

FORM
4
Rev 12/05

Page 1

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

RECEIVED
11/15/2012

1 OGCC Operator Number: 100264	4 Contact Name: Jessica Dooling	Complete the Attachment Checklist OP OGCC
2 Name of Operator: XTO Energy Inc	Phone: 970-675-4122	
3 Address: PO Box 6501 City: Englewood State: CO Zip: 80155	Fax: 970-675-4150	
5 API Number: 05-103-05171-00	OGCC Facility ID Number: 314328	
6 Well/Facility Name: Piceance Creek Unit	7 Well/Facility Number: T84-15G	Survey Plat
8 Location (Qtr/Sec. Twp, Rng, Meridian): SENE, 15, 2S, 96W, 6th PM		Directional Survey
9 County: Rio Blanco	10 Field Name: Piceance Creek Unit	Surface Equip Diagram
11 Federal, Indian or State Lease Number: CDD 035676		Technical Info Page
		Other

General Notice

☐ **CHANGE OF LOCATION:** Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines: ☐ FNL/FSL ☐ FEL/FWL

Change of Surface Footage to Exterior Section Lines: ☐ ☐

Change of Bottomhole Footage from Exterior Section Lines: ☐ ☐

Change of Bottomhole Footage to Exterior Section Lines: ☐ ☐

Bottomhole location Qtr/Sec. Twp, Rng, Mer: _____

Latitude: _____ Distance to nearest property line: _____ Distance to nearest bldg, public rd, utility or RR: _____

Longitude: _____ Distance to nearest lease line: _____ Is location in a High Density Area (rule 603b)? Yes/No: ☐

Ground Elevation: _____ Distance to nearest well same formation: _____ Surface owner consultation date: _____

GPS DATA:
Date of Measurement: _____ PDOP Reading: _____ Instrument Operator's Name: _____

☐ **CHANGE SPACING UNIT**
Formation: _____ Formation Code: _____ Spacing order number: _____ Unit Acreage: _____ Unit configuration: _____

☐ **Remove from surface bond**
Signed surface use agreement attached: ☐

☐ **CHANGE OF OPERATOR (prior to drilling):**
Effective Date: _____
Plugging Bond: ☐ Blanket ☐ Individual

☐ **CHANGE WELL NAME** NUMBER
From: _____
To: _____
Effective Date: _____

☐ **ABANDONED LOCATION:**
Was location ever built? ☐ Yes ☐ No
Is site ready for inspection? ☐ Yes ☐ No
Date Ready for Inspection: _____

☐ **NOTICE OF CONTINUED SHUT IN STATUS**
Date well shut in or temporarily abandoned: _____
Has Production Equipment been removed from site? ☐ Yes ☐ No
MIT required if shut in longer than two years Date of last MIT: _____

☐ **SPUD DATE:** _____

☐ **REQUEST FOR CONFIDENTIAL STATUS** (6 mos from date casing set)

☐ **SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK** *submit cbl and cement job summaries
Method used: _____ Cementing tool setting/perf depth: _____ Cement volume: _____ Cement top: _____ Cement bottom: _____ Date: _____

☐ **RECLAMATION:** Attach technical page describing final reclamation procedures per Rule 1004
Final reclamation will commence on approximately: _____ Final reclamation is completed and site is ready for inspection: ☐

Technical Engineering/Environmental Notice

☐ Notice of Intent
Approximate Start Date: _____

☐ Report of Work Done
Date Work Completed: _____

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: See Page 2	

I hereby certify that the statements made in this form are to the best of my knowledge true, correct and complete.

