

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

copy to us  
30-015-22094

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.  
LC - 028793-c

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Burch "C"

9. WELL NO.  
41

10. FIELD AND POOL, OR WILDCAT  
Grayburg-Jackson

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 30, T-17S, R-30E

12. COUNTY OR PARISH | 13. STATE  
Eddy | New Mexico

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
General American Oil Company of Texas

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3. ADDRESS OF OPERATOR  
P. O. Box 416 Loco Hills, New Mexico 88255 APR 7 1977

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
2615' FSL and 2615' FEL Sec. 30, T-17S, R-30E  
At proposed prod. zone

O. C. C.  
ARTESIA, OFFICE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
1-1/2 Miles West of Loco Hills

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
2615'

16. NO. OF ACRES IN LEASE  
1115

17. NO. OF ACRES ASSIGNED TO THIS WELL  
40

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
1000'

19. PROPOSED DEPTH  
3350'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
3600 GR

22. APPROX. DATE WORK WILL START\*  
March 20, 1977

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"	24#	500'	Circulate
7-7/8"	5-1/2"	14#	3350'	300 sacks

We propose to drill this well to 3350' and complete in the Grayburg and San Andres. All zones indicating porosity will be acidized or sand fraced.

Mud Program: Water and native mud will be used and approximately 100' from T.D. we will mud up to get the hole in shape to log.

A 10" 3000# blowout preventer will be used in the drilling of this well

NSL-826  
2-25-77

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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 Rendell Haurbain TITLE District Engineer DATE February 9, 1977

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:  
Rendell Haurbain  
ACTING DISTRICT ENGINEER

THIS APPROVAL IS REVOKED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.  
EXPIRES JUL - 6 1977

\*See Instructions On Reverse Side

**W 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 <b>GENERAL AMERICAN OIL COMPANY OF TEXAS</b>		Lease <b>Burch C</b>		Well No. <b>E-41</b>
Unit Letter <b>"J"</b>	Section <b>30</b>	Township <b>17 South</b>	Range <b>30 East</b>	County <b>Eddy</b>
Actual Footage Location of Well: <b>2615</b> feet from the <b>South</b> line and <b>2615</b> feet from the <b>East</b> line				
Ground Level Elev. <b>3600.0</b>	Producing Formation <b>Grayburg &amp; San Andres</b>	Pool <b>Grayburg-Jackson</b>	Dedicated Acreage: <b>40</b> Acres	

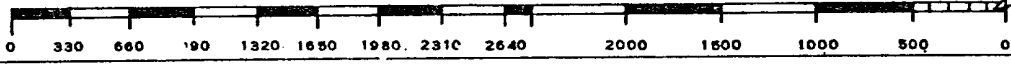
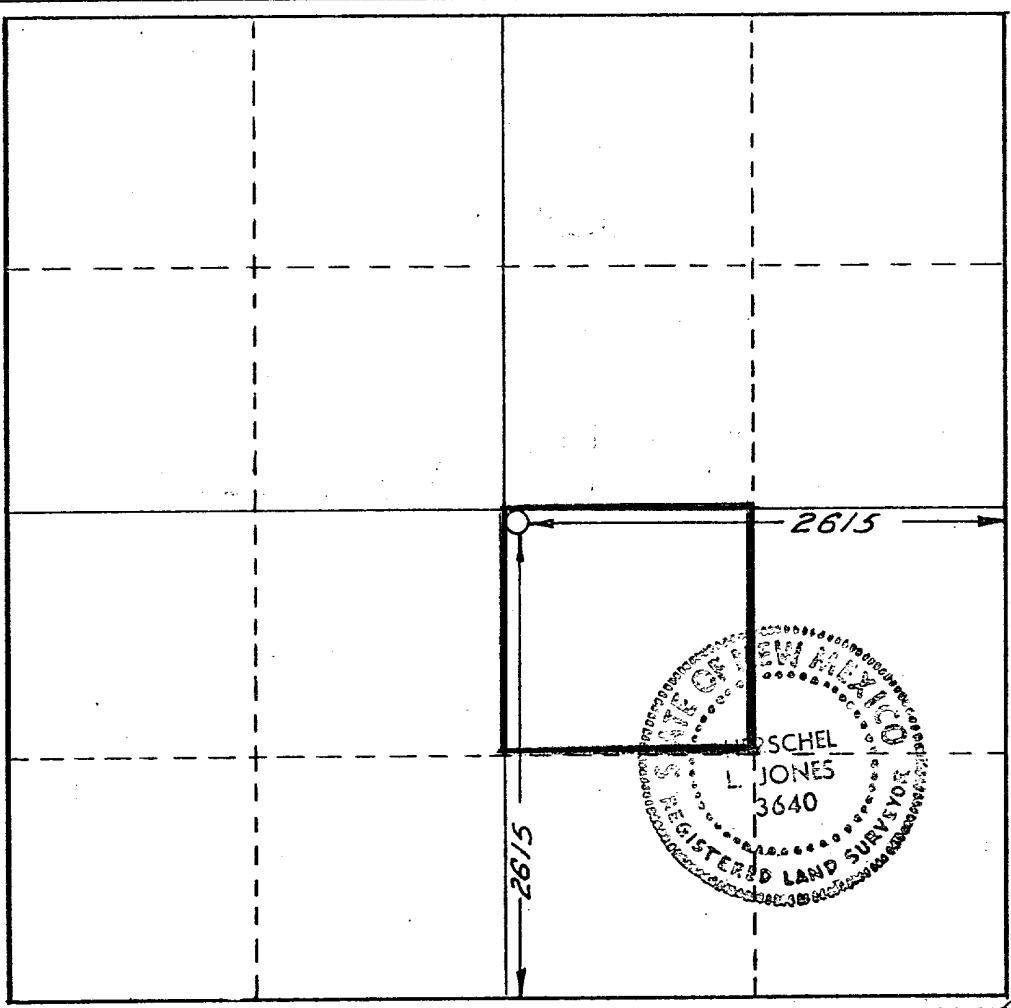
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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.

