7012 Barry N.M	M. Oil	Cons. DIV-	Dist. 2	2		
Form 3160-3 (September 2001)	301 V	Cons. DIV- V. Grand Av	enue	FORM APPROV OMB No. 1004-0	)136	
0065 UNITED STATES	Artes	sia, NM 882	210	Expires January 3	, 2004	
<b>DOV</b> DEPARTMENT OF THE IN	TERIOR			5. Lease Serial No.		
BUREAU OF LAND MANAC	GEMENT			NM 110350		
		REENTER		6. If Indian, Allottee or Tril	be Name	
la. Type of Work: DRILL REENTER	2		,	7. If Unit or CA Agreement,	Name and No.	
1b. Type of Well: 🔲 Oil Well 🗹 Gas Well 🔲 Other	$\square$	Single Zone 🔲 Multi	ple Zone	8. Lease Name and Well No. Dice Roll Federal Com #1		
2. Name of Operator ST	ECRET	'ARY'S POTA	SH	9. API Well No.		
Marbob Energy Corporation				30-015-	33144	
3a. Address	3b. Phone	No. (include area code)		10. Field and Pool, or Explora	itory	
PO Box 227, Artesia, NM 88211-0227	505-748-3	3303 Fax 746-2523		Burton Flat; Morrow, East		
4. Location of Well (Report location clearly and in accordance with a	ny State req		-	11. Sec., T., R., M., or Blk. an	d Survey or Area	
At surface 1980' FSL & 660' FEL, Unit I		RECEIVE	D			
At proposed prod. zone same		DEC - 9 200	3	Sec. 13, T20S, R29E		
14. Distance in miles and direction from nearest town or post office*				12. County or Parish	13. State	
		OCD-ARTE	SIA	Eddy	NM	
<ul> <li>15. Distance from proposed*</li> <li>location to nearest</li> <li>property or lease line, ft.</li> <li>(Alter to record drive with line, if each)</li> </ul>	16. No. of	f Acres in lease	17. Spacing	g Unit dedicated to this well		
(Also to nearest drig, unit line, if any)	10 0-0-0	160	20 DL 10	E/2		
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>		sed Depth 12500'	20. BLM/B	IA Bond No. on file 585716		
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		oximate date work will st	art*	23. Estimated duration		
3219' GL	November 10, 2003		21 days			
		achments	CAPIT	AN CONTROLLED WA	TER BASIN	
The following, completed in accordance with the requirements of Onshor			ached 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 System I SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>		<ol> <li>Bond to cover the Item 20 above).</li> <li>Operator certification</li> </ol>	e operations ation. pecific info	unless covered by an existing rmation and/or plans as may t		
25. Signature Name (Printed/Typed)				Date	····	
23. signature flames tarter	Mel	Melanie J. Parker 10/06/03			03	
Title U						
Land Department		(D. ) . 1(m - 1)				
Approved by (Signature) /s/ Linda S. C. Rundell			la S. C.	. Rundell Date 2	DEC 2003	
STATE DIRECTOR         Office         NM STATE OFFICE						
Application approval does not warrant or certify that the applicant holds le operations thereon. Conditions of approval, if any, are attached.	egal or equit	able title to those rights in		ease which would entitle the app PROVAL FOR 1		
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 to	a crime for any matter	any person knowingly an within its jurisdiction.	d willfully to	make to any department or ag	ency of the United	

\*(Instructions on reverse)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT I P.O. Box 1980, Hobb. DISTRICT II P.O. Drawer DD, Arta DISTRICT III 1000 Rio Brazos I DISTRICT IV P.O. BOX 2088, SANT API Property	mia, NM 86211 Rd., Aztec, N A FE, N.M. 87 Number	-0719 M 87410	WELL LC	CON Santa OCATION Pool Code 3320	, Minerals and Natu <b>NSERVAT</b> P.O. Box Fe, New Me: N AND ACR Property P	KICO 87504-2088 EAGE DEDICAT BURTON FLAT;	SION ION PLAT Pool Name	Revised Februar to Appropriate Dist State Lease Fee Lease	rict Office - 4 Copies - 3 Copies 0 REPORT	
OGRID N	o.			DICE	Operator N			Elevatio	Elevation	
14049	)		M	ARBOB	ENERGY (	CORPORATION		3219	3219'	
					Surface L	ocation				
UL or lot No.	Section	Township	Range	Lot Idn	Feet from th		Feet from the	East/West line	County	
	13	20-S	29-E		1980	SOUTH	660	EAST	EDDY	
			······	<del></del>		fferent From Su	·····			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	e North/South line	Feet from the	East/West line	County	
Dedicated Acre 320	s Joint o	r Infill Co	nsolidation	Code 0	I rder No.		I		L	
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 1 horeby cort(y the the information containing dama do complete to the best of my browledge and bailer Signature MELANTE J. PARKER Printed Name LAND DEPARTMENT Title SURVEYOR CERTIFICATION 1 horeby cort(y that the usell location shown in this plat was plotted from field noise of states of my browledge on the state of my bailer ULAND DEPARTMENT Title J219.2' J219										
			, 		///	14	Certificate	3.14.0669	JN 3239 12641	

#### MARBOB ENERGY CORPORATION DRILLING AND OPERATIONS PROGRAM

#### Dice Roll Federal Com #1 1980' FSL & 660' FEL, Unit I Section 13, T20S, R29E 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:

Top of Salt	450′	Bone Spring	6420′
Base of Salt	1250′	Wolfcamp	9821′
Yates	1407'	Strawn	10815'
Seven Rivers	1752'	Atoka	11211′
Reef	1906′	Morrow Clastics	11938'
Delaware	3882'	TD	12500'

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

Reef	1906′	Water
Delaware	3882'	Oil
Wolfcamp	9821′	
Strawn	10815'	Gas
Atoka	11211′	
Morrow	11938′	

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 20" casing at 300' 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	
WIT	NESS26"	0 - 300' 0 - 1350'	20″	94#	H-40	WITNESS
AAFT			13 3/8"	48#	H-40	
	12 1/4"	0 - 3600' 3	ರ್ 8 5/8″	32#	J-55	
	7 7/8″	0 – 12500′	5 1/2"	17#	P-110 LT&	C

Proposed Cement Program:

20" Surface Casing: Cement w/ 400 sx Premium Plus. Circulate to surface.
13 3/8" Intermediate Casing: Cement w/ 900 sx cmt. Circulate to surface.
8 5/8" Intermediate Casing: Cement w/ 900 sx cmt. Attempt to tie in to 13 3/8" csg.
5 1/2" Production Casing: Cement w/ 700 sx cmt. Attempt to tie in to 8 5/8" csg.

- 5. Pressure Control Equipment: See Exhibit 1.
- 6. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Туре	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 - 300'	Fresh Wtr	8.4 - 9.2	32 – 36	N.C.
300 – 1350′	Brine	9.9 – 10.2	28 – 32	N.C.
1350 – <del>3600</del> ′3)	တ်Fresh Wtr	8.4 - 8.6	28 – 32	N.C.
3600 – 12500'	Cut Brine	8.7 – 9.5	28 – 34	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

### Dice Roll Federal Com #1 1980' FSL & 660' FEL, Unit I Section 13, T20S, R29E 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:**

Proceed east of Carlsbad approximately 12 miles on Hwy 62-180 to CR 238. Go north 1.2 miles to CR 239 and turn east 1.2 miles. Turn north on lease road 2 miles. Access road and location on west side of lease road.

#### 2. PLANNED ACCESS ROAD:

A new access road of 990' 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 Dice Roll Federal Com #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:

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

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

#### **10. CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Marbob Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Melanie J. Parker Land Department

#### MARBOB ENERGY CORPORATION

#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

#### I. HYDROGEN SULFIDE TRAINING

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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<sub>2</sub>S).
- 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. <u>H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS</u>

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.



#### 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: October 3, 2003

Lease #: NM 110350 Dice Roll Federal Com

Legal Description: Section 13: E/2 E/2 Township 20S – Range 29E Eddy County, New Mexico

Formation(s): Morrow

Bond Coverage: Statewide

BLM Bond File #: 585716

Melanie J. Parker C Land Department



2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES

Exhibit One

# CHEHATOP'S COPY

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Form 316 (June 199	0) DEPARTME	ITED STATES J INT OF THE INTERIOR	UN 21 1999	FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No.		
Do not	use this form for proposals to d	S AND REPORTS ON WELLS rill or to deepen or reentry to a c OR PERMIT-" for such proposa		6. If Indian, Allottee or Tribe Name		
	SUBMIT	IN TRIPLICATE		7. If Unit or CA, Agreement Designation		
1. Type of X W 2. Name o	ril Gas /eli Weli Other			8. Well Name and No.		
MARB	OB ENERGY CORPORATION			9. API Well Na.		
P.O. B	and Telephone No. OX 227, ARTESIA, NM 88210 505-			10. Field and Pool, or Exploratory Area		
4. Location T17S-I T17S-I T17S-I	R30E	scription)		11. County or Parish, State EDDY CO., NM		
12.	CHECK APPROPRIATE BOX(s	) TO INDICATE NATURE OF NO	TICE, REPORT, OF	R OTHER DATA		
	TYPE OF SUBMISSION		TYPE OF ACTION			
	Notice of Intent Subsequent Report Final Abandonment Notice	Abandonment     Accompletion     Plugging Back     Casing Repair     Altering Casing     OtherTEST BOP	<u>'S</u>	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water (Note: Report rasults of multiple completion on Well Completion or Recompletion Report and Log form.)		
ה אות	nally drilled, give subsurface locations and meas O THE LOW BOTTOM HOLE PRESS /ELLS IN THE ABOVE LOCATIONS	SURE OF FORMATIONS ABOVE 60	00'. WE ARE REQUE	· ·		
	THIS SUNDRY IS APPROVED	FOR MARBOB TO HAVE A BLA	NKET 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						
١						
14. I hereby Signed	BODIN COLLED		YST	Date 05/25/99		
Approved	e for Federal or State office (use) by		ENGINEEF	JIJN 1 6 1999		

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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, lictitious or fraudulent statements or representations as to any matter within its jurisdiction.



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 0 7 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<sup>\*</sup>, Rgs. 29, 30 and 31 E., NMPM. In order to correct the discrepancies, this letter states the language 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  $5\frac{1}{100}$  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.

Sincerely,

Lamp Bray

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

# LOCATION VERIFICATION MAP



# Well Site Lay-Out Plat



275'

Dice Roll Federal Com #1 1980' FSL & 660' FEL Section 13, T20S, R29E Eddy County, New Mexico

# **EXHIBIT THREE**