

OCT 07 2008

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. N/A NMNM-75917-01C	
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		8. Lease Name and Well No. CANYON 8 F NMNM-122079MC	
2. Name of Operator XTO ENERGY INC.		9. API Well No. 30-045-34821	
3a. Address 382 ROAD 3100 AZTEC, NM 87410		3b. Phone No. (include area code) (505) 333-3159	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1960' FNL & 800' FEL At proposed prod. zone SAME		10. Field and Pool, or Exploratory WC BASIN MANC. & BAS. DK.	
11. Sec., T. R. M. or Blk. and Survey or Area H 14-25N-11W NMPM		12. County or Parish SAN JUAN	
13. State NM		14. Distance in miles and direction from nearest town or post office* 21 AIR MILES SOUTH OF BLOOMFIELD	
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 680'		16. No. of acres in lease 160	
17. Spacing Unit dedicated to this well N2 MANCOS: N2 & DAKOTA: N2 320		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,735' (#8)	
19. Proposed Depth 6,150'		20. BLM/BIA Bond No. on file BIA NATIONWIDE 104312789	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,450' GL This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4		22. Approximate date work will start* 12/01/2008	
23. Estimated duration 4 WEEKS		24. Attachments DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS". RCVD MAR 16 '10	
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.	
25. Signature [Signature]		Name (Printed/Typed) BRIAN WOOD	
Title CONSULTANT		Date 10/05/2008	
Approved by (Signature) [Signature]		Name (Printed/Typed) AFM	
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

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.

MAR 17 2010

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

NMOCD

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT
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

¹ API Number 30-045-34821		² Pool Code 71599		³ Pool Name BASIN DAKOTA	
⁴ Property Code 221669		⁵ Property Name CANYON			⁶ Well Number 8F
⁷ GRID No. 167067		⁸ Operator Name XTO ENERGY INC.			⁹ Elevation 6450

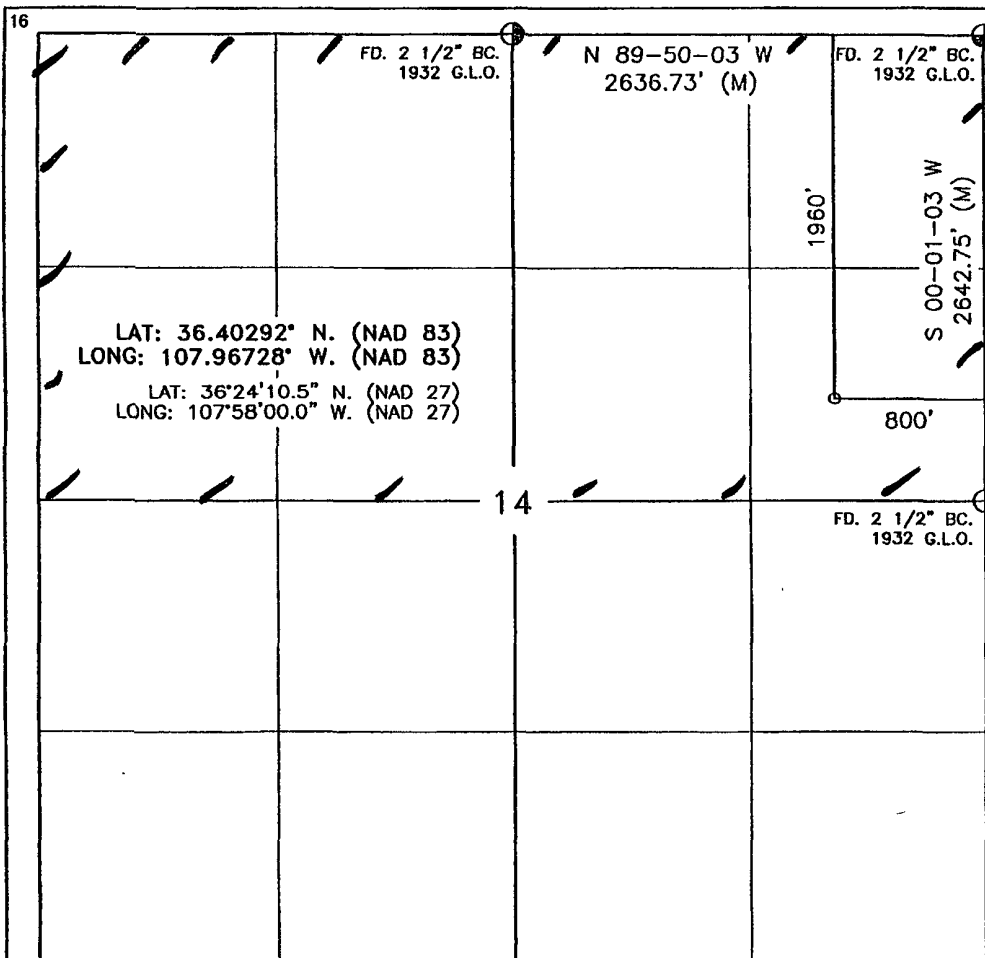
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	14	25-N	11-W		1960	NORTH	800	EAST	SAN JUAN

