OPER. OGRID NO. 14049
PROPERTY NO. 32988
POOL CODE 97224
EFF. DATE 5/26/04
API NO. 30-025-20814

ict I

POTASH

Form 3160-3
(September 2001)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-~~23011~~ 58935

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☑ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
String Bean Federal #2

2. Name of Operator
Marbob Energy Corporation

9. API Well No.
30-025-20814

3a. Address **P.O. Box 227**
Artesia, NM 88211-0227

3b. Phone No. *(include area code)*
505-748-3303

10. Field and Pool, or Exploratory
Greenwood Lusk Morrow (Gas) Southeast

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **1980' FSL & 660' FEL, Unit I**
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area
Section 31, T19S, R32E

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
Lea

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
		320 acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	12911'	

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3526' GL	**04/15/2004**	**7 days**

RECEIVED
MAY 2004
Hobbs OCD

24. Attachments **Capitan 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name *(Printed Typed)*	Date
Melanie Parker	**Melanie J. Parker**	**03/11/2004**

Title
Land Department

Approved by *(Signature)*	Name *(Printed Typed)*	Date
/S/ Carsten F. Goff	/S/ Carsten F. Goff	MAY 1 1 2004

Title
FOR STATE DIRECTOR

Office
NM STATE OFFICE

Application 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.
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.

(Instructions on page 2)

KZ

CAPITAN REEF POTASH
CEMENT BEHIND THE 5½"
CASING MUST BE CIRCULATED
TO SURFACE

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-20814	97226 ~~86759~~	Greenwood ~~Lusk~~ Morrow (Gas) Southeast

[4] Property Code	[5] Property Name	[6] Well Number
32988	String Bean Federal	2

[7] OGRID No.	[8] Operator Name	[9] Elevation
14049	Marbob Energy Corporation	3526'

[10] Surface Location

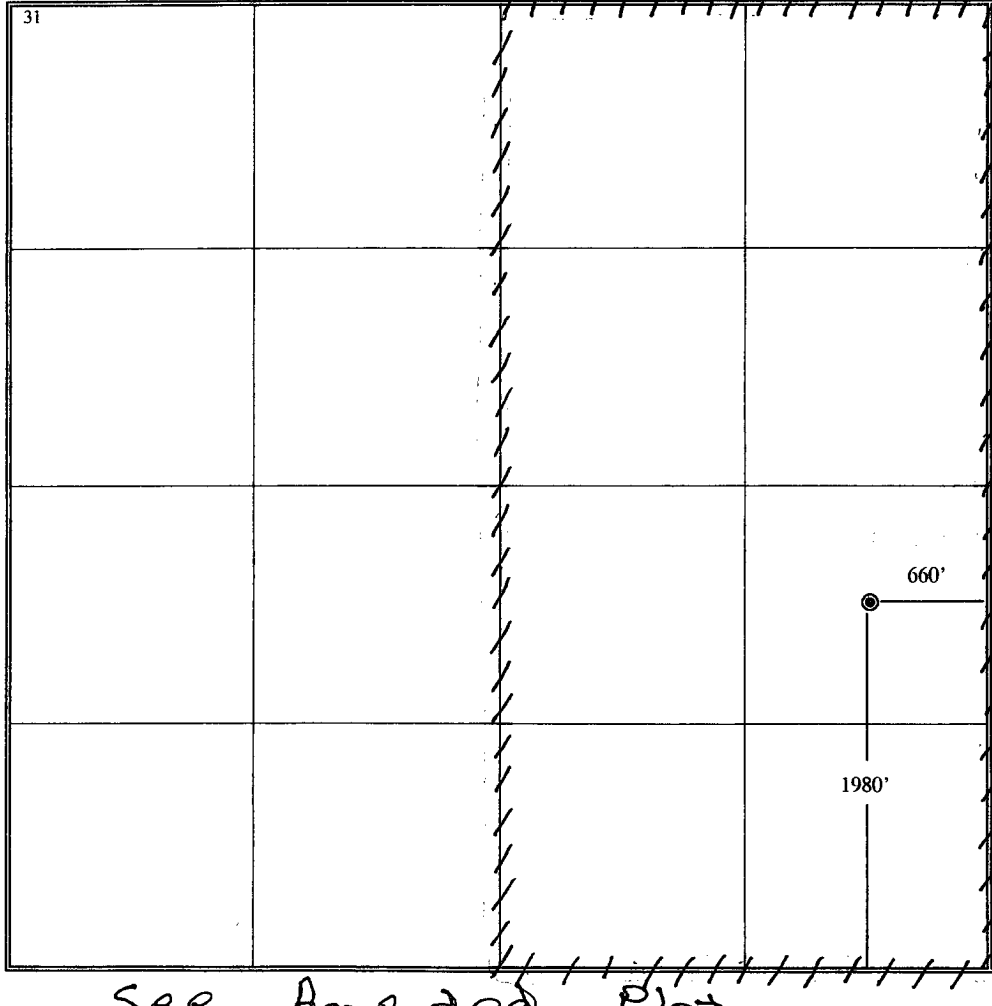
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	31	19S	32E		1980	South	660	East	Lea

