

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		2005 OCT 11 AM 9	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		RECEIVED 070 FARMINGTON NM	
2. Name of Operator <b>XTO Energy Inc.</b>		5. Lease Serial No. <b>JIC-69</b>	
3a. Address <b>2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM</b>		6. If Indian, Allottee or Tribe Name <b>JICARILLA APACHE</b>	
3b. Phone No. (include area code) <b>505-324-1090</b>		7. Unit or CA Agreement Name and No.	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface <b>1585' FSL x 1435' FEL</b> At proposed prod. zone		8. Lease Name and Well No. <b>APACHE FEDERAL #16</b>	
14. Distance in miles and direction from nearest town or post office* <b>Approx 66 miles from Bloomfield, NM Post Office</b>		9. API Well No. <b>30-039-29678</b>	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) <b>Approx 3845'</b>		10. Field and Pool, or Exploratory <b>BALLARD PICTURED CLIFFS</b>	
16. No. of Acres in lease <b>2566.31</b>		11. Sec., T., R., M., or Blk. and Survey or Area <b>J SEC 7, T24N, R5W</b>	
17. Spacing Unit dedicated to this well <b>160 ACRES SE/4</b>		12. County or Parish <b>RIO ARriba</b>	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>Approx 224'</b>		13. State <b>NM</b>	
19. Proposed Depth <b>2400'</b>		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6478' GROUND ELEVATION</b>		22. Approximate date work will start* <b>WINTER 2005</b>	
		23. Estimated duration <b>2 WEEKS</b>	

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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan  | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |
- SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

25. Signature <b>Kyle Vaughan</b>	Name (Printed/Typed) <b>Kyla Vaughan</b>	Date <b>10/10/05</b>
Title <b>Regulatory Compliance Tech</b>		
Approved by (Signature) <b>[Signature]</b>	Name (Printed/Typed) <b>[Blank]</b>	Date <b>1/6/06</b>
Title <b>AFM</b>	Office <b>FFO</b>	

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.

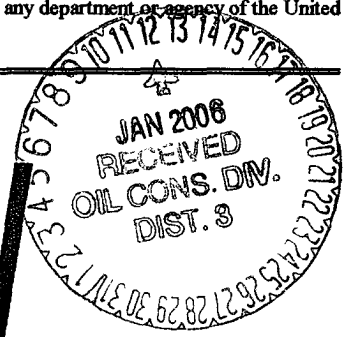
\*(Instructions on page 2)

APD/ROW

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

NMOCD



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

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88200

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 87504-2088

2005 OCT 11 PM 9 36

Form C-102  
Revised June 10, 2003  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-29678		Pool Code 71439	Pool Name Ballard Pictured Cliffs
Property Code 33116	Property Name APACHE FEDERAL		Well Number 16
DCRD No. 1107067	Operator Name XTO ENERGY INC.		Devotion 6478


#### 10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	7	24-N	5-W		1585	SOUTH	1435	EAST	RIO ARriba

#### 11 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
Dedicated Acres 5E/4 1100.00			Joint or Infill		Consolidation Code		Order No.		

15 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>LOT 1</div> <div>LOT 2</div> <div>LOT 3</div> <div>LOT 4</div>	SEC. CORNER FD MARK'D STONE & SET 1/2" REBAR AND 1 POST	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Billy K Small</i> Signature <i>Billy K Small</i> Printed Name Drilling Assistant Title 9/17/04 Date</p> <div>18 SURVEYOR CERTIFICATION</div> <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 knowledge and belief</p> <p>Date of Survey Signature of Surveyor 14831 Certificate Number</p> 	

LAT: 36°19'28" N. (NAD 27)  
LONG: 107°23'49" W. (NAD 27)

1385'

1435'

5380.3' (M)

