NM OIL CONS. COMMISSION
Drawer DD
Artesia, NM 88210

Form 3160-3
(July 1989)
(formerly 9-331C)

CONTACT RECEIVING OFFICE FOR NUMBER OF COPIES REQUIRED
(Other instructions on reverse side)

30-015-27431

BLM Roswell District
Modified Form No.
NM060-3160-2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] 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, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 1980' FWL
At proposed prod. zone: Delaware

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles southeast of Carlsbad

5. LEASE DESIGNATION AND SERIAL NO.: NM19601

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Union 35 Federal

9. WELL NO.: 4

10. FIELD AND POOL, OR WILDCAT: Herradura Bend Delaware, East

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.35,T-22-S,R-28-E NMPM

12. COUNTY OR PARISH: Eddy

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660'

16. NO. OF ACRES IN LEASE: 320

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.: 1205'

19. PROPOSED DEPTH: 8500

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3058 GR

22. APPROX. DATE WORK WILL START*: May 1, 1993

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
12¼	8 5/8"	24#	J-55	ST&C	450	425 sx C CIRCULATE
7 7/8	4½"	11.60#	N-80 & J-55	LT&C	8500	600 sx C CIRCULATE
						425 sx Lite & 200 sx C

Drilling Program:
Surface Use & Operating Plan
Exhibit A - Planned Access Roads
Exhibit B - One-Mile Radius Map
Exhibit C - Drilling Rig Layout
Exhibit D - Blowout Preventer Equipment

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 Greg Wilkes (Greg Wilkes) TITLE Chief Engineer DATE 4/1/93

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER DATE 4-30-93

CONDITIONS OF APPROVAL, IF ANY:
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

*See Instructions On Reverse Side

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

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 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. Geologic Name of Surface Formation:

   Quartenary

2. Estimated Tops of Important Geologic Markers:

Rustler	1070
Salado	1780
Castile	2473
Delaware SS	2720
Cherry Canyon	3576
Brushy Canyon	4772
Bone Spring	6272
Total Depth	8600

3. Estimated Depths of Anticipated Fresh Water, Oil, or Gas:

Cretaceous	Above 50
Cherry Canyon	3600 - 3800
Brushy Canyon	5900 - 6200
Bone Spring	8250 - 8400

   No other formations are expected to give up oil, gas, or fresh water in measureable quantities. The surface fresh water sands will be protected by setting 8 5/8" casing at 450" and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a cementing stage tool into the 4 1/2" production casing which will be run at TD.

Hanley Petroleum Inc.

Union 35 Federal Well #4
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4. Casing Program:

Hole Size	Interval	OD Csg	Weight, Grade, Jt, Cond, Amt, Loc
12 1/4"	0-450'	8 5/8"	24#, J-55, ST&C, New, 450', Top
7 7/8"	0-TD	4 1/2"	11.6#, N-80, LT&C, Rec, 850', Top
			11.6#, J-55, LT&C, Rec, 7650', Btm

Cement Program:

8 5/8" surface casing: Cemented to surface with 425 sx of Class C + 2% $CaCl_2$.

4 1/2" production csg: Cemented in 2 stages DV tool @ +/- 5000'.

Stage 1: +/- 600 sx Class C + 0.6% Halad 322 + 3% salt + 8 #/sx silicalite.

Stage 2: +/- 400 sx Halliburton Lite + 6 # salt and +/- 400 sx Class C + 0.6% Halad 322 + 8 #/sx silicalite.

5. Minimum Specifications for Pressure Control:

The blowout preventer wquipment (BOP) shown in Exhibit #D will consist of a double ram-type (3000 psi WP) preventer. It will be hydraulically operated and will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. The BOP will be nippled up on the 8 5/8" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Ohter accesories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

Hanley Petroleum Inc.

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6. Types and Characteristics of the Proposed Mud System:

Surface: 0-450'

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 or lime 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 NMOCD Artesia District for use of this produced water prior to proper disposal. If sufficient quantities of produced water are available from Hanley's Delaware completions, a poly line will be laid along access roads from the tank battery.

