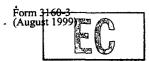
OCD-ARTESIA



UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

E-05-23

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

Lease Serial No.

NMLC028784A

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 as NMNM88525X	nd No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Oth	ner 💆 Single Zone 🔲 Multiple Zone	8. Lease Name and Well No. BURCH KEELY UNIT 967	
	MELANIE J PARKER E-Mail: LAND2@MARBOB.COM	9. API Well No. 30 - 015 - 34	018
3a. Address P O BOX 227 ARTESIA, NM 88211-0227	3b. Phone No. (include area RECEIVED Ph: 505-748-3303 Fx: 505-746-2523 MAR 1 8 7005	10. Field and Pool, or Exploratory GRBG JACKSON SR Q GR	RBG SA
4. Location of Well (Report location clearly and in accorded	ance with any State requirements	11. Sec., T., R., M., or Blk. and Surv	еу от Агеа
At surface NWNE 25FNL 1345FEL	** Said 1 19 * * Factor 15	Sec 24 T17S R29E Mer NM SME: BLM	IP .
At proposed prod. zone NWNE 25FNL 1345FEL	UNORTHODOX LOCATION		10 0
14. Distance in miles and direction from nearest town or post	office* TO LIKE APPROVAL BY STATE	12. County or Parish EDDY	13. State NM
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated to this we	ell
lease line, ft. (Also to nearest drig. unit line, if any)	640.00	40.00	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 4800 MD	20. BLM/BIA Bond No. on file	<u> </u>
21. Elevations (Show whether DF, KB, RT, GL, etc. 3617 GL	22. Approximate date work will start 03/15/2005	23. Estimated duration 21DAYS	
	24. Attachments	Controlled Water Besin	
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Order No. 1, shall be attached to	this form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Office.) 	Item 20 above). 5. Operator certification 6. Such other site specific integration authorized officer.	ons unless covered by an existing bond of formation and/or plans as may be required.	·
25. Signature (Electronic Submission)	Name (Printed/Typed) MELANIE J PARKER Ph: 505-748-3303	Date 02/1	4/2005
Title LAND DEPARTMENT			
Approved by Signature ny J. Herrell	Name (Printed/Typed) /s/ Tony J. He	rrell MAR 1	L 7 2005
FIFLD MANAGER	CARLSBAD FIEL		
Application approval does not warrant or certify the applicant hoperations thereon. Conditions of approval, if any, are attached.		ease which would entitle the applicant to	conduct EAR

Electronic Submission #54059 verified by the BLM Well Information System For MARBOB ENERGY CORPORATION, sent to the Carlsbad Committed to AFMSS for processing by LINDA ASKWIG on 02/14/2005 (05LA0389AE)

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.

Witness Surface Casing

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

State of New Mexico

AUG 19 2004

Energy, Minerals and Natural Besources Department

J 2004

Revised February 10, 1994

Submit to Appropriate District Office State Lease - 4 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

P.O. Drawer DD, Artesia, NM 88211-0719

P.G. Box 1980, Hobbs, NM 88241-1980

DISTRICT I

DISTRICT II

DISTRICT IV

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

Fee Lease - 3 Copies

API Number	Pool Code	Pool Name	
30-015	28509	GRBG JACKSON SR Q GRBG SA	
Property Code	P	roperty Name	Well Number
006497	BURCH KEELY UNIT		967
OGRID No.		perator Name	Elevation
14049	MARBOB EN	ERGY CORPORATION	3617'

