

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 JUN 17 PM 7 56  
RECEIVED  
010 FARMINGTON NM

1a. Type of Work  DRILL  REENTER  
1b. Type of Well  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
**PATINA OIL AND GAS CORPORATION**

3a. Address **5802 US HIGHWAY 64 FARMINGTON, NM 87402**  
3b. Phone No. (include area code) **505-632-8056**

4. Location of well (Report location clearly and in accordance with any State requirements. \*)  
At surface **2110' FNL, & 1975' FEL - UL "G"**  
At proposed prod. zone **SAME**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**21 MILES SOUTH OF DULCE, NM**

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg unit line, if any) **665'**  
16. No. of Acres in lease **320+**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. **1000'**  
19. Proposed Depth **8275'**

21. Elevations (Show whether DF, RT, GR, etc.) **7092' GL**  
22. Aproximate date work will start\* **AUGUST, 2005**

5. Lease Serial No.  
**JICARILLA CONTRACT #97**

6. If Indian, Allottee or Tribe Name  
**JICARILLA APACHE TRIBE**

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.  
**TRIBAL 05 #7**

9. API Well No.  
**30-039-29565**

10. Field and Pool, or Exploratory  
**Tapacito PC-Blanco MV-Basin DK**

11. Sec., T., R., M., or Blk. And Survey or Area  
**SEC 5 T26N R3W**

12. County or Parish **RIO ARRIBA**  
13. State **NM**

17. Spacing Unit dedicated to this well  
**E/2 320 ACRES MV/DK  
NE/4 160 ACRES PC**

20. BLM/ BIA Bond No. on file

23. Estimated Duration  
**18 DAYS**

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.
- 2. A Drilling Plan.
- 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).
- 4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
- 5. Operator certification.
- 6. Such other site specific information and/ or plans as may be required by the authorized officer.

25. Signature *Muse* Name (Printed/ Typed) **JEAN M. MUSE** Date **6/13/2005**

Title **REGULATORY/ENGINEERING TECHNICIAN**

Approved By (Signature) *Jim Lovato* Name (Printed/ Typed) \_\_\_\_\_ Date **7/13/05**

Title **Field Manager - Murch** Office \_\_\_\_\_

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.

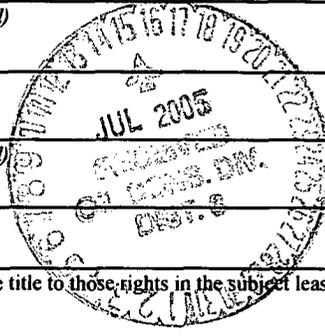
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

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

NMOCD

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  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer 00, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
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 30-039-29575	<sup>2</sup> Pool Code 85920-72319-71599	<sup>3</sup> Pool Name TAPACITO PICTURED CLIFFS-BLANCO MESAVERDE-BASIN DAKOTA
<sup>4</sup> Property Code 34947	<sup>5</sup> Property Name TRIBAL 05	
<sup>6</sup> OGRID No. 173252	<sup>7</sup> Operator Name PATINA SAN JUAN, INC.	<sup>8</sup> Well Number 07
		<sup>9</sup> Elevation 7092'

<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
G	5	26N	3W		2110	NORTH	1975	EAST	RIO ARRIBA

<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 160.0 Acres (NE/4) - PC 320.0 Acres (E/2) - MV, DK	<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

<sup>16</sup>

JICARILLA  
CONTRACT  
#97

<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

*Jean M. Muse*  
Signature

Jean M. Muse  
Printed Name

Regulatory/enge Tech  
Title

6/13/05  
Date

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<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.

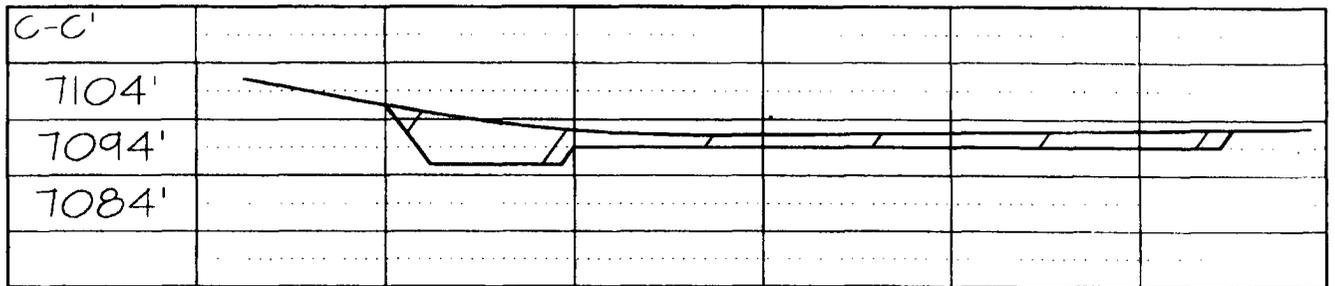
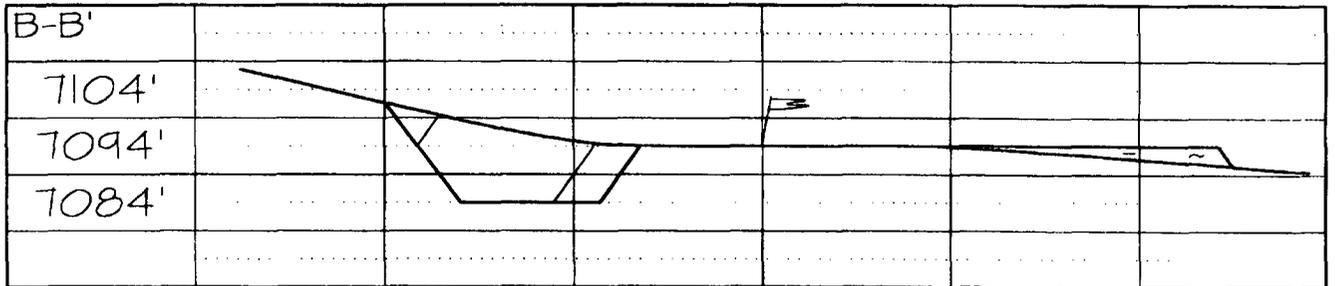
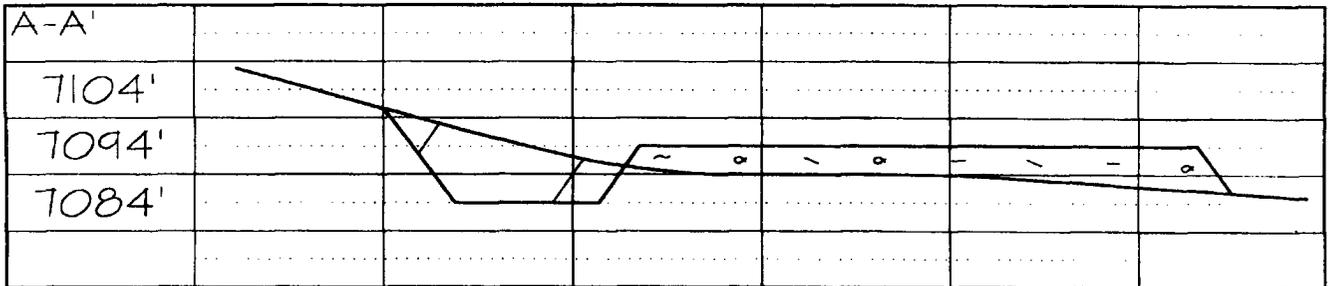
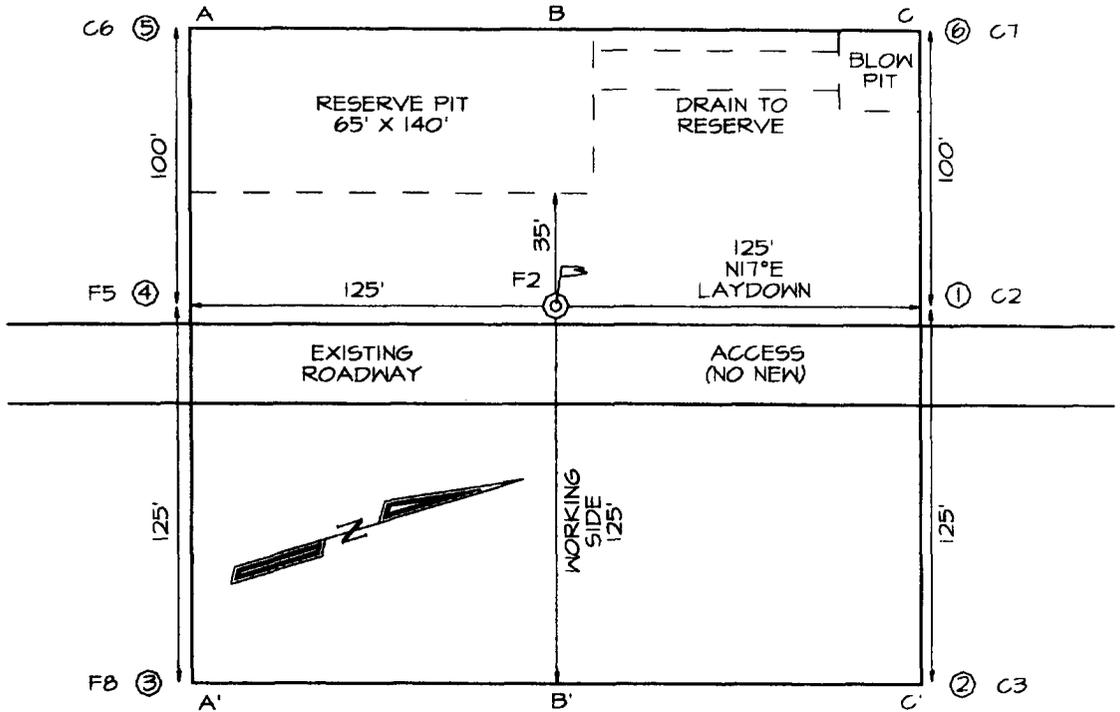
Date Revised: MARCH 14, 2005  
Date of Survey: AUGUST 16, 2004

Signature and Seal of Professional Surveyor

**JASON C. EDWARDS**  
Certificate Number 15269

**PATINA SAN JUAN, INC. TRIBAL 05 #07**  
**2110' FNL & 1975' FEL, SECTION 5, T26N, R3W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO ELEVATION: 7092'**

**LATITUDE: 36°31'01"**  
**LONGITUDE: 107°09'55"**  
 DATUM: NAD1927



**Tribal 05 #07**  
**General Drilling Plan**  
**Patina San Juan, Inc.**  
**Rio Arriba County, New Mexico**

**1. LOCATION:**

Elevation: 7092' GL  
SWNE 2110' FNL and 1975' FEL  
Section 5, T26N, R3W

Field: Blanco MV & Basin DK  
Surface: Jicarilla Apache Tribe  
Minerals: Jicarilla contract #97

**2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):**

Surface formation – San Jose

<u>Formation</u>	<u>Estimated Formation Top (Ft)</u>
Fruitland	3365
Pictured Cliffs**	3646
Lewis	3839
Cliff House	5254
Menefee	5514
Point Lookout***	5819
Gallup	7032
Greenhorn	7818
Graneros	7896
Dakota***	7942
TD	8275

Legend:      \* Freshwater bearing formation  
              \*\* Possible hydrocarbon bearing formation  
              \*\*\* Probable hydrocarbon bearing formation  
              # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

**3. PRESSURE CONTROL EQUIPMENT:**

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing, but not to exceed 1,000 psi. See attachments for BOP and choke manifold diagrams.

**Production Hole BOP Requirements and Test Plan**

11" – 2,000 psi single ram (blind)

11" – 2,000 psi single ram (pipe)

Test as follows:

a) Pipe rams:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 psi (High)	250 psi (low)

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

**AUXILIARY EQUIPMENT:**

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

#### 4. CASING DESIGN:

Hole Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	13.50	9.625	0	300
Intermediate	8.75	7.0	0	4050
Production	6.25	4.5	3750	8350

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
7.000	6.366	23.0	L80	LTC	3,830	6,340	435,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

#### MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125  
 BURST: 1.00  
 TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot  
 Maximum anticipated reservoir pressure: 2,500 psi  
 Maximum anticipated mud weight: 9.0 ppg  
 Maximum surface treating pressure: 5,000 psi

#### Float Equipment:

**Surface Casing:** Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

**Intermediate Casing:** Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Fruitland Coal. One centralizer below stage tool and one centralizer above stage tool.

**Production Casing:** 4 1/2" whirler type cement nosed guide shoe and a float collar on top of bottom joint with centralizers over potential hydrocarbon bearing zones.

**CEMENTING PROGRAMS:**

**9-5/8" Surface casing:**

245 sx Type III cement with 2% CaCl<sub>2</sub>, 1/4#/sx cellofakes. 100% excess to circulate cement to surface. WOC 12 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg  
 Slurry yield: 1.27 ft<sup>3</sup>/sx

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 13-1/2" x 9-5/8" annulus	147 cu ft
	<u>100% excess (annulus)</u>	<u>147 cu ft</u>
	Total	311 cu ft

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl<sub>2</sub> for top out purposes.

**7" Intermediate Casing:**

1<sup>st</sup> Stage:

165 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft<sup>3</sup>/sx

2<sup>nd</sup> Stage: (Stage tool at ±2500')

Lead: 145 sx of Type III cement plus additives

Slurry weight: 12.0 ppg

Slurry yield: 2.55 ft<sup>3</sup>/sx

Tail: 60 sx of Type III cement plus additives

Slurry weight: 13.0 ppg

Slurry yield: 2.00 ft<sup>3</sup>/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	3750' of 7" x 8 3/4" hole	565 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>185 cu ft</u>
	Total	<del>809</del> 820 cu ft

Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.
3. Intermediate TD @ ±4050', cement stage tool @ ±2500'.

**4 1/2" Production casing:**

400 sx of 50/50 Type III/POZ cement plus additives

Slurry weight: 12.5 ppg

Slurry yield: 1.78 ft<sup>3</sup>/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	4225' of 4 1/2" x 6 1/4" hole	434 cu ft
	300' of 4 1/2" x 7" casing overlap	33 cu ft
	200' above 4.5" liner (without drill pipe)	44 cu ft
	<u>40% excess (annulus)</u>	<u>187 cu ft</u>
	Total	<del>703</del> 712 cu ft

**Note:**

1. Design top of cement is ±3550' (200' above the top of the 4.5" liner w/out drill pipe).
2. Intermediate casing @ ±4050'.
3. Estimated TD @ ±8275', estimated TOL @ ±3750' (300' overlap).
4. Actual cement volumes to be based on caliper log plus 30%.

**5. MUD PROGRAM:**

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The intermediate hole will be drilled with a LSND mud from the base of surface casing to intermediate TD. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

The production hole will be drilled with air or air/mist to TD.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

**6. EVALUATION PROGRAM:**

Mud logger: From base of surface casing to TD.

Testing: No DST is planned

Coring: None Planned

Electric logs: Intermediate Hole:

1) DIL-GR-SP: TD to base of surface casing.

2) LDT-CNL-GR-CAL-PE: TD to base of surface casing

Production Hole:

1) No open hole logs

2) Cased hole resistivity & porosity logs

**7. ABNORMAL PRESSURE AND TEMPERATURE:**

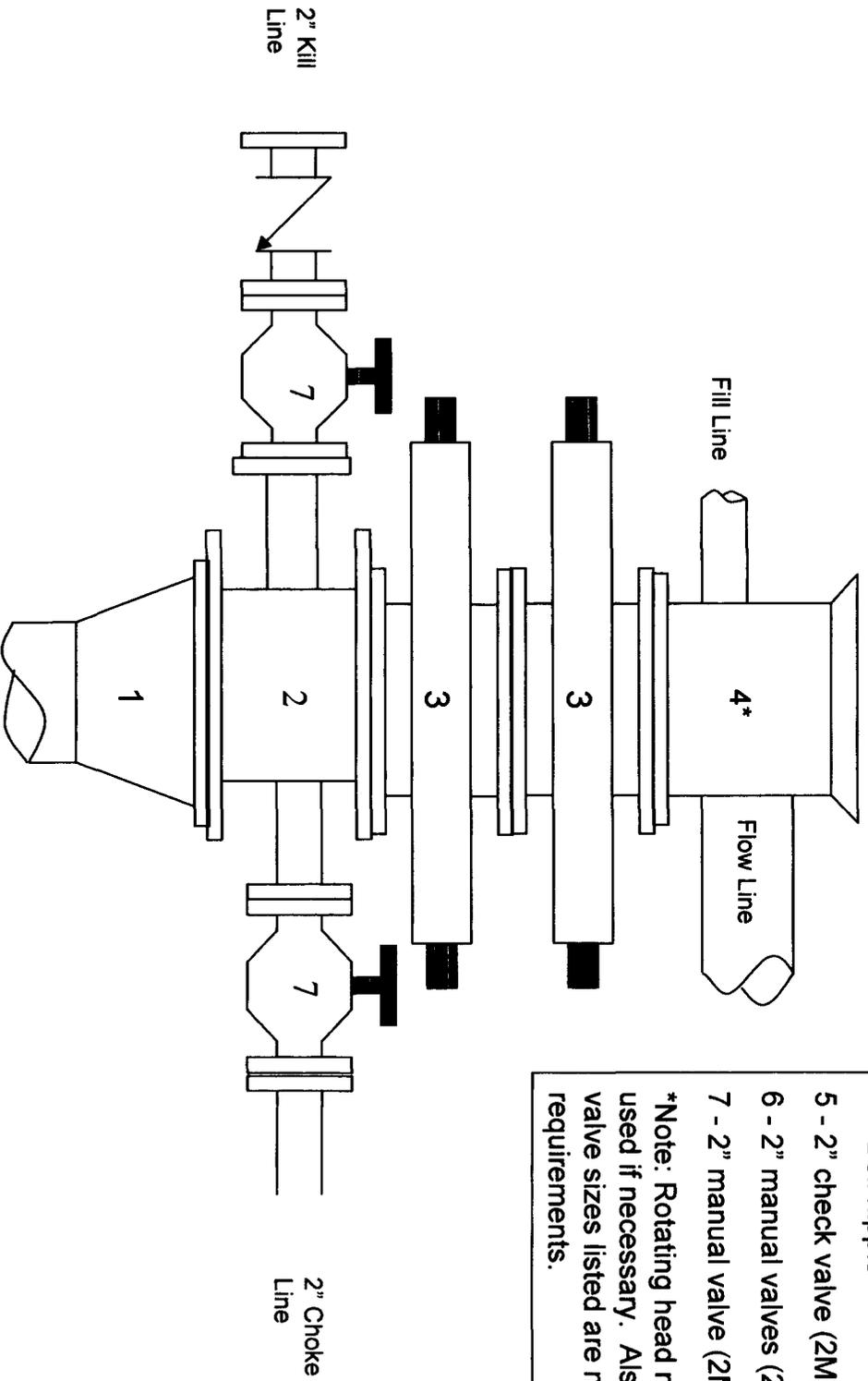
H <sub>2</sub> S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

**8. ANTICIPATED STARTING DATE: August, 2005**

Anticipated duration: 18 days

# Tribal 05 #07

2000 psi BOP stack  
Minimum requirements



### Components

- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple\*
- 5 - 2" check valve (2M)
- 6 - 2" manual valves (2M)
- 7 - 2" manual valve (2M)

\*Note: Rotating head may also be used if necessary. Also, all line and valve sizes listed are minimum requirements.

# Tribal 05 #07

## 2000 psi Choke Manifold Minimum requirements

Components
1 – 2" Valve (2M)
2 – 3" Valve (2M)
3 – Mud cross with gauge (2M) flanged below the gage.
4 – Adjustable choke (2M)
5 – Adjustable choke (2M)

Note: All line and valve sizes listed are minimum requirements.