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BUREAU OF LAND MANAGEMENT  
MEXICO



**CERTIFICATION**

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

*Lendell Hawkins*  
Name

**Lendell Hawkins**  
Name

Position  
**Engineer**

Company  
**General American Oil Co. of Texas**

Date  
**February 9, 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  
**February 9, 1977**

Registered Professional Engineer and/or Land Surveyor  
*L. Jones*

Certificate No.  
**3640**

## DRILLING PROGNOSIS

- I. OBJECTIVE: Drill 4 infill wells in the Grayburg Jackson Field, Eddy County, New Mexico. These wells will continue the infill pattern on 20 acre spacing as already established. These wells will be approximately 3200'-3600' deep.
- II. LOCATION: These wells will be located in Sections 23, Township 17 South, Range 29 East and Section 19 and 30 of Township 17 South, Range 30 East, Eddy County, New Mexico.
- III. PROJECTED TOTAL DEPTH, HOLE SIZE, SLOPE TEST:
- A. 12-1/4" hole to the top of the salt to accomodate 8-5/8" surface casing. (Approximately 350'-500').
  - B. 7-7/8" hole to approximately 3200'-3600' to accommodate 5-1/2" production casing.
  - C. Estimated drilling time 6-7 days per well.
  - D. Slope test will be run on each bit trip or 500' intervals.
  - E. If any coring or drill stem testing is done pipe will be strapped out of hole prior to coring or testing.
- IV. DRILLING CONTRACTOR:
- A. Contractor: W.E.K. Drilling Company, Inc. (Probable)
  - B. Type Contract: Footage
  - C. Contract Depth: 3200'-3600'
- V. MUD PROGRAM: Probably will be furnished by Mudco or IMC.

Interval	Type Mud	Weight	Viscosity	Water Less
0'-3400'	Fresh & Salt Water	9-10	28 - 30	NC
3400'-3600'	Salt Mud	10-11	36 - 38	NC
(Will mud up 200' from T.D.)				

VI. TYPICAL GEOLOGICAL TOPS FOR WELL IN SECTION 24-17S-29E: (Middle of Unit Area)

Tops	Vertical Depth	Subsea
Queen	1880'	+1715'
Loco Hills	2340'	+1255'
Main Metex	2450'	+1145'
San Andres	2585'	+1010'
Lovington	2690'	+ 905'
Jackson Pays	2870'	+ 725'
Lower San Andres Pay	3150'	+ 445'
Keely Pay	3330'	+ 265'
Sub-Keely Pay	3450'	+ 145'

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, Caliper from 0'-T.D.

X: CASING AND TUBING PROGRAM:

A. Surface: 8-5/8" 20-23# range 2 casing to be set approximately (350'-500') and cemented with 100 sacks Class "C" cement with 2% CaCl.

