02/24/12	BR	n/a	n/a	V5V1176

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	50	50.5	101	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	86%	61-130%
460-00-4	4-Bromofluorobenzene	91%	53-131%
17060-07-0	1,2-Dichloroethane-D4	110%	62-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32151-1MS	5V19591.D	1	02/24/12	BR	n/a	n/a	V5V1176
D32151-1MSD	5V19592.D	1	02/24/12	BR	n/a	n/a	V5V1176
D32151-1	5V19590.D	1	02/24/12	BR	n/a	n/a	V5V1176

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	D32151-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		3130	3560	114	3310	106	7	70-134/30

CAS No.	Surrogate Recoveries	MS	MSD	D32151-1	Limits
2037-26-5	Toluene-D8	92%	78%	80%	61-130%
460-00-4	4-Bromofluorobenzene	109%	94%	83%	53-131%
17060-07-0	1,2-Dichloroethane-D4	121%	103%	106%	62-130%

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: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB847-MB	GB15061.D	1	02/25/12	SK	n/a	n/a	GGB847

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

D32156-1, D32156-2, D32156-3, D32156-4

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	95%	60-140%

Blank Spike Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGB847-BS	GB15062.D	1	02/25/12	SK	n/a	n/a	GGB847

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	110	110	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	60-140%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D32152-1MS	GB15064.D	1	02/25/12	SK	n/a	n/a	GGB847
D32152-1MSD	GB15065.D	1	02/25/12	SK	n/a	n/a	GGB847
D32152-1	GB15063.D	1	02/25/12	SK	n/a	n/a	GGB847

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	D32152-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		142	141	99	141	99	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D32152-1	Limits
120-82-1	1,2,4-Trichlorobenzene	102%	109%	94%	60-140%

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: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5426-MB	FH001697.D	1	02/27/12	TR	02/24/12	OP5426	GFH88

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	13	8.7	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	82%	43-136%

Blank Spike Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5426-BS	FH001699.D	1	02/27/12	TR	02/24/12	OP5426	GFH88

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-DRO (C10-C28)	667	548	82	58-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	84%	43-136%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: D32156
Account: XTOKRWR XTO Energy
Project: FRU 297-32A

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5426-MS	FH001701.D	1	02/27/12	TR	02/24/12	OP5426	GFH88
OP5426-MSD	FH001703.D	1	02/27/12	TR	02/24/12	OP5426	GFH88
D32154-1	FH001707.D	1	02/27/12	TR	02/24/12	OP5426	GFH88

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

D32156-1, D32156-2, D32156-3, D32156-4

CAS No.	Compound	D32154-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	643		799	1240	75	1310	83	5	20-183/43

CAS No.	Surrogate Recoveries	MS	MSD	D32154-1	Limits
84-15-1	o-Terphenyl	70%	69%	73%	43-136%