[11] 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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
~~160~~ 320			

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Melanie Parker

Melanie J. Parker
Printed Name

Land Department
Title and E-mail Address

March 11, 2004
Date

[18] SURVEYOR CERTIFICATION

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.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

See Amended Plat

DRILLING PROGRAM

Attached to Form 3160-3
Marbob Energy Corporation
String Bean Federal Com No. 2
1980' FSL and 660' FEL
Section 31-19S-32E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

   Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Wolfcamp	10579'
Anhy.	850'	Strawn	11453'
Yates	2587'	Atoka	11580'
Capitan Reef	3150'	Morrow	12179'
Bone Springs	7318'		

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

Yates	2587'	Oil
Capitan Reef	3150'	Water
Strawn	11453'	Oil
Morrow	12179'	Gas

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands are protected by the 13 3/8" casing set at 903'.

4. Casing Program:

Hole Size	Interval	OD Casing	Wt.	Grade	Type	
17 1/2"	0 – 903'	13 3/8"	48#	H-40	STC	Existing
12"	0 – 3756'	8 5/8"	32#	J-55	STC	Existing
7 7/8"	0 – 12911'	5 1/2"	17#	S-95/P110	LTC	Proposed

Cement Program:

13 3/8 Surface Casing: Cemented to surface with 200 sx, circ 40 sx.

8 5/8 Intermediate Casing: Cemented with 300 sx, TOC 2700'.

5 1/2 Production Casing: Cement to 12000', tack bottom in. * TOC designed for 12000' – our intent is to test the Morrow, and if it depletes rapidly, we will cut and pull casing and side track the well to a new bottom hole location in the Morrow.

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 be hydraulically operated and the ram type preventer will be equipped with blind rams on bottom and pipe rams on top. This BOP will be nippled up on the 8 5/8" casing and used continuously until TD is reached.

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. Other accessories to the BOP equipment will include a full opening ball valve with 5000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be cleaned out to TD with cut brine.

7. Auxiliary Well Control and Monitoring Equipment:

A full opening 5000 psi WP ball-type valve with proper pipe connections will be on the rig floor at all times.

8. Logging, Testing, and Coring Program:

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

B. 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, and Potential Hazards:

No abnormal pressures or temperatures are anticipated.

10. Anticipated Starting Date and Duration of Operations:

Location and road work will not begin until approval has been received from the BLM. Once commenced, the re-entry operation should be finished in approximately 7 days.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
Marbob Energy Corporation
String Bean Federal Com No. 2
1980' FSL and 660' FEL
Section 31-19S-32E
Lea County, New Mexico

1. Existing Roads:

   A. All roads to the location are shown in Exhibit #2. The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the existing road will be done where necessary as determined during the onsite inspection.

   B. Directions to location: From Loco Hills proceed east on U.S. 82 5.6 miles to state road 529. Proceed southeast on NM 529 7.1 miles. Turn south on Lea county road #126 (Maljamar Road) and proceed south 12.5 miles. Turn west on lease road and proceed to location.

