Form 3160-5 (August 2007)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an

JIC154 6. If Indian, Allottee or Tribe Name

5. Lease Serial No.

abandoned well. Use f	JICARILLA APACHE				
SUBMIT IN TRIPLICATE	7. If Unit or CA/Agreement, Name and/or No				
Type of Well	· · · · · · · · · · · · · · · · · · ·	Well Name and No.     JICARILLA APACHE 14G			
Name of Operator     XTO ENERGY INC	Contact: KRISTEN LYNCH	9. API Well No. 30-039-29658-00-C1			
3a. Address 382 ROAD 3100 AZTEC, NM 87410	3b. Phone No. (include area code) Ph: 505.333.3206	10. Field and Pool, or Exploratory BASIN DAKOTA BLANCO MESAVERDE			
<ol> <li>Location of Well (Footage, Sec., T., R., M., o. Sec 34 T26N R5W NESW 2140FSL 2: 36.441803 N Lat, 107.349733 W Lon</li> </ol>	11. County or Parish, and State RIO ARRIBA COUNTY, NM				
12. CHECK APPROPRIA	TE BOX(ES) TO INDICATE NATURE OF NOTIC	CE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION				

3 -	TYPE OF SUBMISSION
,	Notice of Intent     ■
016	☐ Subsequent Report
1000	☐ Final Abandonment Notice

TYPE OF ACTION	
☐ Production (Start/Resume)	☐ Water Shut-Off

☐ Acidize □ Deepen □ Production (Start/Resume) ☐ Alter Casing ☐ Fracture Treat □ Reclamation

Casing Repair ■ New Construction ■ Recomplete □ Plug and Abandon ☐ Change Plans ☐ Temporarily Abandon

☐ Convert to Injection ☐ Plug Back ■ Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

XTO Energy Inc. proposes to recomplete this well to the Basin Mancos formation per the attached procedure. Also attached is the WBD, Formation Tops, Mancos C-102 plat.

An application to DHC will be submitted separately. XTO Energy Inc, will obtain the DHC order before commingling.

OIL CONS. DIV DIST. 3 FEB 2 9 2016

■ Well Integrity

□ Other

14. I hereby certify that to	he foregoing is true and correct.  Electronic Submission #331400 verifie  For XTO ENERGY INC,  Committed to AFMSS for processing by WILLIA	sent to	the Rio Puerco	E)		
Name (Printed/Typed)	KRISTEN LYNCH	Title	REGULATORY COMPLIANCE TE	СН	270	
Signature	(Electronic Submission)	Date 02/11/2016				
	THIS SPACE FOR FEDERA	L OR	STATE OFFICE USE		ME MAN	
Approved By WILLIAN	TAMBEKOU	Title	PETROLEUM ENGINEER	/ 376	Date 02/24/2016	
certify that the applicant ho	ny, are attached. Approval of this notice does not warrant or ids legal or equitable title to those rights in the subject lease licant to conduct operations thereon.					

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.





# Jicarilla Apache #14G Sec. 34, T 26 N, R 5 W

# Rio Arriba County, New Mexico **Mancos Completion & Production Test**

January 4, 2016

AFE Number:

1507915

Spud Date:

4/22/2006

Surface Casing:

8-5/8", 24#, J-55 csg @ 374'. Cmt'd w/244 sxs. Circ cmt to surf.

**Production Casing:** 

5-1/2", 15.5#, J-55 csg @ 7,690'. Cmt'd 1ST stage w/40 sx prem lite cmt (lead) & 150 sx Type III cmt (tail). Circ cmt to surf. Cmt'd 2nd stage w/480 sx Type

III cmt (lead) & 150 sx Type III neat cmt (tail). Circ cmt to surf.

**Production Tubing:** 

221 jts 2-3/8" 4.7#, J-55, EUE 8rd tbg, SN & NC. SN @ 7,302'. EOT @ 7,303'.

