Form 3160-3 (August 1999)

## **OCD-HOBBS**

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMEN

DEPARTMENT OF			
BUREAU OF LAND		5. Lease Serial No. NMNM110834	······································
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe	Name
1a. Type of Work: DRILL REENTER		7. If Unit or CA Agreement,	Name and No.
		2526270	
1b. Type of Well: ⊠ Oil Well ☐ Gas Well ☐ O	ther Single Zone Multiple Zone	8. Lease Name and Well No.	(2) E
2. Name of Operator Contact	: MELANIE PARKER	9. API Well No.	7 2
MARBOB ENERGY CORPORATION	E-Mail: marbob@marbob.com	302025-	36652
3a. Address P. O. BOX 227 ARTESIA, NM 88211-0227	3b. Phone No. (include area code) Ph: 505.748.3303 Fx: 505.746.2523	PEARSAL OUVEEN	atory (0)
4. Location of Well (Report location clearly and in accord	lance with any State requirements.*)	11. Sec., T., R., M., or Blk. a	- N. J
At surface SWSW Lot M 990FSL 33	DFWL	Sec 34 117S R32E N	ner NMP
At proposed prod. zone SWSW Lot M 990FSL 33	DFWL	SME: BLM	
14. Distance in miles and direction from nearest town or pos	t office*	12. County or Parish LEA	13. State NM
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	17. Spacing Unit dedicated t	o this well
lease line, it. (Also to hearest ong. unit line, it any)	160.00	40.00	
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on i	ile
completed, applied for, on this lease, ft.	7000 MD	20. BEABET BOILD NO. OIL	
21. Elevations (Show whether DF, KB, RT, GL, etc. 3901 GL	22. Approximate date work will start 04/01/2004	23. Estimated duration 15 DAYS	
	24. Attachments	Centrolled Water Bas	în .
The following, completed in accordance with the requirements	of Onshore Oil and Gas Order No. 1, shall be attached to	this form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Sys SUPO shall be filed with the appropriate Forest Service O</li> </ol>	stern Lands, the Item 20 above). 5. Operator certification	ions unless covered by an existing	
25. Signature (Electronic Submission)	Name (Printed/Typed) MELANIE PARKER		Date 02/06/2004
Title AUTHORIZED REPRESENTATIVE			•
Approved by (Signature) OE G. LARA	Name (Printed/Typed) /S/ JOE G. LARA		Dat MAR 2 9 20
FIELD MANAGER	Office CARLSBAD FIELD	D OFFICE	
Application approval does not warrant or certify the applicant hoperations thereon.  Conditions of approval, if any, are attached.	olds legal or equitable title to those rights in the subject	lease which would entitle the app PROVAL FOR 1	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, States any false, fictitious or fraudulent statements or representations.	make it a crime for any person knowingly and willfully tions as to any matter within its jurisdiction.	to make to any department or ago OPER. OGRID NO.	1.1 .10
		BOODEDTY	22121

Additional Operator Remarks (see next page)

SPECIAL STIPULATIONS ATTACHED

API NO. 025-36652

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*



DISTRICT I F.O. Seet 1980, Hebbs. NW B8841-1980

## 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

DISTRICT II P.O. Drawer DD. Artesla. NO. 68211-0719

DISTRICT III 1000 Rio Breson Ed., Asteo, NM 87410

#### OIL CONSERVATION DIVISION

P.O. Box 2088

DISTRICT IV P.G. BOT 2008, BANTA PR. N.M. 27504-2008 Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

30-025-36652	Pool Code 49970	Pool Name PEARSALL QUEEN	
Property Code 33624	Property MOE FED		Wall Number 9
OGRID No. 14049	Operator 1 MARBOB ENERGY	Name CORPORATION	Elevation 3901
	Surface I	nastion	

