#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ase Notifi	catio	n and Co	orrective A	ction	1			
			Itere			OPERA'				al Report	$\boxtimes$	Final Repor
Name of Co	mnany: X	TO Energy,	Inc			Contact: Ku				ui itopoit		r mur repor
		00, Aztec, N		co 87410			No.: (505) 333-3	3100				
		tain Ute Gas					e: Gas Well (Pa					
Sumface Ou	man Triba	l Trust or Inc	lion	Mineral	2				ADING	.: 30-045-2	00965	
Allotment	ner: Triba	I I rust or Inc	llan	Mineral	Jwner				APING	).: 30-043-2	29803	
				LOC	ATIO	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North	rth/South Line Feet from the East/West Line County						
А	10	32N	14W	655	F	FNL	520	F	FEL	San Juan		
Latitude 36.92082							ude -108.28873					
				NAT	<b>FURE</b>	OF REL	EASE					
Type of Release: Produced Water							Release: 5 BBL'			Recovered: 4		
Source of Release: Pit Tank						Date and F Time: Unk	lour of Occurrenc	e:		Hour of Dis 8 9:30 am.	covery	:
Was Immediate Notice Given?						If YES, To	Whom?					
☐ Yes ⊠ No ☐ Not Require By Whom? N/A						Date and H	lour:					
Was a Water		ched?					olume Impacting t	the Wate	ercourse.			* '123000000000000
			Yes 🛛	No			1 0			N	MOCI	)
If a Watercou	urse was Im	pacted, Descr	ibe Fully.*							MAD	26	2018
cellar on the tank. The sp for the Rem feet, greater	e Mountair oill was con ediation o than 1000	n Ute Gas Co ntained with f Leaks, Spil	om N # 1 in the woo ls and Re water sou	location. A way od cellar and no leases. The site prce, and distan	ter truck ever left was ra	k was dispate t location. T nked a 10 du	an XTO produc ched & recovere he site was then ie to an estimate 00 feet to 1000	ed 4 bar ranked ed dept	rels of pro l according h to groun	oduced wat g to the NM dwater of g	er outs 10CD greater	de of the Guidelines than 100
sample was c cellar, no fur	collected fro ther action i	om the below g is required.	grade tank	cellar, the result	s were b	elow standard	ed on an integrity s for this site. A r knowledge and u	registere	d below gr	ade tank wil	l be pla	ce in the
regulations a public health should their o or the environ	Il operators or the environment operations h nment. In a	are required to ronment. The nave failed to a	acceptance acceptance adequately OCD accept	d/or file certain e of a C-141 rep investigate and	release n ort by th remediat	otifications and e NMOCD m e contaminati	and perform correct arked as "Initial F on that pose a thr e the operator of the	ctive act Report" eat to gr	ions for rel does not re ound water	eases which lieve the ope r, surface wa	may er erator o iter, hui	ndanger f liability man health
		0 0					OIL CON	SERV	ATION	DIVISIC	DN	1
	Kuit Hoe	titu							/	7		/ /
Signature: /	min Noe	anne				Approved by	Environmental S	pecialist	t: / m	-e	V	- ()
Printed Name	e: Kurt Hoe	kstra							C	F	R	X
Title: EHS C	oordinator					Approval Dat	e: 3/30/19	5	Expiration	Date:		
E-mail Addre	ess: Kurt_H	oekstra@xtoe	nergy.com			Conditions of	/ / /			Attached		
Date: 3-20-20	018	Pł	none: 505-3	333-3100				-				
Attach Addi					10	60.1	TTI					
				TIN	2190	189 41	0558					



ANALYTICAL REPORT



### **XTO Energy - San Juan Division**

Sample Delivery Group: Samples Received: Project Number: Description: Site: Report To:

L974596 03/03/2018 30-045-29865 Mountain Ute GC N#1 **MOUNTAIN UTE GC N#1** Kurt Hoekstra 382 County Road 3100 Aztec, NM 87410

