

IN ABOVE SPACE DESCRIBE PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent date on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

	DINIA . CANAN TITLE PRODUCTION ANALYST DATE 5/15/02
 (This	pace for Federal or State office use)
	APPROVAL DATE
PERI	NU.
Appli CON	NO. ion 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. TIONS OF APPROVAL, IF ANY:

ACTING

APPROVED BY
-------------

/S/ JOE G. LARA

TITLE FIELD MANAGER See Instructions On Reverse Side

JUL 1 9 2002 DATE

APPROVAL FOR 1,

Title 18 U.S.C. Section 1001, makes 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 with the partment or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

IS NOT G. LARA BECEIVED:

5005 HV 91 AVH 2005

DISTRICT I Energy, Minerals and Natural Resources Department Form C-102 P.O. Box 1980, Hobbs, NM 88241-1980 Revised February 10, 1994 Submit to Appropriate District Office DISTRICT II OIL CONSERVATION DIVISION State Lease - 4 Copies P.O. Drawer DD, Artesia, NM 88211-0719 P.O. Box 2088 Fee Lease - 3 Copies Santa Fe, New Mexico 87504-2088 DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT P.O. BOX 2088, SANTA FE, N.M. 87504-2088 □ AMENDED REPORT API Number Pool Code Pool Name LOCO HILLS PADDOCK 96718 30-015-**Property** Code **Property** Name Well Number THUNDER ROAD FEDERAL 22057 5 OGRID No. **Operator** Name Elevation MARBOB ENERGY CORPORATION 14049 3643 Surface Location UL or lot No. Section Township Range Lot Idn Feet from the North/South line East/West line Feet from the County 20 G 17-S 30-E 2310 NORTH 1750 FAST FDDY 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. 40 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. 2310' A٢ Signature DIANA J. CANNON Printed Name PRODUCTION ANALYST Title 3643.9 3644.5 MAY 15, 2002 Date 1750' SURVEYOR CERTIFICATION 3641.7 3644.2 GEODETIC COORDINATE I hereby certify that the well location shown SPC NME NAD 1927 on this plat was plotted from field notes of actual surveys made by me or under my Y=662497.3 supervison, and that the same is true and X=605243.5 correct to the best of my belief. LAT. 32"49'14.96"N LONG. 103"59'26.69"W APRIL 25, 2002 Date Surveyed AWB Signature & Seal of Professional Surveyor 4/26/02 02.11.0265

> Certificate No. RONALD J. EIDSON GARY EIDSON

3239 12641

State of New Mexico

#### DRILLING PROGRAM

Attached to Form 3160-3 Marbob Energy Corporation Thunder Road Federal No. 5 2310' FNL and 1750' FEL Section 20-17S-30E Eddy County, New Mexico

#### 1. Geologic 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. <u>Casing Program:</u>

Hole Size	Interval	<u>OD csg</u>	Weight	<u>, Grad</u>	e, Jt. Cond.	Туре
12 1/4" 7 7/8"	0 - 350" 0 - TD	8 5/8" 5 1/2"			LTC NEW 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. <u>Minimum Specifications for Pressure Control:</u>

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi wp) preventer. This unit will by 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 csg 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 <u>2</u>" kill line and a <u>3</u>" 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:

<u>Depth</u>	Туре	Weight <u>(ppg)</u>	Viscosity <u>(sec)</u>	Waterloss (cc)
0 - 350'	Fresh Water	8.5	28	N.C.
350'-6000'	(Spud) 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.
- (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.

#### 10. Anticipated Starting Date and Duration of Operations:

Location and road work will not begin until approval has been received from the BLM. The anticipated spud date is June 14, 2002. 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.

Attached to Form 3160-3 Marbob Energy Corporation Thunder Road Federal No. 5 2310' FNL and 1750' FEL Section 20-17S-30E Eddy County, New Mexico

#### 1. Existing Roads:

- A. All roads to the location are shown in Exhibit #3. 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.
- B. Directions to location: From Loco Hills, NM proceed west on US82 for .2 miles. Turn north on lease road and proceed .1 mile to location.
- C. 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. <u>Proposed Access Road:</u>

The road will be maintained 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 #3 has been centerline flagged by John West Engineering.

#### 3. Location of Existing Wells:

Exhibit #2 shows all existing wells within a one-half mile radius of this well.

#### 4. Location of Existing and/or Proposed Facilities:

- A. Marbob Energy Corporation has a central collection facility for this lease at the Thunder Road No. 1 well pad.
- B. If the well is productive, a 3" plastic flowline (grade SDR 7 @ 265 psi) will be laid on the surface following the existing lease road Right-of-Way to the central tank battery. 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.
- D. If the well is productive, rehabilitation plans are as follows:
  - (1) The reserve pit will be back-filled after the contents of the pit are dry (within 10 months after the well is completed).
  - (2) Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

#### 5. Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing and proposed access roads shown in Exhibit #3. If a commercial fresh water source is nearby, fasline may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

#### 6. Source of Construction Materials:

All caliche required for construction of the drill pad and the proposed new access road (approximately 1500 cubic yards) will be obtained from a BLM - approved caliche pit. All roads and pads will be constructed of 6" of rolled and compacted caliche.

