NM OIL CONS. COMMISSION
Drawer DD
Artesia, NM 210

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-005-61195

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

C/SF

RECEIVED
NOV 04 1981
O. C. D.
ARTESIA, OFFICE

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM 15857

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Amoco-Depco Federal

2. NAME OF OPERATOR: PETROLEUM DEVELOPMENT CORPORATION ✓

9. WELL NO.: #1

3. ADDRESS OF OPERATOR: 9720-B Candelaria, N.E., Albuquerque, N. M. 87112

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1,980' FNL, 1,980' FEL
At proposed prod. zone: Same

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OIL & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: ut-G Sec. 31, T7S, R24E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 15 miles north of Roswell, N.M.

12. COUNTY OR PARISH: Chaves

13. STATE: N.M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	640	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
None	5,000'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3,674' GL

22. APPROX. DATE WORK WILL START*: Oct. 30, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14¼"	10-3/4"	32#	1,000'	750 sx. circulate
7-7/8"	4½"	10.5#	5,000'	500 sx.

Drill 14¼" hole to 1,000', set 10-3/4" casing; circulate cement to surface. Wait on cement 8 hrs. Test double ram BOP and surface casing to 500# for 30 min. before drilling below 1,000'. If lost circulation occurs, 8-5/8" casing will be run to approx. 1,500' and cement tied into surface casing.

Drill 7-7/8" hole to 5,000'. After log evaluation, 4½" production casing may be run and cemented to isolate and seal off all water, oil & gas strata encountered down to the casing point. See attached mud program. Complete by jet perforating indicating pay intervals and acidizing or fracturing as need is indicated.

A ram type BOP with remote controls will be used. See attached preventer layout, Exhibit "D". See attached supplemental multi-point drilling plan; and mud program, Exhibit "E".

GAS SALES ARE NOT DEDICATED.

Posted ID-1 API + NL Book 11-6-81

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 Jim C. Johnson, Jr. TITLE Field Manager DATE September 28, 1981

(This space for Federal or State office use)

PERMIT NO. APPROVED APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

NOV 3 1981
JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
PETROLEUM DEVELOPMENT CORPORATION	Amoco-Depco Federal	#1

Unit Letter	Section	Township	Range	County
G	31	7-S	24-E	Chaves

Actual Footage Location of Well:
1980 feet from the NORTH line and 1980 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3674	Pennsylvanian	Wildcat	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

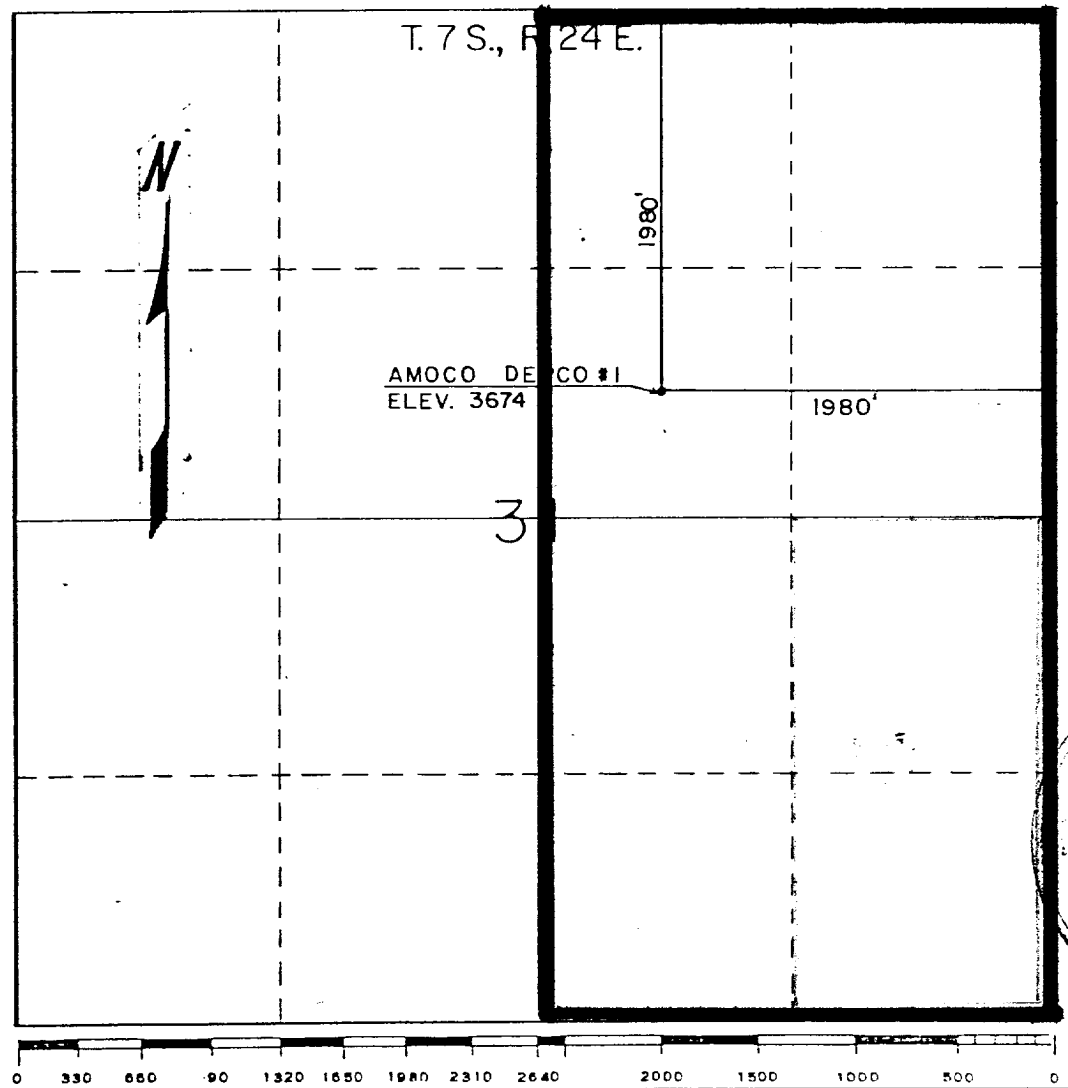
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.



