

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM111946	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator MARBOB ENERGY CORPORATION		7. If Unit or CA Agreement, Name and No.	
Contact: MELANIE J PARKER E-Mail: LAND2@MARBOB.COM		8. Lease Name and Well No. TOMBSTONE FEDERAL 1	
3a. Address P O BOX 227 ARTESIA, NM 88211-0227		9. API Well No. 30-015-33896	
3b. Phone No. (include area code) Ph: 505-748-3303 Fx: 505-746-2523		10. Field and Pool, or Exploratory CEMETERY-MORROW	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE 660FSL 1650FEL At proposed prod. zone SWSE 660FSL 1650FEL		11. Sec., T., R., M., or Blk. and Survey or Area Sec 35 T19S R25E Mer NMP SME: BLM	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish EDDY	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		13. State NM	
16. No. of Acres in Lease 320.00		17. Spacing Unit dedicated to this well 320.00	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3456 GL		22. Approximate date work will start 01/15/2004	
		23. Estimated duration 21 DAYS	

## 24. Attachments

~~National~~ Controlled Water Basin

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) MELANIE J PARKER Ph: 505-748-3303	Date 12/09/2004
Title LAND DEPARTMENT		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date JAN 12 2005
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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.

Electronic Submission #51753 verified by the BLM Well Information System  
For MARBOB ENERGY CORPORATION, sent to the Carlsbad  
Committed to AFMSS for processing by LINDA ASKWIG on 12/09/2004 (05LA0169AE)APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHEDWitness Surface &  
Intermediate Casing

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

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

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

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

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

Form C-102  
Revised JUNE 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97031	Pool Name Cemetery; Morrow, SE
Property Code	Property Name TOMBSTONE FEDERAL	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3456'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	35	19-S	25-E		660	SOUTH	1650	EAST	EDDY

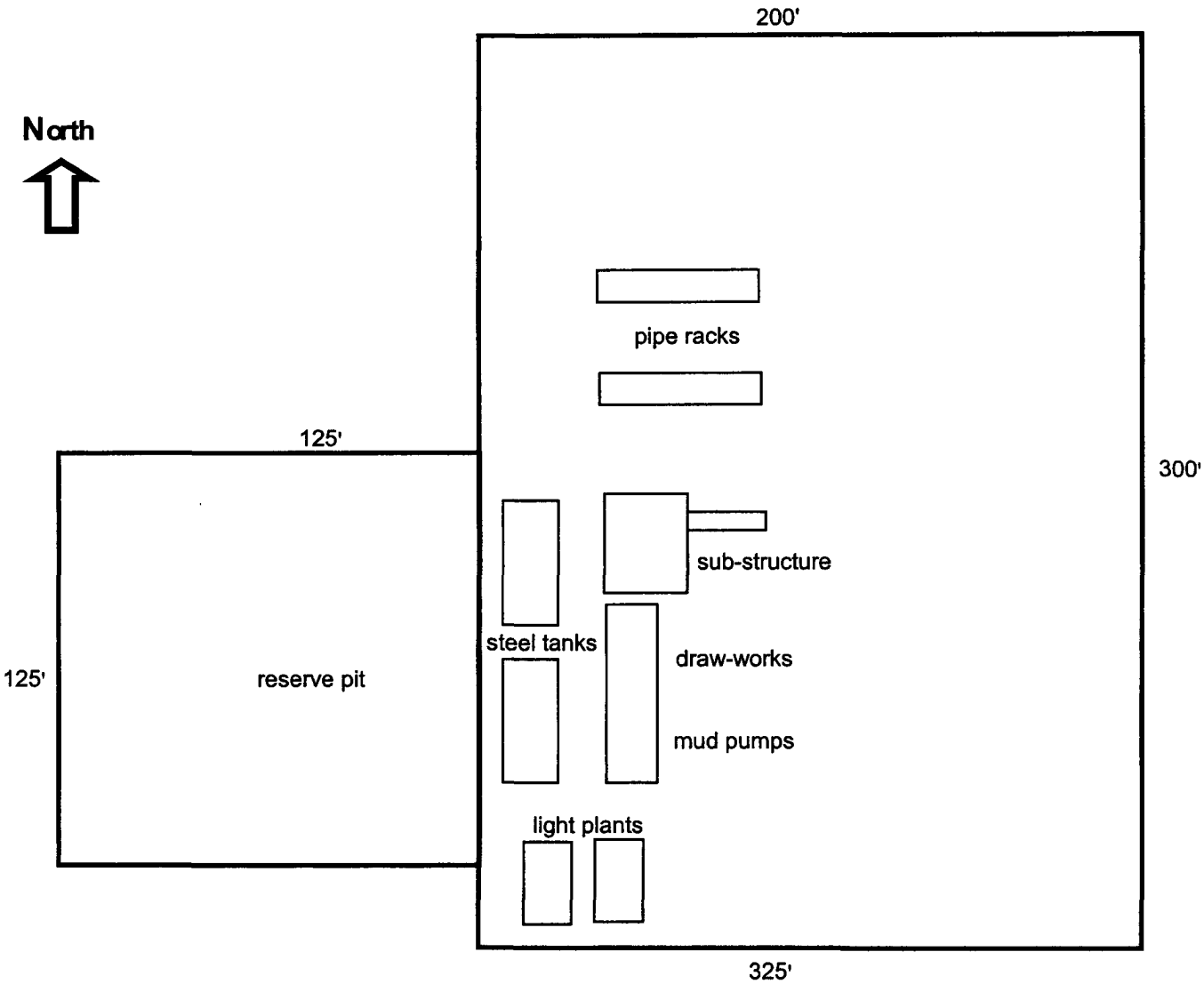
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order 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

