SUBMIT IN TRIPL (Other instructions on

TE\*

FORM A OMB NO Expires:

Letecia, NM 8821Q UNITED STATES

reverse side) DEPARTMENT OF THE INTERIOR

1-0/5-21172 APPROVED	
0. 1004-0136	12
February 28, 1995	6/

	DEPART ME	LAND MANAG		ř	5. LEASE DESIGNATION	UND SERIAL NO.
	NM-89	819				
APPI	6. IF INDIAN, ALLOTTEE	OR TRIBE NAME				
. TYPE OF WORK	RILL 🗵	DEEDEN			7. UNIT AGREEMENT NAM	
D. TYPE OF WELL	RILL M	DEEPEN				
OIL X	GAS OTHER			ULTIPLE	8. FARM OR LEASE NAM	1E
NAME OF OPERATOR	, , , , , , , , , , , , , , , , , , ,				Poker Lai	ke " 18" <i>F&amp;D</i>
Meridian Oil In-	c. V				9. WELL NO.	
ADDRESS AND TELEPH					4	
	310, MIDLAND, TX 7		915-68	8-6800 	10. FIELD AND POOL, OF	
At surface  L. 1980' FSL	(Report location clearly and in & 660° FWL	accordance with	any State requirements.*)		Northwest Poker I  11. SEC., T., R., M., OR AND SURVEY OR ARI	
At proposed prod.	zone		C. C		AND SORVEY OR ARI	i.A
Brushy Canyo				)にこ3 <sub>年、L</sub>	Sec. 18, T2	4S, R31E
	AND DIRECTION FROM NEAREST	TOWN OR POST OF	FICE*	. D.	12. COUNTY OR PARISH	13. STATE
24 miles West			A STATE OF THE STA	A CONTRACTOR OF THE PERSON OF	Eddy F ACRES ASSIGNED	NM NM
DISTANCE FROM PRO LOCATION TO NEARE PROPERTY OR LEASE	ST E LINE, FT.	6601	16. NO. OF ACRES IN LEASE	тот	HIS WELL	
PROPERTY OR LEASE (Also to nearest dri		660'	647.88 acres		40 RY OR CABLE TOOLS	
TO NEAREST WELL,	DPOSED LOCATION* DRILLING, COMPLETED, 132	יחי		20. ROTA		
	Whether DF, RT, GR, ETC.)		8400'	<u> </u>	rotary  22. APPROX. DATE WO	RK WILL START
3508' GR	, in any 210.				upon ap	
	PRO	OPOSED CASIN	IG AND CEMENTING PR	OGRAM	Secretary's Po	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOO			QUANTITY OF CEMENT	
17 1/2"	H-40, 13 3/8"	48#	450'	ASI		
12 1/4"	K-55,8 5/8"	28# & 32			O sxs circ, to sur O sxs circ, to su	
7 7/8"	K-55, 5 1/2"	17#	8300'		0 sxs circ. to 370	
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					ID-16	1-93
					NLA	ACT
	E PROPOSED PROGRAM: If propo pertinent data on subsurface loc					proposal is to drill o
	. 10.					
SIGNED MONE	n + 1 est	TITL	E Production	Assistant	DATE	9-7 -93
	al or State office use)				APPROVAL	SUBJECT TO
						1M

GENERAL REQUIREMENTS AND APPROVAL DATE PERMIT NO. \_ Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which SPECIAL STIPLY ATIONS induct operations thereon. ATTACHED TITLE ( \*See Instructions On Reverse Side

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

80.00 ch.

