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JUL 15 2010

Farmington Field Office
Bureau of Land Management

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMSF 078481A

6. If Indian, Allottee or Tribe Name

1a. Type of Work: [X] DRILL [ ] REENTER

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

b Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No. **Graham #100S**

2. Name of Operator **M&G Drilling Company**

9. API Well No. 30-045-35180

3A. Address **c/o Walsh Engineering,7415 E. Main, Farmington, NM 87402**

3b. Phone No. *(include area code)* **(505) 327-4892**

10. Field and Pool, or Exploratory **Basin Fruitland Coal**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1110' FNL and 1760' FEL**
At proposed prod. Zone LOT 2

11. Sec., T , R , M., or Blk, and Survey or Area **B Sec. 3, T27N, R8W**

14. Distance in miles and direction from nearest town or post office* **12 miles southeast of Blanco, 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 drlg. unit line, if any) **880'**

16. No. of Acres in lease **320 +**

17. Spacing Unit dedicated to this well **E/2 320.86 acres**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **265'**

19. Proposed Depth **2300' +/-**

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.) **5898' GR**

22. Approximate date work will start* **August 1, 2010**

23. Estimated duration **2 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:

RCVD AUG 24 '10

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 office.

OIL CONS. DIV.
DIST. 3

25. Signature Paul C. Thompson — Name *(Printed/Typed)* **Paul C. Thompson, P.E.** — Date **6/30/2010**

Title **Agent**

Approved by *(Signature)* /s/ Stephen Mason — Name *(Printed/Typed)* — Date 8/13/2010

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 1001and 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)*

AUG 27 2010

NMOCD

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

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

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

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

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Form C-102
Revised October 12, 2005
Instructions on back
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
30045.35180	71629	BASIN FRUITLAND COAL

4 Property Code	5 Property Name	6 Well Number
16598	GRAHAM	100S

7 OGRID No.	8 Operator Name	9 Elevation
141852	M&G DRILLING COMPANY, INC.	5898'

10 Surface Location

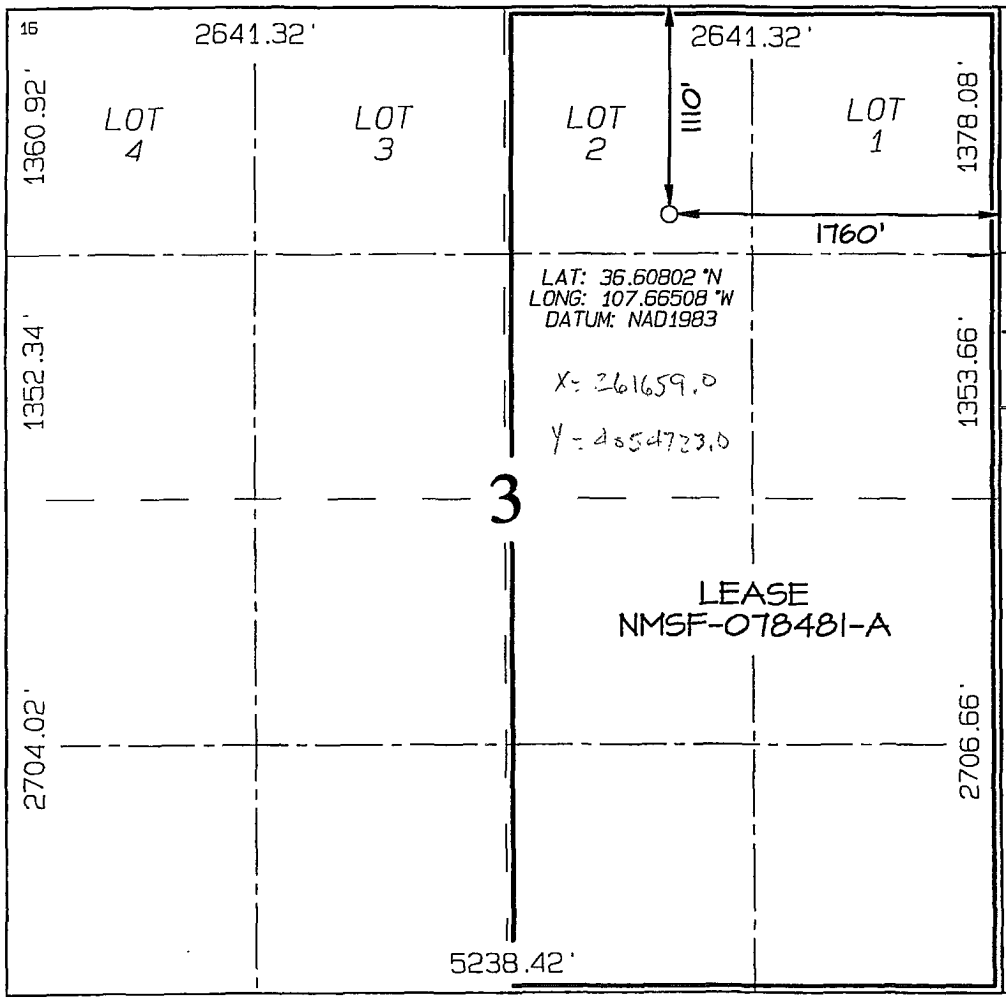
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	3	27N	8W		1110	NORTH	1760	EAST	SAN JUAN