Signed: Jessica Dooling Date: 11/15/2012 Email: jessica.dooling@xtoenergy.com

Print Name: Jessica Dooling Title: Environmental Coordinator

OGCC Approved: Chris Canfield Title: FOR Date: 12/20/2012

CONDITIONS OF APPROVAL, IF ANY:

Chris Canfield
EPS NW Region

Arabic
OK
eals

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 100264 API Number: 05-103-05171-00
2. Name of Operator: XTO Energy Inc. OGCC Facility ID #
3. Well/Facility Name: Piceance Creek Unit Well/Facility Number: PCU T84-15G
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENE, 15, 2S, 96W, 6th PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

DESCRIBE PROPOSED OR COMPLETED OPERATIONS

XTO Energy herin requests consideration of site-specific background Arsenic levels as an alternative to the Table 910-1 value for the PCU T84-15G location. COGCC Table 910-1 Concentration Levels list the allowable concentration level for Arsenic in soil at 0.39 mg/kg. Footnote 1 of Table 910-1 states "Consideration shall be given to background levels in native soils and ground water." At other locations COGCC has allowed the determination of allowable levels based upon a 10 % variability factor applied to background soil concentration values where the maximum allowable level is computed by multiplying the highest detected background concentration by 1.1.

Eight representative background samples were collected from undisturbed areas adjacent to the subject location. Arsenic concentrations in those samples ranged from 4.0 mg/kg to 9.4 mg/kg. Applying the 10% variability factor to the highest concentration detected results in an allowable Arsenic concentration level of 10.3 mg/kg.

Attached please find the Lab Data Summary Table and the Site Map indicating Arsenic sampling locations attached.

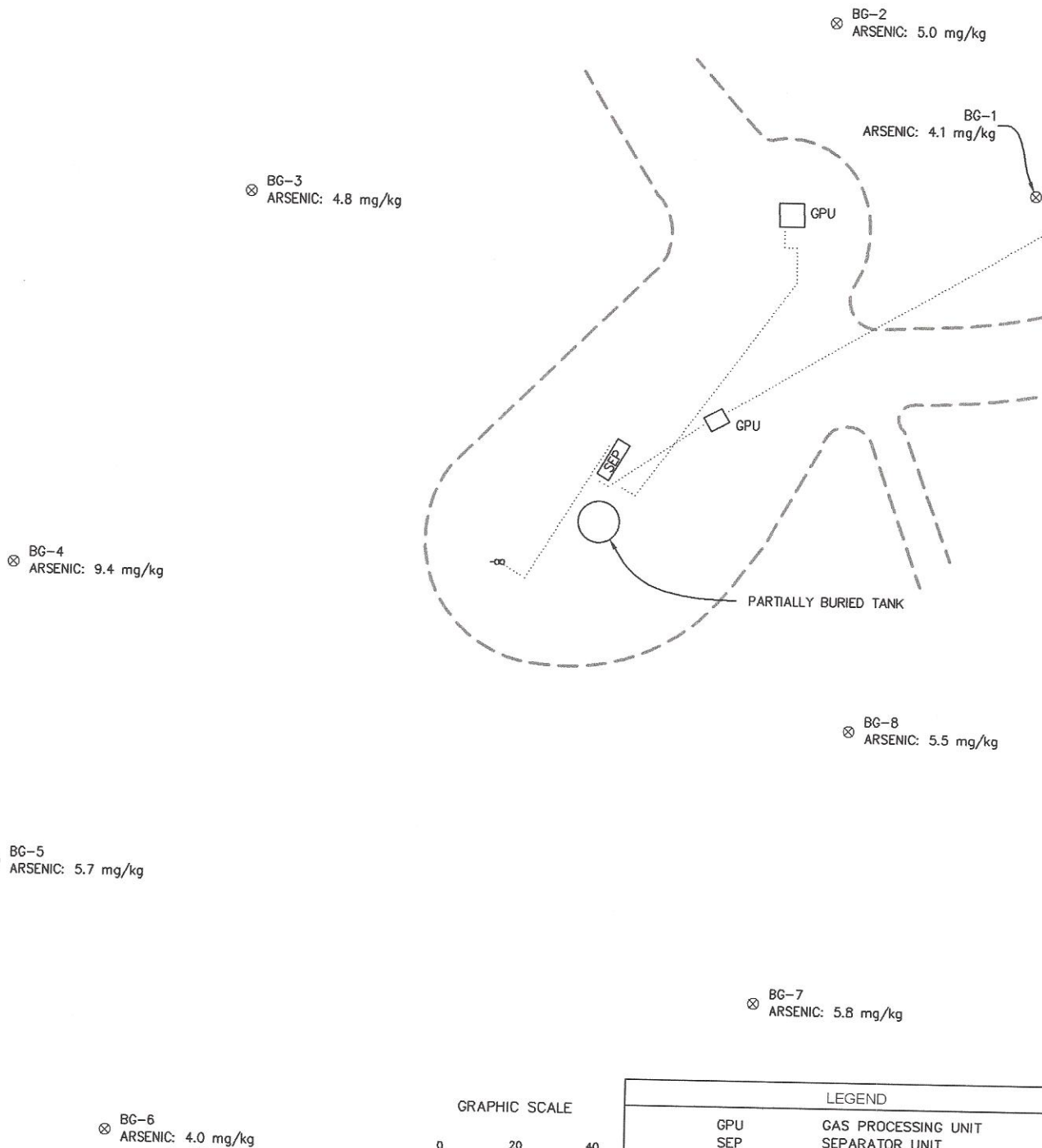
Table 1
Location: PCU T84-15G
Lab Summary