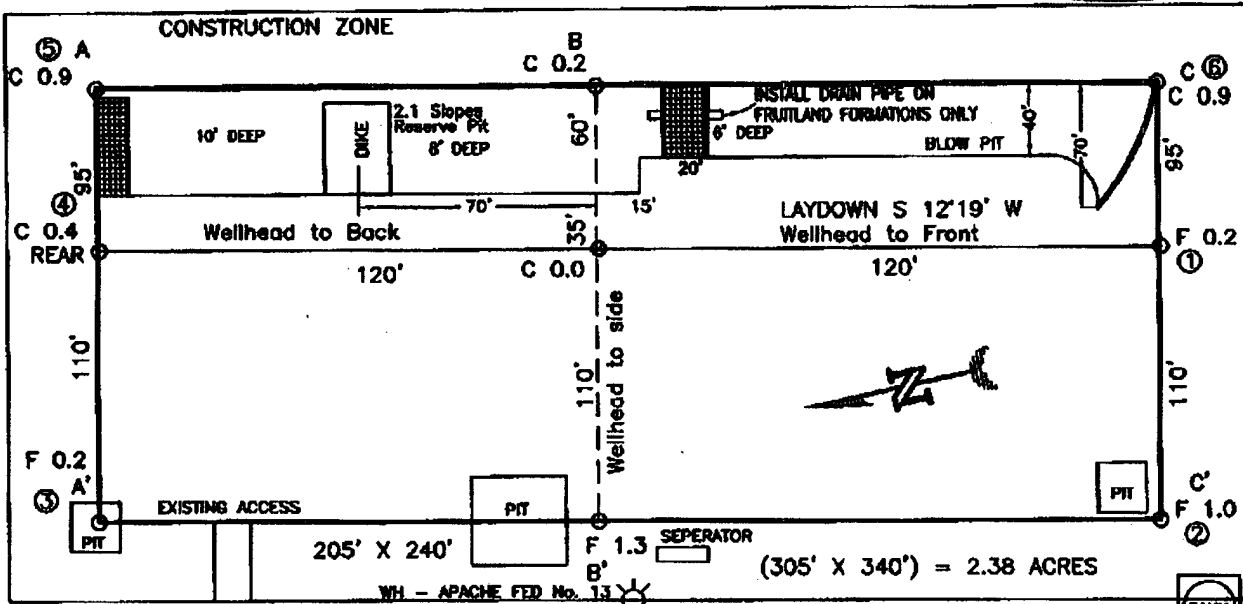
N 89-45-57 E

SEC. CORNER  
FD MARK'D STONE  
& 3/4" REBAR

SEC. CORNER  
FD MARK'D STONE  
& SET 1/2" REBAR

XTO ENERGY INC.  
 APACHE FEDERAL No. 16, 1585 FSL 1435 FEL  
 SECTION 7, T24N, R5W, N.M.P.M., RIO ARRIBA COUNTY, N. M.  
 GROUND ELEVATION: 6478, DATE: JULY 22, 2004

LAT: 36°19'28" N.  
 LONG: 107°23'49" W.  
 NAD 27



RESERVE PIT DIKE: TO BE 6" ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).  
 BLOW PIT: OVERFLOW PIPE HALFWAY BETWEEN TOP AND BOTTOM AND TO EXTEND OVER PLASTIC LINER AND INTO BLOW PIT.

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.

ELEV. A-A' C/L

6490					
6480					
6470					
6460					

ELEV. B-B' C/L

6490					
6480					
6470					
6460					

ELEV. C-C' C/L

6490					
6480					
6470					
6460					

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 15068 • Farmington, NM 87401  
 Phone (505) 325-1772 • Fax (505) 325-8019  
 NEW MEXICO L.S. No. 14831  
 SURVEYOR



EXHIBIT E

# XTO ENERGY INC.

Apache Federal #16

APD Data

October 4, 2005

Location: 1585' FSL x 1435' FEL Sec 7, T24N, R5W

County: San Juan

State: New Mexico

GREATEST PROJECTED TD: 2400'

OBJECTIVE: Pictured Cliffs

APPROX GR ELEV: 6478'

Est KB ELEV: 6490' (12' AGL)

## 1. MUD PROGRAM:

INTERVAL	0' to 225'	225' to 2400'
HOLE SIZE	12.25"	7.875"
MUD TYPE	FW/Spud Mud	FW/Polymer
WEIGHT	8.6-9.0	8.4-8.8
VISCOSITY	28-32	28-32
WATER LOSS	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.

