

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

XTO Energy Inc.

3. ADDRESS AND TELEPHONE NO.

2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

670' FSL & 670' FEL in Sec 21, T30N, R11W

At proposed prod. zone

same as above

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

2 air miles south of the Aztec, NM Post Office

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any) 670'

16. NO. OF ACRES IN LEASE

+317.88

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

317.88 *EL*

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT. 15'

19. PROPOSED DEPTH

2,400'

20. ROTARY OR CABLE TOOLS

0-2,400' with Rotary Tools

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5,831' Ungraded Ground Level

22. APPROX. DATE WORK WILL START\*

Winter 2003

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
8-3/4"	7", J-55	20.0#/ft	+200'	75 sx Type III or C1 B cement
6-1/4"	4-1/2", J-55	10.5#/ft	+2,400'	195 sx Premium Lite cement

XTO ENERGY INC. Request approval to drill the above mentioned well as described in the enclosed Surface Use Plan and proposed Drilling Program.

Note: Due to this well being located on existing location, No pipeline ROW is required.

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE *Drilling Engineer*

DATE *2/24/03*

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

*/s/ David J. Mankiewicz*

APR 25 2003

APPROVED BY

TITLE

DATE

\*See Instructions On Reverse Side

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

Form C-102  
Revised August 15, 2000

DISTRICT II  
811 South First, Artesia, N.M. 88210

**DISTRICT III**  
**1000 Rio Brazos Rd., Aztec, N.M. 87410**

**DISTRICT IV**  
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 71629		3 Pool Name BASIN FRUITLAND COAL	
4 Property Code		5 Property Name BRUINGTON GAS COM C			6 Well Number 3
7 OGRID No. 167067		8 Operator Name XTO ENERGY INC.			9 Elevation 5831'

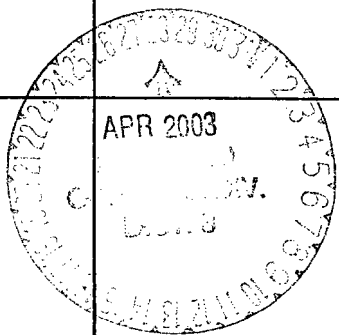
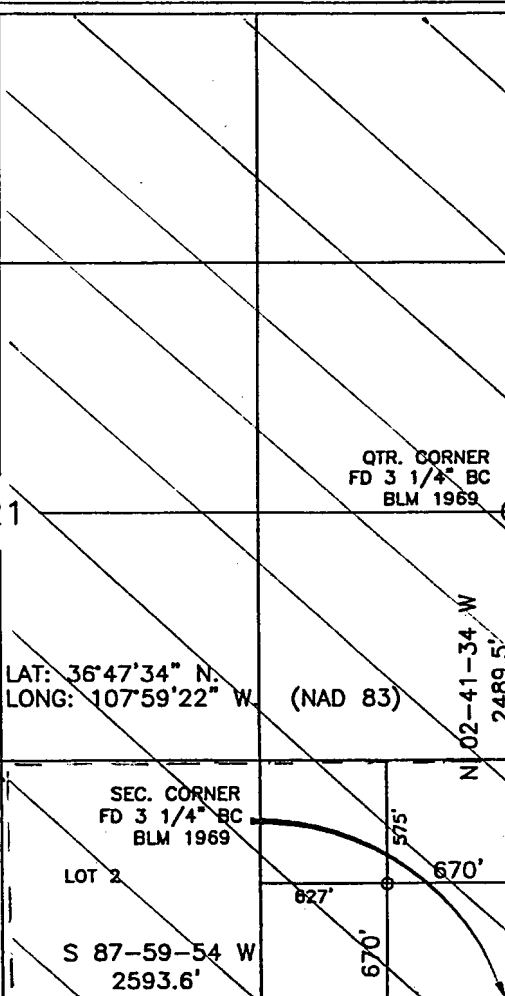

