

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONTACT R...  
OFFICE FOR...  
OF COPIES REC...  
(Other instructions on  
reverse side)

BLM Roswell District  
Modified Form No.  
NM060-3160-2

38-015-26597  
5. LEASE DESIGNATION AND SERIAL NO.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL  
WELL ☒

GAS  
WELL ☐

OTHER ☐

SINGLE  
ZONE ☒

MULTIPLE  
ZONE ☐

2. NAME OF OPERATOR

Meridian Oil Inc.

3a. AREA CODE & PHONE NO.

915-686-5600

3. ADDRESS OF OPERATOR

21 Desta Dr., Midland, TX 79705

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

At surface

1650' FNL & 1650' FEL

At proposed prod. zone

Same

DEC 20 '90

O. C. D.

ARTESIA, OFFICE

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

11 miles southeast of Maljamar, NM

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

990'

16. NO. OF ACRES IN LEASE

320

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.

988'

19. PROPOSED DEPTH

3500'

20. ROTARY OR CABLE TOOLS

Rotary

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

3451' GR. 3429

22. APPROX. DATE WORK WILL START\*

10 November 1990

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24	K-55	STC	500'	450 sx--Circulate
7-7/8"	5-1/2"	15.5	K-55	LTC	3500'	700 sx--Circulate

Drill 12-1/4" hole to 500'. Set 8-5/8" csg @500' and cmt w/450 sx--circulate.

Drill 7-7/8" hole to 3500'. Set 5-1/2" csg @3500' and cmt w/700 sx--circulate.

MUD PROGRAM: 0-500' fresh water gel and lime; 500'-3500' salt water; MW 9.8-10.2; no abnormal pressures or temperatures expected.

BOP PROGRAM: 10" 3M BOP stack to be installed on the 8-5/8" and left on for the remainder of the drilling.

The stack is to consist of an annular BOP, a blind ram BOP, and one pipe ram BOP. Test the BOP's using an independent tester after setting the 8-5/8" csg.

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

Post ID-1  
12-28-90  
New Doc & API

OCT 4 11 02 AM  
CARRIZO  
AREA

RECEIVED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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

Robert L. Bradshaw

TITLE

Sr. Staff Env./Reg. Specialist

DATE

03 October 1990

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

\*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.

# OIL CONSERVATION DIVISION

**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

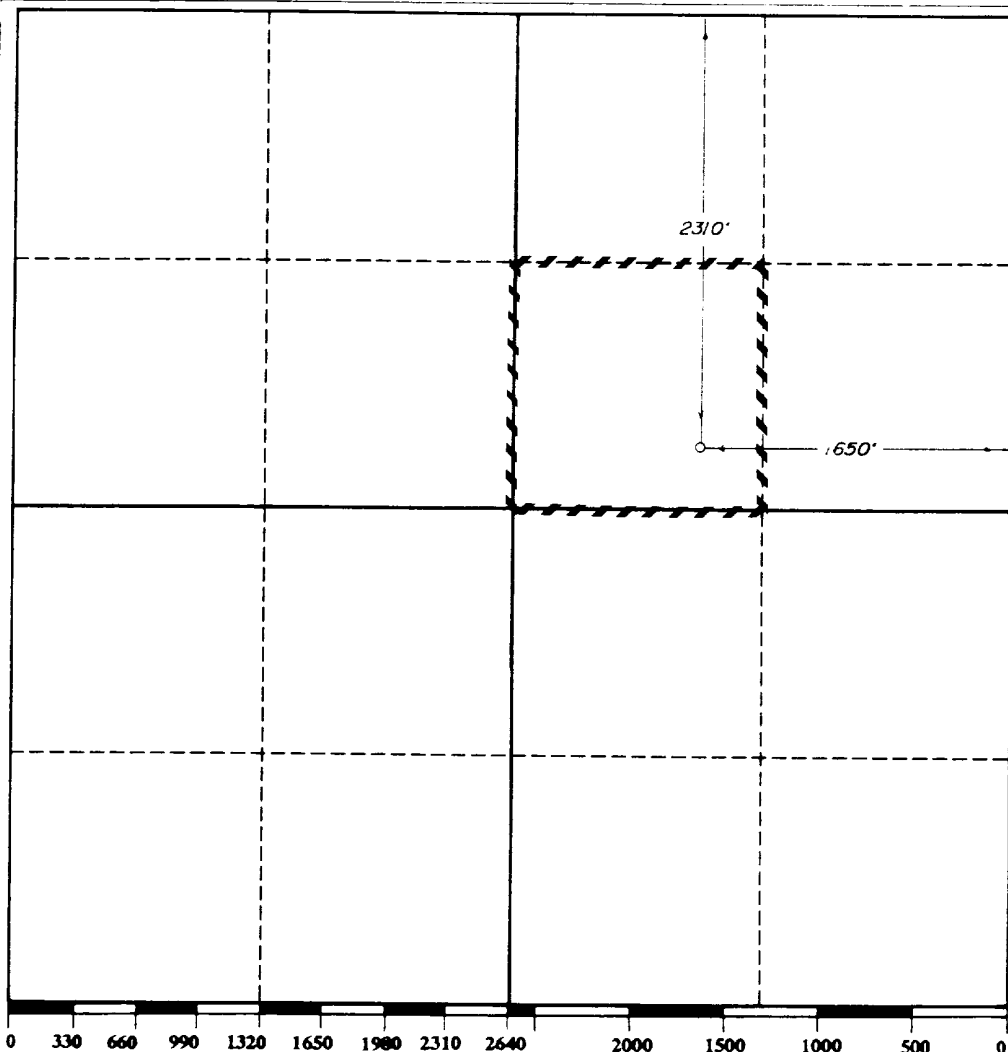
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

