

RECEIVED

MAR 27 2008

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmingington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

RCVD APR 22 '09  
OIL CONS. DIV.

DIST. 3

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF-078872A
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		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator XTO ENERGY INC.		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 382 ROAD 3100 AZTEC, NM 87410	3b. Phone No. (include area code) (505) 333-3159	8. Lease Name and Well No. BOLACK 1 G
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1460' FSL & 1970' FEL At proposed prod. zone SAME		9. API Well No. 30-045-34667
14. Distance in miles and direction from nearest town or post office* 9 AIR MILES SOUTH OF BLOOMFIELD		10. Field and Pool, or Exploratory BASIN MANC. & BAS. DK.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 670'		11. Sec., T. R. M. or Blk. and Survey or Area 16-27N-11W NMPM
16. No. of acres in lease 2,401.76		12. County or Parish SAN JUAN
17. Spacing Unit dedicated to this well MANCOS & DAKOTA: E2 320		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 998' (#14)		20. BLM/BIA Bond No. on file BLM NATIONWIDE 57-91-73-UTB000138
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,279' GL	22. Approximate date work will start* 07/01/2008	23. Estimated duration 4 WEEKS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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 authorized officer.

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 03/21/2008
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Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) J. M. Mankiewicz	Date 4/20/09
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Title AFM	Office FTO
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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.

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.

APR 24 2009

NMOCD

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

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

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

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

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

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Form C-102  
Revised October 12, 2005

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

Bureau of Land Management  
Farmington Field Office

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-34667</b>		<sup>2</sup> Pool Code <b>97232</b>	<sup>3</sup> Pool Name <b>BASIN MANCOS</b>
<sup>4</sup> Property Code <b>30310</b>	<sup>5</sup> Property Name <b>BOLACK</b>		<sup>6</sup> Well Number <b>1G</b>
<sup>7</sup> DGRID No. <b>167067</b>	<b>5380</b>	<sup>8</sup> Operator Name <b>XTO ENERGY INC.</b>	<sup>9</sup> Elevation <b>6279</b>

### <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
<b>J</b>	<b>16</b>	<b>27-N</b>	<b>11-W</b>		<b>1460</b>	<b>SOUTH</b>	<b>1970</b>	<b>EAST</b>	<b>SAN JUAN</b>

### <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 <b>320</b>			<sup>13</sup> Joint or Infill		<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

16	LAT: 36.57195° N. (NAD 83) LONG: 108.00694° W. (NAD 83)  LAT: 36°34'19.0" N. (NAD 27) LONG: 108°00'22.7" W. (NAD 27)	16	1460'	1970'	FD. 2 1/2" BC. 1913 U.S.G.L.O.	FD. 2 1/2" BC. 1913 U.S.G.L.O.	N 00-01-35 E 5281.54' (C)	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	
								Signature <b>Brian Wood</b> Date <b>3-21-08</b>	
								Printed Name <b>BRIAN WOOD</b> (505) 466-8120	
								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	
								Date of Survey <b>March 21, 2007</b>	
								Signature and Seal of Professional Surveyor: <b>[Signature]</b>	
								Certificate Number <b>08894</b>	

DISTRICT 1  
1625 N. French Dr., Hobbs, N M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

DISTRICT II  
1301 W Grand Ave., Artesia, NM 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

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

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

State Lease - 4 Copies

Free Lease - 3 Copie's

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-043-341667		<sup>2</sup> Block Code 71599	<sup>3</sup> Pool Name BASIN DAKOTA
<sup>4</sup> Property Code	<sup>5</sup> Property Name BOLACK		<sup>6</sup> Well Number 1G
<sup>7</sup> OGRID No 167067	<sup>8</sup> Operator Name XTO ENERGY INC.		<sup>9</sup> Elevation 6279

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 1dn	feet from the	North/South line	feet from the	East/West line	County
J	.16	27-N	11-W		. 1460	. SOUTH	. 1970	. EAST	SAN JUAN

## "Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Ronge	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 320			<sup>13</sup> Joint or Infill .		<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