#### Surface Location

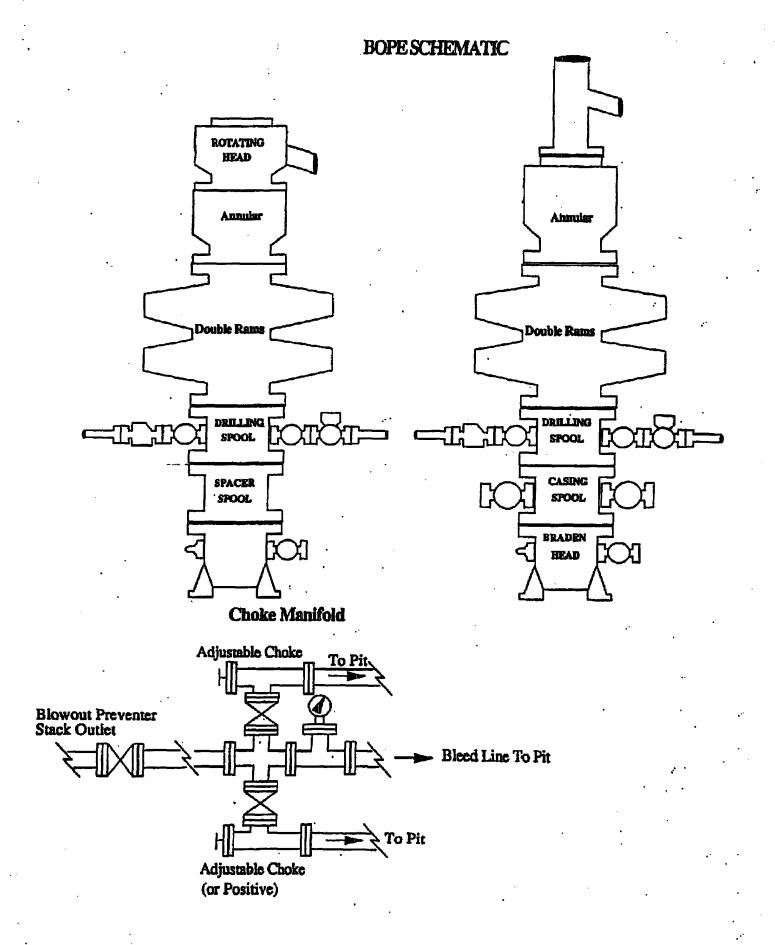
UL or lot No.	Section	Township	Range	Lot idn	Feet from the	North/South line	Feet from the	East/West line	County
М	34	17-S	32-E		990	SOUTH	330	WEST	LEA

#### Bottom Hole Location If Different From Surface

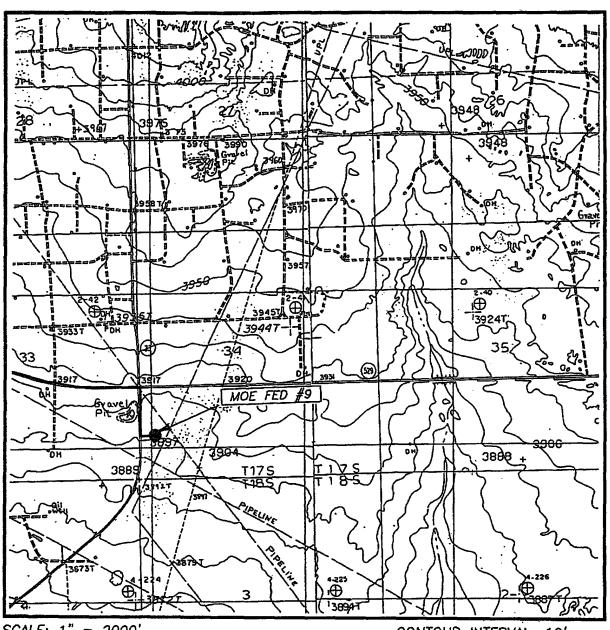
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Foot from the	East/West line	County
Dedicated Acre	Ioint o	r Infill Co	nacidation C	ode Ori	der No.				
40									i