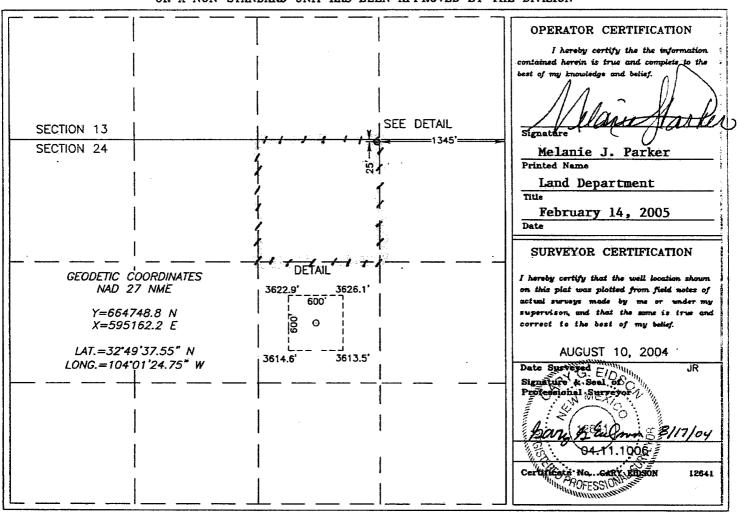
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
В	24	17-S	29-E		25	NORTH	1345	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Peet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	Joint o	r Infill Co	nsolidation	Code Or	der 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



SURFACE USE AND OPERATING PLAN

Burch Keely Unit No. 967 25' FNL and 1345' FEL, Unit B Section 24-175-29E Eddy County, New Mexico

- 1.(c) Directions to Locations: From milepost #129.9 on U.S. Hwy 82 go north 0.4 miles on caliche road. Turn left on dirt lease road and go west 0.1 miles. Proposed location is 400' north.
- 2. A new access road of 256' will be necessary
- 4.(a) If productive, this well will use Satellite "B".

MARBOB ENERGY CORPORATION MASTER DRILLING PROGRAM BURCH-KEELY UNIT

Attached to Form 3160-3

<u>T-17</u>	S, R-29E	T-17	7S, R-30E
SE/4SE/4	Section 12	ALL	Section 18
ALL	Section 13	ALL	Section 19
ALL	Section 23	ALL	Section 30
ALL	Section 24		
ALL	Section 25		
ALL	Section 26		

Eddy County, New Mexico

1. Geological Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Queen	1815'
Salt	360'	Grayburg	2140'
Base of Salt	780'	San Andres	2510'
Yates	930'	Glorietta	3900'
Seven Rivers	1145'		

3. Estimated Depths of Anticipated Fresh Water, Oil, or Gas:

Upper Permian Sands	100'	Fresh Water
Yates	930'	Oil
Seven Rivers	1145'	Oil
Queen	1815'	Oil
Grayburg	2140'	Oil
San Andres	2510'	Oil
Glorietta	3900'	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 350' 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.

DRILLING PROGRAM PAGE 2

4. Casing Program:

Hole Size	Interval	OD Csg.	Weight,	Grade	e, Jt. Cond.	Type
12 1/4" 7 7/8"	0 - 350 0 - TD	8-5/8" 5-1/2"			LTC NEW	_

Cement Program:

8 5/8" Surface Casing:

Cemented to surface with 300sx of

Class C w/2% cc.

5 1/2" Production Casing:

Cemented with 1100sx Class C. Will

attempt to circulate to surface.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi wp) preventer. This unit will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. This BOP will be nippled up on the 8-5/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and a 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi wp rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with cut brine. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity _(sec)	Waterloss (cc)
0 - 350	Fresh Water (Spud)	8.5	28	N.C.
350'-4800'	Brine Brine	9.8-10.2	40 - 45	N.C.

DRILLING PROGRAM PAGE 3

7. Auxiliary Well Control and Monitoring Equipment:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program:

- (A) No Drillstem tests are anticipated.
- (B) The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csng Log, and Depth Control Log. Selected SW cores may be taken in zones of interest.
- (C) No conventional coring is anticipated.
- (D) Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD based on drill shows, and log evaluation, and drill stem test results.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 104' and estimated bottom hole pressure (BHP) is 2250 psig.

This area has a potential H_2S hazard. An H_2S Drilling Plan is attached, including a diagram of the drilling rig layout with H_2S monitors and wind direction indicators shown.

10. Anticipated Starting Date and Duration of Operations:

Location and road work will not begin until approval has been received form the BLM. The anticipated spud date will be provided with each well application. Once commenced, the drilling operation should be finished in approximately 21 days. If the well is productive, an additional 30 to 60 days will be required for completion and testing before a decision is made to install permanent facilities.

