Form 9-331 C
(May 1963)

SUBMIT IN . PLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-005-60901

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM - 36652

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

MAR 06 1981

O. C. D.
ARTESIA, OFFICE

8. FARM OR LEASE NAME: BARN FEDERAL

2. NAME OF OPERATOR: MESA PETROLEUM CO.

9. WELL NO.: 3

3. ADDRESS OF OPERATOR: 1000 VAUGHN BUILDING/MIDLAND, TEXAS 79701

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED ABO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL & 660' FEL
At proposed prod. zone: SAME

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC 13, T8S, R22E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 19 MILES NORTHWEST OF ROSWELL

12. COUNTY OR PARISH: CHAVES

13. STATE: NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	1600	160
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
3000'	4100'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4109.6' GR

22. APPROX. DATE WORK WILL START*: JUNE 1, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	800'	CIRCULATE TO SURFACE
11"	8 5/8"	24#	1600'	SUFFICIENT TO ISOLATE WTR, O&G
7 7/8"	4 1/2"	10.5#	4100'	SUFFICIENT TO COVER ALL PAY

Propose to drill 17 1/2" surface hole to 800' or deeper on air to set 13 3/8" surface casing. Will cement to surface then reduce hole to 11" to drill to 1600'. Will set 8 5/8" casing if water zones have been encountered or omit if not. Will reduce hole to 7 7/8" and drill to total depth on air, foam, or mud as required. After log evaluation, 4 1/2" casing may be run and cemented with sufficient amounts and kinds to isolate and seal off any fresh water, oil, or gas zones encountered.

Gas Sales Are Not Dedicated.

XC: USGS (6), TLS, CEN RCDS, ACCTG, HOBBS, MEC, LAND, PARTNERS, FILE

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. Mathews TITLE REGULATORY COORDINATOR DATE FEBRUARY 20, 1981

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (Orig. Sgd.) GEORGE H. STEWART TITLE ACTING DISTRICT ENGINEER DATE MAR 05 1981

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Mesa Petroleum Co.	Barn Federal	3

Unit Letter	Section	Township	Range	County
A	13	8 South	22 East	Chaves County, New Mexico

Actual Footage Location of Well:
660 feet from the North line and 660 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
4109.6	ABO	UNDESIGNATED	NE/4 160 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

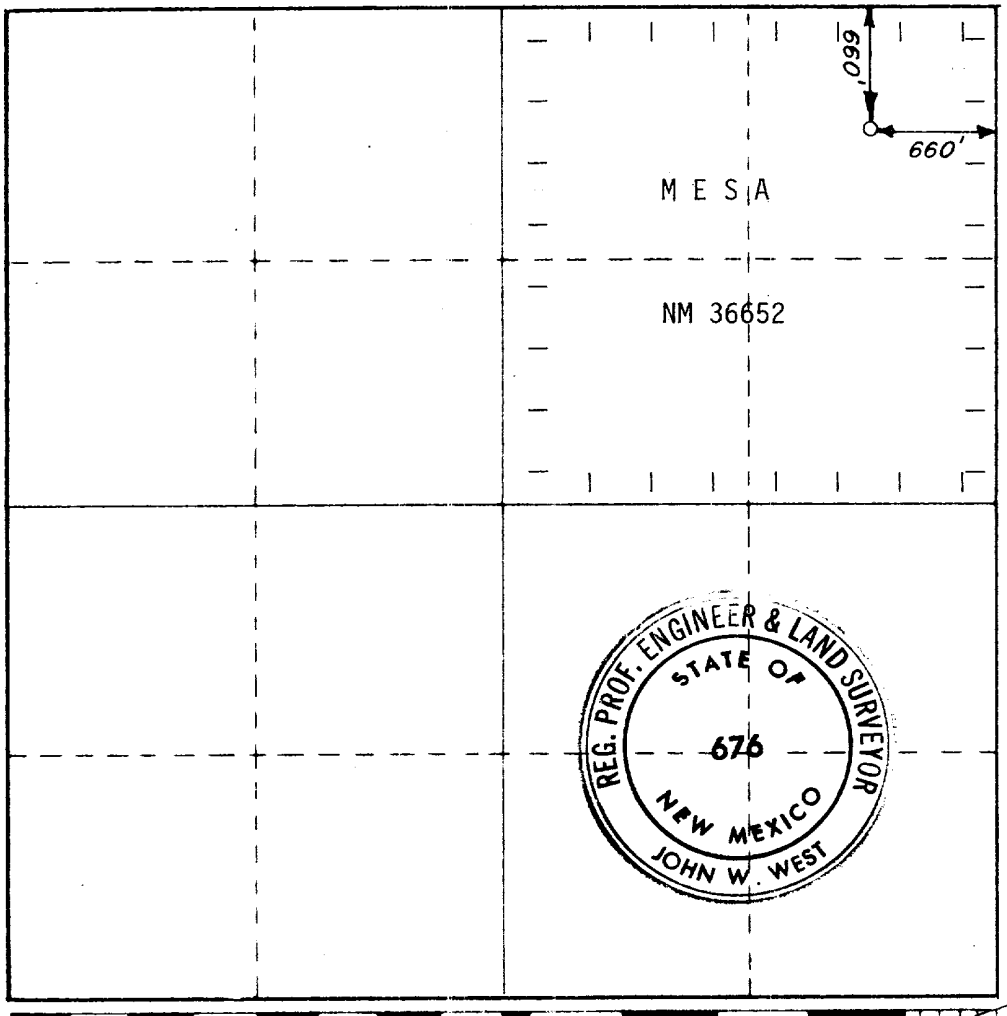
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Commission.