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
¹² Dedicated Acres 320					¹³ Joint or Infill .		¹⁴ Consolidation Code .		¹⁵ 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



17

OPERATOR CERTIFICATION

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.

Brian Wood 10-5-08
Signature Date

BRIAN WOOD
Printed Name

18

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.

FEBRUARY 4 2008
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor

02-05-08
Professional Land Surveyor

Certificate Number

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

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Submit to Appropriate District Office
State Lease - 4 Copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34821	² Pool Code 97232	³ Pool Name WC BASIN MANCOS
⁴ Property Code .	⁵ Property Name CANYON	⁶ Well Number 8F
⁷ GRID No. 167067	⁸ Operator Name XTO ENERGY INC.	⁹ Elevation 6450

¹⁰ Surface Location

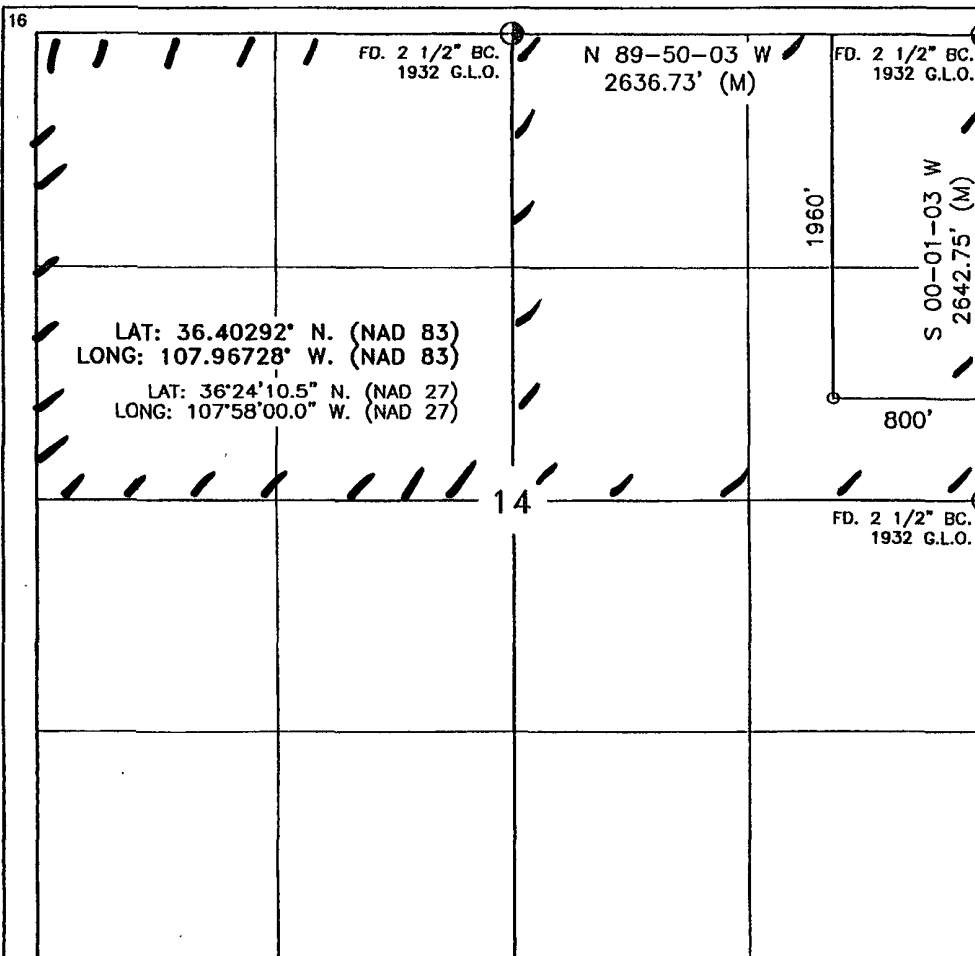
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres N2 320 100	¹³ Joint or Infill .	¹⁴ Consolidation Code .	¹⁵ Order No. .
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Brian Wood 10-5-08
Signature Date

BRIAN WOOD
Printed Name (505) 466-8120

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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.