Perforations:

Mesaverde: 5,131-5,341'

Dakota: 7,133' - 7,371'

PBTD:

7.643

Recent Production:

50 MCFPD, Trace BWPD, 0 BOPD

- Verify NOI and C-104 Test Allowable are submitted and approved. Check for any COA's.
- Set 1 400 bbl flowback tank and 7 400 bbl frac tanks. Have water heated so that the temperature is ±70 degrees F at frac time. Ensure hot oil truck is clean to avoid contamination of fresh water. Capture water sample from each tank in a clean container with no air. Deliver sample to XTO lab for bacteria analysis, Label each bottle with corresponding tank. Pre-treat 1 tank with Halliburton's Cla-Web before frac to circulate casing clean and BD perfs.
- 3. MI ±6,900' 3-1/2", 9.2#, N-80 NUE workstring.
- 4. MIRU PU. Review JSA. Initiate SOP's. Hold safety meeting.
- 5. ND WH. NU & FT BOP. TIH & tag for fill. TOH.
- PU & TIH 4-3/4" bit & string mill on 2-3/8" tubing to 7,133'. TOH & LD mill & bit.
- 7. TIH with 5-1/2" CBP & set @ 7,075'.
- 8. Circulate hole clean with treated fresh water with Cla-Web and PT casing to 550 psig. TOH tubing. RU WL, lubricator.
- 9. Perforate Lower Organic Mancos with a 3-1/8" Titan PPG-31112-321T charges or equivalent (1 JSPF, 120 deg phasing, 12 gm, .34" EHD, 22.4" pene, 14 holes). Reference previous open hole log dated 5/3/2006. RDMO WLU.

**Lower Organic Mancos Perforations:** 

PERF	CCL	PERF	CCL
7,037'	2.	7,007'	
7,033'		7,005'	
7,031'		6,991'	
7,022'		6,989'	
7,020'		6,975'	
7,016'	100	6,962'	
7,014'	1	6,959'	

- PU & TIH 5-1/2" Arrow-Set packer, 2 jts 2-7/8", N-80, XO & 3-1/2", 9.2#, N-80 NUE workstring. Set packer @ ±6,850'.
- 11. ND BOP & NU & 5-1/8" FE 10K frac valve. Ensure all surface equipment is compatible with a frac down 3-1/2", 9.3#, N-80 NUE workstring.
- 12. MIRU acid pump. BD perfs with treated fresh water with Cla-Web (max pressure is 8,000 psig). Switch to acid. Acidize Mancos perfs from 6,959' 7,037' with 1,500 gals 15% NEFE HCl acid with FE control, surfactant, CI additives & 20 7/8", 1.1 SG Green Bio balls. Flush 10 bbl past bottom perf with treated water @ ±5 BPM (60 bbls). Record ISIP and 5" SIP. Surge off ball sealers. RDMO acid equipment. SWI pending frac.
- 13. MIRU stimulation equipment. Hold Safety Meeting. Review JSA. Initiate SOP's. Frac the Lower Organic Mancos perfs from 6,959' 7,037' at 25 BPM with 70Q, N2 foamed, 25 lb XL gelled, 2% KCl water (Delta 200) carrying 75,000 lbs 20/40 Brady sand & 25,000 lbs 20/40 SLC sand) with 500 lbs of Baker ParaSorb and 125 lbs of Baker ScaleSorb evenly dispersed between sand stages. Have copy of MSDS for both products on location and ensure recommended safety protocols are followed. Switch to tub bypass when inline densitometer reads a 1 lb drop. Flush with treated water to bottom perf at 7,037'. Record ISIP 5 min, 10 min, 15 min SIP. Max pressure 8,000 psig.

