

INTRODUCTION

Recently, several archaeological reconnaissances were completed by the Agency of Conservation Archaeology, Eastern New Mexico University, Portales, for Amoco Production Company in Lea and Eddy Counties, New Mexico. At each of the seven locations, the area will be impacted by the construction of a drill pad and, in the case of three locations, by the construction of an accompanying access road. This project was completed under Federal Antiquities Permit No. 77-NM-021.

This project was administered by Mr. Ray Cox, representative for Amoco Production Company, and Dr. J. Loring Haskell, Director, Agency of Conservation Archaeology.

The reconnaissance was completed by Thomas F. Zale on 19 October 1977 and 23 October 1977.

SURVEY TECHNIQUE

The archaeologist accomplished each reconnaissance by walking a series of parallel transects, each measuring 20 ft, across the proposed drill location. In addition, each of the three proposed access roads was walked in a zigzag pattern. These techniques permitted optimal conditions for the examination of areas of primary and secondary impact.

Myers "A" Federal Well No. 7

Location

The proposed access road is 12 ft wide and extends approximately 100 ft through: NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

The proposed drill location measures 400 x 400 ft and situated in the: NE $\frac{1}{4}$ SE $\frac{1}{4}$, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

Map Reference: USGS Jal NW, 7.5 Minute Series.

South Mattix Unit Well No. 32

Location

The proposed access right-of-way is 12 ft wide and extends approximately 100 ft through:

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

The proposed drill location measures 400 x 400 ft and is situated in the: SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 22, T24S, R37E, NMPM, Lea County, New Mexico (BLM).

Map Reference: USGS Jal NW, 7.5 Minute Series.

Terrain

Local topography is distinguished by an undulating plain with shallow loamy soils. This location is underlain by caliche bedrock.

Floristics

The dominant species at this location is Gutierrezia sarothrae. Other species include Opuntia spp., Sporobolus cryptandrus, Bouteloua eriopoda, and Agropyron smithii.

Cultural Resources

The archaeological examination of this area revealed no visible cultural resources.

Recommendations

ACA recommends clearance for the proposed right-of-way and drill location and suggests that construction proceed without modification of existing plans.

Yates Federal Well No. 2

Location

The proposed access right-of-way is 12 ft wide and extends approximately 700 ft passing through:

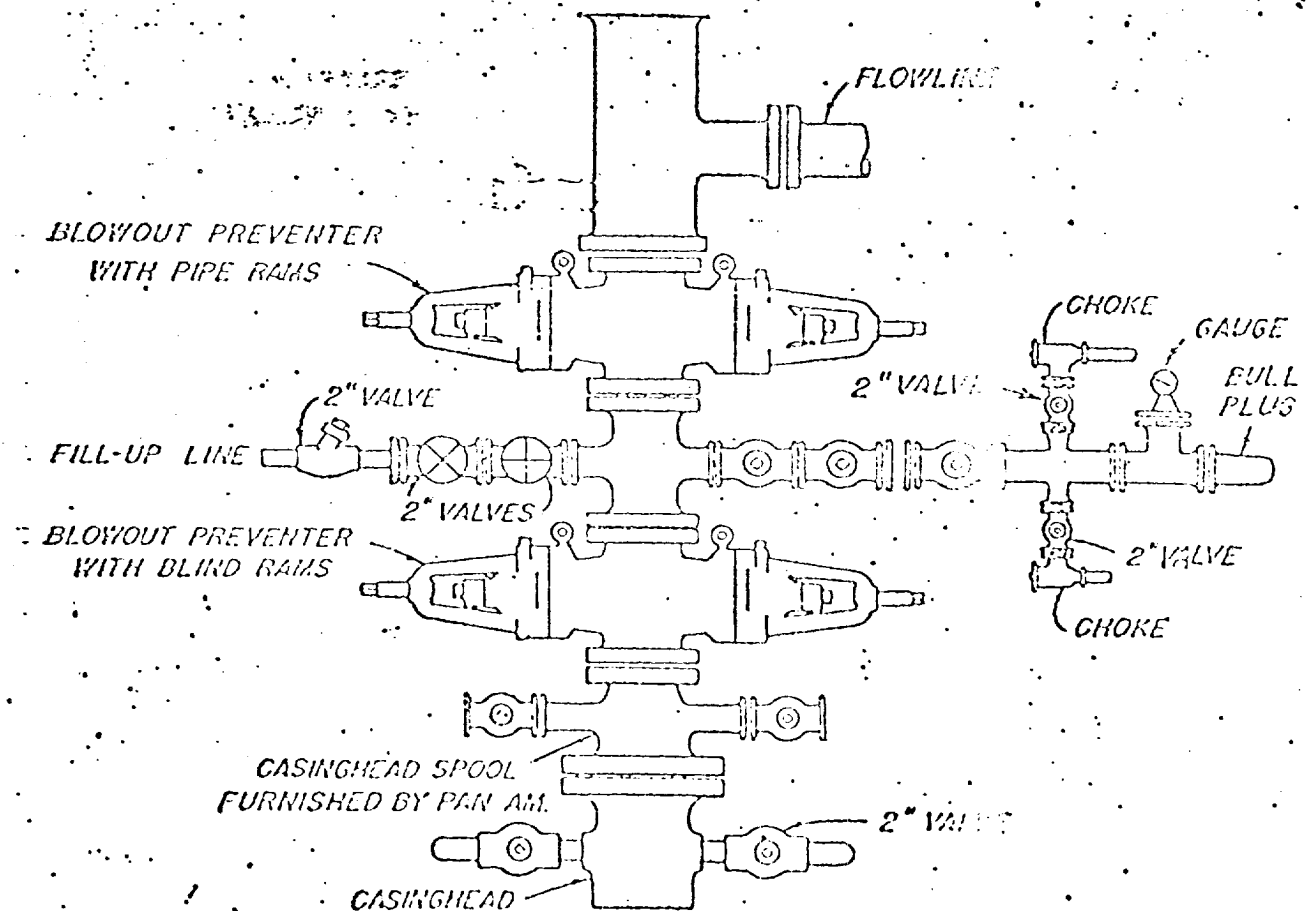
1. Blow-out preventer and master valve to be fluid operated and all fittings must be in good condition, 3,000# W.P. (6,000 p.s.i. test), minimum.
2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
3. Baffle above blow-out preventer shall be same size as casing being drilled through.
4. Kelly cock required, 3,000# W.P. (6,000 p.s.i. test), minimum.
5. OMSCO or comparable safety valve must be available on rig floor at all times with proper connection or sub, 3,000# W.P. (6,000 p.s.i. test), minimum.
6. Blow-out preventers and master valve while drilling intermediate hole to 6,000' may be 2,000# W.P. (4,000 p.s.i. test), minimum.
7. Choke assembly, beyond second valve from cross, may be positioned (Optional) outside of derrick foundation.
8. Spool or cross may be eliminated if connections are available in the lower part of the blow-out preventer body.
9. Plug valves - gate valves are optional. Valves shown as 2" are minimum size.
10. Casing head and casing head spool, including attached valves, to be furnished by Pan American.
11. Rams in preventers will be installed as follows:

When drilling, use:

Top Preventer - Drill pipe rams
Bottom Preventer - Blind rams or master valve

When running casing, use:

Top Preventer - Casing rams
Bottom Preventer - Blind rams or master valve.



BLOWOUT PREVENTER HOOK-UP
PAN AMERICAN PETROLEUM CORP.

EXHIBIT D-1 MODIFIED

JUNE 1, 1962

Attachment to "Application for Permit to Drill" Form 9-331 C

South Mattix Unit Well No. 32, Unit H, 1,535' FNL x 330' FEL, Sec. 22,
T-24-S, R-37-E, Lea County, New Mexico

1. Location

See Attached Form C-102

2. Elevation

See Attached Form C-102

3. Geologic name of surface formation.

Unknown

4. Type of drilling tools and associated equipment to be utilized.

See Form 9-331 C

5. Proposed drilling depth.

See Form 9-331 C

6. Estimated tops of important geologic markers.

Upper Yesso	5,150'	Fussellman	8,300'
Abo	6,340'	McKee	9,750'

7. Estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered.

Upper Yesso	5,150'	Fussellman	8,300'
Abo	6,340'	McKee	9,750'

8. Proposed casing program including size, grade, and weight of each string and whether it is new or used.

<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>New or Used</u>
400'	13 3/8"	48#	K-55 ST & C	New
4,400'	8 5/8"	24#	K-55 ST & C	New
9,750'	5 1/2"	14-15.5#	K-55 ST & C	New

9. Proposed cementing program.

13 3/8" Casing - Sufficient cement to circulate to surface.

8 5/8" Casing - Sufficient cement to circulate to surface.

5 1/2" Casing - Sufficient cement to tie back to 8 5/8" Casing.

10. Blow Out Preventer Program is Attached

11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling and the quantities and types of mud and weighting material to be maintained.

Surf to 400' - Native mud x fresh water

400' to 4,400' - Brine water, native mud and sufficient commercial mud to maintain good hole conditions.

4,400' to 9,750' - Fresh water, native mud and sufficient commercial mud to maintain good hole conditions.

12. Testing, logging and coring programs to be followed with provisions made for required flexibility.

400' to 9,750' - FDC-CNL with Gamma Ray

400' to 4,400' - Dual Laterolog-Micro SFL

4,400' to 9,750' - Dill 8

4,400' to 9,750' - Micro Laterolog with Micro Log

4,400' to 9,750' - Temperature Log

13. Any anticipated abnormal pressures or temperatures expected to be encountered or potential hazards such as hydrogen sulfide gas, along with plans for mitigating such hazards.