FEBRUARY 4 2008
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor

02 05-08
Professional Land Surveyor

Certificate Number

XTO Energy Inc.
Canyon 8 F
1960' FNL & 800' FEL
Sec. 14, T. 25 N., R. 11 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+6,450'
Ojo Alamo	440'	452'	+6,010'
Fruitland	1,120'	1,132'	+5,330'
Pictured Cliffs	1,390'	1,402'	+5,060'
Lewis shale	1,615'	1,627'	+4,835'
Cliff House	2,605'	2,617'	+3,845'
Menefee shale	3,075'	3,087'	+3,375'
Point Lookout	3,890'	3,402'	+2,560'
Mancos Shale	4,320'	4,332'	+2,130'
Gallup	4,915'	4,927'	+1,535'
Greenhorn	5,785'	5,797'	+665'
Dakota	5,925'	5,937'	+525'
Total Depth (TD)	6,150'	6,162'	+300'

2. NOTABLE ZONES

Gas & Oil Zones

Fruitland
Pictured Cliffs
Mancos
Gallup
Dakota

Water Zones

Nacimiento
Ojo Alamo
Fruitland

Coal Zone

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.

XTO Energy Inc.
Canyon 8 F
1960' FNL & 800' FEL
Sec. 14, T. 25 N., R. 11 W.
San Juan County, New Mexico

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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 $\approx 1,000$ 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) at least every 30 days
- 4) 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 is $\approx 2,800$ psi. BOP and mud system will control pressure.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Setting Depth</u>
12-1/4"	8-5/8"	24	J-55	New	ST & C	360'
7-7/8"	5-1/2"	15.5	J-55	New	ST & C	6,150'

Surface casing will be cemented to the surface with ≈ 375 cubic feet (≈ 270 sacks) Type V cement + 1/4 pound per sack cello-flake + 2% CaCl_2 . Yield = 1.39 cubic feet per sack. Weight = 14.5 pounds per gallon. Excess: >100%.

XTO Energy Inc.
Canyon 8 F
1960' FNL & 800' FEL
Sec. 14, T. 25 N., R. 11 W.
San Juan County, New Mexico

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Centralizers will be set on the bottom two joints of the surface casing and every fourth joint to the surface. **3 minimum**

Production casing will be cemented to the surface with $\approx 50\%$ excess as follows. DV tool will be set @ $\approx 4,550'$ (at least 200' into Mancos shale).

First stage lead will consist of ≈ 251 cubic feet (≈ 125 sacks) of Type III (or its equivalent) + 2% CaCl_2 + 1/4 pound per sack cello flake + 0.2% dispersant + 0.5% fluid loss control + 2% LCM additives mixed at 12.5 pounds per gallon and 2.01 cubic feet per sack.

First stage tail will consist of ≈ 185 cubic feet (≈ 125 sacks) Type III (or its equivalent) + 5% bonding additive + 1/4 pound per sack cello flake + 0.3% dispersant + 0.2% fluid loss control + 2% LCM additives mixed at 14.2 pounds per gallon and 1.48 cubic feet per sack.

Second stage lead will consist of $\approx 1,053$ cubic feet (≈ 405 sacks) Type III (or its equivalent) + 1/4 pound per sack cello flake + 8% gel + 2% LCM mixed at 11.9 pounds per gallon and 2.6 cubic feet per sack.

Second stage tail will consist of ≈ 139 cubic feet (≈ 100 sacks) Type III Neat mixed at 14.5 pounds per gallon and 1.39 cubic feet per sack.

Centralizers will be set on the bottom two joints, every second joint to $\approx 5,000'$, and every fourth joint from $\approx 2,000'$ to the surface.

5. MUD PROGRAM

<u>RANGE</u>	<u>MUD TYPE</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>	<u>ADDITIVES</u>
0' - 360'	Fresh-Spud	8.6-9.0	28-32	NC	Gel, lime
360' - 2,500'	Fresh-Poly	8.4-8.8	28-32	NC	Gel, lime sweeps
2,500' - TD	Fresh Water	8.6-9.2	45-60	8-10 cc	Gel, soda ash, LCM

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6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. Mud logger will arrive at $\approx 3,000'$ and collect samples every $\approx 10'$ from there to TD. These open hole logs will be run:

Array Induction/SFL/GR/SP from TD to $\approx 360'$
Neutron/Lithodensity/Pe/GR/Cal from TD to $\approx 3,000'$

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\approx 2,460$ psi.

