

Artesia, UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONTACT READING  
OFFICE FOR NUMBER  
OF COPIES REQUIRED  
(Other instructions on  
reverse side)

30-015-26666  
BLM Roswell District  
Modified Form No.  
NM060-3160-2

<b>APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK</b>			5. LEASE DESIGNATION AND SERIAL NO. <b>LC-029387(a)</b>	
1a. TYPE OF WORK <b>DRILL <input checked="" type="checkbox"/>      DEEPEN <input type="checkbox"/>      PLUG BACK <input type="checkbox"/></b>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR <b>Southland Royalty Company</b>			8. FARM OR LEASE NAME <b>Shugart "A"</b>	
3. ADDRESS OF OPERATOR <b>21 Desta Dr., Midland, TX 79705</b>			9. WELL NO. <b>10</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) <b>At surface 2310' FSL &amp; 2310' FEL At proposed prod. zone</b>			10. FIELD AND POOL, OR WILDCAT <b>Shugart (Y, 7R, Qn, Gb)</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>14 Miles Southwest of Maljamar, NM</b>			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 29, T18S, R31E</b>	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>330'</b>			12. COUNTY OR PARISH <b>Eddy</b>	
16. NO. OF ACRES IN LEASE <b>320</b>			13. STATE <b>NM</b>	
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40</b>				
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>**660'</b>			19. PROPOSED DEPTH <b>4050'</b>	
20. ROTARY OR CABLE TOOLS <b>Rotary 0-TD</b>			21. APPROX. DATE WORK WILL START* <b>15 March 1991</b>	
22. ELEVATIONS (Show Whether DF, RT, GR, ETC.) <b>3620' GR.</b>				

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'	CIRCULATE 310 sx
7-7/8"	5-1/2"	15.5	K-55	LTC	4050'	CIRCULATE 645 sx

Drill 12-1/4" hole to 500'. Set 8-5/8" csg & cmt w/310 sx Class C w/2% calcium chloride. Circ. to surface. Drill 7-7/8" hole to 4050'. If productive, set 5-1/2" csg & cmt w/350 sx Class C Lite + 6% gel + 5pps salt + 0.25 pps Celloseal. Tail w/ 295 sx Class C. Circ. to surface. Stimulate for production. MUD PROGRAM: 0-500' Fresh water/gel/lime; 500'-3000' Saturated brine (160,000 ppm chlorides); 3000- 4050' Mud up using saturated brine/starch for viscosity/fluid loss control. No abnormal pressures/ temperatures anticipated. 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 BOP's using an independent tester after setting the 8-5/8" csg.

\*\*This Well #10 & Well #6 will be in the same 1/4 1/4 section. Only one will produce--the other will be converted to a water injection well following receipt of required approval.

