Form 3160-3
(February 2005)

2007 FEB 12 RECEIVED

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

5. Lease Serial No.
14-20-603-1328

6. If Indian, Allotee or Tribe Name
Navajo Allottee # 011157

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
SW-I-4223

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Navajo 11 07

2. Name of Operator
Patina Oil and Gas Corporation

9. API Well No.
30-045-34162

3a. Address **5802 US Highway 64, Farmington, NM 87401**

3b. Phone No. *(include area code)*
505-632-8056

10. Field and Pool, or Exploratory
Basin Dakota

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1700 FNL and 1600 FEL**
At proposed prod. zone **same**

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 11, T25N, R10W

14. Distance in miles and direction from nearest town or post office*
25 miles south of Bloomfield, NM

12. County or Parish
San Juan

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **948'**

16. No. of acres in lease
638.62

17. Spacing Unit dedicated to this well
N/2 320
~~E/2 319.87 acres~~

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **660'**

19. Proposed Depth
6710'

20. BLM/BIA Bond No. on file
LMP8720503

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6819' GL

22. Approximate date work will start*
06/01/2007

23. Estimated duration
12 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an 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 BLM.

25. Signature — Name *(Printed/Typed)*: **Billie Maez** — Date: 1-12-07

Title: **District Manager**

Approved by *(Signature)* — Name *(Printed/Typed)* — Date: 6/5/07

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)

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

RCVD JUN7'07
OIL CONS. DIV.
DIST. 3

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

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

Submit Application for Air Permit. This must be approved prior to construction of well location.

NMOCD 06-12-07 RH

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

2007 FEB 12 AM 9 17

Form C-102
Revised June 10,2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code		3 Pool Name	
30-045-34162	96570 / 71599	WC 25N 10W 17 J / GREENHORN	BASIN DAKOTA	(96570/71599)

4 Property Code	5 Property Name	6 Well Number
36536	NAVAJO 11	07
7 OGRID No.	8 Operator Name	9 Elevation
173252	PATINA OIL & GAS CORPORATION	6819'

10 Surface Location

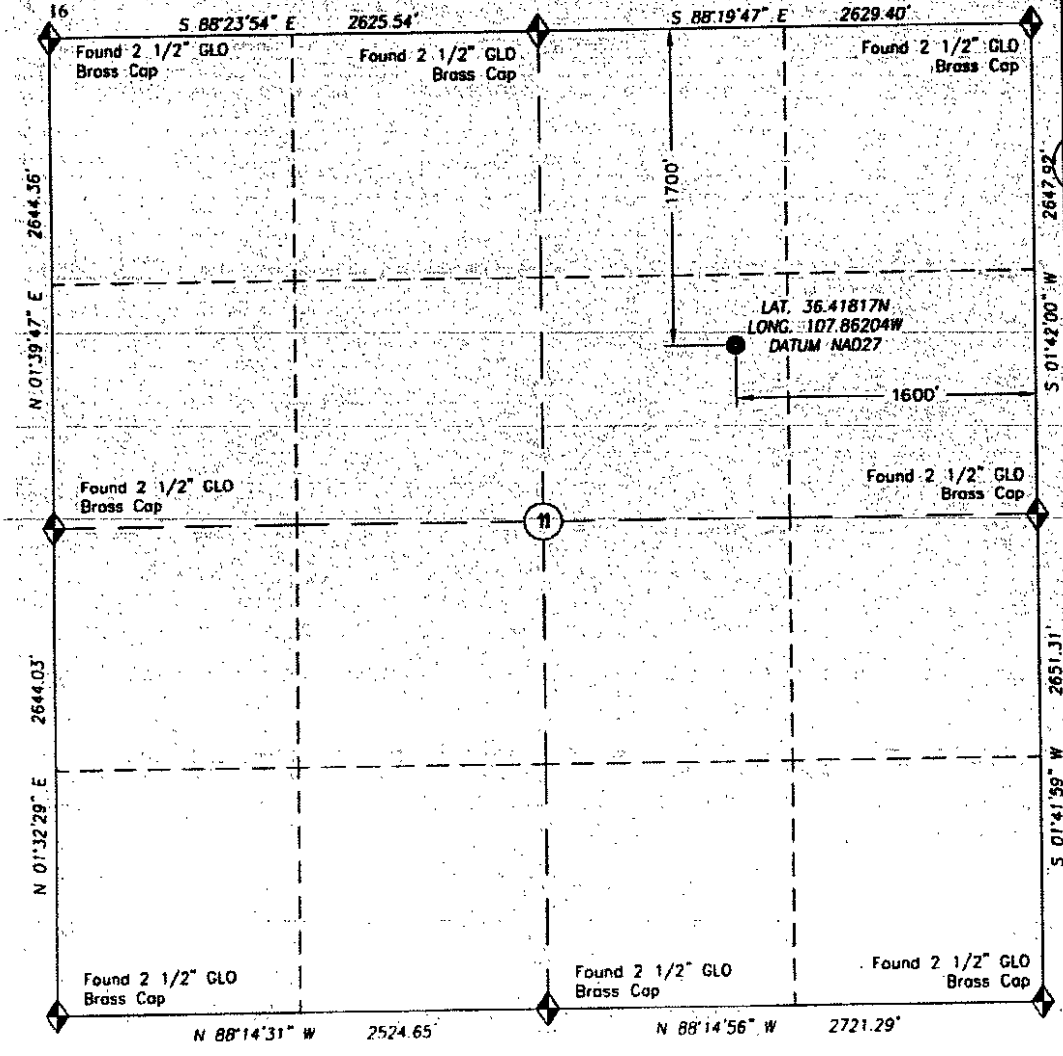
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	11	25N	10W		1700	NORTH	1600	EAST	SAN JUAN

