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APR - 5 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

ARTESIA OFFICE

TYPE OF WORK

OIL WELL ☒ GAS WELL ☐ OTHER ☐

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

2. NAME OF OPERATOR ARCO Oil and Gas Company
Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR

P. O. Box 1710, Hobbs, New Mexico 88240

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

At surface

1980' FNL & 1980' FEL (Unit 1tr G)

At proposed prod. zone

as above

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

7.6 miles northeast of Loco Hills, N.M.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. 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.)

3775.8' GR

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	Conductor Pipe	30'	3 yds Redi-mix
17 1/2"	13-3/8" OD	54.5#	500'	425 sx CIRCULATE
12 1/2"	8-5/8" OD	24#	1500'	1200 sx
7-7/8"	5 1/2" OD	15.5#	3550'	2300 sx Circ

Propose to drill a development well at a standard location and test the producing capabilities of the Grayburg Jackson zones.

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

Robert E. Bullock

TITLE

Drlg. Engr.

DATE

11/26/84

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

11-26-85

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

*See Instructions On Reverse Side

NCV 29 1984

Partial IDI
API 4 NL
4-12-85

NEW 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

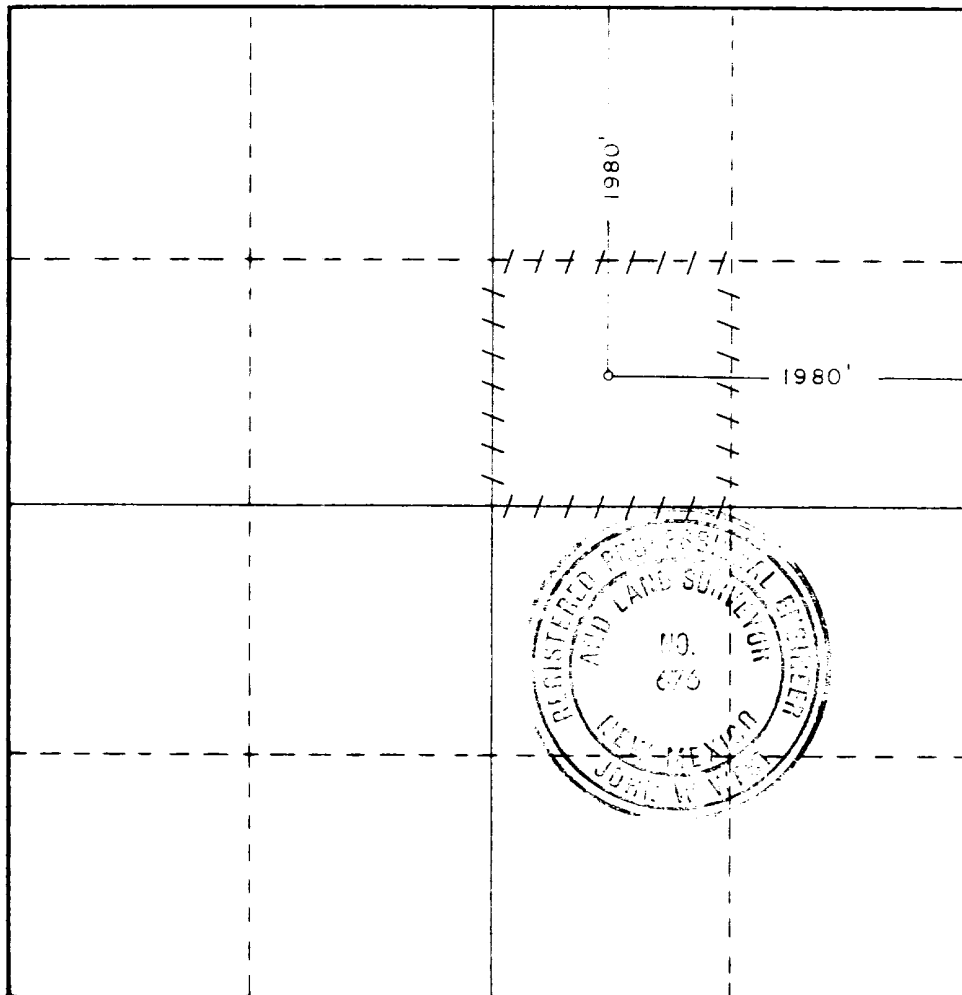
Operator ARCO OIL & GAS CO. Division of Atlantic Richfield Company		Lease J.L. KEEL "B"		Well No. 31	
Grid Letter G	Section 6	Township 17S	Range 31E	County EDDY	
Actual Footage Location of Well: 1980 feet from the NORTH line and 1980 feet from the EAST line					
Ground Level Elev. 3775.8	Producing Formation Seven Rivers QGSA		Pool Grayburg SA		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

Robert E. Babbly
Signature

Drig. Engr.

