

N.M. Oil and Gas Order 2

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
1301 W. Grand Avenue  
Albuquerque, NM 88210

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004


**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-26880	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Mewbourne Oil Company (14744)		7. If Unit or CA Agreement, Name and No.	
3a. Address P.O. Box 5270 Hobbs, NM 88240		8. Lease Name and Well No. Quahada Ridge 1 Federal #1	
3b. Phone No. (include area code) 505-393-5905		9. API Well No. 30-015-34057	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FNL & 1650' FE Lot 2 At proposed prod. zone		10. Field and Pool, or Exploratory Morrow	
14. Distance in miles and direction from nearest town or post office* 13 miles NE of Carlsbad on US 62/180		11. Sec., T., R., M., or Blk. and Survey or Area Sec 1-T21S-R28E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 268.40	17. Spacing Unit dedicated to this well 268.40	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2060'	19. Proposed Depth 12,000' / 2,600'	20. BLM/BIA Bond No. on file NM-1693 Nationwide	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3405' GL	22. Approximate date work will start* ASAP	23. Estimated duration 40 days	

**24. Attachments CAPITAN CONTROLLED WATER BASIN**

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

25. Signature 	Name (Printed/Typed) Kristi Green	Date 03/03/05
Title Hobbs Regulatory		
Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date APR - 4 2005
Title FIELD MANAGER		
Office CARLSBAD FIELD 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.

**APPROVAL FOR 1 YEAR**

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)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

WITNESS 13<sup>3</sup>/<sub>8</sub>" and 9<sup>5</sup>/<sub>8</sub>" Cement Jobs

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
March 12, 2004

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For drilling and production facilities, submit to  
appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe  
office

RECEIVED

MAR 04 2005

COPIES

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Mewbourne Oil Company Telephone: 505-393-5905 e-mail address: kgreen@mewbourne.com

Address: PO Box 5270 Hobbs, NM 88240

Facility or well name: Quahada Ridge 1 Federal #1 API #: 30-015-34057 U/L or Qtr/Qtr Lot 2 Sec 1 T21S R28E

County: Eddy Latitude 32-31-14.9N Longitude 104-02-12.4W NAD: 1927 ☐ 1983 ☒

Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Volume  
24,000 bbl

**Below-grade tank**

Volume:        bbl Type of fluid:       

Construction material:       

Double-walled, with leak detection? Yes ☐ If not, explain why not.  
      

Depth to ground water (vertical distance from bottom of pit to seasonal high  
water elevation of ground water.)

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more X	( 0 points) X

Wellhead protection area: (Less than 200 feet from a private domestic  
water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
No X	( 0 points) X

Distance to surface water: (horizontal distance to all wetlands, playas,  
irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
1000 feet or more X	( 0 points) X

<b>Ranking Score (Total Points)</b>	<b>0 points</b>
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**If this is a pit closure:** (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility       . (3) Attach a general description of remedial action taken including remediation start date and end  
date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface        ft. and attach sample results. (5) Attach soil sample results and a  
diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described 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 ☐.

Date: 03/02/05

Printed Name/Title Kristi Green / Hobbs Regulatory Asst

Signature Kristi Green

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or  
otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or  
regulations.

Approved MAR 4 2005

Date:       

Printed Name/Title       

Signature

DISTRICT I  
325 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First, Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Morrow
Property Code	Property Name	Well Number
	QUAHADA RIDGE "1" FEDERAL	1
OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3405'