2. Proposed Access Road:

   No new access road is necessary

3. Location of Existing and/or Proposed Facilities:

   A. Marbob Energy Corporation will construct facilities on well pad if well is productive.

   B. 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.

4. 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 12' X 30' X 6' deep. The reserve pit will be plastic-lined

C. Water produced from the well during completion may be disposed into the reserve pit.

D. Garbage and trash produced during drilling or completion operations will be hauled off. 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.

5. Well Site Layout:

A. The re-entry pad layout, is shown in Exhibit #3. 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.

6. Surface Ownership:

The wellsite and lease is located on Federal Surface.

7. 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

Post Office Box 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 provision of 18 U.S.C. 1001 for the filing of a false statement.

Date: 3-17-2004 Signed: Dean Chumbley

MARBOB ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLANO

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_2S).

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H_2S 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_2S 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_2S 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_2S 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_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S 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_2S.

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, mud-gas 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_2S detection and monitoring equipment:

   A. 2 - portable H_2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S 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_2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

   B. A mud-gas separator will be utilized.

6. Communication:

   A. Radio communications in company vehicles including cellular telephone and 2-way radio.

   B. Land line (telephone) communications at field office.

WARNING

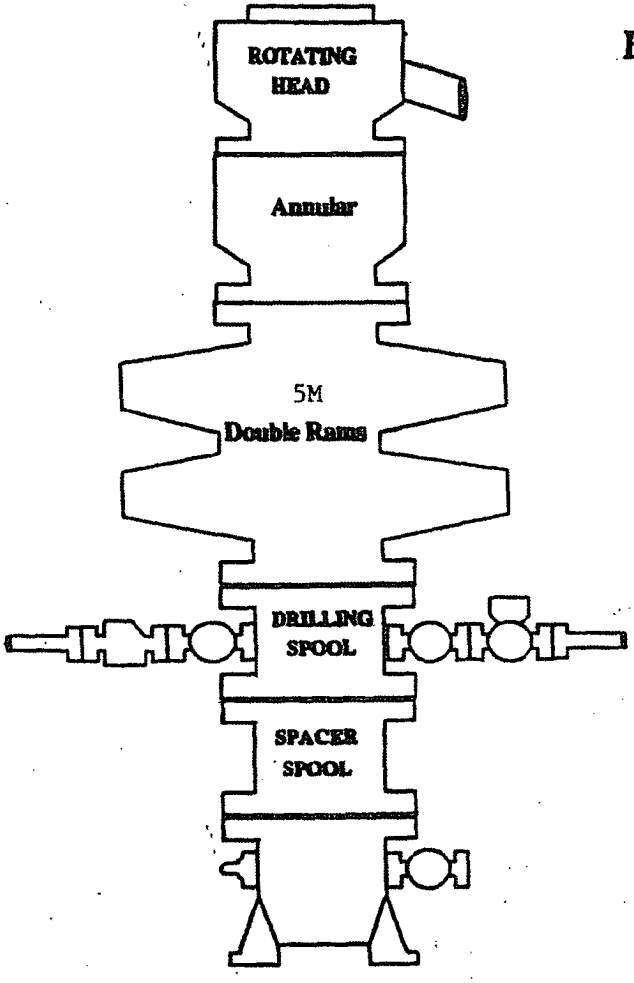
YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

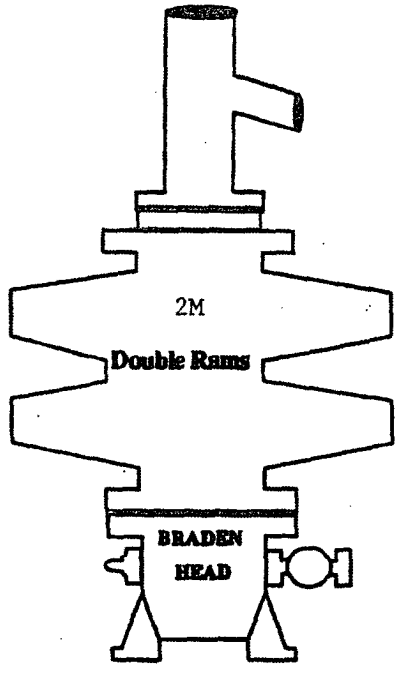
1. *BEARDS OR CONTACT LENSES NOT ALLOWED*
2. *HARD HATS REQUIRED*
3. *SMOKING IN DESIGNATED AREAS ONLY*
4. *BE WIND CONSCIOUS AT ALL TIMES*
5. *CK WITH MARBOB FOREMAN AT MAIN OFFICE*