16	FD. 2 1/2" BC. 1913 U.S.G.L.O.	<div style="text-align: center;"> <h2 style="margin: 0;">OPERATOR CERTIFICATION</h2> <p style="font-size: small; margin: 5px 0;">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> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">             Signature         </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="font-size: large; font-weight: bold;">3-21-08</div> <div style="font-size: small;">Date</div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between;"> <div style="font-size: large; font-weight: bold;">BRIAN WOOD</div> <div style="font-size: small;">Printed Name</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div></div> <div style="font-size: small;">(505) 466-8120</div> </div> </div> </div>
LAT: 36.57195° N. (NAD 83) LONG: 108.00694° W. (NAD 83)  LAT: 36°34'19.0" N. (NAD 27) LONG: 108°00'22.7" W. (NAD 27)	16	<div style="text-align: center;"> <h2 style="margin: 0;">SURVEYOR CERTIFICATION</h2> <p style="font-size: small; margin: 5px 0;">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="margin-top: 20px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">             Signature and Seal of Professional Surveyor         </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="font-size: large; font-weight: bold;">7-01</div> <div style="font-size: small;">Certificate Number</div> </div> </div> </div> </div>
FD. 2 1/2" BC. 1913 U.S.G.L.O.	S 89-59-57 W 5277.54' (C)	<div style="text-align: center;"> <h2 style="margin: 0;">SURVEYOR CERTIFICATION</h2> <p style="font-size: small; margin: 5px 0;">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="margin-top: 20px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">             Signature and Seal of Professional Surveyor         </div> <div style="text-align: center;"> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="font-size: large; font-weight: bold;">7-01</div> <div style="font-size: small;">Certificate Number</div> </div> </div> </div> </div>

XTO Energy Inc.  
Bolack 1 G  
1460' FSL & 1970' FEL  
Sec. 16, T. 27 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'	+6,279'
Ojo Alamo Sandstone	829'	841'	+5,450'
Kirtland Shale	954'	966'	+5,325'
Fruitland Formation	1,754'	1,766'	+4,525'
Pictured Cliffs Sandstone	1,964'	1,976'	+4,315'
Chacra Sandstone	2,854'	2,866'	+3,425'
Cliff House Sandstone	3,529'	3,541'	+2,750'
Point Lookout Sandstone	4,304'	4,316'	+1,975'
Mancos Shale	4,679'	4,691'	+1,600'
Gallup Sandstone	5,529'	5,541'	+750'
Greenhorn Limestone	6,379'	6,391'	-100'
Graneros Shale	6,439'	6,451'	-160'
Dakota Sandstone	6,559'	6,571'	-280'
Total Depth (TD)	6,700'	6,712'	-421'

### 2. NOTABLE ZONES

<u>Gas &amp; Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	
Mancos	Fruitland	
Gallup		
Dakota		

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

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commercial potential based on the geologist's recommendations.

### 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  $\approx 200$  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 will be  $\leq 2,680$  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	6,700'

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Surface casing will be cemented to the surface with  $\approx 375$  cubic feet ( $\approx 270$  sacks) Type V cement + 1/4 pound per sack cello-flake + 2%  $\text{CaCl}_2$ . Yield = 1.39 cubic feet per sack. Weight = 14.5 pounds per gallon. Excess: >100%. Centralizers will be set on the bottom two joints of the surface casing and every fourth joint to the surface.

Production casing will be cemented to the surface in two stages with  $\approx 100\%$  excess. DV tool will be set at  $\approx 4,800'$ . Total first stage volume = 1,165 cubic feet. Second stage volume = 1,725 cubic feet. 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.

Will cement first stage with  $\approx 580$  sacks (= 1,165 cubic feet) premium light HS cement with 0.2% CD 32 + 0.5% FL 32 + 1/4 pound per sack cello flake + 2% KCl + 2% phenoseal mixed at 12.5 pounds per gallon and 2.01 cubic feet per sack.

Will cement second stage with  $\approx 610$  sacks (= 1,586 cubic feet) premium light HS cement with 8% gel + 1/4 pound per sack cello flake + 2% phenoseal mixed at 11.9 pounds per gallon and 2.60 cubic feet per sack. Will follow with  $\approx 100$  sacks (= 139 cubic feet) Type III neat cement mixed at 14.5 pounds per gallon and 1.39 cubic feet per sack.

