

**FEDERAL OIL CONS. COMMISSION**  
**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE  
 (Other instructions on reverse.)

30-005-41740  
 Form approved  
 Budget Bureau No. 42-R1425

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK  
 DRILL  RECEIVED DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 MESA PETROLEUM CO. O.C.D.

3. ADDRESS OF OPERATOR  
 ARTESIA, OFFICE  
 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701-4493

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface: 660' FNL & 1980' FEL NW 1/4 NE 1/4 E B  
 At proposed prod. zone: SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 10 miles Northeast of Roswell, New Mexico

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660' / 660'

16. NO. OF ACRES IN LEASE  
 1360

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 160

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320'

19. PROPOSED DEPTH  
 4100'

20. ROTARY OR CABLE TOOLS  
 ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 3559' GR

22. APPROX. DATE WORK WILL START\*  
 AUGUST 19, 1982

5. LEASE DESIGNATION AND SERIAL NO.  
 NM-16071

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
 KAREN FEDERAL

9. WELL NO.  
 2

10. FIELD AND POOL, OR WILDCAT  
 UNDESIGNATED ABO

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 SEC 25 T9S R24E

12. COUNTY OR PARISH 13. STATE  
 CHAVES NEW MEXICO

**23. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	40.5#	950'	700/300 SURFACE
9 1/2"	7 5/8"	26.4#	1600'	700/300 TIE BACK
6 1/2 or 7 7/8"	4 1/2"	10.5#	4100'	300 COVER ABO

Propose to drill 14 3/4" hole with mud or air to approximately 950' and run 10 3/4" casing. Will cement to surface and test casing with cementing head to 600 psi. Will reduce hole to 9 1/2" and drill on mud or air to approximately 1600' and run 7 5/8" casing if circulation has been lost and cement with sufficient amounts to tie-back to 10 3/4" casing. Will then reduce hole to 6 1/2" or 6 3/4", test BOP's and casing and drill to total depth. If hole conditions are favorable, the 7 5/8" casing will be omitted and the hole will be reduced to 7 7/8" and drilled to total depth. Either 4 1/2" or 5 1/2" casing will be run as production casing depending upon hole size drilled to TD.

Operator's gas sales are dedicated.

Docted JD1  
 API + N.S. Book  
 8-26-82

XC: MMS (7), TLS, CEN RCDS, ACCTG, MEC, LAND, ROSWELL, REM, FILE, (PARTNERS )  
 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 R. E. Math TITLE REGULATORY COORDINATOR DATE 7-23-82

(This space for Federal or State office use)  
 APPROVED  
 (Orig. Sgd.) GEORGE H. STEWART

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

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:  
 JAMES A. GILLHAM  
 DISTRICT SUPERVISOR

JUL 23 1982

\*See Instructions On Reverse Side

U.S. GEOLOGICAL SURVEY  
 ROSWELL, NEW MEXICO

All distances must be from the outer boundaries of the Section.

