

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY(Other instructions on
reverse side)

30-015-22095

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. LC-028992-e	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR General American Oil Company of Texas		7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 416 Loco Hills, New Mexico 88255		8. FARM OR LEASE NAME Arnold "E"	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 990' FSL and 990' FEL At proposed prod. zone		9. WELL NO. 4	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 2-1/2 Miles East of Loco Hills, New Mexico		10. FIELD AND POOL, OR WILDCAT v Fren SR	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 990'		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 23, T-17S, R-30E	
16. NO. OF ACRES IN THIS WELL 80		12. COUNTY OR PARISH Eddy	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 630'		13. STATE New Mexico	
19. PROPOSED DEPTH 2100		20. ROTARY OR CABLE TOOLS Cable Tools	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3664.1 GR		22. APPROX. DATE WORK WILL START* April 1, 1977	
23. PROPOSED CASING AND CEMENTING PROGRAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
12-1/4"	8-5/8"	24#	500
8-1/4"	7"	20#	2100
		QUANTITY OF CEMENT	
		Circulate	
		250 sacks	

We propose to drill this well to 2100' and complete in the Seven Rivers.

All zones indicating porosity will be acidized or sand fraced.

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MAR 08 1977

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 Lendell Hawkins TITLE District Engineer DATE February 26, 1977
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY [Signature] DATE JUL - 6 1977
CONDITIONS OF APPROVAL, IF ANY: TITLED IF OPERATIONS

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMM. ON
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 GENERAL AMERICAN OIL COMPANY OF TEXAS			Lease ARNOLD "E"		Well No. 4
Unit Letter "P"	Section 23	Township 17 South	Range 30 East	County Eddy	
Actual Footage Location of Well: 990 feet from the South line and 990 feet from the East line					
Ground Level Elev. 3664.1	Producing Formation SEVEN RIVERS		Pool FREN	Dedicated Acreage: 40 Acres	

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.

CERTIFICATION

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

Lenzell Hawkins

Name

LENDELL HAWKINS

Position

ENGINEER

Company

GENERAL AMERICAN OIL CO. OF

Date

TEXAS

FEBRUARY 26, 1977

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

23, 1977

Registered Professional Engineer
and/or Land Surveyor

2/26/77
Certification No. **36900**
STATE OF NEW MEXICO
REGISTERED LAND SURVEYOR

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Re: Drilling Prognosis
Arnold "E" No. 4
Eddy County, New Mexico

- I. OBJECTIVE: Drill a 2100' well to test Seven Rivers Oil Zone. Possible may drill with cable tool.
- II. LOCATION: 990' from South and 990' FEL. Section 23, Township 17 South, Range 30 East.
- III. BUDGET CLASSIFICATION: Development Drilling.
- IV. PROJECTED TOTAL DEPTH, HOLE SIZE, SLOPE TEST:
- A. 12-1/4" hole to the top of the salt to accommodate 8-5/8" surface casing. (Approximately 500').
 - B. 8-1/4" hole to approximately 2100' to accommodate 7" production casing.
 - C. Estimated drilling 3 days with rotary (18 days with cable tools).
 - D. Slope test will be run on each bit trip or 500' intervals. (If drilled with rotary).
 - E. If any coring or drill stem testing is done pipe will be strapped out of hole prior to coring or testing.
- V. DRILLING CONTRACTOR:
- A. Contractor: W.E.K. Drilling Company, Inc. or Morgan Cable Tools
 - B. Type Contract: Footage
 - C. Contract Depth: 2100'
- VI. MUD PROGRAM: Probably will be furnished by Mudco or IMC. (If drilled with rotary).
- | Interval | Type Mud | Weight | Viscosity | Water Less |
|-------------|--------------------|--------|-----------|------------|
| 0'-1900' | Fresh & Salt Water | 9-10 | 28 - 30 | NC |
| 1900'-2100' | Salt Mud | 10-11 | 36 - 38 | NC |
- VII. SAMPLES:
- A. 10' Samples from 2200' to T.D. or as directed by Company Representative.
- VIII. CORES AND DRILL STEM TESTS:
- A. At the present time no cores or drill stem tests are planned.
- IX. LOGS:
- A. Proposed logging program will be a Sidewall Neutron, Gamma Ray,

X. CASING AND TUBING PROGRAM:

- A. Surface: 8-5/8" 20# range 2 casing to be set approximately 500' and cemented with 100 sacks Class "C" cement with 2% CaCl.
- B. Production: 7" 23# used ST&C run to 2100'.
Cementing of production casing will be mostly Class "H" cement with 1/4# flocl, 3/4 of 1% CFR-2, 5# salt, 10# sand per sack.

XI. SAFETY PROGRAM:

Blowout preventers will be used as well as close observation by company personnel to assure the well is safely drilled.