CERTIFICATION

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

Jim C. Johnson

Name: Jim C. Johnson, Jr.

Position: Field Manager

Company: Petroleum Development Corp.

Date: September 28, 1981

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: 9-18-81

Registered Professional Engineer and/or Land Surveyor: Thomas T. Mann

Certificate No.: Thomas T. Mann, P.E. & L.S. New Mexico License No. 277

NEW MEXICO REGISTERED ENGINEER AND LAND SURVEYOR THOMAS T. MANN

PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE
ALBUQUERQUE, NEW MEXICO 87112
TELEPHONE (505) 293-4044

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

PETROLEUM DEVELOPMENT CORPORATION

Amoco-Depco Federal #1

1,980' FNL, 1,980' FEL, Sec. 31,
T7S, R24E, Chaves County, N. M.
Lease: NM 15857

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

   A. Exhibit "A" is a portion of a highway map showing the location of the proposed well as staked. From the junction of U.S. Highway 285 and Highway 70, thence North on 285,13 miles (.2 of mile past highway marker 129) which will be the juncture point for the new access road going East to the well site.

   B. Exhibit "B" is a plat showing all existing roads within a one-mile radius of the well site.

   C. The existing lease road is currently in use and serviceable. Periodic grading will maintain the caliche topping. See Exhibits "A" and "B".

2. PLANNED ACCESS ROADS:

   A. Length and width: The new access road, from Highway 285, will run East on the North border of Section 36 & 31. The new road will be 12' wide and approx. 7,390' long. See Exhibits "B" and "C".

   B. Surfacing material: Six inches of caliche; watered, compacted and graded.

C. Maximum grade: Three percent.

D. Turnouts: Five (5) equally-spaced passing turnouts will be used.

E. Drainage design: The new access road will have a drop of six inches from center line on each side.

F. Culverts: None necessary.

G. Cuts and fills: None required, only general levelling and sand rolls.

H. Gates, cattleguards: Two (2) cattleguards will be required - one just off Highway 285, Sec. 36, T7S, R23E, in the NE/4, and the other in Sec. 31, T8S, R24E in the NW/4.

3. LOCATION OF EXISTING WELLS:

Location of existing wells within a one-mile radius are shown on Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

A. The tank battery will consist of two storage tanks and a low-pressure separator. The battery with flow lines is completely contained on the original drilling pads. The flow lines are not buried.

B. If the well is productive, the tank battery and flow lines will be located on the well pad and no additional surface disturbance will occur. The battery will be similar to those described in "A" above.

C. Above ground permanent structures and equipment shall be painted in accordance with Painting Guidelines. Color is to simulate sandstone brown, Federal Standard 595-20318 or 30318.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased from the surface owner, pumped from an irrigation well 600 yards northeast of the well site, and if necessary, trucked to the well site over the existing and proposed roads shown on Exhibits "A" and "B".

6. SOURCE OF CONSTRUCTION MATERIALS:

Caliche for surfacing the road and well pad will be obtained from existing pits on BLM land in Section 36, 8 miles to the northwest. (Section 36, SE/4 NW/4.)

