

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 ☒

070 Farmington, NM

b. TYPE OF WELL

OIL  
WELL ☐

GAS  
WELL ☐

OTHER Salt Water Disposal

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

1820' FSL & 1590' FEL Sec 17, T32N, R12W  
At proposed prod. zone

same

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

See enclosed surface use program

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any) 1,590'

16. NO. OF ACRES IN LEASE

536.840

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

n/a (SWD well)

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT. 800'

19. PROPOSED DEPTH

7,600'

20. ROTARY OR CABLE TOOLS

6,915'-7,600' w/Rotary Tools

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

6,023' Ungraded Ground Level

22. APPROX. DATE WORK WILL START\*

Summer, 2003

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
6-1/4"	4-1/2" J-55	10.5 #/ft	0'-7,600'	545 sx Cement

XTO Energy Inc. request approval to deepen the above mentioned well into the Entrada and Bluff Sandstone for the purpose of produced water disposal. A produced water pipeline ROW is also being requested in this application.

A Surface Use Plan, C-102 Plat, produced water ROW map and Drilling Prognosis are attached for your review.

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

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

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

*JW Patton*

TITLE Drilling Engineer

DATE 8/5/03

(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:

**David J. Markiewicz**

FEB 18 2004

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 any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NRNM

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
811 S. 1st Street, Artesia, NM 88210-2834  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised October 18, 199  
Instructions on bac  
Submit to Appropriate District O  
State Lease - 4 Copie  
Fee Lease - 3 Copie

070 Farmington, NM

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-045-23779	<sup>2</sup> Pool Code 96162	<sup>3</sup> Pool Name SWD; Morrison, Entrada, Bluff
<sup>4</sup> Property Code 22817	<sup>5</sup> Property Name Stanolind Gas Com "D"	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 167067	<sup>8</sup> Operator Name XTO Energy Inc.	<sup>9</sup> Elevation 6.023' GL

<sup>10</sup> Surface Location

UL or lot no. J	Section 17	Township 32 N	Range 12 W	Lot. Idn	Feet from the 1,820'	North/South Line South	Feet from the 1,590'	East/West line East	County San Juan
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<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
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<sup>12</sup> Dedicated Acres n/a	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. SWD - 878
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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

				<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Jeffrey W. Patton Printed Name Drilling Engineer Title 5/29/03 Date
				<sup>18</sup> SURVEYOR CERTIFICATION 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.  7/20/81 Date of Survey Signature and Seal of Professional Surveyer: ORIGINAL SIGNED BY FRED B. KERR J12. 3950' Certificate Number

# XTO ENERGY INC.

Stanolind Gas Com "D" #1

Salt Water Disposal Well

May 29, 2003

Surface Location: 1,820' FSL & 1,590' FEL, Sec 17, T32N, R12W County: San Juan State: New Mexico

PROJECTED TOTAL DEPTH: ±7,600'  
GR ELEV: 6,023'

OBJECTIVE: Bluff / Entrada Sandstone  
Est KB ELEV: 6,035' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	6,915' to 7,600'
HOLE SIZE	6-1/4"
MUD TYPE	Gel Chem / LSDN
WEIGHT	8.6-9.0
VISCOSITY	45-56
WATER LOSS	8-12 cc

Remarks: Use fibrous materials as needed to control seepage and lost circulation. Pump high viscosity sweeps as needed for hole cleaning. RU air compressors after setting the intermediate csg. Drill with air or foam to TD.

## 2. CASING PROGRAM:

Production Casing: 4-1/2" casing to be set at 7,600' in 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'-7,600'	7,600'	10.5#	J-55	STC	4010	4790	132	4.052	3.927	1.33	1.20	1.90

## 3. WELLHEAD:

Casinghead Spool: IC-2 or ER-22 (typically) Molded Flanged 11" dia (nominal) with 4-1/2" casing slips, 3,000 psig WP (6,000 psig test) spool.

Tubinghead: "C" type Tubing Head (typically) Flanged 11" dia (nominal) x 7-1/16" dia (nominal) with 2-3/8" tubing head, 5,000 WP (10,000 psig test)

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

*Stages*  
Production: 4-1/2", 10.5#, J-55, STC casing to be set at ±7,600'. DV Tool set @ +4,600'

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

Lead: 120 sx of Premium Lite FM (65/35/6) with 6% gel, ¼ pps celloflake, 2% KCl, 0.5% fluidloss, 0.2% dispersant & 2% LCM mixed at 11.9 ppg, 2.22 ft³/sk, 12.45 gal wtr/sx.