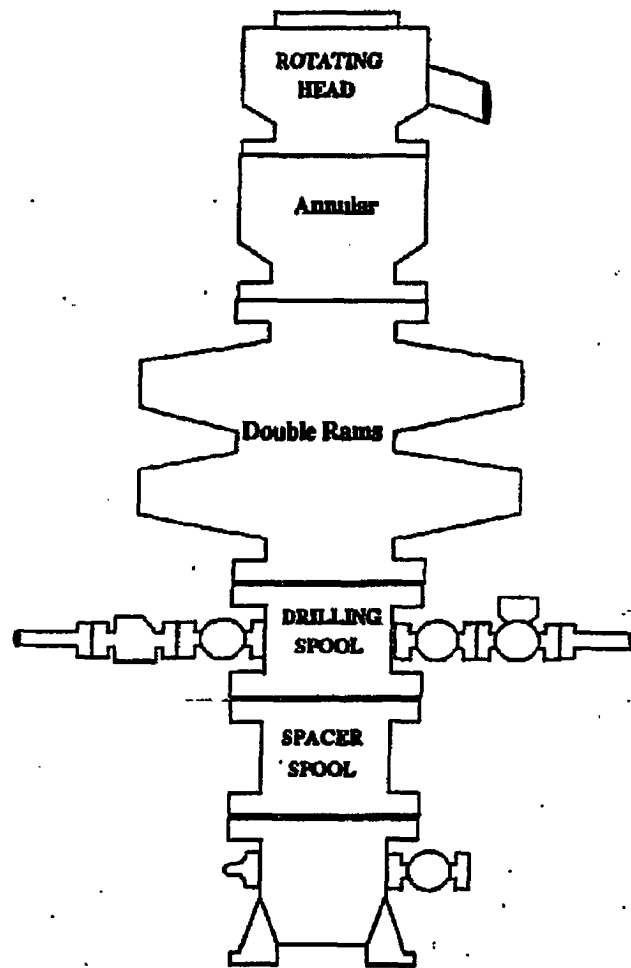
	<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature <b>Melanie J. Parker</b> Printed Name <b>Land Department</b> Title <b>December 8, 2004</b> Date
	<b>SURVEYOR CERTIFICATION</b>  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  <b>NOVEMBER 05, 2004</b> Date Surveyed  Signature & Seal of Professional Surveyor <b>GARY EDSON</b> Professional Surveyor <b>04-11-1432</b> Certificate No. <b>GARY EDSON</b> 12641

