

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

2004 JUL 27

5. Lease Designation and Serial No.

NM 078863

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

KRAUSE 33 #103s

9. API Well No.

30045 32484

10. Field and Pool, or Exploratory

Basin Fruitland Coal

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

Sec 33, T-28-N, R-11-W

12. County or Parish,

San Juan

13. State

New Mexico

17. Spacing Unit dedicated to this well

320 Acres N/2

20. BLM/BIA Bond No. on file

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	10.5#	1800'	141 Sxs, 268 ft3 - 45% Excess

The on-site inspection was on 7/1/04 by Brice Barlan

Archy is by DCA.

EA & TE are by Permits West.

SEE ATTACHED APD INFORMATION

Latitude: 36 Deg, 37 Min, 21 Sec N  
Longitude: 108 Deg, 00 Min, 38 Sec W

25. Signature

Mike Pippin

Name (Printed/Typed)

Mike Pippin

Date

July 27, 2004

Title Petroleum Engineer

Approved by (Signature)

Wayne Townsend  
Acting AFM

Name (Printed/Typed)

Wayne Townsend  
Office FFO

Date

10/28/04

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)

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

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

NMOCD

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

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

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

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

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, NM 87505

JUL 27 AM 10 00

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30045-32484	*Pool Code 71629	*Pool Name BASIN FRUITLAND CORL
*Property Code 34405	*Property Name KRAUSE 33	*Well Number 103S
*GRID No. 141852	*Operator Name M & G DRILLING COMPANY INC.	*Elevation 5868'

<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
C	33	28-N	11-W		1305	NORTH	2265	WEST	SAN JUAN

<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
*Dedicated Acres 320 N/2			*Joint or Infill Y		*Consolidation Code		*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

SEC. CORNER FD. 2 1/2" BC. 1913 U.S.G.L.O.	S89°56'15"E 2643.1' (M)	QTR. CORNER FD. 2 1/2" BC. B.O.R. BM.	SEC. CORNER FD. 2 1/2" BC. 1913 U.S.G.L.O.	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <u>Mike Pippin</u> Printed Name <u>MIKE PIPPIN</u> Title <u>AGENT-PETRO. ENGR.</u> Date <u>7-26-04</u>
2265'	KRAUSE #65	N89°51'03"E 2639.7' (M)		
5281.1' (C)	LAT. = 36°37'21" N. LONG. = 108°00'38" W.	(NAD 83) (NAD 83)		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 <u>NOV 2004</u> Signature and Seal <u>JOHN VILKONICH</u> Professional Surveyor Certificate Number <u>14831</u>
N 00°03' W	SEC. CORNER CALC'D CORNER POSITION WITNESS CORNER TO S. QTR. CORNER S 89°56'28" W 19 CHN. 1913 U.S.G.L.O. BC.			

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

Form C-103  
March 4, 2004

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

WELL API NO.

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

6. State Oil & Gas Lease No.  
**Federal: NM-078863**

7. Lease Name or Unit Agreement Name  
KRAUSE 33

8. Well Number  
#103s

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 C: 1305 feet from the North line and 2265 feet from the West line

Section 33 Township 28N Range 11W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
5868' GL

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

Pit Location: UL C Sect 33 Twp 28N Rng 11W Pit type: Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000'

Distance from nearest surface water >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 July 27, 2004