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.

7. Auxiliary Well Control and Monitoring Equipment:

A. A kelly cock will be kept in the drill string at all times.

B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Testing, Logging and Coring Programs:

A. DST's - None anticipated
B. Wireline Logs
C. Cores - None anticipated

Hanley Petroleum Inc.

Union 35 Federal Well #4
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Eddy County, New Mexico

9. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The anticipated bottom hole temperature (BHT) at TD is 135°F and estimated maximum bottom-hole pressure (BHP) is 1250 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated starting date is May 1, 1993. Once commenced, the drilling operation should be finished in approximately 14 days. If the well is productive, an additional 30 days will be required before a decision is made to install permanent facilities.

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 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 then right .5 miles to location.

2. Planned Access Road

   A. The proposed new road will be approximately 1400' in length beginning at the Southeast corner of the location and proceeding north 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 #4
660' FSL & 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 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 either the Fortson Oil Company Pinnacle State Lease, located in Section 36 and will be hauled by contractor. Or if sufficient quantities of produced water are available from Hanley's producing Delaware wells, a poly line will be laid along the approved road ROW.

6. Source of Construction Materials

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

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

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

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.

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 a relatively flat area. 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.

C. A fifty (50) foot fence will be constructed to limit access to a hawks nest located east of the location.

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

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

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 3072' and slopes south-southwest toward the Pecos River.

B. Soil:
Top soil at the wellsite is silty clay loam underlain by caliche.

C. 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, hawks, lizards, snakes, and other inhabitants of semi-arid climate.

D. Ponds and Streams
The Pecos River lies 1 1/4 miles to the south of the proposed well.

E. Residences and Structures
None on lease.

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

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

F. Archaelogical, Historical and Cultural Sites
None observed in the area. The archaelogical report has been sent under seperate cover to the BLM's Carlsbad District Office.

G. Land Use
Hunting in season.

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

12. Operators Representatives

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

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

Contract Field Personnel

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

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 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 corect; 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.

April 1, 1993
Date

Greg Wilkes
Chief Engineer

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
HANLEY PETROLEUM, INC.	UNION 35 FEDERAL	4

Unit Letter	Section	Township	Range	County
N	35	22 SOUTH	28 EAST NMPM	EDDY

Actual Footage Location of Well:
660 feet from the SOUTH line and 1980 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3058.3'	DELAWARE	HERRADURA BEND DELAWARE, EAST	40 Acres

