

N.M. OIL CONS. COMMISSION UNITED STATES
P.O. BOX 1980 DEPARTMENT OF THE INTERIOR
HOBBS, NEW MEXICO 88401 BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

(Other instruction:
reverse side)

FORM APPROVED
 OMB NO. 1004-0136
 Expires: February 28, 1995

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

660' FNL & 1980' FEL

At proposed prod. zone

Unit B

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

28 miles West of Eunice, NM

15. DISTANCE FROM PROPOSED*

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

660'

16. NO. OF ACRES IN LEASE

560

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.

1318'

19. PROPOSED DEPTH

10050'

20. ROTARY OR CABLE TOOLS

Rotary

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

3739' GR

Carlsbad Controlled Water Basin

22. APPROX. DATE WORK WILL START

Upon Approval

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#	850'	800 SXS CIRCULATE
12 1/4"	8 5/8", K-55	28# & 32#	4600'	1600 SXS 2 SEC
7 7/8"	5 1/2", K-55, N-80	17#	10050'	1500 SXS 5 STIPS

Not in designated Potash area.
 Not in Hydrogen Sulfide area

Contact Person: Donna Williams
 915-688-6943

Approval Subject to
 General Requirements and
 Special Regulations
 Attached

JUL 07 1994
 CARLSBAD, NEW MEXICO
 OPER. OGRID NO. 26485
 PROPERTY NO. 13136
 POOL CODE 51683
 EFF. DATE 8-4-94
 API NO. 30-025-32628

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 and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE

Production Assistant

DATE

7/6/94

(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

S. Scott Powers

TITLE

(Acting)

AREA MANAGER

DATE

8-1-94

*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.

Form C-102
Revised February 21, 1994
Instructions on back
Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 32025-32628		2 Pool Code 51683	3 Pool Name Red Tank East Livingston Ridge Bone Spring	
4 Property Code 13136	5 Property Name CHECKERBOARD "23" FEDERAL			6 Well Number 11
7 OGRID No. 26485	8 Operator Name MERIDIAN OIL INC.			9 Elevation 3739

¹⁰ Surface Location

UI. or lot no. B	Section 23	Township 22 S	Range 32 E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 1980	East/West line EAST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. Same as	Section Surface	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No.					

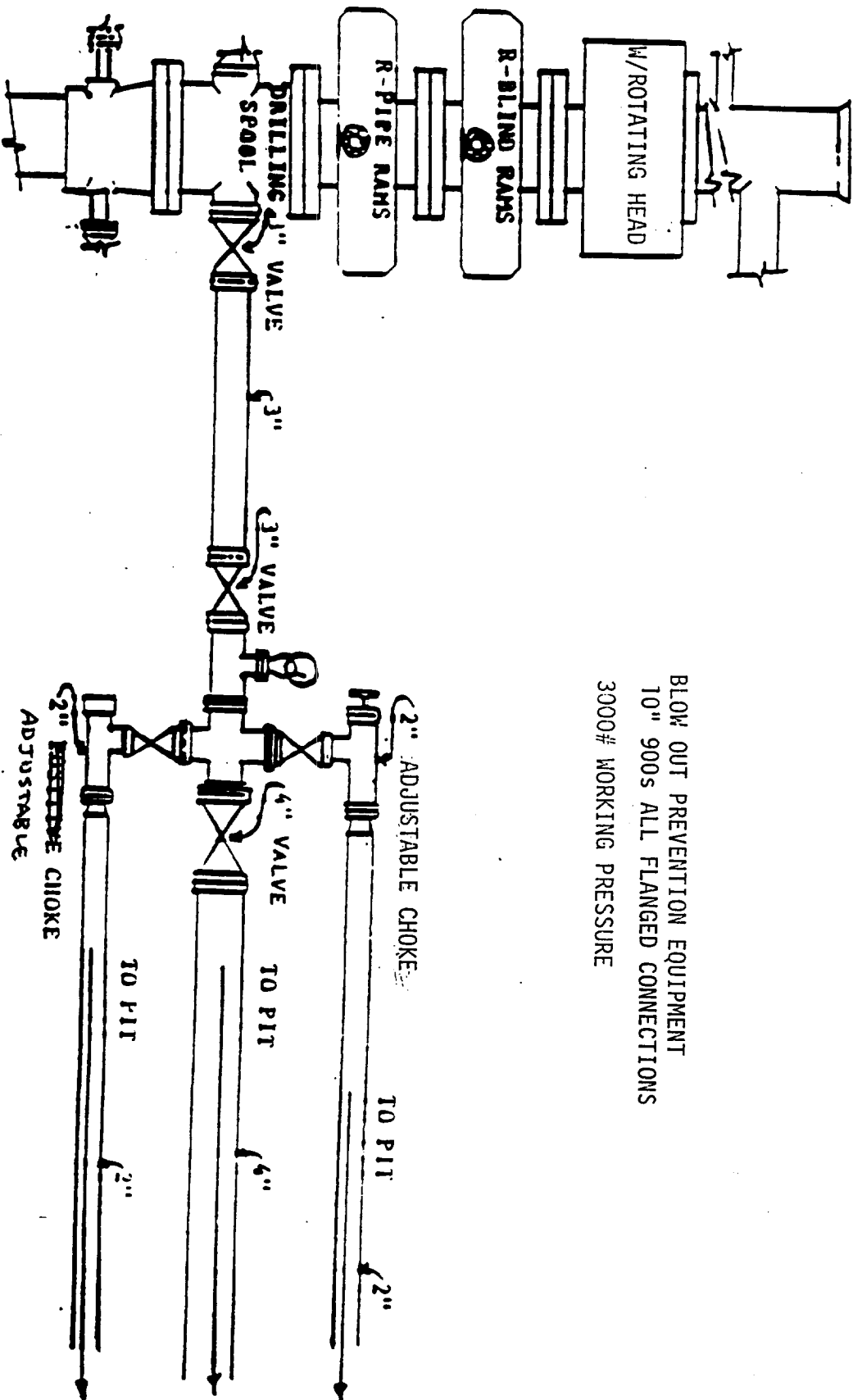
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 nd 80.00 ch.	S 89° 50' W 1318'	660' 1320' #11 #8 PROPOSED	79.91 ch. 80.00 ch.	<div style="border: 1px solid black; padding: 5px;"> <h3>17 OPERATOR CERTIFICATION</h3> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature: <u>Donna Williams</u></p> <p>Printed Name: <u>Donna Williams</u></p> <p>Title: <u>Production Assistant</u></p> <p>Date: <u>7/6/94</u></p> </div>
17 th 80.00 ch.	S 89° 50' W 1318'	660' 1320' #11 #8 PROPOSED	79.91 ch. 80.00 ch.	<div style="border: 1px solid black; padding: 5px;"> <h3>18 SURVEYOR CERTIFICATION</h3> <p>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.</p> <p>Date of Survey: <u>6-25-94</u></p> <p>Signature and Seal of Professional Surveyor: <u>William E. Mahnke II</u></p> <p>WILLIAM E. MAHNKE II NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR #8465</p> <p>WILLIAM E. MAHNKE II Certificate Number: <u>8465</u></p> </div>

