

(July 1982)
(formerly 131C)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OFFICE FOR NUMBER
OF 'ES REQUIRED
(Other instructions on
reverse side)

30-015-27379
BLM Rowell District
Modified Form No.
NM60-3160-2

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.

NM 19601

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Union 35 Federal

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

Herradura Bend Delaware,

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 35, T-22-S, R-28-E

NMPM UNIT F

12. COUNTY OR PARISH

Eddy

13. STATE

NM

18. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

HANLEY PETROLEUM INC.

3a. Area Code & Phone No.

915/684-8051

3. ADDRESS OF OPERATOR

415 W. Wall, Suite 1500, Midland, TX 79701

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

1980' T&L & 1980' FWL

At proposed prod. zone

FNL

Delaware

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

10 miles southeast of Carlsbad

15. DISTANCE FROM PROPOSED
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any) 660'

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

1335'

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

8500'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

30825GR

Controlled Water

22. APPROX. DATE WORK WILL START

April 1, 1993

PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2	8 5/8	24#	I-55	ST&C	450	SEE BELOW
7 7/8	4 1/2	1160#	N-80&I-55	LT&C	8500	SEE STIPS.

Cement 8 5/8" casing using 425 Sx Premium Plus cement containing 2% CaCl₂

Cement 4 1/2" casing as follows:

1st stage ± 600 Sx Premium Plus w/0.6% Halad - 322, 3% Salt, and 8#/Sx Silicalite

2nd stage ± 425 Sx Halliburton Lite w/6# Salt followed by
200 Sx Premium Plus w/0.6% Halad - 322, 3% Salt and,
8#/Sx Silicalite.

ATTACHED TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

ON 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.

SIGNED

TITLE Chief Engineer

DATE 2/24/93

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE 3/25/93

*See Instructions On Reverse Side

18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States a false statement.

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Artec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

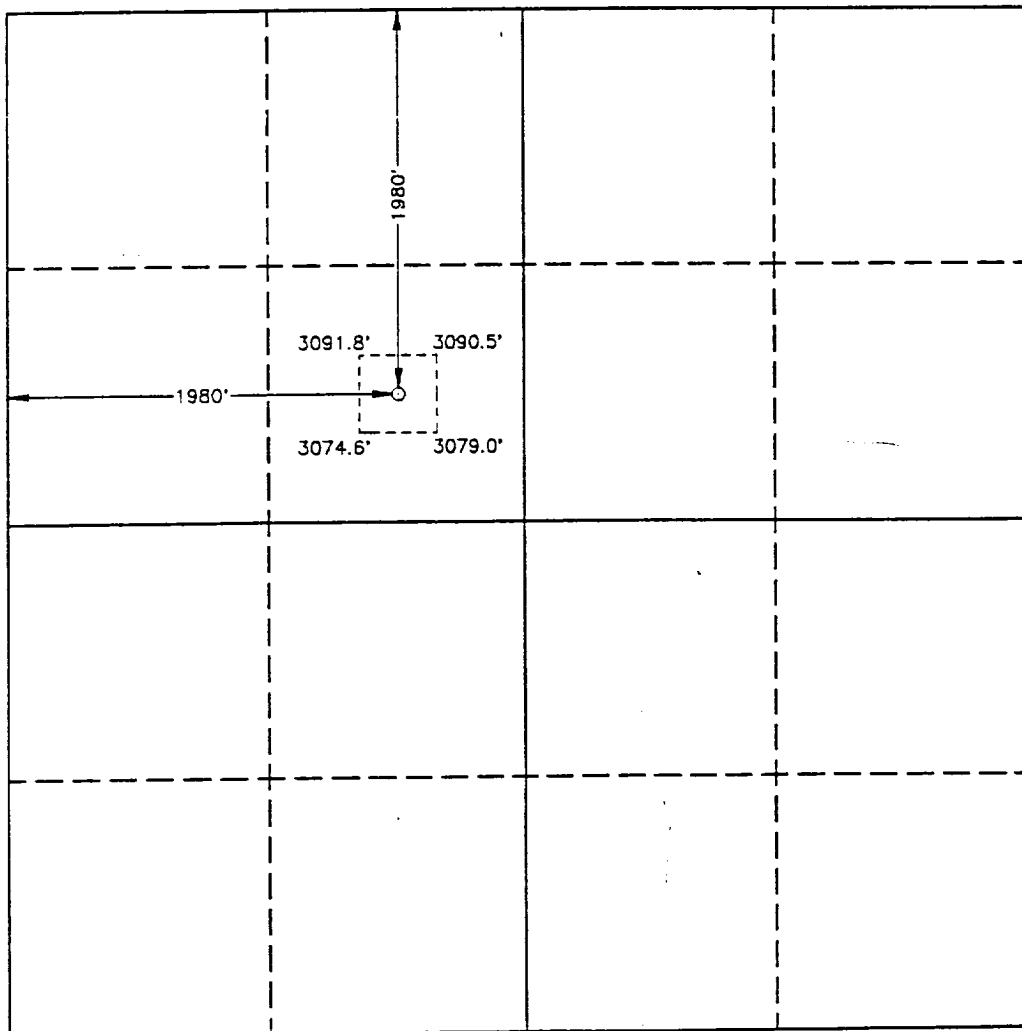
All Distances must be from the outer boundaries of the section