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the drilling pits.

B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry. Pits containing toxic fluids will be fenced to protect livestock and wildlife.

C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "D".

F. All trash and debris will be buried or removed from the well site within thirty (30) days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELL SITE LAYOUT:

A. Exhibit "D' shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.

B. Only minor levelling of the well site will be required. No significant cuts and fills will be necessary.

C. The reserve pit will be plastic lined and fenced.

D. The pad and pit area has been staked and flagged.

E. An authorized area BLM officer will be notified two (2) working days prior to, and after completion of any earth-moving activities done by the dirt contractor.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave the well site in as aesthetically pleasing condition as possible.

B. Any unguarded pits containing fluids will be fenced until they are filled.

C. After abandonment of the well, any special rehabilitation and/or revegetation requirements of the surface management agency will be complied with and accomplished as expeditiously as possible. All pits will be filled and levelled within ninety (90) days after abandonment.

11. OTHER INFORMATION:

A. Topography: Land surface is undulating to gently rolling. From an elevation of 3,674 feet at the well site, the land surface slopes gently toward the south.

B. Soil: Soil is a sandy loam.

C. Flora and fauna: The vegetative cover consists of tabosa and other prairie grasses, creosote bush, yucca, prairie flowers, etc. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail and an occasional antelope. Area is used for grazing.

D. Ponds and streams: There are no rivers, streams, lakes or ponds in the area.

E. Residences and other structures: The nearest occupied dwelling is a residence and other structures 3/4 of a mile to the southwest of the proposed well.

F. Archaeological, historical and cultural sites:

None observed in the area.

G. Land use:

Grazing.

H. Surface ownership:

Well site and all roads are on private surface of Bronson Corn.

12. OPERATOR'S REPRESENTATIVES:

The field representative responsible for assuring compliance with the approved surface use and operations plan is:

J. C. Johnson
#60 Westlake Drive, N.E.
Albuquerque, N.M. 87112
Office phone: (505) 293-4044
Residence: (505) 299-6029

13. CERTIFICATION:

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 Petroleum Development Corporation and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

September 28, 1981.

J. C. Johnson, President

PETROLEUM DEVELOPMENT CORPORATION

9720-B CANDELARIA, NE
ALBUQUERQUE, NEW MEXICO 87112
TELEPHONE (505) 293-4044

MULTI-POINT DRILLING PLAN

PETROLEUM DEVELOPMENT CORPORATION

Amoco-Depco Federal #1

1,980' FNL, 1,980' FEL, Sec. 31,
T7S, R24E, Chaves County, N. M.
Lease: NM 15857

This supplemental plan is submitted with the Application to Drill the above-described well in compliance with NTL-6 of the United States Department of the Interior.

1. The surface is composed of fine-grained sand, quaternary in age.

2. Estimated top of primary geological markers are:

Seven Rivers	Surface	(+3,684)
San Andres	445	(+3,239)
Glorieta	1,295	(+2,389)
Tubb	2,540	(+1,140)
Abo	3,270	(+414)
Hueco	3,940	(-256)
Penn	4,440	(-756)
Basement	4,740	(-1,056)

Estimated KB elevation: 3,684

3. Hydrocarbon bearing strata may occur in the Abo, Heuco and or Penn Formations. No fresh water is expected to be encountered below 800'.

3,250'- 5,000'	Gas	Abo, Hueco, Penn

4. Proposed casing program: See Form 9-331C.

5. Pressure control equipment: See schematic, Exhibit "D". Pipe rams and the two-ram type preventer shall be actuated at least once each 24 hrs. before drilling below 1,000' and the blind rams each time the drill pipe is out of the hole. Accumulators shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers. Blowout prevention drills shall be conducted as necessary to insure that each drilling crew is properly trained to carry out emergency duties.

6. Mud program: See Exhibit "E".

7. Auxiliary equipment to be used:

   (1) Kelly cock.

   (2) Bit float.

8. Testing, coring and logging program:

   (1) No drill stem tests will be run.

   (2) No coring is anticipated.

   (3) The following logs will be run:
   a. CNL - density log with gamma ray.
   b. Dual laterolog, Micro-lateral.