None anticipated

14. Anticipated starting date and duration of operation.

<u>Start</u>	<u>Finish</u>
December 6, 1977.	January 1, 1978.

15. Other facets of the proposed operation, operator wishes to point out for the Geological Survey's consideration of the application.

None

ATTACHMENT TO FORM 9-331C

APPLICATION FOR PERMIT TO DRILL

LEASE South Mattix Unit WELL NO. 32
LOCATION Unit H, Sec 22, T-24-S, R-37-E
POOL Fowler Ellenburger
COUNTY Lea County, New Mexico

The undersigned hereby states that Amoco's representative, Mr. Gary Jones, personally contacted Mrs. B. J. Doom, the owner/~~owner~~ of the surface land where the proposed work is to be conducted and advised him of the proposed work, the construction site and pertinent roads included in the project. It is further stated that, upon being fully advised of the extent of the work and the effect upon the surface, said owner has consented to the said work and that agreement as to the compensation for damages to the surface estate has been reached.

If the well is a producer, all pits will be cut, filled and levelled as soon as practical after the pits are dry. If the well is a dry hole, pits will be filled as above, a dry hole marker will be installed and the location and pad will remain intact.

Ray W. Cox
Ray W. Cox
Administrative Assistant

10-31-77
DATE

Proposed Development Plan for Surface Use

Amoco Production Company's South Mattix Unit Well No. 32, Unit H, 1,535'
FNL x 330' FEL, Sec 22, T-24-S, R-37-E, Lea County -(Development Well).

1. Existing roads including location of exit from main highway.
Detailed map showing drillsite location in relation to the nearest town and all existing roads within one mile of the wellsite are shown on Exhibit A. From Jal, go North on Highway 18 six miles to Jal Cooper Cemetery turnoff. Turn East on caliche road and go 2.9 miles. See Exhibit B.
2. Planned access roads.
From the existing caliche road, the new road will go South to the Northwest corner of the drilling pad. The road will be 1300' long and 12' wide. See Exhibit B.
3. Location of existing wells.
All existing wells within one mile radius are shown on Exhibit C.
4. Location of tank batteries and flow lines.
Well will be tied into existing facilities located in Unit J, Sec 15, T-24-S, R-37-E.
5. Location and type of water supply.
Fresh water will be hauled from a water well 1½ miles south of location. Brine water will be hauled from Eunice, N.M.
6. Source of construction materials.
Caliche will be obtained from an existing pit located approximately 1/8 mile Southeast of location.
7. WASTE DISPOSAL -
 - a. Drill cuttings will be disposed of in the reserve pit.
 - b. Drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry.

- c. Trash, waste paper, garbage and junk will be burned or buried with a minimum of 24" cover. Waste material will be contained to prevent scattering by wind prior to ultimate disposal.
- d. Any produced water will be contained in tanks and be disposed of in an approved manner. Oil produced will be stored in tanks until sold, at which time it will be hauled from location.
- e. Current laws and regulations pertaining to disposal of human waste will be complied with.
- f. If productive, maintenance waste will be placed in special containers and buried or hauled away periodically.

8. ANCILLARY FACILITIES -

No camps, airstrips, etc., will be constructed.

9. WELLSITE LAYOUT -

- a. Size of Drilling Pad - 340' x 290' x 6"
- b. Compacted - Caliche
- c. Surfaced - No
- d. 450'square area around wellsite has been cleared by archeologist.
- e. See Exhibit D.

10. RESTORATION OF SURFACE -

Producing Well - all pits will be cut, filled, and levelled as soon as practical to original condition with rehabilitation to commence following removal of drilling and completion equipment. Rehabilitation to be completed in 180 days if possible.

Dry Hole - same as above with dry hole marker to be installed and surface reseeded if required.

11. OTHER INFORMATION -

- a. Terrain - relatively flat.
- b. Soil - hard and rocky.
- c. Vegetation - sparse - catclaw and greasewood and mesquite.
- d. Surface Use - grazing
- e. Ponds and Streams - None
- f. Water Wells - None
- g. Residences and Buildings - None
- h. Arroyos, Canyons, etc. - None
- i. Well Sign Posted at drillsite.
- j. Open Pits - All pits containing liquid or mud will be fenced.
- k. Archaeological Resources - Drillsite, which is in nearly flat, semi-arid, desert country, is in a low environmental risk area. The total effect of drilling and producing in this area would be minimal. No known archaeological, historical, or cultural sites exist in the drill or road areas.