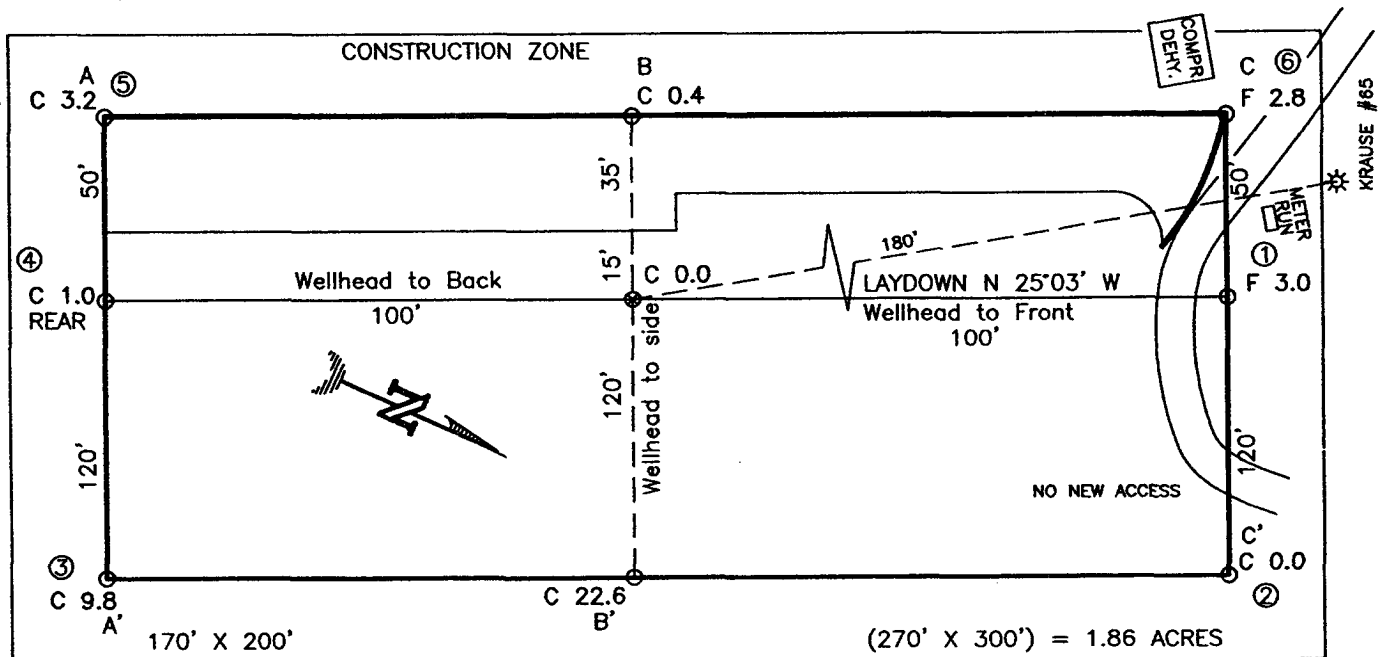
Type or print name Mike Pippin E-mail address: mpippin@ddbroadband.net Telephone No. 505-327-4573

(This space for State use)

APPROVED BY Denny Fenty TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #2  
Conditions of approval, if any:

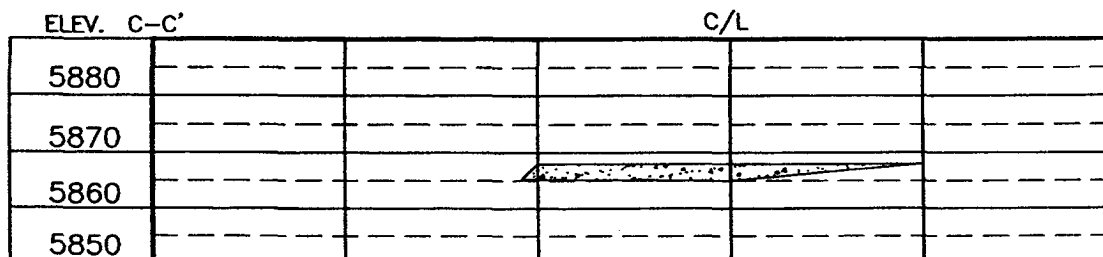
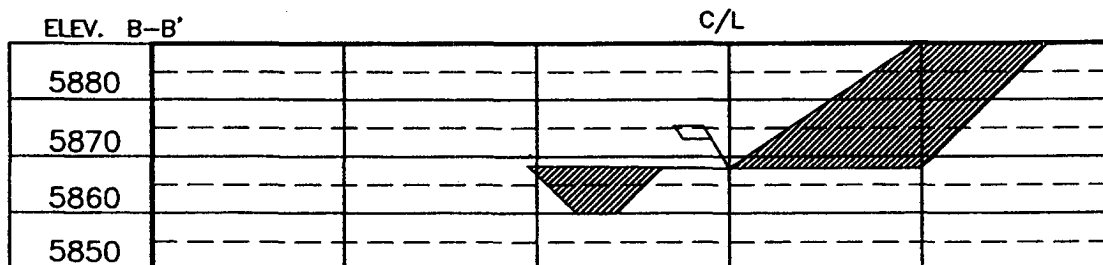
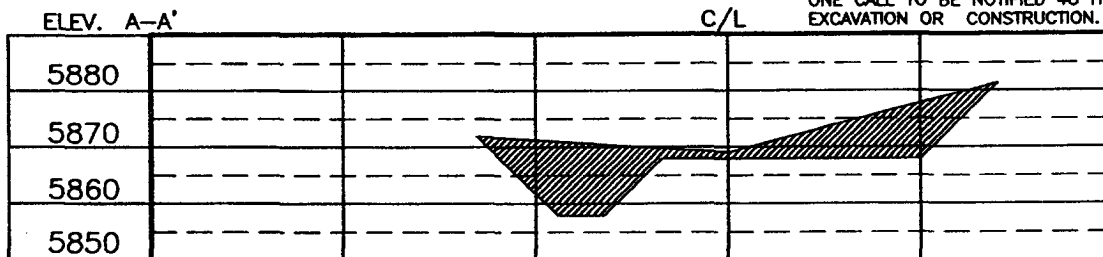
NOV - 1 2004  
DATE

M & G DRILLING COMPANY INC.  
 KRAUSE 33 No. 103S, 1305 FNL 2265 FWL  
 SECTION 33, T28N, R11W, N.M.P.M., SAN JUAN COUNTY, N. M.  
 GROUND ELEVATION: 5868, DATE: May 17, 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.



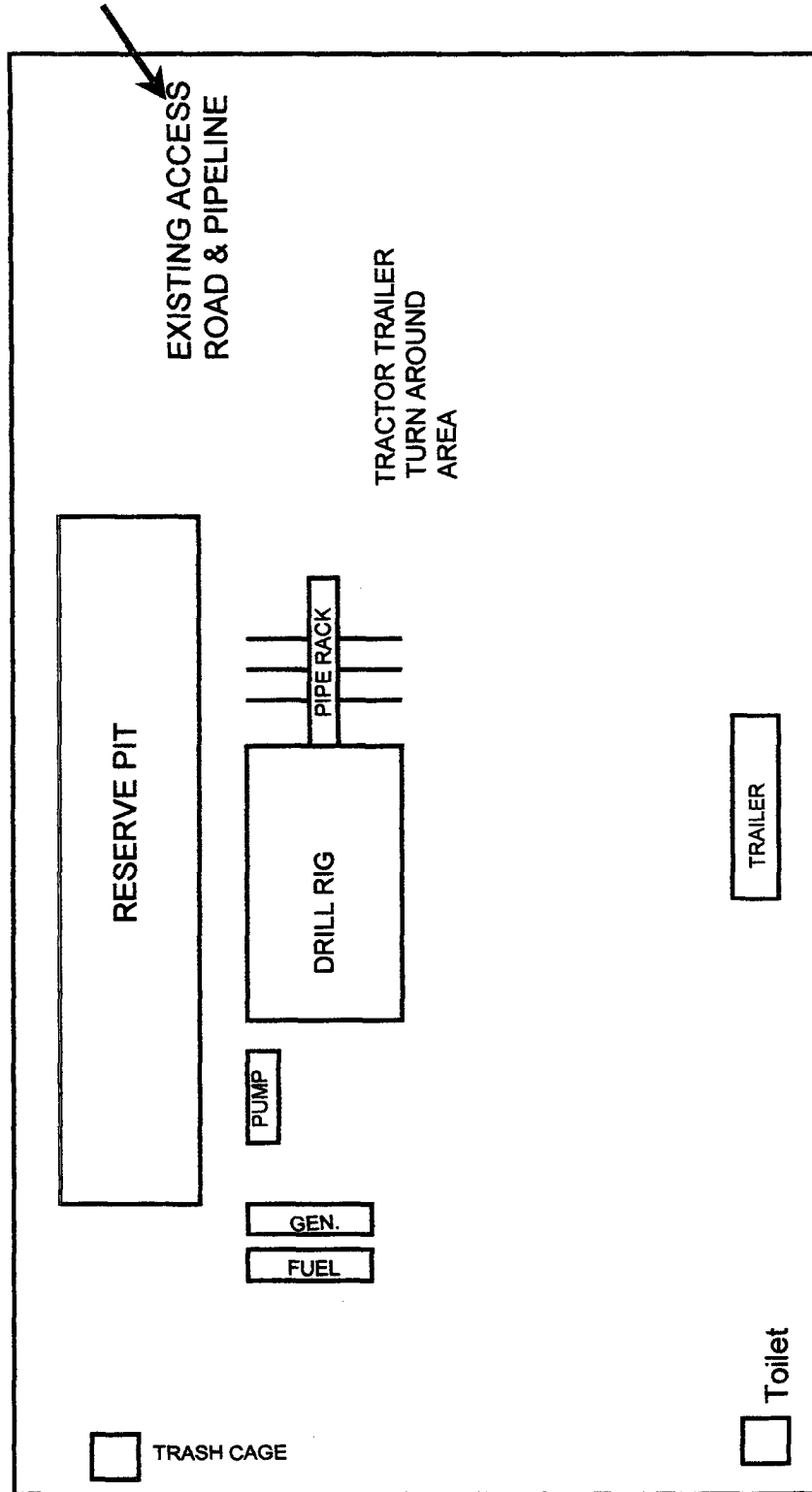
NOTE: CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES  
 OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