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

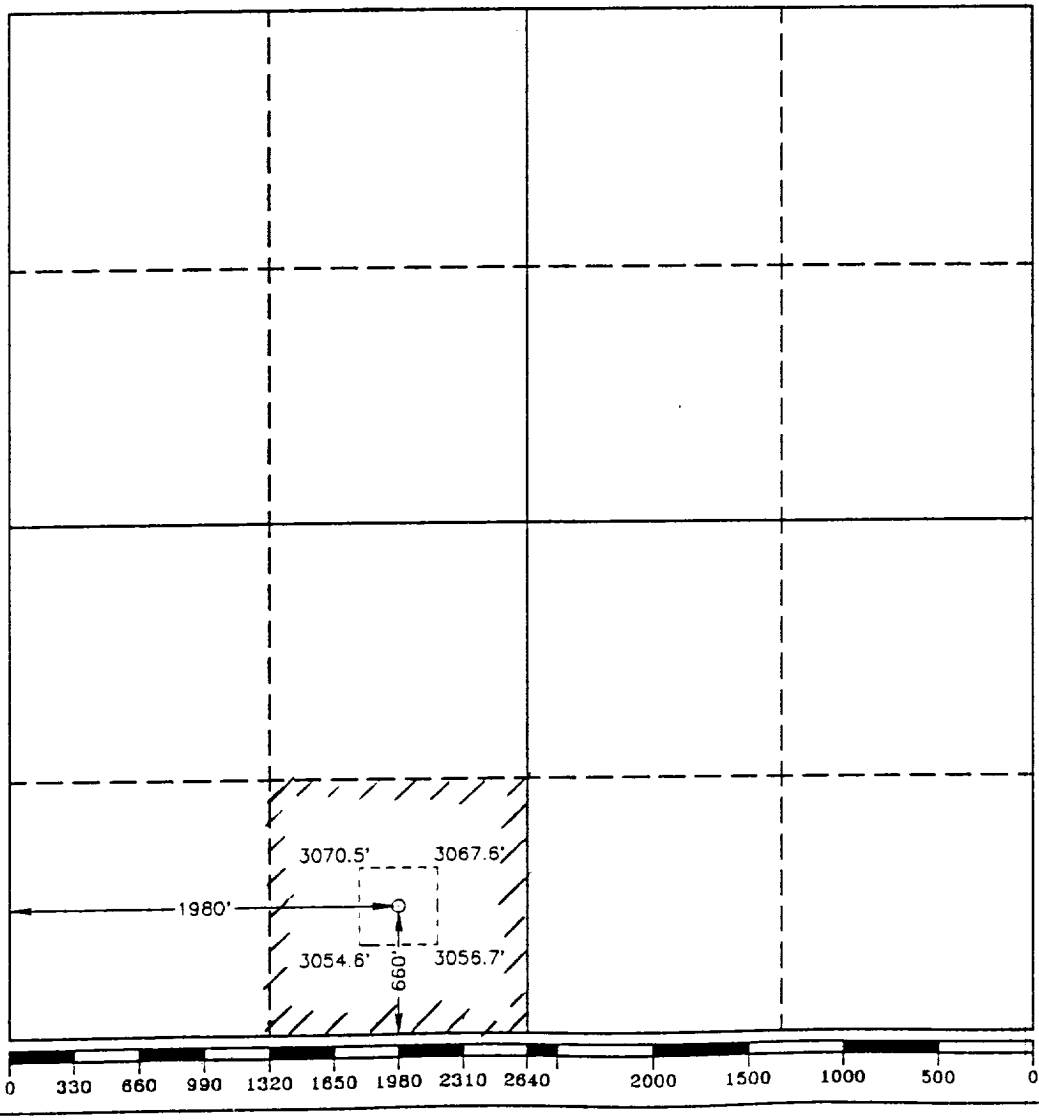
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the 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.

Greg Wilkes
Signature

Greg Wilkes
Printed Name

Chief Engineer
Position

Hanley Petroleum Inc.
Company

4-1-93
Date

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 supervison, and that the same is true and correct to the best of my knowledge and belief.