#### 7. Methods of Handling Water Disposal:

- A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
- B. Drilling fluids will be contained in lined working pits. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 100' X 150' X 6' deep. The reserve pit will be plastic-lined to minimize loss of drilling fluids and saturation of the ground with brine water.
- C. Water produced from the well during completion may be disposed into the reserve pit.
- D. <u>Garbage and trash produced during drilling or completion operations will</u> <u>be hauled off.</u> All waste material will be contained to prevent scattering by the wind. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 30 days. No adverse materials will be left on location. The reserve pit will be completely fenced until it has dried. When the reserve pit is dry enough to breakout and fill, the reserve pit will be leveled and reseeded as per BLM specifications. In the event of a dry hole, the location will be ripped and seeded, as per BLM Specifications, and a dry hole marker will remain.

#### 8. <u>Ancillary Facilities:</u>

No airstrip, campsite, or other facilities will be built as a result of the operations on this well.

#### 9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #4. Dimensions of the pad and pits are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection.
- B. The reserve pit will be lined with a high-quality plastic sheeting.

#### 10. Plans for Restoration of the Surface:

- A. Upon finishing drilling and/or completion operations, all equipment and other material not needed for operations will be removed. All trash, garbage, and pit lining will be hauled away in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 10 months after abandonment.
- B. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time that the rig is removed, the reserve pit will be fenced on the rig (fourth) side. The fencing will remain in place until the pit area is cleaned-up and leveled. No oil will be left on the surface of the fluid in the pit.
- C. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drill site will be used to recontour the pit area to the original natural level and reseeded as per BLM specifications.

#### **11.** <u>Surface Ownership:</u>

The wellsite and lease is 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. There is no permanent or live water in the immediate area.
- C. A Cultural Resources Examination has been requested and will be

forwarded to your office in the near future.

#### 12. Lessee's and Operator's Representative:

The Marbob Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Johnny C. Gray Marbob Energy Corporation 2208 W. Main Street P. O. Drawer 227 Artesia, New Mexico 88211-0227 Phone: 505/748-3303 (office) 505/885-3879 (home)

#### **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 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 Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 5-14-2002

Signed:

/Dean Chumblev

#### 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:

- 1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H<sub>2</sub>S 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 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.
- 2. 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 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

 $H_2S$  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<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. H<sub>2</sub>S 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.

#### **1. Well Control Equipment:**

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment to include: annular preventer, mudgas separator, rotating head.

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

A. 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.

#### 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 H<sub>2</sub>S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

B. A mud-gas separator 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 H<sub>2</sub>S service.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S 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. No drill stem testing is planned.

# 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



Exhibit One

3,c\_J, 5,000 and 10,000 PSI Working Pressure 3 MWP - 5 MWP - 10 MWP

منام والمنصور الهمران

MINIMUM CHOKE MANIFOLD



MINIMUM REQUIREMENTS 10,000 MWP 5,000 MWP 3.000 MWP I.D. NOMINAL RATING NOMINAL RATING RATING 1D NOMINAL 1.D. 10,000 5,000 3" No. 3\* 3" 3,000 1 Line from dritting spool 5,000 3.000 Cross 3"x3"x3"x2" 10,000 2 Cross 3"x3"x3"x3" 3-1/8" 10,000 5,000 3,000 3-1/8\* Gale C 3-1/8" Valves(1) Plug C(2) 3 10.000 5.000 1-13/16\* Gale L 3,000 1-13/16\* 1-13/16\* Plug C(2) Valve 4 3-1/0" 10,000 5.000 2-1/16" 3.000 2-1/16" Valves(1) 10,000 5,000 44 3,000 Pressure Gauge 5 10.000 5,000 3-1/8\* 3,000 3-1/8" Gala C 3-1/8\* Plug [](2) Valves 6 2" 10.000 5,000 3,000 2" 2. Adjustable Choke(3) 10.000 5,000 2" 7 1\* 3,000 1" 8 Adjustable Choke 10,000 3' 3" 5,000 3-3,000 9 Line 3" 10,000 2" 5,000 3.000 2" 10 Line 3-1/8" 10.000 5,000 3,000 3-1/8" Gate D 3-1/8\* Plug (2) 11 Valves 3' 2,000 1.000 1,000 3\* 3" 12 Lines 3-2,000 1 000 3-3\* 1 000 13 Lines 5,000 10.000 Remote reading compound 3,000 14 standpipe pressure gauge 2'x5' 2'x5' 2'x5' 15 Gas Separato 4" 2,000 1.000 4\* 1.000 4. Line 16 5,000 3-1/8" 10.000 3-1/8" 3,000 Gate D 3-1/8\* Plug (2) 17 Valves

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydrautic choke required on 5,000 psi and 10,000 psi for drilling.

## EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.

2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.

3. All lines shall be securely anchored.

4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be evailable. 5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating

chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in con-

junction with the standpipe pressure gauge. 6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokee shall make

turns by large bends or 90° bends using bull plugged tees.