PAGE # 11

REVISION:	DATE:	REVISED BY:
<p><b>Daggett Enterprises, Inc.</b>          Surveying and Oil Field Services          P. O. Box 15088 • Farmington, NM 87401          Phone (505) 328-1772 • Fax (505) 328-6019          NEW MEXICO L.S. No. 14831          CADFILE: MGT00CF8          DATE: 05/25/04</p>		
<p>DRAWN BY: B.L.          ROW# M&amp;G010</p>		

M & G DRILLING COMPANY.  
KRAUSE 33 #103s FRTC  
C SEC. 33 T28N R11W  
SAN JUAN COUNTY, NM

7/27/04 P.M. PIPPIN



**M & G DRILLING COMPANY**  
**KRAUSE 33 #103s FRTC**  
1305' FNL, 2265' FWL  
Unit C Sec. 33 T28N R11W  
San Juan County, NM

**Drilling Program**

1. **ESTIMATED FORMATION TOPS (KB)**

<u>Formation Name</u>	<u>Depth</u>
Ojo Alamo	601'
Kirtland	677'
Fruitland	1439'
Pictured Cliffs	1719'
TD (4-1/2")	1800'

2. **NOTABLE ZONES**

<u>Gas or Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland		Fruitland
Pictured Cliffs	Ojo Alamo Kirtland	

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.

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

KRAUSE 33 #103s FRTC

1305' FNL, 2265' FWL

Unit C Sec. 33 T28N R11W

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"	10.5#	K-55	New	ST&C	1800'

**Surface Casing** will be cemented to the surface with ~165 cu. ft. (~140 sx) Class "B" cmt or equivalent (1.18 ft<sup>3</sup>/sx yield, 15.6 ppg, & 5.2 gps) with 2% CaCl<sub>2</sub> 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 = ~268 cu. ft. (~141sx). 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 ~212 cu. ft. (~101 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% Cacl<sub>2</sub>, 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'-1800'	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**