MARBOB ENERGY CORPORATION MASTER SURFACE USE AND OPERATING PLAN BURCH-KEELY UNIT

Attached to Form 3160-3

T-17S, R-29E			T-17S, R-30E			
Section	12	ALL	Section	18		
Section	13	ALL	Section	19		
Section	23	ALL	Section	30		
Section	24					
Section	25					
Section	26					
	Section Section Section Section	Section 12 Section 13 Section 23 Section 24 Section 25 Section 26	Section 12 ALL Section 13 ALL Section 23 ALL Section 24 Section 25	Section 12 ALL Section Section 13 ALL Section Section 23 ALL Section Section 24 Section 25		

Eddy County, New Mexico

1. Existing Roads:

- (A) The well site and elevation plat for the proposed well is shown. It was staked by John West Engineering.
- (B) All roads to the location are shown on Exhibit #2 of each individual application. The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
- (C) Directions to location will be provided for each individual well application.
- (D) Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

Exhibit #2 of each application will show the new access road (if necessary) to be constructed and will be illustrated in yellow. The 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' 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.

SURFACE USE AND OPERATING PLAN PAGE 2

- (B) The average grade will be less than 1%.
- (C) No turnouts are planned.
- (D) No culverts, cattle guards, 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.

3. Location of Existing Wells:

Exhibit #3 will show all existing wells within a one-half mile radius of the well.

4. Location of Existing and/or Proposed Facilities:

(A) Marbob Energy Corporation already has a collection facility set up for this lease. There are seven satellite collection points which separate the gas from the production string before sending the fluids to one of two tank batteries. The satellites are located:

Satellite	A	NE/4SE/4	24-17S-29E
Satellite	В	SE/4NW/4	19-17S-30E
Satellite	C	SE/4NE/4	13-17S-29E
Satellite	D	SE/4NE/4	23-17S-29E
Satellite	E	SW/4SE/4	23-17S-29E
Satellite	F	SW/4NW/4	25-17S-29E
Satellite	G	SE/4NW/4	30-17S-30E

The tank batteries are located:

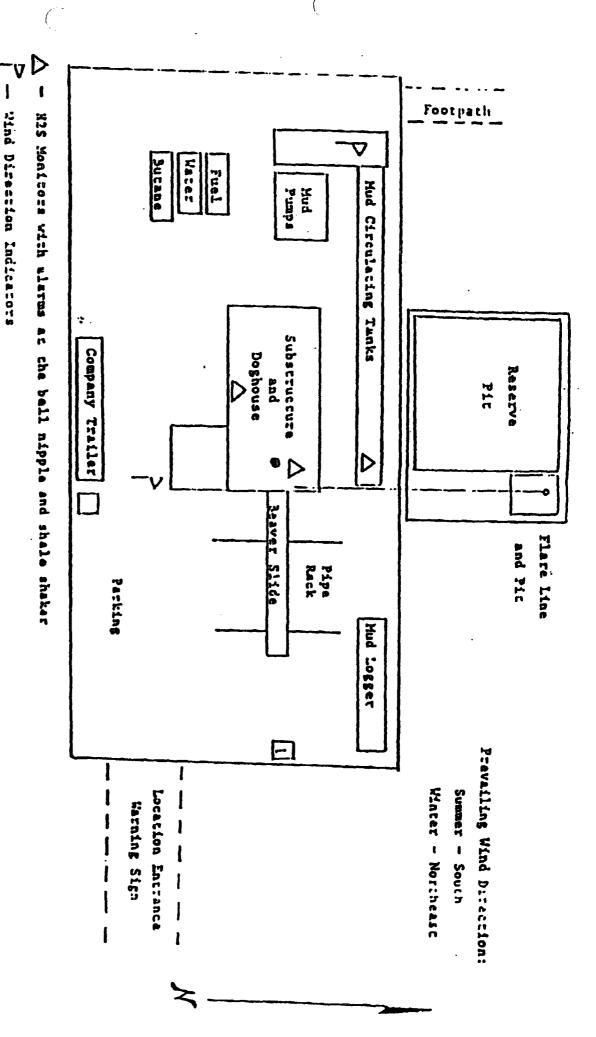
Central Tank Battery	NW/4SE/4	24-17S-29E
Satellite E Tank Battery	SE/4SW/4	23-17S-29E

Each new well will use the Satellite facility nearest to it.