## 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>BENSON "3" FEDERAL</b>		Well No. <b>5</b>
Unit Letter <b>G</b>	Section <b>3</b>	Township <b>19-SOUTH</b>	Range <b>30-EAST</b>	County <b>EDDY</b>	
Actual Footage Location of Well: 2310 feet from the <b>NORTH</b> line and 650 feet from the <b>EAST</b> line					
Ground level Elev. <b>3439'</b>	Producing Formation <b>Y, SR, Q, &amp; GB</b>		Pool <b>SHUGART</b>	Dedicated Acreage: <b>40</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
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).
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.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).  
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.



### OPERATOR CERTIFICATION

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

Signature  
*Robert L. Bradshaw*  
Printed Name  
**ROBERT L. BRADSHAW**  
Position  
**SR. STAFF ENV/REG SPEC.**  
Company  
**MERIDIAN OIL INC.**  
Date  
**DECEMBER 6, 1990**

### 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.

Date Surveyed  
**DECEMBER 11, 1990**  
Signature  
*Bezner*  
Seal of Professional Surveyor  
**BEZNER**  
**NO. 7920**  
REGISTERED LAND SURVEYOR  
Certificate No.  
**7920**

## SURFACE USE PLAN

Meridian Oil Inc.

Benson "3" Federal #5  
2310' 1650' FNL & 1650' FEL  
~~528~~ Sec. 3, T-19-S, R-30-E  
Eddy County, New Mexico  
NM-29228

This plan is submitted with Application to Drill on above described well. The minerals are federal and the surface is leased for grazing (See below for surface lessee). The purpose of this plan is to describe the location, proposed construction activities and operations plans, magnitude of necessary surface disturbance and procedures to be followed in rehabilitating the surface after completion of the operation so that complete appraisal can be made of the environmental effects associated with the operations.

### 1. Existing Roads:

Exhibit "A" is a Topographic Land Surveys plat showing the location of the proposed well as staked.

Directions to the well are as follows: From the junction of US 180 and Hwy. 360, 15 miles east of Carlsbad, go north 11.6 miles on Hwy. 360, thence northeast 1.9 miles on County Road 251, thence 1.5 miles on County Road 250, thence south 0.6 mile to a point 1100' west of the NE corner of Section 3.

### 2. Planned Access Road:

- a. An existing lease road will be used. An 1100' access road will be constructed to the well site per BLM standards.

### 3. Location of Existing Wells in Area:

See Exhibit "B"

### 4. Location of Proposed Facilities:

Location of proposed well site and tank battery is shown on Exhibit "C". The battery will be located on proposed well pad; no additional surface disturbance will be necessary.

### 5. Water Supply:

No available surface or sub-surface fresh water exists in the vicinity of the proposed well. Drilling water will be transported or pumped to the drill site from the nearest commercial source.

6. Source of Construction Material:

Caliche for surfacing access road and pad will be obtained from an existing pit located in the NE/4 SE/4 of Sec. 29, T18S, R31E.

7. Handling Waste Disposal:

- a. Drill cuttings - disposed into drilling pits.
- b. Drill fluids - allowed to evaporate in drill pits until pits dry.
- c. Produced water during testing - drill pits.
- d. Produced oil during testing - storage tank until sold.
- e. Current laws and regulations pertaining to disposal of human waste will be observed.
- f. Reserve pit will be plastic lined.
- g. Waste paper, garbage, and junk will be disposed of into a special trash bin on location. All waste material will be regularly removed to an approved landfill.
- h. All trash and debris will be buried or removed from well site within 30 days after drilling and/or completion operations are finished.

8. Ancillary Facilities:

None

9. Plans for Restoration of Surface:

- a. After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and locations cleaned of trash and junk to leave well in as aesthetically pleasing a condition as possible.
- b. Any unguarded pits containing fluids will be fenced until filled.
- c. After abandonment of well, surface restoration will be in accordance with the Bureau of Land Management Surface Requirements.

10. Topography and Soil:

New Mexico Archaeological Services, Inc. Report by Dr. J. Loring Haskell is attached.

11. Land Use:

Grazing and hunting - Federal

Surface Lessee -  
Snyder Ranch  
c/o Mr. Larry Squires  
P.O. Box 726  
Lovington, NM 88260

12. Surface Ownership:

Bureau of Land Management (Federal)

13. Operators Representatives:

Field representatives (Responsible for compliance with approved surface use and operations plan):

Meridian Oil Inc.  
P. O. Box 837  
Hobbs, New Mexico 88240  
Office: 505-393-5844

Mr. Johnny Ellis, Drilling Foreman, or a consultant  
Hobbs, New Mexico  
Home: 505-393-8150

Mr. Bill Dawson, Drilling Superintendent  
Midland, Texas Office: 915-686-5600  
Home: 915-682-9037

14. Certification:

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route; that I am familiar with conditions which presently 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 Meridian Oil Inc. and its contractors and sub-contractors in uniformity with this plan and the terms and conditions under which it is approved.

