Form 3160-3 (April 2004)

# RECEIVED

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

# UNITED STATES

DEPARTMENT OF THE INBUREAU OF LAND MANA	VIEKIOWeau of Land	ivialiagement	NMSF-078872	2Ą
APPLICATION FOR PERMIT TO D	6. If Indian, Allotee or Tribe Name N/A			
la. Type of work:	}		7. If Unit or CA Agre N/A	eement, Name and No.
lb. Type of Well: Oil Well Gas Well Other	✓ Single Zone	Multiple Zone	8. Lease Name and BOLACK 28	
2. Name of Operator XTO ENERGY INC			9. API Well No. 30-045- 3	1891
3a. Address 382 ROAD 3100 AZTEC, NM 87410	b. Phone No. (include area of (505) 333-3159	code) .	10. Field and Pool, or BASIN FRUI	Exploratory TLAND COAL
<ol> <li>Location of Well (Report location clearly and in accordance with any At surface 1635' FSL &amp; 1415' FEL</li> </ol>	State requirements.*)			Blk. and Survey or Area
At proposed prod. zone SAME			28-27N-11W	NMIPM
4. Distance in miles and direction from nearest town or post office*  11 AIR MILES SOUTH OF BLOOMFIELD			12. County or Parish SAN JUAN	13. State NM
Is Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  1415'	16. No. of acres in lease 2,401.76		eg Unit dedicated to this R( 320 acres)	well CVD FEB 1'11 IL CONS. DIV.
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  235' (Bolack 4E)	19. Proposed Depth <b>2,100'</b>		BIA Bond No. on file  NATION WIDE UT	
6.322' GL This pation is subject to technical and	22. Approximate date work 05/01/2009		23. Estimated duration 2 WEEKS	
procedural review pursuant to 43 CFR 3165.4 and appeal pursuant to 43 CFR 3165.4	24. Attachments	,	SORTECT TO COWSET	NS AUTHORIZED ARE ANCE WITH ATTACHED
The following, completed in accordance with the requirements of Onshore  1. Well plat certified by a registered surveyor.  2. A Drilling Plan.  3. A Surface Use Plan (if the location is on National Forest System L	4. Bond to Item 20 a ands, the 5. Operator	cover the operation bove).	ns unless covered by ar	n existing bond on file (see
SUPO shall be filed with the appropriate Forest Service Office).	6. Such oth authorize	ner site specific inf ed officer.	ormation and/or plans a	s may be required by the
25. Signature	Name (Printed/Typed) BRIAN WOO			Date 01/02/2009
itle	PHONE: (505) 466-8	3120 FA	X: (505) 466-9682	
approved by (Signature) Mankes (ver)	Name (Printed/Typed	)		Date / 27/20
itle AFN	Office	50		<del></del>

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 knowingly 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.

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

FEB 2 3 2011

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

<sup>\*(</sup>Instructions on page 2)

1625 N. Fench Dr., Hobbs, N.M. 88240

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005 Instructions on back

Submit to Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT II 1301 W. Grand Avenue, Artesia, N.M. 88210

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

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87504—2088

☐ AMENDED REPORT

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

### WELL LOCATION AND ACREAGE DEDICATION PLAT

		V			N AND A	CREAGE DEDI				·
30-0	45-2	2489	7	<sup>2</sup> Pool Code 11629		BASIN FRU	IITLAND	<sup>m</sup> COAL	GAS	
<sup>4</sup> Property Cod	le				<sup>5</sup> Property				6 W	ell Number
130314	í	BOLACK 28 5					5			
70GRID No. 1670	167				<sup>8</sup> Operator				1	Elevation
1070	,0,				XTO ENER	GY INC.				6322'
					<sup>10</sup> Surface	Location				
UL or lot no.	Section 28	Township 27-N	Range 11—W	Lot Idn	Feet from the 1635	North/South line SOUTH	Feet from the 1415	East/We	st line ST	County SAN JUAN
			11 Botte	om Hole	Location	If Different Fro	om Surface	3		. <del></del>
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	est line	County
<sup>12</sup> Dedicated Acres	3:	20	loint or Infill	<u> </u>	<sup>14</sup> Consolidation (	Code	<sup>15</sup> Order No.			
	0.				4.4					-
NO ALLOW	ABLE V					ION UNTIL ALL BEEN APPROVEI			BEEN CO	ONSOLIDATED
		LONG:	108.0050 AT: 36*32'3 IG:108*00'1	5° N. (NA 1° W. (NA 16.4" N. (N 15.8" W. (N	A <b>D 83)</b> IAD 27)		is true belief, of interest including right to contract interest, compuls division.  M (W) Signatur  Printed  I hereby company to the contract of under interest, compuls division.	certify that to and complete and that this of or unleased me the proposed drill this well with an owner to a voluntory pooling or to a voluntory poo	he information to the best reganization of the best reganization of the bottom had at this local or of such a stary pooling der heretofor the best of actual and that the property is the best of actual and that the property is the best of the best	RTIFICATION on contained herein of my knowledge and either owns a working est in the land e location or has a tion pursuant to a mineral or working agreement or a re entered by the  1-2-09 ate  WOOD  TIFICATION I shown on this plat surveys made by me e same is true and and belief.
FD. 2 1/2" BC. G.L.O.		S 89°5	4'25" W 40' (M)		1635'	1415'  FD. 1/2" R W/ CAP L.S.	Date of Signature	and soil of the so	N A. R	LUMING COLUMN