B. Production: 5-1/2" K-55 15.5# ST&C casing will be run.

Cementing of production casing will be with Class "H" cement with 1/4# floce1, 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 and B.J.
Logging:	Dresser Atlas
Drilling Mud:	Mudco and IMC
Water Trucking:	I & W and Caprock

SURFACE USE PLAN  
GENERAL AMERICAN OIL COMPANY OF TEXAS, WELL: BURCH "C" # 41  
LEASE: LC-028793-c EDDY COUNTY, NEW MEXICO

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U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

The subject well is located approximately 24 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 - 140' x 180'.
  - 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 - 60' x 70' 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, Mud Tanks, Reserve Pits, Pipe Racks, etc. The Rig will be erected with the V-Door to the East.
  - 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 100 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 no 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 1,000' 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 the 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 through a steel line already laid through the drilling area.

Location of the water line is shown on Exhibit "B".

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 site 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.

2-9-77

DATE

Lendell Hawkins  
Lendell Hawkins, District Engineer

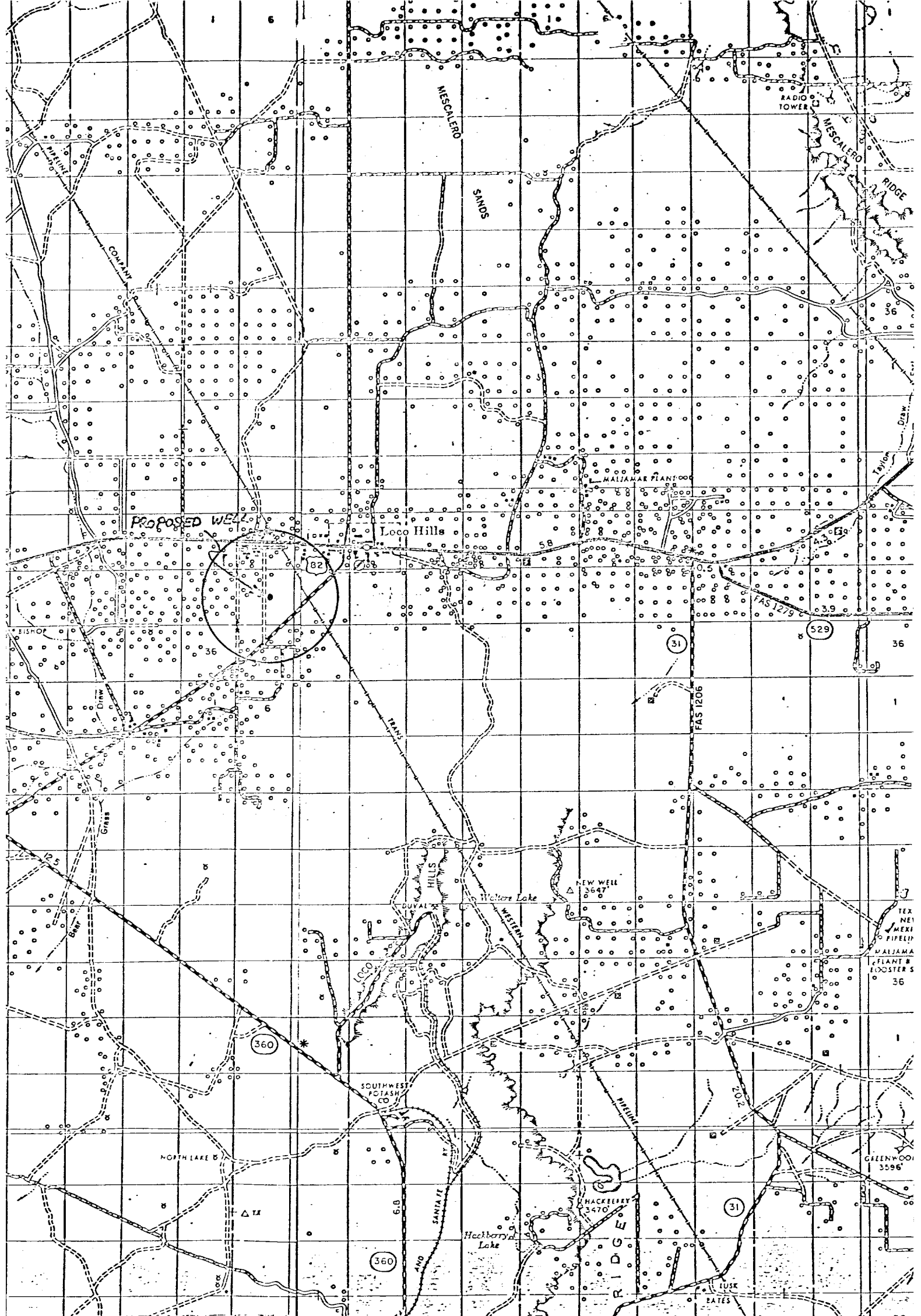


Exhibit "A"

