

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

SEP 7 1977

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

ARTESIA, OFFICE

3. ADDRESS OF OPERATOR

ARMOCO PRODUCTION COMPANY
P.O. DRAWER A, LEVELLAND, TEXAS 79336

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1009' FSL X 797' FWL SEC. 18 (UNIT M, SW 1/4 SW 1/4)

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

9 MILES SE OF CARLSBAD, NM

10. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

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

3078.4

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	34#	400'	CIRCULATE
7 7/8"	5 1/2"	14-15.5#	3450'	SUFFICIENT TO TIEBACK INTO 8 5/8" CASING.

After drilling, logs will be run and evaluated. Perforate and stimulate as necessary in attempting commercial production.

MUD PROGRAM: O-SCP NATIVE MUD + WATER
SCP - TD NATIVE MUD + BRINE

BOP PROGRAM ATTACHED.

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

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 Kenneth Brand

TITLE Senior Staff Assistant

DATE 8-1-77

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL IF ANY:

TITLE

DATE

APPROVED

SEP 6 1977

R. L. ELLMAN
ACTING DISTRICT ENGINEER

See Instructions On Reverse Side

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES 1977

0-4- USGS, ART
1- DIV
1- SUSP
1- KWB
1- MARATHON 2- BASS

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-122
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator AMOCO PRODUCTION CO.		Lease FEDERAL OLD INDIAN DRAW		Well No. 37
Section M	Section 18	Section 22 South	Section 28 East	Section Eddy
Approximate Location of Wells				
1009	feet from the South	797	feet from the West	
Producing Formation 3078.4	DELAWARE	Foot INDIAN DRAW DELAWARE	Dedicated Acreage 40 34	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

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U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

NM-0415688-A

CERTIFICATION

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

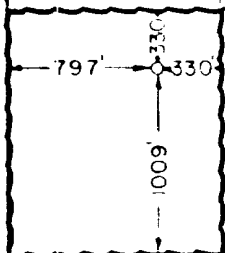
Name
Kenneth Brand
Position
Senior Staff Assistant
Company
Amoco Production Company
Date
8-1-77

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
July 16, 1977

Registered Professional Engineer
and/or Land Surveyor

John W. West
Certificate No. **676**



0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000

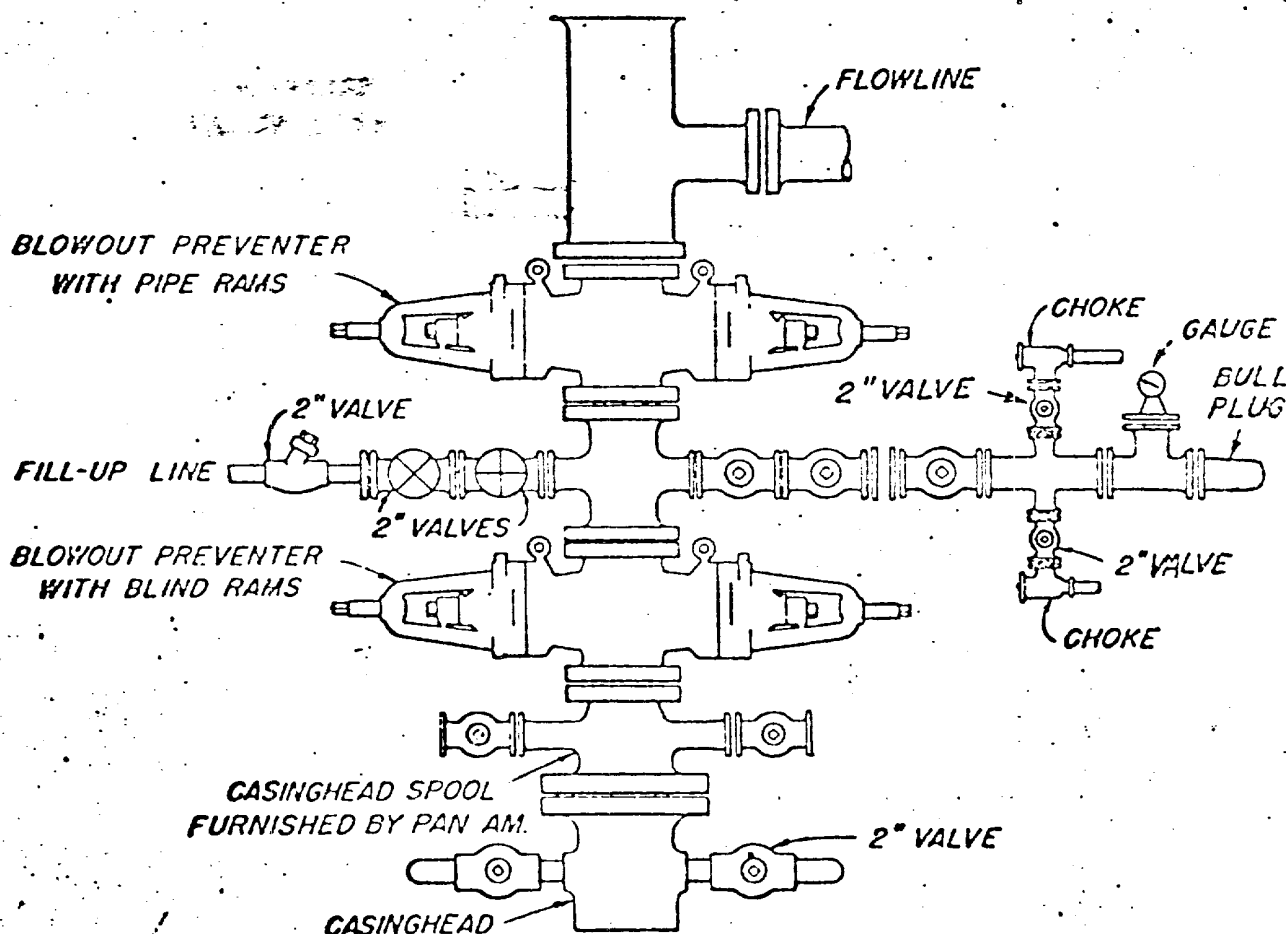
1. Blow-out preventers and master valve to be fluid operated and all fittings must be in good condition, 3,000# W.P. (6,000 p.s.i. test), minimum.
2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
3. Nipple above blow-out preventer 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