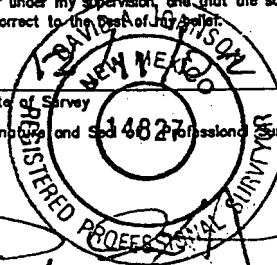
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	21	30-N	11-W		670	SOUTH	670	EAST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 317.88      E/Z			<sup>13</sup> Joint or Infill I		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		

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

<div style="text-align: center;">  </div>	<div style="text-align: center;">  </div>	<div style="text-align: center;"> <h3>17 OPERATOR CERTIFICATION</h3> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <div style="text-align: right;">  </div> <p>Signature _____</p> <p>Printed Name <u>JEFFREY W. PATTON</u></p> <p>Title <u>DRILLING ENGINEER</u></p> <p>Date <u>2-21-03</u></p> </div>
<p style="text-align: center;">FED LEASE NUMBER</p> <p style="text-align: center;"><u>SF-078398</u></p>	<p style="text-align: center;">LAT: 36°47'34" N. LONG: 107°59'22" W. (NAD 83)</p>	<div style="text-align: center;"> <h3>18 SURVEYOR CERTIFICATION</h3> <p>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 and correct to the best of my belief.</p> <div style="text-align: right;">  </div> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p style="text-align: right;">14827</p> <p>Certificate Number _____</p> </div>

**XTO ENERGY INC.**  
**DRILLING PROCEDURE**  
**BRUINGTON GAS COM "C" #3**  
**Basin Fruitland Coal**  
**February 24, 2003**

**Location:** 670' FSL & 670' FEL, Sec 21, T30N, R11W    **County:** San Juan    **State:** New Mexico

**PROJECTED TOTAL DEPTH:** 2,400'    **OBJECTIVE:** Fruitland Coal    **GR ELEV:** 5,831'

**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  $\pm 200'$  in 8.8 ppg mud.

Interval	Length	Wt (ppf)	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	DD (in)	SF Coll	SF Burst	SF 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  $\pm 2,400'$  in 8.8 ppg mud.

Interval	Length	Wt (ppf)	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	DD (in)	SF Coll	SF Burst	SF Tension
0'-TD	2,400'	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

**EXHIBIT E**

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 equivalent) containing 1/4 pps celloflake, 2%  $\text{CaCl}_2$  (mixed at 14.6 ppg, 1.39 ft<sup>3</sup>/sk, 6.67 gal wtr/sk).

Total slurry volume is 104.25 ft<sup>3</sup>, 250% excess of calculated annular volume required to circulate cement to surface.

B. **Production:** 4-1/2", 10.5#, J-55, STC casing at  $\pm 2,400'$ .

Lead: 125\* sx of Type III cement containing 8% gel, 1/4 pps Celloflake & 2% Phenoseal (mixed at 11.4 ppg, 3.03 ft<sup>3</sup>/sk, 18.51 gal wtr/sk).

Tail: 70 sx Type III cement containing 1%  $\text{CaCl}_2$ , 1/4 pps Celloflake & 2% Phenoseal (mixed at 14.5 ppg, 1.41 ft<sup>3</sup>/sk, 6.72 gal wtr/sx).

Total estimated slurry volume is 477 ft<sup>3</sup>,  $\pm 100\%$  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:**

- H<sub>2</sub>S or other Poisonous Gases: No formations known to contain H<sub>2</sub>S 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.