SCALE: 1" = 2 MILES



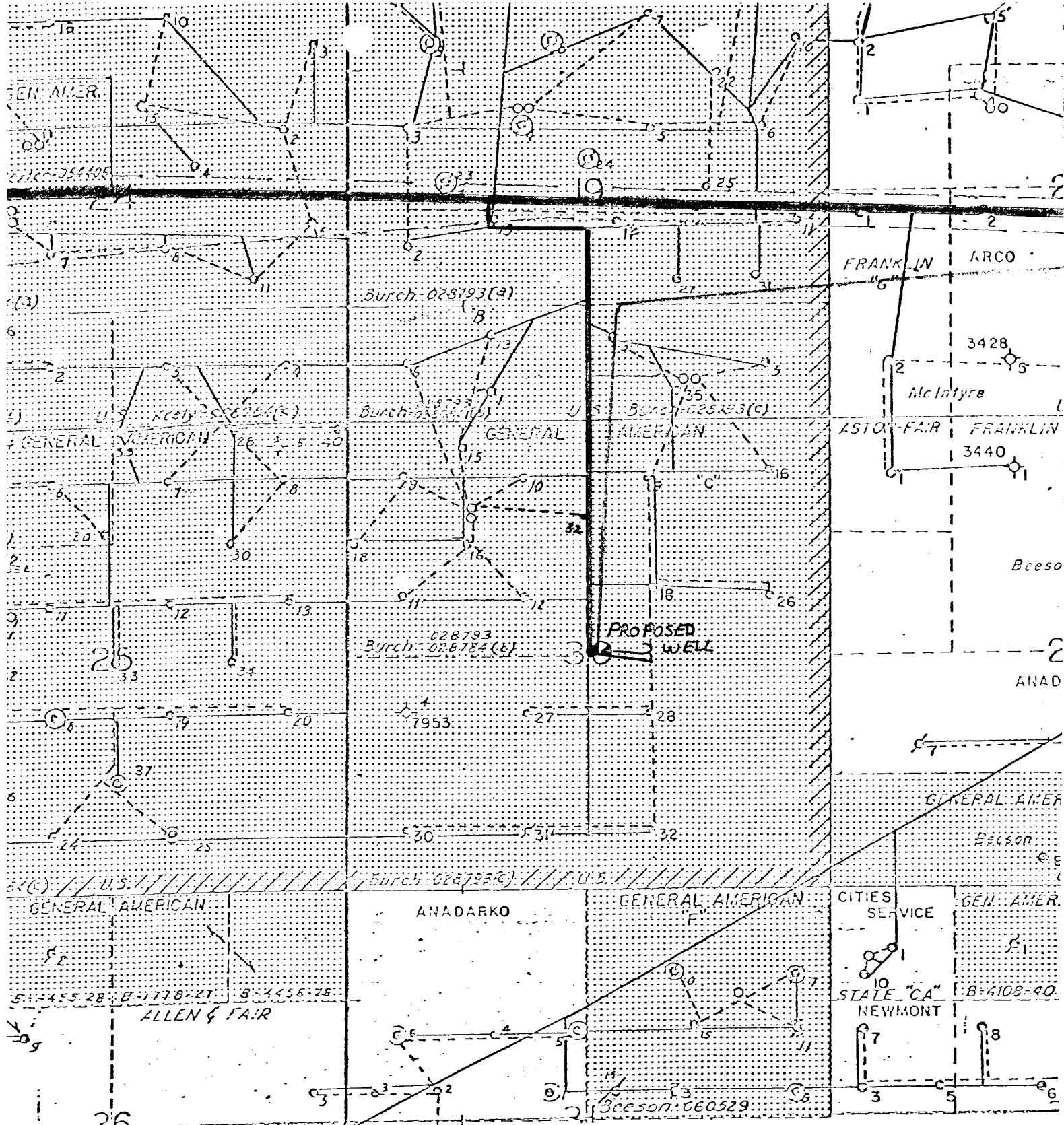
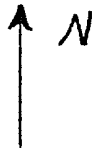


EXHIBIT "B"  
 GENERAL AMERICAN OIL COMPANY OF TEXAS  
 BURCH "C" #41 (SECTION 30-TOWNSHIP 17 SOUTH- RANGE 30 EAST.)