Date:

10/3/90



S.J. Van Howe  
Drilling Engineer  
Meridian Oil Inc.

Meridian Oil Inc.

Benson "3" Federal #5  
2310' 1650' FNL & 1650' FEL  
Sec. 3, T-19-S, R-30-E  
Eddy County, New Mexico  
NM-29228

To supplement USGC Form 3160-3 Application to Drill the following additional information is submitted concerning questions on Page 5 of NTL-6:

1. See Form 3160-3
2. See Form 3160-3
3. The geological name of surface formation is: Ochoa
4. See Form 3160-3
5. See Form 3160-3
6. The estimated tops of important geological markers are:

Yates	2,050	Queen Sand	2,950'
Seven Rivers	2,325'	Grayburg	3,430'
7. The estimated depths at which anticipated water, oil, gas, and mineral bearing strata are as follows:

Queen	2,950' - Oil
-------	--------------
8. See Form 3160-3. All casing will be new.
9. See Form 3160-3 for depths of strings. Cement volumes and additions as follows:
  - a. 8 5/8" csg: Cement w/450 sx Cl. "C" cmt + 2%  $\text{CaCl}_2$ .
  - b. 5 1/2" csg: Cement w/450 sxs Cl "C" Lite and tail in w/250 sxs Cl "C".

A caliper log will be run prior to setting 5 1/2' pipe to determine exact cement volumes required.
10. The pressure control diagram is attached to Form 3160-3. The following additional information is as follows:

8 5/8" casing installation: 10" - 3M BOP stack to be installed and tested by an independent tester to 3,000 psi before drilling the 8 5/8" casing shoe. The BOP stack to consist of an annular BOP, a blind ram BOP, and one pipe ram BOP.

11. See Form 3160-3

12. A. DST Program: None

B. Core: //

C. Mud Logging: 2000' to TD, one-man unit

D. Wire Line Logs:

The following suite of logs will be run in both of the listed intervals:

CNL/LDT	TD - 2000' (GR/CNL to surface)
DLL/RXO	TD - 2000'

13. No abnormal pressures are anticipated. Bottom hole pressures at TD expected to be 1600 psi. Bottom hole temperature 100° F. No Hydrogen Sulfide expected in this known drilling area. No crooked hole or abnormal deviation problems.

14. Anticipated starting date to spud - on or before 11-10-90. Anticipated drilling time expected to be 10 days from surface to TD.