Company ARCO Oil and Gas Co.
Div of Atlantic Richfield Co.

Date
11/26/84

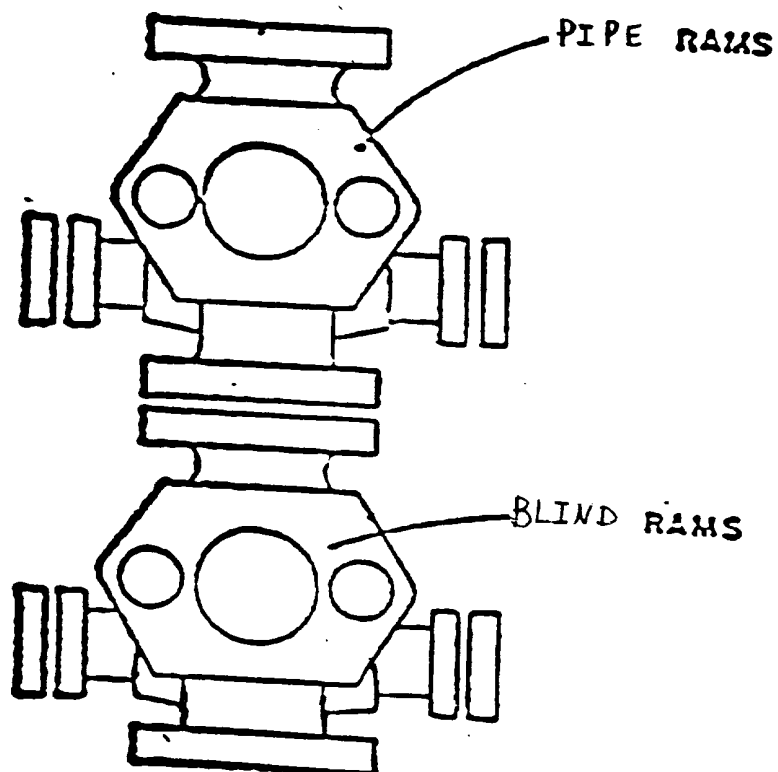
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
11/19/84

Registered Professional Engineer
and/or Land Surveyor

John W. West
Signature

Certificate No. JOHN W. WEST, 676
RONALD J. EIDSON, 3239



ARCO Oil & Gas Company

Division of Atlantic Richfield Company

Blow Out Preventer Program

Lease Name J. L. Keel "B"

Well No. 31

Location 1980' FNL & 1980' FEL
Sec 6-17S-31E, Eddy County

BOP to be tested when installed on well and will be maintained in good working condition during drilling. All wellhead fittings to be of sufficient pressure to operate in a safe manner.

To supplement USGS Form 9-331C " Application for Permit to Drill, Deepen or Plugback", the following additional information is submitted to comply with USGS Order NTL-6.

Operator: ARCO Oil and Gas Company - Division of Atlantic Richfield Company

Lease & Well No: J. L. Keel "B" #31

Location: Unit Letter "C"

