

State of Colorado  
Oil and Gas Conservation Commission

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



FOR OGCC USE ONLY



01630741

**EARTHEN PIT REPORT/PERMIT**

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

**FORM SUBMITTED FOR:**

Pit Report  Pit Permit

**Complete the Attachment Checklist**

Oper OGCC

OGCC Operator Number: 100264  
Name of Operator: XTO Energy Inc.  
Address: 382 Road 3100  
City: Aztec State: NM Zip: 87410

Contact Name and Telephone  
Kelly Small  
No: 505-333-3145  
Fax: 505-213-0546  
Email: kelly\_small@xtoenergy.com

Detailed Site Plan	X
Topo Map with Pit Location	X
Water Analysis (Form 25)	X
Source Wells (Form 26)	X
Pit Design/Plan & Cross Sect.	X
Design Calculations	X
Sensitive Area Determination	X
Mud Program	
Form 2A	X

API Number (of associated well): 05-103-10957 OGCC Facility ID (of other associated facility): 288152  
Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): Federal 2S-9S-16-33DP (Bit2), NWSE Sec. 16, T2S, R95W, 6th PM  
Latitude: 39.872116 Longitude: 108.056417 County: Rio Blanco  
Pit Use:  Production  Drilling (Attach mud program)  Special Purpose (Describe Use): Multi-well pit  
Pit Type:  Lined  Unlined Surface Discharge Permit:  Yes  No  
Offsite disposal of pit contents:  Injection  Commercial Pit/Facility Name: LaPoint Recycle & Storage Pit Facility No.: \_\_\_\_\_  
**Attach Form 26 to identify Source Wells and Form 25 to provide Water Analysis results.**

**Existing Site Conditions**

Is the location in a "Sensitive Area?"  Yes  No **Attach data used for determination.**  
Distance (in feet) to nearest surface water: 2481.6' ground water: 286' water wells: 10 wells within one mil.  
**LAND USE (or attach copy of form 2A if previously submitted for associated well) Select one which best describes land use:**  
Crop Land:  Irrigated  Dry Land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential  
**SOILS (or attach copy of Form 2A if previously submitted for associated well)**  
Soil map units from USNRCS Survey: Sheet No: WSS Soil Complex/Series No: 42  
Soils Series Name: Irigul Channery Loam Horizon thickness (in inches): A: 0-5"; B: 5-12"; C: 12-16"  
Soils Series Name: \_\_\_\_\_ Horizon thickness (in inches): A: \_\_\_\_\_; B: \_\_\_\_\_; C: \_\_\_\_\_  
**Attach detailed site plan and topo map with pit location.**

**Pit Design and Construction**

Size of pit (feet): Length: 160 Width: 100 Depth: 12 16,000 Sq Ft.  
Calculated pit capacity (bbls): 34,194 Daily inflow rate (bbls/day): 0-300 bbls/day  
Daily disposal rates (attach calculations): Evaporation: 26 bbls/day Percolation: n/a bbls/day  
Type of liner material: Polyethylene Thickness: 36 mil  
**Attach description of proposed design and construction (include sketches and calculations).**  
Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): Separator  
Is pit fenced?  Yes  No Is pit netted?  Yes  No

