

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
for
HANAGAN PETROLEUM CORPORATION
#1 Lobo Federal
1661' FSL and 2083' FWL
Section 33 - T13S - R29E
Eddy County, New Mexico
Lease: NM-57255

This plan is submitted with Form 3160-3, Application for Permit to Drill, in accordance with Onshore Oil and Gas Order #1 item 4.b1-b13. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operational plan, the magnitude of surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of operations, so that a complete appraisal can be made of the environmental effect associated with the operation.

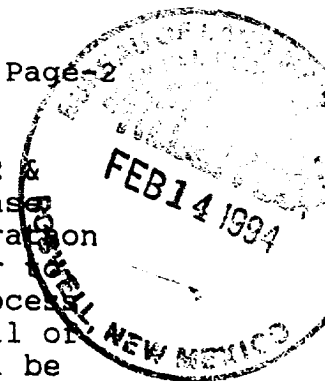
1. EXISTING ROADS:

Exhibit "A" is a portion of a USGS map showing the proposed well, existing wells within a one mile radius, existing roads, and the new access road. The proposed wellsite is located approx. 15 miles east of Hagerman, New Mexico. The existing access route to the location is indicated in yellow with the new access road indicated in red on exhibit "A".

DIRECTIONS: Exhibit B shows access to the drillsite. The primary route is as follows;
From Hagerman, NM go east on State Road 249 approx 20.5 miles to County Road C3-30 (Jemina Road). Go northwest approx. 2 miles to County Road C3-26 (Katrina Road). Go west on C3-26 approx 1/2 mile to County Road C3-27 (Teresa Rd). Go north 4.75 miles and turn west going approx 1/2 mile to Marathon location, then turn south location.

2. ACCESS ROAD AND WELL PAD:

- A. The access road will be approx. 2300' in length with new construction coming off of the existing road that goes to the Marathon #2 Marathon well in the SW/4 NW/4 of section 33. The new access road off of the Marathon road will be located along the route off a seismic line that has previously been arched so as to minimize the possibility of encountering cultural resources.



The portion of the road located in the E/2 & NW/4 of sec. 33 will be located on BLM lease NM-62195. Propose to transfer existing Marathon ROW from the #2 Marathon Federal well over Hanagan Petroleum as Hanagan is in the process of taking over operations of this well. All of the remainder of the new construction will be within the boundaries of US Lease NM-57255.

The access road will be approx. 14 feet in width.

- B. The access road will be surfaced with 5"caliche, watered, compacted and graded.
- C. Maximum grade will be less than 3%.
- D. Turnouts as required.
- D. The new road will be bladed with drainage on both sides to control runoff and soil erosion.
- E. No culverts will be required.
- F. No cattleguard will be required on the new road.

3. LOCATION OF EXISTING WELLS:

Exhibit "A" shows all existing wells within one mile of the wellsite as well as the proposed location.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. In the event that the well is productive, the production facilities will be installed on the drilling pad and will probably consist of 2-4 500 barrel storage tanks on the south side of the pad surrounded by a 24" earthen berm. A heater treater and separator would be located in the SW corner of the location.

5. LOCATION AND TYPE OF WATER SUPPLY:

All water used in the drilling and completion of this well will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit "A" and "B". The probable commercial water sources would be :

Brine Water: Loco Hills Brine Station
Sec. 16 - T17S - R30E

Fresh Water: Double Eagle Water Line
Sec. 16 - T17S - R30E

or

Carter Fresh Water Station
Sec 26 - T15S - R31E

6. SOURCE OF CONSTRUCTION MATERIALS:
Should a sufficient caliche source be found on location this source will be utilized.
If no caliche is present at the location then caliche will be obtained from a pit located in SW/4SW/4 of sec. 22-T13S-R29E. This open caliche pit is covered under archaeological clearance #ACAF86116.
7. METHODS OF HANDLING WASTE DISPOSAL:
- A. Drill cuttings will be disposed of in reserve pits.
 - B. Drilling fluids will be allowed to evaporate in reserve pits until pits are dry.
 - C. Water produced during production operations will be collected in tanks until hauled or transported via pipeline to an approved disposal system.
The following information meets necessary BLM NTL-2B requirements:
 - a. The expected producing formation from which the water will be derived is the Devonian.
 - b. Produced water volumes will not be known until after the well has been completed. It is common for Devonian wells in this area to start off with little to no water production and gradually increase water production to 250-500 BWPd.
 - c. Produced water will be stored on-lease using one 500 bbl fiberglass tank.
 - d. Water will be transported via pipeline to the following approved water disposal facility:
Thorton Operating #3 Stevens SWD
Sec. 28-T13S-R29E SWD#464
R.O.W. permits have already been obtained by Marathon Oil to this SWD facility from The #2 Marathon Federal well located in the NW/4 of sec. 33. It is recommended that the pipeline R.O.W. from the #1 Lobo to the #2 Marathon well run parallel to and approx. 50 feet west of the access road between the #1 Lobo and #2 Marathon wells. Should water need to be transported before a pipeline has been constructed to the Thorton #3 Stevens SWD facility the water will be trucked by either I&W Trucking or Jims Water Service to the Thorton SWD facility.
 - e. A copy of water analysis will be submitted to the BLM upon completion of the well or when well begins to produce water. It is

expected that produced water from this location will be similar in composition to that from nearby wells, all of which the BLM has received water analysis on.