NORTH

# State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

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

## OIL CONSERVATION DIVISION P.O. Box 2088

DISTRICT II P.O. Drawer DD, Artesia, NM 88210 Santa Fe, New Mexico 87504-2088

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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

	Operator								Lease	;						Well No.
		MER	IDIA	N OI	L I	NC.				POR	ER :	LAKE	18	FΕ	DERAL	4
	Unit Letter	L	Section	18		Towns	hip 24	SOUTH	Rang		EAS	T	-	NM	County	DDY
	Actual Foo	uge Loc	mor of	Weil:	J.							<del></del>	_	1 11/1	A IV.C.	<del></del>
		80	feet fro	om the	;	SOUT	ГH	line at	nd	66	0			feet fr	om the WES	T line
	Ground lev	el Elev.		Рто	ducing	Formati	io <b>n</b>		Pool							Dedicated Acreage:
	3 5	80					DELA	WARE		No	orthwes	st Poker	Lake	Dela	ware Pool	40 Acres
		l. Outline	the acr	eage dec	licated (	io the su	ibject we	ll by colored	pencil or h	achure :	marks o	the plat	below.	,		
	I u	3. If more unitizate uniti	than on tion, forces Yes is "no" l if necces	te lease (ce-pooling) is the observed by assign	of differing, etc.?	No und tract	lf and descript	s dedicated to swer is "yes" tions which h	the well, he type of co ave actually	nave the msolidat y been o	interest ion consolida d (by co	of all ow	e tever	sen co	orking interest and usolidated by con e of tion, forced-pooli	nmunitization,
		r wotil a	DOG-ELAD	dard uni	t, elimi	osting s	uch inter	est, has been	approved t	by the D	ivisios				•	
<u>}</u>	330 660	990	1320	1650	1980	2310	2640	2000	1500	1	000	500		o I	OPERA:	TOR CERTIFICATION
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	Lot :	/ - <del></del> -												80.00 ch.		i. L. Pers . PEREZ ION ASST.
	Lot i	<u>2</u>													8-9-93 SURVEY	YOR CERTIFICATION  You that the well location shown
6	060'	LOT	3			(	18)		· · · · · · · · · · · · · · · · · · ·	 			fnd		on this plat w actual surveys supervison, an correct to the belief.  Date Surveyed	ras plotted from field notes of made by me or under my d that the same is true and best of my knowledge and 7-22-93  E. MAHNKE II
Ind	1980'.	LOT 4								!				N 0°03' W	Certificate Ma	8466
	EST					·				8,	1.05					

OPERATORS NAME:

LEASE NAME AND WELL NO.:

Poker Lake "18" Federal #4

LOCATION:

L, 1980' FSL & 660' FWL, Sec. 18, T24S, R31E

Northwest Poker Lake Delaware Pool

COUNTY:

Eddy County, NM

LEASE NUMBER:

NM-89819

The following information is to supplement BLM form 3160-3 Application for permit to deepen 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	635'			
Salado	760-4055"			
Castille	4055'			
Delaware	4275'			
Bone Spring	8110'			

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 4275'-TD Bone Spring 8110'

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.

BOP Program: 10" - 3M BOP stack to be installed on 8 5/8" and left for the remainder of drilling and tested to 3000 psi before drilling the 8 5/8" casing shoe. The BOP stack will consist of one blind ram BOP and one pipe ram BOP.

- 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.
  - New 13 3/8" 48# H-40 STL csg set @ 450'.
  - New 8 5/8" 81 jts, 28# BTC & 15 jts. 32# LTC K-55 csg. set @ 4000'.
  - New 5½" 17# K-55 LTC csg. set @ 8300'.
- 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/450sxs. "C" w 2% CaCl<sub>2</sub> + ¼ pps Flocele. Circ. to surf.
  - b. 8 5/8"csg:Cmt Lead w/1500 sxs "C" Lite + 9 pps salt + 1/4 pps Flocele. Tail w/250 sxs 'C' + 2% CaCl<sub>2</sub>. Circulated cmt to surface.
  - c. 5½" csg: Cmt. w/
    1st Stage: 550 sx class 'C' 50/50 POZ .5% Halad-9, 3 pps KCL, ¼ pps Flocele.
    2nd Stage: 600 sx Class 'C' 50/50 POZ .5% Halad-9, 3 pps KCl, ¼ pps Flocele. Circ. cmt to 3700' in 2 stages.
- 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:

0-450' fresh water gel and lime - 8.6-9.0 ppg 450-4000' Brine 10.0-10.2 ppg 4000-8300' Fresh water 8.5-9.0 ppg No abnormal pressures or temperatures are expected.

(a.) Length and location of blooie line, including the automatic igniter or continuous pilot light.

