Form 3160-3 (April 2004)

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

FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007

APPLICATION FOR PERMIT TO D	RILL O	R REENTEI	₹	Ī	5. Lease Serial No.	
la. Type of Work RI DRILL RI	EENTER		2007 MAR	28	out initially selected on N/A	r Tribe Name
1b. Type of Well Oil Well Gas Well Other	x	Single Zone	Multiple Zon	e	7. Unit or CA Agreen	nent Name and No.
2. Name of Operator				100	8. Lease-Name and W	ell No.
XTO Energy Inc.			210 55	<u> </u>	RP Hargrave	
3a. Address		3b. Phone	No. (include area co	de)	9. API Well No.	
2700 Farmington Ave., Bldg. K. Ste 1 Farming 4. Location of Well (Report location clearly and in accordance with a			05-324-1090		30-045- 34 10. Field and Pool, or 1	136
At surface 1485' FSL x 1465' FWL	·			L	Basin Dakota	• •
At proposed prod. zone 1900' FSL x 800' FWL	ī				(K) Sec 3, 1	
14. Distance in miles and direction from nearest town or post office*					2. County or Parish	13. State
Approximately 9 miles Southeast of	of Bloom	mfield. NM	nost office		San Juan	NM
15. Distance from proposed*		16. No. of Acre		T	cing Unit dedicated to	<del></del>
location to nearest property or lease line, ft. (Also to nearest drg. unnt line, if any)			523.52		•	.96 W/2
Distance from proposed location* to nearest well, drilling, completed,		19. Proposed D	epth	20. BL	M/BIA Bond No. on	file
applied for, on this lease, ft. 546'		69	60 '	,	UIB000	138
21. Elevations (Show whether DF, KDB, RT, GL, etc.		• • •	te date work will sta	rt*	23. Estimated dur	ation
6134' Ground Elevation			June 2007			weeks
	24.	Attachments			1542.4	SEP 10 '07 2016. DTV.
<ol> <li>A Surface Use Plan (if the location is on National Forest System La SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	ands, the	6. Such	ator certification. other site specific in orized officer.	formatio	on and/or plans as may	be required by the
25. Signuature	Nar	ne (Printed/Ty)	ped)		Date	
Typia laughan	Ку	la Vaughar	1			03/27/07
Title Compliance Tech						
Approved by (Signautre)	Nar	ne (Printed/Typ	ped)		Date	9/7/50
Title Title	Off	ice				
AFU		FE	<del>-</del> 20			
Application approval does not warrant or certify that the applicant ho conduct operations thereon.  Conditions of approval, if any, are attached.	olds legal (	or equitable titl	e to those rights in	the subj	ect lease which would	l entitle the applicant t
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as				ılly to m	ake to any department	or agency of the Unite
*(Instructions on page 2)		NOTI	FYAZIE	CC	ICD 24 H	H5.
SUBJECT TO COMPLIANCE WITH ATTACH	ED	PFLO	This action of the control of the co	<b>Saubije</b> eview p	To tachelon and	69 9 = 7 1
HOLD 0104 FOR Directional Survey & Abdvilled C-107			R	J. Sual		

DISTRICT 1 1625 H. Prench Dr., Hobbs, N.M. 88240

DISTRICT II 1381 V. Grand Ave., Artesia, N.M. 88210

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, NM 87505

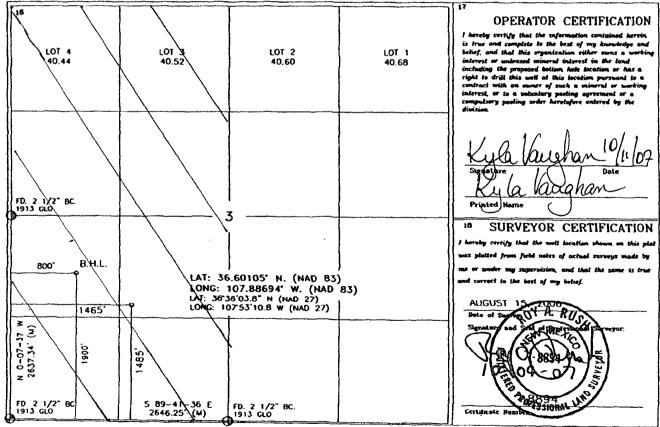
Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT HI 1000 Rio Brazos Rd. Aztec, N.M. 87410