Lower Organic Mancos Nitrogen Foam Frac Schedule:

				PUMP SO	CHEDULE				
Stage No.	Stage Desc.	Rate (BPM)	Fluid	Foam Volume (GAL)	Clean Volume (GAL)	Prop Conc (PPG)	Prop Wt (LBS)	Cum Prop (LBS)	Prop Type
1	L&B	5	2% KCL		5,000	0	0	0	
2	Acid	5	15% NEFE		1,500	0	0	0	
3	Flush	10	2% KCL		2,500	0	0	0	-
4	Pad	25	25# 70Q XL N2	10,000	3,000	0	0	0	-
5	0.25	25	25# 70Q XL N2	5,000	1,517	0.25	1,250	1,250	20/40 Brady
6	0.5	25	25# 70Q XL N2	7,500	2,301	0.5	3,750	5,000	20/40 Brady
7	1	25	25# 70Q XL N2	10,000	3,137	1	10,000	15,000	20/40 Brady
8	2	25	25# 70Q XL N2	10,000	3,274	2	20,000	35,000	20/40 Brady
9	2.5	25	25# 70Q XL N2	10,000	3,342	2.5	25,000	60,000	20/40 Brady
10	3	25	25# 70Q XL N2	5,000	1,705	3	15,000	75,000	20/40 Brady
11	4	25	25# 70Q XL N2	6,250	2,217	4	25,000	100,000	20/40 RCS
12	Flush	25	2% KCL		2,500	0	0	-	

- 14. ND frac valve. NU & FT BOP. Rls pkr & TOH w/pkr & 3-1/2" workstring.
- 15. TIH with 5-1/2" Weatherford Fracgaurd Composite Plug or equivalent & set @ 6,900'.

Perforate Upper Organic Mancos with a 3-1/8" Titan PPG-31112-321T charges or equivalent (1 JSPF, 120 deg phasing, 12 gm, .34" EHD, 22.4" pene, 14 holes). Reference previous open hole log dated 5/3/2006. RDMO WLU.

6,774

6,772

17. PU & TIH 5-1/2" Arrow-Set packer, 2 jts 2-7/8", N-80, XO & 3-1/2", 9.2#, N-80 NUE workstring. Set packer @ ±6,660'.

6,817' 6,815'

- 18. ND BOP & NU & 5-1/8" FE 10K frac valve. Ensure all surface equipment is compatible with a frac down 3-1/2", 9.3#, N-80 NUE workstring.
- 19. RU acid pump. BD perfs with treated fresh water with Cla-Web (max pressure is 8,000 psig). Switch to acid. Acidize Upper Organic Mancos perfs from 6,772' 6,852' with 1,500 gals 15% NEFE HCl acid with FE control, surfactant, CI additives & 20 7/8", 1.1 SG Green Bio balls. Flush 10 bbl past bottom perf with treated water @ ±5 BPM (60 bbls). Record ISIP and 5" SIP. Surge off ball sealers.
- 20. RU stimulation equipment. Hold Safety Meeting. Review JSA. Initiate SOP's. Frac the Upper Organic Mancos perfs from 6,772' 6,852' at 25 BPM with 70Q, N2 foamed, 25 lb XL gelled, 2% KCl water (Delta 200) carrying 75,000 lbs 20/40 Brady sand & 25,000 lbs 20/40 SLC sand) with 500 lbs of Baker ParaSorb and 125 lbs of Baker ScaleSorb evenly dispersed between sand stages. Have copy of MSDS for both products on location and ensure recommended safety protocols are followed. Switch to tub bypass when inline densitometer reads a 1 lb drop. Flush with treated water to bottom perf at 6,852'. Record ISIP 5 min, 10 min, 15 min SIP. . RDMO stimulation equipment. Max pressure 8,000 psig.

Upper Organic Mancos Nitrogen Foam Frac Schedule:

				PUMP SO	CHEDULE	:			
Stage No.	Stage Desc.	Rate (BPM)	Fluid	Foam Volume (GAL)	Clean Volume (GAL)	Prop Conc (PPG)	Prop Wt (LBS)	Cum Prop (LBS)	Prop Type
1	L&B	5	2% KCL		5,000	0	0	0	-
2	Acid	5	15% NEFE		1,500	0	0	0	-
3	Flush	10	2% KCL	-	2,500	0 -	0	0	-
4	Pad	25	25# 70Q XL N2	10,000	3,000	0	0	0	
5	0.25	25	25# 70Q XL N2	5,000	1,517	0.25	1,250	1,250	20/40 Brady
6	0.5	25	25# 70Q XL N2	7,500	2,301	0.5	3,750	5,000	20/40 Brady
7	1	25	25# 70Q XL N2	10,000	3,137	1	10,000	15,000	20/40 Brady
8	2	25	25# 70Q XL N2	10,000	3,274	2	20,000	35,000	20/40 Brady
9	2.5	25	25# 70Q XL N2	10,000	3,342	2.5	25,000	60,000	20/40 Brady
10	3	25	25# 70Q XL N2	5,000	1,705	3	15,000	75,000	20/40 Brady
11	4	25	25# 70Q XL N2	6,250	2,217	4	25,000	100,000	20/40 RCS
12	Flush	25	2% KCL	1-	2,500	0	0		-

- 21. MIRU green completion flowback equipment (choke manifold, sand catcher, separator, flare stack & flowback tank). Review JSA. Initiate SOP's. OWU on 8/64" choke and start flowback. Increase choke size as needed.
- 22. IP test the well for a minimum of 3 hours. Record liquid volume, average FCP, choke size & calculate gas volume. Report IP test in WellView. SWI. RDMO green completion flowback equipment.
- 23. MIRU PU. Review JSA. Initiate SOP's. MI 7,440' of 2-3/8", 4.7#, J-55 tbg. MI rods & pump. KW as needed with treated water. ND frac valve. NU & FT BOP. Rls pkr & TOH w/pkr & 3-1/2" workstring.
- 24. MIRU AFU. TIH with 4-3/4" bit, SN & 2-3/8" tubing. CO frac sand to Weatherford Fracgaurd Composite Plug @ 6,900'. DO plug. CO frac sand to CBP @ 7,075'. DO CBP. CO to PBTD. Circulate casing clean with treated water. TOH.
- 25. TIH with 2-3/8" x 30' OEMA w/weep hole & pin, 2-3/8" SN, ±29 jts 2-3/8", 4.7#, J-55, 8rd EUE tubing, 5-1/2" x 2-3/8" TAC & ±203 jts 2-3/8", 4.7#, J-55, 8rd EUE tubing. EOT @ ±7,470', TAC @ ±6,500' & SN @ ±7,440'.
- 26. RU swab tools. Swab well until fluid is clean.
- 27. ND BOP. Set TAC. NU WH.
- 28. TIH with 2" x 1-1/2" x 14' RWAC pump with 1" x 1' strainer nipple, Spiral rod guide, 1" x 1' LS, 1-1-1/4" grade "K" sinker bar, 21K shear tool, 9-1-1/4" grade "K" sinker bars, 178-3/4"

grade "D" rods, 110 - 7/8" grade "D" rods, Rod subs to space out pump & 1-1/4" x 22' PR with 10' liner.

- 29. Space out pump. HWO. Ld tubing and check pump action.
- 30. SWI. RDMO workover rig.
- 31. If Test Allowable C-104 was obtained, OWU and start PU @ 64" x 3.5 SPM. Otherwise, wait until C-104 is approved to 1st deliver well.

### Regulatory Requirements

- 1. NOI to recomplete the Mancos on C-103
- Test Allowable on C-104
- Completion report on C-105
- Subsequent on C-103
- Dakota, Mancos and Mesaverde DHC

#### Services

- 1. AFU
- WLU
- Workover Rig
- 4. Stimulation services
- Tuboscope Inspection services
- Flowback services