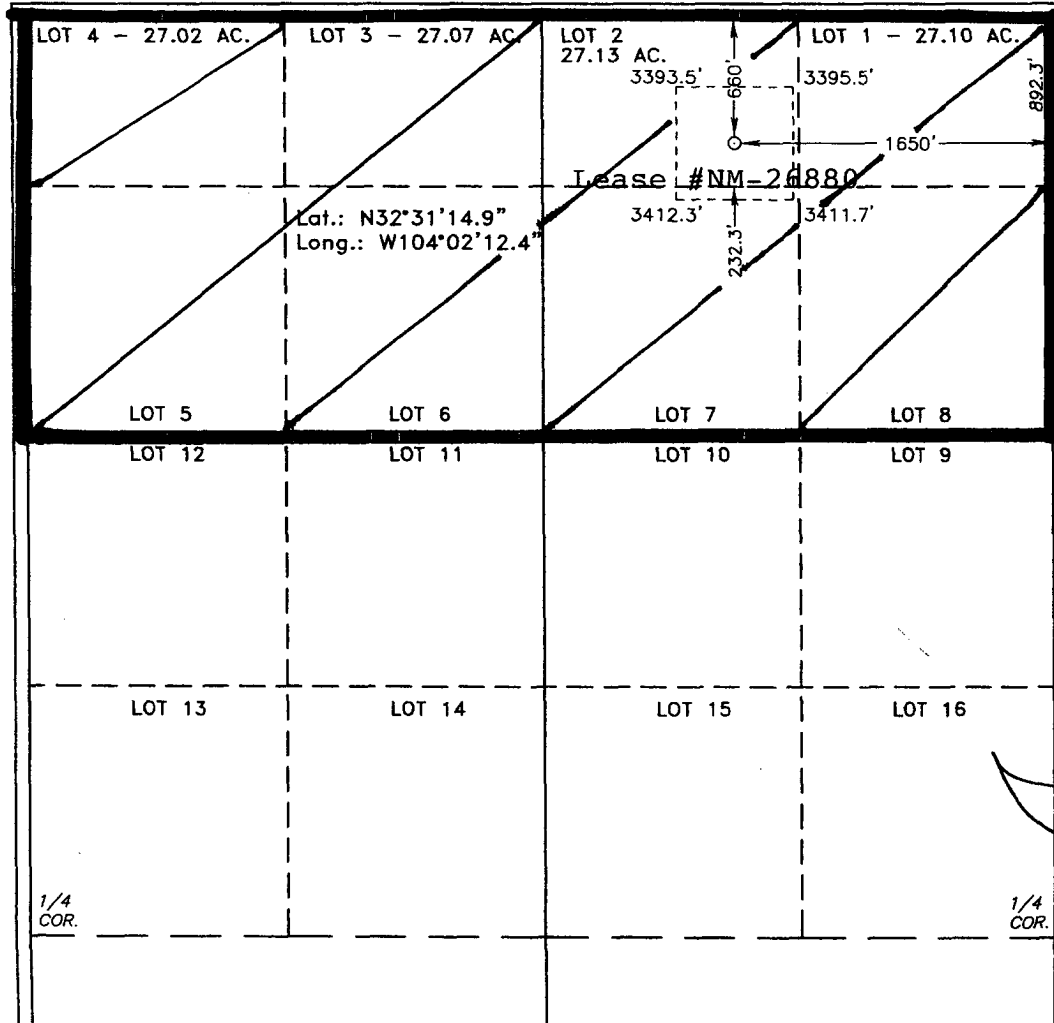
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 2	1	21 S	28 E		660	NORTH	1650	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.						
268									

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



OPERATOR CERTIFICATION

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

*Kristi Green*  
Signature

Kristi Green  
Printed Name  
Hobbs Regulatory

Title  
Date  
03/03/05

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.

GARY L. JONES  
FEBRUARY 23 2005  
NEW MEXICO

Date Surveyed  
Signature & Seal of  
Professional Surveyor 7977

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

**Drilling Program**  
**Mewbourne Oil Company**  
Quahada Ridge 1 Federal #1  
660' FNL & 1650' FEL  
Section 1-T21S-R28E  
Eddy County, New Mexico

**1. The estimated top of geological markers are as follows:**

Strawn	10900'
Atoka	11500'
Morrow	12000'

**2. Estimated depths of anticipated fresh water, oil, or gas:**

Water	Below 200'
Hydrocarbons	All zones below Delaware

**3. Pressure control equipment:**

A 2000 psi working pressure annular BOP will be installed on the 13-3/8" surface casing. A 5000 psi WP Double Ram BOP and a 2500 psi WP Annular will be installed after running 9 5/8" casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

**4. Proposed casing and cementing program:**

**A. Casing Program:**

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>
26"	20"	94#	K55	0-300'
17-1/2"	13-3/8"	54.5#	J55	0-1700'
12-1/4"	9-5/8"	40#	N80/J55	0-3000'
8-3/4"	5-1/2"	17#	P110/S95	0-12,600'

Minimum casing design factors: Collapse 1.2, Burst 1.1, Tensile strength 2.0.

