

# RECEIVED

RCVD DEC 17 '07

OIL CONS. DIV.

DIST. 3

Form 3160-3  
(February 2005)

NOV 09 2007

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Bureau of Land Management  
Farmington Field Office

Lease Serial No.  
NMNM 003380

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name N/A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No N/A
2. Name of Operator XTO Energy, Inc.		8. Lease Name and Well No. FLORANCE #76
3a. Address 382 CR 3100 AZTEC, NM 87410	3b. Phone No. (include area code) 505-333-3100	9. API Well No. 30-045-34501
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 975' FNL x 665' FEL At proposed prod. zone 1980' FNL x 660' FWL Lot 2/E		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* Approximately 2.6 miles Southeast of Bloomfield, NM post office		11. Sec., T R. M. or Blk. and Survey or Area (A) SEC 18, T27N, R8W
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 2400.96	17. Spacing Unit dedicated to this well FC: 320.96
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 541	19. Proposed Depth MD=6460'	20. BLM/BIA Bond No. on file UTB-000138
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6789' Ground Elevation	22. Approximate date work will start* 01/21/2007	23. Estimated duration 2 weeks

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature <i>Kyla Vaughan</i>	Name (Printed/Typed) Kyla Vaughan	Date 11/08/2007
Title Regulatory Compliance		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 12/14/07
Title AFM		Office FFO

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.

\*(Instructions on page 2)

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

HOLD C104 FOR directional survey  
and as drilled c-102.  
NMOC

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

DEC 20 2007



H.S. POTENTIAL EXIST

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

# APD/ROW

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

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

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

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

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 36045-34501-11629		<sup>2</sup> Pool Code 29		<sup>3</sup> Pool Name Basin Fruitland Coal	
<sup>4</sup> Property Code 22608		<sup>5</sup> Property Name FLORANCE		<sup>6</sup> Well Number 76	
<sup>7</sup> GRID No. 5380		<sup>8</sup> Operator Name XTO ENERGY INC.		<sup>9</sup> Elevation 6789'	

<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
A	18	27-N	8-W	2	975	NORTH	665	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
E	18	27-N	8-W	2	1980	NORTH	660	WEST	SAN JUAN

<sup>12</sup> Dedicated Acres N/2 320.96	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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

<p>16</p> <p>QTR. CORNER FD 3 1/4" BC 1947 GLO</p> <p>S 87-53-16 E 2602.00' (M)</p> <p>LOT 1</p> <p>1980'</p> <p>LOT 2</p> <p>BHL</p> <p>660'</p> <p>BOTTOM HOLE LOCATION LAT: 36°34'37.10" N. (NAD 27) LONG: 107°43'41.60" W. (NAD 27)</p> <p>LOT 3</p> <p>LOT 4</p>		<p>QTR. CORNER FD BRASS CAP 1955 BC</p> <p>N 87-52-39 W 2589.60' (M)</p> <p>SURFACE LOCATION LAT: 36.57936° N. (NAD 83) LONG: 107.71572° W. (NAD 83) LAT: 36°34'45.7" N. (NAD 27) LONG: 107°42'54.4" W. (NAD 27)</p> <p>18</p> <p>QTR. CORNER FD 3 1/4" BC 1955 GLO</p> <p>S 00-20-29 W 2667.10' (M)</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature: <i>John</i> Date: 8/6/07</p> <p>Printed Name: Johnson</p> <p>18 SURVEYOR CERTIFICATION</p> <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> <p>MARCH 9, 2007 Date of Survey</p> <p>Signature and Seal: <i>ROY A. RUSH</i> Professional Surveyor 8894</p> <p>Certificate Number: 8894</p>	
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Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. <b>30-045-34501</b>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		7. Lease Name or Unit Agreement Name: <b>FLORANCE</b>
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		8. Well Number <b>#76</b>
2. Name of Operator <b>XTO Energy Inc.</b>		9. OGRID Number <b>5380</b>
3. Address of Operator <b>382 CR 3100 AZTEC, NM 87410 505-333-3100</b>		10. Pool name or Wildcat <b>BASIN FRUITLAND COAL</b>
4. Well Location Unit Letter <b>A</b> : <b>975</b> feet from the <b>NORTH</b> line and <b>665</b> feet from the <b>EAST</b> line Section <b>18</b> Township <b>27N</b> Range <b>8W</b> NMPM <b>NMPM</b> County <b>SAN JUAN</b>		
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <b>6789' GROUND ELEVATION</b>		
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/> Pit type <b>DRILL</b> Depth to Groundwater <b>&gt;100</b> Distance from nearest fresh water well <b>&gt;1000</b> Distance from nearest surface water <b>&lt;200</b> Pit Liner Thickness: <b>12</b> mil Below-Grade Tank: Volume <b>3000</b> bbls; Construction Material		