Not applicable

(b.) Location of compressor equipment, including safety devices, and the distance from the wellbore.

Not Applicable

(c.) Schematics showing dedustor equipment and rotating head.

Not Applicable

(d.) Amounts, types, and characteristics of stand-by mud and associated circulating equipment.

Not Applicable

- 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: Possible sidewall cores.
  - c. Mud Logging: Two-man unit 4300' to TD.
  - d. Logs to be run:

CNL-FDC/CR/CAL: TD SCP(CNL/CR to surface)

DIL/SFL/GR:TD-SCP

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 1500 psi. Bottom hole temperature 110° F. No hydrogen sulfide expected in this known drilling area. No crooked hole or abnormal deviation problems.

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

Anticipated start date is upon approval of the drilling application. Anticipated drilling time expected to be 18 days from surface to TD.

#### 12-POINT SURFACE USE PLAN OF OPERATIONS

1. Existing Roads: A legible map (USGS topographic, county road, or other such map) labeled and showing the access route to the location, shall be used for locating the proposed well site in relation to a town, village, or other locatable point, such as a highway or county road. All access roads shall be appropriately labeled. Any plans for improvement and/or maintenance of existing roads shall be provided. All roads shall be provided or maintained in a condition the same as or better than before operations. The information provided for use and construction of roads will also be used by BLM for the required Plan of Development for a R/W application as described in Section II C of this Order No. 1.

See Exhibits "A" and "B" - topographic land surveyors plat showing existing roads and directions to well site.

2. Access Roads to be Constructed or Reconstructed: All permanent and temporary access roads to be constructed or reconstructed in connection with the drilling of the proposed well shall be appropriately identified and submitted on a map or plat. The proposed route to the proposed drill site shall be shown, including distances from the point where the access route exists established roads. All permanent and temporary access roads shall be located and designed to implement the goals of transportation planning and meet applicable standards of the appropriate SMA, and shall be consistent with the needs of the users. Final selection of the rouge location may be accepted by the SMA as early as the predrill inspection or during approval of the APD.

See Exhibit "C" plat for road to be constructed and description.

3. <u>Location of Existing Wells:</u> This information shall be submitted on a map or plat, which includes all recorded wells (water, injection, or disposal, producing, or being drilled) within a 1-mile radius of the proposed location.

See Exhibit "D" - portion of land map showing surrounding wells in area.

4. Location of existing and/or proposed production facilities: For facilities planned either on or off the well pad, a plat or diagram shall be included showing, to the extent known or anticipated, the location of all production facilities and lines to be installed if the well is successfully completed for production. If new construction is planned, the dimensions of the facility layouts are to be shown. This information for off-pad production facilities may be used by BLM for R/W application information as specified in Section II C of Order No. 1.

Test tanks will be on well pad while completing and testing well. The tank battery will be built at unit letter F, Sec. 18, T24S, R31E, Eddy Co., NM 5. Location of Types of Water Supply: Information concerning water supply, such as rivers, creeks, springs, lakes, ponds, and wells, may be shown by quarter-quarter section on a map or plat, or may be described in writing. The source and transportation method for all water to be used in drilling the proposed well shall be noted if the source is located on Federal or Indian Lands or if water is to be used from a Federal or Indian project. If the water is obtained from other than Federal or Indian lands, the location and transportation method shall be identified. Any access roads crossing Federal or Indian lands that are needed to haul the water shall be described as provided in paragraphs (1) and (2) of this Section. If a water supply well is to be drilled on the lease, the APD shall so state. The authorized officer of BLM may require the filing of a separate APD of a water well.

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. <u>Construction Materials:</u> The operator shall state the character and intended use of all construction material, such as sand, gravel, stone, and soil material. If the materials to be used are Federally owned, the proposed source shall be shown either on a quarter-quarter section on a map or plat, or in a written description.

Surface material: caliche will be obtained from the dug reserve pit on location or nearest BLM approved Caliche pit.