Old Indian Draw Well No. 37, Unit M,
1009' FSL and 797' FWL, Sec. 18,
Township 22 South, Range 28 East,
Eddy County, New Mexico

1. Location (See Attached Form C-102)
2. Elevation (See Attached Form C-102)
3. The geologic name of the 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. The estimated tops of important geologic markers.

Base Salt	2300'
Delaware Sand	2400'
Indian Draw Sand	3228'

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

Indian Draw Sand	3228'
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8. The proposed casing program.

Depth	Size	Weight	Grade	New or Used
400	8 5/8"	24#	K-55 ST & C	New
3450	5 1/2"	14 & 15.5#	K-55 ST & C	New

9. The proposed cementing program.

8 5/8" Casing - sufficient cement to circulate back to surface.
5 1/2" Casing - sufficient cement to tie back into 8 5/8" casing.

10. Blow out 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.

0 - Surface casing point: native mud and water
SCP - Total Depth: native mud and brine

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

0 - TD: Gamma Ray Sonic with Caliper
2200 - TD: Dual Laterolog - Micro SFL
2200 - TD: 4 Arm Dipmeter with C-Panel

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.

Drilling to start August 23, 1977. Complete September 13, 1977.

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 OLD INDIAN DRAW UNIT WELL NO. 37

LOCATION UNIT M, SEC. 18, T-22-S, R-28-E

POOL INDIAN DRAW DELAWARE

COUNTY EDDY STATE NEW MEXICO

The undersigned hereby states that Amoco's representative, Mr. J. H. HANKINS, personally contacted MR. HENRY H. GRANDI, CARLSBAD, the owner/leasee 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.

Kenneth Brand
Kenneth Brand
Senior Staff Assistant

8-1-77
Date

Old Indian Draw Well No. 37, Unit M,
1009' FSL X 797' FWL, Sec. 18, T-22-S, R-28-E,
Eddy County, NM (Development Well)

1. EXISTING ROADS - Detailed map showing drillsite location in relation to a town or known point and all existing roads within one-mile of the wellsite are shown on Exhibit A.

From Carlsbad, go east 2 miles from the canal on Highway 62-180. Turn southeast on blacktop road. Go 4 3/4 miles. Turn east through cattleguard to wellsite.

2. PLANNED ROADS - Refer to exhibit B. Existing lease road will be used for access to wellsite.

3. LOCATION OF EXISTING WELLS - The only existing wells within 1-mile of location are Amoco operated Old Indian Draw Wells No. 1-3, 5-16, 21 and 22 as shown on Exhibit C and D.

4. TANK BATTERIES AND FLOW LINES - Production facilities consist of storage tanks, separators, treaters, water storage tanks and lact unit located approximately 250' east of Old Indian Draw Well No. 1. If Well No. 37 is productive, a flow-line will be installed on the south side of existing lease road to battery.

5. WATER SUPPLY - See attached map. Fresh water to be hauled from B & E, Inc. yard in Carlsbad. Brine water to be hauled from Champion Brine Water Station 3 1/2 miles east and 2 1/2 miles south of Carlsbad. (~~EXHIBIT~~ E)

6. CONSTRUCTION MATERIALS - See attached map Exhibit E. Caliche will be obtained from existing caliche pit 300' north of Old Indian Draw Well #2.