Entire Report Reviewed By: Naphne R Richardf

**Daphne Richards Technical Service Representative** 

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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Тc

Ss

Cn

Sr

Qc

GI

AI

Sc

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# SAMPLE SUMMARY

#### ONE LAB. NATIONWIDE.

MTN UTE GC N#1 L974596-01 Solid			Collected by Kurt Hoekstra	Collected date/time 03/02/18 12:15	Received date/time 03/03/18 08:45
Method	Batch	Dilution	Preparation	Analysis	Analyst
			date/time	date/time	
Total Solids by Method 2540 G-2011	WG1082552	1	03/09/18 14:30	03/09/18 14:42	JD
Wet Chemistry by Method 9056A	WG1080320	1	03/05/18 14:47	03/05/18 19:17	MAJ
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1080524	25	03/03/18 16:46	03/05/18 18:06	BMB
Volatile Organic Compounds (GC) by Method 8021B	WG1080816	1	03/03/18 16:46	03/06/18 17:42	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1082350	5	03/08/18 11:41	03/09/18 17:06	DMW

Ss Cn ۶r Qc 'GI A Sc

ACCOUNT: XTO Energy - San Juan Division

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## CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

laplime R Richards

Daphne Richards Technical Service Representative

Ср Tc Ss Cn Śr Qc GI A Sc

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### MTN UTE GC N#1

Chloride

#### Collected date/time: 03/02/18 12:15

# SAMPLE RESULTS - 01

Sr

#### Total Solids by Method 2540 G-2011

	vietnoù 2040 0-20	/11		_			 1 cm
	Result	Qualifier	Dilution	Analysis	Batch		Ср
Analyte	%			date / time			<u> </u>
Total Solids	83.7	a y nyakita ya shika ka k	1	03/09/2018 14:42	WG1082552		Тс
Wet Chemistry b	by Method 9056A						<sup>3</sup> Ss
· · · · · · · · · · · · · · · · · · ·	Result (dry)	Qualifier	RDL (d	lry) Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		<sup>⁴</sup> Cn
Chlorido	83.9		11 Q	1	03/05/2018 19:17	WG1080320	

03/05/2018 19:17

WG1080320

#### Volatile Organic Compounds (GC) by Method 8015D/8021B/GRO

83.9

	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch	
Analyte	mg/kg		mg/kg		date / time		°Qc
Benzene	0.00424		0.000597	1	03/06/2018 17:42	WG1080816	
TPH (GC/FID) Low Fraction	11.6		2.99	25	03/05/2018 18:06	WG1080524	<sup>7</sup> GI
Toluene	0.00836		0.00597	1	03/06/2018 17:42	WG1080816	0
Ethylbenzene	0.00224	B	0.000597	1	03/06/2018 17:42	WG1080816	3
Total Xylene	0.0292		0.00179	1	03/06/2018 17:42	WG1080816	ĬΑΪ
(S) a,a,a-Trifluorotoluene(FID)	<b>98.7</b>		77.0-120		03/05/2018 18:06	WG1080524	
(S) a,a,a-Trifluorotoluene(PID)	98.4		75.0-128		03/06/2018 17:42	WG1080816	ືsc

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11.9

#### Semi-Volatile Organic Compounds (GC) by Method 8015

	Result (dry)	<u>Qualifier</u>	RDL (dry)	Dilution	Analysis	Batch
Analyte	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	603	<u>73 A</u>	23.9	5	03/09/2018 17:06	WG1082350
C28-C40 Oil Range	ND		23.9	5	03/09/2018 17:06	WG1082350
(S) o-Terphenyl	99.0		18.0-148		03/09/2018 17:06	WG1082350