**KRAUSE 33 #103s FRTC**

1305' FNL, 2265' FWL

Unit C Sec. 33 T28N R11W

San Juan County, NM

7. **DOWN HOLE CONDITIONS**

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

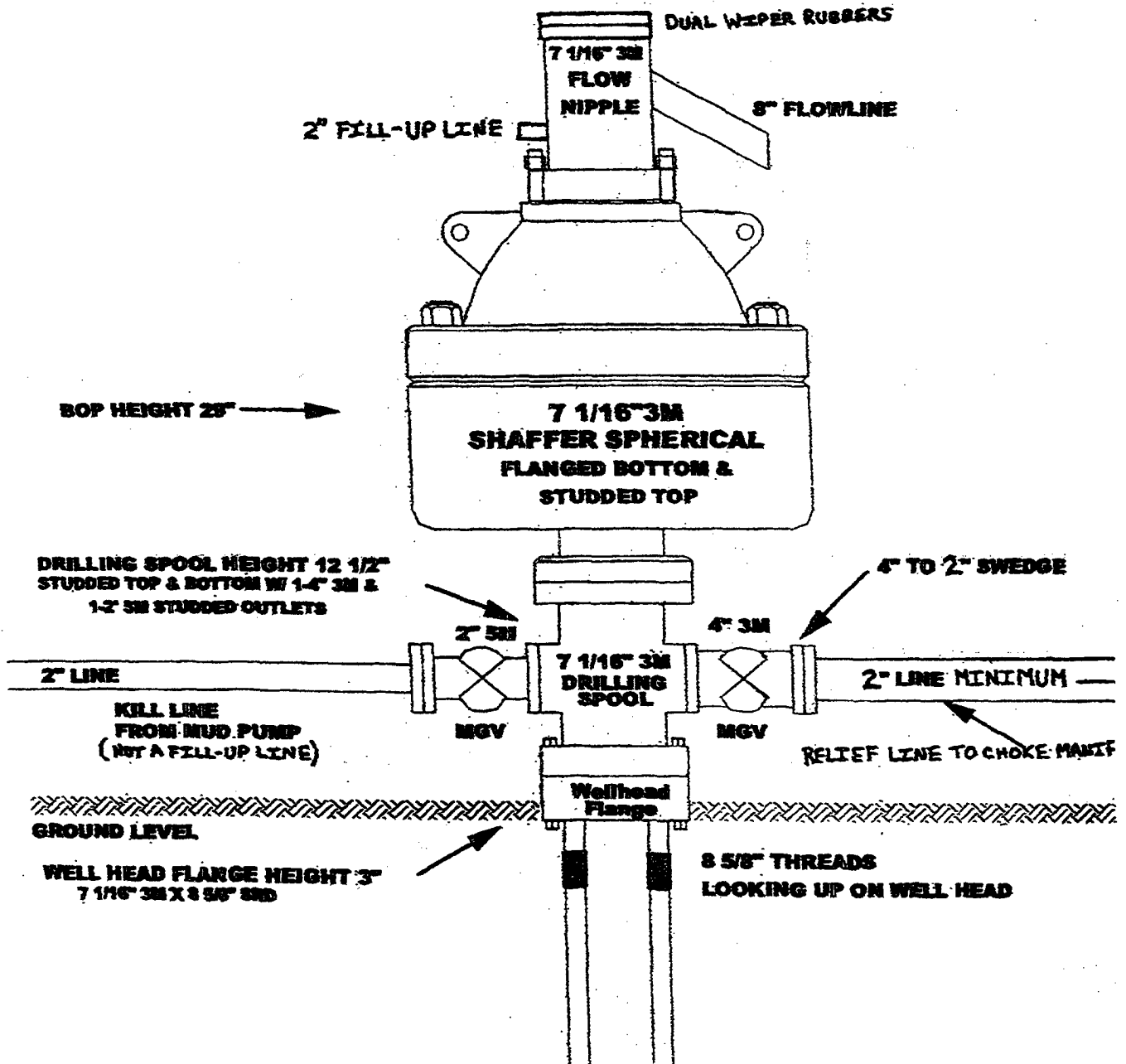
8. **OTHER INFORMATION**

The anticipated spud date is October 22, 2004. 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