Operator HANLEY PETROLEUM, INC.			Lease UNION 35 FEDERAL		Well No. 2
Unit Letter F	Section 35	Township 22 SOUTH	Range 28 EAST	NMPM	County EDDY
Actual Footage Location of Well: 1980 feet from the NORTH line and 1980 feet from the WEST line					
Ground Level Elev. 3082.5'	Producing Formation DELTA		Pool E. HANLEY DELTA & CO. WARE		Dedicated Acreage: 40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest 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 of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature
Greg Wilkes
Printed Name
Greg Wilkes

Position
Chief Engineer

Company
HANLEY PETROLEUM INC.

Date
2/24/93

SURVEYOR CERTIFICATION

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 3, 1993

Signature & Seal of
Professional Surveyor

John W. West
Certificate No. **JOHN W. WEST 676**
RONALD J. EIDSON 3239
GARY L. JONES 7977

93-11-0167

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Application For Drilling

In conjunction with Form 3160-3, Application For Permit to Drill, Hanley Petroleum Inc. submits the following Ten items of pertinent information in accordance with BLM Requirements:

1. The geologic age of the surface formation is Quaternary.
2. The estimated tops of certain Geologic Markers are as follows:

Rustler	1070	→ 55'
Salado	1780	→ 575'
Castile	2473	
Delaware SS	2720	
Cherry Canyon	3576	
Brushy Canyon	4772	
Bone Spring	6272	

3. The estimated depths at which oil, water or gas are expected to be encountered are:

Ogallalla	450
Cherry Canyon	3600 - 3800
Brushy Canyon	5900 - 6200
Bone Spring	8250 - 8400

4. Casing Program: See attached Form 3160-3 and Exhibit E.
5. Blowout Equipment Specifications: See attached Form 3160-3 and Exhibit D.
6. Mud Program: See Exhibit F.
7. Auxiliary Equipment: A stabbing valve will be kept on rig floor to be used when Kelly is not in string. Upper and lower Kelly cocks will be in place and tested, and the wrench will be in a conspicuous place on the floor at all times.
8. Testing, Logging and Coring Programs:
 - A. DST's - None anticipated
 - B. Wireline Logs
 - C. Cores - None anticipated
9. No abnormal pressures or temperatures are anticipated.
10. Anticipated starting date: As soon as possible.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Exhibit E

SUMMARY

Drilling, Drillstem Test, Casing and Cementing Programs:

1. Drill 12 1/4" hole to 450'.
2. Cement 8 5/8" 24# J-55 casing back to surface w/320 sx Premium Plus cement containing 2% calcium chloride.
3. WOC 8 hours. Install and test Blowout preventers. Test casing to 1000 psi after 12 hours.
4. Drill 7 7/8" hole to 8500'.
5. Run 4 1/2" 11.60# N-80 & J-55 casing with a D.V. tool @ +/- 5000'.
Cement as follows:
1st stage: +/- 600 sx Premium Plus w/ 0.6% Halad-322, 3% salt and 8 #/sx Silicalite.
2nd stage: +/- 425 sx Halliburton Lite w/ 6 #/sx salt followed by 200 sx Premium Plus w/ 0.6% Halad-322, 3% salt, and 8 #/sx Silicalite.
6. Perforations and stimulation to be determined after completion of drilling operations.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Exhibit F

DRILLING FLUID PROGRAM

Surface:

Spud and drill surface hole with a fresh water gel with lime.
Maintain a 35 to 40 second/quart viscosity. To control seepage or
loss circulation add paper.

