

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

MERIDIAN OIL INC.

## 3. ADDRESS AND TELEPHONE NO.

P.O. BOX 51810, MIDLAND, TX 79710

915-688-6943

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1980' FNL &amp; 1980' FWL

At proposed prod. zone

Unit F

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

32 1/2 MILES WEST OF JAL

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

1980

## 16. NO. OF ACRES IN LEASE

1080

17. NO OF ACRES ASSIGNED  
TO THIS WELL

40

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1336'

## 19. PROPOSED DEPTH

10,050

## 20. ROTARY OR CABLE TOOLS

ROTARY

## 21. ELEVATIONS (Show Whether DF, RT, GR, ETC.)

3602'

## 22. APPROX. DATE WORK WILL START

UPON APPROVAL

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" H-40	48#	600'	550 SXS CIRCULATE
12 1/4"	8 5/8" K-55	32#/28#	4500'	1800 SXS (tie back)
7 7/8"	5 1/2" K-55/N-80	17#	10050'	950 SXS (tie back)

NOT IN DESIGNATED HYDROGEN SULFIDE AREA AS PER JOHN SIMITZ/ROSWELL - BLM ON MARCH 3, 1994  
NO PRAIRIE CHICKEN RESTRICTIONS.  
NOT IN DESIGNATED POTASH AREA

BOP: 13 5/8" 1.5M ANNULAR BOP W/ROTATING HEAD TO BE INSTALLED ON 13 3/8" CSG. TEST TO 750 PSI BEFORE  
DRILLING THE 13 3/8" CASING SHOE.

11" - 3M BOP STACK TO BE INSTALLED ON THE 8 5/8" CASING. THE BOP STACK WILL CONSIST OF ONE BLIND RAM  
BOP, ONE PIPE RAM BOP, AND A ROTATING HEAD. TESTED TO 3000 PSI BEFORE DRILLING THE 8 5/8" CASING SHOE.

OPER. OGRID NO. 14538PROPERTY NO. 13279POOL CODE 96037EFF. DATE 4-19-94API NO. 30-025-32493

IN ABOVE SPACE DESCRIBE PROPOSED 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 data on subsurface locations and measured true vertical depths. Give blowout prevention program, if any.

## 24.

SIGNED

TITLE

PRODUCTION ASSISTANT

DATE

3/8/94

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS

TITLE

AREA MANAGER

DATE

APR 8 1994

\*See Instructions On Reverse Side

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.

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

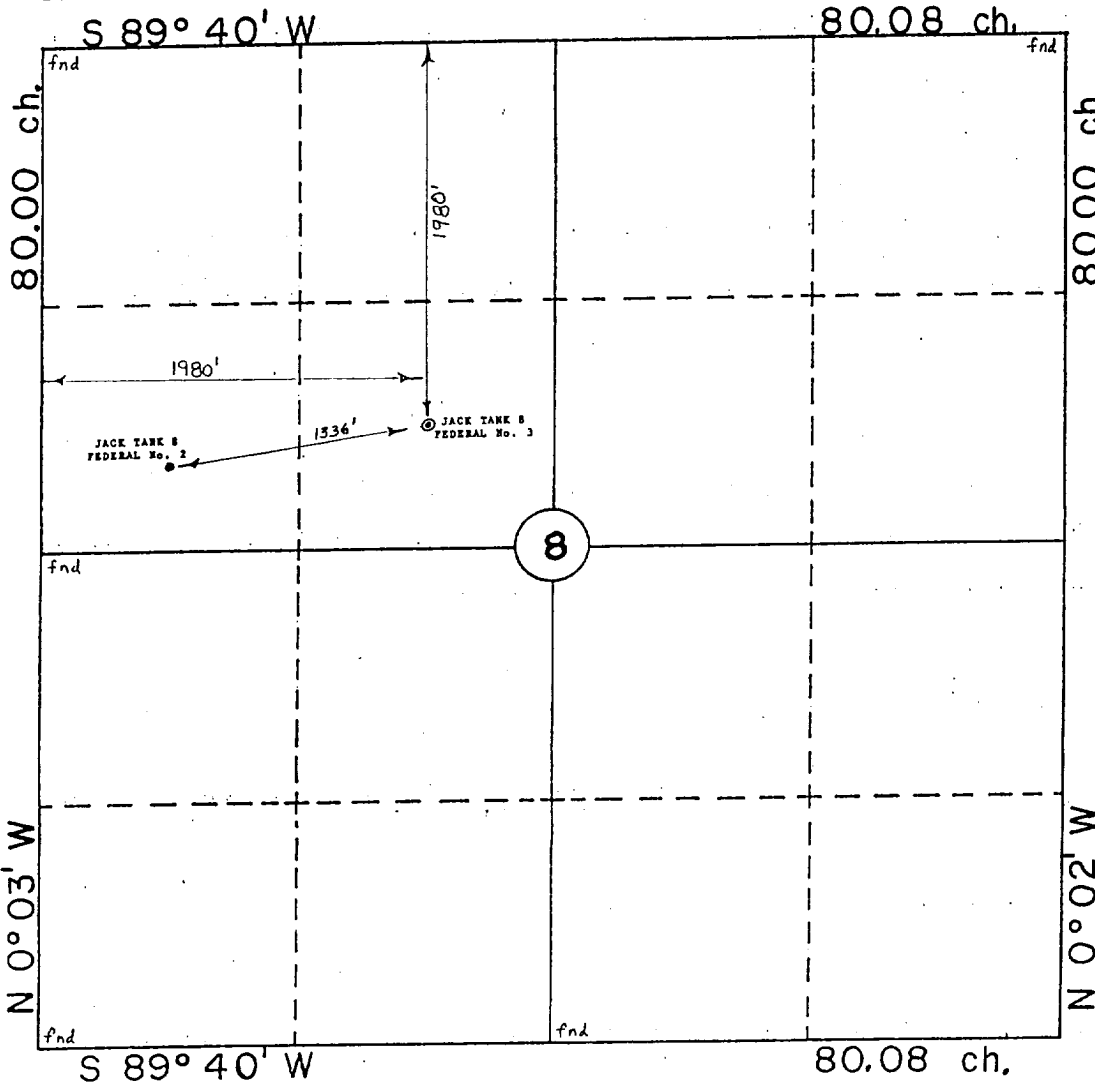
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>MERIDIAN OIL INC.</b>			Lease <b>JACK TANK 8 FEDERAL</b>		Well No. <b>3</b>
Unit Letter <b>F</b>	Section <b>8</b>	Township <b>24 SOUTH</b>	Range <b>32 EAST,</b>	County <b>NMPM LEA</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>NORTH</b> line and <b>1980</b> feet from the <b>WEST</b> line					
Ground level Elev. <b>3602</b>	Producing Formation <b>Bone Spring</b>		Pool <b>South Sand Dunes 2211000</b>	Dedicated Acreage: <b>40</b> Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>					

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0



OPERATOR CERTIFICATION

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

Signature  
**Donna J. Williams**  
Printed Name  
**Production Assistant**  
Position  
**Meridian Oil Inc.**  
Company  
**3/11/94**  
Date

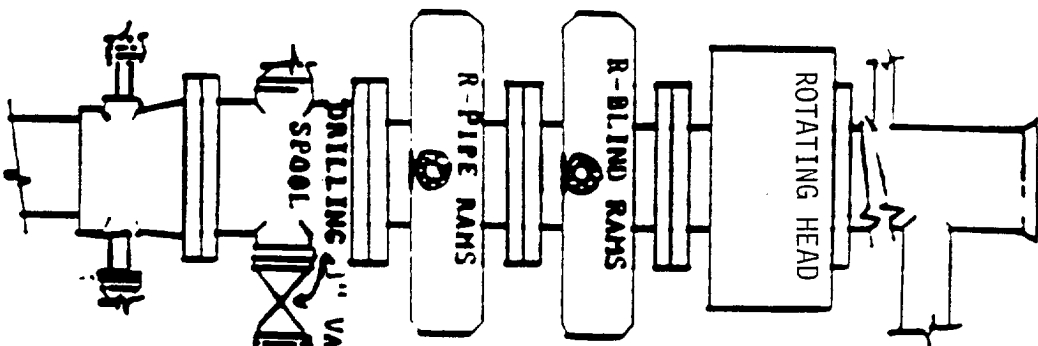
SURVEYOR CERTIFICATION

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 knowledge and belief.

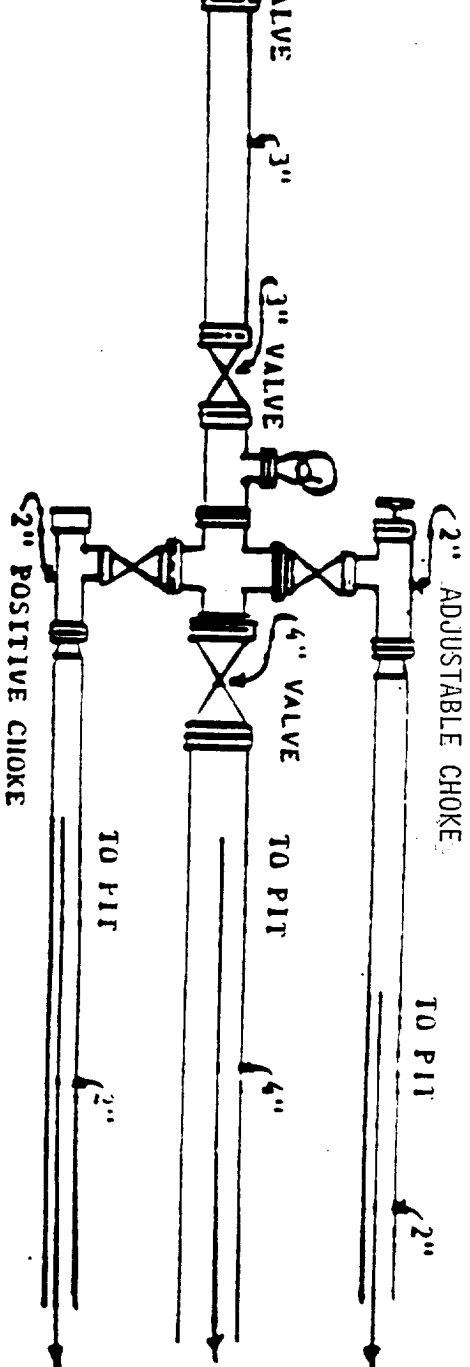
**3-3-94**  
Date Surveyed  
**WILLIAM E. MAHNKE II**  
Signature & Seal of Professional Surveyor