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	13 Joint or In fill	14 Consolidation Code	15 Order No.
320 ACRE N 1/2			

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.

Signature

Jean M. Muse
Printed Name
Regulatory/Engineering Tech
jmuse@pblenergyinc.com
Title and E-mail Address

3/14/06
Date

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.

October 2, 2004
Date of Survey

DALE E. BELL
NEW MEXICO
14400
10/1/04
REGISTERED PROFESSIONAL SURVEYOR

Dale E. Bell
New Mexico Reg. PS No. 14400
For and on behalf of Trigon Epc
126 Rock Point Dr., Suite B
Durango CO 81301
(970) 385-9100

PAD LAYOUT PLAN & PROFILE

PATINA OIL & GAS CORPORATION

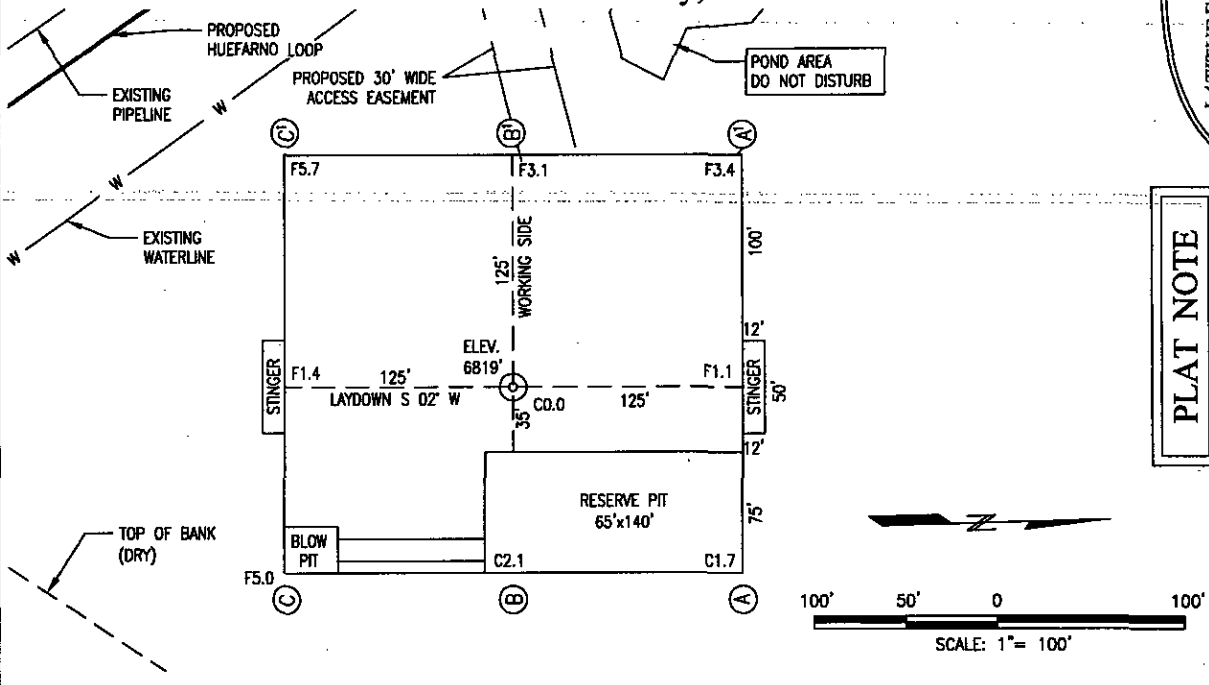
Navajo 11 #07

1700' F/NL 1600' F/EL

Sec. 11, T25N, R10W, N.M.P.M.

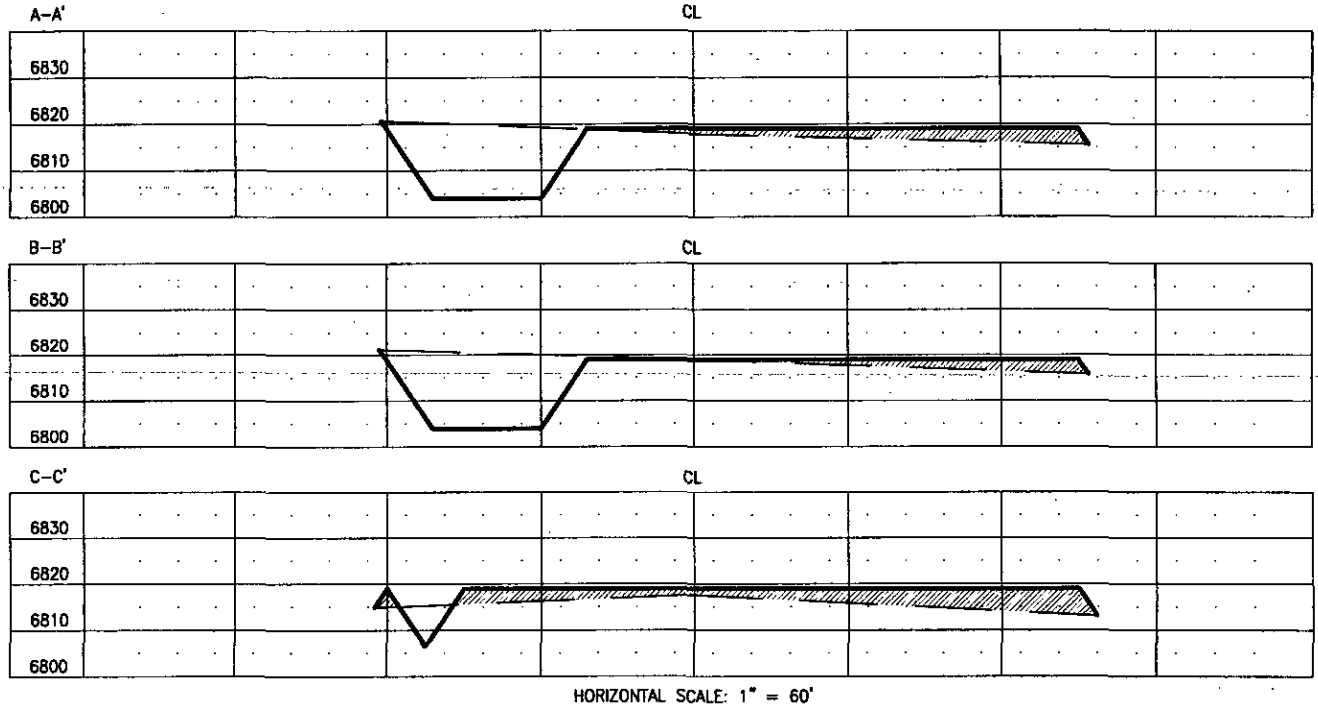
San Juan County, New Mexico

LATITUDE: 36.41817° N
LONGITUDE: 107.86204° W
DATUM NAD1927



PLAT NOTE

SURFACE OWNER NAVAJO NATION ALLOTMENT



HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 40'

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL ONE-CALL FOR LOCATION OF ALL BURIED FACILITIES ON WELL PAD AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
2. CUTS AND FILLS SHOWN ARE APPROXIMATE – FINAL FINISHED ELEVATION IS TO BE ADJUSTED SO EARTHWORK WILL BALANCE. CORNER STAKES ARE APPROXIMATE AND DO NOT INCLUDE ADDITIONAL AREAS NEEDED FOR SIDESLOPES AND DRAINAGES. FINAL PAD DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.

DATE SURVEYED: 10/2/04	DRAWN BY: AEM	DATE DRAWN: 10/06/04	REVISION DATE: 9/06/06	FILE NAME: NAVAJ0110702

CLIENT: PATINA SAN JUAN, INC.

PREPARED BY: TRIGON EPC
ENGINEERING • PROCUREMENT • CONSTRUCTION

Sep 06, 2006 - 3:25pm by dmoyhew - Path = K:\Jobs\Patina San Juan Inc\2105-11 Navajo 11-07\J-Dwgs\NAVAJ0110702.dwg

Navajo 11 #07
General Drilling Plan
Patina San Juan, Inc.
San Juan County, New Mexico

1. LOCATION:

Est. elevation: 6809'
SWNE Section 11-T25N-R10W
1700' FNL 1600' FEL
San Juan, New Mexico

Field:
Surface: United States of America
Minerals: United States of America

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

Surface formation – Nacimiento

Formation	drilling depth
Ojo Alamo	965
Kirtland	1108
Fruitland	1574
Pictured Cliffs**	2039
Lewis	2286
Cliff House**	3608
Menefee	3626
Point Lookout**	4517
Mancos Shale	4757
Gallup**	5795
Greenhorn	6470
Graneros	6530
Dakota***	6570
TD	6710

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	12.25	9.625	0	300
Production	7 7/8	4.5	0	6710

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
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: 3,750 psi

Float Equipment:

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

Production Casing: Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and centralizers over potential hydrocarbon bearing zones. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

CEMENTING PROGRAMS:

9-5/8" Surface casing:
200 sx Type III cement with 3% $CaCl_2$, ¼#/sx cellofakes. 100% excess to circulate cement to surface. WOC 4 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg
Slurry yield: 1.28 ft^3/sack

Volume basis:		
	40' of 9-5/8" shoe joint	17 cu ft
	300' of 12-1/4" x 9-5/8" annulus	100 cu ft
	100% excess (annulus)	100 cu ft
	Total	217 cu ft

Note:
1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% $CaCL_2$ for top out purposes.

4 1/2" Production casing: circulate to surface

1st Stage:
Lead: 175 sx of Type III cement plus additives
Slurry weight: 10.6 ppg
Slurry yield: 4.28 ft^3/sx
Tail: 190 sx Type III cement plus additives
Slurry weight: 12.5 ppg
Slurry yield: 2.20 ft^3/sx

2nd Stage:
Lead: 100 sx of Type III cement plus additives
Slurry weight: 10.6 ppg
Slurry yield: 4.28 ft^3/sx
Tail: 205 sx Type III cement plus additives
Slurry weight: 12.5 ppg
Slurry yield: 2.20 ft^3/sx

Volume basis:		
	1st Stage:	
	40' of 4 1/2" shoe joint	5 cu ft
	3400' of 4 ½" x 7 7/8" hole	775 cu ft
	2nd Stage:	
	2585' of 4 ½" x 7 7/8' hole	590 cu ft
	30% excess (annulus)	410 cu ft
	Total	1780 cu ft

Note:

1. Design 1st stage top of cement is ±3310' (300' above the top of the Cliff House formation).
2. DV tool is 300' below the top of the Lewis Shale formation.
3. 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 production hole will be drilled with water until mud up at about 3500 ft. From mud up point to total depth, it will be drilled with a LSND mud. 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.

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:

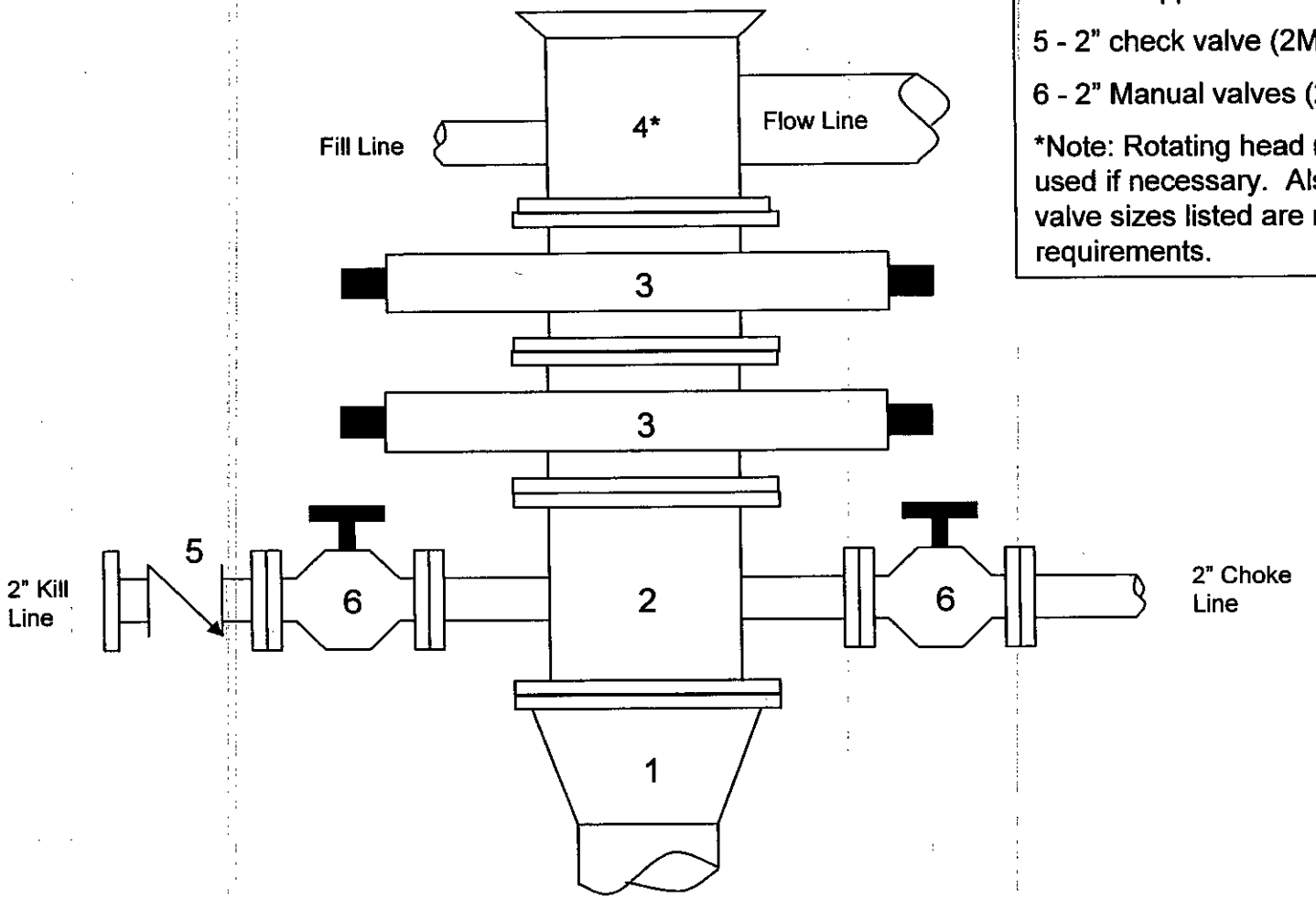
H_2S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

8. ANTICIPATED STARTING DATE: June 1, 2007

Anticipated duration: 12 days

Navajo 11 #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)