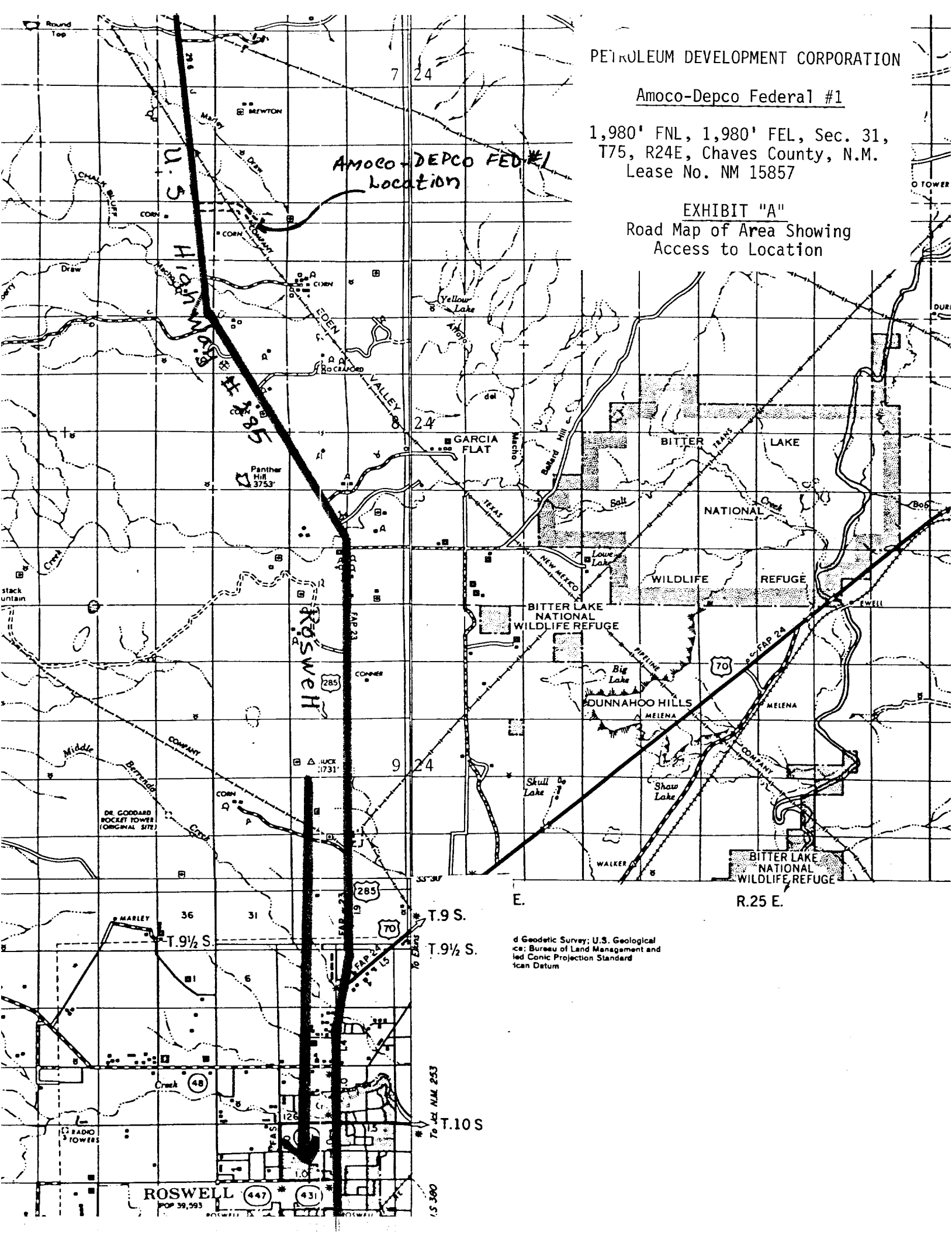
9. Anticipated spud date is October 30, 1981. Drilling operations will require approximately 15 days; with completion operations to follow as soon as a completion unit is available.