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

Print Name: Kelly K. Small

Signed: Kelly K. Small Title: Regulatory Compliance Date: 03/11/09

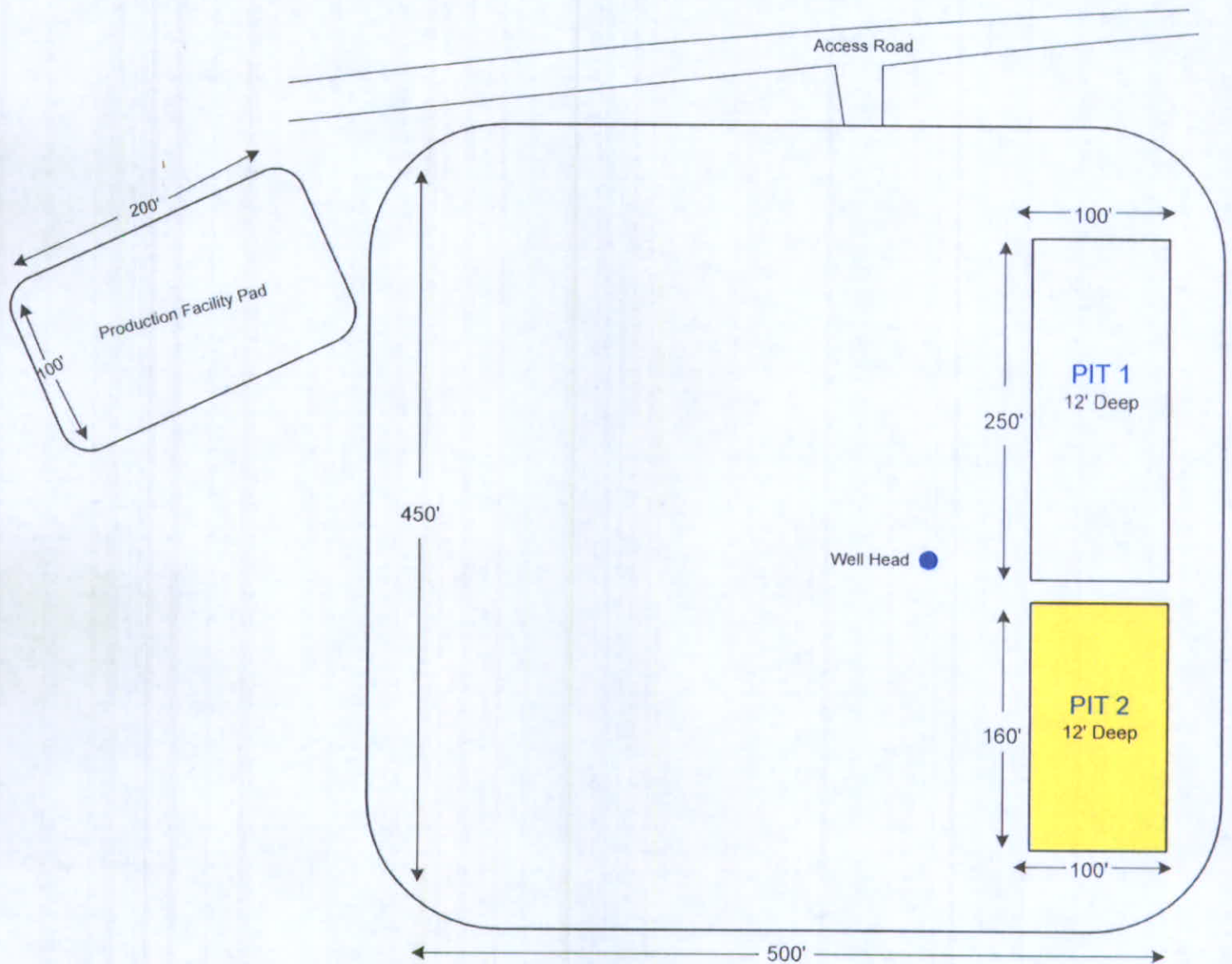
OGCC Approved: Chris Canfield Title: EPS-NW Area Date: 4/13/09

CONDITIONS OF APPROVAL, IF ANY:

Facility Number: 414412

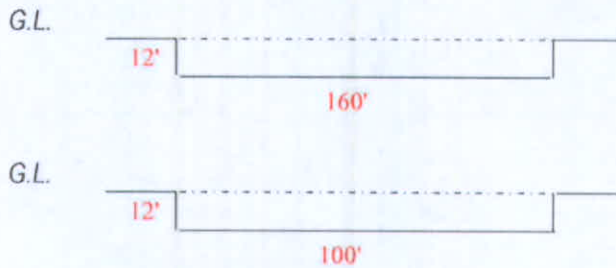
JAK

FEDERAL #2S-95-16-33DP  
NWSE SEC. 16, T2S, R95W  
NAD83  
LAT: 39.872116  
LONG: 108.056417



**PIT 2**  
**Pit Design Plan & Calculations**  
**Federal #2S-95-16-33DP**  
**05-103-10957**

**Cross-Section**

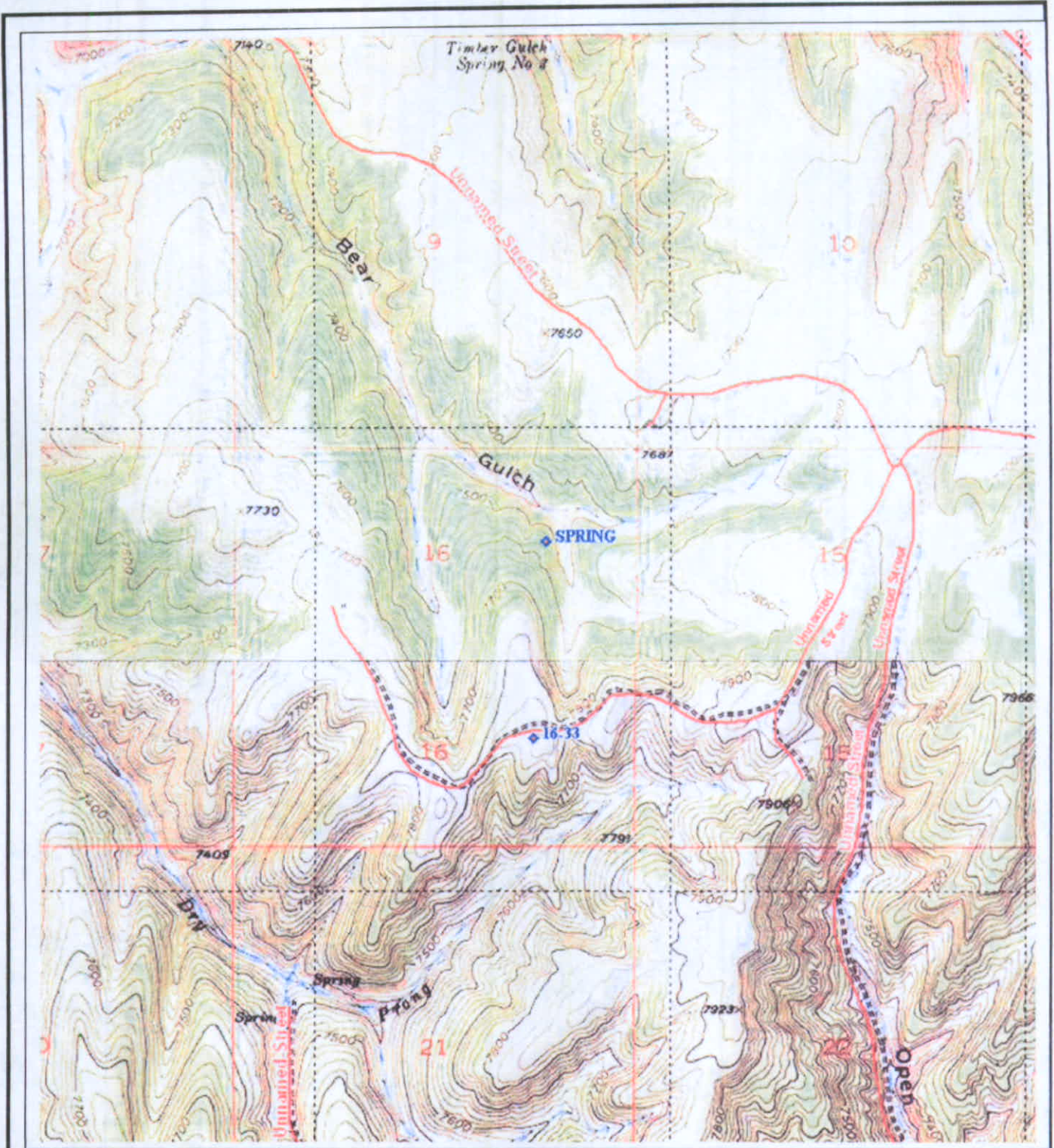


**Calculations**

<u>Volume =</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>DEPTH</u>	<u>Bbls</u>
	160	100	12	34194

<u>Evaporation</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>ft^2</u>
(Based on 40"/yr)	160	100	16000
			<u>Bbls/Day</u>
			26.0

<u>Percolation</u>	N/A
<p>Per Lee Neve, rates range from 0 to 6" per hour. Disturbed soil, such as in a pit may have increased permeability. A common soil description is .6 to 2" per hour. For these calculations I have used .6" per hour or 1.2 ft/day.</p>	
<u>ft^2</u>	<u>Bbls/Day</u>



**XTO Energy**

**Federal 2S-95-16-33DP  
Topographic Map  
1:24,000  
XTO Energy  
Piceance Basin, Colorado**

Drawn By: J. Dooling

Date: March 5, 2009

**SENSITIVE AREA IDENTIFICATION**  
 Decision Tree  
 Well Name: Federal 2S-95-16-33DP

**OUTSIDE SENSITIVE AREAS**

Pits must be permitted under Rule 903 and Points of Compliance may be established.

Elevations: 7235'  
 Pit Bottom 7225'  
 Ground Water 7451'

**BOX 1:** Is discharge water:  
 >1.25 x background ppm TDS  
 >250 ppm Chloride or background  
 >250 ppm Sulfate or background  
 >5 ppb Benzene  
 > 1,000 ppb Toluene  
 >680 ppb Ethylbenzene  
 >10,000 ppb Xylenes

NO

YES

**BOX 2:** Is the location underlain by an unconfined aquifer or recharge zone?

NO

YES

**BOX 3:** Is the hydraulic conductivity of the underlying soils and geologic material less than or equal to 10 minus 6 cm/sec?

YES

NO

**BOX 4A:** Is the existing pit location within an area classified by WQCC, or a local (water supply) wellhead protection area (WHPA) as of 7/1/95?

**BOX 4B:** Is the new pit location within an area classified by WQCC, or a local (water supply) wellhead protection area (WHPA), at the date of construction?

YES

NO

**BOX 5:** Is the location within 1/8 mi. of a domestic water well, or 1/4 mi. of a public water supply well, using the same aquifer?

YES

NO

**BOX 6:** From the pit bottom, is the depth to the average high ground water table < 20', including irrigation influence?

NO

YES

**INSIDE SENSITIVE AREAS**

Unlined pits are not authorized unless the operator demonstrates no significant adverse impact.

Pits must be permitted under Rule 903 and Points of Compliance may be established.



01630742

FORM 26 Rev 6/99

State of Colorado Oil and Gas Conservation Commission



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

FOR OGCC USE ONLY

SOURCE OF PRODUCED WATER FOR DISPOSAL

This form must be completed for any new disposal site and for any change in sources of produced water for an existing disposal site.

Complete the Attachment Checklist

Oper OGCC

OGCC Operator Number: 100264
Name of Operator: XTO ENERGY INC.
Address: 382 ROAD 3100
City: AZTEC State: NM Zip: 87410
Contact Name and Telephone: KELLY SMALL
No: 505-333-3145
Fax: 1-505-213-0546

Table with 2 columns: Chemical Analysis of fluid, Oper OGCC. Row 1: X

OGCC Disposal Facility Number: N/A
Operator's Disposal Facility Name: 2S-95-16-33DP Pit 2
Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSE SEC. 16, T2S, R95W 6TH P.M.
City: State: Zip: County: RIO BLANCO

If more space is required, attach additional sheet.