- 7. Methods of Handling Waste Disposal: A written description of the methods and locations proposed for safe containment and disposal of each type of waste material (e.g. cuttings, garbage, salts, chemicals, sewage, etc.) that results from the drilling and completion of the proposed well shall be provided.
  - Drill cuttings disposed into drilling pits.
  - Drill fluids allowed to evaporate in drill pits until pits dry.
  - Produced water during testing drill pits.
  - Produced oil during testing storage tank until sold.
  - Current laws and regulations pertaining to disposal of human waste will be observed.
  - Reserve pit will be plastic lined.
  - Waste paper, garbage, and junk will be disposed of into a special container on location and removed regularly to an approved landfill site. All waste material will be covered with a screen or lid and contained to prevent scattering by wind.
  - All trash and debris will be removed from well site within 30 days after drilling and/or completion operations are finished.
- 8. Ancillary Facilities: All ancillary facilities such as camps and airstrips shall be identified on a map or plat. Information as to location, land area required, and methods to be used in construction shall also be provided.

None

9. Well Site Layout: A plat of suitable scale (not less than 1 inch = 50 feet) showing the proposed drill pad, reserve pit location, access road entry points, and its approximate location with respect to topographic features, along with cross section diagrams of the drill pad and the reserve pit showing all cuts and fills and the relation to topography. The plat shall also include the approximate proposed location and orientation of the drilling rig, dikes and ditches to be constructed, and topsoil and/or spoil material stockpiles.

See Exhibit "E"

- 10. Plans for Reclamation of the Surface: A proposed interim plan for reclamation stabilization of the site and also final reclamation plan shall be provided. The interim portion of the plan shall cover areas of the drillpad not needed for production. The final portion of the plan shall cover final abandonment of the well. The plan shall include, as appropriate, configuration of the reshaped topography, drainage systems, segregation of spoil materials, surface manipulations, redistribution of topsoil, soil treatments, revegetation, and any other practices necessary to reclaim all disturbed areas, including any access roads and pipelines. An estimate of the time for commencement and completion of reclamation operations, including consideration of weather conditions and other local uses of the area, shall be provided.
  - 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.
  - Any unguarded pits containing fluids will be fenced until filled.
  - After abandonment of well, surface restoration will be in accordance with the Bureau of Land Management Surface Requirements.
- 11. <u>Surface Ownership:</u> The surface ownership (Federal, Indian, State or private) and administration (BLM, FS, BIA, Department of Defense, etc.) at the well location, and of all lands crossed by roads which are to be constructed or upgraded, shall be indicated. Where the surface of the proposed well site is privately owned, the operator shall provide the name, address and telephone number of the surface owner.

Bureau of Land Management P.O. Box 1778 Carlsbad, NM 88227

12. Other Information: Type of bond. The operator shall be covered by a bond in its own name as principal, or by a bond in the name of the lessee or sublessee.

Meridian Oil Inc. is covered by statewide bond.

## Operator's Representatives:

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

Meridian Oil Inc. 416 East Main Artesia, NM 88210 Office: 505-748-1321

Mr. Ed Jackson, Drilling Foreman

Loco Hills, NM

Home: 505-677-2323 Mobil: 505-365-7206

Gary Brink, Drilling Superintendent P.O. Box 51810 Midland, TX 79710-1810

Office: 915-688-6842 Home: 915-697-6400

Jim Kramer, Sr. Drilling Eng.

Office: 915-688-6843 Home: 915-694-2499

## **OPERATORS CERTIFICATION**

I hereby certify that I, <u>Jim Kramer, Sr. Drilling Engineer</u>, under my direct supervision, have inspected the proposed drill site and access route that I am familiar with the conditions that currently exist; that the statements made in the APD package are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by **not yet determined** contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM **statewide** bond. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE:	9-1-93	
NAME AND TITLE:	Jim Kramer, Sr. Drilling Engineer	
SIGNATURE:	mi Kramm	

100' 100' 100' 3507.9 3507.3 3507.3 1 11 14 3508.4 3507.9 3508.3 3508.Z الم 7.5560 Ac  $\Pi$ 35077 507.5 3507.9 3508.6 3508.4 POKER LAKE 18 FEDERAL No. 4 3506.2 3507.4 8 3505.7 3506.1 3504.6 PROPOSED ACCESS ROAD

I hereby certify this plat to be correct to the best of my knowledge.