## B. Cementing Program

- i. Surface Casing: 300 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- ii. Deep Surface: 600 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 400 sacks Class "C" cement containing 2% CaCl
- iii. Intermediate Casing: 900 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 400 sacks Class "C" cement containing 2% CaCl.
- iv. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing a multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.  
*\*Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

## 5. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-300'	FW spud mud	8.6-9.4	32-34	NA
300'-1700'	Brine water	10.0	32-34	NA
1700'-3000'	Fresh water	8.8-9.2	28-30	NA
3000'-11000'	Cut brine water	9.2-10.0	28-30	NA
11000'-TD	Cut brine water	9.2-10.0	30-42	8-12

(Note: Any Weight Above 8.6#/gallon would be to hold back Wolfcamp shale, rather than abnormal BHP.)

## 6. Evaluation Program:

Samples: 10'samples from intermediate casing to TD  
 Logging: Compensated density and dual laterlog from intermediate casing to TD  
 Coring: As needed for evaluation  
 Drill Stem Tests: As needed for evaluation

## 7. Downhole Conditions

Zones of abnormal pressure: None anticipated  
 Zones of lost circulation: Anticipated in surface and intermediate holes  
 Maximum bottom hole temperature: 180 degree F  
 Maximum bottom hole pressure: 9.0 lbs/gal gradient or less

**8. Anticipated Starting Date:**

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**MEWBOURNE OIL COMPANY**

Quahada Ridge 1 Federal #1

Page 4

**13. Operator's Representative:**

A. Through APD approval and drilling operations:

**N.M. Young, District Manager**  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
505-393-5905

B. Through completion and production operations:

**N.M. Young, District Manager**  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
505-393-5905

**14. Certification**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_ 03/03/05 \_\_\_\_\_

N.M. Young, District Manager  
Mewbourne Oil Company  
PO Box 5270  
Hobbs, NM 88241  
(505) 393-5905

## **Hydrogen Sulfide Drilling Operations Plan**

### **Mewbourne Oil Company**

Quahada Ridge 1 Federal #1

650' FNL & 1650' FEL

Section 1-T21S-R28E

Eddy County, New Mexico

#### **1. Hydrogen Sulfide Training**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- A. The hazards and characteristics of hydrogen sulfide gas.
- B. The proper use of personal protective equipment and life support systems.
- C. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- D. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- A. The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- C. The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

#### **2. Hydrogen Sulfide Safety Equipment and Systems**

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

##### **A. Well Control Equipment**

- 1. Flare line with automatic igniter or continuous ignition source.
- 2. Choke manifold with minimum of one adjustable choke.
- 3. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- 4. Auxiliary equipment including rotating head and annular type blowout preventer.



B. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on well site diagram.

C. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 ppm.

D. Visual Warning Systems

1. Wind direction indicators as indicated on the well site diagram.
2. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

3. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

4. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

5. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and tool pushers are either two way radios or cellular phones.

6. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

7. **General Requirements**

MOC has researched this area and no high concentrations of H<sub>2</sub>S was found. MOC will have on location and working all H<sub>2</sub>S safety equipment before Yates formations.

**United States Department of the Interior  
Bureau of Land Management  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201-1287**

**Statement Accepting Responsibility for Operations**

Operator Name: Mewbourne Oil Company  
Street or Box: P.O. Box 5270  
City, State: Hobbs, New Mexico  
Zip Code: 88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number: Lease Number #NM-46275 26880 *Jo*  
Legal Description of Land: Section 1, T-21S, R-28E Eddy County, New Mexico.  
Location @ 660' FNL & 1650' FEL.  
Formation (if applicable):  
Bond Coverage: \$150,000  
BLM Bond File: NM1693, Nationwide

Authorized Signature: \_\_\_\_\_

*M. M. Young*  
Name: NM (Micky) Young  
Title: District Manager  
Date: March 3, 2005

**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**  
Quahada Ridge 1 Federal #1  
660' FNL & 1650' FEL  
Section 1-T21S-R28E  
Eddy County, New Mexico

1. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
2. Blowout preventer and all fittings must be in good condition with a minimum 5000 psi working pressure.
3. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 5000 psi working pressure.
4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
5. A kelly cock shall be installed on the kelly at all times.
6. Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