U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

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: FEBRUARY 20, 1981

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 23, 1981

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6663
Ronald J. Eidson 3239

APPLICATION FOR DRILLING

MESA PETROLEUM CO.
BARN FEDERAL #3
660' FNL & 660' FEL, SEC 13, T8S, R22E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 36652

In conjunction with Form 9-331C, 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:

SAN ANDRES	SURFACE
GLORIETTA	460'
YESO	640'
ABO	2730'
HUECO	3330'

3. Hydrocarbon bearing strata may occur in the Abo formation. No fresh water is expected to be encountered below 800'.

4. The Casing and Blowout Preventer Program will be determined by hole conditions as encountered. Anticipate drilling with air or foam using ram type preventer and rotating head for well control. The 13 3/8" casing will be set at approximately 800' to protect any fresh water zones and cemented to the surface. The 8 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 tests or coring program is planned. The logging program may consist of a GR-CNL from surface to total depth and FDC from casing point to total depth.

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

MULTI-POINT SURFACE USE AND OPERATION PLAN

MESA PETROLEUM CO.
BARN FEDERAL #3
660' FNL & 660' FEL, SEC. 13, T8S, R22E
CHAVES COUNTY, NEW MEXICO

LEASE NO: NM 36652

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operational plan in both the actual and post drilling-completion operations.

1. Existing Roads

   A. Exhibit I is a portion of a highway map showing the location of the proposed well as staked. The proposed well is approximately 19 miles northwest of Roswell, New Mexico.

   B. Directions: Take US Highway 285 north of Roswell for approximately 12 miles (mile marker 127) and then turn west on county road for approximately 6 miles, then turn south (after cattleguard) for 3/4 mile to the Rock Federal #5 then turn west 3/4 mile to the location.

2. Planned Access Road

   A. Length and width: The new access road will be 12' wide (16' ROW) and approximately 3/4 mile of upgraded 2-track.

      (See Exhibit II for details)

   B. Construction: The new road will be constructed by grading and topping with compacted caliche. The surface will be crowned, with drainage on both sides. (See Exhibit III)

   C. Culverts, Gates and Cattleguards: None required

   D. Cut and Fill: In order for the location to be level, approximately 8' of cut from the west and south sides will be moved to the east and north side for fill.

3. Location of Existing Wells

   Existing wells within a one-mile radius are depicted by Exhibit IV.

4. Location of Existing and/or Proposed Facilities

   If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, will be installed on the drilling pad.

5. Location and Type of Water Supply

It is planned to drill the proposed well with air. If water is needed, it will be obtained from commercial sources and will be trucked to the wellsite over the existing roads and the proposed access road shown on Exhibits I and II or piped in by temporary line from a nearby source.

6. Source of Construction Materials

Caliche for surfacing the road and the wellsite pad will be obtained by the dirt contractor from the Federal Government or private sources. Top soil from the location will be stockpiled near the location for future rehabilitation use. No surface materials will be disturbed except for those necessary for the actual grading and leveling of the drillsite and access road. Probable pit is located: SW/4 Sec 12, T8S, R22E.

