

OCD-HOBBS

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

EC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER *E-04-14*

| | | |
|--|---|---|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NMNM110834 |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input 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 MARBOB ENERGY CORPORATION | | 7. If Unit or CA Agreement, Name and No. |
| Contact: MELANIE PARKER E-Mail: marbob@marbob.com | | 8. Lease Name and Well No. MOE FEDERAL 13 |
| 3a. Address P. O. BOX 227 ARTESIA, NM 88211-0227 | 3b. Phone No. (include area code) Ph: 505.748.3303 Fx: 505.746.2523 | 9. API Well No. <i>30-025-36654</i> |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESW Lot N 330FSL 2310FWL At proposed prod. zone SESW Lot N 330FSL 2310FWL | | 10. Field and Pool, or Exploratory PEARSALL QUEEN |
| 14. Distance in miles and direction from nearest town or post office* | | 11. Sec., T., R., M., or Bk. and Survey or Area Sec 34 T17S R32E Mer NMP |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) | 16. No. of Acres in Lease 160.00 | 12. County or Parish LEA |
| 17. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. | 18. Proposed Depth 10000 MD | 13. State NM |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.) 3907 GL | 22. Approximate date work will start 03/15/2004 | 17. Spacing Unit dedicated to this well 40.00 |
| 23. Estimated duration 21 DAYS | | 20. BLM/BLA Bond No. on file |

24. Attachments **Aswell 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 (Electronic Submission) | Name (Printed/Typed) MELANIE PARKER | Date 02/05/2004 |
| Title AUTHORIZED REPRESENTATIVE | | |
| Approved by (Signature) <i>/s/ JOE G. LARA</i> | Name (Printed/Typed) <i>/s/ JOE G. LARA</i> | Date MAR 29 2004 |
| Title <i>ACTING</i> FIELD MANAGER | Office CARLSBAD FIELD 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.

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.

Additional Operator Remarks (see next page)

Electronic Submission #27617 verified by the BLM Well Information System

For MARBOB ENERGY CORPORATION, sent to the Hobbs

committed to AFMSS for processing by LINDA ASKWIG on 02/05/2004 (04-00078AF)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED**

PROPERTY NO. *14049*
POOL CODE *33624*
FEE DATE *4-1-04*
API NO. *30-025-36654*

DISTRICT I
P.O. Box 1086, Hobbs, NM 88241-1086

DISTRICT II
P.O. Drawer 89, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
P.O. Box 2088, Santa Fe, N.M. 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| | | |
|-----------------------------------|---|------------------------------------|
| API Number 30-025-36654 | Pool Code 49970 | Pool Name PEARSALL QUEEN |
| Property Code 33624 | Property Name MOE FEDERAL | Well Number 13 |
| UGRID No. 14049 | Operator Name MARBOB ENERGY CORPORATION | Elevation 3907' |