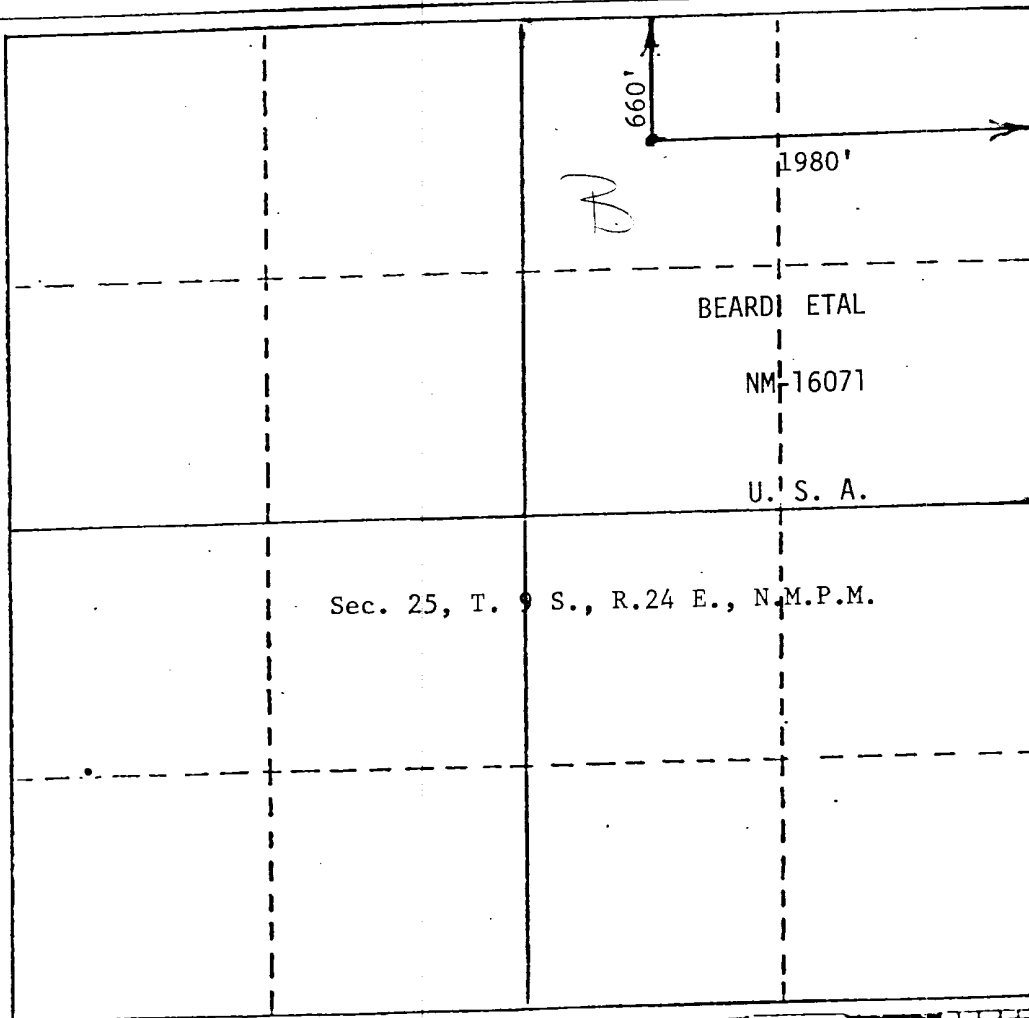
Operator <b>Mesa Petroleum</b>		Lease <b>Karen Federal</b>		Well No. <b>2</b>
Unit Letter <b>G</b>	Section <b>25</b>	Township <b>9 S.</b>	Range <b>24 E.</b>	County <b>Chaves</b>
Actual Footage Location of Well: <b>660</b> feet from the <b>North</b> line and <b>1980</b> feet from the <b>East</b> line				
Ground Level Elev. <b>3559</b>	Producing Formation <b>ABO</b>	Pool <b>UNDESIGNATED</b>	Dedicated Acreage: <b>NE/4 160</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 interests 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 interests, has been approved by the Division.



CERTIFICATION

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

*R. E. Mathis*

Name  
**R. E. MATHIS**

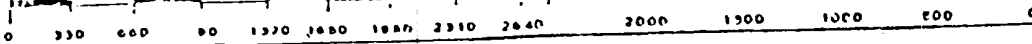
Position  
**REGULATORY COORDINATOR**

Company  
**MESA PETROLEUM CO.**

Date  
**JULY 23, 1982**

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.

**JOHN D. JAQUESS**  
NEW MEXICO  
July 20 1982  
Registered Professional Engineer  
and/or Land Surveyor  
*John D. Jaquess*  
John D. Jaquess, P.E. & L.S.  
Certificate No. **6790**



APPLICATION FOR PERMIT TO DRILL

MESA PETROLEUM CO.  
KAREN FEDERAL #2  
660' FNL & 1980' FEL, SEC 25, T9S, R24E  
CHAVES COUNTY, NEW MEXICO

LEASE NO. NM-16071

In conjunction with Form 9331-C, Application For Permit to Drill subject well, the following additional information is provided:

1. Applicable portions of the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, Roswell District, Geological Survey of September 1, 1980 will be adhered to.

2. Geological markers are estimated as follows:

SEVEN RIVERS	Surface
SAN ANDRES	356'
GLORIETA	1316'
TUBB	2816'
ABO	3506'

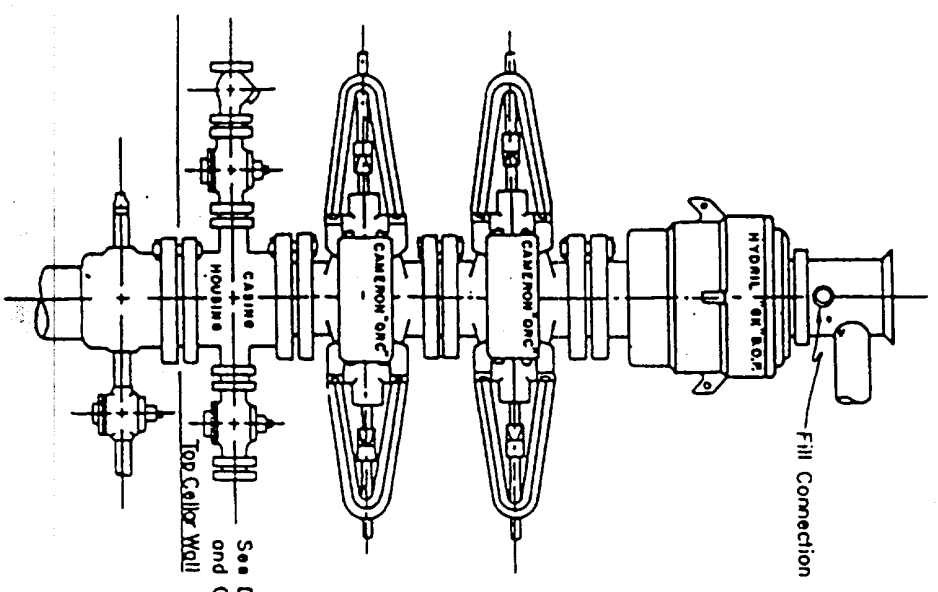
3. Hydrocarbon bearing strata may occur in the Abo formation(s). No fresh water is expected to be encountered below 950'