Production:

If compatibility tests indicate that it is necessary, Delaware
produced water will be used to drill the production hole. Caustic
soda will be used to control pH from 9.5 to 10. The source of this
produced water is Fortson Oil Co.'s Pinnacle State Lease located in
Section 36, T-22S, R-28E. Permission has been obtained from the
NMOC District for use of this produced water prior to proper
disposal.

If necessary, add paper to control seepage. Sweep hole as needed
with viscous salt gel pills.

If hole problems dictate, lower water loss to 15 cc or less to log.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

DRILLING PROGNOSIS

Location:

1980' FNL & 1980' FWL of Section 35, Township 22-South, Range
28-East, Eddy County, New Mexico.

Proposed Depth:

6400' (Delaware)
8500' (Bone Spring)

Elevation:

3082' GL

Contractor:

To be determined.

Note: Since this is a Federal Lease, evidence of BLM approval to drill and a copy of the Multipoint Surface Use Plan must be kept in the doghouse during drilling operations. The BLM will also have to be provided with a written report of daily operations.

Mailing Address:

U.S. Department of the Interior
Bureau of Land Management
P.O. Box 1778
Carlsbad, NM 88221

Samples & Drilling Time:

1' drilling time on geolograph from 500' to TD.

Mud Logger:

From 2700 to TD full mudlogging services are required.

Test Equipment:

None required while drilling.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Drilling Prognosis cont.

Detailed Procedure

1. Location
 - A. Stake location.
Location staked by John West Engineering on 02-03-93.
 - B. Obtain Archaeological Clearance Report for location and right of ways.
 - C. After BLM approval, build location, roads and cellar.
 - D. MIRU. Keep all rig moving equipment on the road and pad.
2. Surface Hole
 - A. Notify the BLM in Carlsbad at least 24 hrs prior to spud.
 - B. Spud and drill a 12 1/4" hole to 450' using spud mud and paper for seepage.
3. Surface Casing
 - A. Run and set 8 5/8" 24# J-55 casing to 450'. Use a Texas Pattern Shoe and insert float. Centralize bottom 3 joints and every other joint back to surface.
Note: Notify BLM prior to cementing.
 - B. Cement casing back to surface with 320 sx Premium Plus cement containing 2% calcium chloride.
 - C. WOC 8 hours before cutting off and NU wellhead and BOP's.
4. Blowout Preventers
 - A. Install 12" 3000# WP Dual Hydraulic operated BOP's, choke manifold and kill lines.
Note: Notify BLM prior to testing BOP's.
 - B. Pressure test blind rams, pipe rams, choke manifold, Kelly cocks and safety valve to 1500#. Test mud lines to 1500#.
 - C. Operate pipe rams daily and blind rams every trip.
Results are to be recorded in daily drilling report.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Drilling Prognosis cont.

5. Production Hole

- A. Test 8 5/8" casing to 1000#. Drill out cement and float equipment and drill 7 7/8" hole to 8500'.
- B. Drill with +/- 10# brine or produced water. Control lost circulation with paper. Use salt gel and paper pills to sweep hole.
- C. Switch to steel pits at 8200'.
- D. Circulate and condition hole to log. Strap out of hole.
- E. Run Compensated Neutron/Compensated Z Density/Dual Laterolog/Microlaterolog.

6. Production Casing

- A. RIH w/bit and condition hole to run casing. POH LD DP & DC's.
- B. Run and set 4 1/2" casing as follows:

4 1/2"	11.60#	N-80	LT&C	850'
4 1/2"	11.60#	J-55	LT&C	7650'

Install shoe, one joint of casing and then float collar.

- C. Install DV tool at +/- 5000' from surface.

- D. Cement 4 1/2" casing as follows:

1st stage:	+/- 600 sx Premium Plus w/ 0.6% Halad-322, 3% salt and 8 #/sx Silicalite.
2nd stage:	+/- 425 sx Halliburton Lite w/ 6 #/sx salt followed by 200 sx Premium Plus w/ 0.6% Halad-322, 3% salt, and 8 #/sx Silicalite.

Cement values may be adjusted after obtaining caliper logs.
The intent is to circulate cement on all strings.