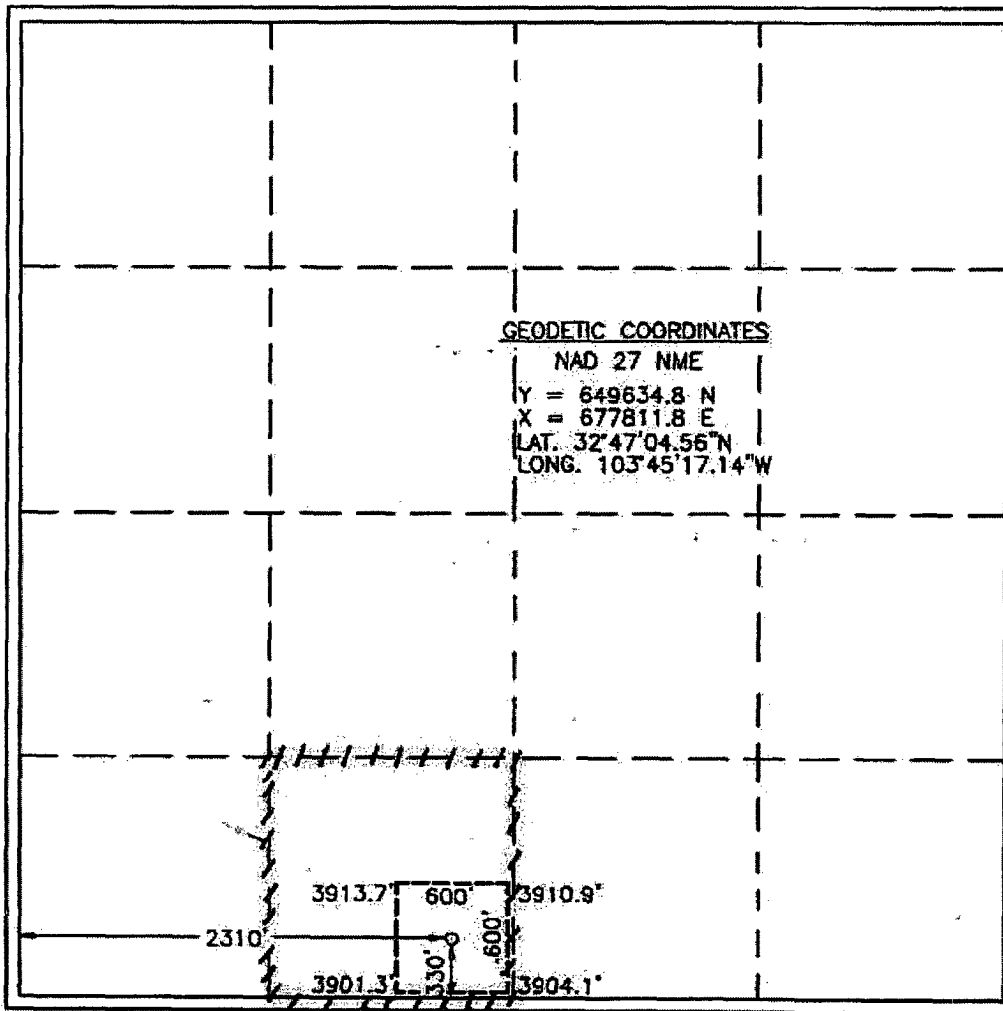
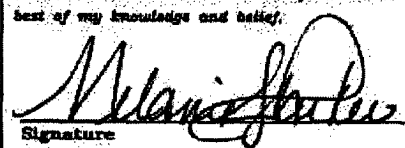
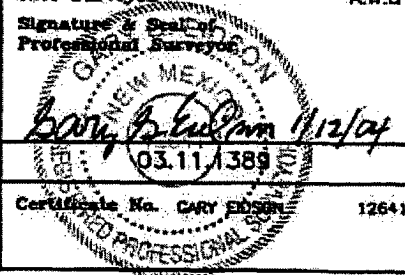
Surface Location

| | | | | | | | | | |
|---------------------------|----------------------|-------------------------|----------------------|---------|---------------|----------------------------------|---------------|-------------------------------|----------------------|
| UL or lot No. N | Section 34 | Township 17-S | Range 32-E | Lot Idn | Feet from the | North/South line SOUTH | Feet from the | East/West line WEST | County LEA |
|---------------------------|----------------------|-------------------------|----------------------|---------|---------------|----------------------------------|---------------|-------------------------------|----------------------|