Analytical Parameter (with units)	Bottom of Excavation (11/1/12)	BACKGROUND SAMPLES (10/31/12)								Updated: COGCC Table 910-1 Concentration Levels	11/12/2012 Maximum based on Background
		BG #1	BG #2	BG #3	BG #4	BG #5	BG #6	BG #7	BG #8		
Accutest Job #	D40540	D40523								-	-
Sample Type (Composite/Discrete)	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-
TPH (DRO) (mg/kg)	12.6	-	-	-	-	-	-	-	-	-	-
TPH (GRO+DRO) (mg/kg)	12.6	-	-	-	-	-	-	-	-	-	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	500	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	0.17	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	85	-
Xylenes (total) (mg/kg)	ND	-	-	-	-	-	-	-	-	100	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	175	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0684	-	-	-	-	-	-	-	-	1,000	-
Benzo(B)fluoranthene (mg/kg)	0.0868	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0405	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/kg)	0.0718	-	-	-	-	-	-	-	-	2.2	-
Chrysene (mg/kg)	0.0950	-	-	-	-	-	-	-	-	0.022	-
Dibenzo(A,H)anthracene (mg/kg)	0.0098	-	-	-	-	-	-	-	-	22	-
Fluoranthene (mg/kg)	0.119	-	-	-	-	-	-	-	-	0.022	-
Fluorene (mg/kg)	ND	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0313	-	-	-	-	-	-	-	-	1,000	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	0.22	-
Pyrene (mg/kg)	0.119	-	-	-	-	-	-	-	-	23	-
Electrical Conductivity (mmhos/cm)	1.130	-	-	-	-	-	-	-	-	1,000	-
Sodium Adsorption Ratio (SAR)	2.72	-	-	-	-	-	-	-	-	<4or 2X BG	-
pH	9.38	-	-	-	-	-	-	-	-	<12	-
Arsenic (mg/kg)	2.0	4.1	5.0	4.8	9.4	5.7	4.0	5.8	5.5	6-9	-
Barium (mg/kg)	119	-	-	-	-	-	-	-	-	0.39	10.3
Cadmium (mg/kg)	<1.0	-	-	-	-	-	-	-	-	15,000	-
Chromium (III) (mg/kg)	45.1	-	-	-	-	-	-	-	-	70	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	120,000	-
Copper (mg/kg)	6.6	-	-	-	-	-	-	-	-	23	-
Lead (inorganic) (mg/kg)	<5.1	-	-	-	-	-	-	-	-	3,100	-
Mercury (mg/kg)	<0.084	-	-	-	-	-	-	-	-	400	-
Nickel (mg/kg)	20.5	-	-	-	-	-	-	-	-	23	-
Selenium (mg/kg)	<5.1	-	-	-	-	-	-	-	-	1,600	-
Silver (mg/kg)	<3.0	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	23.9	-	-	-	-	-	-	-	-	390	-
% Solids	97.6	84.4	86.3	82.6	89.6	82.3	81.3	84.0	84.3	23,000	-

