FORM APPROVED UNITED STATES Form 3160-3 OMB NO. 1004-0136 DEPARTMENT OF THE INTERIOR (Septembér 2001) Expires January 31, 2004 BUREAU OF LAND MANAGEMENT 5. Lease Serial No. APPLICATION FOR PERMIT TO DRILL OR REENTER? SF - 078872-A 6. If Indian, Allotee or Tribe Name 1a. Type of Work REENTER X DRILL 1b. Type of Well 7. Unit or CA Agreement Name and No. Oil Well ▼ Gas Well Other Single Zone Multiple Zone MAK 2. Name of Operator 8. Lease Name and Well No. XTO Energy Inc. Bolack "4" 3b. Phone No. (include area code) % Address 9. APL Well No. 3O 04 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM Location of Well (Report location clearly and in accordance with any State equirements)* 10. Field and Pool, or Exploratory At surface Basin Fruitland Coal 980' FNL x 1490' FWL in Sec 4, T27N, R11W 11. Sec., T., R., M., or Blk. and Survey or Area At proposed prod. zone C Sec 4, T27N, R11W 12. County or Parish 13.State 14. Distance in miles and direction from nearest town or post office* 15 miles Southeast of the Bloomfield, NM post office San Juan 16. No. of Acres in lease 17. Spacing Unit dedicated to this well 15. Distance from proposed* location to nearest property or lease line, ft. 9801 3**,10,7***0***388** acres W/2 +-2401.76 (Also to nearest drg. unit line, if any) 19. Proposed Depth 20.BLM/BIA Bond No. on file Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2,2751 1,500' 21 Elevations (Show whether DF, KDB, RT, GL, etc. 23. Estimated duration 22. Approximate date work will start* Winter 2004 6,140' Ungraded Ground Level 2 weeks 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form: 1. Well plat certified by a registered surveyor. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). A Drilling Plan A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO shall be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the 25. Signuature Name (Printed/Typed) Date llon Jeffrey W. Patton 12/03/03 Title Drilling Engineer Approved by (Sign David J. Mankiewicz Name (Printed/Typed) JAN 15 2004 Title Office 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. This action is subject to technical and *(Instructions on Reverse) procedural review pursuant to 43 CFR 3165.8 irsuant to 43 CFR 3165.4 March Jan West March Collect Server NEOL TEMPOTS"

DISTRICT | P.O. Bax 1980, Hobbs, N.M. 88241-1980

DISTRICT # P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV PO Box 2088, Santa Fe, NM 87504-2088

API Number

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, NM 87504-2088 Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

			1 1 10	1000		JU311 #	<u>[Y)[</u>		1			
⁴ Property Code					1 '	• Well Number						
130315						3						
OGRID No.						Elevation						
					1	6140						
100706	71			XTO ENERGY INC.								
					¹⁰ Surface	Location .						
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C	4	27-N	11-W		980	NORTH	1490	WEST	SAN JUAN			
¹¹ Bottom Hole Location If Different From Surface												
UL or lot no.	Section				Feet from the	North/South line	Feet from the	East/West line	at line County			
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** Dedicated Acres	20	la T	oint or Infill	<u> </u>	¹⁶ Consolidation Co	ode	16 Order No.					
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XTO ENERGY INC.

DRILLING PROCEDURE

Boalck "4" #3 Basin Fruitland Coal December 4, 2003

Location: 980' FNL & 1490' FWL, Sec 4, T27N, R11W County: San Juan State: New Mexico

PROJECTED TOTAL DEPTH: 2,275' OBJECTIVE: Fruitland Coal GR ELEV: 6,140'

1. MUD PROGRAM:

INTERVAL	0'-200'	200'-TD
HOLE SIZE	8-3/4"	6-1/4"
MUD TYPE	FW/Native	FW/Polymer
MUD WEIGHT, ppg	8.6-9.0	8.6-9.1
VISCOSITY, sec/qt	28-32	28-33
WATER LOSS, cc	NC	NC

Remarks: Drill the surface hole with fresh water. Run and cement 7" surface casing, circulating cement to surface. NU and test BOP equipment, then drill out with fresh water. Use polymer sweeps as needed for hole cleaning. At TD, sweep the hole prior to TOH to log.

2. CASING PROGRAM:

Surface Casing: 7" casing to be set at ± 200 ' in 8.8 ppg mud.

