# If earthen pits are used is association with the drilling of this

K-06-08

UNITED STAT well, an OCD pit permit must be

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

DEPARTMENT OF THE obtained prior to pit construction.

Lease Se

Lease Serial No.

APPLICATION FOR PERMIT TO DR	6. If Indian, Allottee or Tribe Name					
la. Type of Work: DRILL REENTER				7. If Unit or CA Agreement, Name and No.		
				8. Lease Name and W	ell No.	
1b. Type of Well: Oil Well Gas Well Other	$\square$	Single Zone 🔲 Multi	ple Zone	Michalada Federal	#3-D	35162
2. Name of Operator				9. API Well No.		
Marbob Energy Corporation 140 4	19			30 -015	`- 3	5157
3a. Address	3b. Phone 1	No. (include area code)		10. Field and Pool, or Exploratory		
P.O. Box 227, Artesia, NM 88211-0227	505-748-3	303		Wildcat-Bone Spring		
4. Location of Well (Report location clearly and in accordance with a	ny State req	uirements. *)		11. Sec., T., R., M., or	Blk. and S	Survey or Area
At surface 990' FNL & 2287' FEL						
At proposed prod. zone				Con 2 Tage Bass	Ē	
14. Distance in miles and direction from nearest town or post office*				Sec. 3, T22S - R25E     12. County or Parish   13. State		
14. Distance in times and direction from hearest town of post office				Eddy County		NM
5. Distance from proposed* 16. No. of Acres in location to nearest property or lease line, ft.		Acres in lease	17. Spacin	g Unit dedicated to this v		
(Also to nearest drig unit line, if any)			40			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.				/BIA Bond No. on file		
	4500	·	NM 2056	T		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		oximate date work will s	tart*	23. Estimated duration		
3599	<del></del>	er 3, 2006		15 Days		
	24. Att	achments Ca	rhobed C	ontrolled Water E	eek!	
The following, completed in accordance with the requirements of Onshor	e Oil and G	as Order No.1, shall be at	tached to thi	s 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 System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	Lands, the	Item 20 above). 5. Operator certific	eation. specific info	s unless covered by an ormation and/or plans a	-	,
25. Signature,	Nar	ne (Printed Typed)			Date	
I What Bratcher	<b>-</b> → }:	icy T. Bratcher			8/3/06	
Title					·	
Land Department						
Approved by (Signature) /s/ James Stovall	Nai	ne (Printed Typed) /s/ Jam	es Stov	all	Date SEF	2 0 2006
Title ACTIELD MANAGER	Off	ice CARLSBA	D FIE	LD OFFICE		
Application approval does not warrant or certify that the applicant holds loperations thereon.  Conditions of approval, if any, are attached.	egal or equi			OVAL FOR	e the appli	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it States any false, fictitious or fraudulent statements or representations as t	t a crime for o any matte	r any person knowingly a r within its jurisdiction.	nd willfully	to make to any departme	ent or agen	ncy of the United
+//						

\*(Instructions on reverse)