Add Source: OGCC Lease No: COC061464 API No: 05-103-10635 Well Name & No: FEDERAL #1S-96-23-12
Operator Name: XTO ENERGY INC. Operator No: 100264

Delete Source: Location: QtrQtr: SWNW Section: 23 Township: 1S Range: 95W Producing Formation: WASATCH-MV
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

Add Source: OGCC Lease No: COC061131 API No: 05-103-10918 Well Name & No: FEDERAL #1S-96-9-11BP
Operator Name: XTO ENERGY INC. Operator No: 100264

Delete Source: Location: QtrQtr: NWNW Section: 9 Township: 1S Range: 96W Producing Formation: MESAVERDE
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

Add Source: OGCC Lease No: COC061047 API No: 05-103-10655 Well Name & No: FEDERAL #2S-95-15-22
Operator Name: XTO ENERGY INC. Operator No: 100264

Delete Source: Location: QtrQtr: SENW Section: 15 Township: 2S Range: 95W Producing Formation: WASATCH-MV
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

Add Source: OGCC Lease No: COC061047 API No: 05-103-10957 Well Name & No: FEDERAL #2S-95-16-33DP
Operator Name: XTO ENERGY INC. Operator No: 100264

Delete Source: Location: QtrQtr: NWSE Section: 16 Township: 2S Range: 95W Producing Formation: WASATCH-MV
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

Add Source: OGCC Lease No: COC061047 API No: 05-103-10976 Well Name & No: FEDERAL #2S-95-15-42BP
Operator Name: XTO ENERGY INC. Operator No: 100264

Delete Source: Location: QtrQtr: SENE Section: 15 Township: 2S Range: 95W Producing Formation: WASATCH-MV
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

Add Source: OGCC Lease No: API No: Well Name & No: Operator Name: Operator No:

Delete Source: Location: QtrQtr: Section: Township: Range: Producing Formation:
Analysis Attached? Yes No Transported to disposal site via: Pipeline Truck TDS:

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

Print Name: KELLY K. SMALL

Signed: Kelly K. Small

Title: REGULATORY COMPLIANCE TECH

Date: 03/11/2009

OGCC Approved: Title: Date:

CONDITIONS OF APPROVAL, IF ANY:

JAK



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Est. 1970

Jessica Dooling  
XTO Energy - Piceance Basin Field Office  
4927 County Road 5

Rifle, CO 81650

Report Summary

Tuesday March 03, 2009

Report Number: L390236

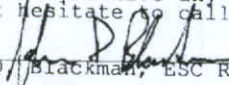
Samples Received: 02/27/09

Client Project: FED 1-96-23-12

Description: Produced Water

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
John D. Blackman, ESC Representative

**Laboratory Certification Numbers**

AZLA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided  
in laboratory standard operating procedures: 060302, 060303, and 060304.

1 Samples Reported: 03/03/09 15:16 Printed: 03/03/09 15:16  
Page 1 of 4



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Est. 1970

**REPORT OF ANALYSIS**

Jessica Dooling  
XTO Energy - Piceance Basin Field O  
4927 County Road 5  
Rifle, CO 81650

March 03, 2009

Date Received : February 27, 2009  
Description : Produced Water  
Sample ID : FED 1-96-23-12  
Collected By : Jes Dooling  
Collection Date : 02/25/09 14:20

ESC Sample # : L390236-01  
Site ID : FED 1-96-23-12  
Project # : FED 1-96-23-12

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Temperature (on-site)	100		Deg. F			
Sulfate	BDL	5.0	mg/l	300.0	02/27/09	1
Alkalinity, Bicarbonate	1600	10.	mg/l	310.2	03/02/09	1
Alkalinity, Carbonate	BDL	10.	mg/l	310.2	03/02/09	1
pH	7.0		su	4500H-B	02/28/09	1
Specific Conductance	17000		umhos/cm	120.1	03/01/09	1
Dissolved Solids	11000	10.	mg/l	2540C	03/03/09	1
Calcium, Dissolved	45.	0.50	mg/l	200.7	03/02/09	1
Magnesium, Dissolved	3.4	0.10	mg/l	200.7	03/02/09	1
Sodium, Dissolved	3800	2.5	mg/l	200.7	03/02/09	5
Benzene	3.4	0.050	mg/l	8021B	02/27/09	100
Toluene	7.6	0.50	mg/l	8021B	02/27/09	100
Ethylbenzene	0.29	0.050	mg/l	8021B	02/27/09	100
Total Xylene	4.4	0.15	mg/l	8021B	02/27/09	100
Surrogate Recovery(%)						
a, a, a-Trifluorotoluene (PID)	98.9		% Rec.	8021B	02/27/09	100

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 03/03/09 15:16 Printed: 03/03/09 15:16  
L390236-01 (PH) - 7.0@18.5c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390236-01	WG409723 WG409833	SAMP SAMP	pH Sodium, Dissolved	R655770 R656765	T8 VJ3

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
J3	The associated batch QC was outside the established quality control range for precision.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

- Accuracy** - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/03/09 at 15:16:36

TSR Signing Reports: 151  
R3 - Rush: Two Day

Sample: L390236-01 Account: XTORCO Received: 02/27/09 09:00 Due Date: 03/03/09 00:00 RPT Date: 03/03/09 15:16