Water recovered during completion testing will be disposed of in the reserve pits.

- D. Oil produced during completion and production operations will be stored in tanks until sold.
- E. Trash, waste paper, garbage and junk will be collected in portable trash baskets and will be transported to an approved waste dump upon finishing drilling/completion operations.

8. ANCILLARY FACILITIES:
None Required.

9. WELLSITE LAYOUT:

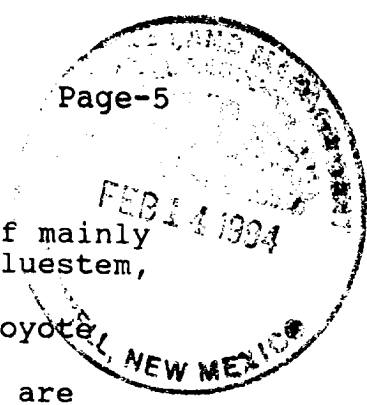
- A. Exhibit "C" shows the relative location and dimensions of the well pad, reserve pits, drilling equipment, rig orientation, and access road approach.
- B. The reserve pits will be approx. 150' x 150' and will be plastic lined.
- C. The drill pad will be approx. 275' x 250'.
- D. A 400' x 400' area has been staked and flagged and is shown on Exhibit A. All pad construction activity will be confined within this staked area.
- E. Will attempt to store 6" of topsoil, if present, near the southwest corner of location.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing condition as is reasonably possible.
- B. Any unguarded pits containing fluid will be fenced until they have been dried and leveled.
- C. If the well is non-productive, or upon abandonment of a producing well, the surface area will be rehabilitated as specified by the BLM in the approved APD.

11. OTHER INFORMATION:

- A. Topography: Dune rise and swale
The surface is gradually sloping to the south - southwest.



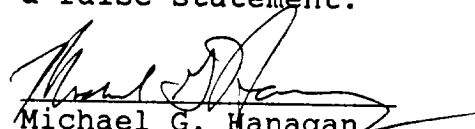
- B. Soil: Roswell - Jamar complex sands
- C. Flora and Fauna: Vegetation consists of mainly sand dropseed, little bluestem, sand bluestem, three-awn, sandbur and sand sagebrush. Wildlife consists of deer, antelope, coyote, jackrabbit, dove, quail and reptiles.
- D. Ponds and Streams: No ponds or streams are present in the near vicinity. Drainage is generally to the southwest into Long Arroyo except where impeded by dune fields
- E. Residences or structures: None in vicinity.
- F. Archaeological, Historical, and Cultural Sites: An archaeological reconnaissance survey has been performed by Archaeological Survey Consl. and will be submitted to the Roswell Office. No arch sites were encountered during the this reconnaissance survey.
- G. Land Use: Primary use of surface is for livestock grazing. Seasonal hunting also occurs
- H. Surface Ownership: All lands affected by this activity are located on Federal Surface administered by the BLM-Roswell.
Grazing Allotte is: Bogle Farms
P.O. Box 460
Dexter, NM 88230