# Well Site Lay-Out Plat

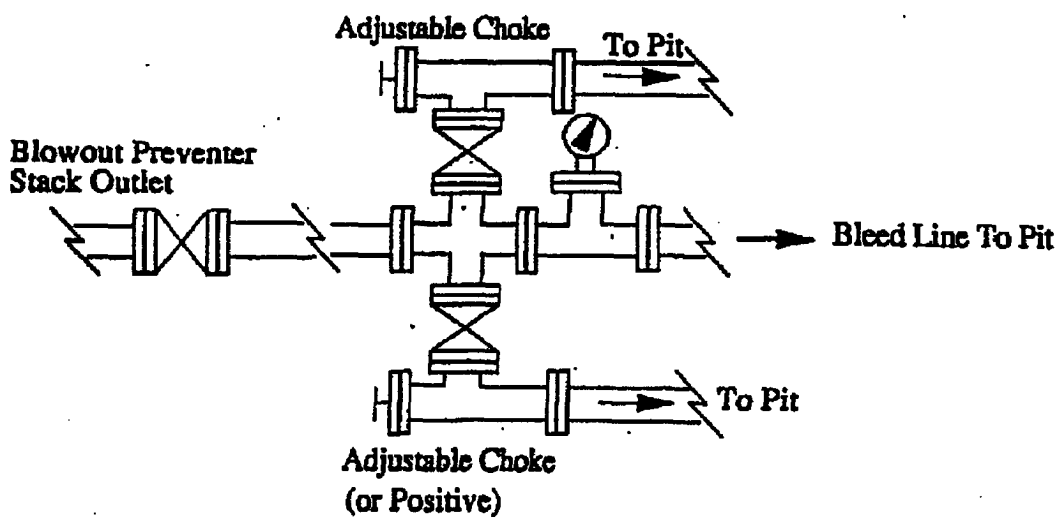
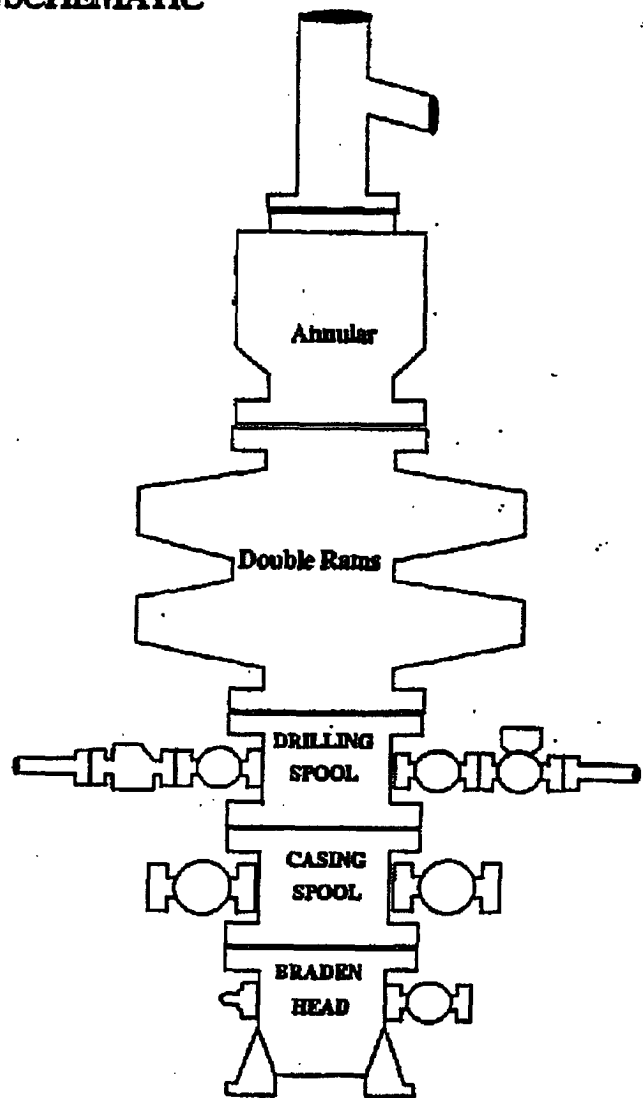