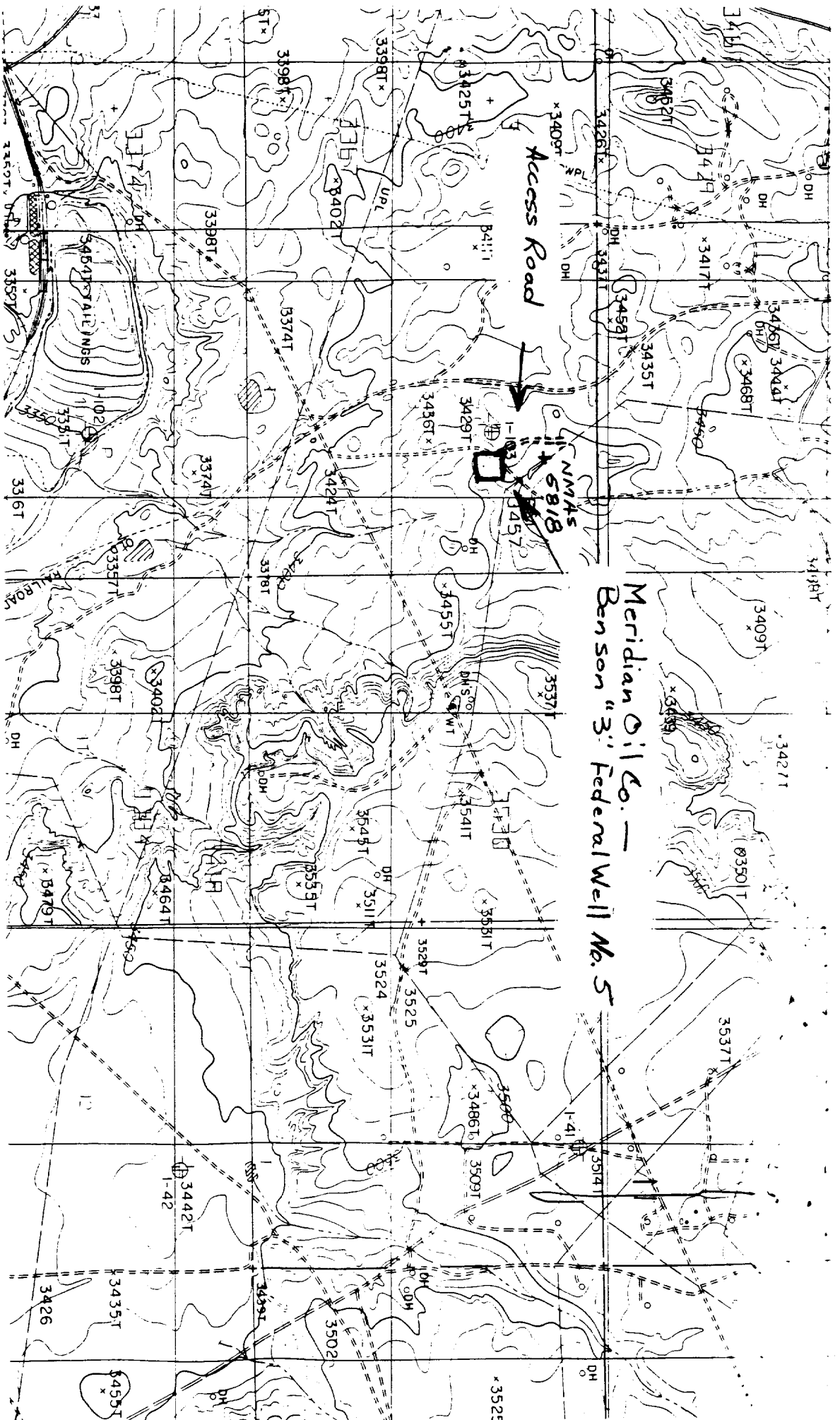
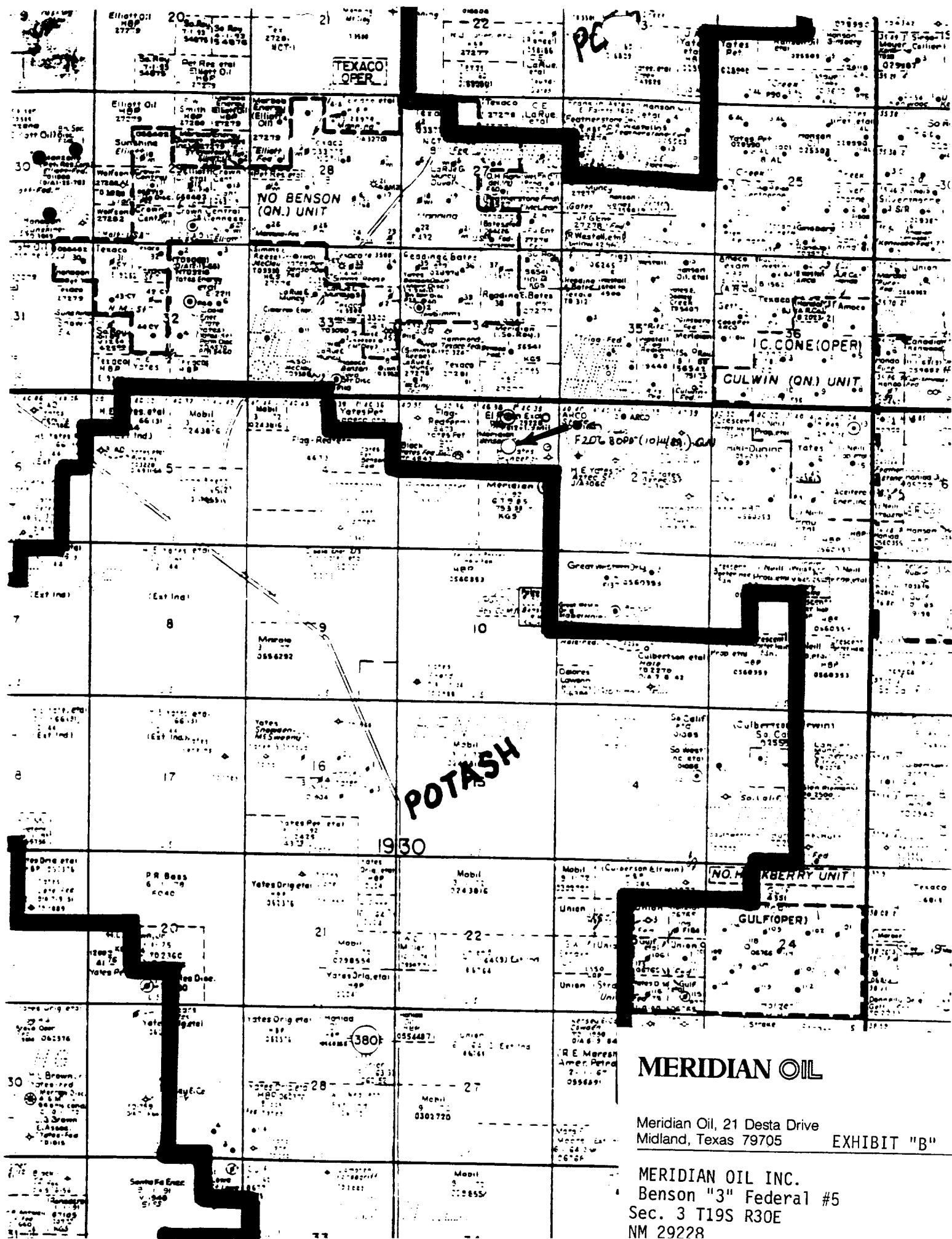


Fig. 3. USGS HACKBERRY LAKE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1985, Prov., Ed., showing MERIDIAN OIL COMPANY's proposed Benson "3" Federal Well No. 5, 1650' FNL, 1650' FFL, and access road, Section 3, T19S, R30E, NMPM, Eddy County, New Mexico, via a vis previously recorded NMAS 5818.