MARBOB ENERGY CORPORATION

1-505-748-3303

BOPE SCHEMATIC





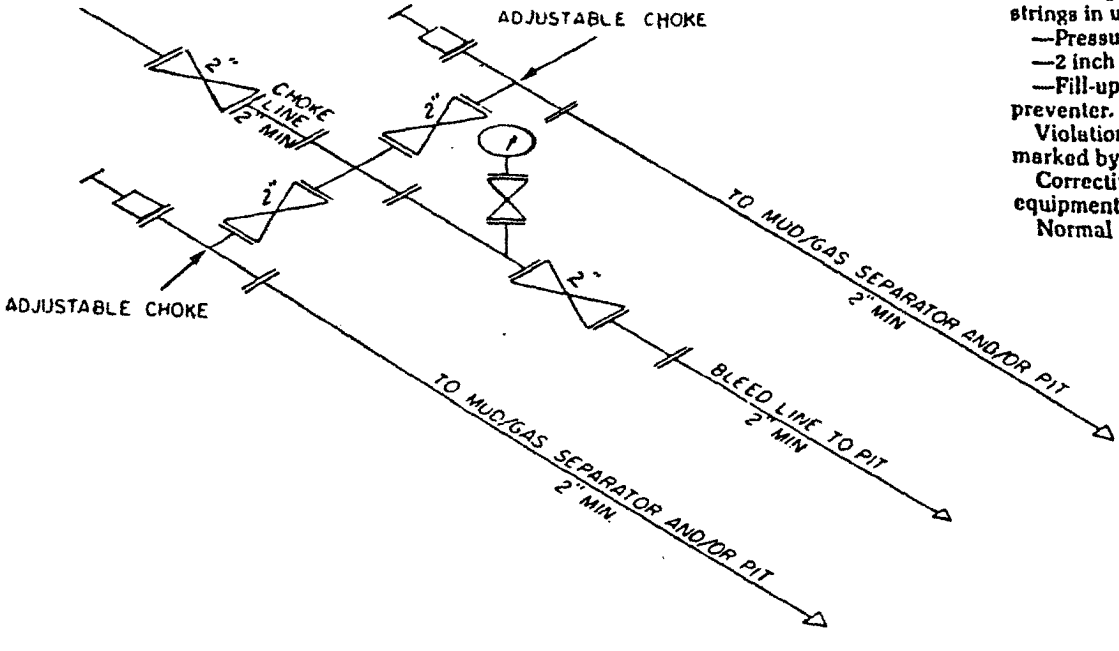
2M system:
—Annular preventer, or, double ram, or two rams with one being blind and one being a pipe ram *
—Kill line (2 inch minimum)
—1 kill line valve (2 inch minimum)
—1 choke line valve
—2 chokes (refer to diagram in Attachment 1)
—Upper kelly cock valve with handle available
—Safety valve and subs to fit all drill strings in use
—Pressure gauge on choke manifold
—2 inch minimum choke line
—Fill-up line above the uppermost preventer.

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

Corrective Action: Install the equipment as specified.