Mewbourne Oil Company  
BOP Schematic for  
12 1/4" Hole

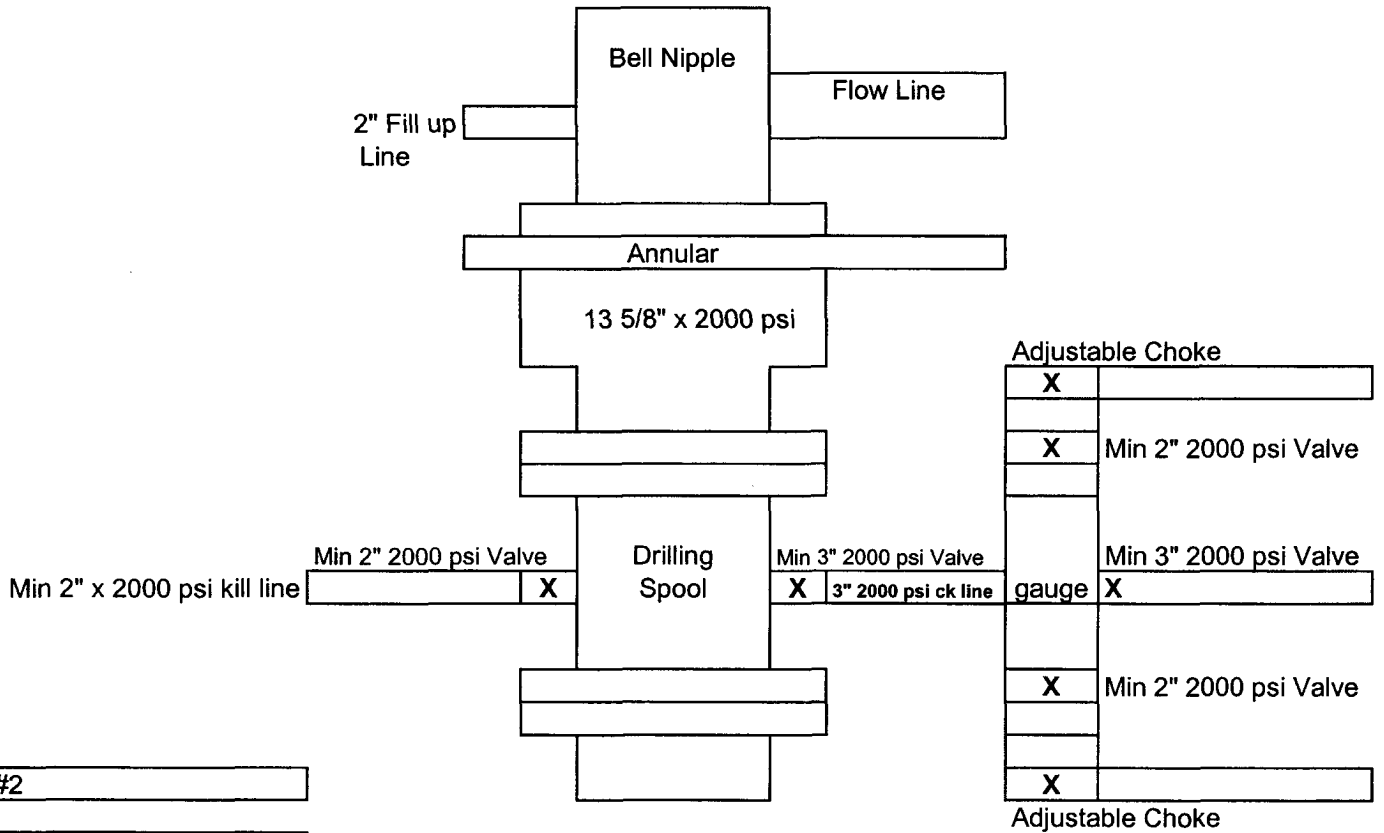


Exhibit #2

Quahada Ridge 1 Federal #1  
660' FNL & 1650' FEL  
Sec 1-T21S-R28E  
Eddy, County  
New Mexico