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: **PIT**

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

**XTO Energy plans to construct a lined pit on location for drilling.**

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE *Kyla Vaughan* TITLE Regulatory Compliance DATE 11/06/2007  
Type or print name Kyla Vaughan E-mail address: kyla\_vaughan@xtoenergy.com Telephone No. 505-333-3159

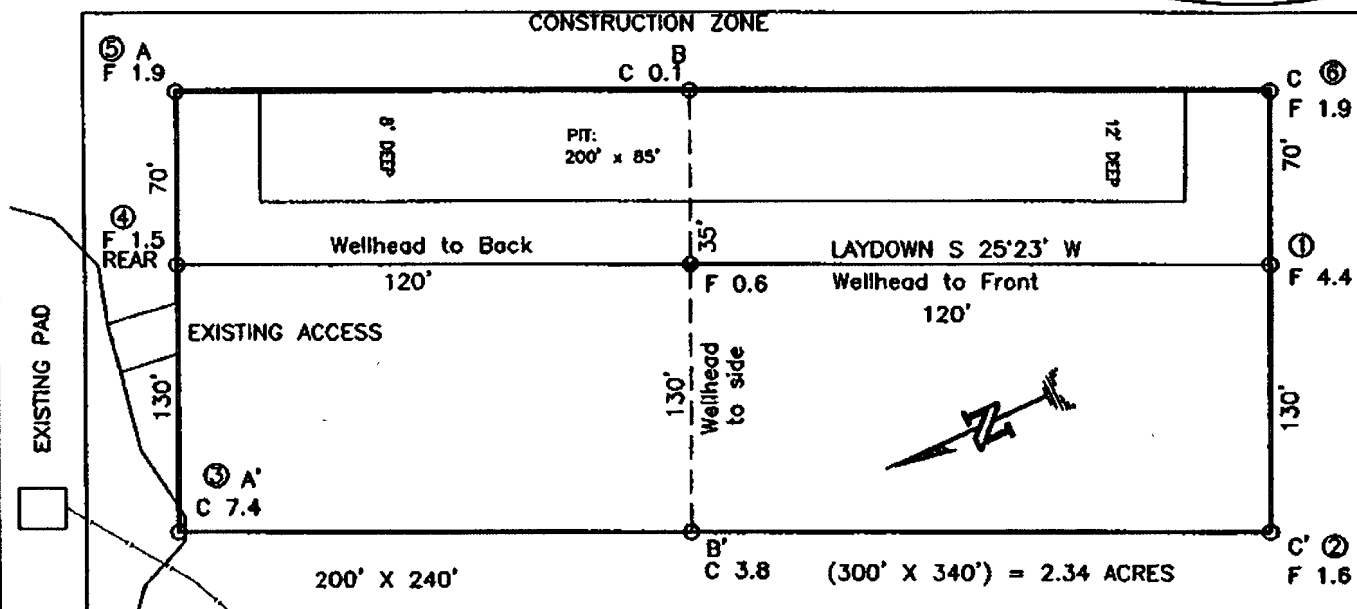
For State Use Only:

APPROVED BY *[Signature]* TITLE Deputy Oil & Gas Inspector, District #3 DATE DEC 20 2007  
Conditions of Approval, if any:

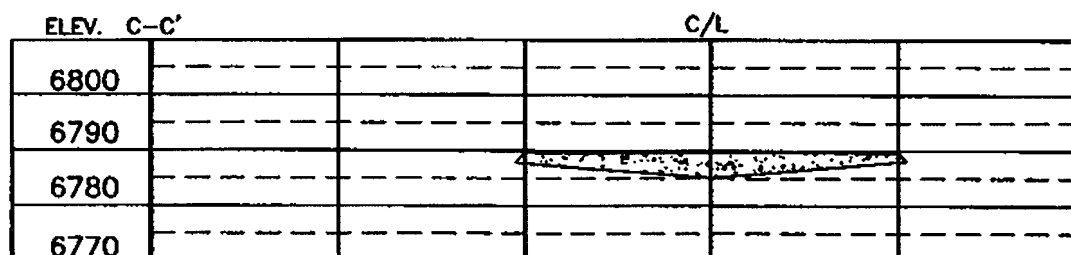
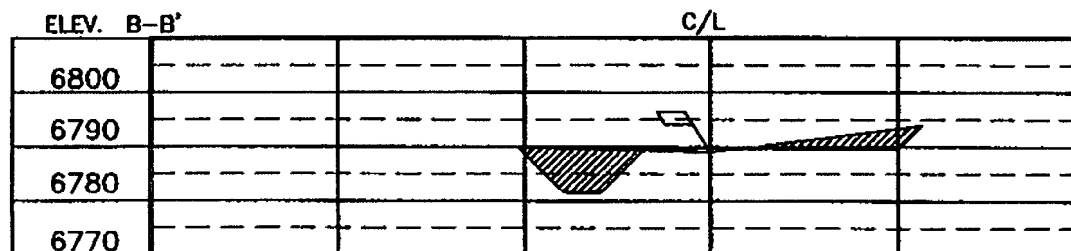
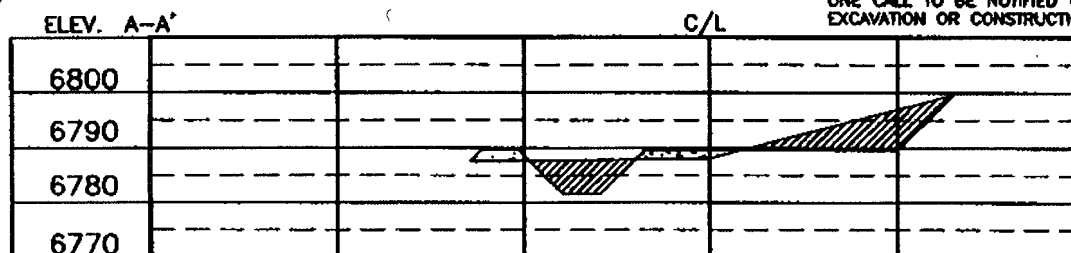
**EXHIBIT D**

**NAD 83**  
LAT. = 36.57936° N  
LONG. = 107.71572° W

**NAD 27**  
LAT. = 36°34'45.7" N  
LONG. = 107°42'34.4" W



**NOTE: DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.**



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.

**Daggett Enterprises, Inc.**  
Surveying and Oil Field Services  
P. O. Box 15048 • Farmington, NJ 07401  
Phone (505) 328-1772 • Fax (505) 328-0019



CONFIDENTIAL

**EXHIBIT E**

**XTO ENERGY INC.****Florance #76****APD Data****December 12, 2007****RECEIVED****DEC 14 2007**Bureau of Land Management  
Farmington Field Office**Location:** 975' FNL x 665' FEL Sec 18, T27N, R8W **County:** San Juan**State:** New Mexico**Bottomhole Location:** 1980' FNL x 660' FWL Sec 18, T27N, R8W**GREATEST PROJECTED TVD:** 2815'**APPROX GR ELEV:** 6789'**GREATEST PROJECTED MD:** 6460'**Est KB ELEV:** 6801' (12' AGL)**OBJECTIVE:** Fruitland Coal**1. MUD PROGRAM:**

INTERVAL	0' to 300'	300' to 3100'	3100' to TD
HOLE SIZE	12.25"	8.75"	6.125"
MUD TYPE	FW/Spud Mud	FW/Polymer	Air/Mist
WEIGHT	8.6-9.0	8.4-8.8	NA
VISCOSITY	28-32	28-32	NA
WATER LOSS	NC	NC	NC

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. Use Fruitland Coal produced water as make-up water for mist fluid. Pump enough fluid to dampen vibration at directional BHA. If directional control is not maintainable in air/mist environment convert to polymer mud.

**2. CASING PROGRAM:**Surface Casing: 9.625" casing to be set at  $\pm 300'$  in a 12.25" hole filled with 9.20 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll <sup>1</sup>	SF Burst <sup>2</sup>	SF Ten <sup>3</sup>
0'-300'	300'	36.0#	J-55	ST&C	2020	3520	394	8.921	8.765	18.76	32.7	48.6

**3100' 2814'**Intermediate Casing: 7" casing to be set at  $\pm 1800'$  MD, 1494' TVD in 8.75" hole filled with 9.20 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll <sup>1</sup>	SF Burst <sup>2</sup>	SF Ten <sup>3</sup>
0'-3100	3100'	23.0#	J-55	ST&C	3270	4360	284	6.276	6.151	4.58	6.10	6.86

**6460' 2814'**Production Casing: 4.5" casing to be set at  $\pm 5125'$  MD, 1494' TVD in 6.125" hole filled with 8.4 ppg mud.