Laughlin-Simmons

(913) 699-1238 (913) 699-8706 Im State Toll Free: 1-800-242-3028

P.O. BOX 1757 MIDLAND, TX 79702

184661 7FESSIONAL

By: WILLIAM E. MAHNKE II, PLS # 8466

100 50 O 100 200

MERIDIAN OIL INC.

POKER LAKE 18 FEDERAL No. 4
400' x 400' GRID AND TOPO

LOCATION: 1980' FSL & 660' FWL SECTION 18, T 24 S, R 31 E, NMPM

EDDY COUNTY, NEW MEXICO

**dete:** 7 - 31 - 93

scale:1"=80'

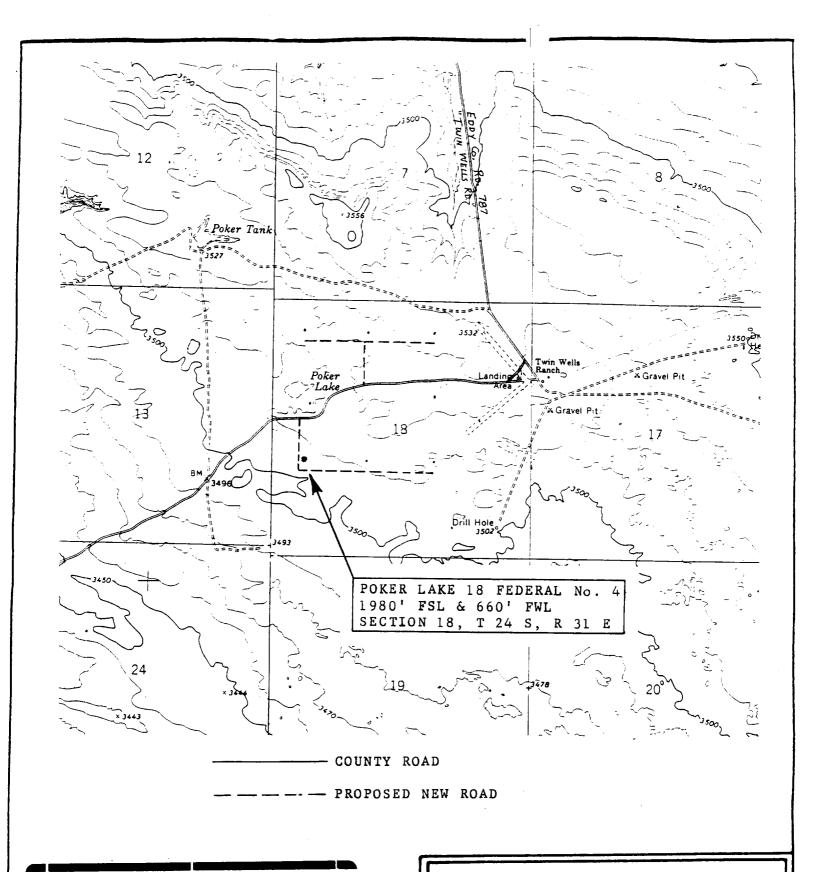


EXHIBIT A



Laughlin-Simmons

HIDLAND DISTRICT OFFICE
(915) 699-1238
(915) 699-8706
In State Toll Free:
1-800-242-3028