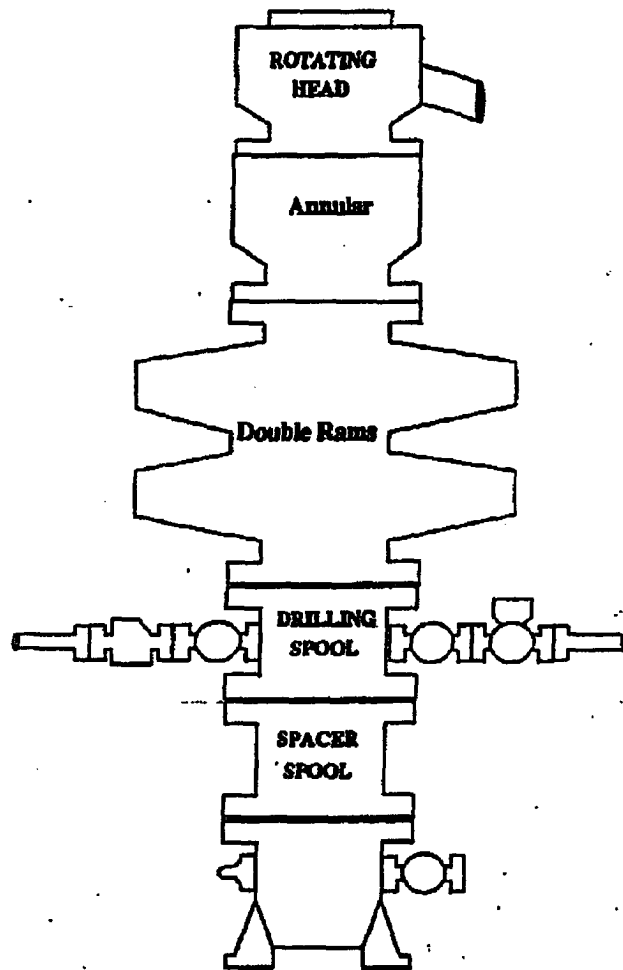
Bottom Hole Location If Different From Surface

| | | | | | | | | | |
|------------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| Dedicated Acres 40 | Joint or Infill | Consolidation Code | Order No. | | | | | | |

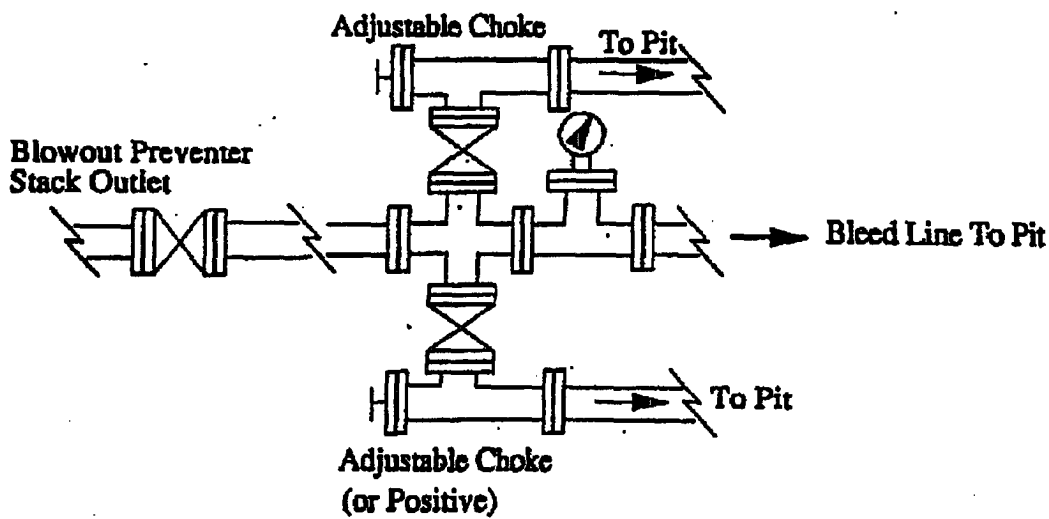
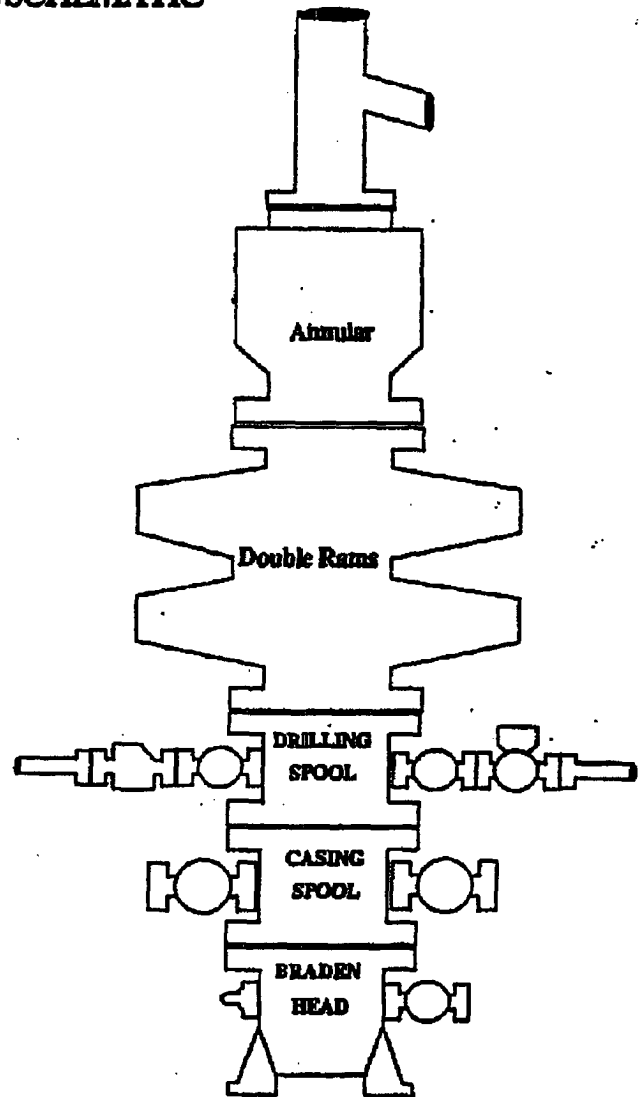
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | |
|--|--|
|  | <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p> Signature Melanie J. Parker Printed Name Land Department Title February 4, 2004 Date</p> |
| | <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>December 31, 2003</p> <p>Date Surveyed A.W.B. Signature & Seal of Professional Surveyor  Certificate No. GARY EDSON 12641</p> |
| | |
| | |