DECLARED WATER BASIN 3 CEMENT BEHIND THE 13 8 CASING MUST BE CIRCULATED

WITHESS

DECLARED WATER BASIN. CEMENT BEHIND THE 8 8 CASING MUST BE CIRCULATED

ANLHESS

APPROVAL SUBJECT TO General requirements and SPECIAL STIPULATIONS

ATTACHED



# State of New Mexico

DISTRICT I 1825 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

# OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

Certificate No. GARY EDSON RONALD 12 EIDSON

12641

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

LOT 11

LOT 12

1000 Rio Brazos R	ld., Aztec, N	M 87410							
DISTRICT IV 1220 s. st. prancis i	dr., santa fe,	NM 87505	WELL LO	CATION	AND ACREA	GE DEDICATI	ON PLAT	□ AMENDI	ED REPO
<del></del>	Number	<del></del>		Pool Code			Pool Name		
·····			9	96053		<del>, , , , , , , , , , , , , , , , , , , </del>	Wildcat _	Bone Spring	
Property (	Code			MIC	Property Nam			Well Num	
OGRID N		MICHALADA			Operator Nam		· · · · · · · · · · · · · · · · · · ·	3-D Elevatio	<del></del>
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14047	,				Surface Loca	ation	, <u>.</u> ,		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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			l	Hole Loc	L	erent From Sur	l		L
UL or lot No.	Section	Township	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	s Joint o	or Infill Co	nsolidation	Code Or	der No.	L	L	<b>.</b>	l
40									
	WABLE V	VILL BE A	SSIGNED	TO THIS	COMPLETION U	INTIL ALL INTE	RESTS HAVE BI	EEN CONSOLIDA	ATED
		OR A	NON-STAN	DARD UN	IIT HAS BEEN	APPROVED BY	THE DIVISION		
LOT 4		L	or 3		LOT_2	LOT 1			
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				-,066	4		herein is true	certify that the infi and complete to the and belief, and that	e best of
	ſ		35	8.1, 6	3592.7'		organization es	ither owns a working ineral interest in th	interest
			(				including the	proposed bottom hole to drill this well as	e location t this
	Ì		,	119	22	87'	owner of such	ant to a contract wi mineral or working	interest,
41.59 A	<u> </u>	4	1.78 AC	600'	40.00 AC	40.00 AC	compulsory po	ary pooling agreeme oling order heretofor 1.	re entered
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							/Signature	Da	te
GEODETIC COORDINATES  Nancy T. Bratcher Printed Name									
			NAD 2	7 NME					
	i		Y=5185		1		SURVEY	OR CERTIFICAT	TION
			X=4849	040.6 E —		·	/ hereby	certify that the wel	l location
}	]		LAT. = 32°25				shown on this	plat was plotted from surveys made by a	m field
	1	LC	DNG.=104°2	2 <b>2'55.70"</b> 1	w )			ervision, and that the ect to the best of m	
	١			ţ				IAY 2, 2006	
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# MARBOB ENERGY CORPORATION **DRILLING AND OPERATIONS PROGRAM**

# Michalada Federal # 3-D 990' FNL & 2287' FEL Section 3, T22S, R25E **Eddy 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:

Capitan	300′
Delaware	1950'
Bone Spring	4300′
TD	4500'

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

Capitan	300'	Water
Delaware	1950'	Oil
Bone Spring	4300'	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	Wt	Grade
		Casing		
17 1/2"	0-250'	13 3/8"	48#	H-40
12 1/4"	250-1900'	8 5/8"	24#	J-55
7 7/8"	1900-4500'	5 1/2"	17#	J-55

Proposed Cement Program:

13 18 Surface Casing: Cement w/ 250 sx. Circulate to surface.

25/2 Intermediate Casing: Cement w/ 700 sx. Attempt to tie in to 20" csg.

5 1/2" Production Casing: Cement w/ 600 sx. 200' above all oil & gas zones.

# 5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type 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 13 3/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 3500 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 5000 psi WP rating.

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

		Weight	Viscosity	Waterloss
Depth	Туре	(ppg)	(sec)	(cc)
0 – 250′	Fresh Wtr (spud)	8.5	28	N.C.
250' 1900'	Fresh Wtr	9.8-10.2	40-45	N.C.
1900' - 4500'	Cut Brine	8.6-9.4	28-36	N.C.

- 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

# Michalada Federal # 3-D 990' FNL & 2287' FEL Section 3, T22S, R25E Eddy 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:**

From the intersection of State Rd #524 (Happy Valley Rd) and Co. Rd #427 (Jones Rd.) Go west on Jones Rd. approx. 4.8 miles. Turn Right and go Northwest Approx. 1.7 miles to Road with Lath at Intersection with Trail Rd. Follow Trail Road West Approx. 0.9 Miles to Road Survey. Follow Road Survey Approx. 1438 Feet South to This Location.

# 2. PLANNED ACCESS ROAD:

A new access road of 1348' 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 Michalada Federal #3-D 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:

Ross Duncan, Landman Marbob Energy Corporation P. O. Box 227 Artesia, NM 88211-0227 Phone (505)748-3303 Cell (505)513-2544 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.

Date

Nancy T. Bratcher Land Department

Marbob Energy Corporation

# 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<sub>2</sub>S circulated to the surface.

# 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:

August 2, 2006

Lease #:

NM-104646

Michalada Federal #3-D

Legal Description: 990' FNL & 2287' FEL, Sec. 3-T22-R25E NW14 NE/4

Eddy County, New Mexico

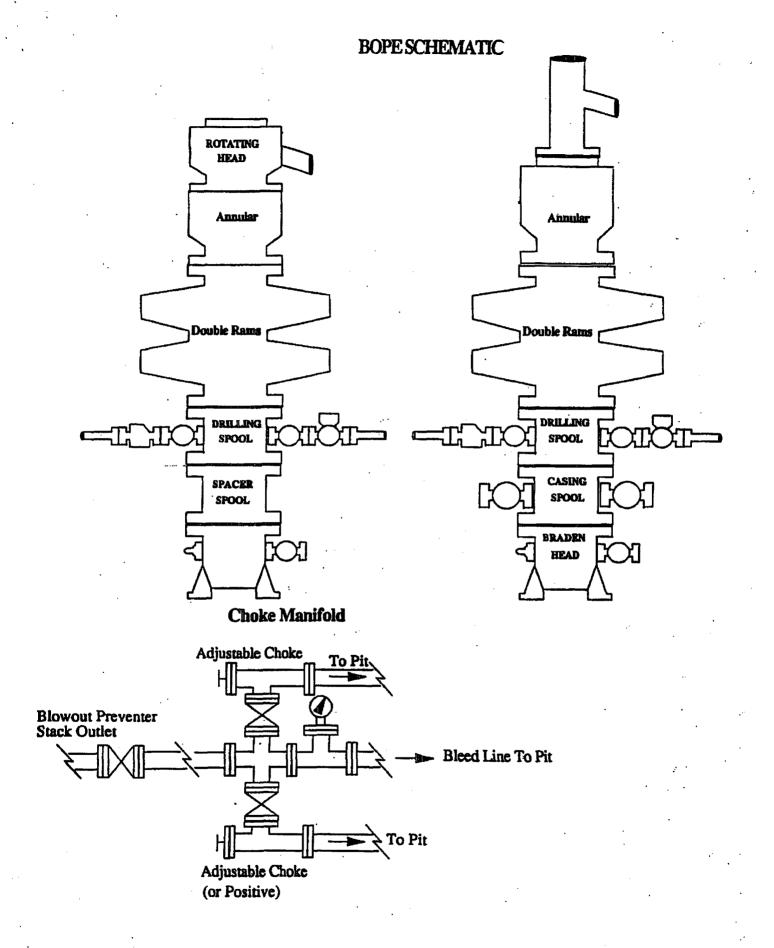
Formation(s): Permian

Bond Coverage: Statewide

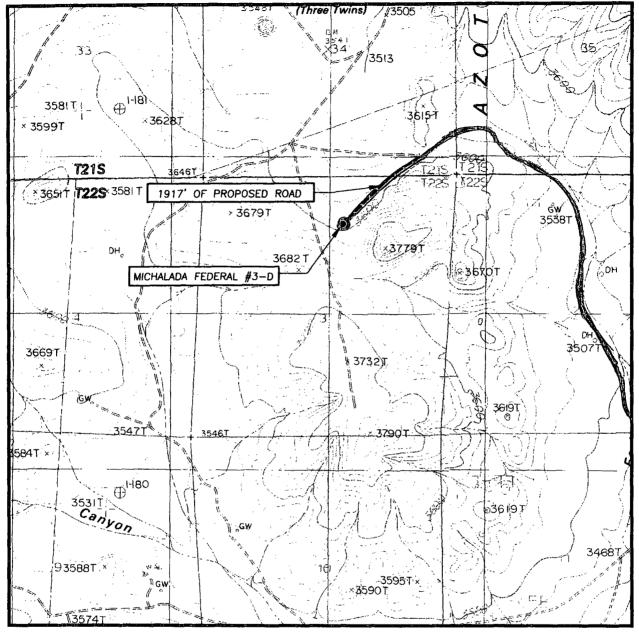
BLM Bond File #: NM 2056

Marbob Energy Corporation

Nancy T. Bratcher Land Department



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 3 TWP. 22-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 990' FNL & 2287' FEL

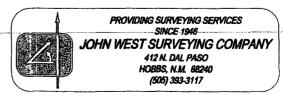
ELEVATION \_\_\_\_\_\_3599'

OPERATOR MARBOB ENERGY CORPORATION

LEASE MICHALADA FEDERAL

U.S.G.S. TOPOGRAPHIC MAP AZOTEA PEAK, N.M. CONTOUR INTERVAL: AZOTEA PEAK, N.M. – 20' CARLSBAD WEST, N.M. – 20'