- (B) If the well is productive, a 2" or 3" plastic flowline (grade SDR 7 @ 265 psi) will be laid on the surface following the existing lease road Right-of-Way to the Satellite or to the Central Tank Battery if the production from the well exceeds the capacity of the Satellite vessel. Anticipated pressures in the flowline should not exceed 75 psi.
- (C) If the well is productive, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.

Attachment to Exhibit #1 NOTES REGARDING THE BLOWOUT PREVENTERS

- 1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
- 2. Wear ring to be properly installed in head.
- 3. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum.
- 4. All fittings to be flanged.
- 5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
- 6. All choke and fill lines to be securely anchored, especially ends of choke lines.
- 7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 8. Kelly cock on kelly.
- 9. Extension wrenches and hand wheels to be properly installed.
- 10. Blow out preventer control to be located as close to driller's position as feasible.
- 11. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.



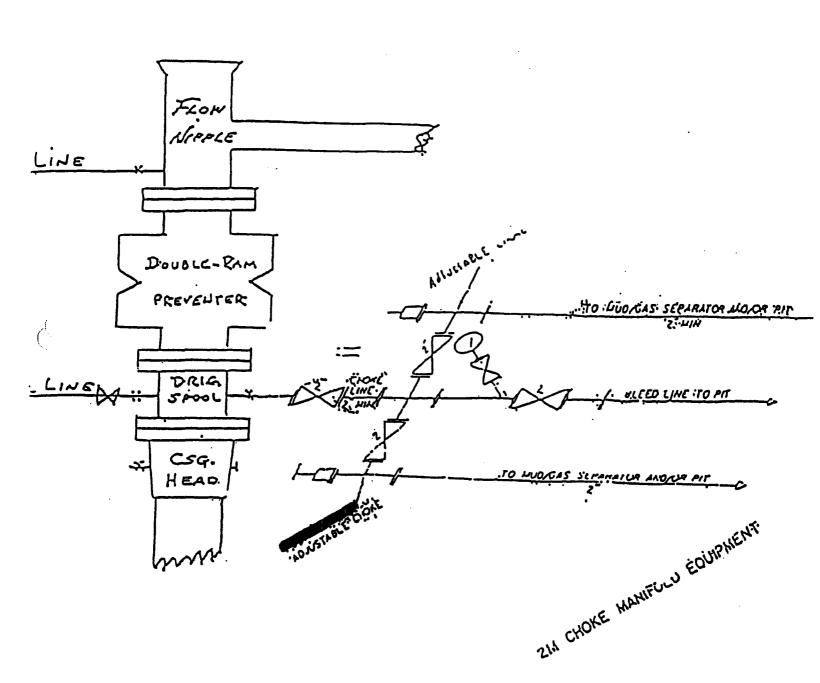
Safe briefing areas with caution signs and protective breathing equipment win. 150 reat from valinead, I designates primary area

MARBOB ENERGY CORPORATION

Drilling Rig Layout with H₂S monitors and wind direction indicators.

BUP & CHOKE MARIFOLD

10"/900 Cameron SS Space Saver 3000# Working Pressure 3.000# Working Pressure Choke Manifold



MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

L 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:

- 1. The hazards and characteristics of hydrogen sulfide (H₂S).
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

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

- 1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S 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.

IL Has safety equipment and systems

(1

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

1. Well Control Equipment:

A. Flare line with electronic igniter or continuous pilot.

(

- B. Choke manifold with a minimum of one remote choke.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.
- 2. Protective equipment for essential personnel:
 - A. Mark II Surviveair 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.
- 3. H₂S detection and monitoring equipment:
 - A. 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.
 - B. 1 portable SO2 monitor positioned near flare line.
- 4. Visual warning systems:
 - A. Wind direction indicators as shown on well site diagram.
 - B. 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.

5. Mud Program:

- A. The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.
- A mud-gas separator and an H₂S gas buster will be utilized.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communications at field office.