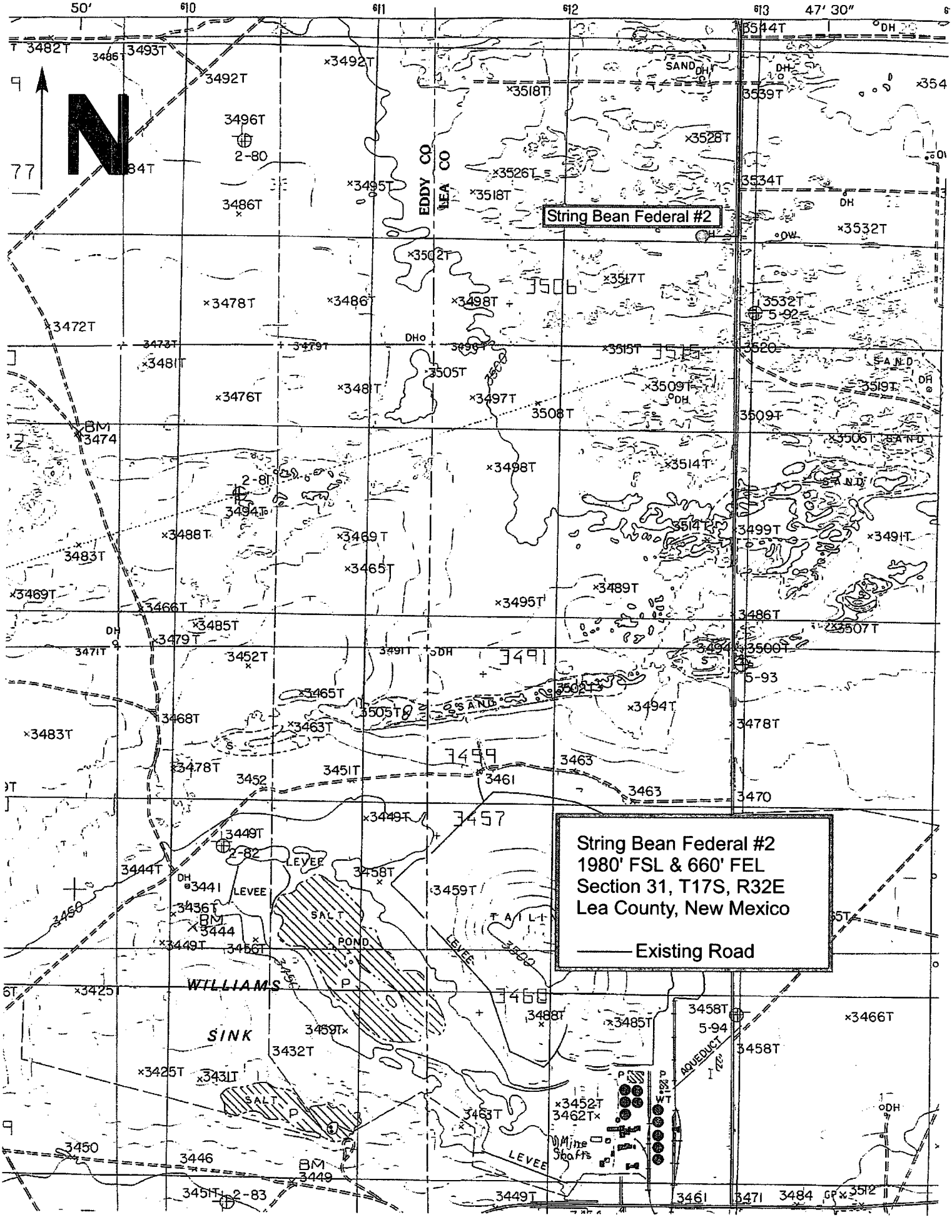
Normal Abatement Period: 24 hours.

ONSHORE OIL AND GAS ORDER NO. 2



2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES MAY VARY

Exhibit One


String Bean Federal #2
1980' FSL & 660' FEL
Section 31, T17S, R32E
Lea County, New Mexico
Existing Road
EDDY CO
LEA CO
WILLIAMS SINK
SALT POND
LEVEE
AQUEDUCT
Mine Shafts
47' 30"