##### 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  $\leq 2,680$  psi.

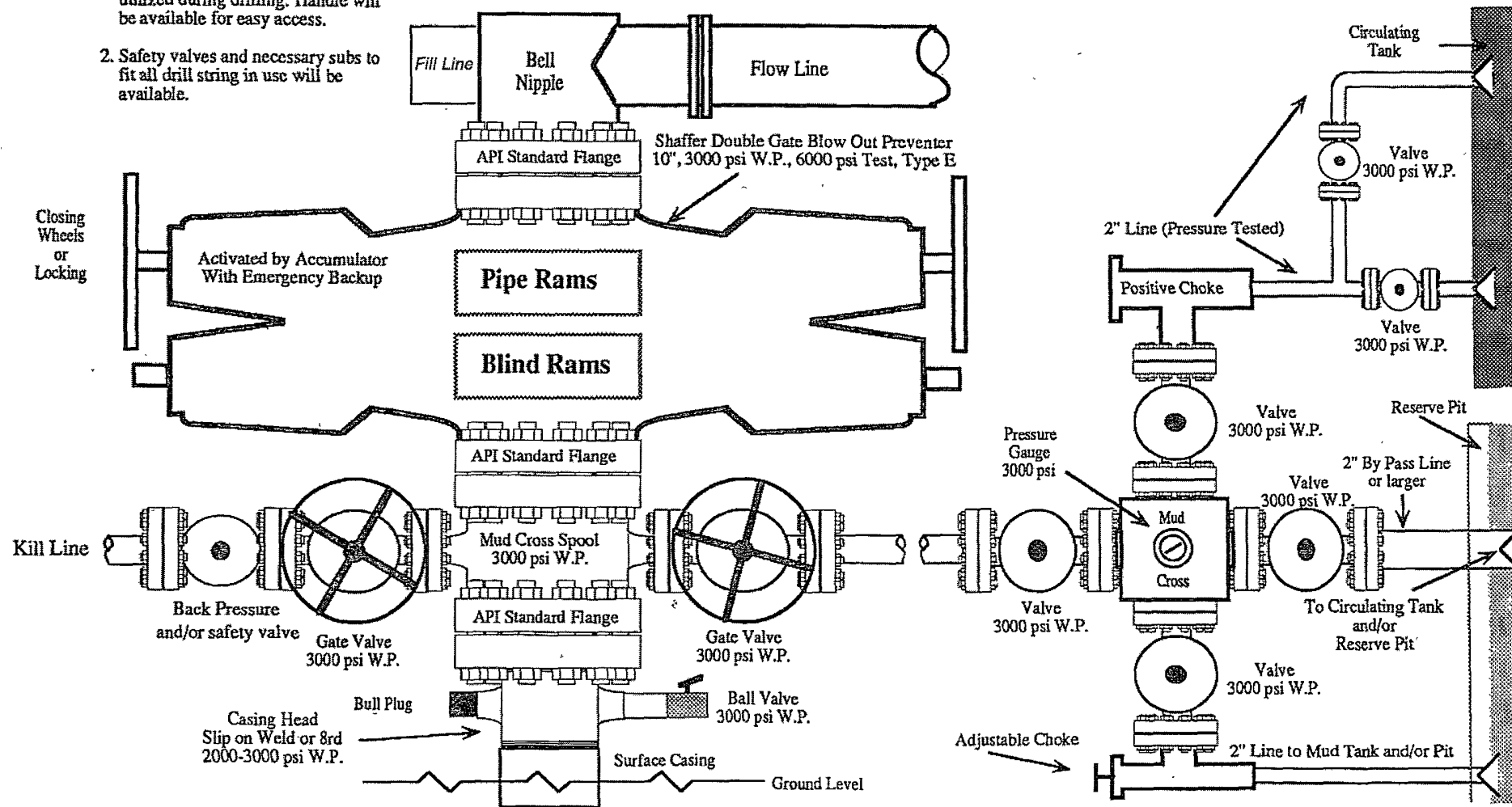
#### 8. OTHER INFORMATION

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.