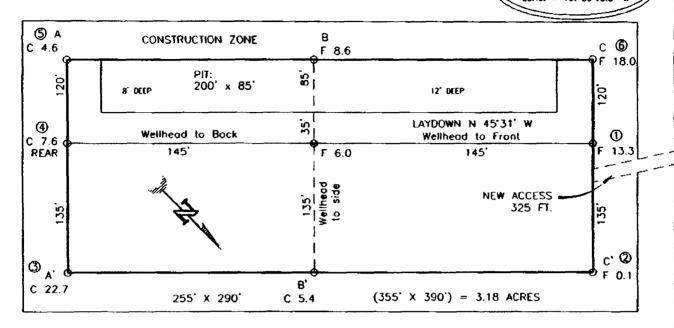
DISTRICT IV			not no					☐ AMEND	ED REPORT
1220 South St. Fr	ancis Dr., :			CATION	AND AC	REAGE DEDI	CATION PLA	T	
1 API	Number			Pool Code			<sup>3</sup> Pool Name		
30-04		256		599		BASIN J	DAKOTA		
Property Co	ode				<sup>3</sup> Property	Nome .		* Wel	Number
2274	2				RP HARG	RAVE J		1	1F
OGRID No					*Operato	r Name		• 1	levation
538	$\supset \mid$				XTO ENER	RGY INC.			6134
<b>L</b>					10 Surface	Location			
UL or lot no	Section	Township	Range	Lot kitn	Feet from the	North/South line	Feet from the	East/Vest line	County
K	3	27-N	10-W		1485	SOUTH	1465	WEST	SAN JUAN
			11 Botte	om Hole	Location	If Different Fro	om Surface		
UL or lot no	Section	qideawol	Range	lot ida	Feet from the	Forth/South line	Feet from the	East/West line	County
K	3	27-N	10-W		1900	SOUTH	800	WEST	SAN JUAN
12 Dedicated Acre	*		D Joint or	İnfill	14 Consolidation	Code	<sup>15</sup> Order No.		`
320.9	6 h	)/z							
NO ALLOW	ABLE W	ILL BE A	SSIGNE	TO THE	S COMPLET	TION UNTIL ALL	INTERESTS HA	VE BEEN CO	NSOLIDATED
						BEEN APPROVED			
LOT 4 40.44		LOT 40.5			LOT 2 40.60	LOT 1 40.68	I hereby certi- is true and co- belief, and the interest or un	ERATOR CER by that the informatic complete to the best of all this organization of deased mineral infere-	in contained herein my knowledge and ither owns a working st in the land
	1						right to drift	proposed bottom hale this well at this local an anner of such a	tion pursuant to a