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orm 3160-5 June 1990)	UNID DEPARTMENT OI BUREAU OF LANI	THE INTERIOR	JUN 21	138 <b>8</b>	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993
	BUREAU OF EAN				5. Lease Designation and Serial No.
o not use this form) Use	SUNDRY NOTICES AND for proposals to drill or PAPPLICATION FOR P	o deepen or reentry to	a different re	eservoir.	6. If Indian, Allottee or Tribe Name
	SUBMIT IN T	RIPLICATE			7. If Unit or CA, Agreement Designation
I. Type of Well Oil Gas Well Well	Other				8. Well Name and No.
Name of Operator MARBOB ENERGY					9. API Well No.
P.O. BOX 227, ART	o. ESIA, NM 88210 505-748-3 , Sec., T., R., M., or Survey Descriptio	303			10. Field and Pool, or Exploratory Area
T17S-R30E T17S-R31E			:	-	11. County or Parish, State EDDY CO., NM
12. CHECK A	PPROPRIATE BOX(s) TO	INDICATE NATURE OF	NOTICE, RE	PORT, C	OR OTHER DATA
TYPE OF S	SUBMISSION		TYPE OF	ACTION	
Notice of		Abandonment			Change of Plans
	ent Report	Plugging Back			Non-Routine Fracturing     Water Shut-Off
Subseque	<i>t</i>				

UT CONTRACT SUUP 1

DUE TO THE LOW BOTTOM HOLE PRESSURE OF FORMATIONS ABOVE 6000', WE ARE REQUESTING BLANKET APPROVA 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

14. I hereby certify that the foregoing is true and correct Signed Propin Colline	Title	PRODUCTION ANALYST	Date	05/25/99
(This space for Federal or State office use) Approved by but but Conditions of approval, if any:	Title	PETROLEUM ENGINEER	Date	JUN 1 6 1999

Title 18 U.S.C. Section 1001, makes 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.

SEP 09 1999



IN REPLY REFER TO: NMNM-88525X 3180 (06200) United States Department of the Interior

BUREAU OF LAND MANAGEMENT Roswell Field Office 2909 West Second St. Roswell, New Mexico 88201 www.nm.blm.gov



Marbob Energy Corporation Attention: Johnny Gray P. O. Box 227 Artesia, NM 88210 SEP 07 1999

Gentlemen:

With regard to our telephone conversation of September 2, 1999, a review of our records has found discrepancies in the casing requirements section of the conditions of approval for your APD's. As per our meeting on July 7, 1999, our office had agreed with your recommended casing procedures for shallow wells of 6000 ft. or less in T. 17 S., Rgs. 29, 30 and 31 E., NMPM. In order to correct the discrepancies, this letter states the langauage to be used for the conditions of approval casing requirements for all your existing APD's

Conditions of Approval-Drilling amended as follows:

II. Casing requirements in T. 17 S., Rgs. 29, 30 and 31 E. for shallow wells less than 6,000 ft.

1. 8-5/8 inch surface casing should be set at approximately \_\_\_\_\_\_ ft. in the Rustler Anhydrite or in the case the salt occurs at a shallower depth above the top of the salt. The surface casing shoe shall be set in the anhydrite to ensure adequate sealing. The operator is required to use an excess of 100% cement volume to fill annulus. If cement does not circulate to surface the operator may then use ready mix cement to fill the remaining annulus.

2. The minimum required fill of cement behind the  $5\frac{1}{2}$  inch production casing is to place the top of the cement 200 ft. above the top of the uppermost hydrocarbon bearing interval or to the base of the salt.

These requirements supercede those issued in your existing, approved APD's for the shallow wells located in T. 17 S., Rgs. 29, 30 and 31 E., NMPM. If you have any question regarding this matter please call John S. Simitz at (505) 627-0288 or Armando A. Lopez at (505) 627-0248.

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Sincerely,

Jamp Bray

Larry D. Bray Acting Assistant Field Office Manager, Lands and Minerals



Thunder Road Federal No. 5 2310' FNL & 1750' FEL Section 20; T17S - R30E Eddy County, New Mexico

**EXHIBIT TWO** 

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

- SEC. 20 TWP. 17-S RGE. 30-E
- SURVEY N.M.P.M.
- COUNTY\_\_\_\_EDDY
- DESCRIPTION 2310' FNL & 1750' FEL

ELEVATION \_\_\_\_\_\_ 3643'

OPERATOR <u>MARBOB ENERGY CORPORA</u>TION LEASE <u>THUNDER ROAD FEDERAL</u> U.S.G.S. TOPOGRAPHIC MAP LOCO HILLS, N.M. CONTOUR INTERVAL: 10' LOCO HILLS, N.M.

### EXHIBIT THREE



30-015-22384

_ Geol. To	ps per/Bd	l
	•	
Salado	419	
B Salt	1000	
yates	1178	
7 Rivers	1458	
Bowers	1853	
Quen	2084	
San Andres	2826	
Glarieta	4236	

/2-9-02 DLL/MG 372-4918 SD/DSN/SG 372-4918

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