7. Methods of Handling Waste Disposal

A. Drill cuttings will be disposed of in the reserve pits.

B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

C. All pits will be fenced with normal fencing material to prevent livestock from entering the area.

D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted to the USGS for approval.

E. Current laws and regulations pertaining to the disposal of human waste will be complied with.

F. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.

G. All trash and debris will be buried or removed from the wellsite within 30 days after finished and/or completion operations.

8. Ancillary Facilities: None required.

9. Wellsite Layout:

A. Exhibit V shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged.

B. Some leveling of the wellsite will be required. See Exhibit III for additional details.

C. The reserve pit will be plastic lined.

10. Plans for Restoration of the Surface:

A. After completion of drilling and/or completion operations all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing a condition as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment, if drying conditions permit.

11. Other Information:

A. Topography: The land surface in the vicinity of the wellsite is gently sloping to the south.

B. Soil: The topsoil at the wellsite is sandy loam.

C. Flora and Fauna: The vegetative cover consists of Tabosa and other prairie grasses, creosote bush, yucca, cactus, prairie flowers and other miscellaneous desert growth. Wildlife in the area probably includes those typical of semi-arid desert land. The area is used for grazing.

D. Ponds and Streams: Salt Creek is approximately 1 mile south.

E. Residences and Other Structures: There are no residences or other structures in the vicinity of the proposed well.

F. Land Use: Grazing.

G. Surface Ownership: The wellsite is on Federal surface.

H. There is no evidence of any major archaeological, historical, or cultural sites in the area. NMAS, Inc. has conducted an archaeological study of this site and provides this report to interested parties.

12. Operator's Representatives:

A. The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

J. Wootten
P. O. Box 1756
Hobbs, New Mexico 88240
(505 -393-4425) - Office
(505-393-6033) - Home

C. C. Wheeler
1000 Vaughn Building
Midland, Texas 79701
(915-683-5391) - Office
(915-683-6123) - Home

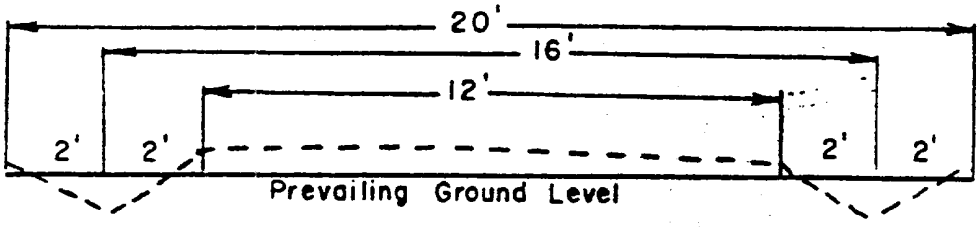
13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by Mesa Petorleum Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

February 20, 1981
Date

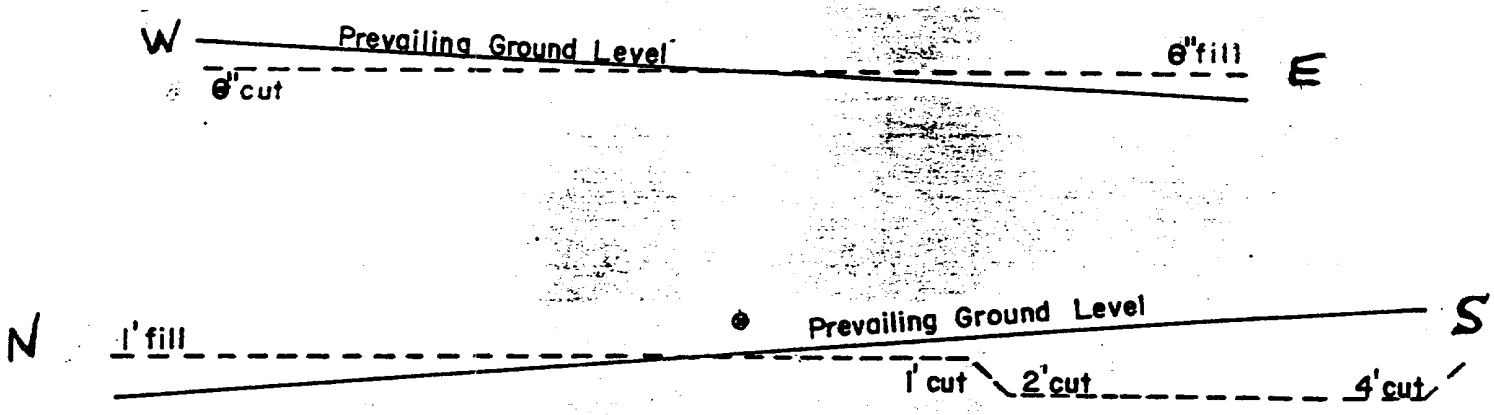
Michael P. Houston
Michael P. Houston
Operations Manager