### **Drilling Program**

### 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	GL Depth	KB Depth	<u>Elevation</u>
Nacimiento Formation	000'	5'	+6,322'
Ojo Alamo Sandstone	793'	798'	+5,529'
Kirtland Shale	903'	908'	+5,419'
Fruitland Formation	1,390'	1,395'	+4,932'
Lower Fruitland Coal	1,857'	1,862'	+4,465'
Pictured Cliffs Sandstone	1,889'	1,894'	+4,433'
Lewis Shale	2,084'	2,089'	+4,238'
Total Depth (TD)	2,100'	2,105'	+4,222'

### 2. NOTABLE ZONES

<u>Gas &amp; Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	•
	Fruitland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the geologist's recommendations.

### 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) An 8-5/8" x 11" 2,000 pound double ram BOP system with a choke manifold and



mud cross will be tested to 200 psi and then to 1,000 psi. Upper and lower Kelly cocks with valve handle and subs to fit all drill string connections which are in use will be available on the rig floor. Tests will be run when:

- 1) installed
- 2) anytime a pressure seal is broken (test only affected equipment)
- 3) blind & pipe rams will be activated each trip, but no more than daily

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested before drilling surface, casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated daily to ensure good mechanical working order and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs. Maximum expected bottom hole pressure will be  $\leq 840$  psi. BOP and mud system will control pressure.

### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	Weight (lb/ft)	<u>Grade</u>	Age	Connection	Depth Set
12-1/4"	8-5/8"	24	J-55	New	ST&C	225'
7-7/8"	5-1/2"	15.5	J-5 <b>5</b>	New	ST&C	2,100'

Surface casing will be cemented to the surface with 190 cubic feet (135 sacks) Type III with 3%  $CaCl_2 + 1/4$  pound per sack cello flake. Yield = 1.41 cubic feet per sack. Weight = 14.5 pounds per gallon. Volume:  $\geq 100\%$  excess. A guide shoe and insert float will be used. W. O. C. =12 hours. Surface casing will be tested to 1,500 psi for 30 minutes. At least 3 centralizers will be used.

Production casing will be cemented to the surface. Total cement:  $\geq 556$  cubic = feet. Volumes are calculated at >50% excess. If cement does not circulate to the surface, then a temperature survey will be run to determine the actual cement top as needed. W. O. C. = 12 hours. Test to 2,000 psi.



PAGE 4

Lead with 200 sacks premium light high strength FM  $\pm$  2% potassium chloride  $\pm$  1/2 pound per sack cello flake  $\pm$  0.2% CD-32  $\pm$  0.5% FL-52  $\pm$  2% phenoseal. Weight  $\pm$  12.5 pounds per gallon. Yield  $\pm$  2.01 cubic feet per sack. Tail with 100 sacks Type III cement  $\pm$  0.3% CD-32  $\pm$  0.2% FL-52  $\pm$  1/4 pound per sack cello flake  $\pm$  2% phenoseal. Weight  $\pm$  14.2 pounds per gallon. Yield  $\pm$  1.54 cubic feet per sack. Cement equipment will include a guide shoe, float collar, and approximately 10 centralizers.

### 5. MUD PROGRAM

<u>RANGE</u>	<u>MUD TYPE</u>	WEIGHT
0' - 225'	Fresh-Spud	8.4
225' - TD	LSND	8.6

Lost circulation and absorption material will be on location.

## 6. CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. GR, Neutron-Density, and Induction - logs will be run.

### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\leq$ 840 psi.

### 8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take about 1 week to drill and about 1 week to complete the well.



### 1. <u>DIRECTIONS & EXISTING ROADS</u> (See PAGES 10 & 11)

From the junction of US 64 and US 550 in Bloomfield ...

Go South for 11.7 miles on US 550 to the equivalent of Mile Post 139.8

Then turn right onto paved County Road 7100 N-3002 and go SW 1.8 miles

Then turn right onto paved N-4022 and go NW 0.6 miles

Then turn right and go East 0.5 mile on a dirt road

Then turn right and go South 68' cross country to the proposed pad

Roads will be maintained to at least equal their present condition.

