



11/12/12

Technical Report for

XTO Energy

NPU 196-19B

1202-08

Accutest Job Number: D40380R

Sampling Date: 10/26/12

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: 15



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), TX (T104704511-12-1)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

Sections:

-1-

Section 1: Sample Summary	3
Section 2: Case Narrative/Conformance Summary	4
Section 3: Summary of Hits	5
Section 4: Sample Results	6
4.1: D40380-8R: BACKGROUND AS (8)	7
Section 5: Misc. Forms	8
5.1: Chain of Custody	9
Section 6: Metals Analysis - QC Data Summaries	10
6.1: Prep QC MP8841: As	11

1

2

3

4

5

6



Sample Summary

XTO Energy

Job No: D40380R

NPU 196-19B
Project No: 1202-08

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D40380-8R	10/26/12	14:15 DS	11/07/12	SO	Soil	BACKGROUND AS (8)

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



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: XTO Energy

Job No D40380R

Site: NPU 196-19B

Report Dat 11/12/2012 2:45:28 PM

On 11/07/2012, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.6 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D40380R 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.

Metals By Method SW846 6020A

Matrix SO

Batch ID: MP8841

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D40653-1MS, D40653-1MSD, D40653-1SDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN17583

- 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.

Summary of Hits

Job Number: D40380R
Account: XTO Energy
Project: NPU 196-19B
Collected: 10/26/12



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
D40380-8R	BACKGROUND AS (8)					
Arsenic		4.2	0.12		mg/kg	SW846 6020A

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BACKGROUND AS (8)	Date Sampled:	10/26/12
Lab Sample ID:	D40380-8R	Date Received:	11/07/12
Matrix:	SO - Soil	Percent Solids:	83.8
Project:	NPU 196-19B		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.2	0.12	mg/kg	5	11/08/12	11/11/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2985
(2) Prep QC Batch: MP8841

RL = Reporting Limit

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

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

ACCUTEST <small>LABORATORIES</small>		4036 Youngblood Street, Wheat Ridge, CO 80033 TEL: 303-425-6021 FAX: 303-425-6854 www.acctest.com		FED-EX Tracking # _____ Bottle Order Control # _____	
Accutest Quote # _____		Accutest Job # D40380			
Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)	
Company Name KRW Consulting		Project Name: XTO NPU 196-19B		ARSENIC	
Street Address 8000 West 14th Street; Suite 200		Street Lakewood, CO 80214			
City Lakewood, CO 80214		State CO			
Project Contact Dwayne Knudson		Project # 1202-08			
Phone # 970-488-1098		Client Purchase Order # 970-488-1098			
Sampler(s) Name(s) DAVID SANDERS		Project Manager Joe Hess		Attention: Jessica Dooling	
Sample # 970-488-1098		Collection Date: 10-26-12 Time: 13:40		Number of preserved Bottles MECH DI Vial # _____ Date _____ Time _____	
Field ID / Point of Collection BACKGROUND AS (1)		MECH/DI Vial # _____ Date _____ Time _____		Matrix _____ # of bottles _____	
BACKGROUND AS (2)		10-26-12 13:45		DS SO 1	
BACKGROUND AS (3)		13:50		SO 1	
BACKGROUND AS (4)		13:55		SO 1	
BACKGROUND AS (5)		14:00		SO 1	
BACKGROUND AS (6)		14:05		SO 1	
BACKGROUND AS (7)		14:10		SO 1	
BACKGROUND AS (8)		10-26-12 14:15		DS SO 1	
Turnaround Time (Business days) <input type="checkbox"/> Std. 10 Business Days <input checked="" type="checkbox"/> Std. 5 Business Days (By contract only) <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency Emergency & Rush T/A data available via Lablink		Approved By (Accutest PM) / Date: _____ _____ _____ _____ _____		Data Deliverable Information <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> COMMBN <input type="checkbox"/> COMMBN+ <input type="checkbox"/> 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: _____ Date Time: _____ Relinquished By: _____ Date Time: _____ Relinquished By: _____ Date Time: _____ Relinquished By: _____ Date Time: _____	
Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____	
Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____	
Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____		Relinquished By: _____ Date Time: _____	

D40380R: Chain of Custody

Page 1 of 1

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D40380R
Account: XTOKRWR - XTO Energy
Project: NPU 196-19B

QC Batch ID: MP8841
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/08/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.22	.31		
Antimony	0.20	.0018	.0075		
Arsenic	0.10	.006	.06	0.0084	<0.10
Barium	1.0	.0065	.037		
Beryllium	0.10	.016	.09		
Boron	20	1.2	1.2		
Cadmium	0.050	.014	.021		
Calcium	200	7.9	8		
Chromium	1.0	.033	.19		
Cobalt	0.10	.0012	.015		
Copper	1.0	.017	.065		
Iron	20	.8	5		
Lead	0.25	.0011	.024		
Magnesium	50	.44	.85		
Manganese	0.50	.0043	.02		
Molybdenum	0.50	.018	.018		
Nickel	1.0	.0049	.011		
Phosphorus	30	1.4	3.6		
Potassium	100	9.8	10		
Selenium	0.20	.029	.14		
Silver	0.050	.0009	.0065		
Sodium	250	1.5	2.3		
Strontium	10	.036	.036		
Thallium	0.10	.00095	.0095		
Tin	5.0	.023	.34		
Titanium	1.0	.044	.1		
Uranium	0.25	.00085	.001		
Vanadium	2.0	.12	.21		
Zinc	5.0	.033	.35		

Associated samples MP8841: D40380-8R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D40380R
Account: XTOKRWR - XTO Energy
Project: NPU 196-19B

QC Batch ID: MP8841
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/08/12

Metal	D40653-1 Original MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	9.0	181	163	105.4
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP8841: D40380-8R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D40380R
Account: XTOKRWR - XTO Energy
Project: NPU 196-19B

QC Batch ID: MP8841
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/08/12

Metal	D40653-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.0	175	168	98.8	3.4	20
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP8841: D40380-8R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D40380R
Account: XTOKRWR - XTO Energy
Project: NPU 196-19B

QC Batch ID: MP8841
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/08/12

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	109	100	109.0	80-120
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP8841: D40380-8R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: D40380R
 Account: XTOKRWR - XTO Energy
 Project: NPU 196-19B

QC Batch ID: MP8841
 Matrix Type: SOLID

Methods: SW846 6020A
 Units: ug/l

Prep Date: 11/08/12

Metal	D40653-1			QC	
	Original	SDL 5:25	%DIF	Limits	
Aluminum					
Antimony					
Arsenic	55.8	53.1	4.9	0-10	
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP8841: D40380-8R

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested