

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB No. 1004-0136

Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Designation and Serial No.

SF-078481A

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

GRAHAM #98s

9. API Well No.

30-045-32644

10. Field and Pool, or Exploratory

Basin Fruitland Coal

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

Sec 4, T-27-N, R-8-W

12. County or Parish,

San Juan

13. State

New Mexico

17. Spacing Unit dedicated to this well

320.79 Acres E/2

16. No of Acres in lease

320

19. Proposed Depth

2250'

20. BLM/BIA Bond No. on file

1a. Type of Work ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well

☐ Other

☐ Single Zone

☐ Multiple Zone

2. Name of Operator

M&G Drilling Company Inc.

NM OGRID # 141852

3a. Address c/o Mike Pippin LLC

3104 N. Sullivan, Farmington, NM 87401

3b. Phone Number

(505) 327-4573

4. Location of Well (Footage, Sec, T. R., M. or Survey Description)

At surface: Unit P, 680' FSL, 775' FEL

At proposed prod. Zone: Same

14. Distance in miles and direction from nearest town or post office*

~13 Miles South of Bloomfield, NM

15. Distance from proposed*

location to nearest 680'

property or lease line, ft.

(Also to nearest drlg. Unit line, if any)

18. Distance from proposed*

location to nearest well 190'

21. Elevation (Show whether DF, KDB, RT, GL, etc.)

5956' GL

22. Approximate date work will start*

June 1, 2005

23. Estimated duration

30 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 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 authorized officer

Size of Hole	Grade, Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8" LS	23#	200'	140 Sxs, 165 ft3 - 100% Excess
6-1/4"	4-1/2" K-55	11.6#	2250'	173 Sxs, 334 ft3 - 45% Excess

The on-site inspection was on 10/12/04 by Brice Barlan

Archy is by DCA

EA is by Nelson

SEE ATTACHED APD INFORMATION

Latitude: 36 Deg, 35 Min, 53.3 Sec N

Longitude: 107 Deg, 40 Min, 49 Sec W

25. Signature

Mike Pippin

Name (Printed/Typed)

Mike Pippin

Date

October 23, 2004

Title Petroleum Engineer

Approved by (Signature)

Original Signed: Stephen Mason

Name (Printed/Typed)

Date

DEC 08 2004

Title

Office

Application approval does not warrant or certify 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)

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

NMOC

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
811 South First, Artesia, N.M. 88210

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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30065-32644	*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 16548	*Property Name GRAHAM	*Well Number 98S
*OGRID No. 141852	*Operator Name M & G DRILLING COMPANY	*Elevation 5956'

¹⁰ Surface Location

UL or lot no. P	Section 4	Township 27-N	Range 8-W	Lot Idn	Feet from the 680	North/South line SOUTH	Feet from the 775	East/West line EAST	County SAN JUAN
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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			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.		
320 E/2			Y						

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

LOT 4 FD. 3 1/4" BC. 1916 GLO	LOT 3 FD. 3 1/4" BC. 1916 GLO	LOT 2 N 89-42-42 W 2639.4' (C)	LOT 1 CALC'D COR.
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LAT. 36°35'53.3" N. (NAD 83)
LONG. 107°40'49.0" W. (NAD 83)

DEC 2004
FD. 3 1/4" BC.
1916 GLO

N 02-25-44 E
5413.0' (C)

680'
775'

FD. 3 1/4" BC.
1955 B.L.M.

N 89-05-18 W
5212.0' (M)

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
 MIKE PIPPIN
 Printed Name
 AGENT- PETR. ENGR.
 Title
 10-23-04
 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 knowledge.

Date of Survey
 Signature and Seal of Professional Surveyor
 14831
 Certificate Number

Submit 3 Copies To Appropriate District Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., 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 and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103

March 4, 2004

WELL API NO.

5. Indicate Type of Lease **Federal**
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
Federal: SF-078481A

7. Lease Name or Unit Agreement Name
GRAHAM

8. Well Number
#98s

9. OGRID Number **141852**

10. Pool name or Wildcat
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

M & G DRILLING COMPANY

3. Address of Operator c/o Agent, Mike Pippin LLC

3104 N. Sullivan, Farmington, NM 87401 505-327-4573

4. Well Location

Unit Letter **P:** **680** feet from the **South** line and **775** feet from the **East** line

Section **4** Township **27N** Range **8W** **NMPM** San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
5956' GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: **UL PSect 4 Twp 27N Rng 8W** Pit type: **Drilling** Depth to Groundwater **>100'** Distance from nearest fresh water well **>1000'**

Distance from nearest surface water **200'-1000'** Below-grade Tank Location **UL** Sect Twp Rng ;
feet from the line and feet from the line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: **Drilling Pit Registration** ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

We intend to drill a new FRTC well. The drilling pit will be built and lined according to our general pit guidelines on file at the NMOCD in Aztec, NM.

When this drilling pit is closed, it will be closed as per our general pit closing guidelines on file at the NMOCD.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Mike Pippin TITLE Agent - Petroleum Engineer DATE October 25, 2004

Type or print name Mike Pippin E-mail address: mpippin@ddbroadband.net Telephone No. 505-327-4573

(This space for State use)

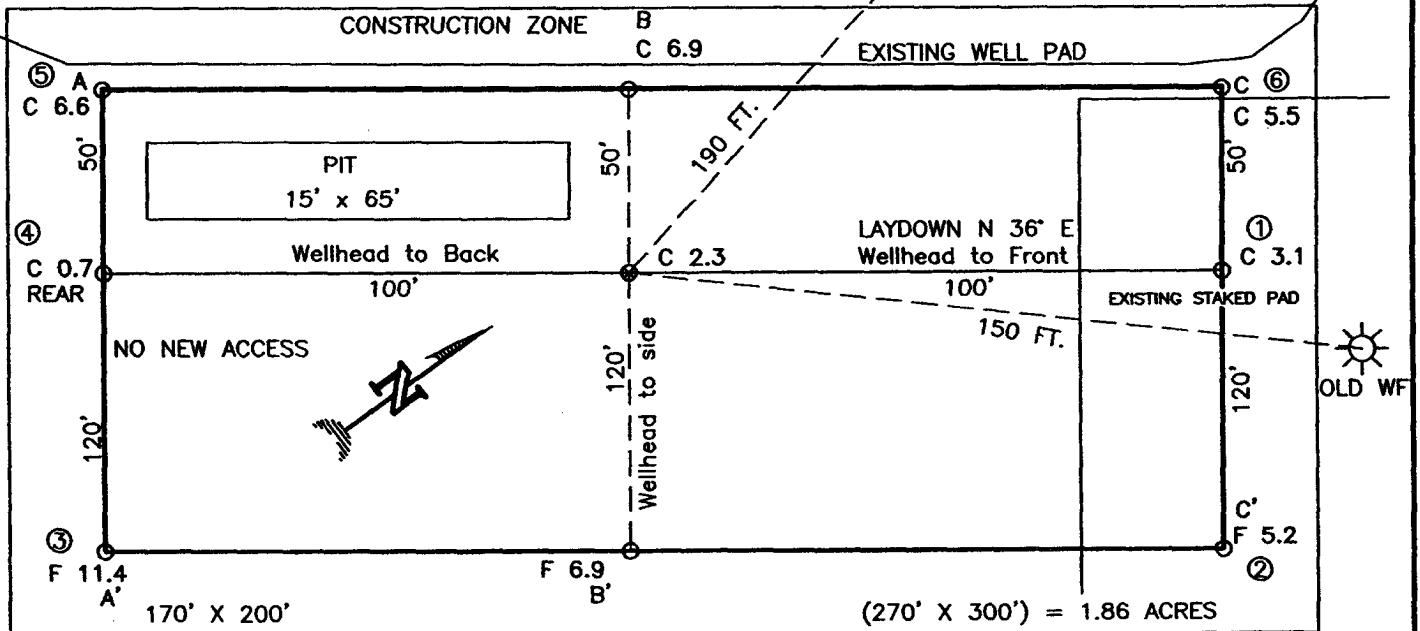
APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 32

Conditions of approval, if any:

DEC 10 2004
DATE

M & G DRILLING COMPANY

GRAHAM No. 98S, 680 FSL 775 FEL
SECTION 4, T27N, R8W, N.M.P.M., SAN JUAN COUNTY, N. M.
GROUND ELEVATION: 5956, DATE: SEPTEMBER 09, 2004



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

5970					
5960					
5950					
5940					

ELEV. B-B'

C/L

5970					
5960					
5950					
5940					

ELEV. C-C'

C/L

5970					
5960					
5950					
5940					

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.

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REVISION	DATE	REVISION BY	DATE
<p>Daggett Enterprises, Inc. Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 328-1772 • Fax (505) 328-6019 NEW MEXICO L.S. No. 14831</p>			
		<p>DATE: 09/22/04 DRAWN BY: A.C. ROW: M&G021</p>	

M & G DRILLING COMPANY

GRAHAM #98s FRTC

680' FSL, 775' FEL

Unit P Sec. 4 T27N R8W

San Juan County, NM

Drilling Program

1. ESTIMATED FORMATION TOPS (KB)

<u>Formation Name</u>	<u>Depth</u>
Ojo Alamo	1273'
Kirtland	1383'
Fruitland	1913'
Pictured Cliffs	2163'
TD (4-1/2")	2250'

2. NOTABLE ZONES

Gas or Oil Zones
Fruitland
Pictured Cliffs

Water Zones
Ojo Alamo
Kirtland

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 engineer's recommendations.

3. PRESSURE CONTROL

Maximum expected pressure is ~400 psi. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 7-1/16" 3,000 psi annular is on PAGE #5 with a choke manifold on PAGE #6.

BOP equipment and all accessories will meet or exceed BLM requirements in 43 CFR Part 3160 for a 3000 psi system. A 3000 psi annular BOP will be used. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill, kill, and choke manifold lines will be 2". Accessories will include an upper Kelly cock with a handle, stabbing valve to fit drill pipe on floor at all times, string float at bit, 3000 psi choke manifold with 2" adjustable and 2" positive chokes, and pressure gauge. BOPs will be tested every 24 hours. Tests will be recorded on IADC log.

M & G DRILLING COMPANY

GRAHAM #98s FRTC

680' FSL, 775' FEL

Unit P Sec. 4 T27N R8W

San Juan County, NM

4. CASING & CEMENT

<u>Hole Size</u>	<u>O.D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connection</u>	<u>GL Setting Depth</u>
12-1/4"	8-5/8"	23#	LS	New	ST&C	200'
6-1/4"	4-1/2"	11.6#	K-55	New	ST&C	2250'

Surface Casing will be cemented to the surface with ~165 cu. ft. (~140 sx) Class "B" cmt or equivalent (1.18 ft³/sx yield, 15.6 ppg, & 5.2 gps) with 2% CaCl₂ and 1/4#/sx celloflake. Volume based on 100% excess. We plan to run a minimum of at least 3 centralizers. A wooden wiper plug will be displaced to within 20' of the shoe. WOC = 12 hours. Surface casing will be tested to 500 psi for 15 minutes.

Production Casing will be cemented to surface with a single stage. Total cement = ~334 cu. ft. (~173sx). Volumes are calculated at 45% excess in the lead cmt. If cement does not circulate to surface, then a temperature survey or CBL will be run to determine the actual cement top as needed. WOC = 12 hours. Casing will be tested to 3800 psi for 15 minutes during completion operations.

Lead cement will be ~279 cu. ft. (~133 sx) Class "B" cmt or equivalent w/2% SM, 1/4#/sx cello flake, 3#/sx gilsonite mixed at 11.9 gps, 12.5 ppg for a yield of 2.09 cu. ft. per sx.

Tail cement will be ~56 cu. ft. (~40 sx) Class "B" cmt or equivalent w/1% gel, 2% CaCl₂, 1/4#/sx cello flake, 3#/sx gilsonite mixed at 6.8 gps, 14.5 ppg for a yield of 1.4 cu. ft. per sx.

Cementing equipment will include a guide shoe, and autofill float collar will be run 20' off bottom. We plan on running at least 10 centralizers.

5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>Wt./ppg.</u>	<u>Vis.</u>	<u>Fluid Loss</u>	<u>PH</u>
0'-200'	FW gel/lime spud mud	8.4-8.7	30-50	NC	10
200'-2250'	FW gel/Polymer	8.3-8.6	30-35	<20cc's	9.5

Lost circulation and absorption material will be on location.

6. CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. No open hole logs will run on this well. We plan to run a cased hole GR-neutron log during completion operations.

M & G DRILLING COMPANY

GRAHAM #98s FRTC

680' FSL, 775' FEL

Unit P Sec. 4 T27N R8W

San Juan County, NM

7. DOWN HOLE CONDITIONS

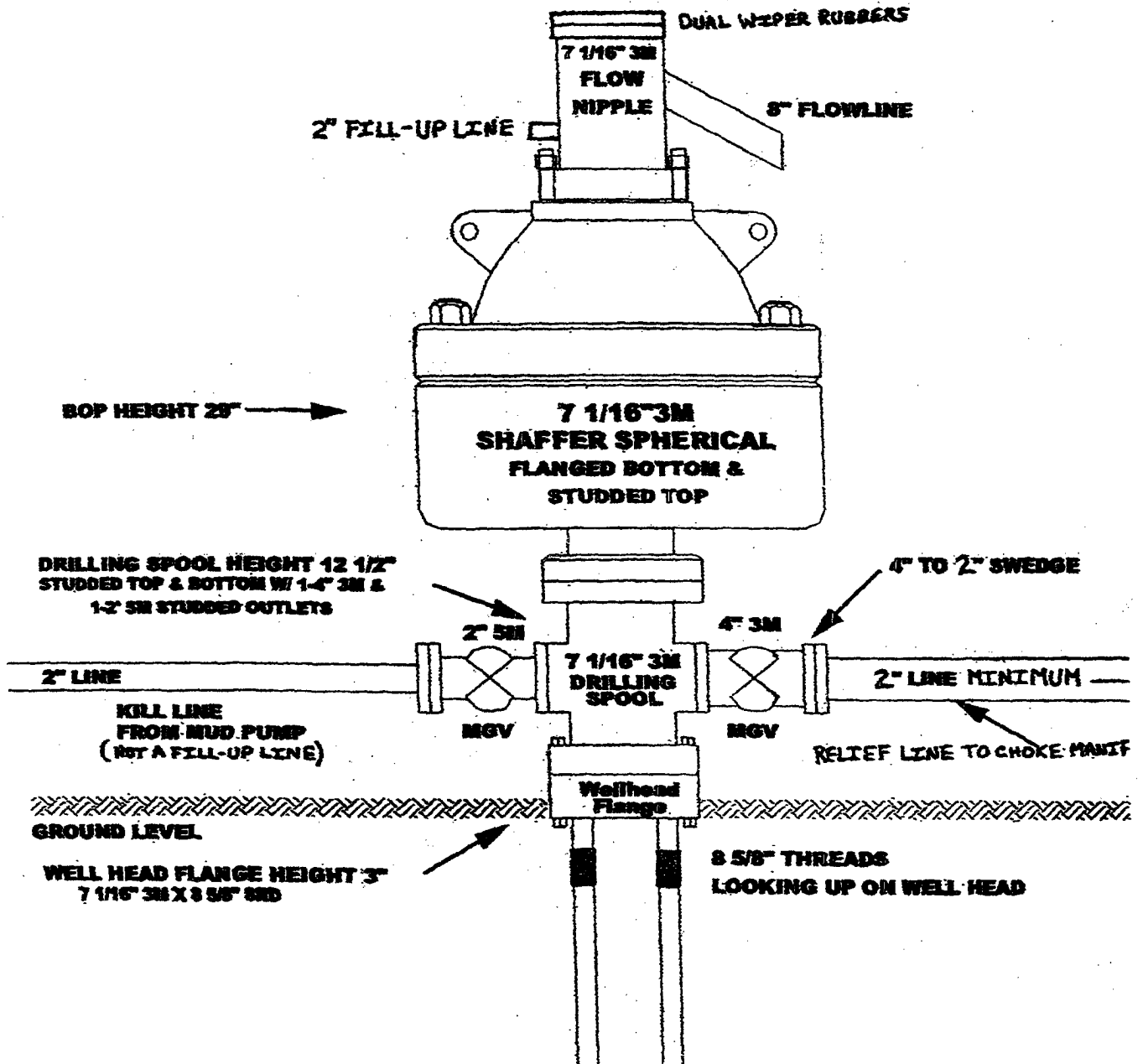
No abnormal pressures, temperatures, nor hydrogen sulfide are expected.
Maximum pressure will be ~400 psi.

8. OTHER INFORMATION

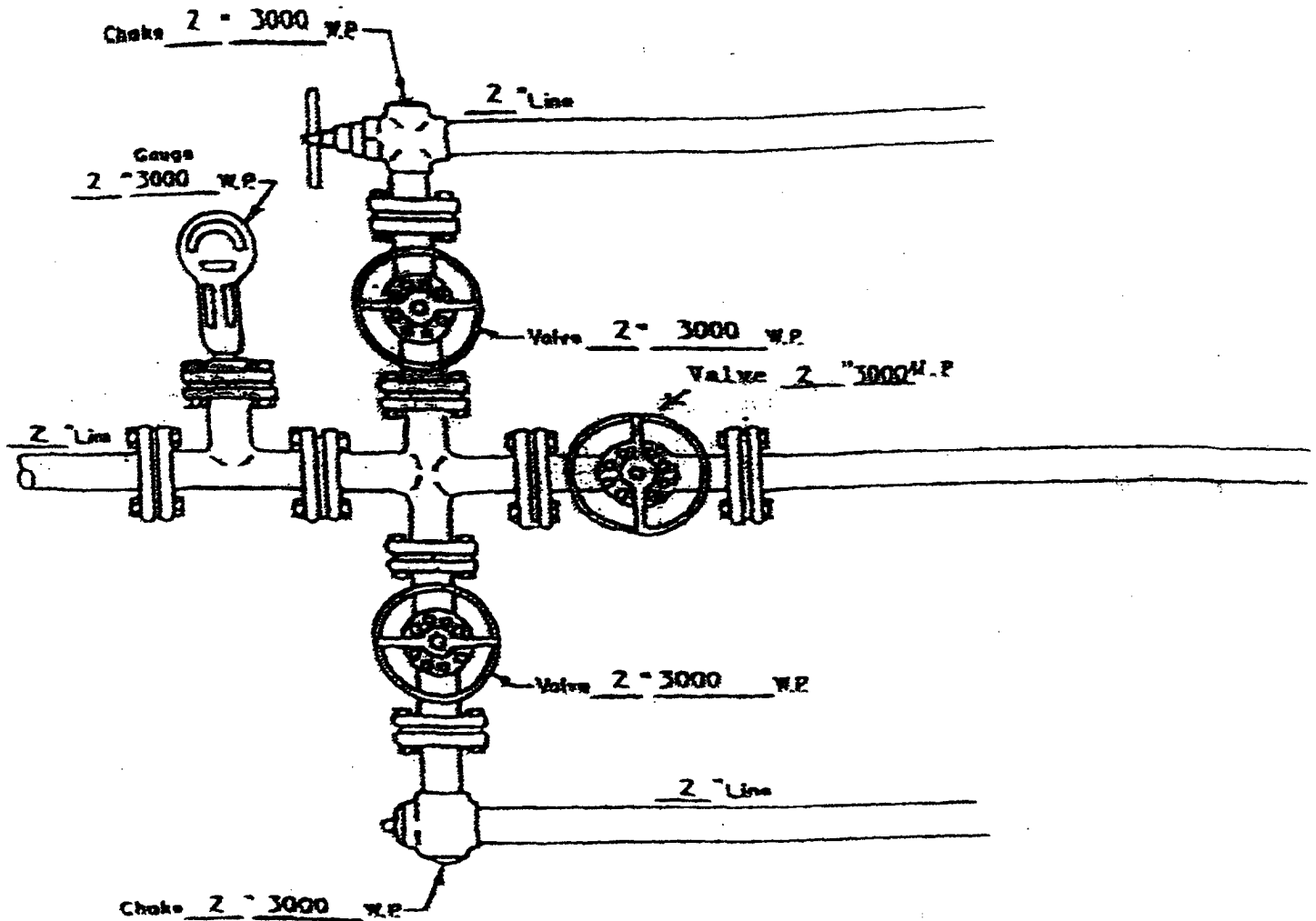
The anticipated spud date is June 1, 2005. It is expected it will take ~7 days to drill and ~7 days to complete the well. Completion will start about one month after the spud and will include hydraulic fracturing.

Drilling Rig

3000 psi BOP System



M & G DRILLING COMPANY
SAN JUAN COUNTY, NM



MANIFOLD
3000 #W.P.

☒ Manual
☐ Hydraulic

8-5/8" 23# LS X-42 CASING
0.250" WALL
CALLAPSE = 1016 PSI
INTERNAL YIELD = 1040 PSI

PAGE #6
ATTACHMENT NO. 2