7. Completion

Perforations and frac job to be determined after log evaluation.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Multi-point Surface Use and Operations Plan

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this 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 operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. Existing Roads

- A. Exhibit A is a copy of USGS topographic map of the area on a scale of approximately 1" = 2000', showing the location of the proposed well site and the planned access roads.
- B. Directions: From Carlsbad South East on Hwy. 285 seven (7) miles, East on Hwy. 31 five (5) miles, North on Eddy Co. Road #605 three (3) miles. Right on lease road .3 miles then right .2 miles to location.

2. Planned Access Road

- A. The proposed new road will be approximately 1100' in length beginning at the Southwest corner of the location and proceeding west to existing lease road.
- B. The new road will be 12 ft. wide except at the point of origin where enough extra width will be provided to allow trucks and heavy equipment to turn.
- C. The new road will be watered, compacted and graded with a 6" crown and drainage on both sides. No turnouts will be necessary.
- D. The center line of a 30 ft. wide path along the proposed route has been staked and flagged for inspection purposes.

3. Location of Existing Wells

- A. Exhibit B is a map showing the location of all wells within a 1-mile radius of the proposed wellsite.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Multi-point Surface Use and Operations Plan (cont.)

4. Location of Proposed Facilities:

- A. Production facilities are located on the Union 35 Federal #1 pad. This well is located 1780' FNL & 660' FWL of Section 35.
- B. In the event of a producible well, these facilities may be modified to accomadate the additional production.
- C. A ^{2"} steel flowline will be laid along the proposed access road to the battery.

5. Location and Type of Water Supply

- A. Fresh water and commercial brine will be furnished and trucked by contractor.
- B. If compatibility tests indicate it is necessary to use Delaware produced water to drill below the surface pipe. It will be secured from the Fortson Oil Company Pinnacle State Lease, located in Section 36. This water will be hauled by contractor.

6. Source of Construction Materials

- A. Material for surfacing road and pad will be the existing caliche on location.

7. Methods of Handling Waste Disposal

- A. Drilling cuttings will be disposed of in the drilling pits.
- B. Drilling fluid will be hauled to subsequent drilling locations and the pits allowed to evaporate until dry. Oil Base drilling fluids, if used, will be returned to the mud company.
- C. Water produced during the tests will be disposed of in the drilling pits and hauled to an approved salt water disposal well.
- 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 placed in a covered bin and hauled off.
- F. All trash and debris will be buried or removed from the wellsite within 30 days after completion of operations.
- G. All pits will be lined.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Multi-point Surface Use and Operations Plan (cont.)

8. Ancillary Facilities

None required.

9. Wellsite Layout

- A. Exhibit C shows the relative location of the pad, mud pits, reserve pit and major rig components.
- B. The well site is located on an area sloping to the South. The reserve pit will be located North of the well as staked. All location disturbances will be contained within the 400' X 400' area covered by the archaeological survey.

10. Plans for Restoration of Surface

- A. After finishing drilling and completion operations, all equipment and other materials not necessary for operations will be removed. Pits will be filled and leveled, and the location cleaned of all trash and junk to leave the wellsite in an as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids or trash will be fenced until they are filled or leveled.
- C. After abandonment of the well, all equipment will be removed, the location will be cleaned and the pad and access road will be ripped and returned to as near the original appearance as is possible. All rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with.

11. Other Information

- A. Topography:
The location is at an elevation 3082' and slopes south-southwest toward the Pecos River.
- B. Soil:
Top soil at the wellsite is silty clay loam underlain by caliche.

Hanley Petroleum Inc.

Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Multi-point Surface Use and Operations Plan (cont.)

D. Flora and Fauna

Vegetative cover is sparse and consists primarily of mesquite and broomweed interspersed with greasewood and very little grass. Wildlife in the area includes rabbits, dove, quail, lizards, snakes, and other inhabitants of semi-arid climate.

E. Ponds and Streams

The Pecos River lies 1 1/4 miles to the south of the proposed well.

F. Residences and Structures

None on lease.

G. Archaeological, Historical and Cultural Sites

None observed in the area. The archaeological report has been sent under separate cover to the BLM's Carlsbad District Office.

H. Land Use

Hunting in season.

I. Surface Owner

The wellsite and the proposed new road are on Federal surface.