## 2. CASING PROGRAM:

Surface Casing: 8.625" casing to be set at  $\pm 225'$  in a 12-1/4" 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	SF Burst	SF Ten
0'-225'	225'	24.0#	J-55	ST&C	1370	2950	244	8.097	7.972	12.73	27.41	45.19

Production Casing: 5.5" casing to be set at TD ( $\pm 2400'$ ) in 7-7/8" 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	SF Burst	SF Ten
0'-2400	2400'	15.5#	J-55	LT&C	4040	4810	217	4.950	4.825	3.52	4.19	5.83

## 3. WELLHEAD:

- Casing Head: Larkin Fig 92 (or equivalent), 9" nominal, 2,000 psig WP (4,000 psig test) with 8-5/8" 8rnd thread on bottom and 11-3/4" 8rnd thread on top.
- Tubing Head: Larkin Fig 612 (or equivalent), 6.456" nominal, 2,000 psig WP (4,000 psig test), 5-1/2" 8rnd female thread on bottom (or slip-on, weld-on), 8-5/8" 8rnd thread on top.

EXHIBIT F

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

A. Surface: 8.625", 24.0#, J-55, ST&C casing to be set at  $\pm 225'$  in 12-1/4" hole.

134 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 186 ft<sup>3</sup>, 100% excess of calculated annular volume to 225'.*

B. Production: 5.5", 15.5#, J-55 (or K-55), LT&C casing to be set at  $\pm 2400'$  in 7.875" hole.

LEAD:

$\pm 175$  sx of Premium Lite HS (Type III/Poz/Gel) with 2% salt, 1/4 pps cello, 0.2% dispersant, 0.5% fluid loss & 2% LCM mixed at 12.5 ppg, 2.01 ft<sup>3</sup>/sk, 10.55 gal wtr/sx.

TAIL:

150 sx Type III with 5% bonding additive, 1/4 pps cello, 2% LCM, 0.3% dispersant & 0.2% fluid loss mixed at 14.2 ppg, 1.54 cuft/sx, 8.00 gal/sx.

*Total estimated slurry volume for the 5-1/2" production casing is 582 ft<sup>3</sup>.*

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

**5. LOGGING PROGRAM:**

A. Mud Logger: The mud logger will come on at 2,900' and will remain on the hole until TD. The mud will be logged in 10' intervals.

B. Open Hole Logs as follows: Run Array Induction/SFL/GR/SP fr/TD (2400') to the bottom of the surface csg. Run Neutron/Lithodensity/Pe/GR/Cal from TD (2400') to 3,000'.

6. **FORMATION TOPS:**

Est. KB Elevation: 6490'

FORMATION	Sub-Sea Elev.	WELL DEPTH	FORMATION	Sub-Sea Elev.	WELL DEPTH
Ojo Alamo SS	4817	1,673	Gallup Ss		
Kirtland Shale	4650	1,840	Greenhorn Ls		
Farmington SS			Graneros Sh		
Fruitland Formation	4585	1,905	1 <sup>ST</sup> Dakota Ss		
Lower Fruitland Coal			2 <sup>ND</sup> Dakota Ss		
Pictured Cliffs SS*	4304	2,186	3 <sup>RD</sup> Dakota Ss		
Lewis Shale	4182	2,308	4 <sup>TH</sup> Dakota Ss		
Chacra SS			5 <sup>TH</sup> Dakota Ss		
Cliffhouse SS			6 <sup>TH</sup> Dakota Ss		
Menefee			Burro Canyon Ss		
Point Lookout SS			Morrison Fm		
Mancos Shale			<b>Total Depth</b>	<b>4090</b>	<b>2,400</b>

\* Primary Objective

\*\* Secondary Objective

\*\*\*\* Maximum anticipated BHP should be <2,000 psig ( <0.30 psi/ft) \*\*\*\*\*

7. **COMPANY PERSONNEL:**

Name	Title	Office Phone	Home Phone
Jeff Patton	Drilling Engineer	505-324-1090	505-632-7882
John Egelston	Drilling Engineer	505-564-6734	505-330-6902
Dennis Elrod	Drilling foreman	505-486-6460	505-326-2024
Red Meek	Project Geologist	817-885-2800	817-427-2475
Barry Voigt	Reservoir Engineer	817-885-2462	817-540-2092

JWP

10/4/05

**EXHIBIT F**

# 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 <sup>10</sup>/<sub>5</sub> 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.