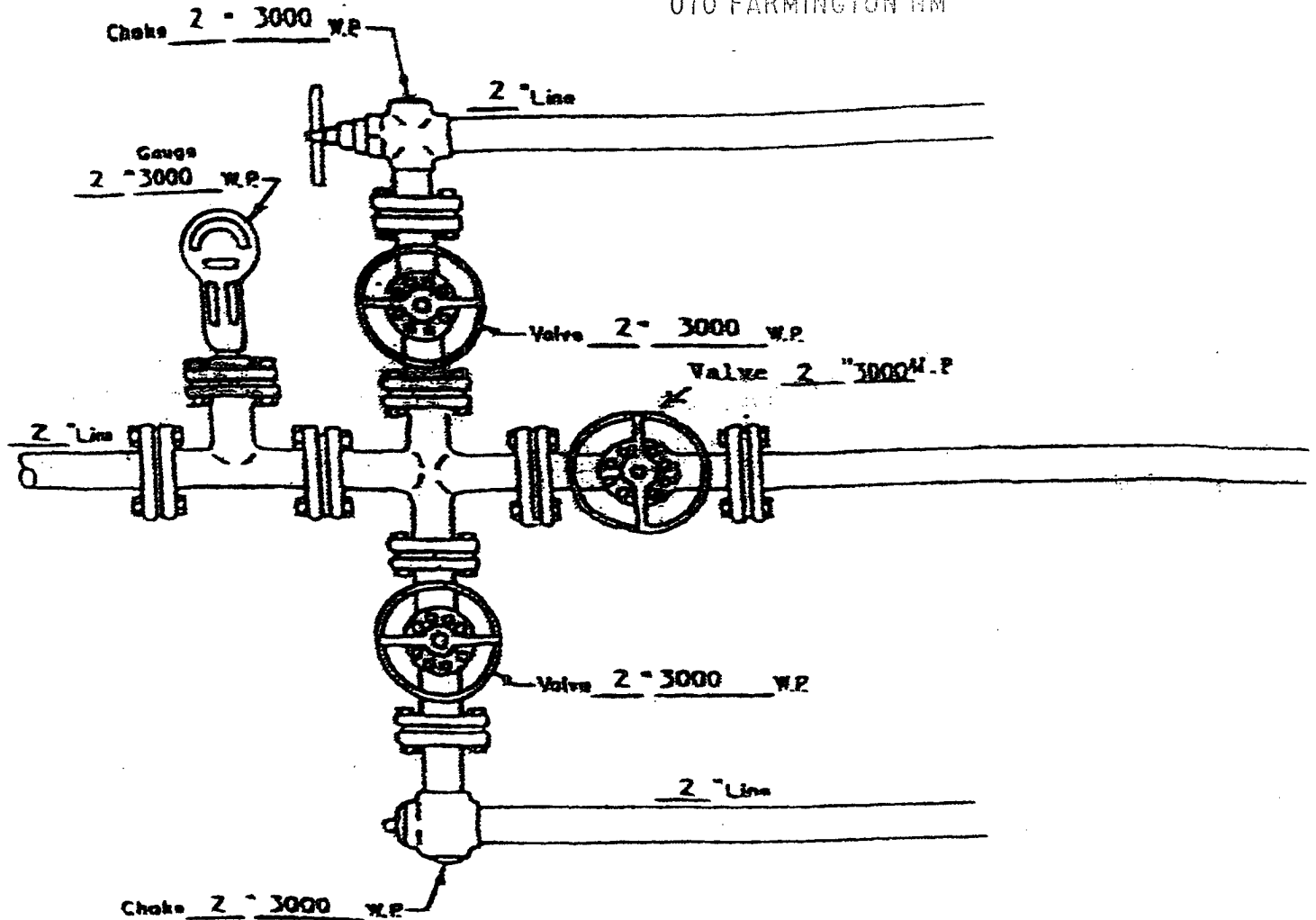
## 3000 psi BOP System



M & G DRILLING COMPANY  
SAN JUAN COUNTY, NM

2004 AUG 5 PM 2 34

RECEIVED  
070 FARMINGTON 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

ATTACHMENT NO. 2