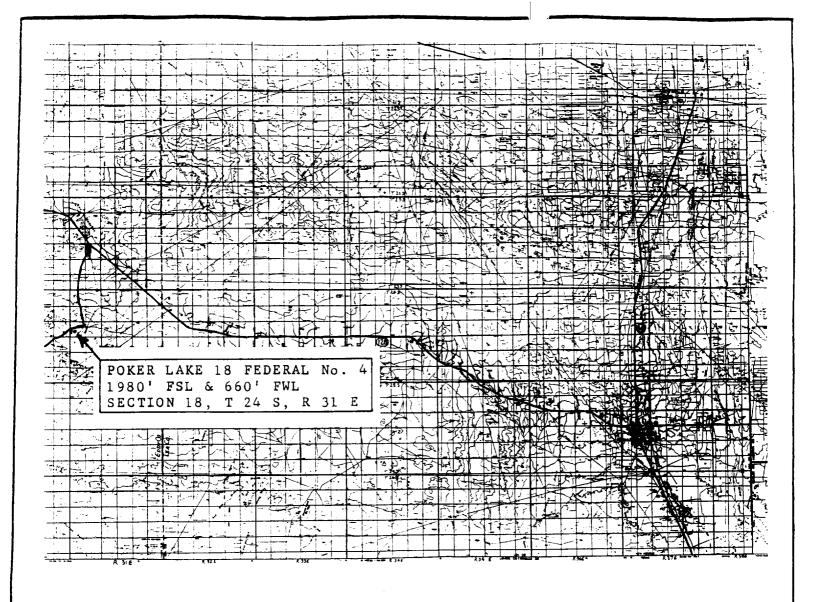
P.O. BOX 1757 HIDLAND, TX 79702 MERIDIAN OIL INC.
POKER LAKE 18 FEDERAL No. 4

PROPOSED ACCESS

EDDY COUNTY, NEW MEXICO

date: 7-31-93

scale: 1"=2000"



#### **DIRECTIONS:**

FROM THE INTERSECTION OF NEW MEXICO HIGHWAY 128 AND NEW MEXICO HIGHWAY 18 IN JAL, NEW MEXICO, GO WEST ON HIGHWAY 128 FOR 39.8 MILES, THEN TURN LEFT ON EDDY COUNTY ROAD 787 ("TWIN WELLS ROAD") AND GO 6.6 MILES, THEN TURN LEFT ON TO A PROPOSED NEW ROAD AND GO 0.2 MILES TO LOCATION.

PAVED HIGHWAY
 COUNTY ROAD
 PROPOSED NEW ROAD

EXHIBIT B



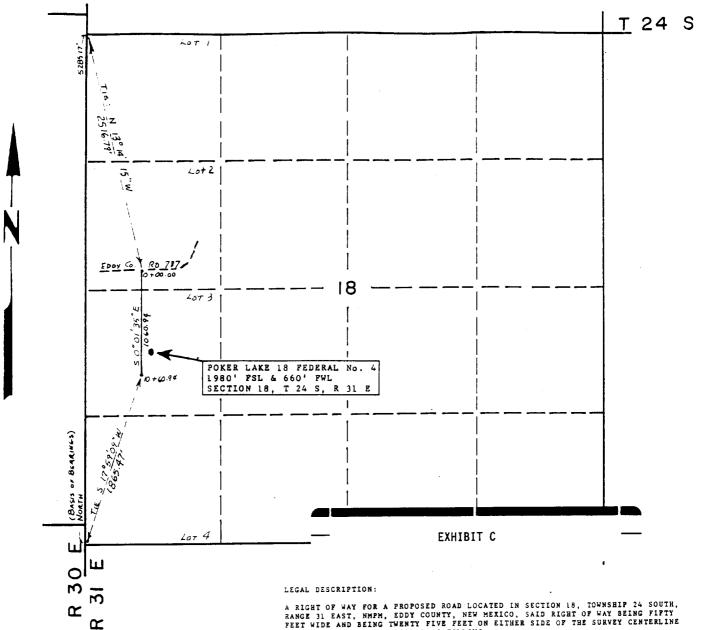
P.O. BOX 1757

MERIDIAN OIL INC.
POKER LAKE 18 FEDERAL No. 4

DIRECTIONS AND ROAD MAP

EDDY COUNTY, NEW MEXICO

date: 7-31-93 scale:



I hereby certify this plat to be correct to the best of my knowledge.