12. Operators Representatives

Greg Wilkes
115 W. Wall, Suite 1500
Midland, Texas 79701
Phone: (915)684-8051 (O)
(915)697-9745 (H)

Contract Field Personnel

William R. Huck
P.O. Box 8063
Midland, Texas 79708
Phone: (915)683-1885 (O)
(915)697-0226 (H)

Joe Loftin
P.O. Box 183
Midkiff, Texas 79755
Phone: (915)563-2463 (O)
(915)693-2221 (H)

Hanley Petroleum Inc.

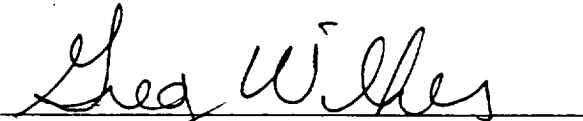
Union 35 Federal Well #2
1980' FNL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Multi-point Surface Use and Operations Plan (cont.)

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; that the work associated with the operations proposed herein will be performed by Hanley Petroleum Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

February 24, 1993
Date



Greg Wilkes
Chief Engineer

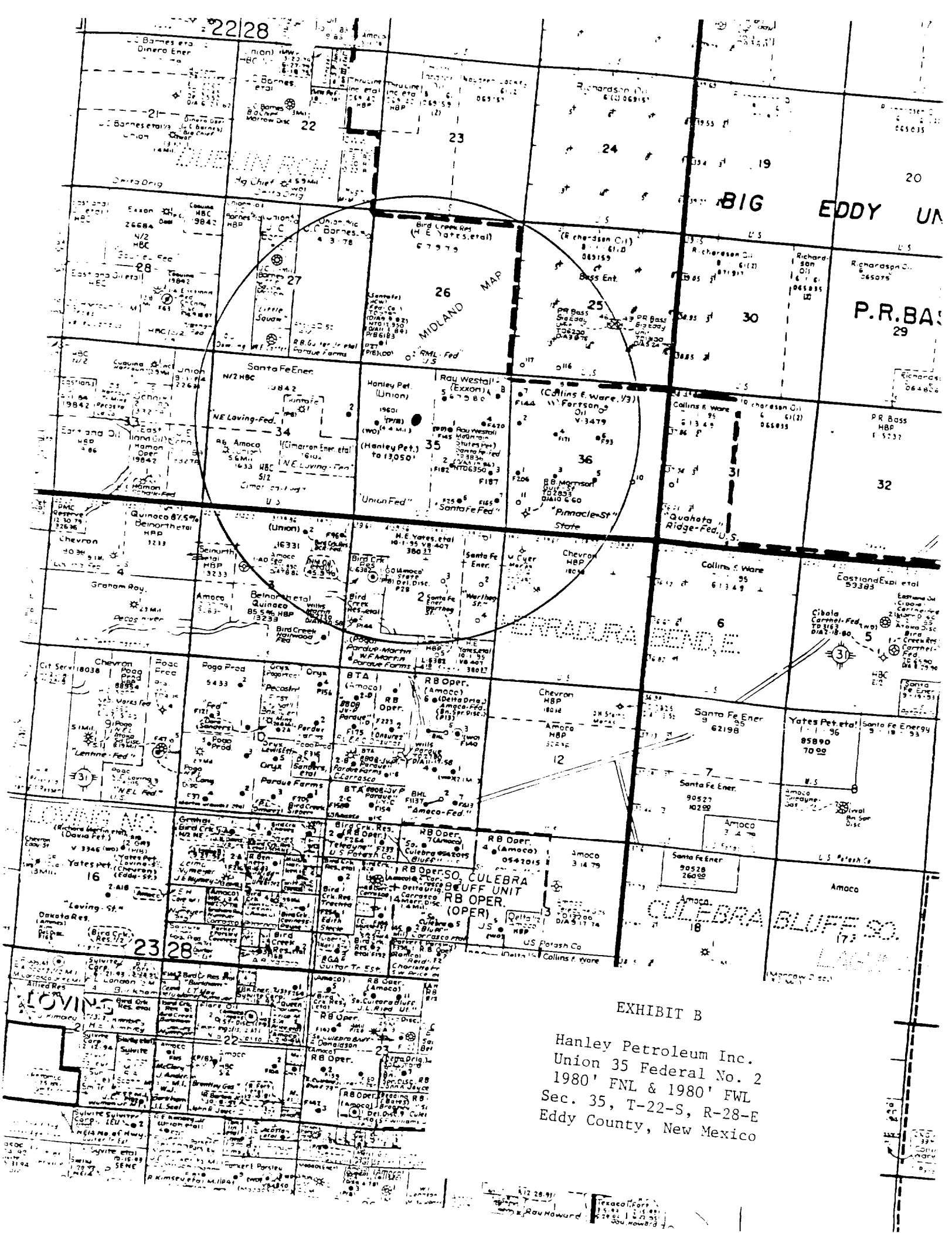
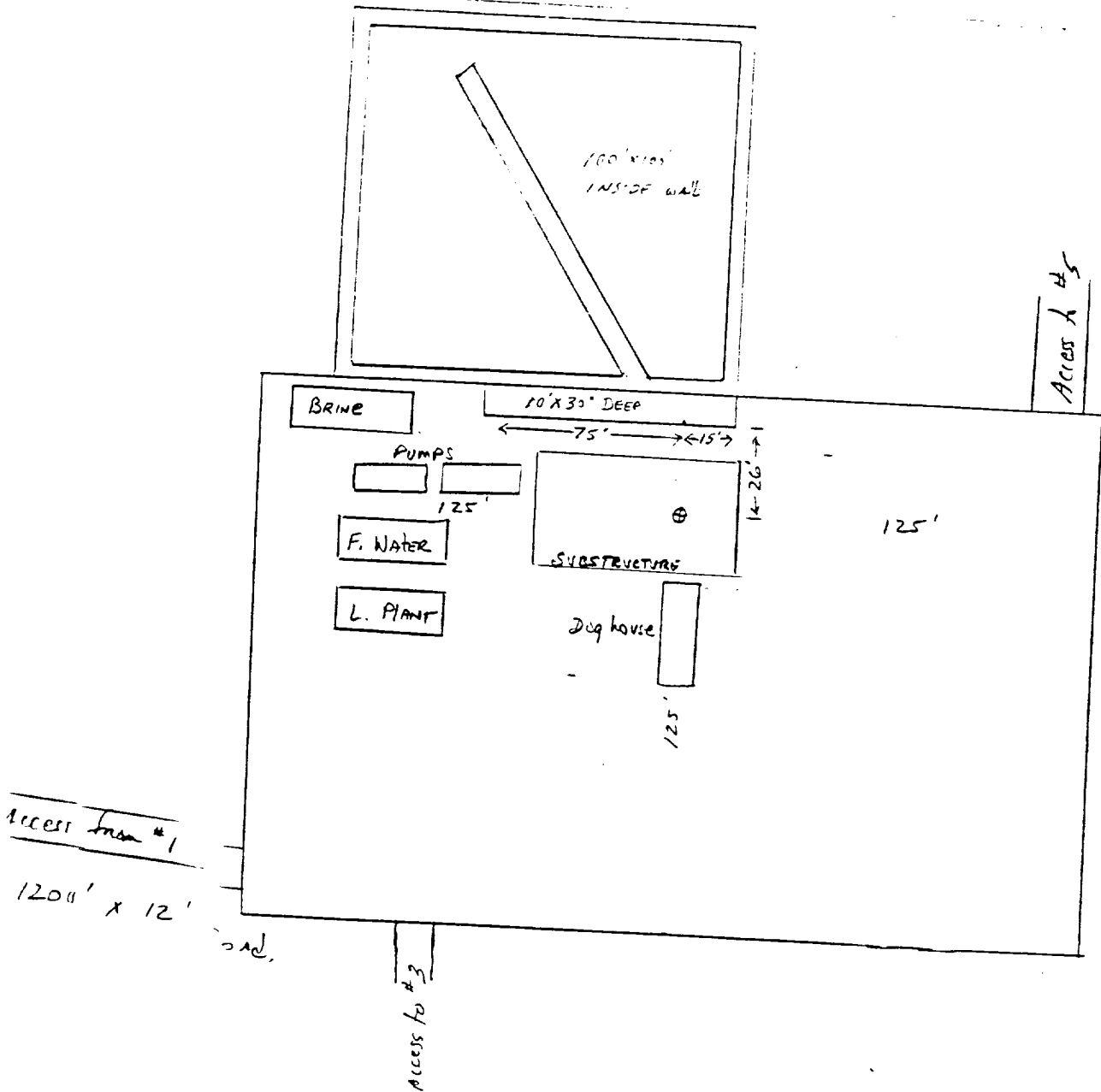