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Est. 1970

Jessica Dooling  
XTO Energy - Piceance Basin Field Office  
4927 County Road 5

Rifle, CO 81650

Report Summary

Thursday March 05, 2009

Report Number: L390245

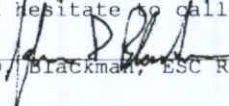
Samples Received: 02/27/09

Client Project: FED 1S-96-9-11

Description: Produced Water

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
John D. Blackman, ESC Representative

**Laboratory Certification Numbers**

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided  
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1 Samples Reported: 03/03/09 15:16 Revised: 03/05/09 08:59

Page 1 of 4



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

March 05, 2009

Jessica Dooling  
XTO Energy - Piceance Basin Field 0  
4927 County Road 5  
Rifle, CO 81650

Date Received : February 27, 2009  
Description : Produced Water  
Sample ID : FED 1S-96-9-11  
Collected By : Jes Dooling  
Collection Date : 02/25/09 15:15

ESC Sample # : L390245-01  
Site ID : FED 1S-96-9-11  
Project # : FED 1S-96-9-11

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Temperature (on-site)	100			Deg. F		
Sulfate	BDL	5.0	mg/l	300.0	02/27/09	1
Alkalinity, Bicarbonate	1700	10.	mg/l	310.2	03/02/09	1
Alkalinity, Carbonate	BDL	10.	mg/l	310.2	03/02/09	1
pH	7.1		su	4500R-B	02/28/09	1
Specific Conductance	12000		umhos/cm	120.1	03/01/09	1
Dissolved Solids	7500	10.	mg/l	2540C	03/03/09	1
Calcium, Dissolved	50.	0.50	mg/l	200.7	03/02/09	1
Magnesium, Dissolved	5.0	0.10	mg/l	200.7	03/02/09	1
Sodium, Dissolved	3000	2.5	mg/l	200.7	03/02/09	5
Benzene	0.28	0.012	mg/l	8021B	02/27/09	25
Toluene	0.30	0.12	mg/l	8021B	02/27/09	25
Ethylbenzene	0.015	0.012	mg/l	8021B	02/27/09	25
Total Xylene	0.19	0.038	mg/l	8021B	02/27/09	25
Surrogate Recovery (%) a,a,a-Trifluorotoluene (PID)	99.3		% Rec.	8021B	02/27/09	25

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 03/03/09 15:16 Revised: 03/05/09 08:59  
L390245-01 (PH) - 7.1@18.6c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390245-01	WG409723	SAMP	pH	R655770	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

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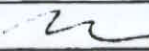

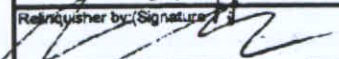


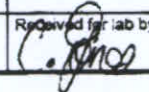
Definitions

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- Precision** - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate** - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC** - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/05/09 at 08:59:57

TSR Signing Reports: 151  
R3 - Rush: Two Day

Sample: L390245-01 Account: XTORCO Received: 02/27/09 09:00 Due Date: 03/03/09 00:00 RPT Date: 03/03/09 15:16

Company Name/Address XTO Energy 4927 County Road 5 Rifle, CO 81650				Alternate Billing Report to: Jessica Dooling E-mail to: jessica_dooling@xtoenergy.com				Analysis/Container/Preservative PH, SPCON, TDS (1) 500 ml HDPE - No Pres AIKCA, AIKBA, Sulfate (1) 500ml HDPE - No Pres Metals: Ca, Mg, Na (1) 250ml HDPE - No Pres BTEX (2) 40ml amb-hcl				Chain of Custody Page ___ of ___  E136 Prepared by:  ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859				
Project Description: Produced Water				Client Project No. Fed 15-96-9-11				Lab Project #				CoCode (lab use only)				
PHONE: (970)878-6800 (870)878-6845		FAX:		Site/Facility ID: Fed 15-96-9-11				P.O.#				XTORCO Template/Prelogin				
Collected by: 		Rush? (Lab MUST be Notified) <input type="checkbox"/> Same Day.....200% <input type="checkbox"/> Next Day.....100% <input checked="" type="checkbox"/> Two Day.....50%		Date Results Needed				No of Cntrs				Shipped Via: Denver Service Center				
Collected by (signature): 		Email? <input type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		Date				Time				Remarks/contaminant				
Packed on Ice N <input checked="" type="checkbox"/>												Sample # (lab only)				
Sample ID		Comp/Grab	Matrix	Depth	Date	Time	Cntrs	PH	SPCON	TDS	(1)	500 ml	HDPE	- No Pres	100°F	L390245-01
Fed 15-96-9-11		Grab	WW	NA	2/25/09	3:15	5	1	1	1	2					
Matrix SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT-Other _____																
Remarks: Shipped via Fedex 9609 7442 4838																
Relinquisher by: (Signature) 		Date: 2/26/09	Time: 9:30	Received by: (Signature) 				Samples returned via: FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____				Condition (lab use only)				
Relinquisher by: (Signature)		Date:	Time:	Received by: (Signature)				Temp: 2.7°C		Bottles Received: 5 + 1 + b		COCSE 				
Relinquisher by: (Signature)		Date:	Time:	Received for lab by: (Signature) 				Date: 2-27-09		Time: 0900		pH Checked: NCF:				



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Tax I.D. 62-0814289  
Est. 1970

Jessica Dooling  
XTO Energy - Piceance Basin Field Office  
4927 County Road 5  
Rifle, CO 81650

**Report Summary**

Thursday March 05, 2009

Report Number: L390255

Samples Received: 02/27/09

Client Project: FED 2S-95-15-22

Description: Produced Water

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
John D. Blackman, ESC Representative

**Laboratory Certification Numbers**

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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in laboratory standard operating procedures: 060302, 060303, and 060304.