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WG10825 Total Solids by M		11		Q	UALIT	Y CONTROL SUMMARY	ONE LAB. NATIONWIDE.	×
Method Blank	(MB)							10
(MB) R3292138-1 03	09/18 14:42					· · · · · ·		Ċ
	MB Result	MB Qualifier	MB MDL	MB ROL				<sup>2</sup> T
Analyte	%		%	*				11
Total Solids	0.00100							3
								<sup>3</sup> S
L974572-05 C	riginal Sample	(OS) • Dup	olicate (l	OUP)				
(OS) L974572-05 0	3/09/18 14:42 • (DUP)	) R3292138-3	03/09/18 1	4:42				l'ci
	Original Result	DUP Result	Othrtion	DUP RPD D	UP Qualifier	DUP RPD Limits		<sup>5</sup> Sr
Analyte	%	%		%		%		Sr
Total Solids	90.6	91.2	1	0.623		5		£,
								<i>°</i> 0
Laboratory Co	ntrol Sample (L	CS)						<sup>7</sup> GI
(LCS) R3292138-2 C								G
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qua	ither		ĉ.,,
Analyte	%	%	%	%				۴AI
Total Solids	50.0	50.0	100	85.0-115			· ·	9
								Sc

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ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
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	320 by Method 9056A			ł	QUALIT	Y CONTR 1974590		UMMA	RY				ONE	LAB. NATIONWIDE.	×
Method Blank	(MB)														<b>6</b>
(MB) R3290768-1 (															Ċ
	MB Result	MB Qualifier	M8 MDL	MB RDL											
Analyte	mg/kg		mg/kg	mg/kg											ľΤ
Chloride	1,57	ī	0.795	10.0											ľs
L974655-02 (	Original Sample	(OS) • Dup	licate (D	JP)											
(OS) L974655-02 (	03/05/18 19:34 • (DUP	) R3290768-4	03/05/18 19	42											ſc
	Original Result (dry)	t DUP Result (dry)	Dilution I	XUP RPD	DUP Qualifier	DUP RPD Limits									l's
Analyte	mg/kg	mg/kg		6		%									Ľ
Chloride	1270	1070	1 1	6.5	<u>13</u>	15									°C
L974687-01 O	riginal Sample (	OS) • Dupli	icate (DU	P)											ľ6
OS) L974687-01 0	3/06/18 00:26 • (DUP)	) R3290768-8	03/06/18 00	:35											
	Original Result	DUP Result	Dilution (	UP RPD	DUP Qualifier	DUP RPD Limits									Î A
Analyte	mg/kg	mg/kg	9	6		%									L
Chloride	1540	1600	5 3	.80		15									°s
Chloride		1600 CS) • Labor SD) 83290768-	5 s	ntrol Sar	<u> </u>	15 ate (LCSD)	LCS Qual	ther LCSD Q		RPD %	RPD Limit %	 			<sup>°</sup> s
Chloride Laboratory Cc (LCS) R3290768-2	1540 ontrol Sample (L 03/05/18 18:43 • (LCS Spike Amount	1600 CS) • Labor 5D) R3290768- LCS Result	5 3 ratory Co 3 03/05/18 LCSD Resul	ntrol Sar 18:51	LCSD Rea	15 ate (LCSD)	LCS Qua	ther LCSD Q				5			
Chloride Laboratory Cc (LCS) R3290768-2 Analyte Chloride L974668-06 ( (OS) L974668-06 (	1540 Dentrol Sample (L- 03/05/18 18:43 • (LCS Spike Amount mg/kg 200 Driginal Sample 03/05/18 20:51 • (MS) Spike Amount (dry)	1600 CS) • Labor SD) R3290768- LCS Result mg/kg 198 (OS) • Matr R3290768-5 C Original Result (dry)	5 2 ratory Cc 3 03/05/18 LCSD Result mg/kg 197 rix Spike 03/05/18 20: MS Result (	.80 Introl Sar 18:51 : LCS Rec. % 98.8 (MS) • Mi 59 • (MSD) Res (MS) Res (MS) Res	LCSD Rec. % 98.6 etrix Spike ?3290768-6 0: auft MS Rec.	15 		Rec. Limits		*	%	RPD	RPD Limits	· · · · · · · · · · · · · · · · · · ·	"S