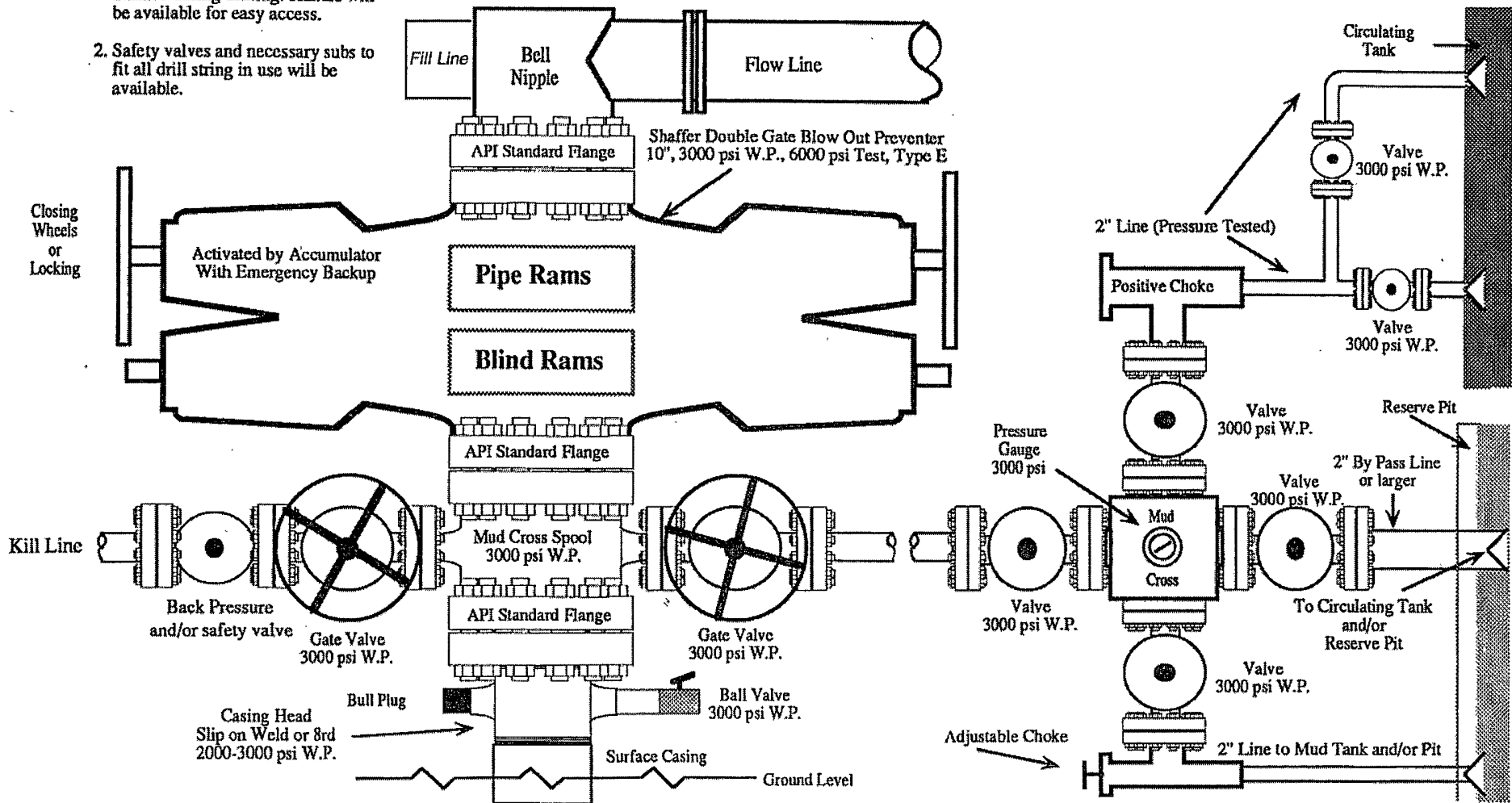
2800 psi

8. OTHER INFORMATION

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

2,000 PSI BOP SYSTEM

- Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
2. Safety valves and necessary subs to fit all drill string in use will be available.



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.