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll <sup>1</sup>	SF Burst <sup>2</sup>	SF Ten <sup>3</sup>
3040'-6460'	3420'	10.5	J-55	ST&C	4010	4790	132	4.052	3.927	6.14	6.70	3.78

<sup>1</sup>Collapse SF is based on evacuated annulus and hydrostatic at TVD.<sup>2</sup>Burst SF is based on evacuated casing and hydrostatic at TVD.

<sup>3</sup>Tensile SF is based on hanging air weight of casing in a vertical hole at measured depth.

3. **WELLHEAD:**

- A. Casing Head: WHI QDF System (or equivalent), 9-5/8" x 7", 3,000 psig WP (4,000 psig test) with 9-5/8" 8rnd thread ST&C pin end on bottom and 4-1/2" slips on top.
- B. Tubing Head: WHI W2F (or equivalent), 7.063" nominal, 5,000 psig WP (5,000 psig test), 5-1/2" slip-on or weld-on.

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

- A. Surface: 9.625", 36.0#, J-55, ST&C casing to be set at  $\pm 300'$  in 12-1/4" hole.

178 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 188 ft<sup>3</sup>, 100% excess of calculated annular volume to 300'. ✓*

- B. Production Casing: 7", 23#/ft, J-55, ST&C casing to be set at  $\pm 3100'$  MD, 2814' TVD in 8.75" hole. ~~Int.~~

LEAD:

$\pm 179$  sx of Premium Lite FM or CBM Lite typically containing accelerator, LCM, dispersant, and fluid loss additives at 12.1 ppg, 2.22 ft<sup>3</sup>/sk, & 12.04 gal wtr/sk.

TAIL:

$\pm 255$  sx of Type III or V cement typically containing accelerator, LCM, dispersant, and fluid loss additives at 14.2 ppg, 1.48 ft<sup>3</sup>/sk, & 7.34 gal wtr/sk.

*Total estimated slurry volume for the 7" production casing is 660 ft<sup>3</sup>.*

- C. Production Liner: 4.5", 10.5#/ft, J-55, ST&C casing is to be set at 6460' MD, 2814' TVD in 6.125" hole.

The production liner will be set using an uncemented liner hanger. The liner may be tied back to surface during the completion of the well.

*Note: The slurry design may change slightly based upon actual conditions. Final cement volumes will be determined from the caliper logs (if available) plus 40%. It will be attempted to circulate cement to the surface.*

5. **LOGGING PROGRAM:**

- A. Mud Logger: A geologic consultant or unmanned mud logging unit will begin logging the well once the surface shoe is drilled out and remain on the well to TD.
- B. Open Hole Logs as follows: Gamma Ray from Surface shoe to TD.

6. **FORMATION TOPS:**

See attached Directional Plan.

7. **COMPANY PERSONNEL:**

Name	Title	Office Phone	Home Phone
John Egelston	Drilling Engineer	505-564-6734	505-330-6902
Jerry Lacy	Drilling Superintendent	505-566-7917	505-320-6543
John Klutsch	Project Geologist	817-885-2800	--

JN  
12/12/07

**XTO Energy, Inc.**  
Planning Report

Database: EDM 2003 14 Single User Db  
Company: XTO Energy  
Project: T26N, R11E  
Site: Florance #76  
Well: Florance #76  
Wellbore: Florance #76 -- Permitted Wellplan  
Design: 5 deg/100' to 40 deg & 15 deg/100' to TVL

Local Co-ordinate Reference: Well Florance #76  
TVD Reference: Rig KB @ 6801.0ft (AWS #507)  
MD Reference: Rig KB @ 6801.0ft (AWS #507)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

**Targets**

Target Name	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Florance #76 -- Request	0 00	0.00	2,780 0	-869 4	-3,849 8	2,029,284.49	530,863.24	36° 34' 37 100 N	107° 43' 41 600 W
- plan misses by 34 0ft at 6460 3ft MD (2814.0 TVD, -869 4 N, -3849 8 E)									
- Point									

