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Form 3160-3 UNITED STATES (April 2004) DEPARTMENT OF THE INTI BUREAU OF LAND MANAGE		FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007		
APPLICATION FOR PERMIT TO DRII	LL OR REENTER	5. Lease Seria		
1a. Type of Work  1b. Type of Well  2. Name of Operator  XTO Energy Inc.  3a. Address  2700 Farmington Ave., Bldg. K. Ste 1 Farmington  4. Location of Well (Report location clearly and in accordance with any  1surface  1965' FNL x 1615' FWL in Sec 27, T27.  Approx 12.55 air miles SouthEast of I  15. Distance from proposed*  location to nearest  property or lease line, ft.  1615'	Single Zone   Multiple Zone	N/A 7. Unit or CA N/A 8. Lease Name Jack Fr 9. API Well N 9. API Well N 10. Field and Po Basin D 11. Sec., T., R. F Sec 27, 12. County or F San Juan 13/Spacing Unit dedi	pool, or Exploratory akota/Angel Peak Gallu , M., or Blk. and Survey or Area  T27N, 10W Parish 13. State	
(Also to nearest drg. unit line, if any)  18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  479	19. Proposed Depth	20.BLM/BIA Bond		
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will sta	rt* 23.Estim	ated duration	
6164' Ground Level	Upon Approval	Upon Approval		
	24. Attachments			
The following, completed in accordance with the requirements of Onshore	Oil and Gas Order No. 1, shall be attached	d to this form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Lands SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	4. Bond to cover the operat Item 20 above). 5. Operator certification. 6. Such other site specific in authorized officer.	·		
25. Signuature	Name (Printed/Typed)		Date	
Tyla Vaughan	Kyla Vaughan		11/19/04	

Regulatory Compliance Tech

Approved by (Signautre)
Original Signed: Stephen Mason

Name (Printed/Typed)

Date
DEC 2 ? 2004

Title

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowlingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

ADD/ROW

MMOCE

Form C-102 State of New Mexico DISTRICT I 1625 N. Fench Et., Hobbs, N.M. 88240 Energy, Minerals & Natural Resources Department Revised June 10, 2003 instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies DISTRICT 8 1301 W. Grand Avenue, Artimia, N.M. 88210 OIL CONSERVATION DIVISION DEC 1000 Rio Brazos Rd., Aztec. N.M. 87410 1220 South St. Francis Dr. Santa Fe, NM 87504-2088 ☐ AMENDED REPORT DISTRICT IV 1220 South St. Francis Dr., Santa Fe, NM 87505 DEDICATION WELL LOCATION AND ACREMGE <sup>2</sup>Pool Code 10 K - 32698 71599 DAKKIH \* Well Number \*Property Nomin 2F JACK FROST B \*Operator Name \* Elevation 6164 XTO ENERGY INC. 167067 10 Surface Location Feet from the North/South line East/West line Feet from the County UL or lot no. Section Township Range Lot libr SAN JUAN NORTH WEST 1965 1615 10-W E 27 27-N "Bottom Hole Location If Different From Surface North/South line Feet from the East/West line UL or lot no. Lat Idn feet from the County Section lownship Range \* Order No. Dedicated Acres 13 Joint or Infall \*\* Consolidation Code M. 37 C I 16 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION QTR. CORNER N 89-58-56 E OPERATOR CERTIFICATION FD 2 1/2 GLO 1913 CALC'D COR. 2626.8' (C) I hereby certify that the information contained herein is 71.28" NORTH true and complete to the best of my knowledge and beside WITHESS COR. FD 2 1/2 BC GLO 1913 2586.7 BETWEEN & Signature LAT: 36:32'53 N. (NAD 27) JEHRA W. PHTOW LONG: 107'53'09' W (NAD 27) 1615 Printed Name DRULIMO ENLINGER 11-15-64 CALC'D COR. 25.06 NORTH SURVEYOR CERTIFICATION are plotted from field notes of octuol surveys made by me WITNESS COR. FD 2 1/2" BC GLO 1913 14831 Certificate Number

DISTRICT I 1525 N. Fench Dr., Hobbs, N.M. 88240 State of New Mexico
Energy, Minerals & Natural Resources Department

Form: C-102 Revised June 10, 2003 instructions on back Submit to Appropriate District Office State Lease — 4 Copies Fée Lease — 3 Copies