PETROLEUM DEVELOPMENT CORPORATION

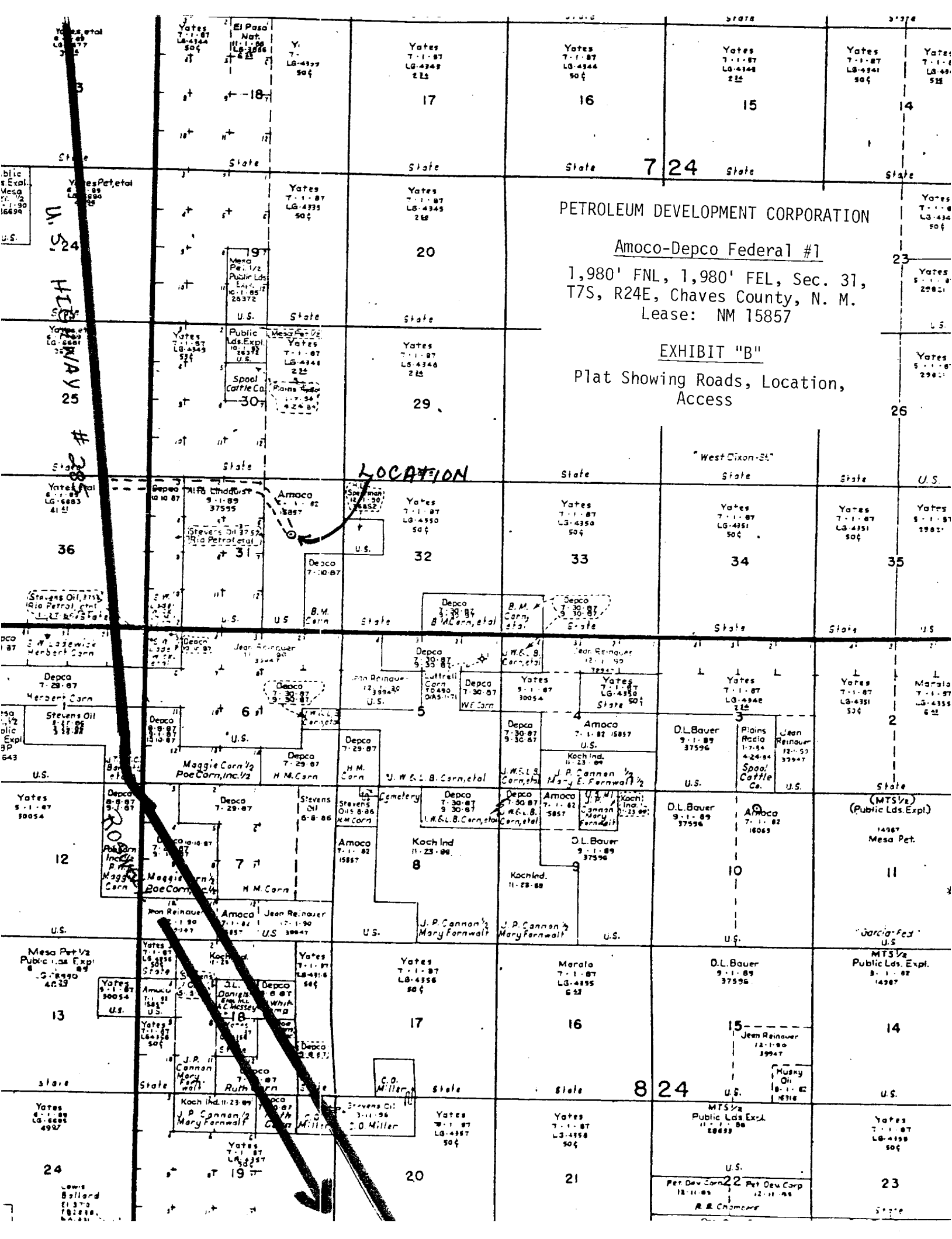
Amoco-Depco Federal #1

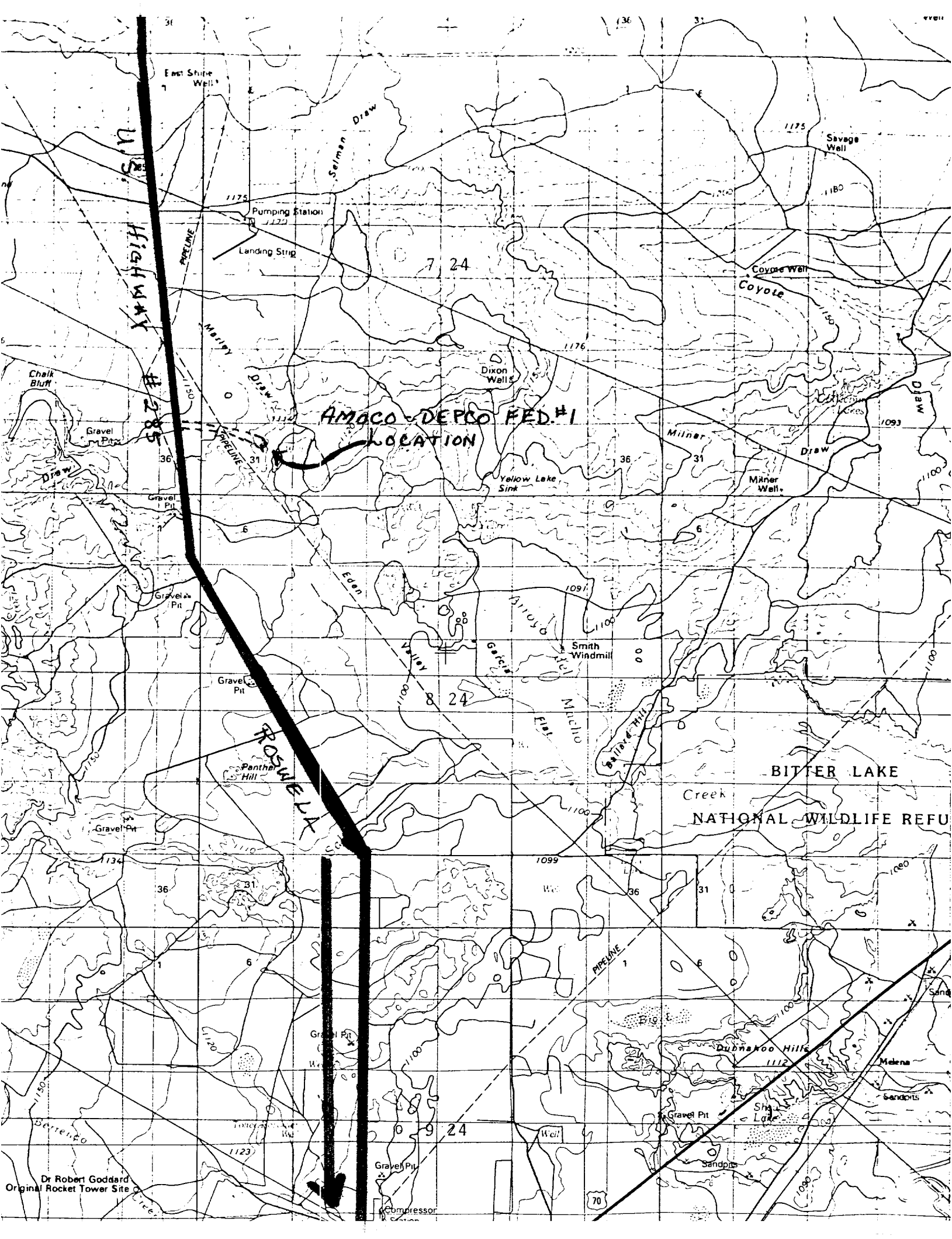
1,980' FNL, 1,980' FEL, Sec. 31,
T75, R24E, Chaves County, N.M.
Lease No. NM 15857

EXHIBIT "A"
Road Map of Area Showing
Access to Location



d Geodetic Survey; U.S. Geological
ice; Bureau of Land Management and
ied Conic Projection Standard
ican Datum


PETROLEUM DEVELOPMENT CORPORATION
Amoco-Depco Federal #1
1,980' FNL, 1,980' FEL, Sec. 31,
T7S, R24E, Chaves County, N. M.
Lease: NM 15857
EXHIBIT "B"
Plat Showing Roads, Location, Access
LOCATION
HIGHWAY 82
ROSWELL
7 24
8 24
West Dixon-St.
Yates
Amoco
Depco
Mesa Pet.
Public Lds. Expl.
Spool Cattle Co.
Plains Radio
D.L. Bauer
Koch Ind.
Stevens Oil
Rio Petrol, etal
Maggie Corn ½ Poe Corn, Inc. ½
H.M. Corn
J.P. Cannon ½ Mary Fernwall ½
Jean Reinauer
Husky Oil
Pet. Dev. Corp.
R.R. Chamers
U.S.
State


AMOCO - DEPCO FED. #1
LOCATION
U.S. HIGHWAY 285
ROSWELL
East Shire Well
Selman Draw
Pumping Station
Landing Strip
PIPELINE
Savage Well
Coyote Well
Coyote
Dixon Well
Chalk Bluff
Gravel Pit
Milner
Draw
Yellow Lake Sink
Miner Well
Eden
Smith Windmill
Garcia
Valley
Macho
Ballard Hill
Panther Hill
BITTER LAKE
NATIONAL WILDLIFE REFU
Creek
Dubnahoo Hills
Melena
Sandpits
Shaw Lake
Dr Robert Goddard
Original Rocket Tower Site
Compressor
Barrel
Well
7 24
8 24
9 24
70