Meridian Oil, 21 Desia Drive  
Midland, Texas 79705 EXHIBIT "A"

MERIDIAN OIL INC.  
Benson "3" Federal #5  
Sec. 3 T19S R30E  
NM 29228

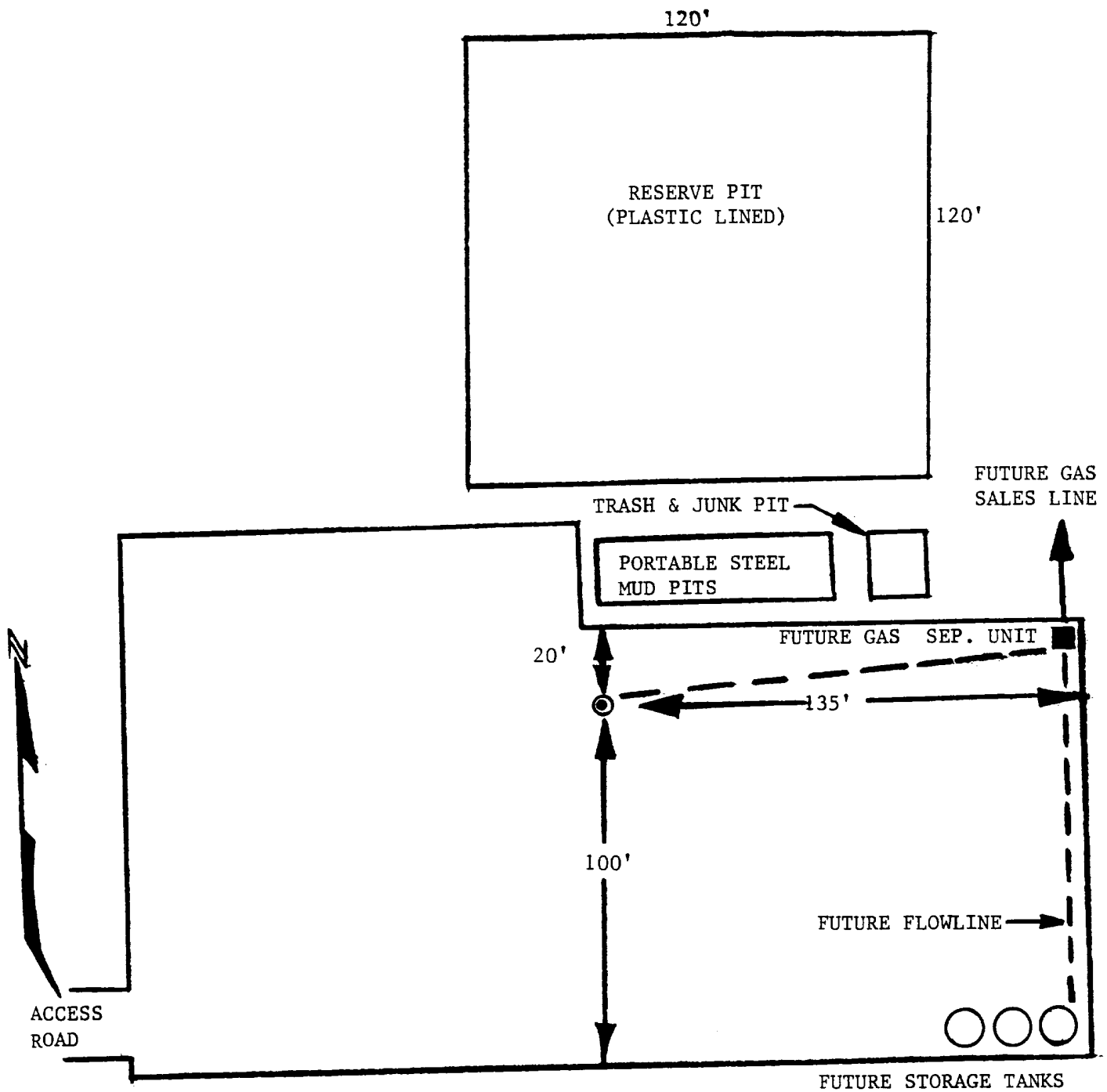




Meridian Oil, 21 Desta Drive  
Midland, Texas 79705

EXHIBIT "B"

**MERIDIAN OIL INC.**  
Benson "3" Federal #5  
Sec. 3 T19S R30E  
NM 29228

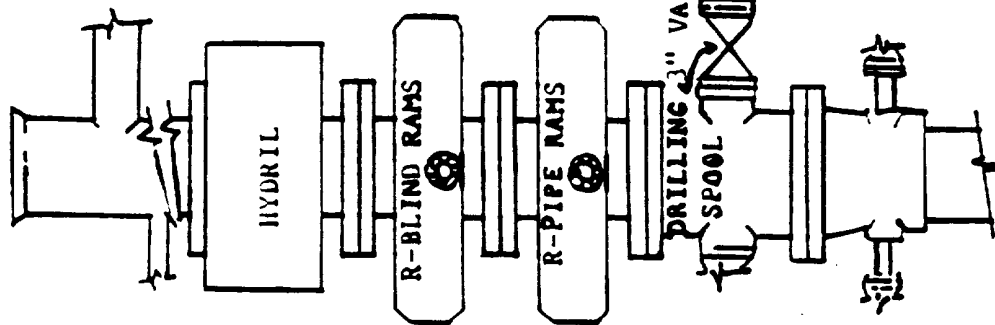


## MERIDIAN OIL

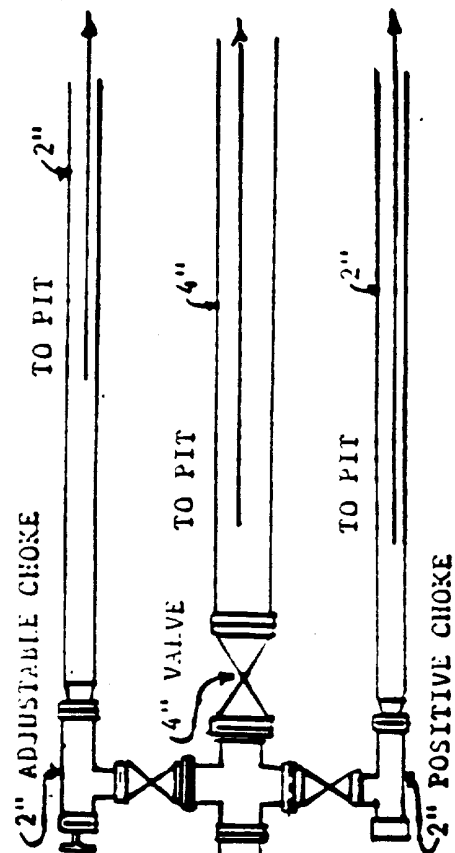
Meridian Oil, 21 Desta Drive  
Midland, Texas 79705

EXHIBIT "C"