Chioride Laboratory Cc (LCS) R3290768-2 Analyte Chioride L974668-06 ( (OS) L974668-06 ( Analyte	1540 Dentrol Sample (L 03/05/18 18:43 • (LCS Spike Amount mg/kg 200 · Driginal Sample 03/05/18 20:51 • (MS) Spike Amount (dry) mg/kg	1600 CS) • Labor SD) R3290768- LCS Result mg/kg 198 (OS) • Matr R3290768-5 C Original Result (dry) mg/kg	5 catory Cc 3 03/05/18 LCSD Result mg/kg 197 rix Spike 03/05/18 20: MS Result ( mg/kg	.80 Introl Sar 18:51 1 LCS Rec. 5 98.8 (MS) • Mi 59 • (MSD) Res fry MSD Res fry MSD Res	LCSD Rec % 98.6 atrix Spike 73290768–6 00 auft MS Rec. %	15 	5D) Dilution	Rec. Limits		% 0.158	<u>%</u> 15	RPD %	%		
Chloride Laboratory Cc (LCS) R3290768-2 Analyte Chloride L974668-06 ( (OS) L974668-06 (	1540 Dentrol Sample (L- 03/05/18 18:43 • (LCS Spike Amount mg/kg 200 Driginal Sample 03/05/18 20:51 • (MS) Spike Amount (dry)	1600 CS) • Labor SD) R3290768- LCS Result mg/kg 198 (OS) • Matr R3290768-5 C Original Result (dry)	5 2 ratory Cc 3 03/05/18 LCSD Result mg/kg 197 rix Spike 03/05/18 20: MS Result (	.80 Introl Sar 18:51 : LCS Rec. % 98.8 (MS) • Mi 59 • (MSD) Res (MS) Res (MS) Res	LCSD Rec. % 98.6 etrix Spike ?3290768-6 0: auft MS Rec.	15 	5D)	Rec. Limits		% 0.158	<u>%</u> 15	RPD			
Chloride Laboratory Cc (LCS) R3290768-2 Analyte L974668-06 ( (OS) L974668-06 ( Analyte	1540 Dentrol Sample (L 03/05/18 18:43 • (LCS Spike Amount mg/kg 200 · Driginal Sample 03/05/18 20:51 • (MS) Spike Amount (dry) mg/kg	1600 CS) • Labor SD) R3290768- LCS Result mg/kg 198 (OS) • Matr R3290768-5 C Original Result (dry) mg/kg	5 catory Cc 3 03/05/18 LCSD Result mg/kg 197 rix Spike 03/05/18 20: MS Result ( mg/kg	.80 Introl Sar 18:51 1 LCS Rec. 5 98.8 (MS) • Mi 59 • (MSD) Res fry MSD Res fry MSD Res	LCSD Rec % 98.6 atrix Spike 73290768–6 00 auft MS Rec. %	15 	5D) Dilution	Rec. Limits		% 0.158	<u>%</u> 15	RPD %	%		
Chioride Laboratory Cc (LCS) R3290768-2 Analyte Chioride L974668-06 ( (OS) L974668-06 ( Analyte	1540 Dentrol Sample (L 03/05/18 18:43 • (LCS Spike Amount mg/kg 200 · Driginal Sample 03/05/18 20:51 • (MS) Spike Amount (dry) mg/kg	1600 CS) • Labor SD) R3290768- LCS Result mg/kg 198 (OS) • Matr R3290768-5 C Original Result (dry) mg/kg	5 catory Cc 3 03/05/18 LCSD Result mg/kg 197 rix Spike 03/05/18 20: MS Result ( mg/kg	.80 Introl Sar 18:51 1 LCS Rec. 5 98.8 (MS) • Mi 59 • (MSD) Res fry MSD Res fry MSD Res	LCSD Rec % 98.6 atrix Spike 73290768–6 00 auft MS Rec. %	15 	5D) Dilution	Rec. Limits		% 0.158	<u>%</u> 15	RPD %	%		

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#### WG1080524

QUALITY CONTROL SUMMARY L974596-01

ONE LAB. NATIONWIDE.