12. OPERATOR'S REPRESENTATIVE -

Field personnel responsible for compliance with development plan for surface use is:

J. H. Hankins, Drilling Superintendent
P. O. Drawer A
Levelland, Texas 79336
Office Phone: 806-894-3163

LEASE & WELL NUMBER South Mattix Unit Well No. 32

LOCATION Unith, 1535' FNL X 330' FEL, Sec. 22, T-24 - S, R-37 - E, Lea County

Certification: The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in Item No. 12 of the plan.

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 AMOCO PRODUCTION COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

10/27/77
DATE

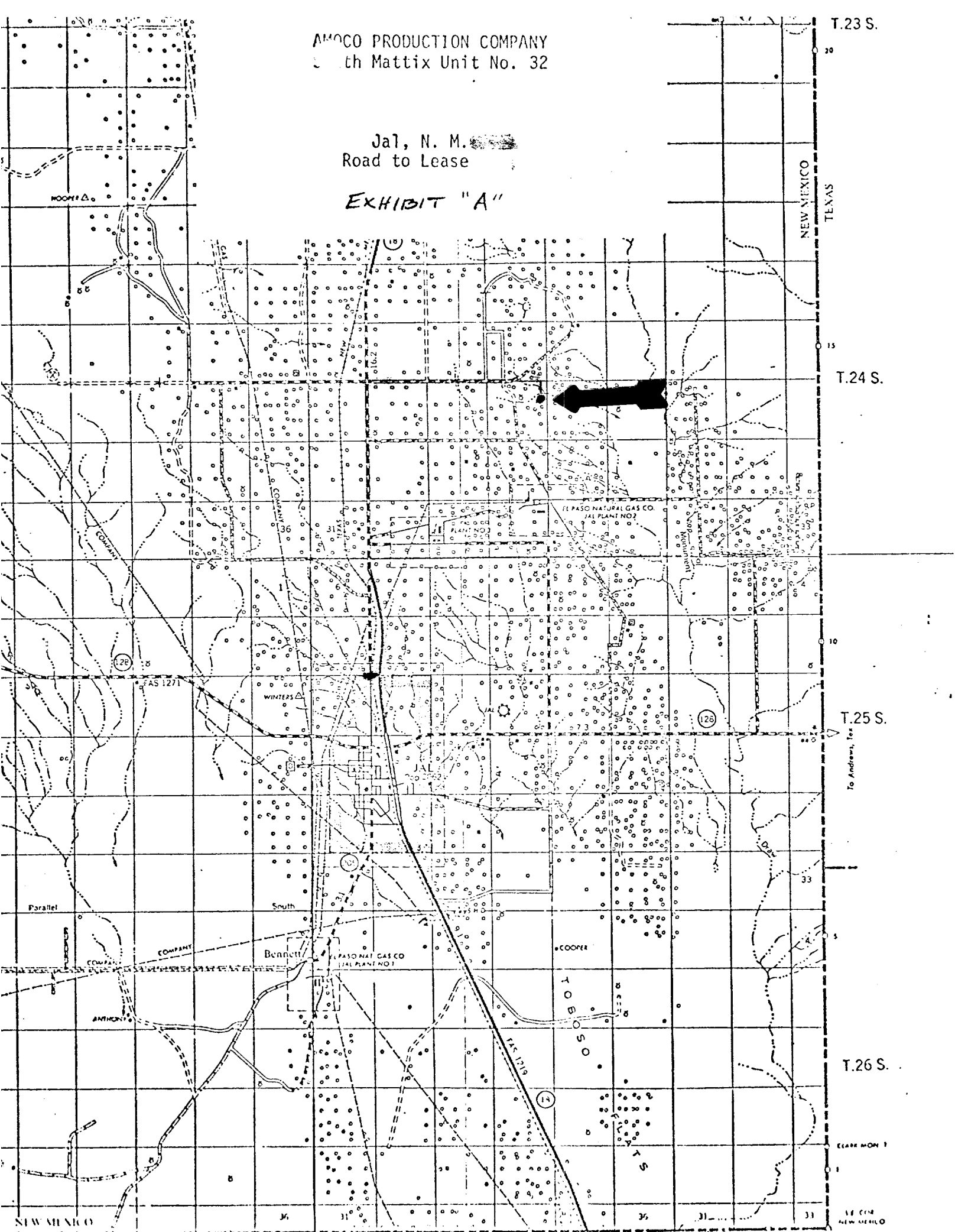
J. A. Harrison
NAME AND TITLE

Sr. Drlg. Foreman

AMOCO PRODUCTION COMPANY
South Mattix Unit No. 32

Jal, N. M.
Road to Lease

EXHIBIT "A"



PIPELINE

Gravel Pit

AMOCO PRODUCTION COMPANY
South Mattix Unit No. 32

Unit H, Sec. 22, T-24-S, R-37-E
Lea County

EXHIBIT "B"