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 Infill	14 Consolidation Code	15 Order No.
320.86 Acres - (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



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.

Paul C. Thompson 6/30/10
Signature Date

PAUL C. THOMPSON
Printed Name

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: MAY 16, 2010

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

M&G DRILLING Company
OPERATIONS PLAN
Graham #100S

I. Location: 1110'FNL & 1760' FEL
Sec 3, T27N, R8W
San Juan County, NM

Date: June 29, 2010

Field: Basin Fruitland Coal
Surface: BLM
Minerals: NMSF- 078481A
API: 30-045-

Elev: GL 5898'

II. Geology: Surface formation _ San Jose

A.

Formation Tops	Depths
Ojo Alamo	945'
Kirtland	1050'
Fruitland	1705'
Fruitland Coal	2040'
Pictured Cliffs	2155'
Total Depth	2300'

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:
Water and gas - 2040' and 2155'.

B. Logging Program: Induction/GR and density logs at TD.

C. No over pressured zones are expected in this well. No H_2S zones will be penetrated in this well. Max. BHP = 1000 psig.

III. Drilling
A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.7 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits (#1 and #2) for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
8-3/4"	120'	7"	20# J-55
6-1/4"	2300'	4-1/2"	10.5# J-55

B. Float Equipment:

a) Surface Casing: Bell the bottom pin and 3 centralizers on the bottom 3 joints.

b) Production Casing: 4-1/2" cement guide shoe and self fill insert float. Place float one joint above shoe. Five centralizers spaced every other joint above float and five turbolizers every third collar from 1200'.

V. Cementing:

Surface casing: 7" - Use 35 sx (41 cu. ft.) of Type 5 with 2% $CaCl_2$ and ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

Production Casing: 4-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 10 bbls of gel water, followed by 10 bbls of fresh water. **Lead** with 190 sx (391 cu.ft) of Type 5 with 2% sodium metasilicate, 5 #/sk gilsonite, and ¼#/sk. celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). **Tail** with 75 sx (89 cu.ft.) of Type 5 with 5 #/sk gilsonite, and ¼#/sk. celloflake. (Yield = 1.23 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 480 cu.ft. (100% excess to circulate cement to surface).

Paul C. Thompson

Paul C. Thompson, P.E.

EXHIBIT #2

Chihuahua or Scorpion Rig
BOP Testing Procedure.

Refer to the attached diagram for the bradenhead and BOP configuration. No mud cross will be utilized. The choke manifold will be connected to one side of the bradenhead. Connect the third-party testing company's test truck to the opposite side of the bradenhead.

Blind Rams:
Close the blind rams and open the bradenhead valve to the choke manifold. Have all three of the choke manifold valves closed. Pressure test the blind rams, casing, bradenhead, and choke manifold to 250 psig low and 1,000 psig high. Test each pressure for 30 minutes. A successful test will not have more than a 10% drop during the 30 minute test period.

If the test is successful proceed with the pipe ram test.

If the test is not successful, open the blind rams and install the test plug at the bottom of the bradenhead. Close the bradenhead valve. Pressure test the blind rams and bradenhead to 250 psig low and 1,000 psig high. Open the bradenhead valve to the choke manifold and repeat the test.

Pipe Rams:
Install the TIW valve on the bottom of one joint of drill pipe. Run the one joint into the well and close the pipe rams. Chain down the joint of drill pipe but leave the top of the pipe open. With the bradenhead valve open and the test truck still connected to the other side of the bradenhead, test the pipe rams to 250 psig low and 1,000 psig high. Hold each pressure for 30 min with no more than a 10% drop during the test period.

Upper Kelly Cock:
Install the TIW valve to the bottom of the Kelly. Install the test truck to the TIW Valve. With the TIW valve open and the upper Kelly cock closed, pressure test the Kelly and upper Kelly cock to 250 psig low and 1,000 psig high. Hold each pressure for 10 minutes with no more than a 10% drop during the test.

EXHIBIT #1

"2M" BLOWOUT PREVENTER SYSTEM