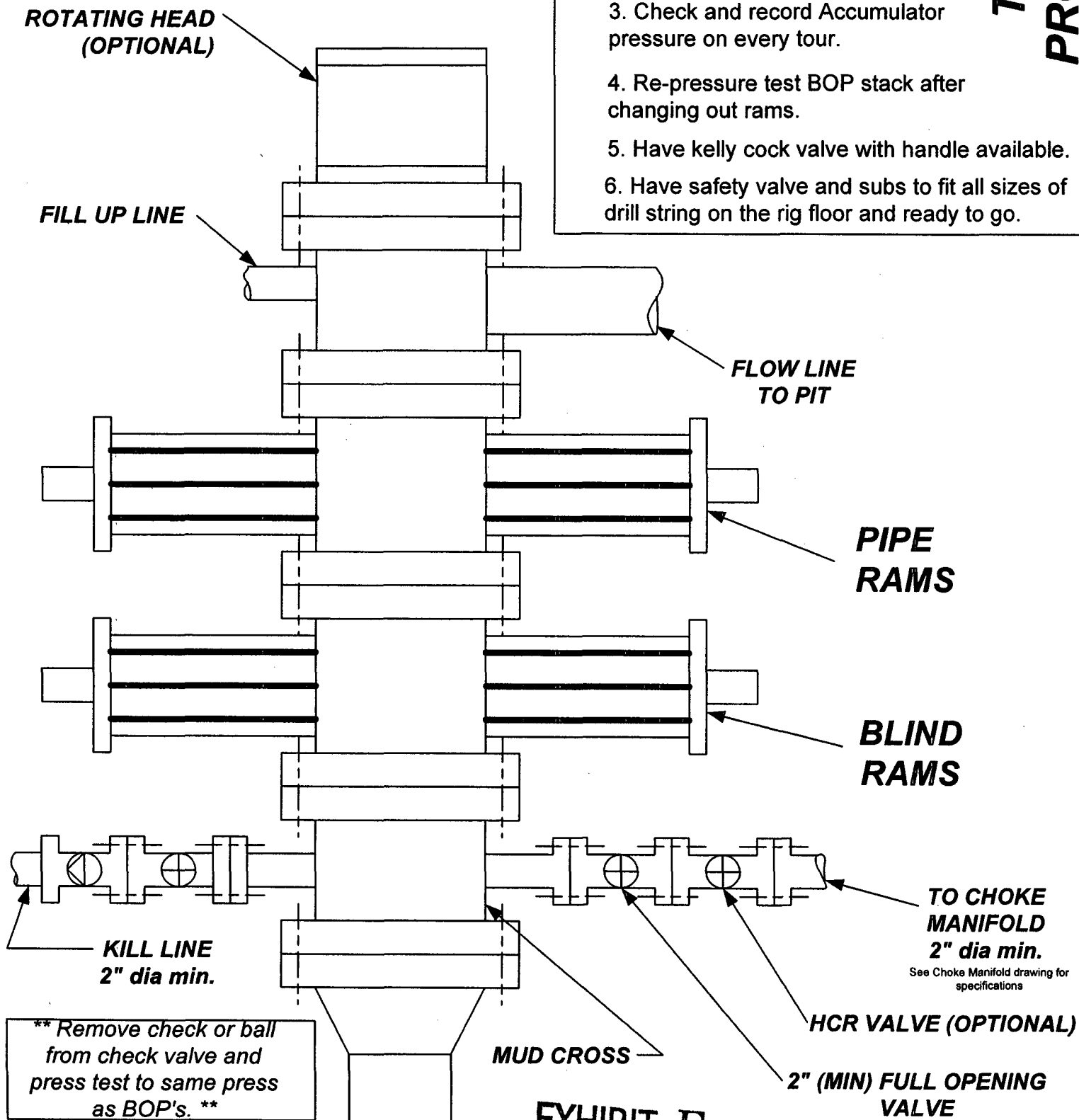


EXHIBIT F

# **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**