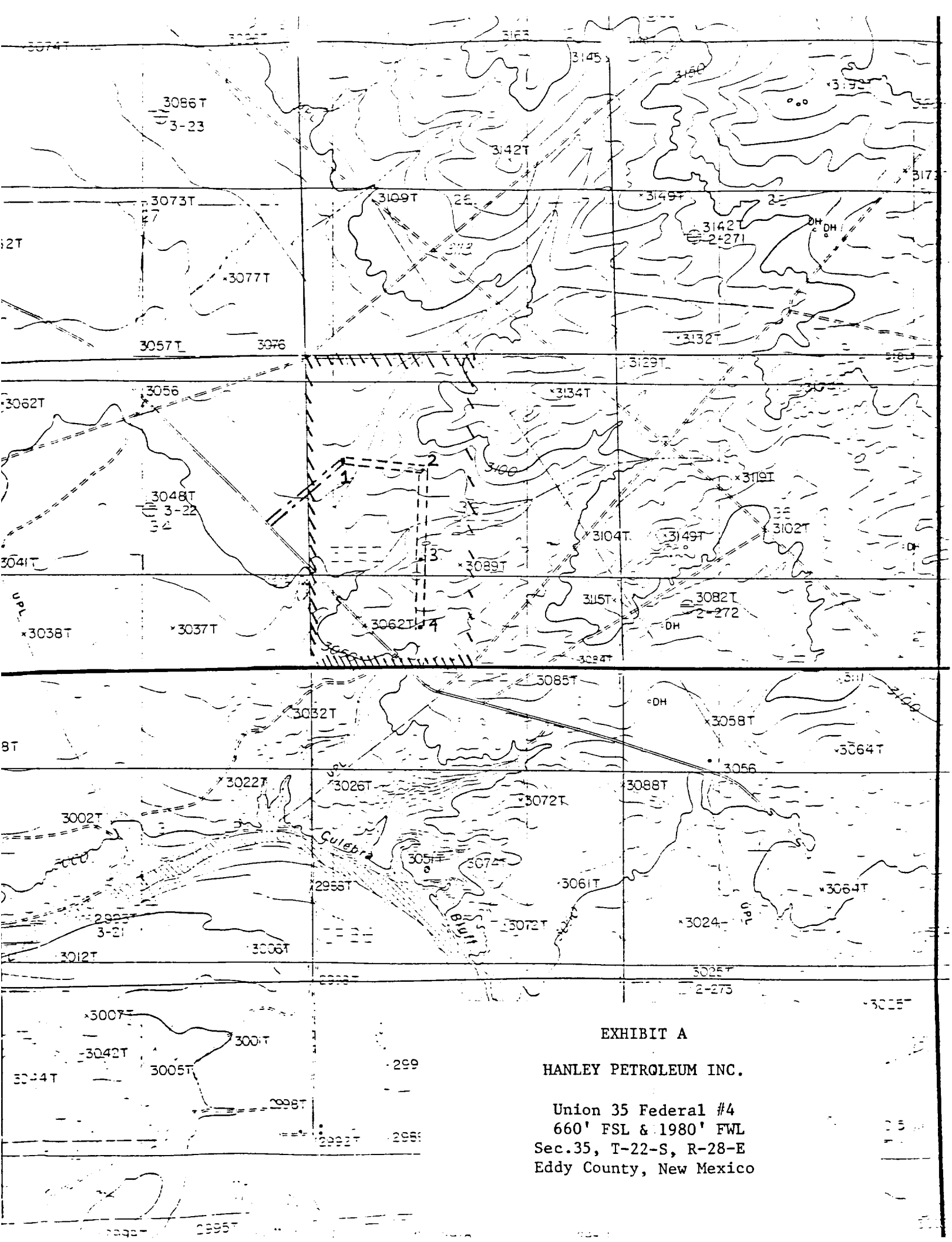
Date Surveyed
FEBRUARY 5, 1993

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO

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

93-11-0169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2998T
299
EXHIBIT A
HANLEY PETROLEUM INC.
Union 35 Federal #4
660' FSL & 1980' FWL
Sec.35, T-22-S, R-28-E
Eddy County, New Mexico