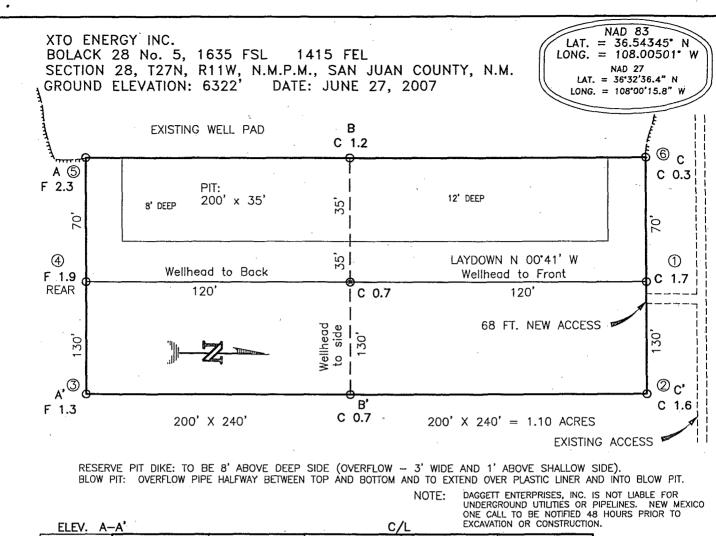
### 2. ROAD TO BE BUILT OR UPGRADED (See PAGE 13)

The final 68' of road will be built to BLM Gold Book standards. This will consist of crowning and ditching with a 14' wide running surface. Maximum disturbed width will be 20'. Road crown will be 0.03' to 0.05' per foot. Topsoil will initially be windrowed beside the road. Borrow ditch inside slope will be 4:1. Borrow ditch outside slope will be 2:1. Ditch bottom will be a smooth V with no vertical cut. Borrow ditch depth will be 1 foot. Once the ditch is complete, topsoil will be pulled back onto the cut slopes so there is no berm. Maximum cut or fill = 2'. Maximum grade = 1%. No upgrade, culvert, vehicle turn out, or cattle guard is needed.

# 3. EXISTING WELLS (See PAGE 11)

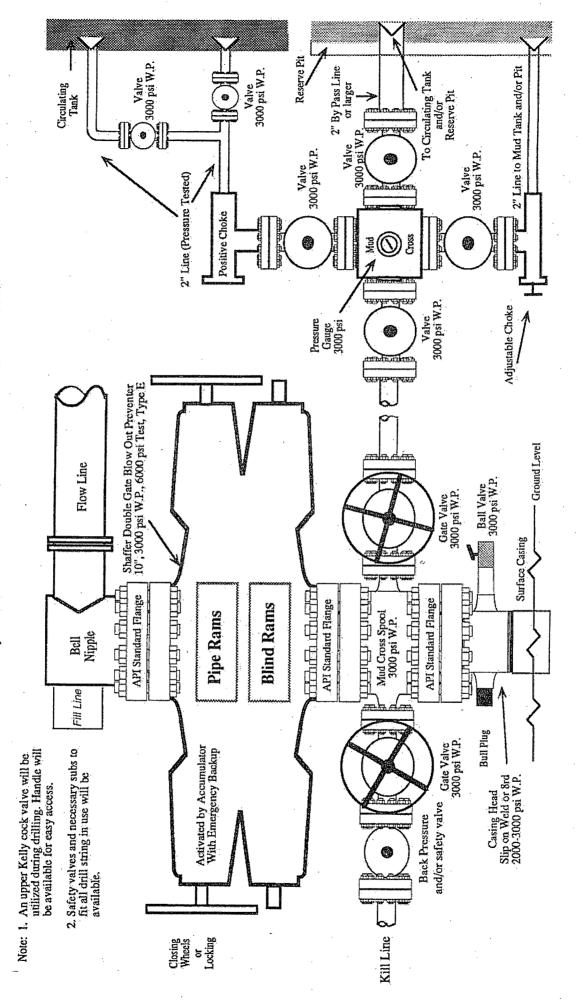
There are 11 oil or gas wells and 10 plugged wells within a mile radius. There are no water, injection, or disposal wells within a mile.





6330 6320 6310 6300 C/I ELEV. B-B' 6330 6320 /erp.,
/d Oil Field Serv.,
/ remington, NM 87499 6310 Daggett Enterprises, 6300 SurveyIng and Oll Fleld P. O. Box 510 •Farmington Phone (505) 326–1772 • Fox (5) NEW MEXICO L.S. No. 8 C/L ELEV. C-C' 6330 6320 6310 6300 NOTE: 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.

# 2,000 PSI BOP SYSTEM



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.