Section 6-17S-31E

Eddy County, New Mexico

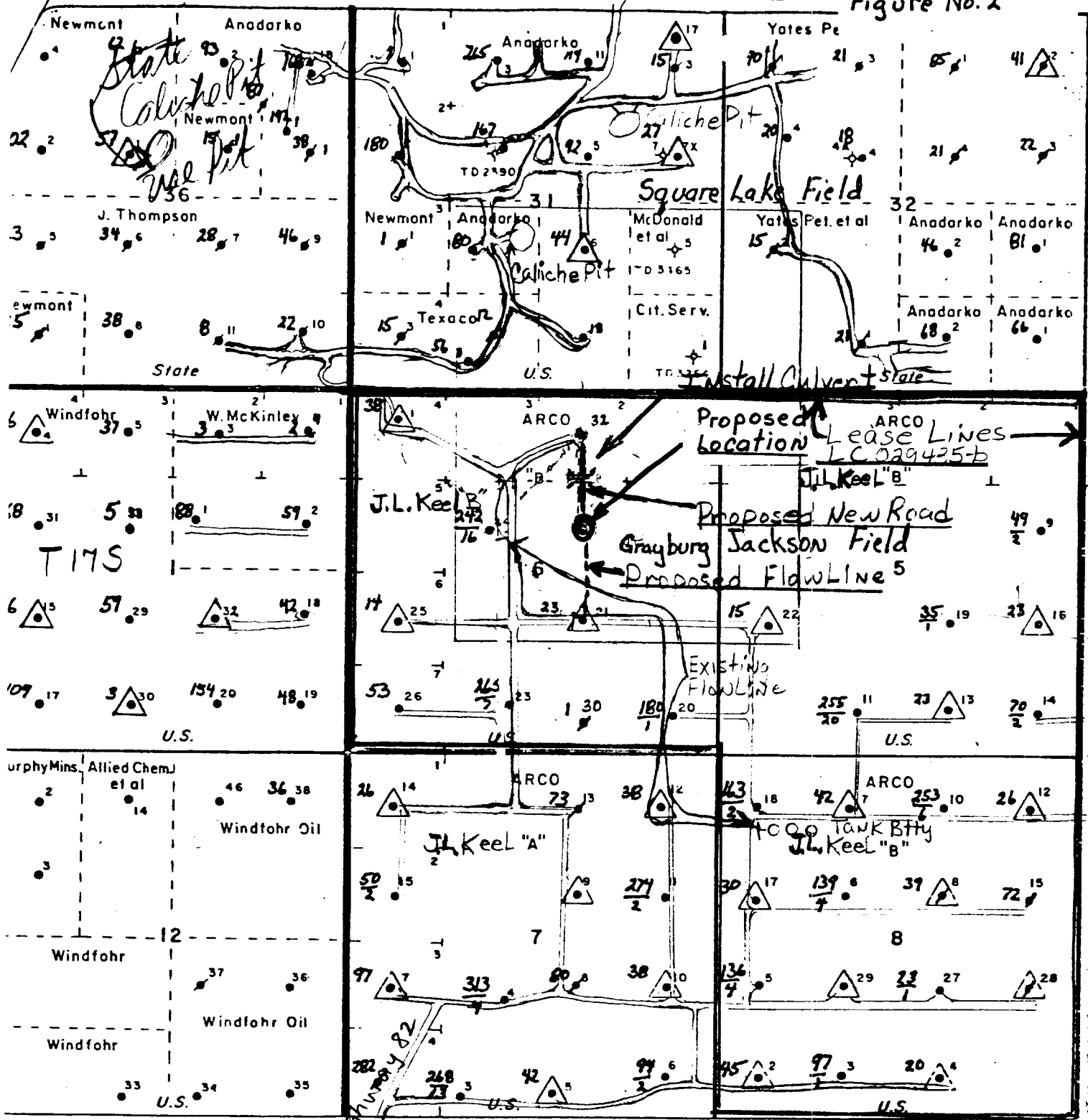
Lease, New Mexico LC-029435-b

Development well X Exploratory well

1. See Well Location and Acreage Dedication Plat Form C-102.
2. See Form 9-331C for elevation above sea level of unprepared location.
3. The geologic name of the surface formation is: Permian Artesian Group
4. The type of drilling tools and associated equipment to be utilized will be: Rotary
5. The proposed drilling depth will be 3550' .
6. The estimated tops of important geologic markers are:

Anhydrite	1350'	Queen	2400'
Yates	1500'	Grayburg	2850'
Seven Rivers	1800'	San Andres	3150'
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are:

Fresh water (Ground Basin)	250'
Queen (Oil & Gas)	2400'
Grayburg (Oil & Gas)	2850'
San Andres (Oil & Gas)	3150'
8. The proposed casing program including the size, grade and weight-per-foot of each string has been indicated on Form 9-331C. All strings of casing will be: New X Used .
9. See Form 9-331C for amount of cement.



ARCO Oil and Gas Company 
Division of Atlantic Richfield Company
 Permian District Midland, Texas

EDDY COUNTY, NEW MEXICO

Cumulative Production

By R. L. STRAMP		Drawn By	Date 11-80
Date 11-80		Revised By LCG	Date 8-83

Exhibit "B" & "C"
 ARCO Oil & Gas Company - Division of Atlantic Richfield Company
 Well No. 31 - J.L. Keel "B"
 1980' ENI + 1981' EFL - 170-215 ELL

SPECIFICATIONS-

A. LOCATION

1. CONTRACTOR SHALL FURNISH, MAINT, OPERATE, AND COMPLETE CULVERT MINIMUM SHALL BE 6" CONCRETE. INSTALL SHALL BE APPLIED AT THE APPROPRIATE RATE OF GALLOP PER 30 FT. IN AREA OUTLINE OF AREA WITH DASHED LINE SHALL BE WITH PAB.

ROAD WHEN APPLICABLE

- 1. ROAD SHALL BE BUILT IN THE BEST LOCATION AS A MINIMUM OF 12' WIDE WITH CURBS AND SUCH AS TO ACCOMMODATE LOADED TRUCKS
- 2. ROAD SHALL BE COVERED WITH 6" CONCRETE USING BASES AT THE RATE OF APPROX. ONE C PER 30 FT.
- 3. ATLANTIC SHALL FURNISH AT THE LOCAL CATTLEGUARD, TIMBER SHEDS AND FOR CONTRACTOR SHALL INSTALL CATTLEGUARD, LANDONMENTS SPECIFICATIONS.
- 4. ATTRA CULVERS FOR ALL TURNING HAS BE ANTICIPATED AND LINEAR MEASURE HAS SHALL INCLUDE SUCH EXTRA CULVERS REQUIREMENTS.