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**REPORT OF ANALYSIS**

Jessica Dooling  
XTO Energy - Piceance Basin Field O  
4927 County Road 5  
Rifle, CO 81650

March 05, 2009

Date Received : February 27, 2009  
Description : Produced Water  
Sample ID : FED 2S-95-15-22  
Collected By : Jes Dooling  
Collection Date : 02/25/09 13:00

ESC Sample # : L390255-01  
Site ID : FED 2S-95-15-22  
Project # : FED 2S-95-15-22

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Temperature (on-site)	100		Deg. F			
Sulfate	43.	5.0	mg/l	300.0	02/27/09	1
Alkalinity, Bicarbonate	1500	10.	mg/l	310.2	03/02/09	1
Alkalinity, Carbonate	BDL	10.	mg/l	310.2	03/02/09	1
pH	7.0		su	4500H-B	02/28/09	1
Specific Conductance	21000		umhos/cm	120.1	03/01/09	1
Dissolved Solids	13000	10.	mg/l	2540C	03/03/09	1
Calcium, Dissolved	110	0.50	mg/l	200.7	03/02/09	1
Magnesium, Dissolved	8.7	0.10	mg/l	200.7	03/02/09	1
Sodium, Dissolved	4500	2.5	mg/l	200.7	03/02/09	5
Benzene	7.5	0.050	mg/l	8021B	02/27/09	100
Toluene	13.	0.50	mg/l	8021B	02/27/09	100
Ethylbenzene	0.84	0.050	mg/l	8021B	02/27/09	100
Total Xylene	9.9	0.15	mg/l	8021B	02/27/09	100
Surrogate Recovery(%) a,a,a-Trifluorotoluene(PID)	97.4		% Rec.	8021B	02/27/09	100

BDL - Below Detection Limit  
Det. Limit - Practical Quantitation Limit(PQL)  
Note:

The reported analytical results relate only to the sample submitted.  
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 03/03/09 15:16 Revised: 03/05/09 09:00  
L390255-01 (PH) - 7.0@18.7c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390255-01	WG409723	SAMP	pH	R655770	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

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- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/05/09 at 09:00:00

TSR Signing Reports: 151  
R3 - Rush: Two Day

Sample: L390255-01 Account: XTORCO Received: 02/27/09 09:00 Due Date: 03/03/09 00:00 RPT Date: 03/03/09 15:16

<b>Company Name/Address</b> XTO Energy 4927 County Road 5 Rifle, CO 81650			<b>Alternate Billing</b>  Report to: Jessica Dooling E-mail to: jessica_dooling@xtoenergy.com			<b>Analysis/Container/Preservative</b> PH, SPCON, TDS (1) 500 ml HDPE - No Pres AlkCA, AlkBA, Sulfate (1) 500ml HDPE - No Pres Metals: Ca, Mg, Na (1) 250ml HDPE - No Pres BTEX (2) 40ml amb-hcl				<b>Chain of Custody</b> Page ___ of ___  <b>E001</b>  Prepared by: <b>ENVIRONMENTAL Science corp</b> 12065 Lebanon Road Mt. Juliet TN 37122  Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859		
<b>Project Description:</b> Produced water												
PHONE: (970)878-6800 (970)878-6845	FAX:	<b>Client Project No.</b> Fed 25-45-15-22		<b>Lab Project #</b>								
<b>Collected by:</b> Jess Dooling	<b>Site/Facility ID#</b> Fed 25-45-15-22	<b>P.O.#</b>										
<b>Collected by (signature):</b> 	<b>Rush?</b> (Lab MUST be Notified) <input type="checkbox"/> Same Day.....200% <input type="checkbox"/> Next Day.....100% <input checked="" type="checkbox"/> Two Day.....50%	<b>Date Results Needed</b> Email? <input type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes		No of Cntrs						CoCode (lab use only) XTORCO Template/Prelogin  Shipped Via: Denver Service Center		
Packed on ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/> X										Remarks/contaminant 100°F	Sample # (lab only) 1390255-01	
<b>Sample ID</b>	<b>Comp/Grab</b>	<b>Matrix</b>	<b>Depth</b>	<b>Date</b>	<b>Time</b>	<b>Cntrs</b>						
Fed 25-45-15-22	Grab	WW	NA	2/25/09	1:00	5	1	1	1	2		
<b>Matrix:</b> SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT-Other _____											pH _____	Temp 100°F
<b>Remarks:</b> Shipped via Fedex 9609 7430 8910											Flow _____	Other _____
<b>Relinquisher by (Signature)</b> 	<b>Date:</b> 2/26/09	<b>Time:</b> 9:30	<b>Received by (Signature)</b> 	<b>Samples returned via:</b> FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Other _____	<b>Condition</b> (lab use only) CoCsI							
<b>Relinquisher by (Signature)</b>	<b>Date:</b>	<b>Time:</b>	<b>Received by (Signature)</b>	<b>Temp:</b> 4.1°C	<b>Bottles Received:</b> 5 + 1 tb							
<b>Relinquisher by (Signature)</b>	<b>Date:</b>	<b>Time:</b>	<b>Received for lab by (Signature)</b> Chris Jones	<b>Date:</b> 2-27-09	<b>Time:</b> 0900	<b>pH Checked:</b>	<b>NCF:</b>					