R - O - W 20'



ROADWAY CROSS SECTION

Horizontal Scale 1" = 4'



LOCATION CROSS SECTION

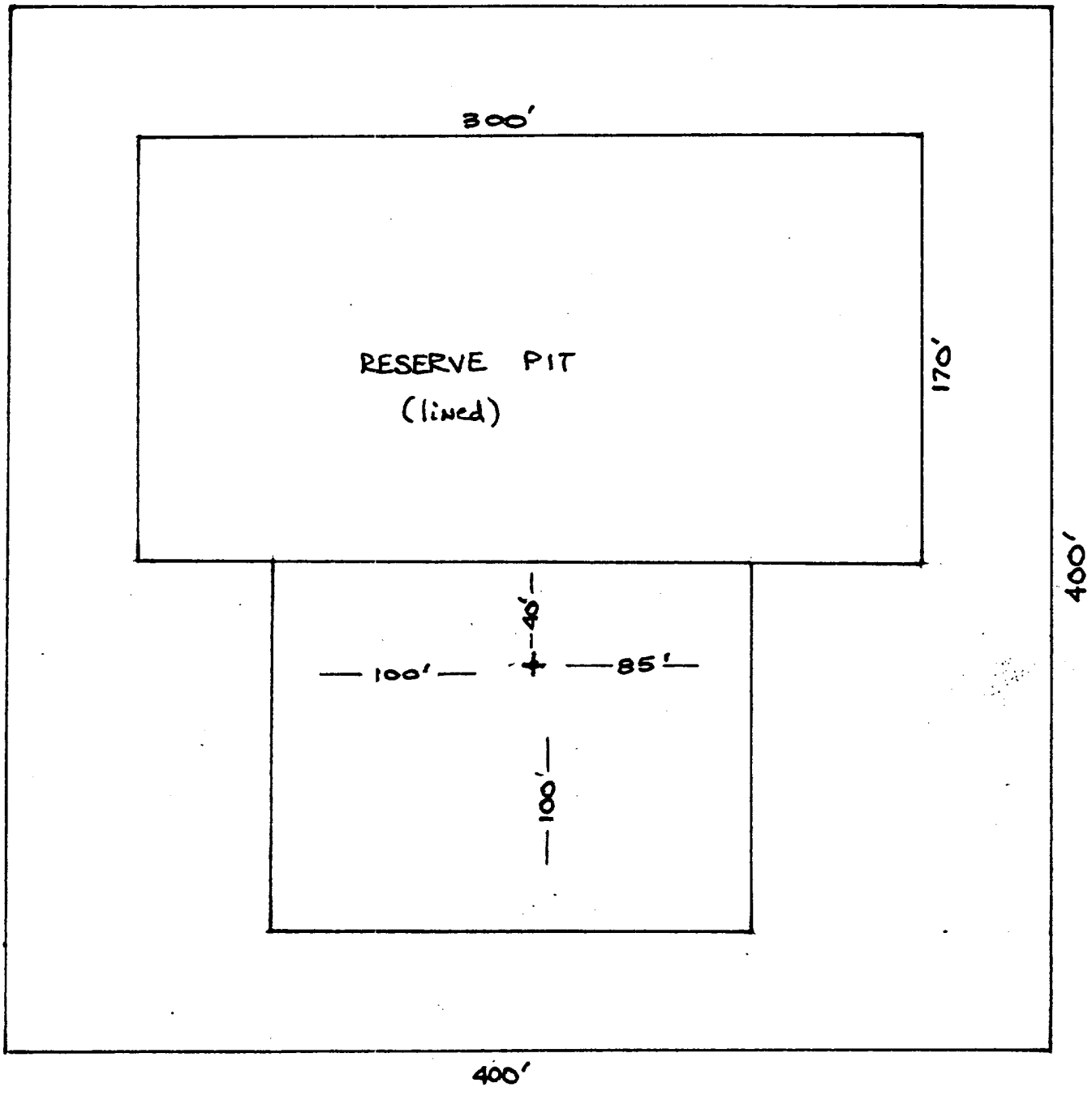
Horizontal Scale 1" = 50'

MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT III

LOCATION CONSTRUCTION

Scale : As Noted



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MESA
PETROLEUM CO.
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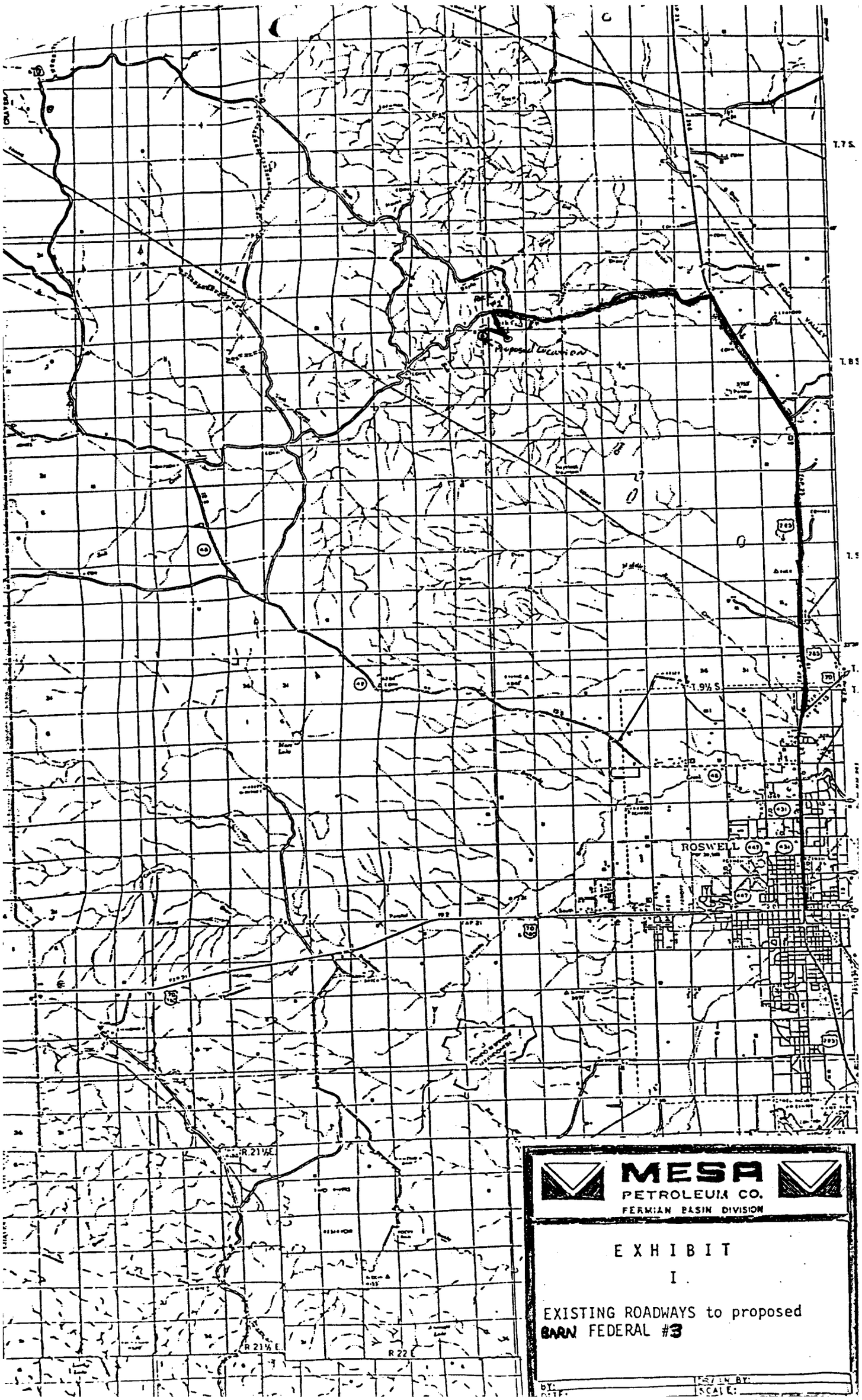
EXHIBIT V