XII. THIRD PARTY SERVICES:

Surveying:	Jones & Company and John West Engineering
Dirtwork:	Jabo Rowland and Sweatt Construction
Cementing:	Halliburton & B.J.
Logging:	Dresser Atlas
Drilling Mud:	Mudco and IMC
Water Trucking:	I & W and Caprock

XIII. LOG DISTRIBUTION:

2 - W. T. Patterson	GAOC	Meadows Building	Dallas, Texas 75206
4 - Lendell Hawkins	GAOC	P. O. Box 416	Loco Hills, N. M. 88255

SURFACE USE PLAN
GENERAL AMERICAN OIL COMPANY OF TEXAS, WELL: ARNOLD "E" #4
LEASE LC-028992-e EDDY COUNTY, NEW MEXICO

RECEIVED
MAR 08 1977
U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

The subject well is located approximately 29 miles East of Artesia, New Mexico on the South side of Highway U.S. 82. The following is a discussion of pertinent information concerning possible effect, which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so that all contractors and sub-contractors will be aware of all items of this plan.

1. AERIAL ROAD MAP - Exhibit "A" is a portion of the Artesia Quadrangle Map #106 and Maljamar Quadrangle Map #107 showing well site in relation to U. S. Highway 82. Access road, which is shown on Exhibit "B" exits the highway about 24 miles East of Artesia, New Mexico.
2. LOCATION OF EXISTING WELLS - The location of existing wells in the immediate area of the proposed well is shown on Exhibit "B".
3. PROPOSED WELL MAT AND IMMEDIATE AREA - Refer to Exhibit "C" for direction orientation and road access.
 - a. MAT SIZE - 145' x 105'.
 - b. SURFACED - Will be topped with 6" of caliche, bladed, watered, and compacted. Caliche to be purchased from B.L.M. by dirt contractor.
 - c. RESERVE PIT - 50' x 27' pit unlined, joining mat to North.
 - d. CUT & FILL - Location is basically flat except for small sand dunes. No fill will be needed except existing sand dunes leveled and topped with caliche.
 - e. DRILL SITE LAYOUT - Exhibit "C" shows the location and layout including position of the Rig, Reserve Pits, Pipe Racks, etc.
 - f. SETTING AND ENVIRONMENT
 - (1) Terrain - Low rolling sand hills.
 - (2) Soil - Sandy Soil.
 - (3) Vegetation - Sparse vegetation, being mostly mesquite, shennery, weeds, and other semi-desert plants with some grass.
 - (4) Surface Use - Grazing.
 - (5) Other - Drillsite - which is in sandy semi-arid desert country, is in a low environmental risk area. The total effect of drilling and producing this and other wells in this area would be very minimal.
 - g. DISTANCES TO
 - (1) Ponds and Streams - There are no surface waters within 3/4 mile.
 - (2) Water Wells - There are no water wells within 1/2 mile.
 - (3) Residences and Building - There are no residences or buildings within 1/2 mile.
 - (4) Arroyos, Canyons, Hills, etc. - Outside of small sand dunes there are no surface features.
 - h. WELL SIGN - Sign identifying and locating proposed well will be maintained at the drill site commencing with the spudding of the well.
 - i. OPEN PITS - All pits containing mud or other liquids will be guarded.

4. ROADS

- a. EXISTING ROADS - All existing roads within the immediate area of well site are shown on Exhibit "B".
- b. PLANNED ROADS - Planned access road will require less than 400 feet of new road that is 12 feet wide. The road will be surfaced with caliche. The proposed road is colored blue and a suggested route to the location is colored red on Exhibit "B". Little improvement will be required on existing access road.
- c. FENCES, GATES AND CATTLE GUARDS - Will be maintained as General American already operates several hundred wells in the immediate area.

5. TANK BATTERY - If production is encountered on additional battery will be required as sufficient facilities are already on the lease.

6. LEASE - PIPELINES

- a. EXISTING - All existing pipelines are shown on Exhibit "B".
- b. PLANNED - If production is encountered, flowline will consist of about 400' of 2" steel line on top of ground shown in orange on Exhibit "B".

7. WASTE DISPOSAL - Barrel trash containers will be in accessible locations within the drill site area during drilling and completion operations. A waste disposal pit will be deep enough to handle waste and will be covered with a minimum of 2 feet of top soil. See Exhibit "C" for pit location. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. Any produced water will be disposed of through the currently existing S.W.D. system.

8. WATER SUPPLY - Water supply to drill this well will be furnished by trucking.

9. ARCHAEOLOGICAL RESOURCES - None were observed.

10. RESTORATION OF SURFACE - If well is productive, pits will be backfilled and leveled as soon as practical. Upon final abandonment of well, well side will be leveled and cleaned, with land returned as near as possible to original condition.