### Equipment

- 1. 7-400 bbl frac tanks
- 2. 10K frac valve
- 3. Green completion flow back equipment
- 1 flowback tank
- 5. 5-1/2" CBP
- 6. Weatherford Fracgaurd Composite Plug
- 7. 4-3/4" bit & string mill
- 8. 6,900' 3-1/2", 9.2#, N-80 NUE workstring
- 9. 7,440' 2-3/8" 4.7#, J-55 EUE 8rd tbg pulled fr/well & new as needed per inspection results
- 10. 5-1/2" x 2-3/8" TAC
- 11. 2-3/8" x 30' OEMA w/weep hole & pin
- 12. 2 x 1-1/2" x 14' RWAC pmp w/1" x 1' stnr nipple
- 13. 10 1-1/4" grade "K" sinker bars
- 14. 178 3/4" grade "D" rods
- 15. 110 7/8" grade "D" rods



## Downhole Well Profile - with Schematic

Well Name: Jicarilla Apache 14G

APIUWI 30039296580000	XTO Accounting ID 77898		County Rio Arriba
T26N-R05W-S34	Spud Date 4/22/2006 00:00	Original KB Elevation (it) 6,624.00	KB-Ground Distance (ft) 12.00

MD (ftKB)	TVD (ftKB)	Incl (°)		Vertical sc	chematic (actual)	Vertical schematic (actual)  Wellbores Wellbore Name Parent Wellbore						Wellbore A	Welbore APVUWI		
		TO D	4117214		830	Original Hole			Original Hole			3003929			
12.1		1	9606 606	■ 586 5865		Start Depth (ftKB)		12.0	Profile Type			Kick Off Dep	th (RKB)		
44,9						Section	Des	12.0	Size (in)		Ac	Top (f8KB)	Act	Btm (ftKB)	
14.5			<b>***</b>			SURFACE		ATE AND		12 1/4		12.0		381	
54.8					SURFACE; 12 1/4 in; 381.0	PROD1				7 7/8		381.0		7,69	
327.8					пкв	Zone Na			Tee /W/ES			tm (ftKB)	Cum	ent Status	
						Mesaverde	ime		Top (ftKB)	5,131.0		5,341.0		mit Owwa	
373.0						Dakota			- V. H. & J.	7,133.0		7,371.0	THE STATE OF		
374.0					Surface; 8 5/8 in; 374.0 ftKB	Casing Strings									
380,9						Csg Des	S	et Depth (ftK)		OD (in)	0.5/0	WVLen (Ib/It)		Grade	
TO SALEY					DDDD4 778 - 78646 848	Surface Production			374.0 7,690.0		8 5/8 5 1/2		24.00 J-55 15.50 J-55		
4,655.5					—PROD1; 7 7/8 in; 7,694.0 ftKB	Cement			7,030.0		0 1/2		15.50 5-55		
4,657.8							Des			Туре		MARKET STREET	String		
5,106.0						Surface Casing C			Casing			The second secon	374.0ftKB		
5,106.0						Production Casing	g Cement		Casing		New	Production	n, 7,690.0fKB		
5,116.5						Tubing Strings Tubing Description			Run Date			Set Depth (f	170		
5,130.9			100		Perforated; 5,131,0-5,341.0	Tubing - Production	on		Run Date	8/14/2006		Set Depart	(NO)	7,30	
			100	8	Hydraulic Fracture	Item De	05	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Top (RKB)	Btm (ftKB)	
5,340.9						Tubing Sub		2 3/8	E CONTRACTOR OF THE PARTY OF TH	J-55 J-55	1	32.94 10.00	12.0		
6,998.7						Tubing Sub		2 3/8		J-55	220	7,246.77	54.9		
7,016.1						Seat Nipple		2 3/8		000	1	1.10	7,301.7	7,30	
						Notched Collar		2 3/8			1	0.40	7,302.8	1,700	
7,132.9					CO2 Energized Frac Perforated; 7,133,0-7,371,0	Rod Strings		NET EITENA			-				
7,301,8			1		nKB	Rod Description			Run Date			Set Depth (f	KB)		
7,302.8			8	## O ##		Item De	es	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Top (RKB)	Btm (ftKB)	
7 202 4			100				100		ATT NO.	P. Carrier	54.4				
7,303,1			100	200		Other In Hole Run Date		Des		OD (in)	-	7-10/05		Distriction of the last of the	
7,371,1		100		88		Pour Chase		Des		OD (m)		Top (RKB)		Bitm (ftKB)	
7,643.7			<b>M</b>	8	—PBTD; 7,643.0 ftKB	Perforations									
			W 1			Date		Top (ftKB)		Btm (fts(B)		NAMES OF TAXABLE	Zone		
7.644,4		7 -		8		8/1/2006	DYAIR SISE		5,131.0		CONTRACTOR OF CHES	Mesaverde, Origin	A STATE OF THE PARTY OF THE PAR		
7,689,3				8		6/10/2006 Stimulations & Tr	reatments		7,133.0		1,311.0	Dakota, Original I	iole	Wildlife HATEL	
7,690.0				8	Production; 5 1/2 in; 7,890.0	Frac#	Top Perf (ftKB)	Botton	m Perf (ftKB)	AIR (bbl/min)		MIR (bbl/min)	TWP (bbl)	Total Proppant (I	
ALL STATES		100	- 1		пKB	EVEN BOOK									
7,693.9			500	500	TD - Original Hole; 7,694.0 ftKB		Barrier St.	and the last					AND THE PARTY OF		