8. Well testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.

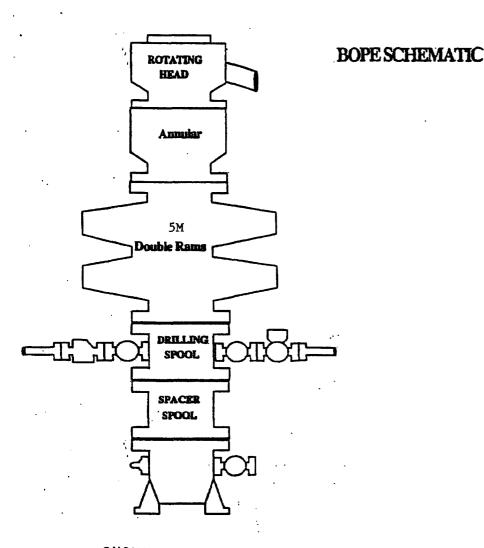
WARNING

YOU ARE ENTERING AN H₂S AREA AUTHORIZED PERSONNEL ONLY

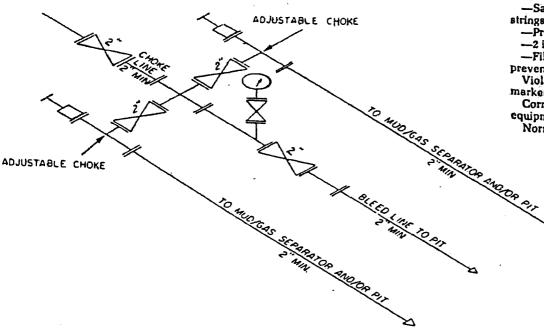
- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE

MARBOB ENERGY CORPORATION

1-505-748-3303



ONSHORE OIL AND GAS ORDER NO. 2



2M Double Rams BRADEN HEAD

2M system:

-Annular preventer, or, double ram, or two rams with one being blind and one being a pipe ram *

-Kill line (2 inch minimum)

-1 kill line valve (2 inch minimum)

-1 choke line valve

-2 chokes (refer to diagram in

Attachment 1)

—Upper kelly cock valve with handle available

—Safety valve and subs to fit all drill

strings in use

-Pressure gauge on choke manifold

-2 inch minimum choke line

-Fill-up line above the uppermost preventer.

Violation: Minor (all items unless marked by asterisk).

Corrective Action: Install the equipment as specified.

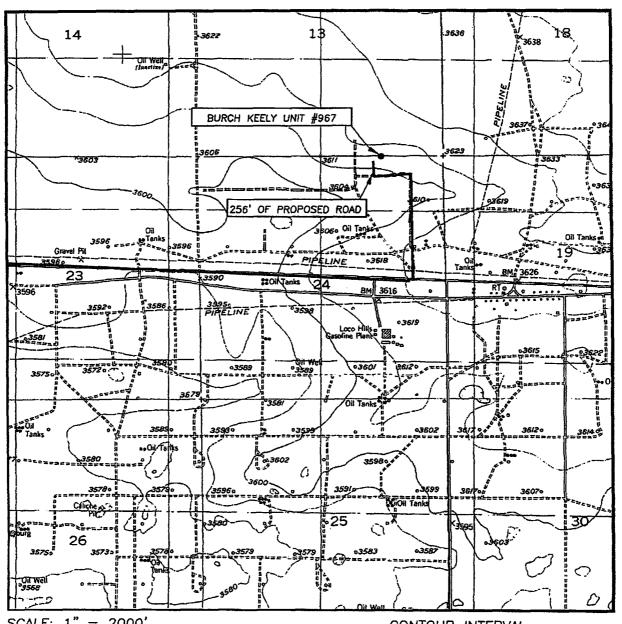
Normal Abatement Period: 24 hours.

Burch Keely Unit No. 927 2565' FSL & 2260' FEL Unit J, Sec 18-T17S-R30E Eddy County, New Mexico