C. GENERAL

- 1. DRILLING HAS CONTAIN AN ESTIMATED CU YOL. 4000 MEASUREMENT.
- 2. CONTRACTOR SHALL AT RESIDUAL ALL MATERIALS INCLUDING PIF EXTRA PIF, IF ANY.
- 3. CULVER TO BE 6000 WOOD FRAME.

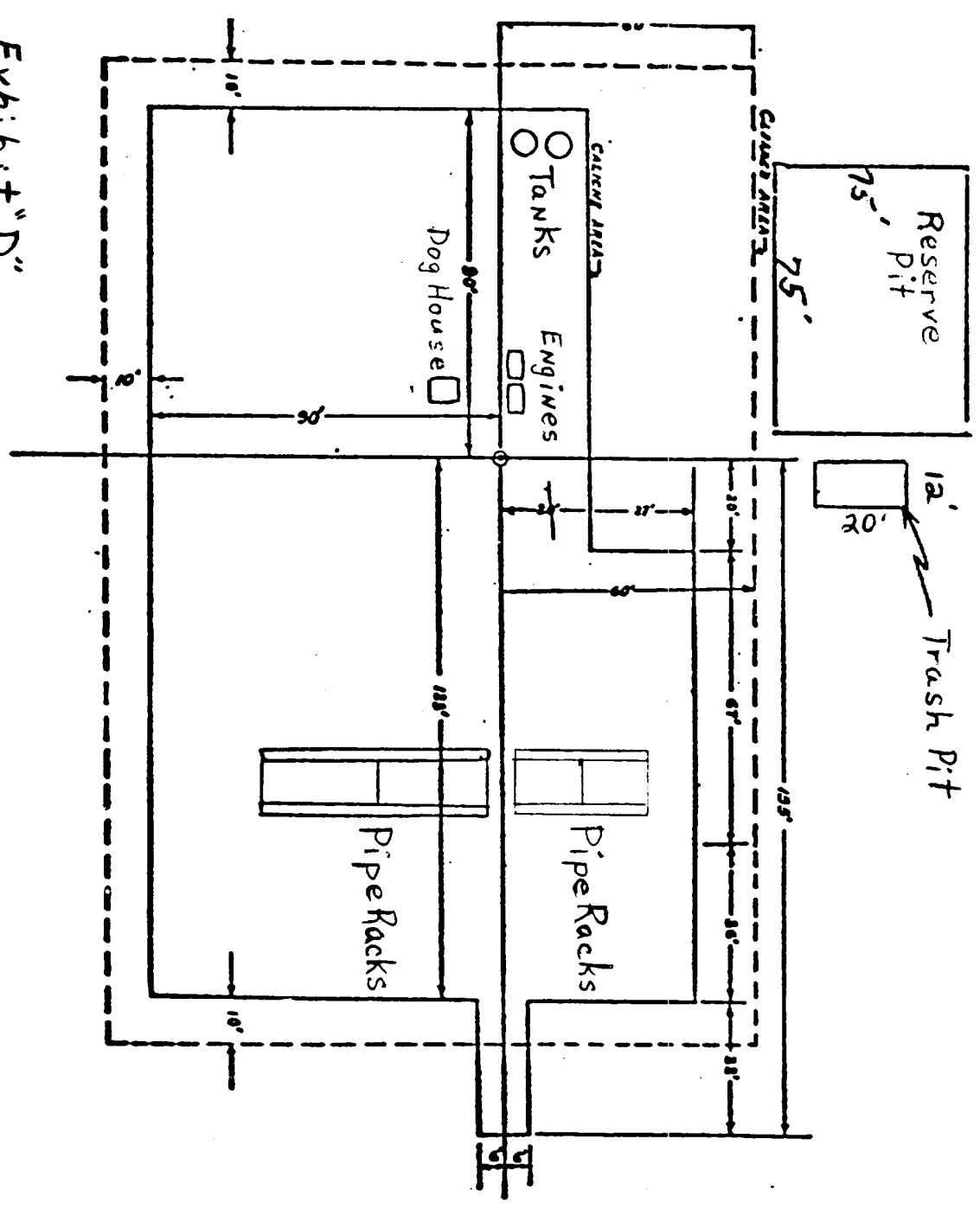


Exhibit "D"

Rig Layout

ARCO Oil and Gas Company - Division of Atlantic Richfield Co.
J.L. Keel "B" #31
1980' FNL + 1980' FEL See 6-T175-R31E
Eddy Co., N.M.

Atlantic Richfield Company	
Production and Construction Dept	
STANDARD DRILLING MAT	
FOR WELLS LESS THAN 8000 F.	
DATE	1/2/80
BY	W. J. K.
FOR	PROJECT - 6-T175-R31E