LOCATION PLAT

BY:
DATE:
DRAWN BY:
SCALE:



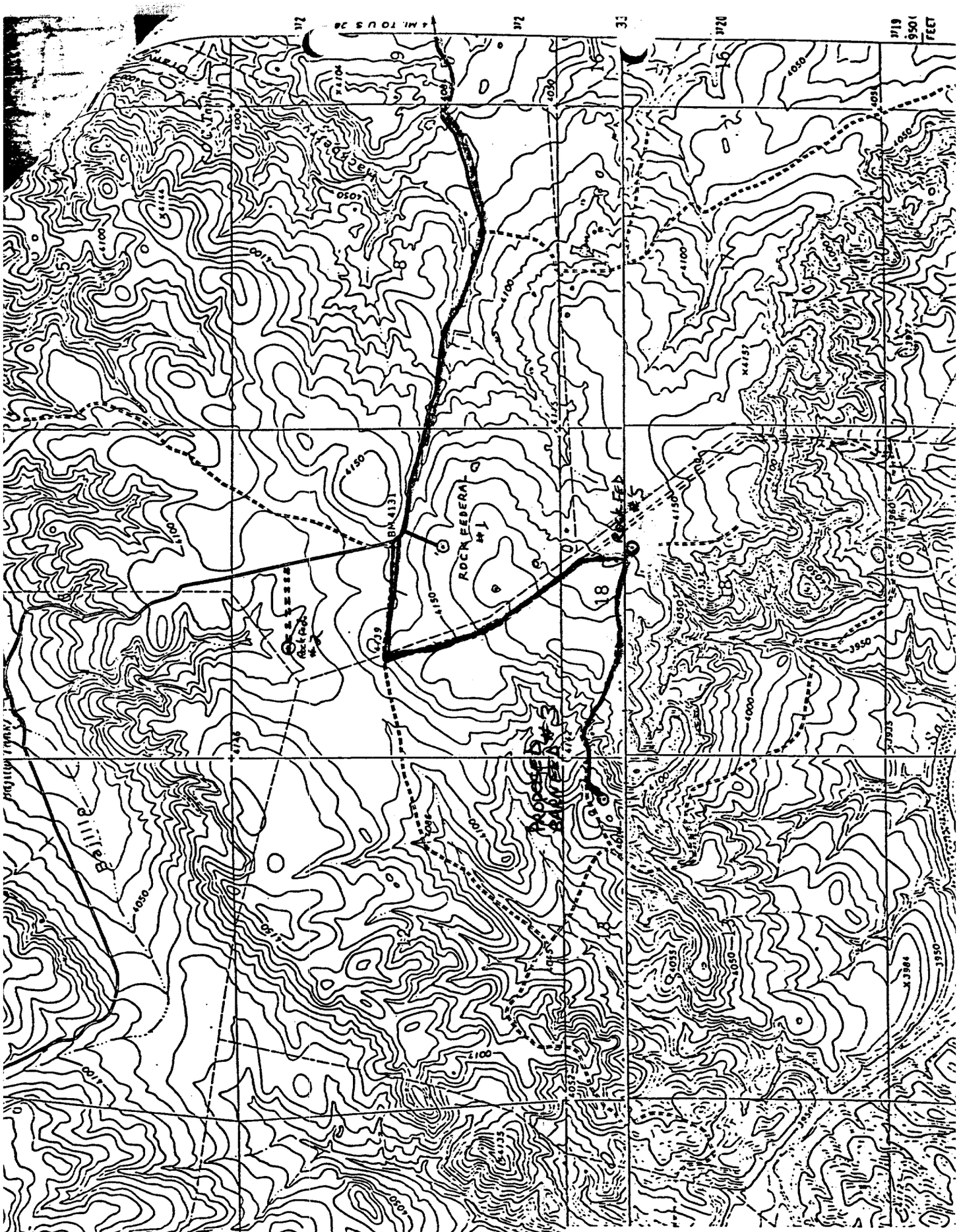
MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT

I

EXISTING ROADWAYS to proposed
BARN FEDERAL #3

DRAWN BY:
DATE:
SCALE:



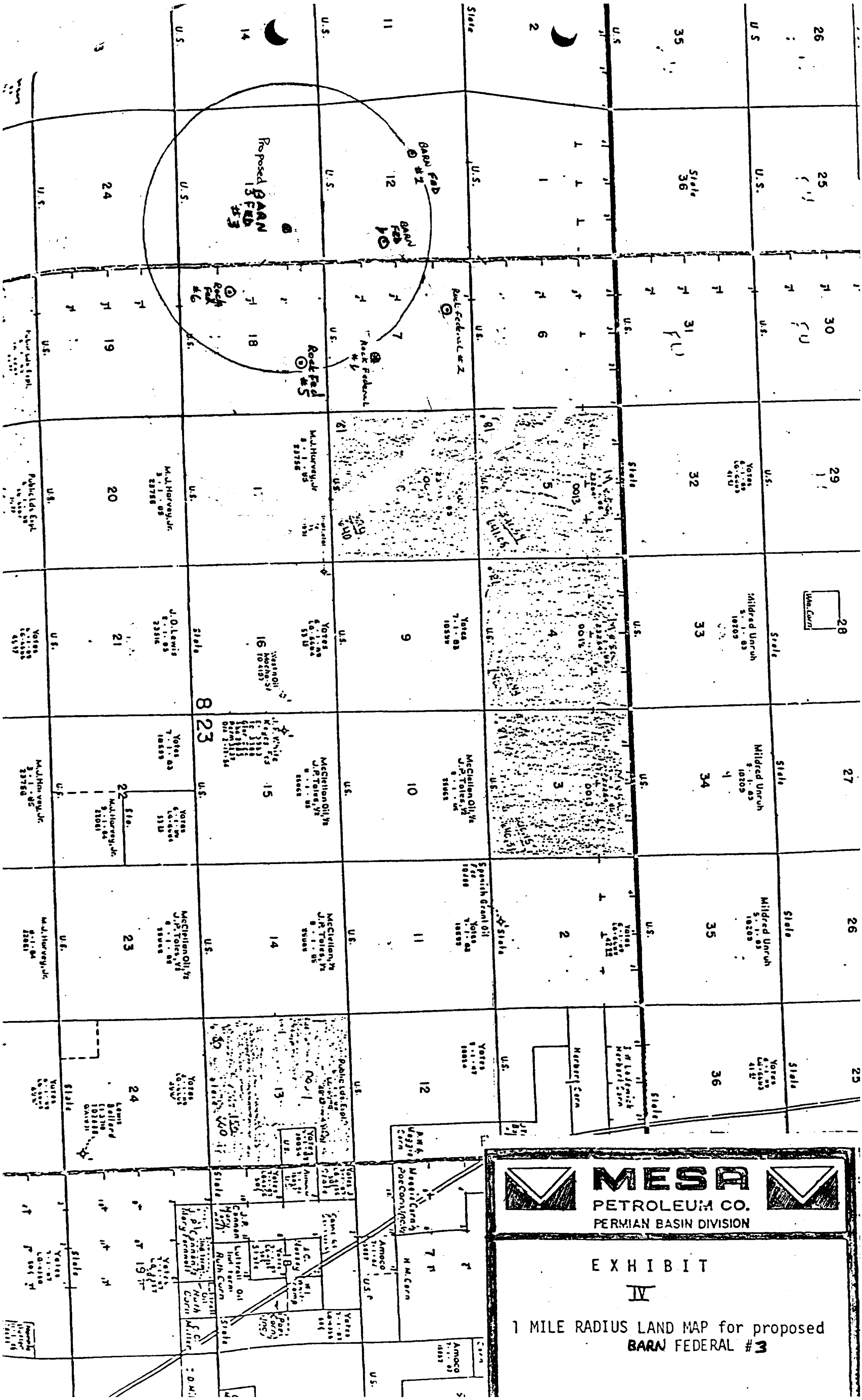
MESA PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT

II

TOPOGRAPHIC FEATURES for
proposed *BARN* FEDERAL #3

DRAWN BY:
DATE:
SCALE:



MESA
PETROLEUM CO.
PERMIAN BASIN DIVISION

EXHIBIT

IV

1 MILE RADIUS LAND MAP for proposed
BARN FEDERAL #3