Tail: 150 sx of Class "H" with ¼ pps celloflake, 0.5% fluidloss, 0.2% dispersant and 2% LCM mixed at 15.6 ppg, 1.20 ft³/sk, 5.11 gal wtr/sx..

**EXHIBIT E**

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

Lead: 175 sx Type III cement with 8% gel, 1 % CC & 1/4 pps celloflake mixed at 11.4 ppg, 3.05 cuft/sx, 18.60 gal wtr/sx..

Tail: 100 sx Type III neat mixed at 14.5 ppg, 1.39 cuft/sx, 6.81 gal wtr/sx.

*Total estimated slurry volume for the 4-1/2" production casing is 1,120 ft<sup>3</sup>. Est. TOC should be @ surface. .*

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined for the caliper logs plus 40%.*

### 5. LOGGING PROGRAM:

A. Mud Logger: The mud logger will come on the hole from 6,915' to TD (7,600').

B. Open Hole Logs as follows: Run Dual Induction/MSFL/GR/CAL/SP/CNL/LDT (lithodensity) from TD to the bottom of the original 7" production casing string. Cased hole logs (GR/CCL) will be run from TD to surface.

### 6. FORMATION TOPS:

Formation	Subsea Depth	Well Depth (MD)
Original 7" casing is set in the Morrison Formation @ 6,915'		
Bluff SS	-895'	6930'
Summerville Shale	-1215'	7250'
Todilto Limestone	-1307'	7342'
Entrada SS	-1318'	7353'
<i>chinker</i> <del>Carmel</del> Formation	-1463'	7498'
Projected TD	-1565'	7600'

Anticipated BHA should be +-3,000 psig.

### 7. COMPANY PERSONNEL:

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
Dennis Elrod	Drilling Foreman	505-486-6460 cell	505-326-2024
Glen Christiansen	Project Geologist	817-885-2352	817-341-8834
Robin Tracy	Reservoir Engineer	817-885-2422	

JWP  
5/29/03

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

## TESTING PROCEDURE

### 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).

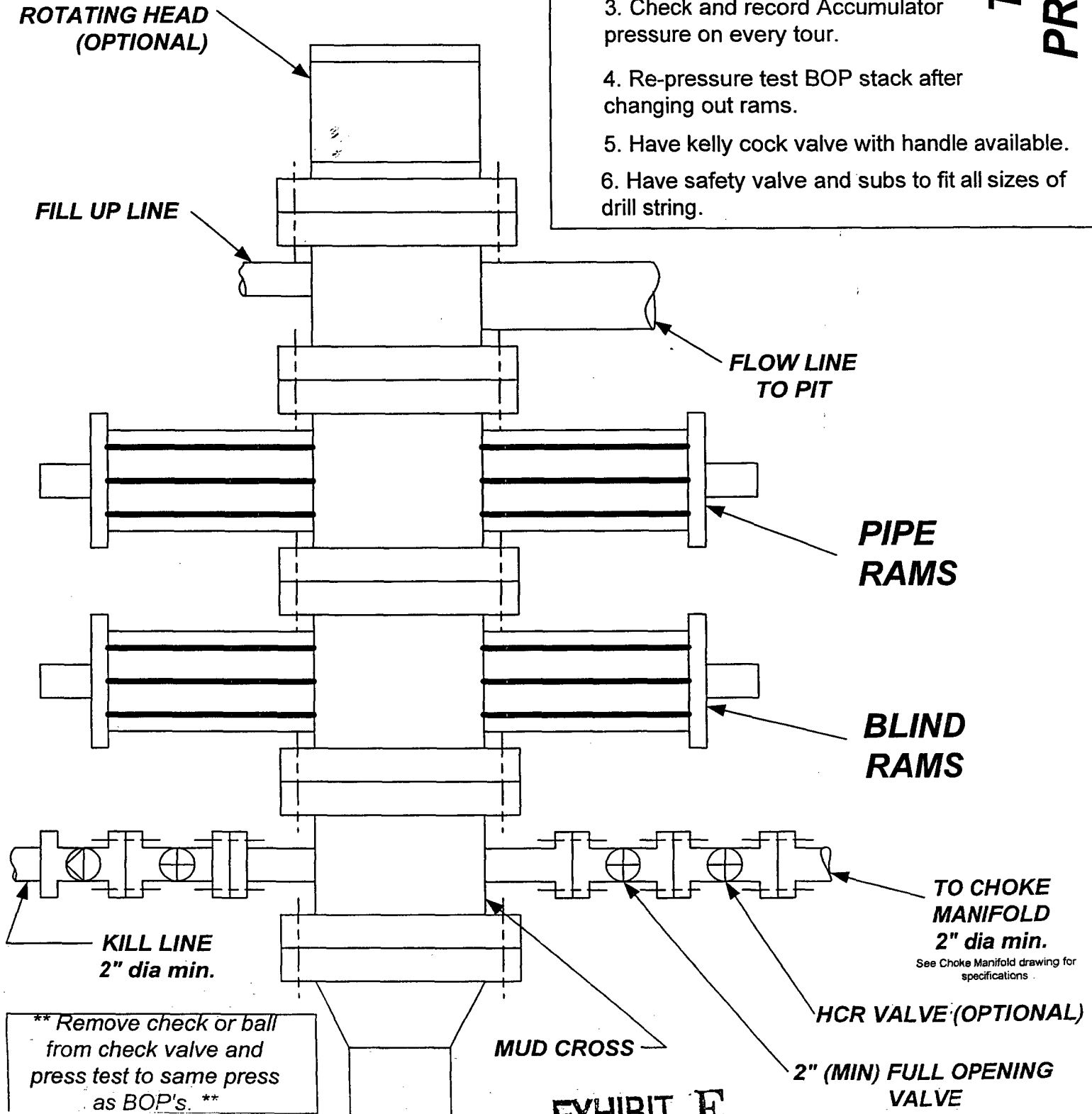
### 2. Test operation of (both) rams on every trip.