**WILLIAM E. MAHNKE II**  
**NEW MEXICO**  
**8466**  
Certification No. **8466**  
Professional Land Surveyor

# DOUBLE RAM



BLOW OUT PREVENTION EQUIPMENT  
 10" 900s ALL FLANGED CONNECTIONS  
 3000# WORKING PRESSURE \_ 6000# TEST



<b>OPERATORS NAME:</b>	<b>Meridian Oil Inc.</b>
<b>LEASE NAME AND WELL NO.:</b>	<b>Jack Tank 8 Federal # 3</b>
<b>LOCATION:</b>	<b>1980' FNL &amp; 1980' FWL, Sec. 8, T24S, R32E</b>
<b>FIELD NAME:</b>	<b>South Sand Dunes Bone Spring</b>
<b>COUNTY:</b>	<b>Lea County, NM</b>
<b>LEASE NUMBER:</b>	<b>NM 55953</b>

The following information is to supplement BLM form 3160-3 Application for permit to drill in accordance with Onshore Oil and Gas Order No. 1:

## 9 - POINT DRILLING PLAN

1. Name and estimated tops of important geologic formation/marker horizons.

FORMATION	DEPTH
Rustler	800'
Salado	1100'
Delaware	4600
Bone Spring	8550

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the operator's plans for protecting such resources.

Bone Springs	8550 - 10050 (Oil)
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3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used and schematic diagrams thereof showing sizes, pressure ratings, and the testing procedures and testing frequency. BOP and BOP - related equipment (BOPE) schematics shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

13 5/8" 1.5M annular BOP w/rotating head to be installed on the 13 3/8" casing. Test to 750 psi before drilling the 13 3/8" casing shoe.

11" - 3M BOP stack to be installed on the 8 5/8" csg. The BOP stack will consist of one blind ram BOP, one pipe ram BOP, and a rotating head. Tested to 3000 psi before drilling the 8 5/8" casing shoe.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

- 17 1/2 hole, 13 3/8" H-40 48# STC csg set @ 600'
- 12 1/4" hole, 8 5/8" K-55 28#/32# BTC csg set @ 4500' \*\*

7 7/8 hole, 5 1/2" K-55 & N-80 17# LTC csg set @ 10,050'

\*\* SPECS: 8 5/8" 28# K-55 BTC

ID = 8.017", DRIFT = 7.892", BURST = 3390 PSI, COLLAPSE = 1880 PSI, & TENSION = 437,000 LBS

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

- a. 13 3/8 csg: cmt w/350 sxs Class "C" + 4% gel & 2% CaCl<sub>2</sub> tail w/200 sxs Class "C" + 2% CaCl<sub>2</sub>. Circ. to surface.
- b. 8 5/8" csg: cmt w/1500 sxs 'C' Lite, tail w/300 sxs 'C' + 2% CaCl<sub>2</sub>
- c. 5 1/2" csg: cmt first stage w/450 sxs Class 'H' 50/50 Poz + 2% gel + .6 Halad-9 + 3 pps KCl + 1/4 pps Flocele. second stage: Cmt w/400 sxs Class 'H' Lite + .4% Halad-9 and tail w/100 sxs Class 'H'. Bring TOC to +/-4300'.

6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

**Mud Program:**

0-600' Fresh water/gel/lime system, MW 8.6 - 9.0  
600-4500' brine, MW 10.0 - 10.1  
4500-9850' fresh water MW 8.5-8.7  
9850-10050' fresh water/Drispac 8.6-8.9

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

a. DST Program: None

b. Core: None

c. Mud Logging: Two-man unit 4000' to TD.

d. Logs to be run: CNL-LDT/CAL/GR - TD-4500'  
DIL/GR: TD-ICP  
CNL/GR - 4500' - SURFACE

8. The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

No abnormal pressures are anticipated. bottom hole pressures at TD expected to be 4300 psi. Bottom hole temperature 140° F. No Hydrogen Sulfide expected in this known drilling area.

9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

Anticipated drilling time expected to be 19 days from surface to TD.