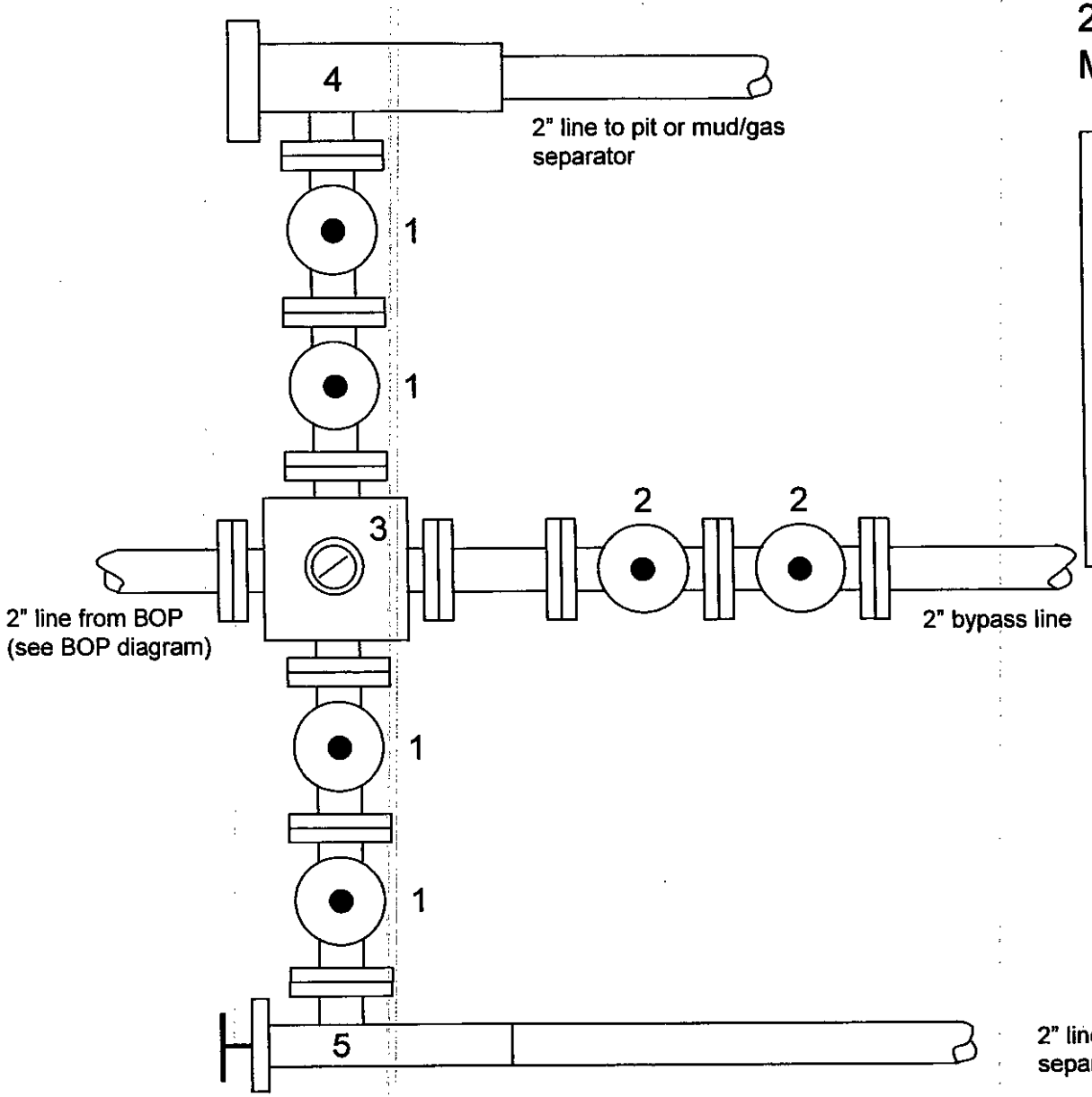
6 - 2" Manual valves (2M)

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

Attachment #1

Navajo 11 #07

2000 psi Choke Manifold
Minimum requirements



Components

1 – 2" Valve (2M)

2 – 2" 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.

Attachment #2