### 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.





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

Joanna Prukop  
Cabinet Secretary

**Lori Wrotenberg**

Director

Oil Conservation Division

*ADMINISTRATIVE ORDER SWD-878*

## ***APPLICATION OF XTO ENERGY INC. FOR SALT WATER DISPOSAL, SAN JUAN COUNTY, NEW MEXICO.***

### **ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), XTO Energy, Inc., made application to the New Mexico Oil Conservation Division on March 24, 2003, for permission to re-complete for salt water disposal its Stanolind Gas Com "D" Well No. 1 (API 30-045-23779) located 1,820 feet from the South line and 1,590 feet from the East line Lot 10 of Section 17, Township 32 North, Range 12 West, NMPM, San Juan County, New Mexico.

#### **THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

#### **IT IS THEREFORE ORDERED THAT:**

XTO Energy, Inc., is hereby authorized to re-complete its Stanolind Gas Com "D" Well No. 1 (API 30-045-23779) located 1,820 feet from the South line and 1,590 feet from the East line Lot 10 of Section 17, Township 32 North, Range 12 West, NMPM, San Juan County, New Mexico, in such a manner as to permit the injection of produced water for disposal purposes into the Bluff and Entrada formations from approximate respective footages of 6,921 to 7,145 and 7345 to 7,487 through 2 3/8 inch plastic-lined tubing set in a packer located at approximately 6,850 feet.

## **EXHIBIT F**

*Amended Administrative Order SWD-878*

*XTO Energy, Inc.*

*April 9, 2003*

*Page 2*

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

**Prior to injection, existing open perforations shall be cement squeezed, the well deepened to approximately 7,800 feet and 4-1/2 inch casing installed and cemented from surface to TD. Water samples shall be obtained from the new Bluff and Entrada perforations and water analysis supplied to the Division.**

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to **no more than 1,384 psi.**

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Bluff and Entrada formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

**PROVIDED FURTHER THAT,** jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-120-A, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for

**EXHIBIT F**

*Amended Administrative Order SWD-878*

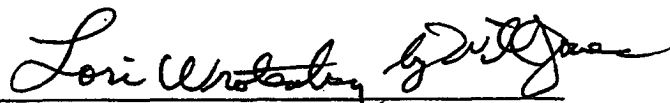
*XTO Energy, Inc.*

*April 9, 2003*

*Page 3*

good cause shown.

Approved at Santa Fe, New Mexico, on this 9th day of April 2003.

A handwritten signature in cursive script, appearing to read "Lori Wrotenbery", is written over a horizontal line.

LORI WROTENBERY, Director

LW/wvjj

cc: Oil Conservation Division – Aztec  
Bureau of Land Management – Farmington

**EXHIBIT F**