Well Site Lay-Out Plat

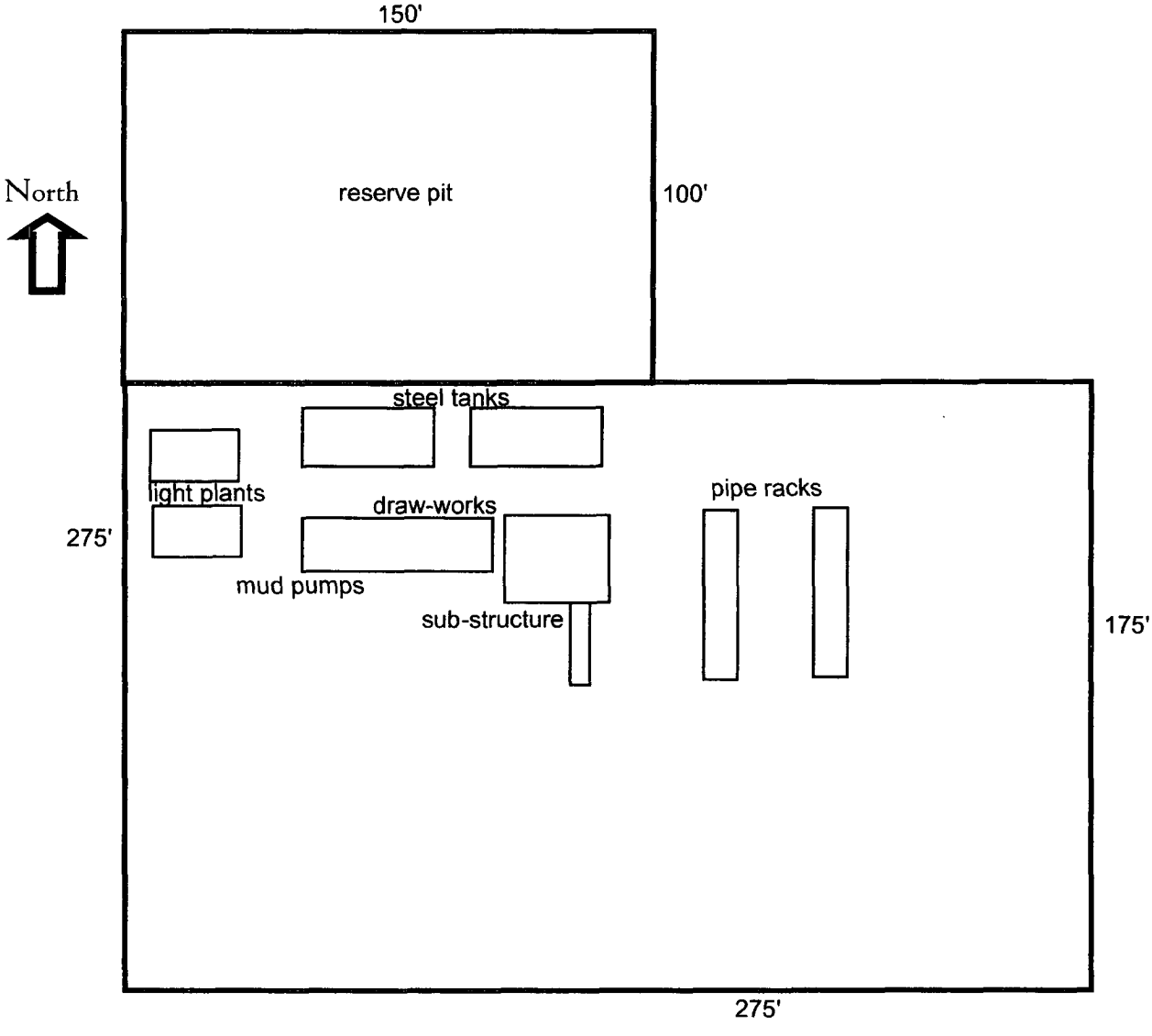


EXHIBIT THREE

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: **Marbob Energy Corporation** Telephone: **505-748-3303** e-mail address: **marbob@marbob.com**

Address: **PO Box 227, Artesia, NM 88211-0227**

Facility or well name: **String Bean Federal #2** API #: _____ U/L or Qtr/Qtr **NESE** Sec **31** T **19S** R **32E**

County: ~~Eddy~~ Lea Latitude_____ Longitude_____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness **12** mil Clay ☐ Volume 1200 bbl Per mp	Volume: _____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points) **0 points**
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points) **0 points**
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) **0 points**
	Ranking Score (Total Points)	**0 points**