**Casing Points**

Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
300.0	300 0	9 5/8"	9-5/8	12-1/4
3,100 0	2,814.0	7"	7	8-3/4
6,460 0	2,814.0	4 1/2"	4-1/2	6-1/4

**Formations**

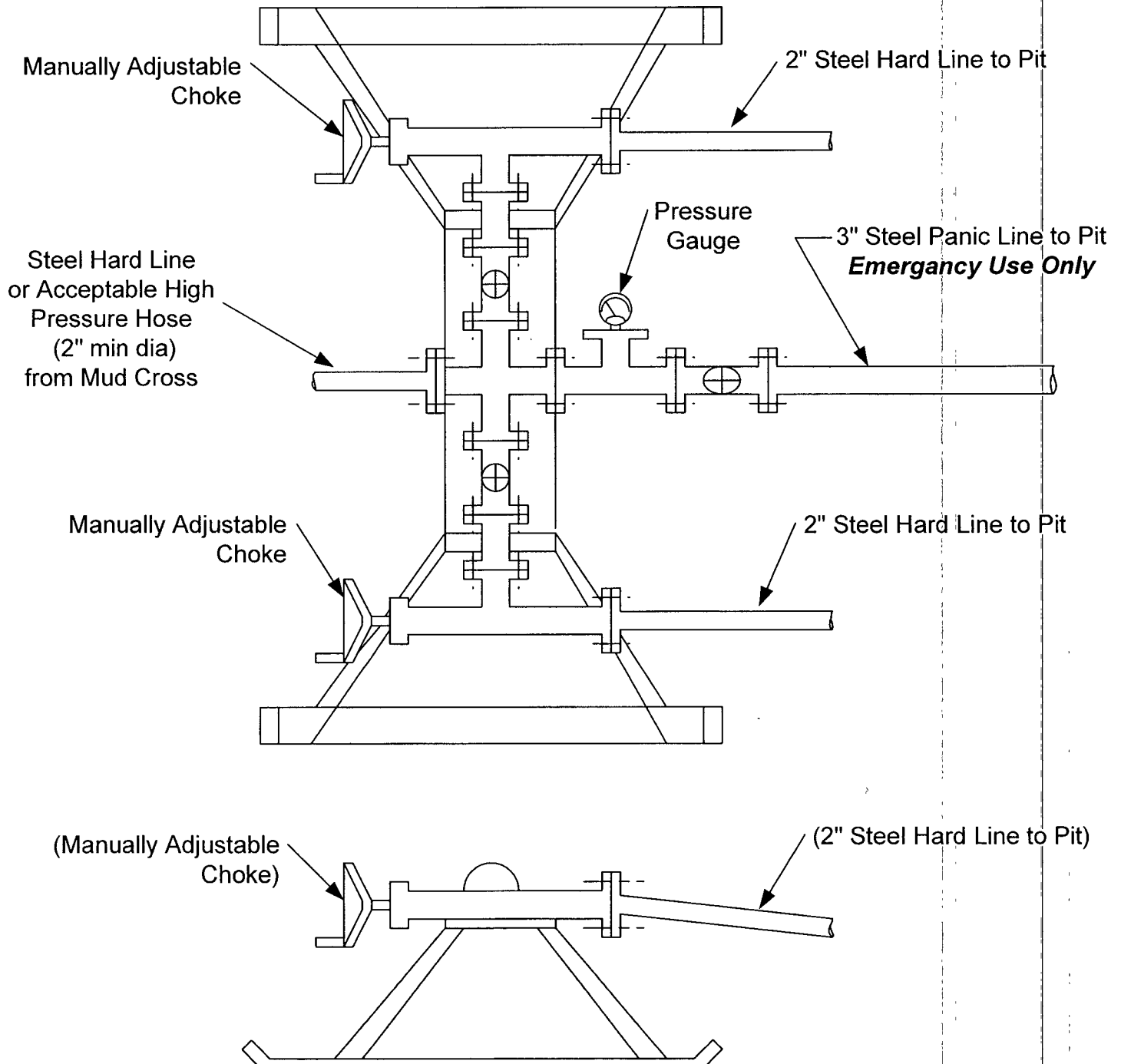
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,908.0	1,908 0	Ojo Alamo SS	Sandstone	0 00	
2,023 1	2,023 0	Kirtland Shale	Shale	0.00	
2,121.7	2,121.0	Farmington SS	Sandstone	0 00	
2,415 4	2,402 0	Fruitland Formation		0.00	
2,947 0	2,793 0	Lower Fruitland Coal	Coal	0.00	
3,069 9	2,814 0	Top of Target Seam	Coal	0 00	
3084	2,828 0	Bottom of Target Seam		0.00	
4184	3,928 0	Pictured Cliffs SS	Sandstone	0.00	



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

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

## **TESTING PROCEDURE**



# 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 10 min.  
Test BOP to Working Press or to 70% internal yield of surf csg (10 min) or which ever is less.
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 on the rig floor and ready to go.