Prod ID-1  
3-15-91  
New Loc & API

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 06 February 1991

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 3-7-91

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO

GENERAL REQUIREMENTS AND

SPECIAL STIPULATIONS

\*See Instructions On Reverse Side

TITLE 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

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

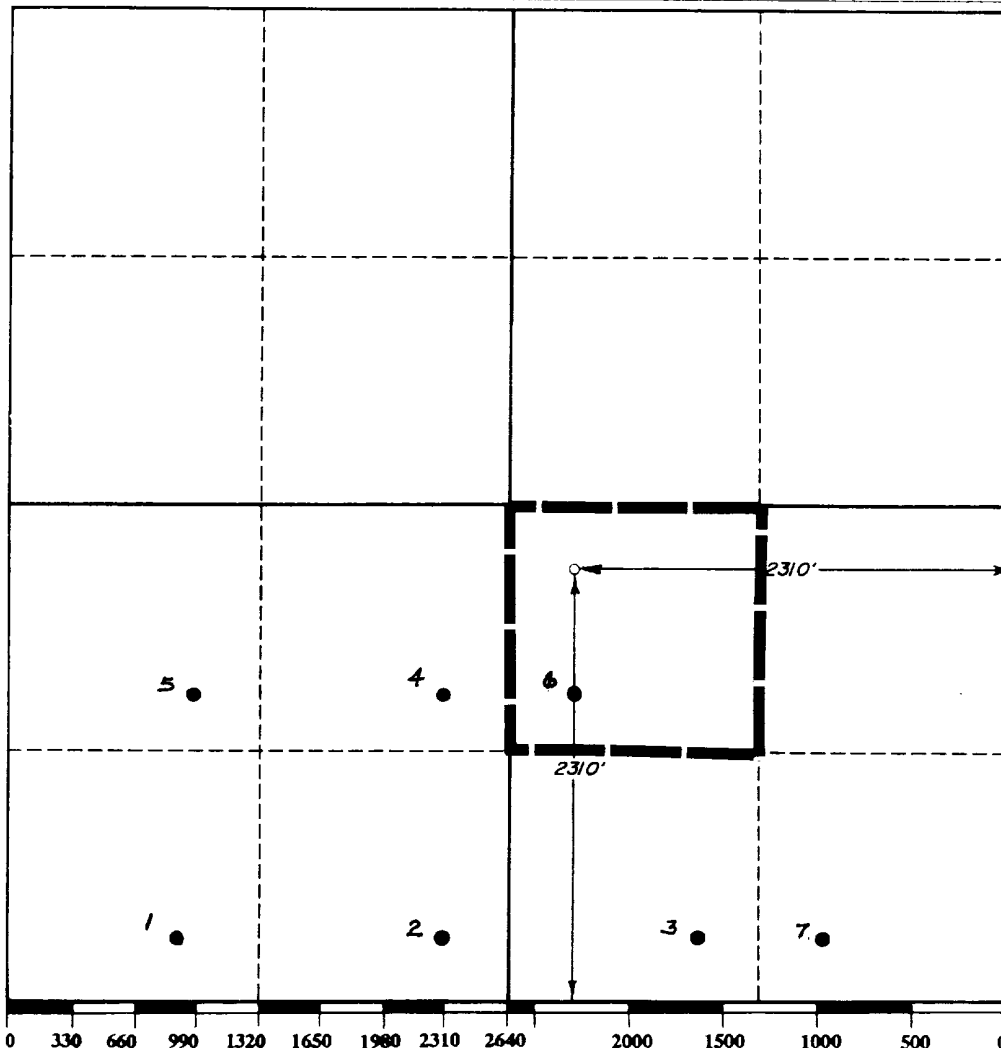
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>SOUTHLAND ROYALTY COMPANY</b>			Lease <b>SHUGART "A"</b>		Well No. <b>10</b>
Unit Letter <b>J</b>	Section <b>29</b>	Township <b>18-SOUTH</b>	Range <b>31-EAST</b>	County <b>NMPM</b>	
Actual Footage Location of Well: 2310 feet from the <b>SOUTH</b> line and 2310 feet from the <b>EAST</b> line					
Ground level Elev. <b>3620'</b>		Producing Formation <b>Y, 7R, QN, GB</b>		Pool <b>SHUGART</b>	Dedicated Acreage: <b>40 Acres</b>

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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

February 6, 1991

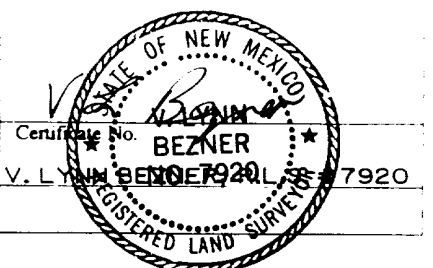
SURVEYOR CERTIFICATION

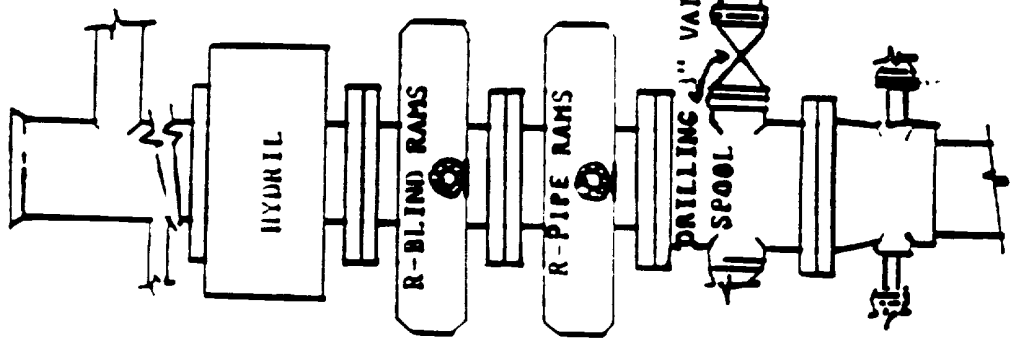
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

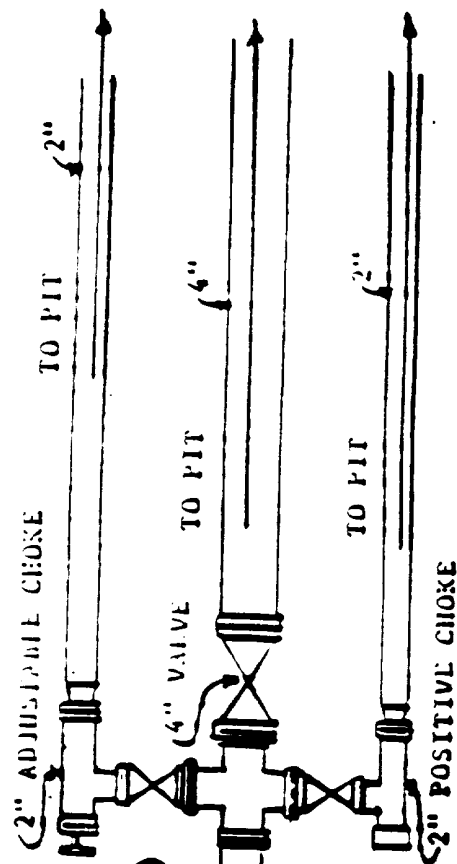
JANUARY 24, 1991

Signature & Seal of  
Professional Surveyor





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



[illegible]

CONTOUR INTERVAL 10'

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

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

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

**MERIDIAN OIL**

Meridian Oil, 21 Desta Drive  
Midland, Texas 79705

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

SOUTHLAND ROYALTY COMPANY  
SHUGART "A" NO. 1C  
SEC. 29, T18S, R31E  
LC-029387

SOUTHLAND ROYALTY COMPANY  
(Operated by MERIDIAN OIL INC.)

Shugart "A" No. 10  
2310' FSL & 2310' FEL  
Sec. 29, T-18-S, R-31-E  
Eddy County, New Mexico  
LC-029387(a)

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: Quaternary
4. See Form 3160-3
5. See Form 3160-3
6. The estimated tops of important geological markers are:

San Andres	3,880	Grayburg	3,700'
Queen Sand	3,250'	Penrose	3,500'
7. The estimated depths at which anticipated water, oil, gas, and mineral bearing strata are as follows:

Queen	2,950' - Oil
Grayburg	3,700' - Oil
Penrose	3,500' - 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/310 sx Cl "C" cmt + 2% CaCl<sub>2</sub> Circulate to surface.
  - b. 5 1/8" csg: Cement w/350 sx Cl "C" Lite + 6% Gel + 5 pps salt + 0.25 pps celloseal and tail in w/295 sx Cl "C". Circ. to surface.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 3000 psi before drilling the 8 5/8" casing shoe. The BOP stack to consist of an annular BOP, blind ram BOP, and one pipe ram BOP.

11. See Form 3160-3

12. A. DST Program: None

B. Core: None

C. Mud Logging: 2400' 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/CAL/GR	TD - 2000'
DDL/MSFL/GR	TD - 2000'
GR/CNL	2000' - Surface

13. No abnormal pressures are anticipated. Bottom hole pressures at TD expected to be 5000 psi. Bottom hole temperature expected to be 105°F. Hydrogen sulfide, if present, expected to be <100 ppm. No crooked hole or abnormal deviation problems.

14. Anticipated starting date to spud - on or about 03-15-91. Anticipated drilling time expected to be 10 days from surface to TD.

## SURFACE USE PLAN

SOUTHLAND ROYALTY COMPANY  
(Operated by Meridian Oil Inc.)