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 - 220' X 150' X 6"
- b. Compacted - Caliche
- c. Surfaced - No
- d. 300' square area around wellsite has been cleared by archeologist.

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 archeological, 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:

O. R. Williams, Area Foreman
P. O. Drawer A
Levelland, Texas 79336
Office Phone: 806-894-3167

ATTACHMENT TO PROPOSED DEVELOPMENT PLAN FOR SURFACE USE, AND FORM 9-331C

13. 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.

8-1-77
DATE

William J. Area
NAME AND TITLE

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U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

R.27 E.

EDMON COUNTY

R.29 E.

R.28 E.

T.21 S.

AMOCO PRODUCTION COMPANY

OLD INDIAN DRAW UNIT

"A"

T.22 S.

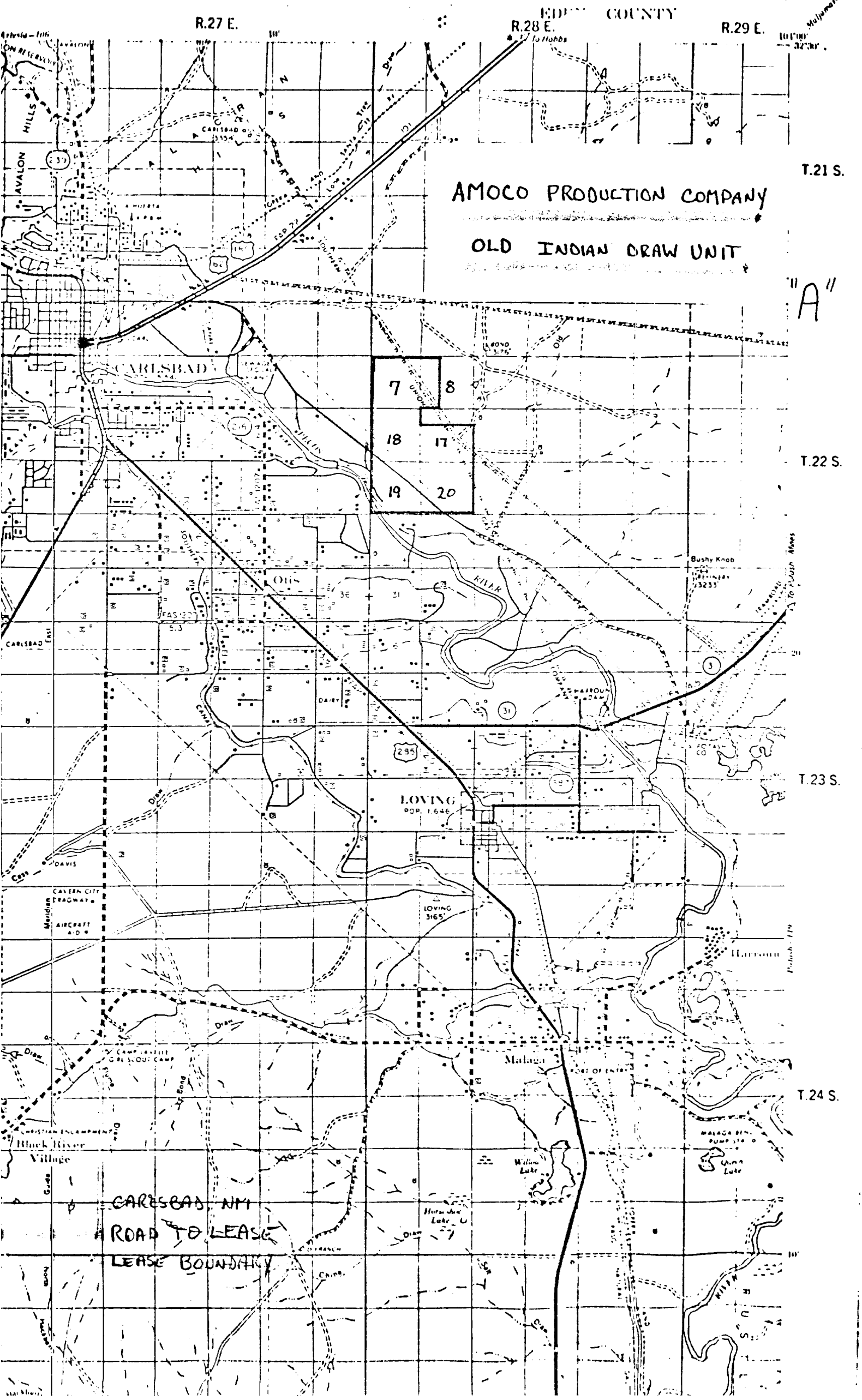
T.23 S.