Mewbourne Oil Company  
BOP Schematic for  
8 3/4" or 7 7/8" Hole

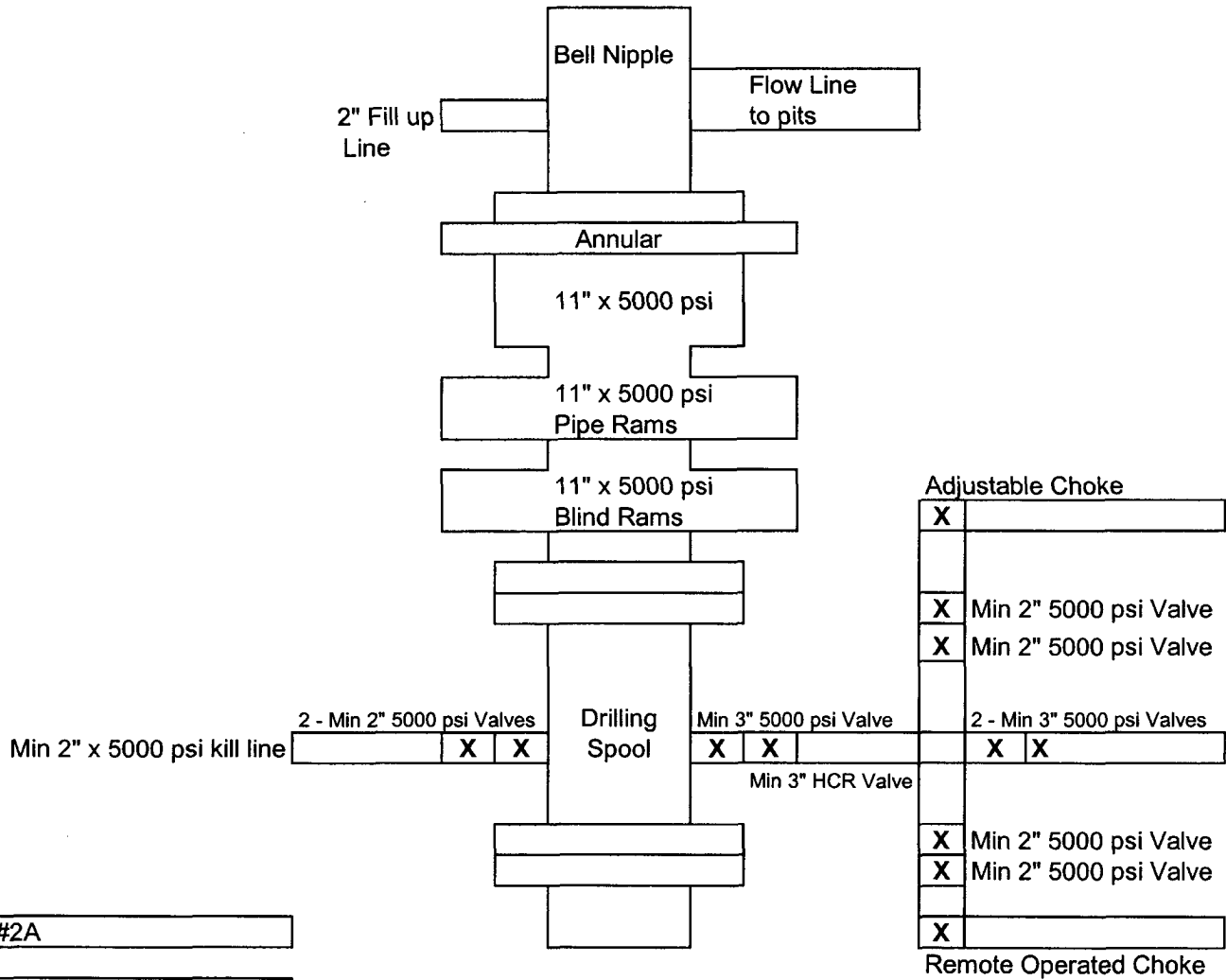


Exhibit #2A

Quahada Ridge 1 Federal #1  
660' FNL & 1650' FEL  
Sec 1-T21S-R28E  
Eddy, County  
New Mexico

**Exhibit #4**  
**Status of Wells in Immediate Vicinity**  
**Mewbourne Oil Company**  
Justice Federal Com #3  
1400' FNL & 950' FWL  
Section 1-T21S-R27E  
Eddy County, New Mexico

**Section 1-T21S-R28E**

Operator: Penroc Oil Corp  
Well Name: Golden Lane 1 Federal #1  
Unit letter: Unit J  
Status: Producing  
Field: Atoka