BOPE SCHEMATIC



Choke Manifold



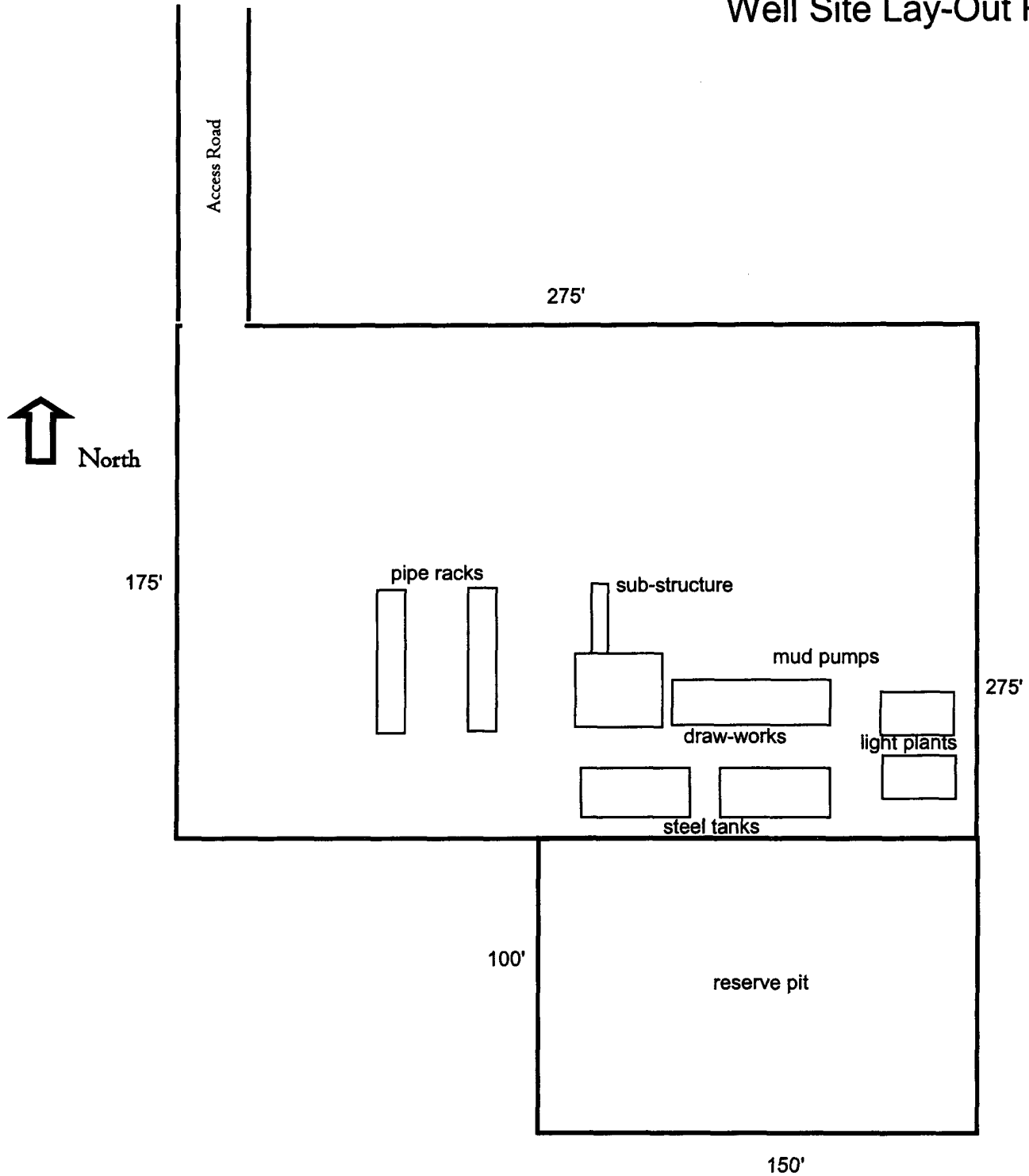
[illegible]

MALJAMAR, & DOG LAKE, N.M.
SUP, 5'

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, & DOG LAKE, N.M.

EXHIBIT TWO

Well Site Lay-Out Plat



Moe Federal No. 13
330' FSL & 2310' FWL
Section 34, T17S, R32E
Lea County, New Mexico

EXHIBIT THREE

MARBOB ENERGY CORPORATION
DRILLING AND OPERATIONS PROGRAM

Moe Federal #13
330' FSL & 2310' FWL, Unit N
Section 34, T17S, R32E
Lea County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following ten items of pertinent information in accordance with BLM requirements.

1. The geological surface formation is Permian.
2. The estimated tops of geologic markers are as follows:

| | | | |
|--------------|-------|-------------|-------|
| Rustler | 1120' | Queen | 3590' |
| Top of Salt | 1270' | San Andres | 4090' |
| Base of Salt | 2200' | Bone Spring | 6000' |

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

| | | |
|-------------|-------|-----|
| Queen | 3590' | Oil |
| San Andres | 4090' | Oil |
| Bone Spring | 6000' | Oil |

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8 5/8" casing at 1500' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4. Proposed Casing Program:

| Hole Size | Interval | OD Casing | Wt | Grade |
|-----------|---------------|-----------|-----|-------|
| 17 1/2" | 0 - 400' | 13 3/8" | 48# | H-40 |
| 12 1/4" | 0 - 2300' | 8 5/8" | 32# | J-55 |
| 7 7/8" | 0 - 500' | 5 1/2" | 17# | L-80 |
| 7 7/8" | 500 - 9000' | 5 1/2" | 17# | J-55 |
| 7 7/8" | 9000 - 10000' | 5 1/2" | 17# | L-80 |

Proposed Cement Program:

13 3/8" Surface Casing: Cement w/ 400 sx Premium Plus. Circulate to surface.

8 5/8" Intermediate Casing: Cement w/ 900 sx Class C. Circulate to surface.

5 1/2" Production Casing: Cement w/ 750 sx Class H. Attempt to tie in to 8 5/8" csg.