PETROLEUM DEVELOPMENT CORPORATION

Amoco-Depco Federal #1

1,980' FNL, 1,980' FEL, Sec. 31,
T7S, R24E, Chaves County, N. M.
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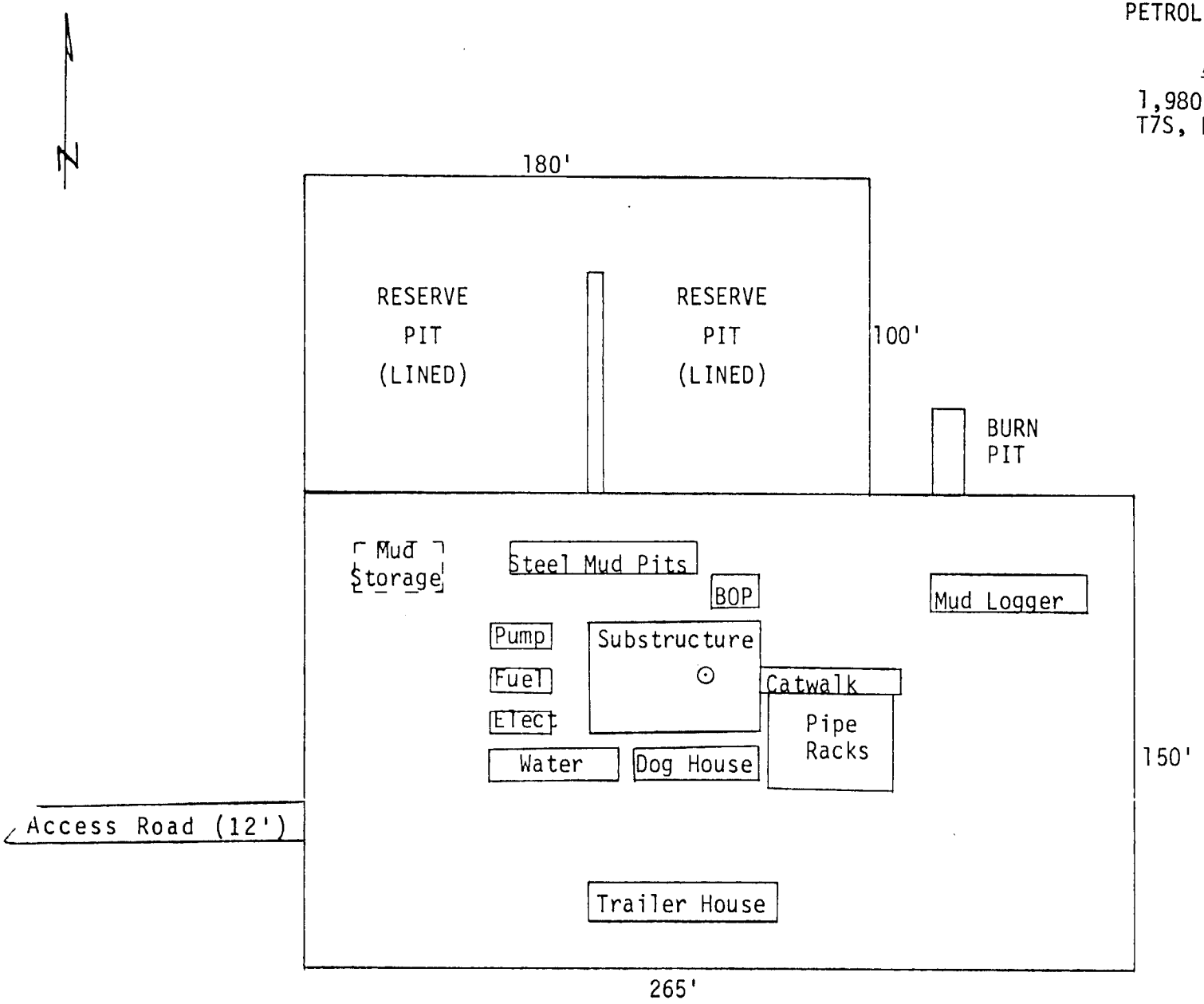
EXHIBIT "C"



Scale: 1" = 50'

PETROLEUM DEVELOPMENT CORPORATION

Amoco-Depco Federal #1

1,980' FNL, 1,980' FEL, Sec. 31,
T7S, R24E, Chaves County, N. M.
Lease: NM 15857

B.O.P. & Choke Manifold Schematic
Series 1500
To meet Specs. of API Bul. D-13

NOT TO SCALE

EXHIBIT "D"