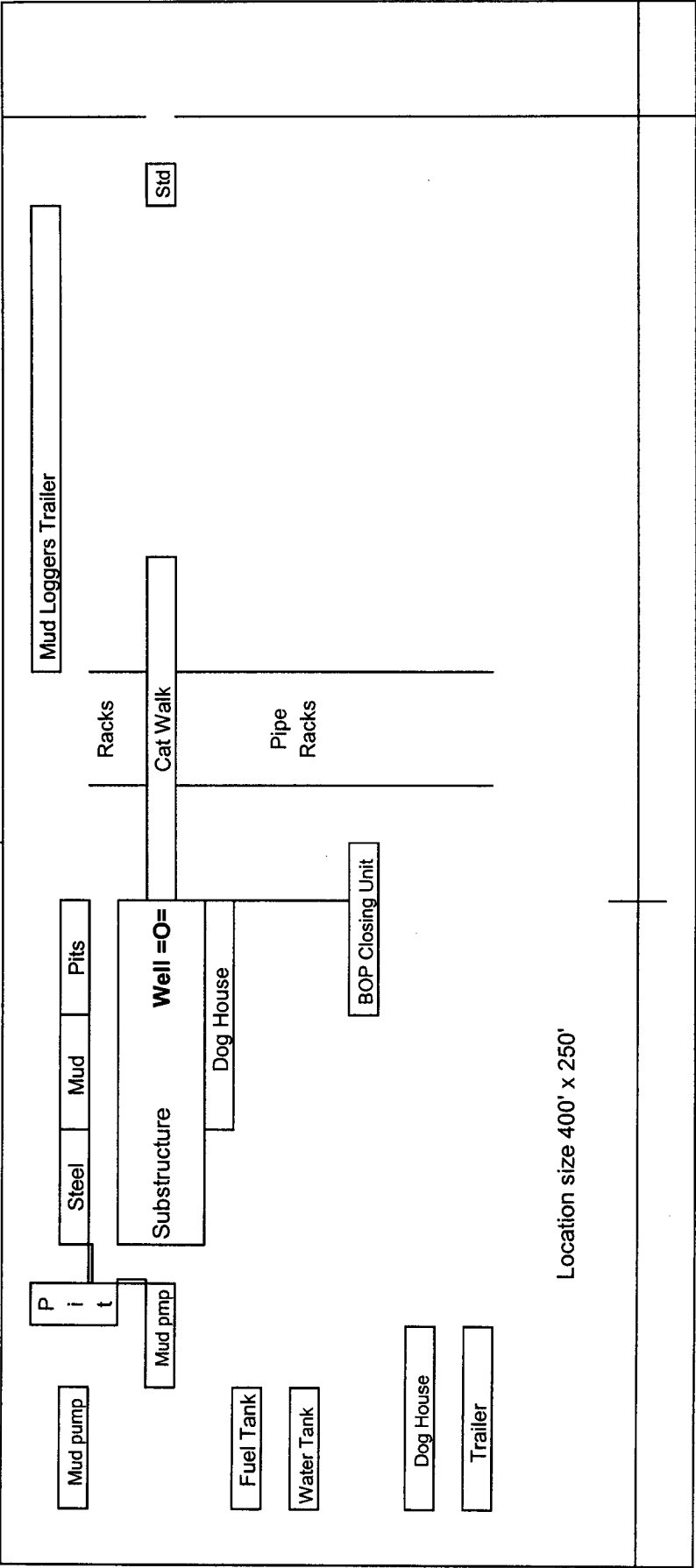
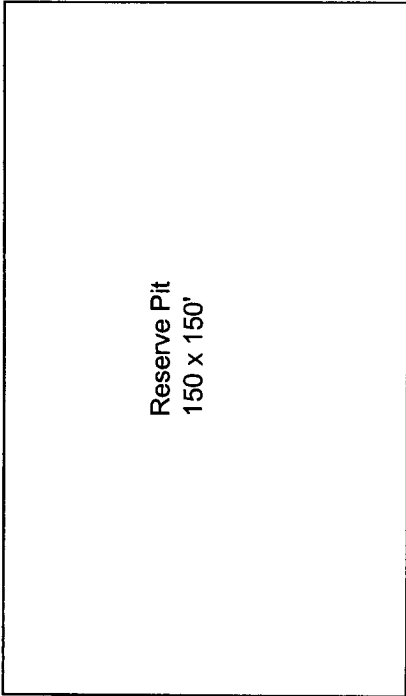
**Section 36-T20S-R29E**

Operator: Marbob Energy  
Well Name: Lotsawhiskey Federal #1  
Unit letter: M  
Status: Producing  
Field: Golden Lane Morrow