11. OPERATOR'S REPRESENTATIVES - Field personnel who can be contacted concerning compliance of this surface use plan are as follows:

DRILLING AND PRODUCTION

Lendell Hawkins
P. O. Box 416
Loco Hills, New Mexico 88255 OR
Office Phone: 505 677-2481
Home Phone: 505 677-2277

Fred Starkey
P. O. Box 416
Loco Hills, New Mexico 88255
Office Phone: 505 677-2481
Home Phone: 505 746-9397

12. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by General American Oil Company and its Contractors and Sub-Contractors will conform to this plan.

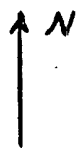
2-26-77

DATE

Lendell Hawkins
Lendell Hawkins, District Engineer



EXHIBIT "A"



SCALE: 1" = 2 MILES

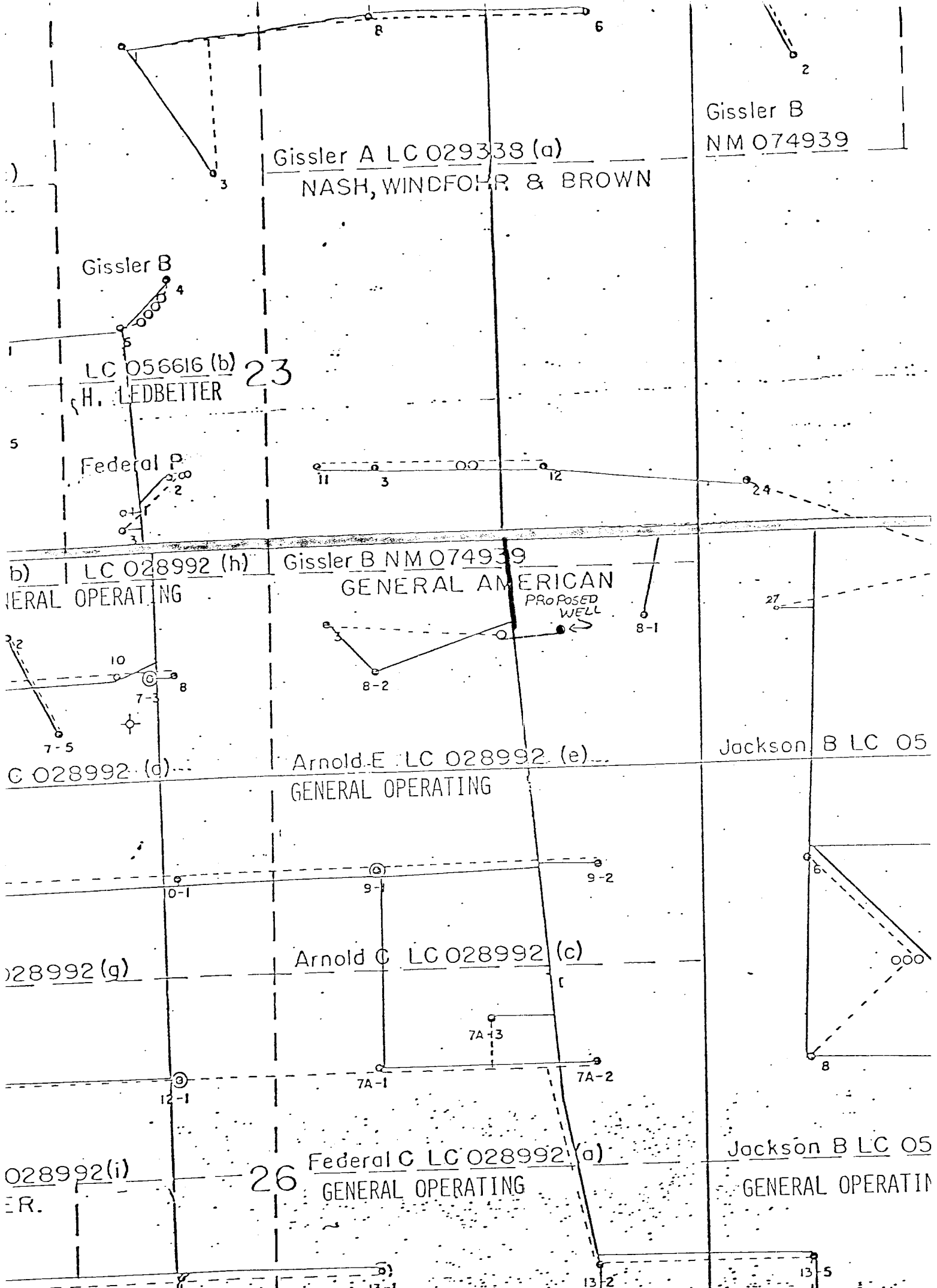
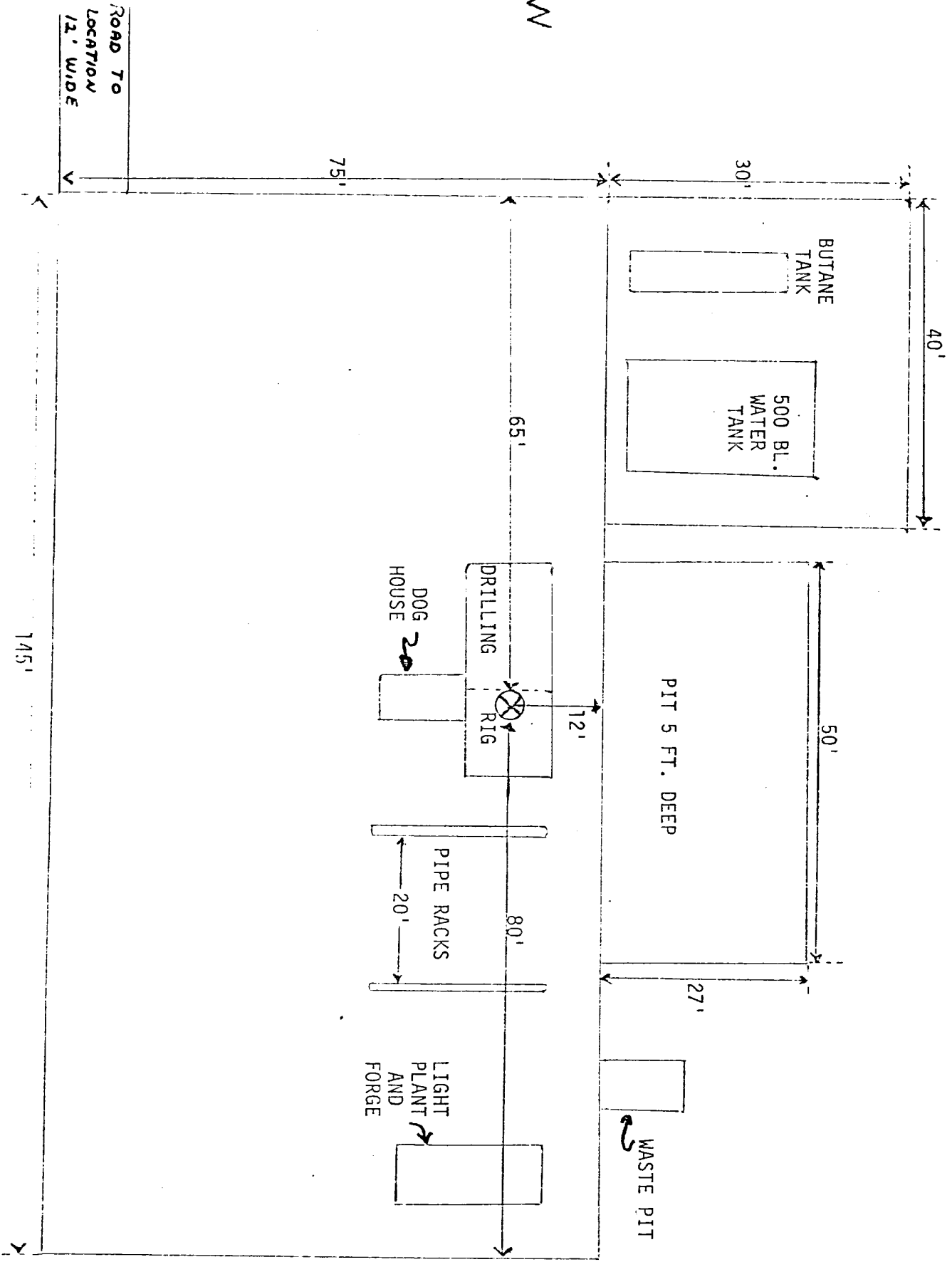


EXHIBIT "B"
 GENERAL AMERICAN OIL COMPANY OF TEXAS
 ARNOLD "E" 4 SECTION 23-TOWNSHIP 17S- RANGE 30E)

- OIL WELL
- ⊙ INJECTION WELL
- EXISTING ROADS
- PROPOSED FLOWLINES (LESS THAN 400' OF TWO INCH STEEL ON TOP OF GROUND)
- NEW PROPOSED ROADS (LESS THAN 400' OF NEW ROAD WILL BE CONSTRUCTED)
- U.S. HI-WAY 82
- EXISTING FLOWLINES
- SUGGESTED ROUTE TO LOCATION: EAST OF ARTESIA, NEW MEXICO APPX. 29 MILES TO HI-WAY MARKER 135. CONTINUE EAST OF MARKER .2 MILE AND TURN SOUTH. LOCATION WILL BE EAST SIDE OF ROAD. (AFTER TURNING SOUTH ON DIRT ROAD)

ON U.S. HIGHWAY 82.

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