CHEMITOR'S COPY

Form 3160-5 (June 1990)	DEPARTME	ITED STATES NT OF THE INTERIOR LAND MANAGEMENT	JUN 21 19	1999	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993	
						5. Lease Designation and Serial No.
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals						6. If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE						7. If Unit or CA, Agreement Designation
1. Type of Well Oil Gas Well Well Other						8. Well Name and No.
2. Name of Operator MARBOB ENERGY CORPORATION 3. Address and Telephone No.						9. API Well No.
P.O. BOX 227, ARTESIA, NM 88210 505-748-3303						10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) T17S-R29E T17S-R30E						11. County or Parish, State
T175-R31E						EDDY CO., NM
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA						
TYPE	TYPE OF SUBMISSION TYPE OF ACTION					
☐ Notic	ce of Intent		Abandonment		•	Change of Plans
Subs	sequent Report		Recompletion Plugging Back Casing Repair			New Construction Non-Routine Fracturing Water Shut-Off
☐ Final	Abandonment Notice	☐ Altering Casing ☑ Other TEST BOPS				Conversion to Injection Dispose Water (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
13. Describe Proposed or Completed Operations (Clearly state all pertinet details, and give pertinent dates, including estimated date of starting any proposed work, If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markders and zones pertinent to this work.)* DUE TO THE LOW BOTTOM HOLE PRESSURE OF FORMATIONS ABOVE 6000', WE ARE REQUESTING BLANKET APPROVAL FOR WELLS IN THE ABOVE LOCATIONS TO TEST BOPS ON SURFACE CASING TO 1000#						
THIS SUNDRY IS APPROVED FOR MARBOB TO HAVE A BLANKET APPROVAL FOR TESTING BOPS.						
HOWEVER, THE OPERATOR WILL STATE ON EACH APD THIS APPLIES TO IN ORDER TO						
REMIND AND/OR BRING NOTICE TO THE BLM OFFICE AND ENGINEER REVIEWING THE APD						
THAT THE WELL'S BOPE TESTING IS COVERED BY A BLANKET APPROVAL FOR THESE LOCATIONS						
l						
14. I hereby certify that t	the foregoing is true and correct	Title	PRODUCTION AN	ALYST		Date 05/25/99
(This space for Federal					· 62 tc	Alexa de la constanta de la co
Approved by Conditions of approval.	if any:	Title	PETROLE	JM ENGINE	:cr	
Titte 18 U.S.C. Section 1 statements or represent	1001, makes it a crime for any perso ations as to any matter within its juri	n knowingly and v	willfully to make to any de	partment or agency	of the United	d States any false, fictitious or fraudulent

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: RED LAKE SE, N.M. - 10'

SEC. 24 TWP. 17-S RGE. 29-E

SURVEY N.M.P.M.

<u>ED</u>DY COUNTY____

DESCRIPTION 25' FNL & 1345' FEL

ELEVATION 3617'

MARBOB ENERGY CORPORATION OPERATOR

BURCH KEELY UNIT LEASE___

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE SE, N.M.

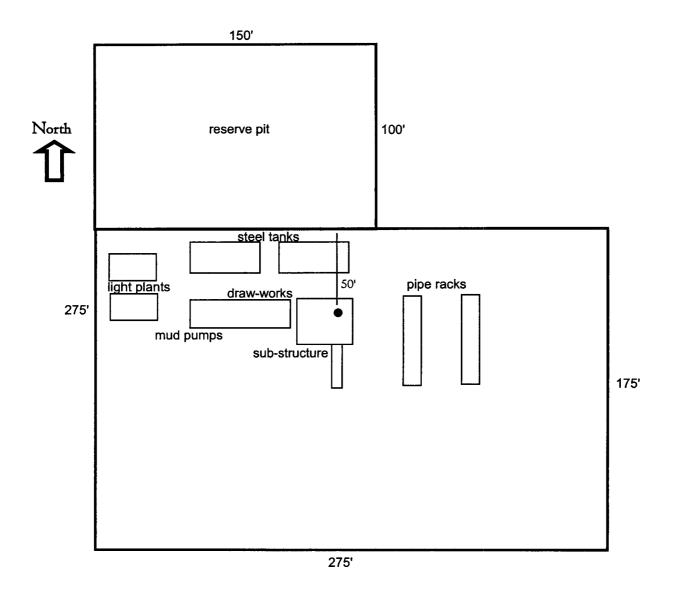
Existing Roads

Proposed Access Road



PROVIDING SURVEYING SERVICES SINCE 1948 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117

Exhibit Two



Burch Keely Unit #967 25' FNL & 1345' FEL, Unit B Section 24, T17S, R29E Eddy County, New Mexico