Tombstone Federal #1  
660' FSL & 1650' FEL, Unit O  
Section 35-T19S-R25E  
Eddy County, New Mexico

# BOPE SCHEMATIC



Choke Manifold



## 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: December 8, 2004

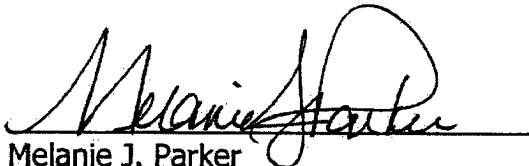
Lease #: **NM 111946**  
Tombstone Federal

Legal Description: Section 35: S/2  
Township 19S – Range 25E  
Eddy County, New Mexico

Formation(s): Morrow

Bond Coverage: Statewide

BLM Bond File #: 585716

  
Melanie J. Parker  
Land Department

**MARBOB ENERGY CORPORATION**  
**DRILLING AND OPERATIONS PROGRAM**

**Tombstone Federal #1**  
**660' FSL & 1650' FEL, Unit O**  
**Section 35, T19S, 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:

San Andres	750'	Cisco-Canyon	8250'
Glorieta	2400'	Atoka	9000'
Bone Spring	3950'	Morrow	9400'
Wolfcamp	6650'	TD	10000'

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

San Andres	750'	Oil
Wolfcamp	6650'	
Cisco Canyon	8250'	
Atoka	9000'	Gas
Morrow	9400'	

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8" casing at 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
17 1/2 "	0 – 325'	13 3/8"	48#	H-40
12 1/4"	0 – 1000'	9 5/8"	36#	J-55
8 3/4"	0 – 10000'	5 1/2"	17#	S-95/P110

Proposed Cement Program:

13 3/8" Surface Casing: Cement w/ 350 sx Premium Plus. Circulate to surface.

9 5/8" Intermediate Casing: Cement w/ 300 sx cmt. Circulate to surface.

5 1/2" Production Casing: Cement w/ 600 sx cmt. TOC 500' above all oil/gas bearing zones.

5. Pressure Control Equipment: See Exhibit 1.

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

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 - 325'	Fresh Wtr	8.4 - 9.2	32 - 36	N.C.
325 - 1000'	Brine <sup>FRESH</sup>	10	28	N.C.
1000 - 10000'	Cut Brine <sup>JSJ</sup>	8.7 - 9.5	28 - 32	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.