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 South First, Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV

### State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 19, 2009 Submit one copy to appropriate District Office

<sup>1</sup> API Number <sup>2</sup> Pool				<sup>2</sup> Pool Code			<sup>3</sup> Pool Na	me	
30-039-29658 97232						BASIN MAI	NCOS		
Property					5 Preperty				<sup>6</sup> Well Number
3032					JICARILLA				14G
5380					Operator XTO ENER				6612'
0000			_		10 Surface I				0012
UL or let no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	34	26N	05W		2140'	SOUTH	1710'	WEST	RIO ARRIBA
		1	11Botte	om Hole	Location If	Different Fron		VVLOT	11007111107
UL or let no. SAME	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
NO ALLOW	ABLE W	LL BE ASS				NTIL ALL INTERE		EN CONSOLIDA	TED OR A NON-
					13		I hereby certify the	TOR CERTI	
							organization either interest in the land a right to drill this owner of such a m	r owns a working interest lincluding the proposed b well at this location purs	of and that this or unleased mineral ottom hale location or has nant to a contract with an , or to a valuntary pooling

2/02/2016 1710 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true & correct to the best of my belief. 6/23/1984 Date of Survey Original Survey Signed By: John A. Vukonich 14831

# Lynch, Kristen

From: Williams, Michael

Sent: Monday, February 08, 2016 6:52 AM

To: Lynch, Kristen

Cc: Pennington, Thomas

Subject: RE: Jicarilla Apache 14G Tops

Morning Kristen,

Below please find the formation tops for the Jicarilla Apache 14G

Formation	Depth (MD)
San Jose	Surface
Nacimiento	320'
Ojo Alamo	2386'
Kirtland	2572'
Fruitland	2722'
Pictured Cliffs	2938'
Lewis	3111'
Chacra	3836'
Cliffhouse	4578'
Menefee	4649'
Point Lookout	5164'
Mancos	5374'
Upper Gallup	6204'
Juana Lopez	6868'
Greenhorn	7050'
Graneros	7107'
Dakota	7131'
Morrison	7505'

Thanks,

Michael Williams
Geologist / Rocky Mountains Division
ENERGY a subsidiary of ExxonMobil
810 Houston Street – Fort Worth, TX 76102
817-885-6632 (O) / 432-296-2123 (C)
Michael Williams@xtoenergy.com

From: Pennington, Thomas

Sent: Friday, February 05, 2016 9:34 AM

To: Williams, Michael Cc: Lynch, Kristen

Subject: Jicarilla Apache 14G Tops

Hey Mike,

Kristen needs formation tops in order to get things moving for the Jicarilla Apache 14G Organic Mancos recomplete permit. Could you please send those to her?

Thanks,

**Tom Pennington** 

Western Division: Reservoir Engineering

Phone: 817-885-1279 Office: WTW 1508

XTO Energy an ExxonMobil Subsidiary