Submit 3 Copies To Appropriate District	State of New Me			Form C-103
Office District I	Energy, Minerals and Natur	ral Resources	WELL API NO.	May 27, 2004
1625 N. French Dr., Hobbs, NM 87240 District H	OIL CONSERVATION	N DIVISION	20.045	134256
1301 W Grand Ave., Artesia, NM 88210 District III	1220 South St. Fra		5. Indicate Type of Le	ase
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 8		STATE	FEE 🗌
District IV 1220 S St. Francis Dr., Santa Fe, NM 87505			6. State Oil & Gas Leans 18 Con 18 Co	ase No.
SUNDRY NOTIC	ES AND REPORTS ON WEL	LS	7. Lease Name or Unit	t Agreement Name:
(DO NOT USE THIS FORM FOR PROPO DIFFERENT RESERVOIR. USE "APPLIC PROPOSALS.)			RP HARGRAVE J	
1. Type of Well: Oil Well Gas Well X	Other		8. Well Number #1F	
2. Name of Operator			9. OGRID Number 5380	
XTO Energy Inc.  3. Address of Operator			10. Pool name or Wik	fcat
2700 Farmington Ave., Bldg	. K. Ste 1 Farmington, N	4 87401	BASIN DAKOTA	
4. Well Location				
Unit Letter K :	1485 feet from the SOC	JIH line and	1465 feet from th	neline
Section 3	Township 27N	Range 10W	NMPM NMPM (	County SAN JUAN
	11. Elevation (Show whether)	····		
Pit or Below-grade Tank Application X		AD DESVETION	P. 25 (BAR) 2001 P	ALCONOMINATION OF THE PROPERTY
Bit type DRILL Depth to Groundwater		waterwell >1000 Dis	tance from nearest surface w	vater 300
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume	8000 bbls; Construction	n Material	
12. Check A	ppropriate Box to Indicate	Nature of Notice,	Report, or Other Da	ata
NOTICE OF INTE	• • •	· ·	SEQUENT REPO	
PERFORM REMEDIAL WORK	PLUG AND ABANDON	REMEDIAL WORK		LTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILLI		PLUG AND  ABANDONMENT
PULL OR ALTER CASING	MULTIPLE  COMPLETION	CASING TEST AND CEMENT JOB		BANDONNEN
OTHER: PIT	<b>x</b>	OTHER:		
13. Describe proposed or completed		<u> </u>	nertinent dates includi	ng estimated date
of starting any proposed work).				
or recompletion.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	T		γ
XIIO Engrav blane to ineta	ll a lined pit on location	n for drilling		
Ato mangy plans to hista	ii a iii eu pit un tuadu	i for driffing.		
I hereby certify that the information ab				
grade tank has been/will/be constructed or cl	osed according to NMOCD guidelines	s 🗶 , a general permit [	or an (attached) alternati	ve OCD-approved plan
SIGNATURE 19	TITI		ompliance Tech DA	
Type or print name Ryla Vaughan	E-n	nail address: kyl	la_vaughan@xtoenergy Telephon	e No. 505-564-6726
For State Use Only	<i>/ /</i>	Donata O''		OOT 1
APPROVED BY	TITT TITT	Deputy Oil & Dis	& Gas Inspector, trict #3 —— DAT	E
Conditions of Approval, if any:	₹		EXH	IBIT D
			11	

XTO ENERGY INC.
RP HARGRAVE J No. 1F, 1485 FSL 1465 FWL
SECTION 3, T27N, R10W, N.M.P.M., SAN JUAN COUNTY, N.M.
GROUND ELEVATION: 6134' DATE: AUGUST 15, 2006

NAD 83 LAT. = 36.60105° N LONG. = 107.88694° W NAD 27 LAT. = 36°36°03.8° M LONG. = 107°53°10.8° W



RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE). BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERCROUND UTILITIES OR PRPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION. ELEV. A-A C/L 6150 6140 6130 6120 C/t ELEV. B-B 6150 6140 Services , NM 87401 5) 326-6019 6130 ing and Oil Fletd Ser 32 1568 Femington, NM 06) 326–1772 - Fer (505) 35 W MEXICO L.S. No. 8894 6120 C/L ELEV. C-C 6150 P. O. Box 15 Phore (505) 3 NEW ME 6140 6130 6120 CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

#### XTO ENERGY INC.

#### RP Hargrave J#1F APD Data March 26, 2007

Location: 1485' FSL x 1465' FWL Sec 3, T27N, R10W County: San Juan

C 2 T2TH D10W

State: New Mexico

Bottomhole Location: 1900' FSL x 800' FWL Sec 3, T27N, R10W

GREATEST PROJECTED TD: 6960'

OBJECTIVE: Basin Dakota

APPROX GR ELEV: 6134'

Est KB ELEV: 6146' (12' AGL)

#### 1. MUD PROGRAM:

INTERVAL	0' to 360'	360' to 2500'	2500' to 6960'
HOLE SIZE	12.25"	7.875"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8,6- 9.20
VISCOSITY	28-32	28-32	45-60
WATER LOSS	NC	NC	8-10

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. Raise viscosity at TD for logging. Reduce viscosity after logging for cementing purposes.