Volatile Organic Com	ipounds (GC)	by Method B	015D/GRO			1974596	-01				
Method Blank (ME	3)										6
(MB) R3291303-5 03/05	/18 12:52										 - Ср
	MB Result	MB Qualifier	MB MDL	MB RDL							²Tc
Analyte TPH (GC/FID) Low Fraction	mg/kg U		mg/kg 0.0217	mg/kg 0.100							 
(S) a,a,a-Trifiuorotoluene(FID)	t00		0.0217	77.0-120							³Ss
Laboratory Contro	ol Sample (L	CS) • Labo	ratory Con	trol Samp	le Duplicat	e (LCSD)					<sup>4</sup> Cn
(LCS) R3291303-3 03/05	5/18 11:43 • (LCSC	) R3291303-4	03/05/18 12:0	6		· · · ·					 - Sr
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD_Qualifier	RPD	RPD Limits	Sr
Analyte	mg/kg	mg/kg	mg/kg	*	%	%			8	%	 <sup>с</sup> Ос
TPH (GC/FID) Low Fraction	5.50	4.84	4.97	87.9	90.3	70.0-136			2.66	20	Oc
(S) a,a,o-Trifluoratoluene(FiD)				99.7	100	77.0-120					'GI
											°AI
											ືSc

ACCOUNT: XTO Energy - San Juan Division	PROJECT: 30-045-29865	SDG: L974596	DATE/TIME: 03/12/18 12:12	PAGE: B of 14

#### WG1080816

Volatile Organic Compounds (GC) by Method 80218

# QUALITY CONTROL SUMMARY

#### ONE LAB. NATIONWIDE.

Method Blank (ME	3)				្រ	Ċ	
(MB) R3291264-5 03/06	/18 11:46					Ľ	·
	MB Result	MB Qualifier	MB MDL	MB RDL	2	2	-
Analyte	mg/kg		mg/kg	mg/kg		٦,	
Benzene	0.000178	ī	0.000120	0.000500		_	
Totuene	0.000389	ĩ	0.000150	0.00500	. ja	3S	
Ethylbenzene	0.000212	ī	0.000110	0.000500	L L L L L L L L L L L L L L L L L L L	_	
Total Xylene	U		0.000460	0.00150	1	-	
(S) a,a,a-Trifluorotoluene(PiD)	105			75.0-128		¹c	
					S	ŝ	
						~	

#### Laboratory Control Sample (LCS) - Laboratory Control Sample Duplicate (LCSD)

(LCS) R3291264-1 03/	06/18 09:54 • (LCS	D) R3291264-	2 03/06/18 10:	17							
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits	
Anatyte	mgAcg	mg/kg	mg/kg	ъ	%	%			%	*6	
Benzene	0.0500	0.0522	0.0523	104	105	71.0-121			0.148	20	
Totuene	0.0500	0.0515	0.0508	103	102	72.0-120			1.37	20	
Ethylbenzene	0.0500	0.0507	0.0510	101	102	76.0-121			0.706	20	
Total Xylene	0.150	0.150	0.152	100	101	75.0-124			1.06	20	
(S) a,a,a-Trifluorotoluene(PID)	1			102	103	75.0-128					

#### L974613-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L974613-01 03/06/18 18:04 • (MS) R3291264-6 03/06/18 19:33 • (MSD) R3291264-7 03/06/18 19:55												
	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Anatyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Benzene	0.0500	0.000661	0.0108	0.0180	20.2	34.7	1	10.0-146		<u></u>	50.3	29
Toluene .	0.0500	ND	0.0282	0.0343	56.5	68.6	1	10.0-143			19.4	30
Ethylbenzene	0.0500	0.00726	0.0106	0.0126	6.60	10.8	1	10.0-147	<u>ət</u>		17.9	31
Total Xylene	0.150	0.0857	0.236	0.265	100	119	1	10.0-149	<u>J5 J6</u>	<u>J5 J6</u>	11.5	30
(S) a,a,a-Trifluorototuene(PID)					96.0	96.4		75.0-128				

ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
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WG1082350 Semi-Volatile Organ		(GC) by Met	thod 8015	QL	JALITY	L974596		UMMA	RY			0.12 0	AB. NATIONWIDE.	
Method Blank (M														F
(MB) R3292066-1 03/0	9/18 16:20		· · ·	· · · ·										ſ
	MB Result	MB Qualifier	MB MDL	MB ROL										1
Analyte	mg/kg		mg/kg	mg/kg						· <u>-</u> ·				ľ
C10-C28 Diesel Range	U		1.61	4.00								-		
C28-C40 Oil Range	U		0.274	4.00									•	ľ
(S) o-Terphenyl	97.5			18.0-148										L
_aboratory Contro	ol Samola (I J		ratony Cont	rol Samol	e Dunlicat									ľ
LCS) R3292066-2 03/0						e (EC30)								5
	Spike Amount	•	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qual	fler LCSD Q	lualifier RPD	RPD Limi	5			L
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	*				6
						50.0450			2.59	20				
C10-C28 Diesel Range	50.0	42.4	41.3	84.8	82.6	50.0-150			2.55	10				
(S) c-Terphenyl				96.9	95.5	18.0-148	וח		2.55	10				6
(5) o-Terphenyl _974596-01 Origi	inal Sample (	OS) ∙ Matri	x Spike (MS	96.9 S) • Matrix	95.5 Spike Dup	18.0-148 plicate (MSI	D)							7
(S) o-Terphenyl	inal Sample ( 1/18 17:06 • (MS) R	OS) ∙ Matri	x Spike (MS 3/09/18 17:21 • (	96.9 S) • Matrix	95.5 Spike Dup	18.0-148 plicate (MSI		Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits		7
(S) o-Terphenyl _974596-01 Origi OS) L974596-01 03/09	nal Sample ( 2/18 17:06 - (MS) R Spike Amount	OS) • Matri 3292066-4 03 Onginal Result	x Spike (MS 3/09/18 17:21 - (1	96.9 S) • Matrix MSD) R32920 MSD Result	95.5 Spike Dup 066-5 03/09/1	18.0-148 plicate (MSI 18 17:35		Rec. Limits			RPD %	RPD Limits %		7 [3 [3
(S) o-Terphenyl L974596-01 Origi (OS) L974596-01 03/09 Analyte	inal Sample ( 1/18 17:06 - (MS) R Spike Amount (dry)	OS) • Matri 3292066-4 03 Onginal Result (dry)	x Spike (MS 3/09/18 17:21 • (1 MS Result (dry)	96.9 S) • Matrix MSD) R3292( MSD Result (dry)	95.5 Spike Dut 066-5 03/09/1 MS Rec.	18.0-148 plicate (MSI 18 17:35 MSD Rec.								
Cl0-C28 Diesel Range (S) o-Terphenyl L974596-O1 Origi (OS) L974596-O1 O3/09 Analyte Cl0-C28 Diesel Range (S) o-Terphenyl	inal Sample ( 1718 17:06 - (MS) R Spike Amount (dry) mg/kg	OS) • Matri 3292066-4 03 Onginal Result (dry) mg/kg	x Spike (MS 3/09/18 17:21 • (1 MS Result (dry) mg/kg	96.9 S) • Matrix MSD) R32920 MSD Result (dry) mg/kg	95.5 Spike Dup 066-5 03/09/1 MS Rec. %	18.0-148 plicate (MSI 18 17:35 MSD Rec. %	Dilution	%	<u>MS Qualifier</u>	MSD Qualifier	%	96		
(S) o-Terphenyl L974596-01 Origi (OS) L974596-01 03/09 Analyte C10-C28 Diesel Range	inal Sample ( 1718 17:06 - (MS) R Spike Amount (dry) mg/kg	OS) • Matri 3292066-4 03 Onginal Result (dry) mg/kg	x Spike (MS 3/09/18 17:21 • (1 MS Result (dry) mg/kg	96.9 S) • Matrix MSD) R32920 MSD Result (dry) mg/kg	95.5 Spike Dup 266-5 03/09/1 MS Rec. % 161	18.0-148 plicate (MSI 18 17:35 MSD Rec. % 0.000	Dilution	% 50.0-150	<u>MS Qualifier</u>	MSD Qualifier	%	96		
(S) o-Terphenyl L974596-01 Origi (OS) L974596-01 03/09 Analyte C10-C28 Diesel Range	inal Sample ( 1718 17:06 - (MS) R Spike Amount (dry) mg/kg	OS) • Matri 3292066-4 03 Onginal Result (dry) mg/kg	x Spike (MS 3/09/18 17:21 • (1 MS Result (dry) mg/kg	96.9 S) • Matrix MSD) R32920 MSD Result (dry) mg/kg	95.5 Spike Dup 266-5 03/09/1 MS Rec. % 161	18.0-148 plicate (MSI 18 17:35 MSD Rec. % 0.000	Dilution	% 50.0-150	<u>MS Qualifier</u>	MSD Qualifier	%	96		7
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# **GLOSSARY OF TERMS**