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Est. 1970

Jessica Dooling  
XTO Energy - Piceance Basin Field Office  
4927 County Road 5

Rifle, CO 81650

Report Summary

Thursday March 05, 2009

Report Number: L390230

Samples Received: 02/27/09

Client Project: FED 2S-95-16-33

Description: Produced Water

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
John D. Blackman, ESC Representative

**Laboratory Certification Numbers**

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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Where applicable, sampling conducted by ESC is performed per guidance provided  
in laboratory standard operating procedures: 060302, 060303, and 060304.

1 Samples Reported: 03/03/09 15:16 Revised: 03/05/09 08:59

Page 1 of 4



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REPORT OF ANALYSIS

Jessica Dooling  
XTO Energy - Piceance Basin Field O  
4927 County Road 5  
Rifle, CO 81650

March 05, 2009

Date Received : February 27, 2009  
Description : Produced Water  
Sample ID : FED 2S-95-16-33  
Collected By : Jes Dooling  
Collection Date : 02/25/09 13:25

ESC Sample # : L390230-01

Site ID : FED 2S-95-16-33

Project # : FED 2S-95-16-33

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Temperature (on-site)	50		Deg. F			
Sulfate	25.	25.	mg/l	300.0	02/27/09	5
Alkalinity, Bicarbonate	1500	10.	mg/l	310.2	03/02/09	1
Alkalinity, Carbonate	BDL	10.	mg/l	310.2	03/02/09	1
pH	7.0		su	4500H-B	02/28/09	1
Specific Conductance	21000		umhos/cm	120.1	03/01/09	1
Dissolved Solids	14000	10.	mg/l	2540C	03/03/09	1
Calcium, Dissolved	140	0.50	mg/l	200.7	03/02/09	1
Magnesium, Dissolved	13.	0.10	mg/l	200.7	03/02/09	1
Sodium, Dissolved	4200	2.5	mg/l	200.7	03/02/09	5
Benzene	26.	0.50	mg/l	8021B	02/27/09	1000
Toluene	54.	5.0	mg/l	8021B	02/27/09	1000
Ethylbenzene	4.4	0.50	mg/l	8021B	02/27/09	1000
Total Xylene	49.	1.5	mg/l	8021B	02/27/09	1000
Surrogate Recovery(%)						
a, a, a-Trifluorotoluene (PID)	98.8		% Rec.	8021B	02/27/09	1000

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 03/03/09 15:16 Revised: 03/05/09 08:59  
L390230-01 (PH) - 7.0@18.7c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390230-01	WG409723	SAMP	pH	R655770	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

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- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed  
03/05/09 at 08:59:50

TSR Signing Reports: 151  
R3 - Rush: Two Day

Sample: L390230-01 Account: XTORCO Received: 02/27/09 09:00 Due Date: 03/03/09 00:00 RPT Date: 03/03/09 15:16



# ENVIRONMENTAL SCIENCE CORP.

## SAMPLE NON-CONFORMANCE FORM

Sample No. : L340230

Date: 2/27/09

Evaluated by: Matt S.

Client: XTORCO

### Non-Conformance (check applicable items)

- |                                     |  |                                     |   |
|-------------------------------------|--|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Chain of Custody is missing                          | <input checked="" type="checkbox"/> | Login Clarification Needed  |
| <input type="checkbox"/>            | Improper container type                              | <input type="checkbox"/>            | Improper preservation   |
| <input type="checkbox"/>            | Chain of custody is incomplete                       | <input type="checkbox"/>            | Container lid not in tact   |
| <input type="checkbox"/>            | Parameter(s) past holding time                       | <input type="checkbox"/>            | Improper temperature  |
| <input type="checkbox"/>            | Broken container(s) <b>see below</b>                 | <input type="checkbox"/>            | Broken container: sufficient sample volume remains for analysis requested |
| <input type="checkbox"/>            | Insufficient packing material around container       |                                     |   |
| <input type="checkbox"/>            | Insufficient packing material inside cooler          |                                     |   |
| <input type="checkbox"/>            | Improper handling by carrier (FedEx / UPS / Courier) |                                     |   |
| <input type="checkbox"/>            | Sample was frozen                                    |                                     |   |

Comments: Does Client want total or dissolved metals.