#### 2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at  $\pm$  360' in a 12-1/4" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-360'	360	24.0#	J-55	ST&C	1370	2950	244	8.097	7.972	7 950	17.13	28.24

Production Casing: 5.5" casing to be set at TD (±6960') in 7.875" hole filled with 9.20 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'-6960	6960'	15.5#	J-55	ST&C	4040	4810	202	4.950	4.825	1.22	1.46	1.89

#### 3. WELLHEAD:

- A. Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- B. Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

### 4. <u>CEMENT PROGRAM (Slurry design may change slightly, but the plan is to circulate cement to surface on both casing strings):</u>

A. Surface:

8.625", 24.0#, J-55, ST&C casing to be set at  $\pm$  360' in 12-1/4" hole.

214 sx of Type III cement (or equivalent) typically containing accelerator and LCM, mixed at 14.5 ppg, 1.39 ft<sup>3</sup>/sk, & 6.70 gal wtr/sk.

Total slurry volume is 297 ft<sup>3</sup>, 100% excess of calculated annular volume to 360'.

B. <u>Production:</u> 5.5", 15.5#, J-55 (or K-55), ST&C casing to be set at ±6960' in 7.875" hole. DV Tool set @ ±4300'

#### 1<sup>st</sup> Stage

#### LEAD:

±202 sx of Premium Lite HS (Type III/Poz/Gel) or equivalent, with dispersant, fluid loss, accelerator, & LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

#### TAIL:

150 sx Type III or equivalent cement with bonding additive, LCM, dispersant, & fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

#### 2<sup>nd</sup> Stage

#### LEAD:

 $\pm 395$  sx of Type III or equivalent cement with 8% gel & LCM mixed at 11.9 ppg, 2.54 ft<sup>3</sup>/sk, 15.00 gal wtr/sx.

#### TAIL:

100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.3 gal/sx.

Total estimated slurry volume for the 5-1/2" production casing is 1683 ft<sup>3</sup>.

Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs plus 40%. It will be attempted to circulate cement to the surface.

#### 5. LOGGING PROGRAM:

- A. Mud Logger: The mud logger, if used, will come on at 2,900' and will remain on the hole until TD. The mud will be logged in 10' intervals.
- B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (6960') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (6960') to 3,000'.

#### 6. FORMATION TOPS:

Please see Directional Plan.

\*\*\*\* Maximum anticipated BHP should be <2,000 psig ( <0.30 psi/ft) \*\*\*\*\*

#### 7. **COMPANY PERSONNEL**:

Name	Title	Office Phone	Home Phone
John Egelston	Drilling Engineer	505-564-6734	505-330-6902
Jerry Lacy	Drilling Superintendent	505-566-7917	505-320-6543
John Klutsch	Project Geologist	817-885-2800	

JWE 3/26/07

#### XTO Energy, Inc.

#### Planning Report

EDM 2003 14 Single User Db Company: XTO Energy Project: Site: Well: San Juan Basın (NAD 83) RP Hargrave J#1F RP Hargrave J#1F Wellbore: Original Wellbore