Ср

Τc

Ss

Cn

Sr

'Qc

GI

AI

Sc

#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

#### Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL. (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
В	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
v	The sample concentration is too high to evaluate accurate spike recoveries.

ACCOUNT:
XTO Energy - San Juan Division

PROJECT: 30-045-29865

SDG: L974596

DATE/TIME: 03/12/18 12:12

# **ACCREDITATIONS & LOCATIONS**

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE. • Not all certifications held by the laboratory are applicable to the results reported in the attached report. • Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

#### State Accreditations

	10000
Alabama	40660
Alaska	17-026
Artzona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia 1	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
lowa	364
Kansas	E-10277
Kentucky <sup>16</sup>	90010
Kentucky <sup>2</sup>	16
Louisiana	AI30792
Louisiana 1	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey-NELAP	TN002
New Mexico 1	n/a
New York	11742
North Carolina	Env375
North Carolina 1	DW21704
North Carolina <sup>3</sup>	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T 104704245-17-14
Texas <sup>6</sup>	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

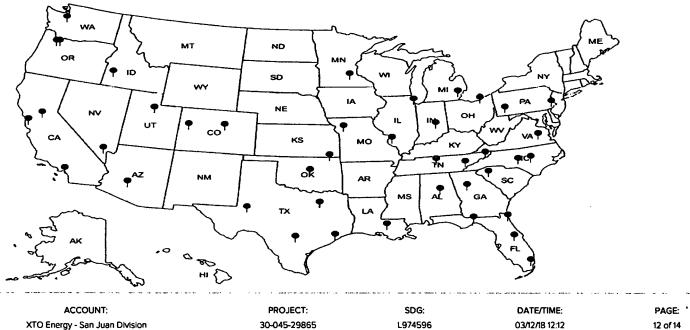
#### Third Party Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA - ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>1</sup>Drinking Water <sup>2</sup>Underground Storage Tanks <sup>3</sup>Aquatic Toxicity <sup>4</sup>Chemical/Microbiological <sup>5</sup>Mold <sup>6</sup>Wastewater n/a Accreditation not applicable

#### **Our Locations**

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. ESC Lab Sciences performs all testing at our central laboratory.





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E N E R G Y Western Division					I Results to:							Office Abbreviation	
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Cooler Received/Opened On: 3/3 /18	Temperature:	20	1010
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Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?	```		
Correct bottles used?			
Sufficient volume sent?			
If Applicable		114	
VOA Zero headspace?		-	T

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