Laughlin-Simmons MIDLAND DISTRICT OFFICE (915) 699-1238 (915) 699-8706 In State Tell Free: 1-800-242-3028

P.O. BOX 1757 HIDLARD, TI 79702 A RIGHT OF WAY FOR A PROPOSED ROAD LOCATED IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 31 EAST, NMPM, EDDY COUNTY, NEW MEXICO, SAID RIGHT OF WAY BEING FIFTY FEET WIDE AND BEING TWENTY FIVE FEET ON EITHER SIDE OF THE SURVEY CENTERLINE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A STEEL SPIKE SET IN THE CENTER OF EDDY COUNTY ROAD 787 FOR STATION 0+00.00 OF THIS SURVEY, FROM WHICH THE NORTH WEST CORNER OF SAID SECTION 18 BEARS N  $13^{\circ}14$  '15" W, 2516.79 FEET;

THENCE S 0°01'35" E, 1060.94 PEET TO POINT OF TERMINATION OF THE HEREIN DESCRIBED SURVEY CENTERLINE AT SURVEY STATION 10+60.94, FROM WHICH THE SOUTH WEST CORNER OF SAID SECTION 18 BEARS S 17°59'09" W, 1865.47 FEET;

SAID RIGHT OF WAY BEING 1060.94 FEET OR 64.30 RODS OR 0.20 MILES IN LENGTH, SUCH LENGTH BEING ALLOCATED BY FORTIES AS FOLLOWS:

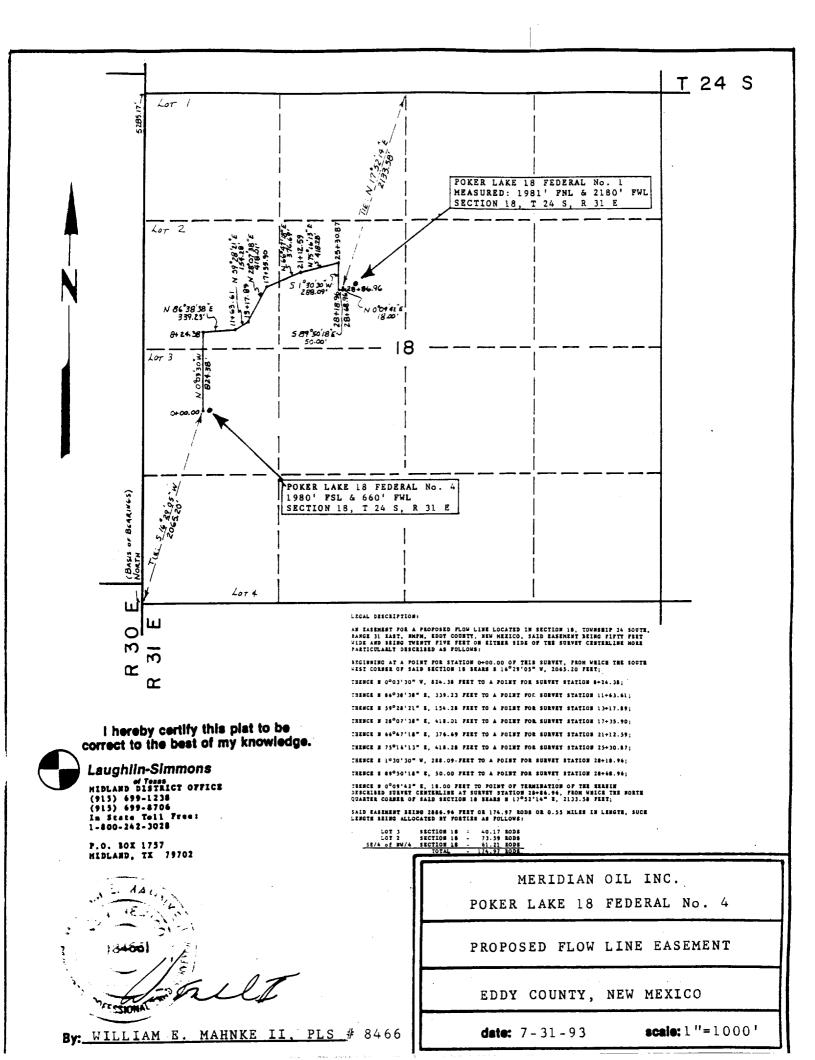
MAHNKE II, PLS # 8466 WILLIAM E.