DISTRICT # 1301 W. Grand Avenue, Artesia; N.M. 88210

OIL CONSERVATION DIVISION

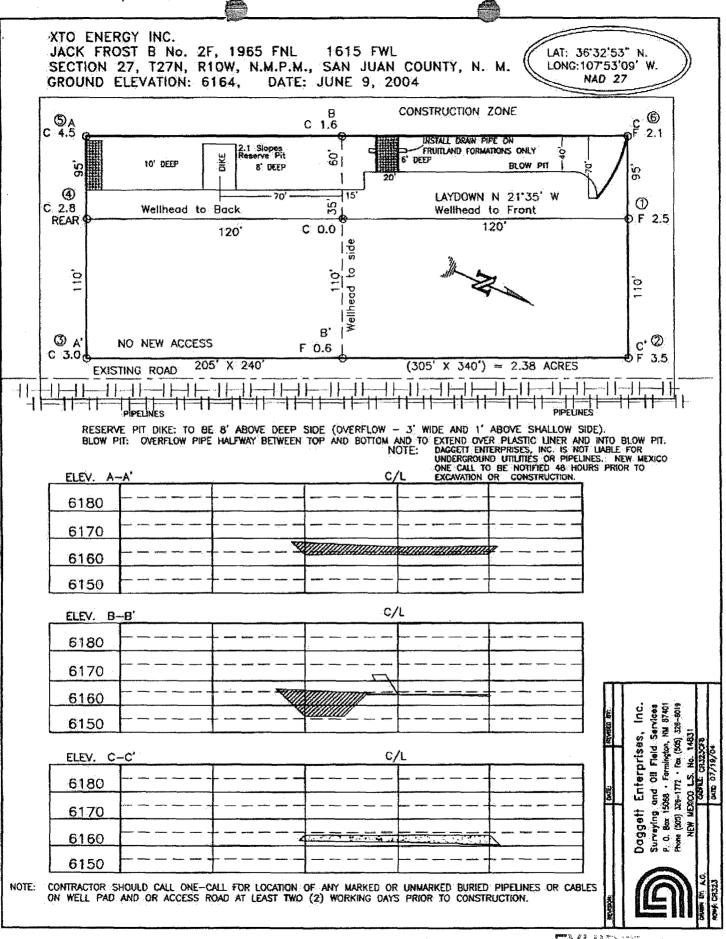
DISTRICT III 1000 Rio Brozos Rd., Aztec, N.N. 87410

1220 South St. Francis Dr. Santa Fe, NM 87504-2088

☐ AMENDED REPORT

DISTRICT IV 1220 South St. Francis Dr., Santa Fe; 1914 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT

30 API Number	32698 02170 Pool Name:							
Property Code	* Well Number:							
77715	JACK FROST B 2F							
OGRED No.			* Elevation					
167067			XTO ENERG	Y INC.			6164'	
			.10 Surface				· ·	
UL or lat no. Section	1 1	tange Let Idn	Feet from the 1965	North/South line NORTH	Feet from the 1615	Emit/West line WEST	SAN JUAN	
	1	Bottom Hole		Different Fro				
UL or lot no. Section		Roznge Lot kom	Feet from the	North/South Inc	Feet from the	East/West line	County	
Pi Dedicated Acres	19 Section 5		14 Consolidation Co	vie .	*Order No.			
SEN		C C HILL	CONSORVER	N	NSL-5	148	u. A. Service	
6 NO ALLOWABLE	WILL BE ASS	SIGNED TO THI	S COMPLETIC	ON UNTIL ALL	INTERESTS H	AVE BEEN CO	DNSOLIDATED	
CALC'D COR. 71.28 NORTH WITNESS COR. TO 2 1/2' BC GLO 1913  OG - BY 1615		1AT 36'32 LONG:107'5	2: 8C 3	27)	Signature Printed No	DRILLIA) 5 EA 11- 18-04	intotred hérein is hoefedge and belief	
CALC'D COR. 25.08' NORTH WITNESS COR. FD 2 1/2' EC GLO 1913		CELEBRATION OF THE PARTY OF THE	DEC 2004  DEC 2004  DEC 2004  DEC 2010	23450	I hereby cort	14831	on shown on this plat of surveys mode by the the some is true and	