4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. See Exhibit VI. Anticipate drilling with mud, air or foam using ram type preventer and rotating head for well control. The 10 3/4" casing will be set at approximately 950' to protect any fresh water zones and cemented to the surface. The 7 5/8" casing will be set at approximately 1600' if water zones have been encountered or omitted if not and ram type preventers installed. Sufficient amounts and kinds of cement would be used to ensure any water, gas, or oil zones encountered are isolated and shut off down to the casing point if run. The 4 1/2" production casing will be set at total depth or shallower depending upon the depth of the deepest commercial hydrocarbon bearing strata encountered.

5. No drill stem test or coring program is planned. The logging program may consist of a GR-CNL from surface total depth and FDC from casing point to total depth.

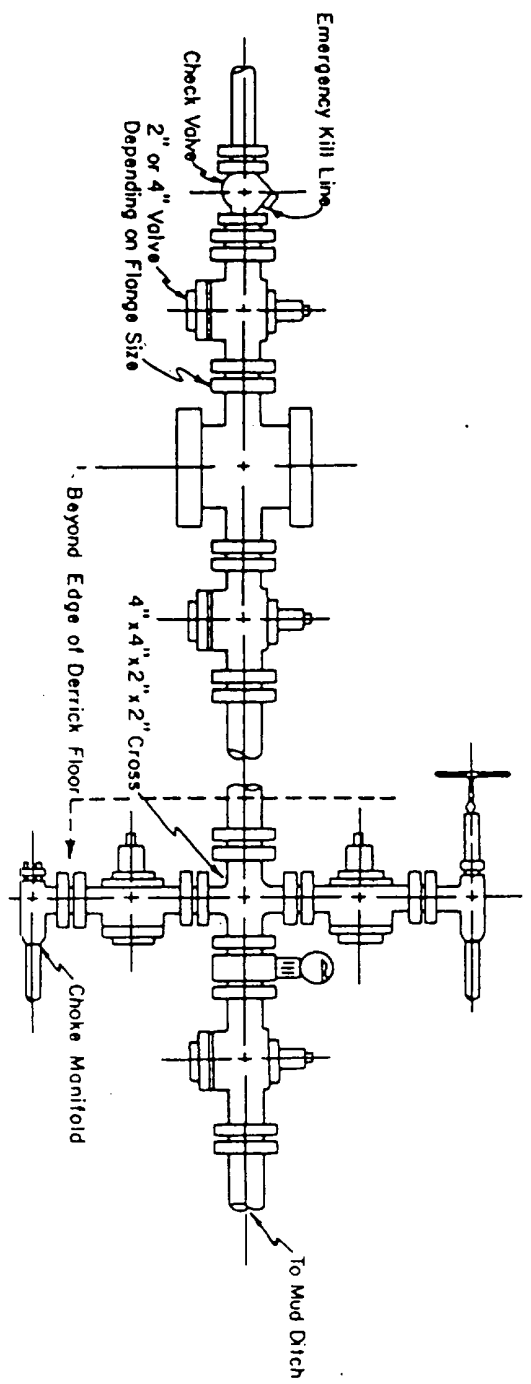
6. Anticipated drilling time is ten days with completion operations to follow as soon as a completion unit is available.

Blow-out Preventers hydrill and choke manifold ore all 900 Series



See Detail of 4" Flow Line  
and Choke Assembly

3,000 PSI WORKING PRESSURE  
BLOW-OUT PREVENTER HOOK-UP



3,000 PSI WORKING PRESSURE  
KILL, CHOKE, AND FILL CONNECTIONS

DETAIL OF 4" FLOW LINE CHOKE ASSEMBLY

Minimum assembly for 3,000 PSI working pressure will consist of three preventers.  
The bottom and middle preventers may be Cameron.

NOTE: HYDRILL not installed on shallow-low pressure wells.  
RAM type BOPs are API 10" X 3000 PSI

**MESA**  
PETROLEUM CO.  
PERMIAN BASIN DIVISION

E X H I B I T

V I

DATE: \_\_\_\_\_ SCALE: \_\_\_\_\_