Mewbourne Oil Company

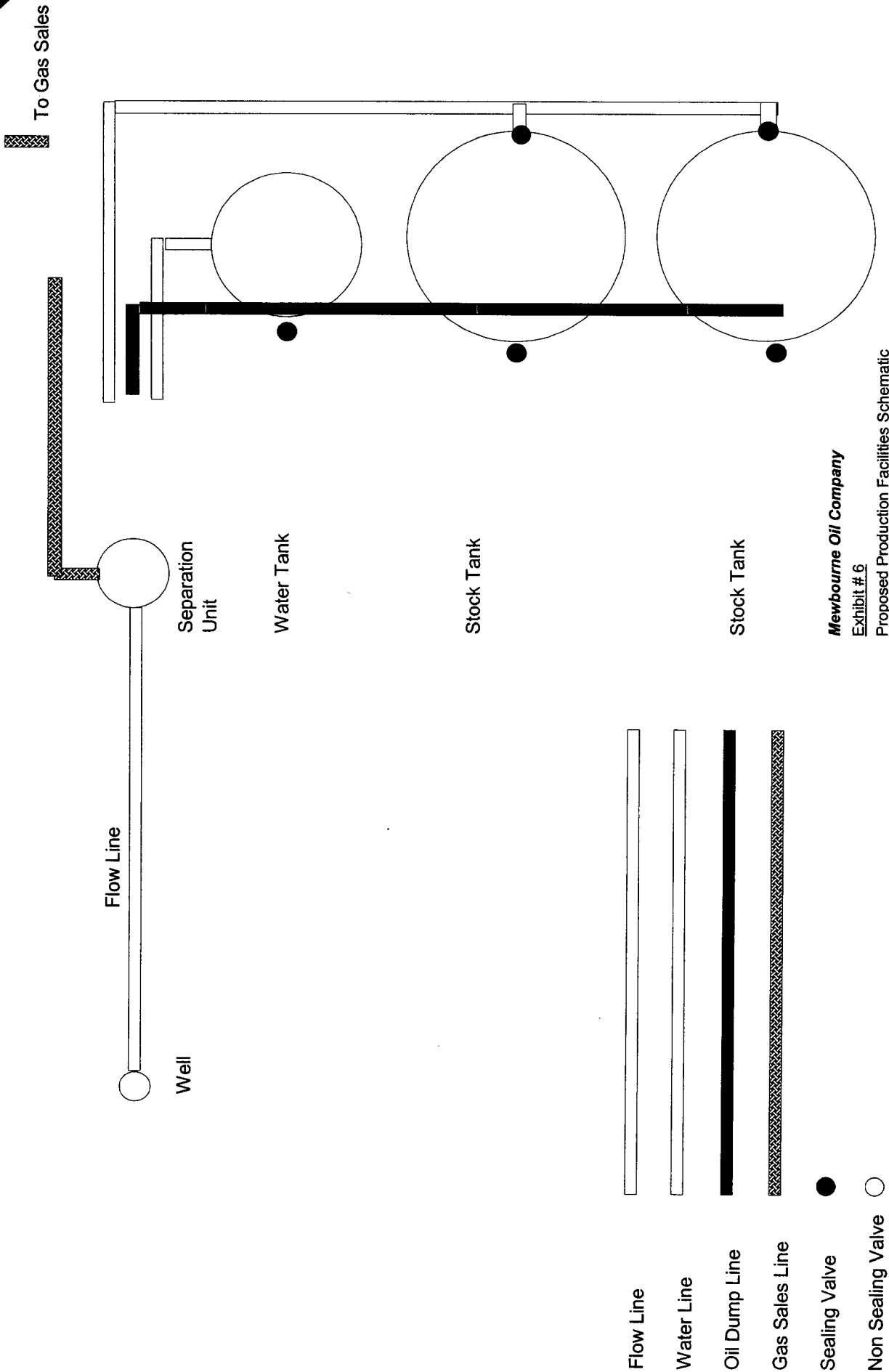
Exhibit #5

Well Name Quahada Ridge 1 Federal #1  
Footages 660' FNL & 1650' FEL  
STR Sec 1-T21S-R28E  
County Eddy, County  
State New Mexico



Rig Location Schematic

Proposed Production Facilities Schematic



**Mewbourne Oil Company**  
Exhibit # 6  
Proposed Production Facilities Schematic

Quahada Ridge 1 Federal #  
660' FNL & 1650' FEL  
Sec 1-T21S-R28E  
Eddy, County  
New Mexico