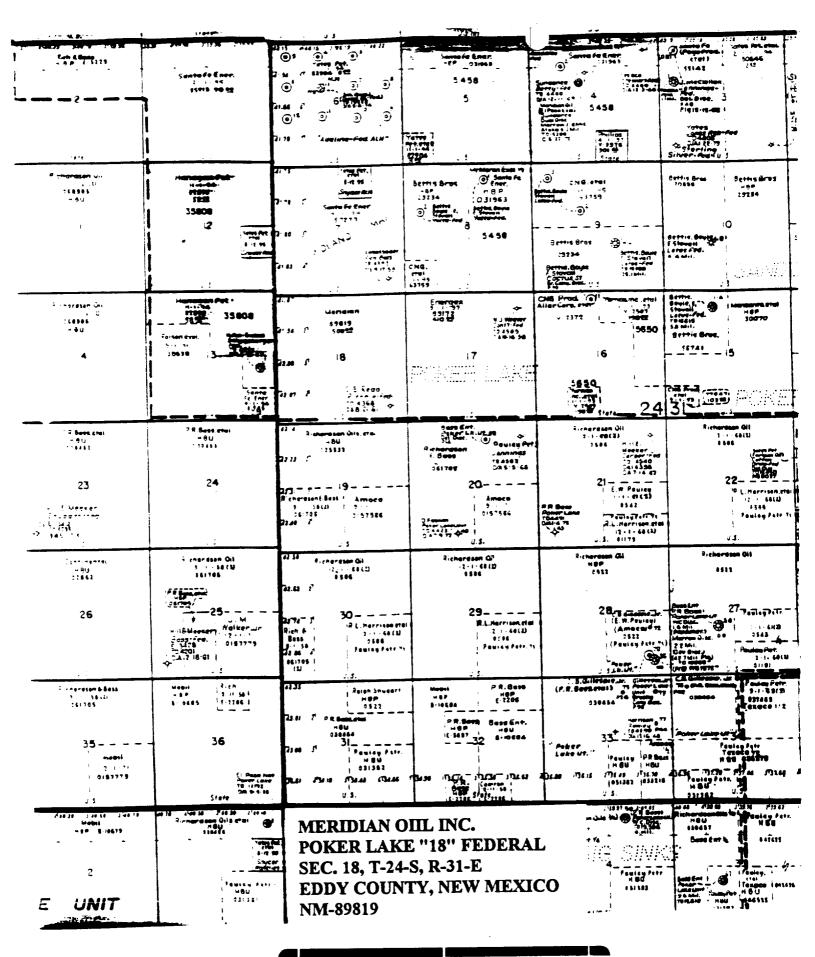
MERIDIAN OIL INC. POKER LAKE 18 FEDERAL No. 4

PROPOSED ROAD RIGHT OF WAY

EDDY COUNTY, NEW MEXICO

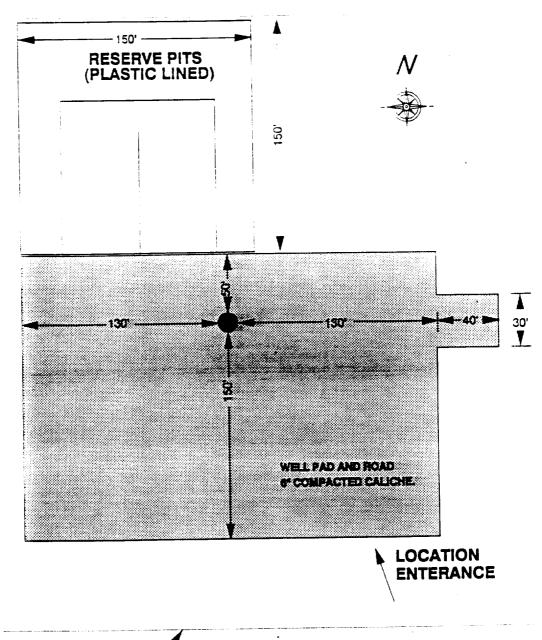
scale: 1 "= 1000 ' date: 7-31-93





## MERIDIAN 🕮

# MIDLAND REGION DRILL WELL LOCATION SPECIFICATIONS



400' x 400' WELL SITE