#### **EXECUTE EXISTING ROADS**





# SPECIAL DRILLING STIPULATIONS

# THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Marbob Energy Corporation Well Name & #: Name: Marbob Energy Corporation Well Name & #: Name: Name: Marbob Energy Corporation Well Name & #: Name: Name	S., R. <u>25</u> E.
The Special stipulations check marked below are applicable to the above conditioned upon compliance with such stipulations in addition to the Ge General Requirements, a copy of which is available from a Bureau of La OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURS	neral Requirements. The permittee should be familiar with the nd Management office. EACH PERMITTEE HAS THE RIGHT
This permit is valid for a period of one year from the date of approval or	until lease expiration or termination whichever is shorter.
I. SPECIAL ENVIRONMENT REQUIREMENTS	
( ) Lesser Prairie Chicken (stips attached) ( ) Flood plants ( ) San Simon Swale (stips attached) ( ) Other	ain (stips attached)
II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRIE	LLING
( $X$ ) The BLM will monitor construction of this drill site. Notify the ( $(505)\ 393-3612$ , at least 3 working days prior to commencing construction	
( $$ X ) Roads and the drill pad for this well must be surfaced with $$ $$ 6 determined to be a producer.	_ inches of compacted caliche upon completion of well and it is
( ) All topsoil and vegetation encountered during the construction of the resurfacing of the disturbed area after completion of the drilling operatio in depth. Approximatelycubic yards of topsoil material will be see	<ul> <li>Topsoil on the subject location is approximatelyinches</li> </ul>
$(\ X\ )$ Other. Pits East V-Door South / There needs to be a berm but the pad to ensure that water is diverted around the pad and not onto	
III. WELL COMPLETION REQUIREMENTS	
( ) A Communitization Agreement covering the acreage dedicated to the date of the agreement must be prior to any sales.	e well must be filed for approval with the BLM. The effective
(x) Surface Restoration: If the well is a producer, the reserve pit(s) will to a slope of 3:1 or less. All areas of the pad not necessary for productio surrounding terrain, and topsoil must be re-distributed and re-seeded with with the following seed mixture, in pounds of Pure Live Seed (PLS), per	n must be re-contoured to resemble the original contours of the h a drill equipped with a depth indicator (set at depth of ½ inch)
(X) A. Seed Mixture 1 (Loamy Sites) Side Oats Grama (Bouteloua curtipendula) 5.0 Sand Dropseed (Sporobolus cryptandrus) 1.0 Plains lovegrass (Eragrostis intermedia) 0.5	( ) B. Seed Mixture 2 (Sandy Sites) Sand Dropseed (Sporobolus crptandrus) 1.0 Sand Lovegrass (Eragostis trichodes) 1.0 Plains Bristlegrass (Setaria magrostachya) 2.0
( ) C. Seed Mixture 3 (Shallow Sites) Side oats Grama (Bouteloua curtipendula) 5.0 Green Spangletop (Leptochloa dubia) 2.0 Plains Bristlegrass (Setaria magrostachya) 1.0	( ) D. Seed Mixture 4 (Gypsum Sites) Alkali Sacaton (Sporobolus airoides) 1.0 Four-Wing Saltbush (Atriplex canescens) 5.0
( ) OTHER SEE ATTACHED SEED MIXTURE	
Seeding should be done either late in the fall (September 15 - November take advantage of available ground moisture.	15, before freeze up, or early as possible the following spring to
( ) Other	

#### RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.

Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

<u>Reclamation</u>: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

#### OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

#### CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

#### TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marbob Energy Corporation Well No. 3-D - Michalada Federal

Location: 990' FNL & 2287' FEL sec. 3, T. 22 S., R. 25 E.

Lease: NM-104646

# I. DRILLING OPERATIONS REQUIREMENTS:

- 1. The Bureau-of Land Management (BLM) is to be notified at (505) 361-2822 in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch
- C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.
- 4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the **<u>Delaware</u>** formation. A copy of the plan shall be posted at the drilling site.

# II. CASING:

- 1. 13-3/8 inch surface casing should be set at approximately 250 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the Carlsbad Field Office shall be notified at (505) 361-2822, and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. Minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing set <u>at approximately 1900 feet</u> is <u>sufficient to circulate to the surface</u>. Only fresh water air mist or fresh water mud is allowed to drill the hole for the <u>13-3/8</u> inch surface casing and the 8-5/8 inch intermediate casing to a depth of 1900 feet.
- 3. Minimum required fill of cement behind the  $\underline{5-1/2}$  inch production casing is <u>sufficient to tie back 500 feet above</u> the uppermost perforation in the pay zone.

# **III. PRESSURE CONTROL:**

- 1. Before drilling below the 13-3/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
- 3. The BOPE shall be installed before drilling below the <u>8-5/8</u> inch intermediate casing string and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- A. The results of the test shall be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.
- B. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- C. Testing must be done in a safe workman like manner. Hard line connections shall be required.