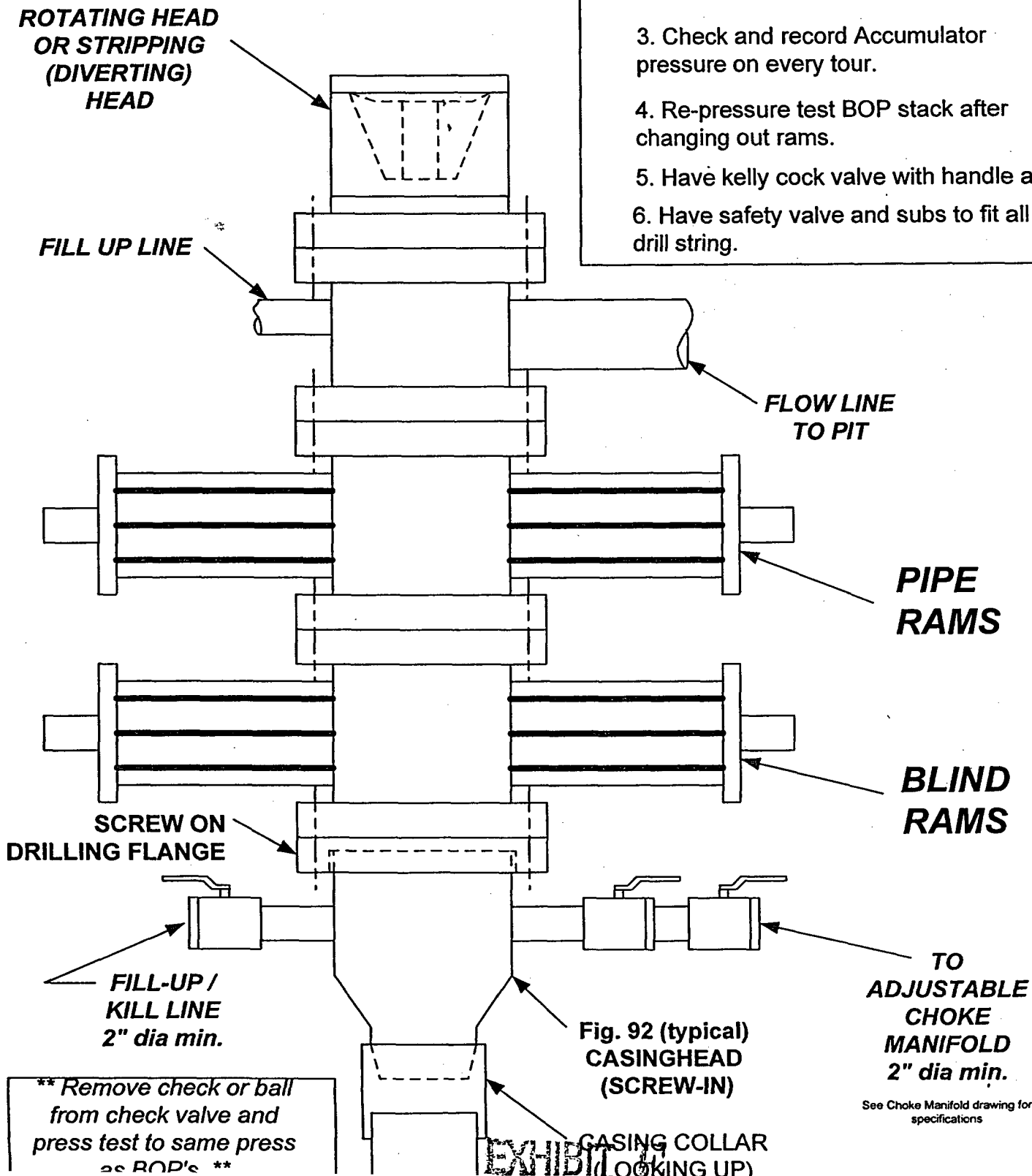
6. **LOGGING PROGRAM:**

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

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

**EXHIBIT E**

# BOP SCHEMATIC 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 csg (10 min).

## 2. Test operation of (both) rams on every trip.

## 3. Check and record Accumulator pressure on every tour.

## 4. Re-pressure test BOP stack after changing out rams.

## 5. Have kelly cock valve with handle available.

## 6. Have safety valve and subs to fit all sizes of drill string.

**TESTING  
PROCEDURE**

See Choke Manifold drawing for specifications