Shugart "A" No. 10  
2310' FSL & 2310' FEL  
Sec. 29, T-18-S, R-31-E  
Eddy County, New Mexico  
LC-029387(a)

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 portion of a U.S.G.S. topographic map showing the location of the proposed well as staked.

Directions to the well are as follows: From Maljamar, go 8.3 miles on U.S. 82, thence south 6.0 miles on County Road 222 to a point on the north line of Section 29, ±880' west of its northeast corner.

### 2. Planned Access Road:

An existing lease road will be used. 559' of 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, or other BLM approved facility.

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 container 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 will be submitted when ready.

11. Land Use:

Grazing and hunting - Federal

Surface Lessee -  
NOT KNOWN



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.  
416 East Main  
Artesia, New Mexico 88210  
Office: 505-748-1321

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.

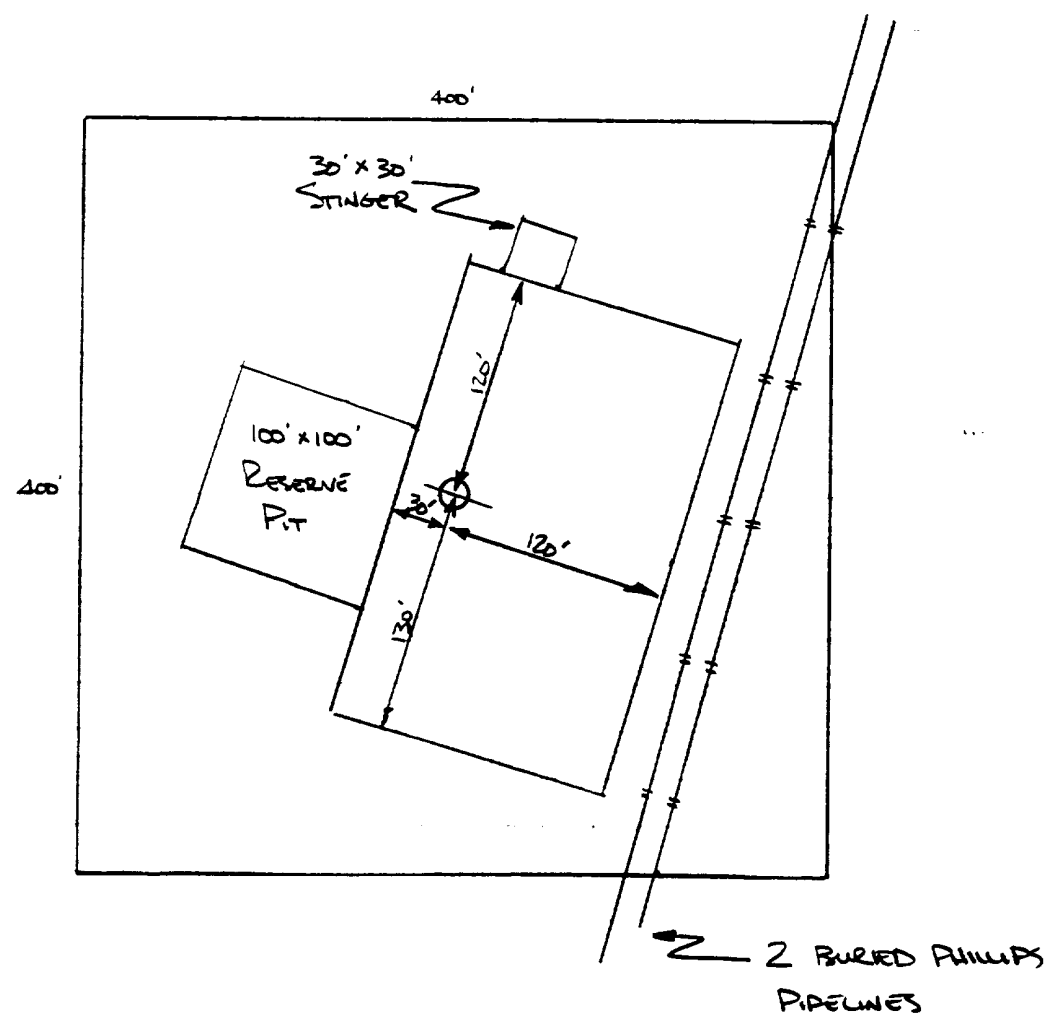
Date: 2/6/91

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

SNH 1/31/91

SOUTHLAND ROYALTY COMPANY  
(Meridian Oil Inc.)  
SHUGART "A" No. 10  
EDDY COUNTY, NM