SCALE: 1"=1000'



- OIL WELL
- ⊙ INJECTION WELL
- EXISTING ROADS
- PROPOSED FLOWLINES ( LESS THAN 1,000' OF 2" STEEL ON TOP OF GROUND)
- NEW PROPOSED ROADS. (NOTE: THIS LOCATION IS JUST OFF ROADSIDE AND LESS THAN 100' WILL BE CONSTRUCTED.)
- WATER SUPPLY LINE
- U.S. HI-WAY 82
- SUGGESTED ROUTE TO LOCATION IS APPX. 24 MILES EAST OF ARTESIA, NEW MEXICO TO THE GENERAL AMERICAN OIL CAMP ON SIDE OF ROAD (SOUTH) OF U.S. HI-WAY 82. TURN INTO CAMP AND GO OUT EAST CATTLE GUARD AND TURN SOUTH AND CONTINUE SOUTH FOR APPX. ONE MILE AND LOCATION IS JUST ON EAST SIDE OF ROAD.
- EXISTING FLOWLINES



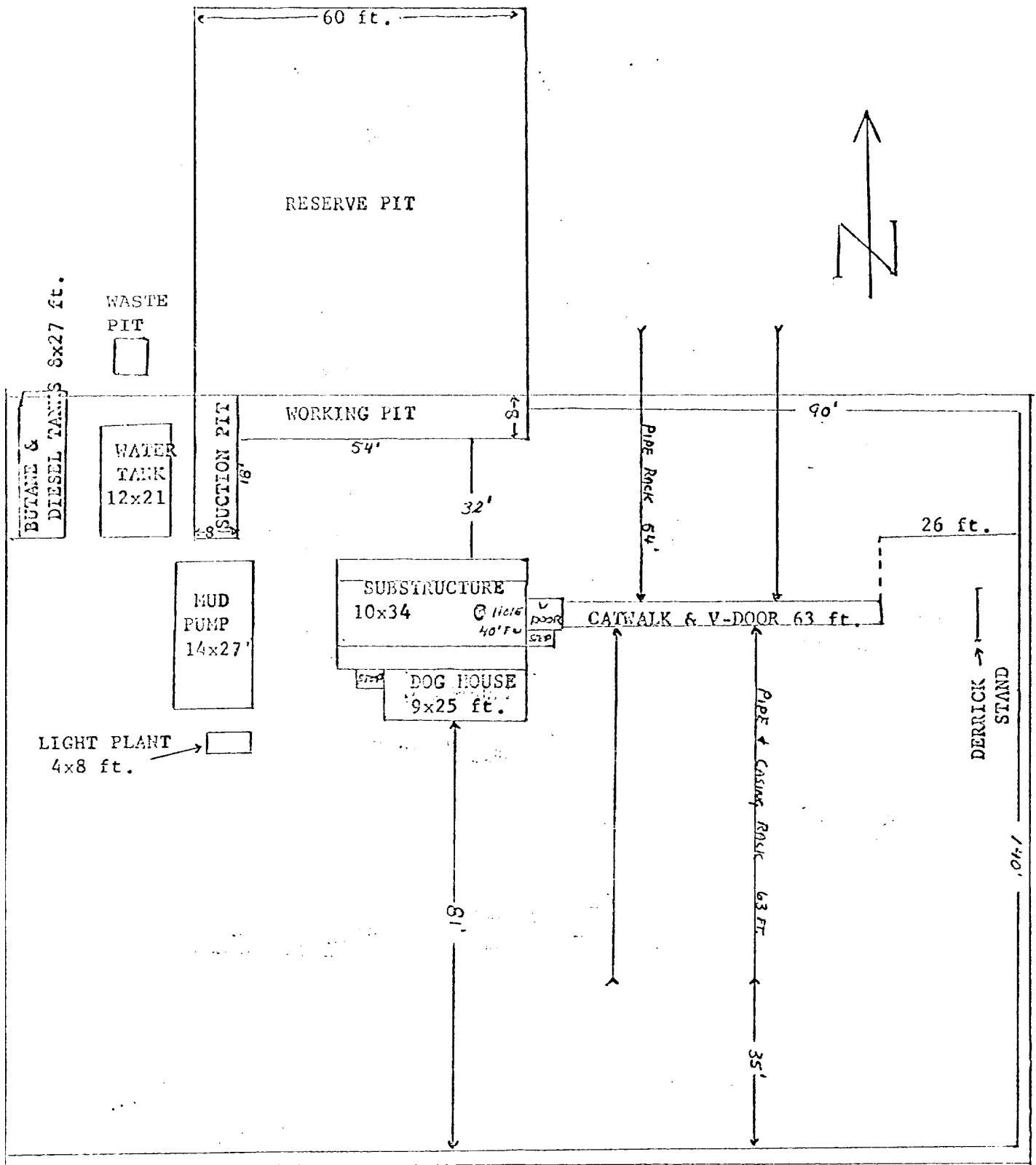


Exhibit "C" 1" = 25 ft.