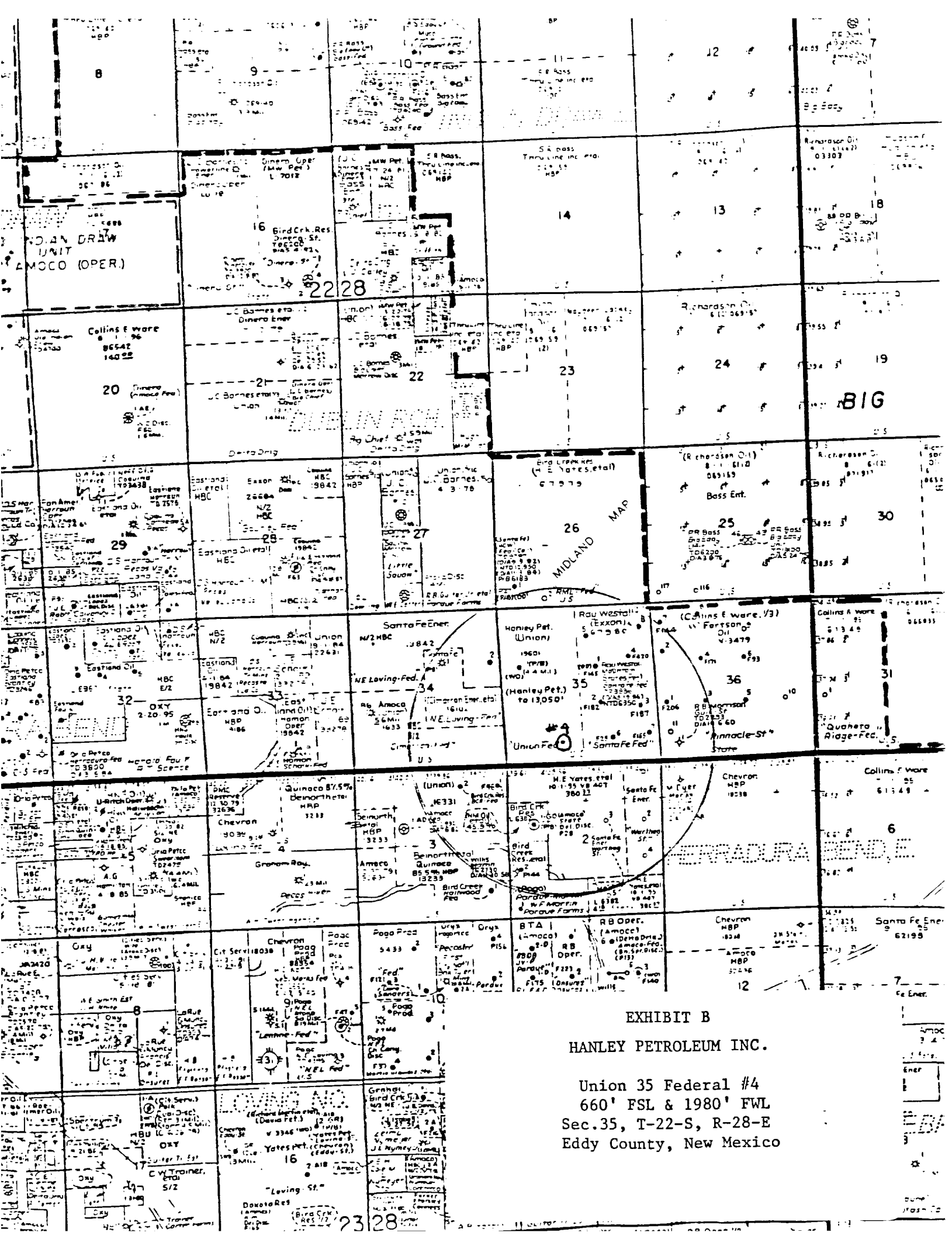


EXHIBIT B

HANLEY PETROLEUM INC.

Union 35 Federal #4
660' FSL & 1980' FWL
Sec.35, T-22-S, R-28-E
Eddy County, New Mexico

scale 1" = 50'

EXHIBIT C

HANLEY PETROLEUM INC.

Union 35 Federal #4
660' FSL & 1980' FWL
Sec.35, T-22-S, R-28-E
Eddy County, New Mexico