Page  
Date  
By



# MERIDIAN OIL

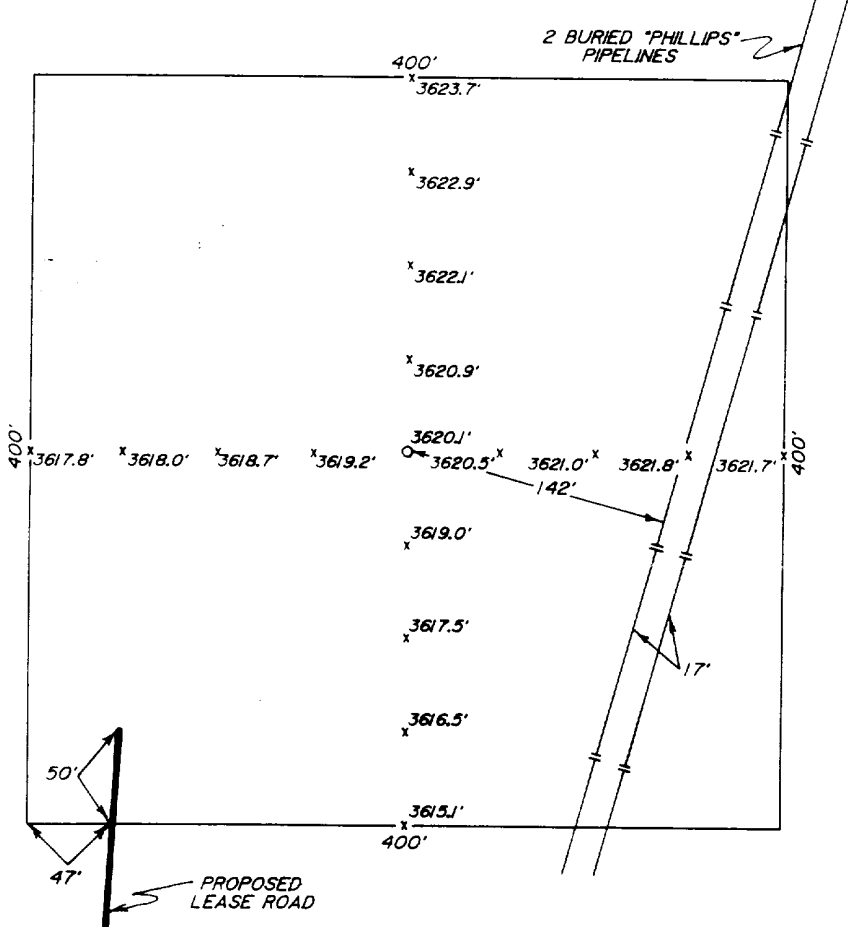
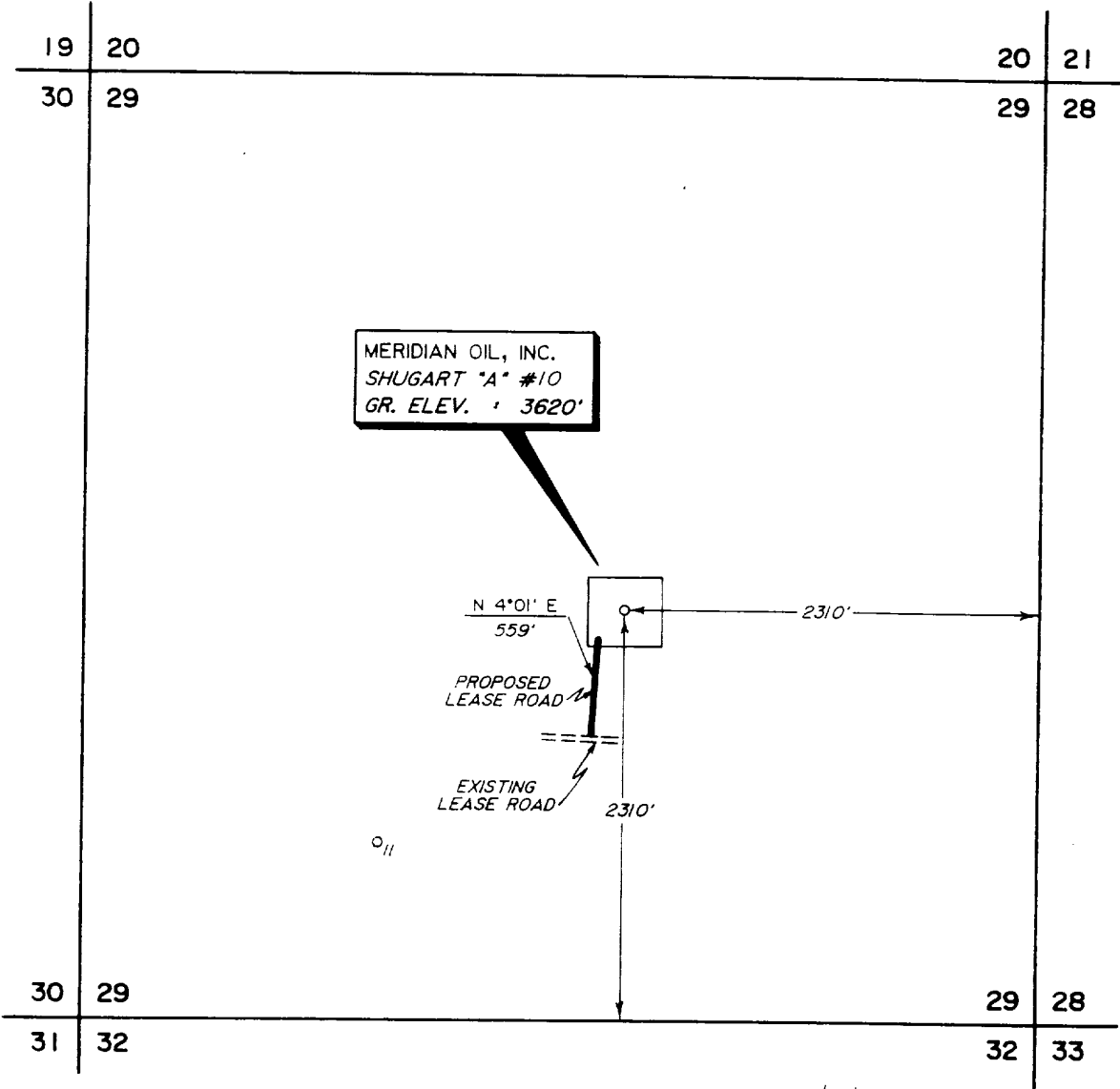
Meridian Oil, 21 Desta Drive  
Midland, Texas 79705 EXHIBIT "C"

SOUTHLAND ROYALTY COMPANY  
SHUGART "A" #10  
SEC. 29, T18S, R31E  
LC-029387



PLAT SHOWING PROPOSED  
WELL LOCATION and LEASE ROAD  
SECTION 29, T-18-S, R-31-E,  
EDDY COUNTY, NEW MEXICO

FROM MALJAMAR, GO EAST 8.3 MILES ON U.S. 82,  
THENCE SOUTH 6.0 MILES ON COUNTY ROAD 222  
TO A POINT ON THE NORTH LINE OF SECTION 29,  
±880' WEST OF ITS NORTHEAST CORNER.



PLAN VIEW  
1" = 1000'

DETAIL VIEW  
1" = 100'

NO.	REVISION	DATE	BY
SURVEYED BY : G.B.			
DRAWN BY : V.H.			
APPROVED BY : D.K.			

**MERIDIAN OIL, INC.**  
MIDLAND, TEXAS

**SURVEYING AND MAPPING BY**  
**TOPOGRAPHIC LAND SURVEYORS**  
MIDLAND, TEXAS

SCALE :	AS SHOWN
DATE :	JANUARY 24, 1991
JOB NO. :	82322
73 NW	
SHEET	1 OF 1