Permitted Plan

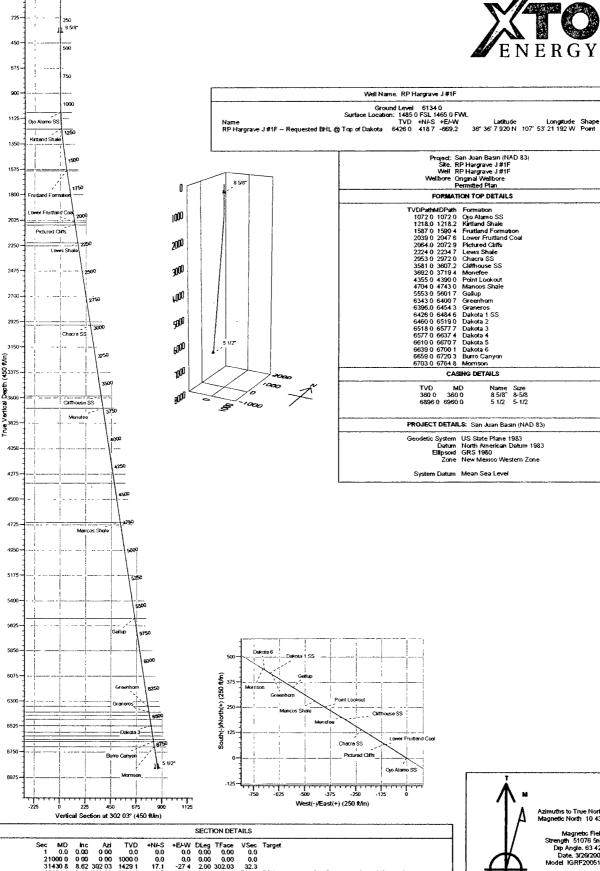
Design:

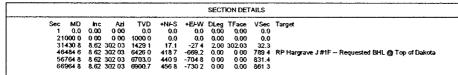
Local Co-ordinate Reference: Well RP Hargrave J #1F
TVD Reference: Rig KB @ 6146.0ft (Original Well Elev)
MD Reference: Rig KB @ 6146.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

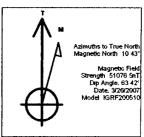
是我们的现在分词,我们就是一个人的人,我们就是这个人的人的,我们就是这个人的人,我们也不是一个人的人,这个人的人,这个人的人,这个人的人,这个人的人,这个人的人 我们就是我们的人,我们就是一个人的人,我们就是我们的人,我们就是一个人的人,我们就是一个人的人,我们就是一个人的人,我们就是一个人的人,我们就是一个人的人,我们

Formations  Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip Opp Direction (1)	
1,072 0	1,072 0	Ojo Alamo SS	Sandstone	0 00	
1,218 2	1,218 0	Kırtland Shale	Shale	0 00	
1,590 4	1,587 0	Fruitland Formation		0 00	
2,047 6	2,039 0	Lower Fruitland Coal	Coal	0 00	
2,072 9	2,064 0	Pictured Cliffs	Sandstone	0 00	
2,2347	2,224 0	Lewis Shale	Shale	0 00	İ
2,972 0	2,953 0	Chacra SS	Sandstone	0.00	
3 607 2	3 581 0	Cliffhouse SS	Sandstone	0 00	
3,719 4	3 692 0	Menefee		0 00	1
4 390 0	4,355 0	Point Lookout	Sandstone	0 00	
4,743 0	4 704 0	Mancos Shale	Shale	0 00	
5,601 7	5,553 0	Gallup	Sandstone	0 00	
6,400 7	6,343.0	Greenhorn		0 00	
6,454 3	6,396 0	Graneros	Shale	0 00	
6,484 6	6,426 0	Dakota 1 SS	Sandstone	0 00	
6,519 0	6,460 0	Dakota 2	Sandstone	0 00	
6,577 7	6,518 0	Dakota 3	Sandstone	0 00	
6,637 4	6,577 0	Dakota 4	Sandstone	0 00	
6 670 7	6,610 0	Dakota 5	Sandstone	0 00	ĺ
6,700 1	6,639 0	Dakota 6	Sandstone	0 00	
6,720 3	6,659 0	Burro Canyon	Sandstone	0 00	ļ
6,7648	6,703 0	Morrison	Sandstone	0 00	









# CHOKE MANIFOLD SCHEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL PRESSURE

- 1. Stake all lines from choke manifold to pit.
- 2. Pressure test choke manifold after installation.
- 3. Pressure test manifold at the same time with the BOP Stack. Test manifold to the same test pressures.

# TESTING PROCEDURE