5. Pressure Control Equipment: See Exhibit 1. Marbob proposes to nipple up on the 13 3/8" with a 2M system testing to 1000# with rig pumps, then nipple up on the 8 5/8" casing with a 2M system, testing it to 2000# with independent tester.

6. Mud Program: The applicable depths and properties of this system are as follows:

| Depth | Type | Weight (ppg) | Viscosity (sec) | Waterloss (cc) |
|---------------|-----------|-----------------|--------------------|-------------------|
| 0' - 1270' | Fresh Wtr | 8.4 - 9.2 | 32 - 36 | N.C. |
| 1270' - 2300' | Brine | 9.9 - 10.2 | 28 - 32 | N.C. |
| 2300' - TD | Cut Brine | 9.2 - 9.4 | 30 - 34 | 10 cc |

7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.

8. Testing, Logging and Coring Program:

No drillstem tests are anticipated.

The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log.

No conventional coring is anticipated.

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval.

MARBOB ENERGY CORPORATION
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Moe Federal #13
330' FSL & 2310' FWL, Unit N
Section 34, T17S, R32E
Lea County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2.

DIRECTIONS:

Proceed east of Loco Hills approximately 5.6 miles on Hwy 62-180 to State Hwy 529. Take State Hwy 529 to CR 126. Turn south on CR 126 and proceed approximately 3/10 mile. Access road is on the east side of the road.

2. PLANNED ACCESS ROAD:

A new access road of 2046' will be necessary. The new road will be constructed as follows:

- A. The maximum width of the running surface will be 10'. The road will be crowned and ditched and constructed of 6" of rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the onsite inspection.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low-water crossings, or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM-approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

- F. The proposed access road as shown in Exhibit 2 has been centerline flagged by John West Engineering.

3. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Marbob Energy Corporation proposes a collection facility, if well is productive, to be located on Moe Federal #1 well pad.

4. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the lined pit.
- B. Drilling fluids will be allowed to evaporate in the lined pit until the pit is dry.
- C. Water produced during completion may be disposed into the lined reserve pit.
- D. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained to prevent scattering by the wind.

5. WELLSITE LAYOUT:

- A. Exhibit 3 shows the relative location and dimensions of the well pad, the pit.
- B. The reserve pit will be lined with high quality plastic sheeting.

6. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Reserve pit will be fenced until they have dried and been leveled.
- C. All rehabilitation and/or vegetation requirements of the BLM will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level within 90 days after abandonment.

7. SURFACE OWNERSHIP:

The well site and lease are located on Federal surface

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. A Cultural Resources Examination has been requested and will be forwarded to your office in the near future.

8. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

9. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Dean Chumbley, Landman
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5988

B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor
Marbob Energy Corporation
P. O. Box 227
Artesia, NM 88211-0227
Phone (505)748-3303
Cell (505)748-5489

10. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity 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.

2/05/04
Date

Dean Chumbley
Dean Chumbley
Landman

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H_2S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H_2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well Control Equipment:

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

B. Protective equipment for essential personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

C. H₂S detection and monitoring equipment:

2 - portable H₂S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.

D. Visual warning systems:

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

E. Mud Program:

The mud program has been designed to minimize the volume of H₂S circulated to the surface.

A mud-gas separator will be utilized.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE**

MARBOB ENERGY CORPORATION

1-505-748-3303

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

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

Date: February 4, 2004

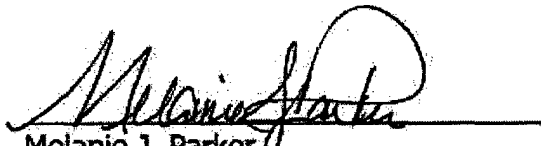
Lease #: NM-110834
Moe Federal

Legal Description: SW/4 Sec. 34-T17S-R32E
Lea County, New Mexico

Formation(s): Pearsall Queen

Bond Coverage: Statewide

BLM Bond File #: 585716



Melanie J. Parker
Land Department