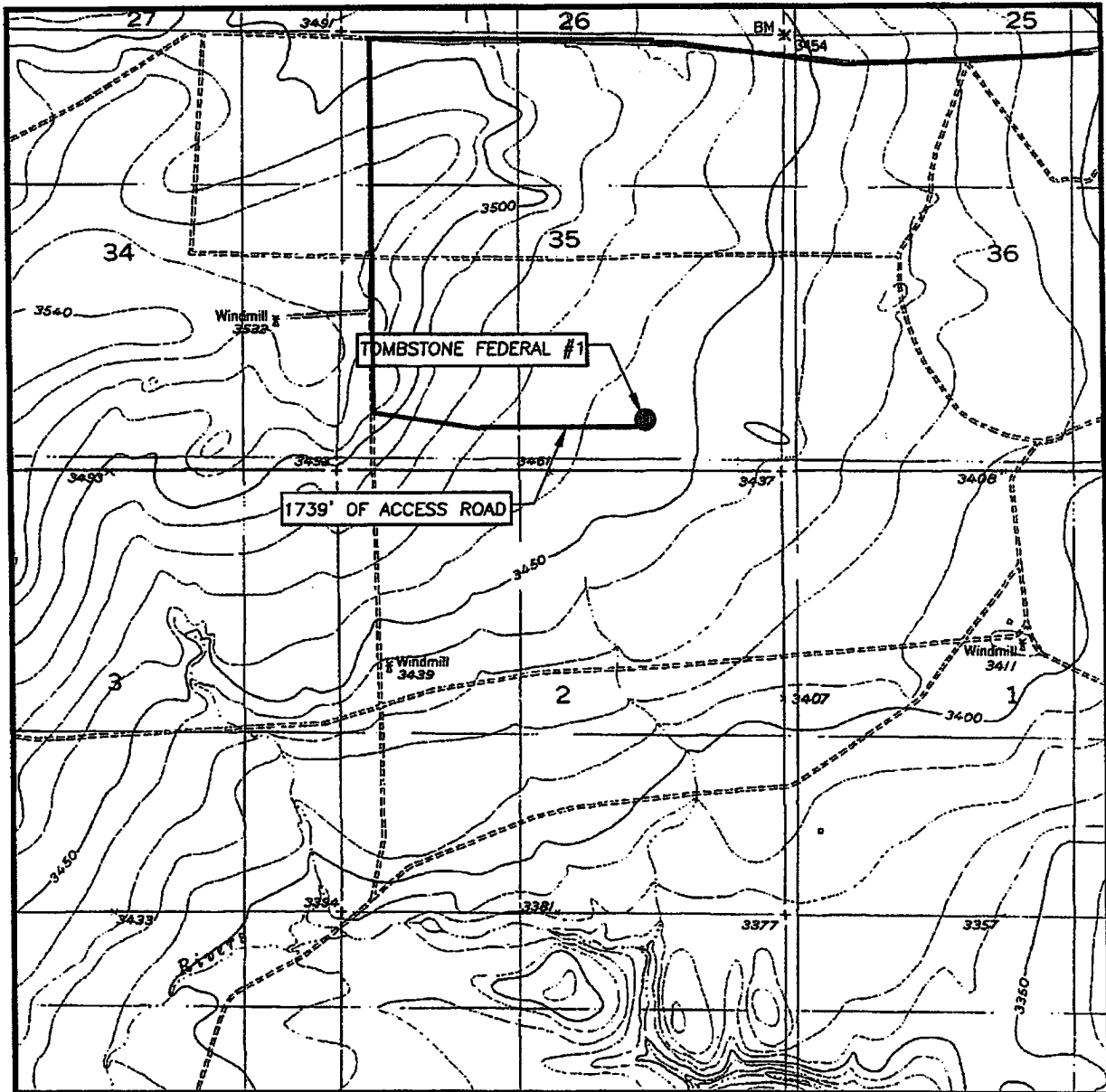
The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csg Log, and Depth Control Log.

No conventional coring is anticipated.

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval.

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
SEVEN RIVERS, N.M. - 10'

SEC. 35 TWP. 19-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 1650' FEL

ELEVATION 3456'

OPERATOR MARBOB ENERGY CORPORATION

LEASE TOMBSTONE FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
SEVEN RIVERS, N.M.

— Existing Access Road  
- - - Proposed Access Road

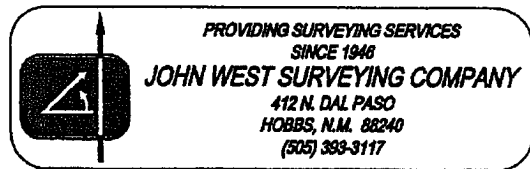


Exhibit Two



## **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<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. 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.

### **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.

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.

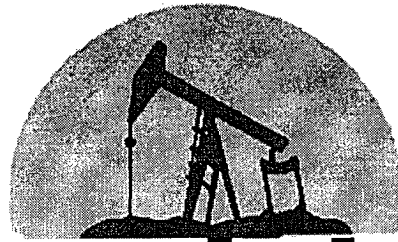
# **W A R N I N G**

**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**



**marbob**  
**ENERGY CORPORATION**  
ARTESIA, NEW MEXICO

January 3, 2005

Oil Conservation Division  
1301 W. Grand Ave.  
Artesia, NM 88210

Attention: Bryan Arrant

Re: Tombstone Federal #1  
660' FSL & 1650' FEL, Unit O  
Section 35, T19S, R25E  
Eddy County, New Mexico

Dear Bryan:

We plan to complete this well in the Morrow which is sweet and we don't anticipate cutting any formations that contain H2S gas during the drilling of the above referenced well. Therefore, we do not believe that an H2S contingency plan is necessary.

If you have questions or need further information, please call.

Sincerely,

Melanie J. Parker  
Land Department

/mp