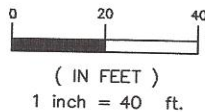
Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 parameters; results highlighted in gray exceed Table 910-1, but are within background.
- 3) "-" indicates no analysis was performed.
- 4) Refer to Figure 1 for sample locations.

\\hyper-v03\lkw-co\sdek\proj\cto environmental\1210-11 pcu t84-15g\back.dwg,11/15/12



GRAPHIC SCALE



NOTE:

1. BACKGROUND ARSENIC RESULTS ARE DISCRETE SAMPLES.

DESIGNED:	CHECKED:	FIGURE	DATE	REVISIONS
DK	DK			
DATE:	DRAWN:	1		
11/15/12	DRF			
FILE NAME:	SHEET NO.	1 of 1		
back				
PROJECT NO.	SCALE:	1" = 40'		
1210-11				

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

FIGURE 1
PICEANCE CREEK
PCU T84-15G
SAMPLE LOCATIONS MAP
WITH ARSENIC LEVELS
PREPARED FOR XTO ENERGY

LEGEND	
GPU	GAS PROCESSING UNIT
SEP	SEPARATOR UNIT
---	EDGE OF PAD
---	UNDERGROUND UTILITY CORRIDOR
○	WELL HEAD
⊗	BACKGROUND TEST LOCATION
⊗	WITH LAB RESULTS



11/07/12

Technical Report for

XTO Energy

PCU T84-15G

1210-11

Accutest Job Number: D40523

Sampling Date: 10/31/12


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: 23



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.

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Sample Summary

XTO Energy

Job No: D40523

PCU T84-15G

Project No: 1210-11

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
D40523-1	10/31/12	13:40	DS	11/02/12	SO	Soil	BACKGROUND AS(1)
D40523-2	10/31/12	13:45	DS	11/02/12	SO	Soil	BACKGROUND AS(2)
D40523-3	10/31/12	13:50	DS	11/02/12	SO	Soil	BACKGROUND AS(3)
D40523-4	10/31/12	13:55	DS	11/02/12	SO	Soil	BACKGROUND AS(4)
D40523-5	10/31/12	14:00	DS	11/02/12	SO	Soil	BACKGROUND AS(5)
D40523-6	10/31/12	14:05	DS	11/02/12	SO	Soil	BACKGROUND AS(6)
D40523-7	10/31/12	14:10	DS	11/02/12	SO	Soil	BACKGROUND AS(7)
D40523-8	10/31/12	14:15	DS	11/02/12	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 D40523

Site: PCU T84-15G

Report Date 11/7/2012 4:41:48 PM

On 11/02/2012, 8 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.6 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D40523 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: MP8817

- 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) D40438-1MS, D40438-1MSD, D40438-1SDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method SM19 2540B M

Matrix SO

Batch ID: GN17532

- 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

Page 1 of 1

Job Number: D40523
Account: XTO Energy
Project: PCU T84-15G
Collected: 10/31/12



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D40523-1	BACKGROUND AS(1)					
Arsenic		4.1	0.12		mg/kg	SW846 6020A
D40523-2	BACKGROUND AS(2)					
Arsenic		5.0	0.12		mg/kg	SW846 6020A
D40523-3	BACKGROUND AS(3)					
Arsenic		4.8	0.12		mg/kg	SW846 6020A
D40523-4	BACKGROUND AS(4)					
Arsenic		9.4	0.11		mg/kg	SW846 6020A
D40523-5	BACKGROUND AS(5)					
Arsenic		5.7	0.12		mg/kg	SW846 6020A
D40523-6	BACKGROUND AS(6)					
Arsenic		4.0	0.12		mg/kg	SW846 6020A
D40523-7	BACKGROUND AS(7)					
Arsenic		5.8	0.12		mg/kg	SW846 6020A
D40523-8	BACKGROUND AS(8)					
Arsenic		5.5	0.12		mg/kg	SW846 6020A



Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	BACKGROUND AS(1)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-1	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	84.4
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.1	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(2)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-2	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	86.3
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.0	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(3)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-3	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	82.6
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.8	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(4)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-4	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	89.6
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.4	0.11	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(5)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-5	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	82.3
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.7	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(6)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-6	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	81.3
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.0	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(7)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-7	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	84.0
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.8	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BACKGROUND AS(8)	Date Sampled:	10/31/12
Lab Sample ID:	D40523-8	Date Received:	11/02/12
Matrix:	SO - Soil	Percent Solids:	84.3
Project:	PCU T84-15G		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	5.5	0.12	mg/kg	5	11/05/12	11/07/12 JB	SW846 6020A ¹	SW846 3050B ²

(1) Instrument QC Batch: MA2972
(2) Prep QC Batch: MP8817

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

[illegible]

D40523: Chain of Custody

Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D40523

Client: KRW CONSULTING

Immediate Client Services Action Required: No

Date / Time Received: 11/2/2012 1:45:00 PM

No. Coolers: 1

Client Service Action Required at Login: No

Project: XTO PCU T84-15G

Airbill #'s: HDCO

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:			Infrared gun
3. Cooler media:			Ice (bag)

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:			Intact

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
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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: D40523
Account: XTOKRWR - XTO Energy
Project: PCU T84-15G

QC Batch ID: MP8817
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/05/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	25	.22	.31		
Antimony	0.20	.0018	.0075		
Arsenic	0.10	.006	.06	0.024	<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 MP8817: D40523-1, D40523-2, D40523-3, D40523-4, D40523-5, D40523-6, D40523-7, D40523-8

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: D40523
Account: XTOKRWR - XTO Energy
Project: PCU T84-15G

QC Batch ID: MP8817
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/05/12

Metal	D40438-1 Original MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	5.2	232	231	98.0
Barium				75-125
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 MP8817: D40523-1, D40523-2, D40523-3, D40523-4, D40523-5, D40523-6, D40523-7, D40523-8

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: D40523
Account: XTOKRWR - XTO Energy
Project: PCU T84-15G

QC Batch ID: MP8817
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/05/12

Metal	D40438-1 Original	MSD	SpikeLot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	5.2	228	231	96.2	1.7	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 MP8817: D40523-1, D40523-2, D40523-3, D40523-4, D40523-5, D40523-6, D40523-7, D40523-8

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: D40523
Account: XTOKRWR - XTO Energy
Project: PCU T84-15G

QC Batch ID: MP8817
Matrix Type: SOLID

Methods: SW846 6020A
Units: mg/kg

Prep Date: 11/05/12

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	98.7	100	98.7	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 MP8817: D40523-1, D40523-2, D40523-3, D40523-4, D40523-5, D40523-6, D40523-7, D40523-8

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D40523
 Account: XTOKRWR - XTO Energy
 Project: PCU T84-15G

QC Batch ID: MP8817
 Matrix Type: SOLID

Methods: SW846 6020A
 Units: ug/l

Prep Date: 11/05/12

Metal	D40438-1			QC
	Original	SDL 5:25	%DIF	Limits
Aluminum				
Antimony				
Arsenic	22.7	20.8	8.1	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 MP8817: D40523-1, D40523-2, D40523-3, D40523-4, D40523-5, D40523-6, D40523-7, D40523-8

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