					Coll	Burst						
		Wt			Rating	Rating	Jt Str	ID	DD	SF	SF	SF
Interval	Length	(ppf)	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Tension
0'-200'	200'	20#	J-55	STC	2,270	3,740	234	6.456	6.331	9.99	4.59	58.5

Optimum makeup torque for 7" 20#, J-55, STC casing is **2,340 ft-lbs** (Min - 1,760 ft-lbs, Max - 2,930 ft-lbs).

Production Casing: 4-1/2" casing to be set at ± 2.275 ' in 8.8 ppg mud.

					Coll	Burst	110					
		Wt			Rating	Rating	Jt Str	ID	DD	SF	SF	SF
Interval	Length	(ppf)	Gr	Cplg	(psi)	(psi)	(M-lbs)	(in)	(in)	Coll	Burst	Tension
0'-TD	2,275'	10.5#	J-55	STC	4,010	4,790	132	4.052	3.927	3.57	3.33	5.24

Optimum makeup torque for 4-1/2", 10.5#, J-55, casing is 1,320 ft-lbs (Min - 990 ft-lbs, Max - 1,650 ft-lbs).

Capacity of 7", 20# casing is: 0.04048 bbl/ft Capacity of 4-1/2", 10.5# casing is: 0.01595 bbl/ft

3. WELLHEAD:

Casinghead: Larkin Fig 92 (or equivalent) 2,000 psig WP (4,000 psig test) with 7", 8rd pin on

bottom and 8-5/8" API Modified 8rd thread on top.

Tubinghead: Larkin Model 612 (or equivalent) 2,000 psig WP (4,000 psig test) with 4-1/2", 8rd

bottom thread and 8-5/8" 8rd API Modified top body thread, 4.090" minimum bore.

4. **CEMENT PROGRAM:**

A. Surface: 7", 20#, J-55, STC casing at \pm 200'.

Lead: 75 sx Type III cement (or equivelent) containing ¼ pps celloflake, 2% CaCl₂ (mixed at 14.6 ppg, 1.39 ft³/sk, 6.67 gal wtr/sk).

Total slurry volume is 104.25 ft³, 250% excess of calculated annular volume required to circulate cement to surface.

B. Production: 4-1/2", 10.5#, J-55, STC casing at $\pm 2{,}325$ ".

<u>Lead:</u> 150* sx of Type III cement containing 8% gel, 1/4 pps Celloflake & 2% Phenoseal (mixed at 11.4 ppg, 3.03 ft³/sk, 18.51 gal wtr/sk).

Tail: 75 sx Type III cement containing 1% CaCl2, 1/4 pps Celloflake & 2% Phenoseal (mixed at 14.5 ppg, 1.41 ft3/sk, 6.72 gal wtr/sx).

Total estimated slurry volume is 560 ft^3 , $\pm 100\%$ excess of calculated annular volume required to circulate cement to surface.

* Actual cement volumes will be determined using log caliper volume plus 40% excess.

5. DRILLING HAZARDS:

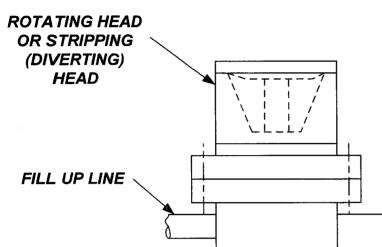
- H₂S or other Poisonous Gases: No formations known to contain H₂S or any other poisonous gases will be penetrated with this wellbore.
- Abnormal Pressures: No overpressured zones are known to exist or are anticipated to be encountered during the drilling of this well.
- Lost Circulation: Seepage and/or lost circulation may be encountered below surface casing and can be controlled with conventional lost circulation materials added to the mud system.

6. LOGGING PROGRAM:

Array Induction/DFL/GR/SP/Cal DSN/Spectral Density/GR/Cal/Pe

TD to bottom of surf csg. TD to bottom of surf csg.

BOP SCEMATIC FOR DRILLING OPERATIONS CLASS 1 (2M) NORMAL **PRESSURE**



1. Test BOP after installation:

Pressure test BOP to 200-300 psig (low pressure) for 5 min.

Test BOP to Working Press or to 70% internal yield of surf csq (10 min).

- 2. Test operation of (both) rams on every trip.
- 3. Check and record Accumulator pressure on every tour.
- 5. Have kelly cock valve with handle available.
- 6. Have safety valve and subs to fit all sizes of