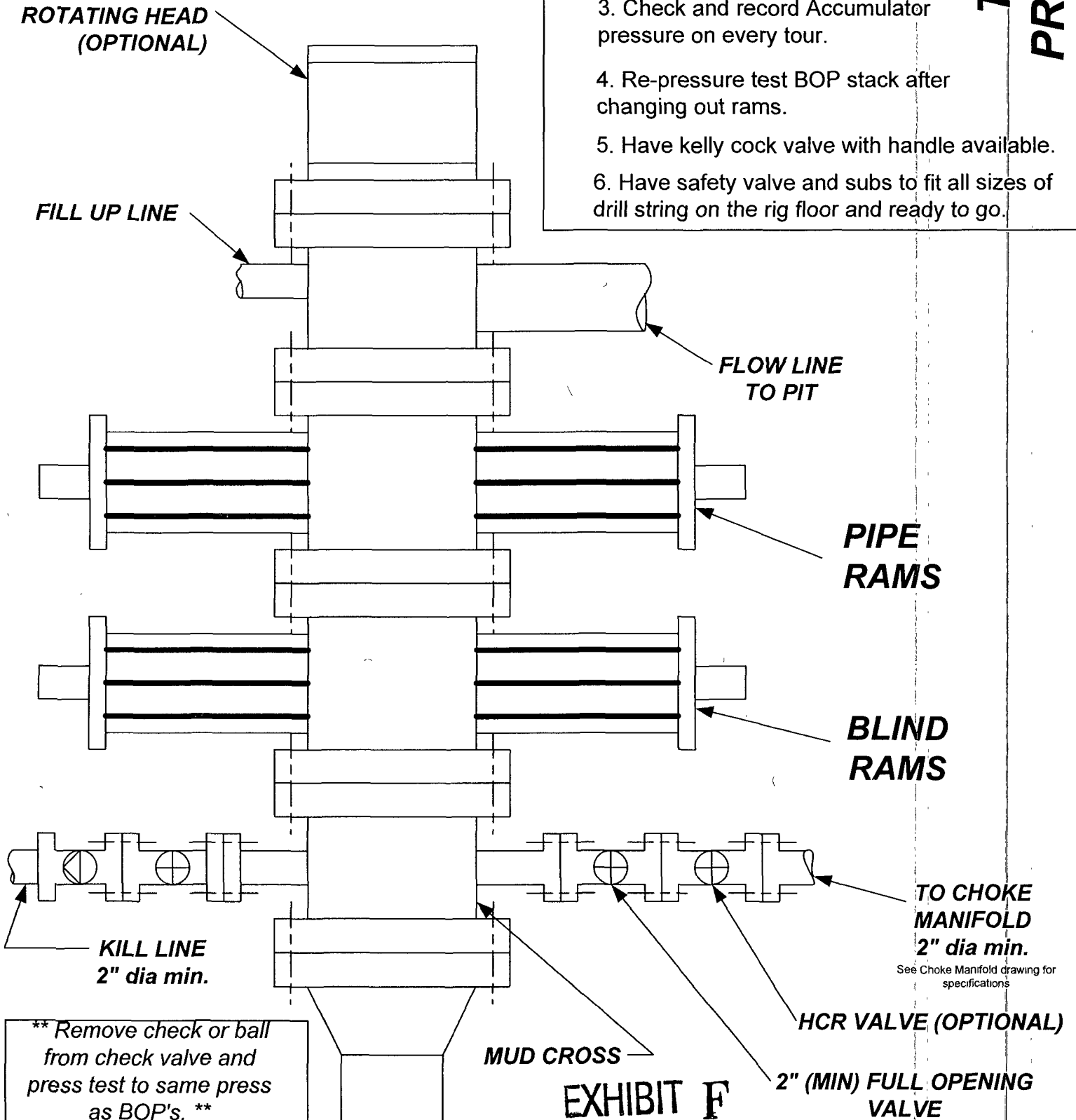


EXHIBIT F