Login Instructions:

TSR Initials: MS

Client informed by call / email / fax / voice mail date: \_\_\_\_\_ time: \_\_\_\_\_

Client contact: Dissolved Metals



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Est. 1970

Jessica Dooling  
XTO Energy - Piceance Basin Field Office  
4927 County Road 5

Rifle, CO 81650

Report Summary

Tuesday March 03, 2009

Report Number: L390240

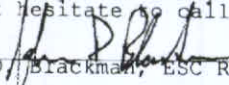
Samples Received: 02/27/09

Client Project: FED 2S-95-15-42

Description: Produced Water

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

  
John D. Blackman, ESC Representative

**Laboratory Certification Numbers**

AZLA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487  
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140  
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

Jessica Dooling  
XTO Energy - Piceance Basin Field O  
4927 County Road 5  
Rifle, CO 81650

March 03, 2009

Date Received : February 27, 2009  
Description : Produced Water  
Sample ID : FED 2S-95-15-42  
Collected By : Jes Dooling  
Collection Date : 02/25/09 13:10

ESC Sample # : L390240-01

Site ID : FED 2S-95-15-42

Project # : FED 2S-95-15-42

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sulfate	BDL	5.0	mg/l	300.0	02/27/09	1
Alkalinity, Bicarbonate	1200	10.	mg/l	310.2	03/02/09	1
Alkalinity, Carbonate	BDL	10.	mg/l	310.2	03/02/09	1
pH	6.6		su	4500H-B	02/28/09	1
Specific Conductance	22000		umhos/cm	120.1	03/01/09	1
Dissolved Solids	14000	10.	mg/l	2540C	03/03/09	1
Calcium, Dissolved	120	0.50	mg/l	200.7	03/02/09	1
Magnesium, Dissolved	12.	0.10	mg/l	200.7	03/02/09	1
Sodium, Dissolved	5000	2.5	mg/l	200.7	03/02/09	5
Benzene	16.	0.12	mg/l	8021B	02/27/09	250
Toluene	20.	1.2	mg/l	8021B	02/27/09	250
Ethylbenzene	0.42	0.12	mg/l	8021B	02/27/09	250
Total Xylene	5.8	0.38	mg/l	8021B	02/27/09	250
Surrogate Recovery (%)						
a, a, a-Trifluorotoluene (PID)	98.0		% Rec.	8021B	02/27/09	250

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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Reported: 03/03/09 15:16 Printed: 03/03/09 15:16

L390240-01 (PH) - 6.6@18.5c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L390240-01	WG409723	SAMP	pH	R655770	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

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Summary of Remarks For Samples Printed  
03/03/09 at 15:16:41

TSR Signing Reports: 151  
R3 - Rush: Two Day

Sample: L390240-01 Account: XTORCO Received: 02/27/09 09:00 Due Date: 03/03/09 00:00 RPT Date: 03/03/09 15:16



State of Colorado  
**Oil and Gas Conservation Commission**



FOR OGCC USE ONLY

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

**DRILL SITE/ACCESS ROAD RECLAMATION FORM**

This form shall be submitted in duplicate with the application for permit-to-drill (OGCC Form 2) unless a Federal 13-point surface plan is included. Also required are a minimum of two photographs (site and access road). Soil and plant community information is from United States Natural Resources Conservation Services (USNRCS).

1. OGCC Operator Number: <u>100264</u>		4. Contact Name and Telephone: <u>KELLY SMALL</u>		Complete the Attachment Checklist	
2. Name of Operator: <u>XTO ENERGY INC.</u>		No: <u>(505) 333-3145</u>			
3. Address: <u>382 ROAD 3100</u>		Fax: <u>(505) 213-0546</u>		Drill site and access photographs	<input checked="" type="checkbox"/>
City: <u>AZTEC</u> State: <u>NM</u> Zip: <u>87410</u>		5. Well Name and No.: <u>FEDERAL 2S-95-16-33DP</u>		COE Section 404 documentation	<input type="checkbox"/>
6. County: <u>RIO BLANCO</u>		7. Location (QtrQtr, Sec, Twp, Rng, Meridian): <u>NWSE 16 - 2S - 95W 6TH P.M.</u>			<input type="checkbox"/>

**Pre-Drilling Information**  
**Current Land Use**

8. Crop Land:  Irrigated  Dry Land  Improved Pasture  Hay Meadow  CRP

9. Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_

10. Subdivided:  Industrial  Commercial  Residential

Attach color photographs of drill site and access road; identify each photo by date, well name and location.

**Soils**

11. Soil map units from USNRCS survey: Sheet No: WSS Soil Complex/Series No: 42

Soils Series Name: Irigul Channery Loam Horizon thickness (in inches): A: 0-5" ; B: 5-12" ; C: 12-16"

Soils Series Name: \_\_\_\_\_ Horizon thickness (in inches): A: \_\_\_\_\_ ; B: \_\_\_\_\_ ; C: \_\_\_\_\_

**Plant Community**

Complete this section only if operations are to be conducted upon non-crop land.

12. Plant species from:  USNRCS or  Field Observation Date of observation: \_\_\_\_\_

List individual species: Beardless Wheatgrass, Western Wheatgrass, Serviceberry, Big Sagebrush, Low Rabbitbrush

13. Check one predominant plant community for the drill site:

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye, Thistle)
- Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub and Brush Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Deciduous Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Conifer Riparian (Spruce, Fir, Ponderosa Pine)
- Evergreen Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon)
- Aquatic (Bullrush, Sedges, Cattail, Arrowhead)
- Tundra (Alpine, Willow, Currant, Raspberry)
- Other (describe): \_\_\_\_\_

14. Was an Army Corps of Engineers Section 404 Permit filed?  Yes  No If yes, attach appropriate documentation.

Comments:

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I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions which presently exist, that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Kelly K. Small

Signed: *Kelly K. Small* Title: Regulatory Compliance Date: 03/11/2009