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

OR A NON-STANDARD UNIT HAS BEEN APPROVED BY	THE DIVISION
	OPERATOR CERTIFICATION  I havely certify the the information contained haveln is true and complete to the best of my manufadas and belief.
	Melanie florita
GEODETIC COORDINATES  NAD 27 NME  Y = 650278.5 N X = 675824.7 E	Melanie J. Parker Printed Name Land Department This
LAT. 32'47'11.04"N LONG. 103'45'40.37"W	SURVEYOR CERTIFICATION  I hereby certify that the well location phoun.
3897.5' 3900.0'	on this plat was platfed from field notes of actual surveys made by me or under my supervison and that the sime is frue und correct to the best of my belief.
S SEE DETAIL	DECEMBER 29, 2003  Date Surgered AW.B  Signature See Q.S.  Profesitional Surveyor  AW.B  2014  2014  2014  2014  2014  2014  2014  2014  2014
	Cartificate No. GNRY EBBON 12641



## LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

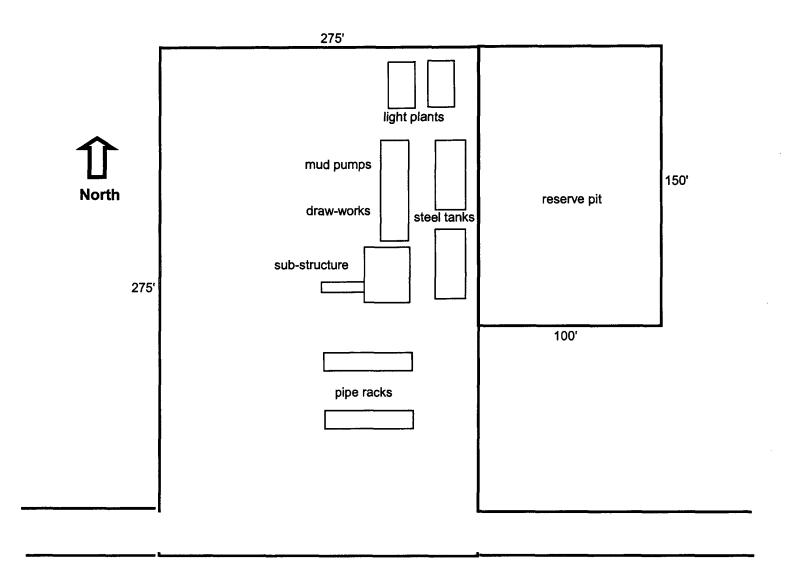
CONTOUR INTERVAL: 10' MALJAMAR, & DOG LAKE, N.M. SUP, 5'

SEC. <u>34</u>	TWP. <u>17-S</u>	RGE. <u>32-E</u>
SURVEY	N.M.P.M.	
COUNTY	LEA .	
DESCRIPTION_	990' FSL &	330' FWL
ELEVATION	3901'	
OPERATOR MA	ARBOB ENERGY	CORPORATION
	MOE FEDE	

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117

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

**EXHIBIT TWO** 



Moe Federal No. 9 990' FSL & 330' FWL Section 34, T17S, R32E Lea County, New Mexico

#### MARBOB ENERGY CORPORATION DRILLING AND OPERATIONS PROGRAM

#### Moe Federal #9 990' FSL & 330' FWL, Unit M **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 13 3/8" casing at 400' 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"	24#	J-55	
7 7/8"	0 - 7000'	5 1/2"	17#	J-55	

#### **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" csq.

- 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:

		Weight	Viscosity	Waterloss
Depth	Type	(ppg)	(sec)	(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 #9 990' FSL & 330' FWL, Unit M 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 lease road.

#### 2. PLANNED ACCESS ROAD:

No new access road will be necessary.

#### 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 rehabitation 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:

B. Through Drilling Operations

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

Date

Melanie Parker Land Department

Moe Federal #9 990' FSL & 330' FWL, Unit M Section 34, T17S, R32E Lea County, New Mexico

#### 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<sub>2</sub>S 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<sub>2</sub>S 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<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S.

#### 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. H<sub>2</sub>S detection and monitoring equipment:

2 - portable H<sub>2</sub>S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S 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  $H_2S$  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 H<sub>2</sub>S service.

#### G. Communication:

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

## WARNING

# YOU ARE ENTERING AN H<sub>2</sub>S 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