MERIDIAN OIL INC.  
Benson "3" Federal #5  
Sec. 3 T19S R30E  
NM 29228

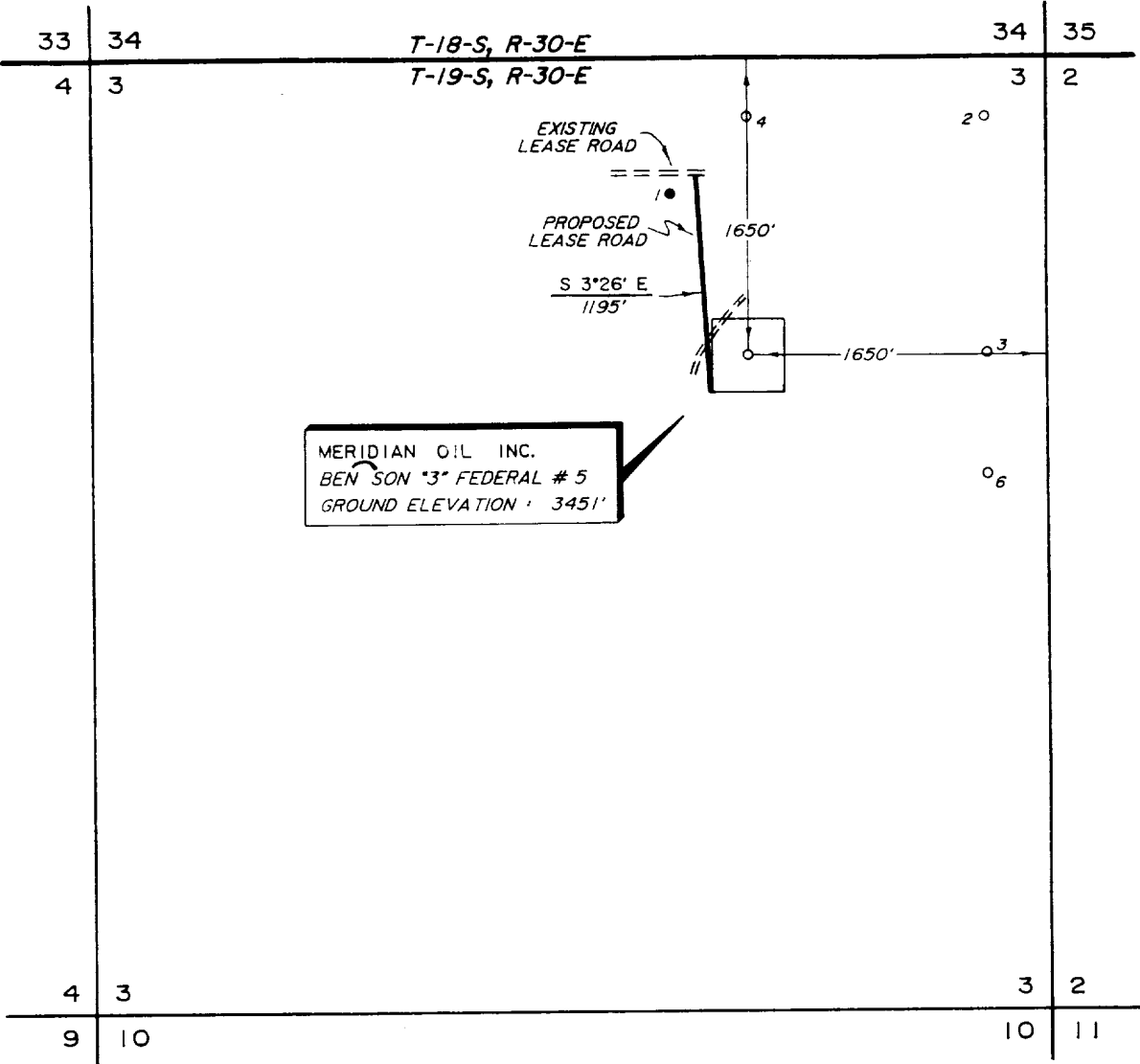


BLOW OUT PREVENTION EQUIPMENT  
 10" 900s ALL FLANGED CONNECTIONS  
 3,000# WORKING PRESSURE - 6,000# TEST

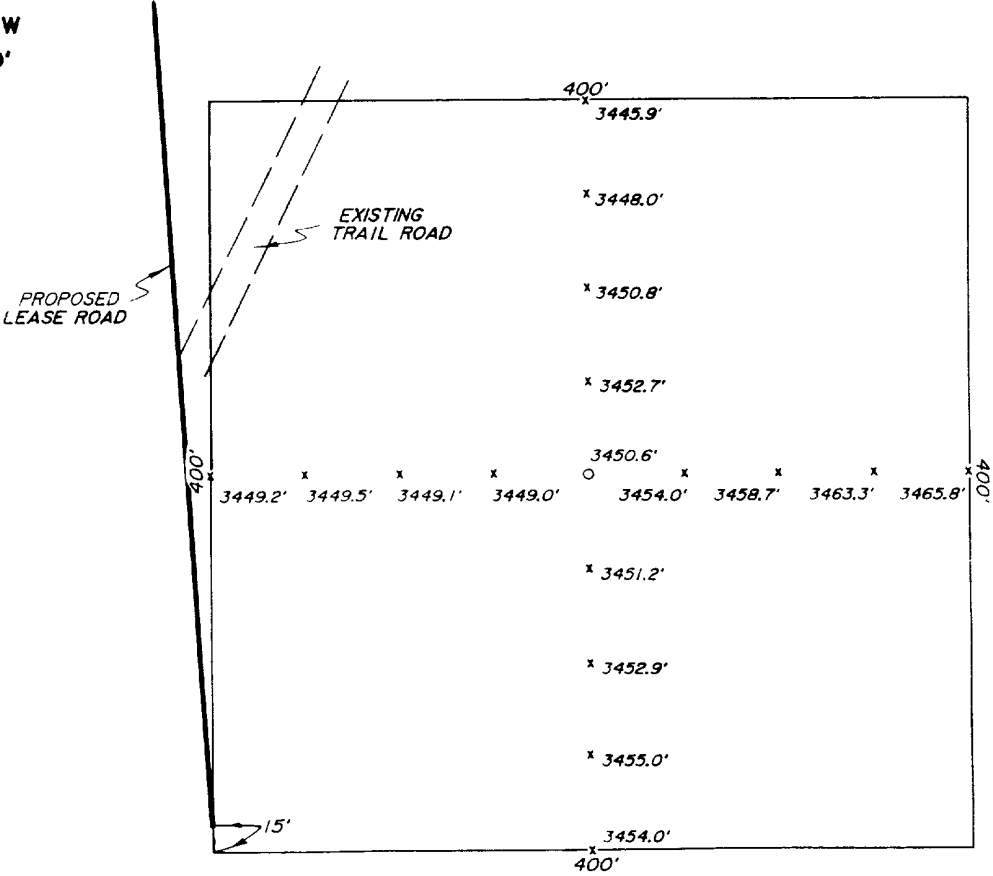


PLAT SHOWING a PROPOSED  
WELL LOCATION and LEASE ROAD in  
SECTION 3, T-19-S, R-30-E,  
EDDY COUNTY, NEW MEXICO

FROM THE JCT. OF U.S. 180 & HWY 360, 15 MILES EAST OF  
CARLSBAD, GO NORTH 11.6 MILES ON HWY 360, THENCE  
NORTHEAST 1.9 MILES ON COUNTY ROAD 251, THENCE  
EAST 1.5 MILES ON COUNTY ROAD 250, THENCE SOUTH  
0.6 MILE TO A POINT ± 1100' WEST OF THE NE<sup>c</sup> OF SECTION 3