EXHIBIT C

Hanley Petroleum Inc.
 Union 35 Federal No. 2
 1980' FNL & 1980' FWL
 Sec. 35, T-22-S, R-28-E
 Eddy County, New Mexico

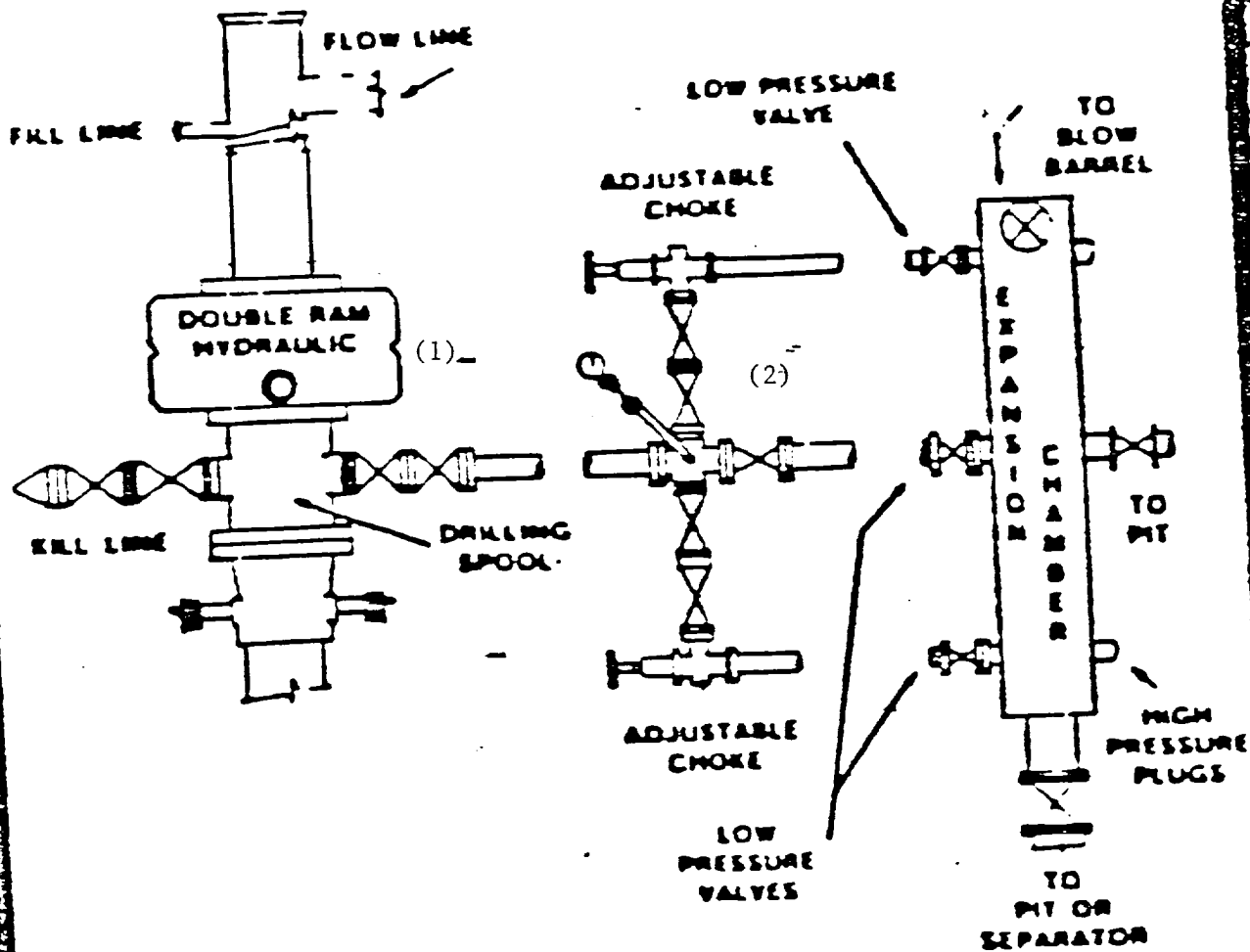
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Continental Gas line

EXHIBIT D

Hanley Petroleum Inc.
Union 35 Federal No. 2
Sec.35, T-22-S, R-28-E
Eddy County, New Mexico



(1) Shaffer LWS Hydraulic Double 11" x 3000 PSI

(2) Choke Manifold 4" x 3000 PSI

Standard Blowout Preventer Stack