N

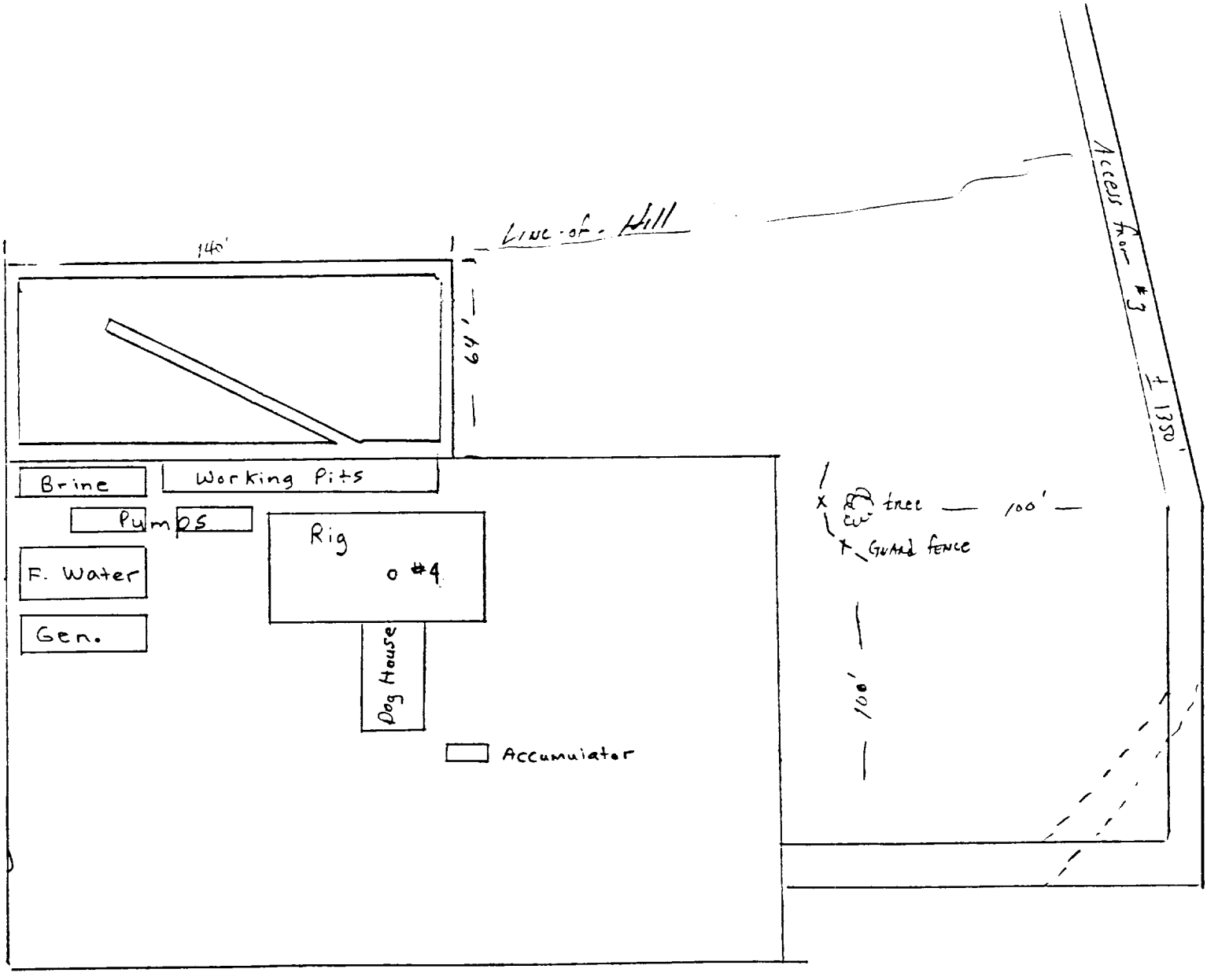
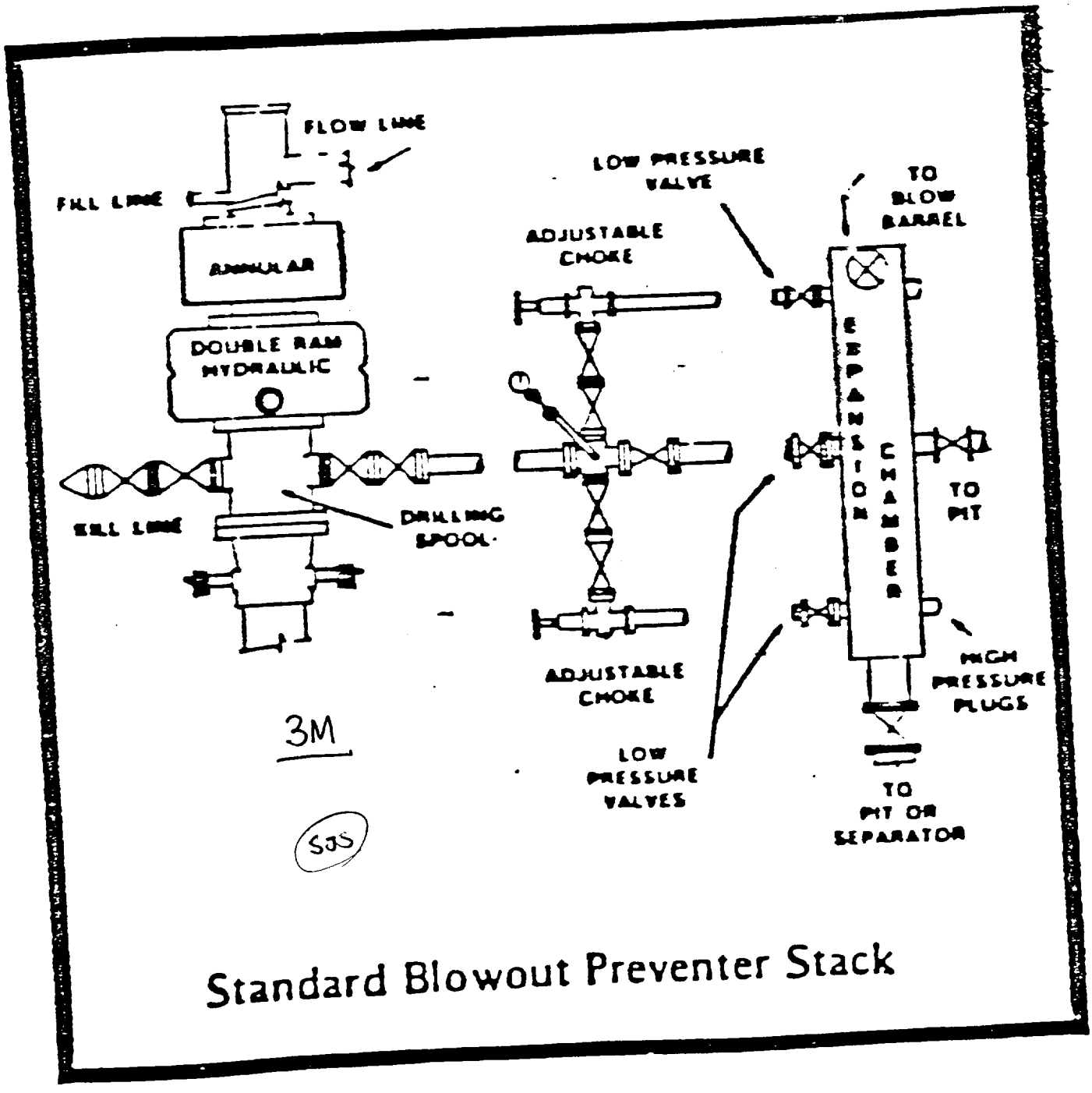


EXHIBIT D

HANLEY PETROLEUM INC.

Union 35 Federal #4
660' FSL & 1980' FWL
Sec.35, T-22-S, R-28-E
Eddy County, New Mexico



Standard Blowout Preventer Stack

Hanley Petroleum Inc.

Union 35 Federal Well #4
660' FSL & 1980' FWL
Section 35, Township 22-S, Range 28-E
Eddy County, New Mexico

Attachement to Exhibit D

NOTES REGARDING THE BLOWOUT PREVENTERS

1. Drilling nipple to be so constructed that it can be removed without the use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.

2. Wear ring to be properly installed in head.

3. Blowout preventer and all fittings must be in good condition, 3000 psi WP minimum.
4. All fittings to be flanged.

5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi WP minimum.

6. All choke and fill lines to be securely anchored, especially ends of choke lines.

7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

8. Kelly cock on kelly.

9. Extension wrenches and hand wheels to be properly installed.

10. Blowout preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.