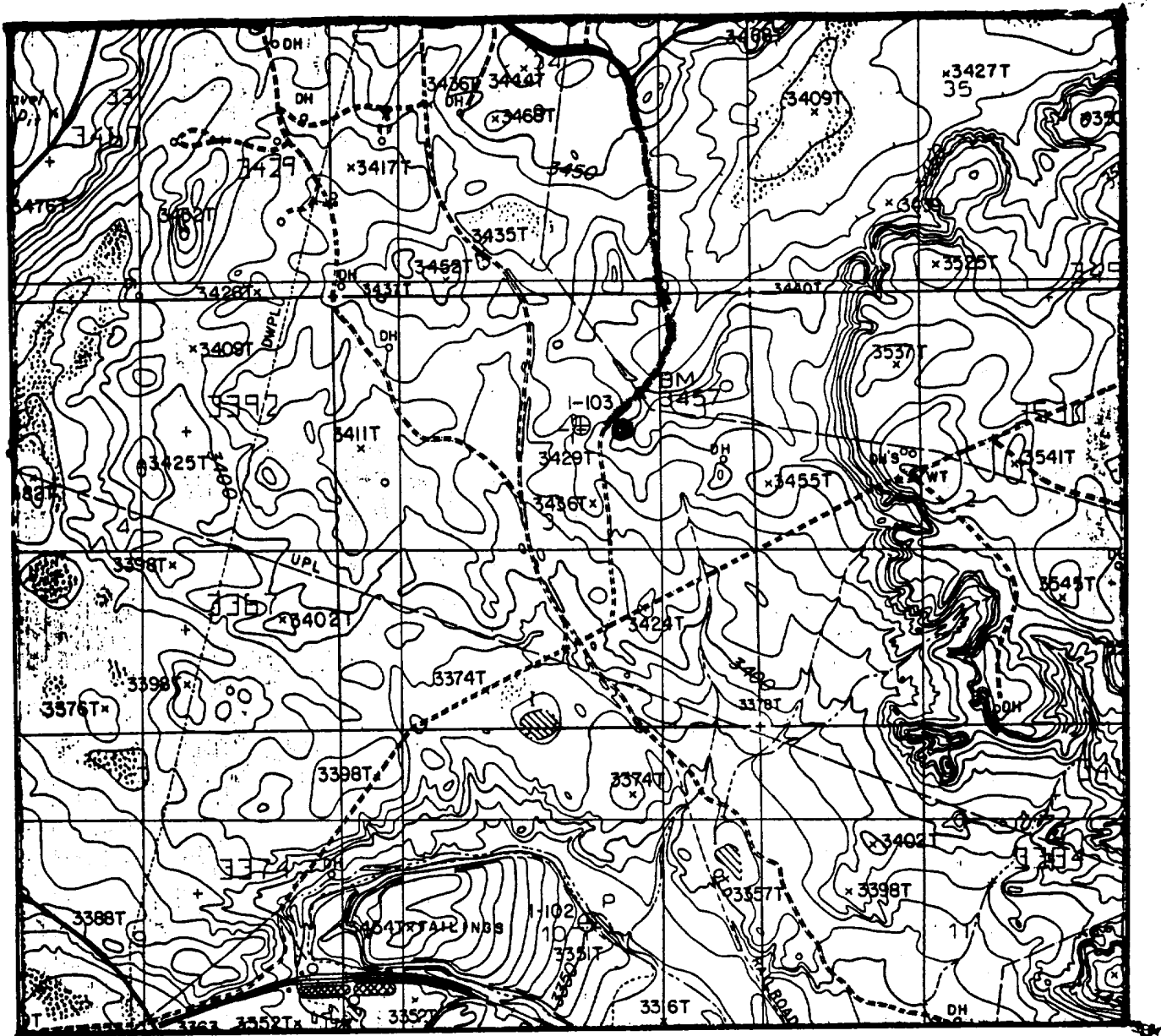
PLAN VIEW  
1" = 1000'



DETAIL VIEW  
1" = 100'

				MERIDIAN OIL INC.		SCALE : AS SHOWN	
				MIDLAND, TEXAS		DATE : JANUARY 16, 1990	
						JOB NO. : 75285	
NO.	REVISION	DATE	BY	SURVEYED BY : G.S.			
				DRAWN BY : P.D.			
				APPROVED BY : D.K.		73 NW	
				SURVEYING AND MAPPING BY		SHEET	
				TOPOGRAPHIC LAND SURVEYORS			
				MIDLAND, TEXAS			

## LOCATION & ELEVATION VERIFICATION MAP



**SCALE 1" = 2000'**

CONTOUR INTERVAL 10'

SEC. 3 BLK.            TWP.           

**SURVEY** T-19-S R-30-E

COUNTY EDDY STATE N. MEX.

DESCRIPTION	1650' FNL & 1650' FEL

ELEVATION 3451'

OPERATOR MERIDIAN OIL INC.

LEASE BEN SON "3" FEDERAL # 5

U.S.G.S. TOPOGRAPHIC MAP

HACKBERRY LAKE, N. MEX.

SCALED LAT: N 32°41'31"

LONG. W 103°57'22"

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us, but its accuracy is not guaranteed.

Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

## Surveying & Mapping for the Oil & Gas Industry

1305 N. HOBART  
PAMPA, TX 79065  
(806) 665-7218

910 W. WALL  
MIDLAND, TX 79701  
(915) 682-1653

215 E. TRAVIS  
MARSHALL, TX 75670  
(214) 938-9602