New Mexico Oil Conservation Division

New Mexico Oil Conservation Division

DOUBLE RAM



BLOW OUT PREVENTION EQUIPMENT
 10" 900S ALL FLANGED CONNECTIONS
 3000# WORKING PRESSURE

OPERATORS NAME:	Meridian Oil Inc.
LEASE NAME AND WELL NO.:	Checkerboard "23" Federal No. 11
LOCATION:	660' FNL & 1980' FEL, Sec. 23, T22S, R32E
FIELD NAME:	East Livingston Ridge Bone Spring
COUNTY:	Lea County, NM
LEASE NUMBER:	NM-81633

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.

<u>FORMATION</u>	<u>DEPTH</u>
Rustler	970'
T/Salt	1100'
B/Salt	4500'
Delaware Sandstone	4850'
BoneSpring, LS/Sandstone	8730'

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.

Delaware	4850' (Oil)
Bone Spring	8100' (Oil)

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. Tested 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.

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.
 - 17½" hole, 13 3/8" H-40 48# STC csg set @ 850'.
 - 12¼" hole, 3200' 8 5/8" 28# K-55 BTC, 1400' 8 5/8" 32# K-55 LTC csg.set depth @4600'.
 - 7 7/8" hole, 9000' of 5 1/2" 17# K-55 LTC csg & 1050' of 5 1/2" 17# N-80 LTC csg, setting depth @ 10050'.
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/600sxs. Class "C" + 4% gel & 2% CaCl₂. + ¼ pps Flocele; tail w/ 200 sxs Class "C" +2% CaCl₂. Circ. to surface.
 - b. 8 5/8" csg: Stage 1: Lead w/400 sxs Class 'C' Lite + 9 pps salt + 5 pps gilsonite + 1 pps econolite + 1/4 pps flocele, tail w/250 sxs Class 'C' + 2% CaCl₂. Second Stage: Lead w/750 sxs Class 'C' Lite + 9 pps salt + 1/4 pps flocele, tail w/200 sxs Class 'C' + 2% CaCl₂. DV Tool @ 2500'. Circ to surface.
 - c. 5½" csg: Cmt. w/ 1st Stage: 600 sx Class 'H' 50/50 POZ +2% gel +.5% Halad-9, +3 pps KCL, +¼ pps Flocele displace to seal plug. Second Stage: Lead w/800 sxs Class 'H' Lite + .6% Halad-9, Tail w/100 sxs Class 'H'. Bring TOC @ +/-4400'.
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:

0-850' fresh water, gel and lime system, MW 8.6 - 9.0, viscosity 32-34
850-4600' Brine, MW 10.0 - 10.1, (+ 160,000 cl-), viscosity 27-28

4600-9900' fresh water, MW 8.4 - 8.5, viscosity 29-30
9900-10050 FW/Bentonite/Drispac, MW 8.5-8.8, viscosity 31-33

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 4600' to TD.
- d. Logs to be run: CNL-LDT/GR/CAL: TD to ICP (CNL/GR to surface)
DIL/SFL/GR:TD-ICP

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. There is no anticipated Hydrogen Sulfide 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 18 days from surface to TD.