T.24 S.

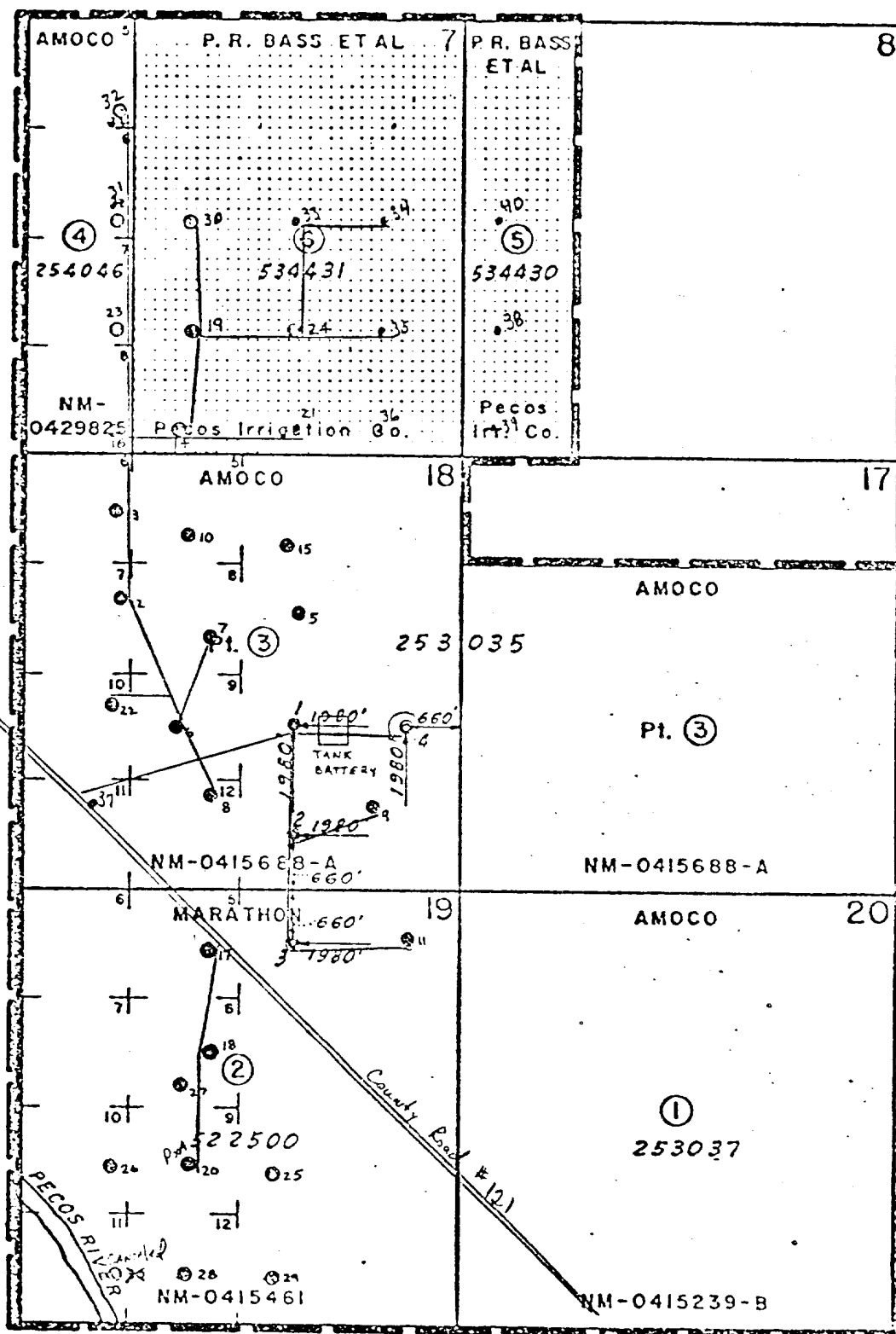
CARLEBAD, NM

ROAD TO LEASE

LEASE BOUNDARY



R 28 E











T
22
S

FEDERAL
LEASES

NM-0415239-B
NM-0415461
NM-0415688-A
NM-0429825

LEGEND

- | | | |
|--|---------------|---|
|  | FEDERAL LAND |  PRODUCER |
|  | FEE LAND |  DISPOSAL |
|  | TRACT NUMBER |  TO BE DRILLED |
|  | UNIT BOUNDARY |  P X A |

Unit Lease No 522059

EXHIBIT "D"

TO ACCOMPANY

OLD INDIAN DRAW UNIT AGREEMENT
EDDY COUNTY, NEW MEXICO

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