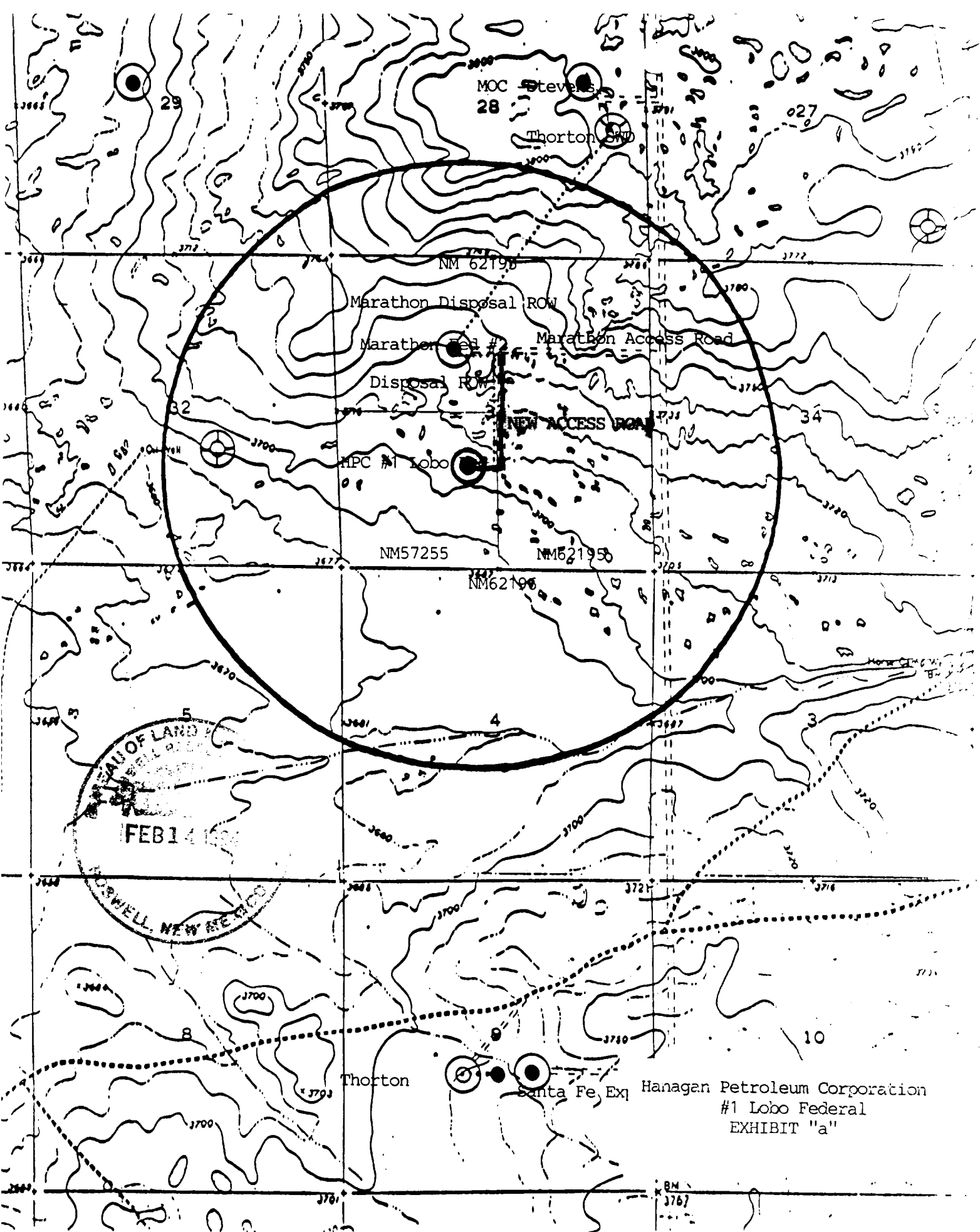
12. OPERATORS REPRESENTATIVE:
Mr. Michael G. Hanagan or Mr. Hugh E. Hanagan
P.O. Box 1737
Roswell, New Mexico 88202
Office Phone; 505-623-5053
Home Phone(MGH); 505-625-0388

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 Hanagan Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