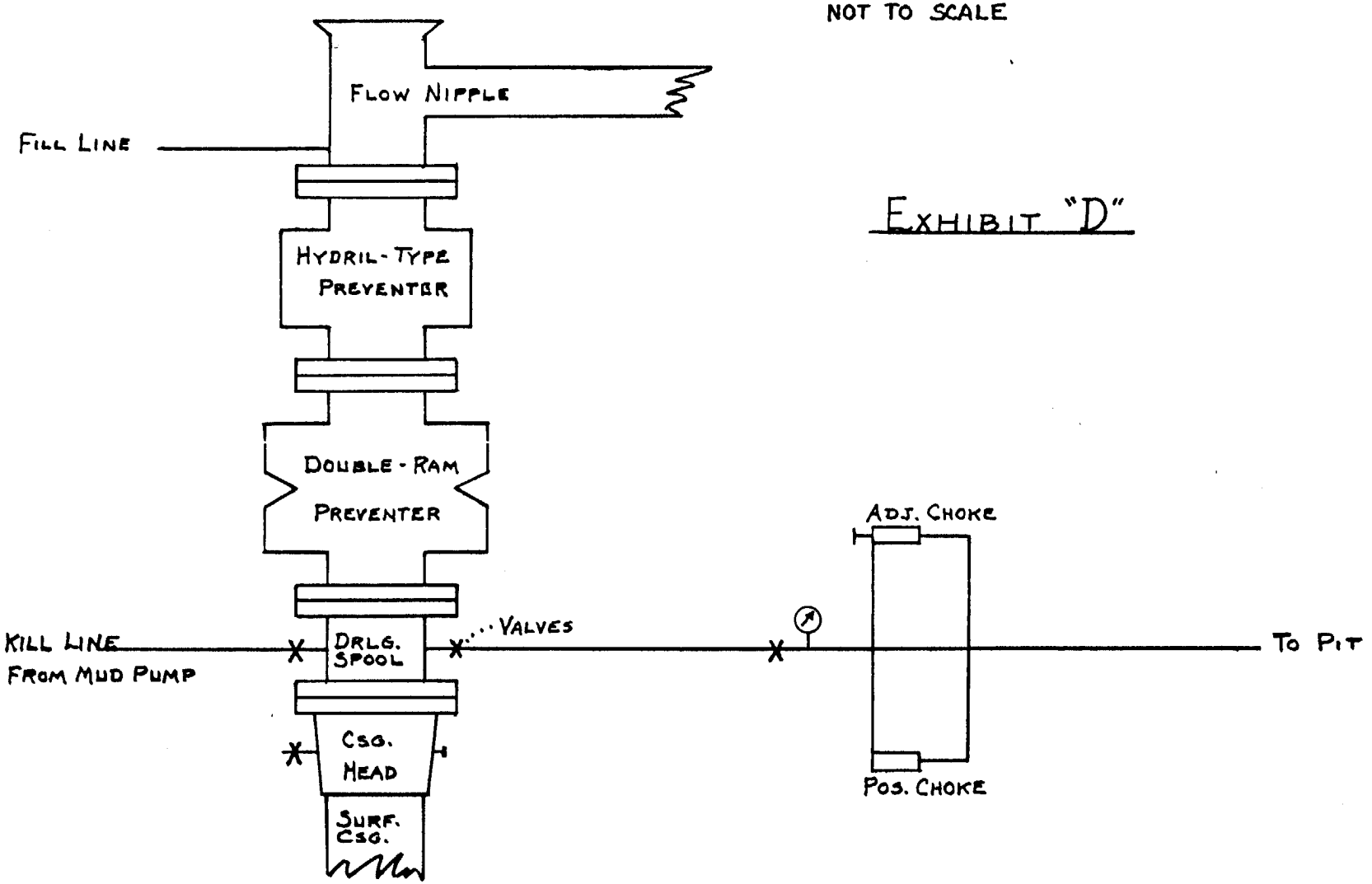


EXHIBIT "E"

PETROLEUM DEVELOPMENT CORPORATION

Amoco-Depco Federal #1
1,980' FNL, 1,980' FEL,
Sec. 31, T7S, R24E, Chaves County, N.M.
Lease No. NM 15857

MUD PROGRAM:

SURFACE: 0' - 1,000'

Spud with a Gel/lime slurry having a 32-34 Sec/1000cc viscosity. This fluid should be adequate to drill the surface interval if problems with loss circulation isn't encountered. If loss of circulation should occur, we suggest mixing 200-300 barrels of 38-40 Sec/1000cc. viscosity mud and adding 15-20 pounds per barrel of loss circulation material. If this fails to regain circulation we suggest dry drilling to casing point.

PRODUCTION: 1,000' - 5,000'

Drill out from below the intermediate casing with fresh water, circulating the reserve pit to top of Abo. This fluid should be adequate to drill to 3,300, then mud up with a Salt gel/starch system, having the following properties:

Mud Weight - 9.4 - 9.6 PPG
Viscosity - 38-40 Sec/1000cc
Water Loss - 10-15cc
Oil Content - 4-5%

3-23-82

Perfs 3260-80 • 3384-3484
40 holes 15 holes

well flows 38 BW PM. 9.4# brine

well is shut in