#### **XTO ENERGY INC.**

#### Jack Frost "B" #2F APD Data November 18, 2004

**Location**: 1,965' FNL x 1,615' FWL Sec 27, T27N, R10W

County: San Juan

State: New Mexico

GREATEST PROJECTED TD: 6,850'

OBJECTIVE: Basin Dakota / Angle Peak Gallup

Est KB ELEV: 6,176' (12' AGL)

#### 1. MUD PROGRAM:

APPROX GR ELEV: 6,164'

INTERVAL	0' to 360'	360' to 4,000'	4,000' to TD
HOLE SIZE	12-1/4"	7-7/8"	7-7/8"
MUD TYPE	FW/Spud Mud	FW/Polymer	LSND / Gel Chemical
WEIGHT	8.6-9.0	8.4-8.8	8.6-9.0
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:

8-5/8" casing to be set at  $\pm$  360' in a 12-1/4" hole filled with 8.8 ppg mud

					Coll	Burst		_		<del>-</del>		
					Rating	Rating	Jt Str	${ m I\!D}$	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-360'	360'	24.0#	J-55	STC	1370	2950	244	8.097	7.972	7.32	7.95	29.39

Production Casing:

5-1/2" casing to be set at TD ( $\pm 6.850$ ') in 7-7/8" hole filled with 9.0 ppg mud.

					Coll	Burst						
		:			Rating	Rating	Jt Str	ID	Drift	SF	SF	SF
Interval	Length	Wt	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Ten
0'-TD	6,850'	15.5#	J-55	STC	4040	4810	222	4.950	4.825	1.22	1.45	2.02

202

#### 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, 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:

8-5/8", 24#, J-55, STC casing to be set at  $\pm$  360' in 12-1/4" hole.

210 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 ft³, 100% excess of calculated annular volume to 360'.

B. <u>Production:</u> 5-1/2", 15.5#, J-55 (or K-55), STC casing to be set at  $\pm 6,850$ ' in 7-7/8" hole. DV Tool set  $(a) \pm 4,000$ '

#### 1st Stage

#### LEAD:

230 sx of Premium Lite HS (Type III/Poz/Gel) with 2% salt, 1/4 pps cello, 0.2% dispersant, 0.5% fluid loss & 2% LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

#### TAIL:

150 sx Type III with 5% bonding additive, 1/4 pps cello, 2% LCM, 0.3% dispersant & 0.2% fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

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

#### LEAD:

375 sx of Type III with 8% gel, 1/4 pps cello & 2% 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 1,785 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 will come on at 3,000' 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 (6,925') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (6,850') to  $\pm 5,800'$ . An FMI log will be run from TD (6,850') to 6,350'.



#### 6. FORMATION TOPS:

Est. KB Elevation: 6,176'

Formation	Subsea Depth	Well Depth		
Ojo Alamo SS	+5250'	929'		
Kirtland Shale	+5099'	1080'		
Farmington SS	+4924'	1255'		
Fruitland Formation	+4724'	1455'		
Lower Fruitland Coal	+4266'	1913'		
Pictured Cliffs SS	+4255'	1924'		
Lewis Shale	+3743'	2436'		
Chacra	+3353'	2826'		
Cliffhouse SS	+2662'	3517'		
Menefee	+2619'	3560'		
Point Lookout SS	+1829'	4350'		
Mancos Shale	+1579'	4600'		
Gallup SS	+246'	5933'		
Greenhorn Limestone	-106'	6285'		
Graneros Shale	-159'	6338'		
1 <sup>st</sup> Dakota SS	-190'	6369'		
2 <sup>nd</sup> Dakota SS	-235'	6414'		
3 <sup>rd</sup> Dakota SS	-284'	6463'		
4 <sup>th</sup> Dakota SS	-335'	6514'		
5 <sup>th</sup> Dakota SS	-381'	6560'		
6 <sup>th</sup> Dakota SS	-404'	6583'		
Burro Canyon SS	-474'	6653'		
Morrison Shale	-516'	6695'		
Project TD	-671'	6850'		

ABHP~ 2500pgi

#### 7. <u>COMPANY PERSONNEL:</u>

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
Dennis Elrod	Drilling foreman	505-486-6460	505-326-2024
Randy Hosey	Project Geologist	817-885-2398	817-427-2475
Barry Voigt	Reservoir Engineer	817-885-2462	817-540-2092

JWP 11/18/04

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

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

## TESTING PROCEDURI