2/14/94

DATE


Michael G. Hanagan
Vice President



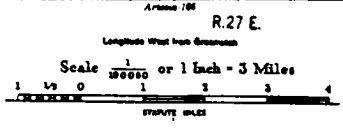
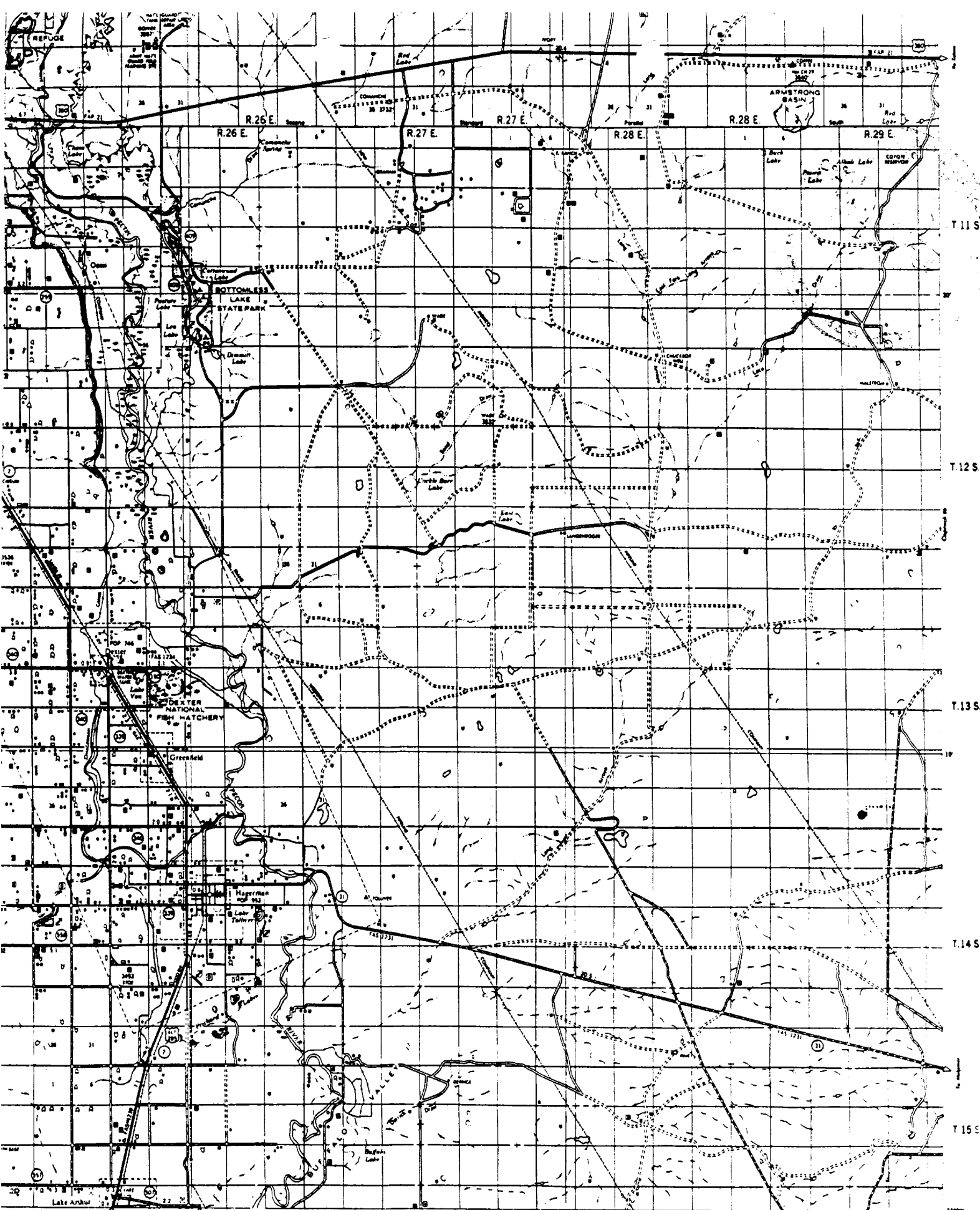
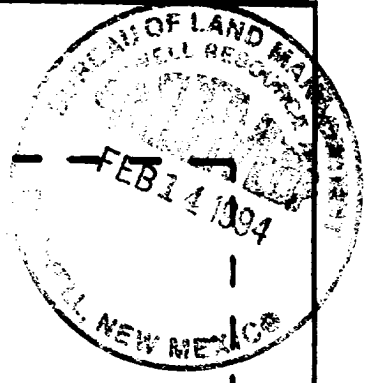
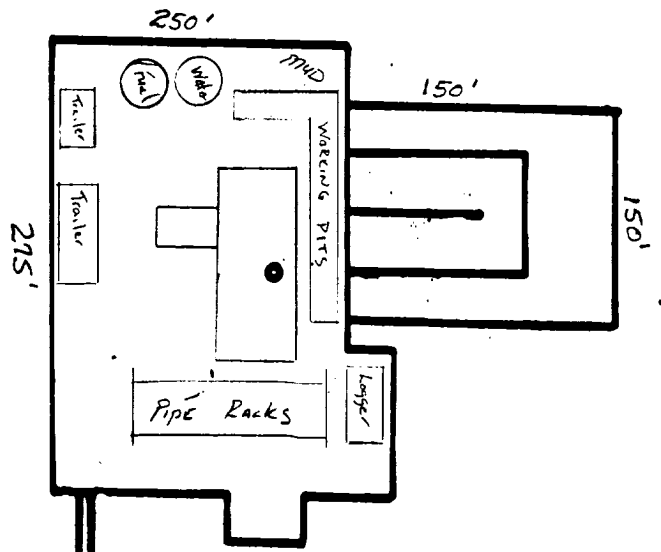


EXHIBIT "b"

HAGERMAN
QUADRANGLE

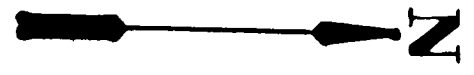
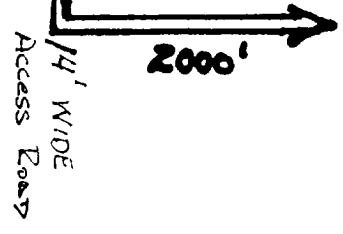


400x



300'

400'



HANAGAN PETROLEUM CORP.
#1 Lobo Federal
Sec 33 - T13S - R29E

SCALE: No Scale
DATE: 2/14/94

APPROVED BY:

DRAWN BY: MGH
REVISED:

DRAWING NUMBER