MAY 2004
RECEIVED
Hobbs
OCD

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.**
Date: May 14, 2004

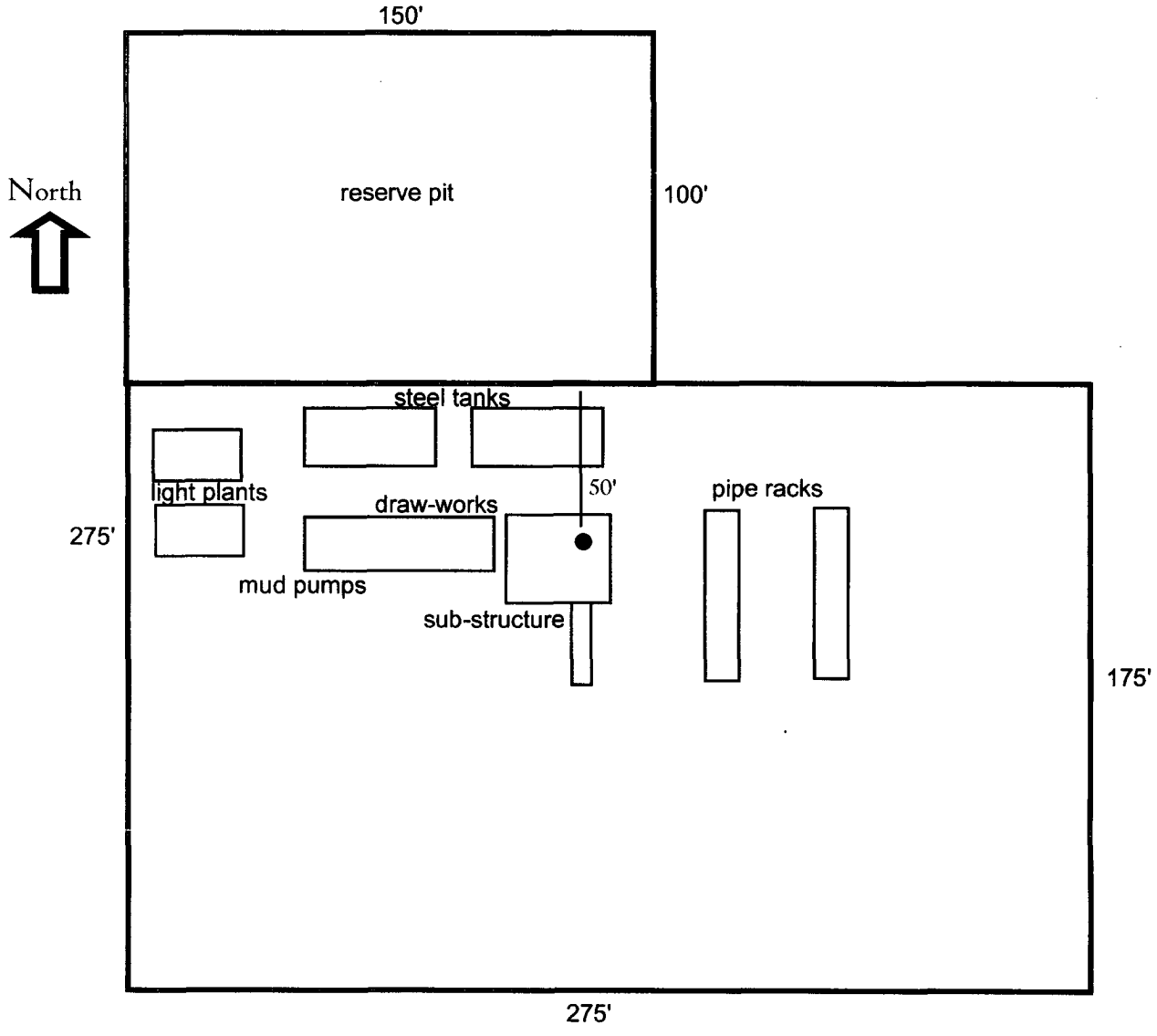
Printed Name/Title: **Melanie J. Parker / Land Department** Signature Melanie Parker

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Date: MAY 27 2004

Printed Name/Title_____ Signature ORIGINAL SIGNED BY PAUL F. KAUTZ PETROLEUM ENGINEER

Well Site Lay-Out Plat



String Bean Federal #2
1980' FSL & 660' FEL
Section 31, T19S, R32E
Lea County, New Mexico

EXHIBIT THREE