

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL

WELL ☒

GAS

WELL ☐OTHER ☐

2. NAME OF OPERATOR

Tahoe Oil & Cattle Co.

3. ADDRESS OF OPERATOR

P. O. Box 7032, Midland, Texas 79703

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

At surface

660' FNL & 660' FEL, Sec. 22, T-9-S, R-37-E, N.M.P.M.
At proposed prod. zone

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

15 Miles East of Crossroads, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

660

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

1300

16. NO. OF ACRES IN LEASE

160

19. PROPOSED DEPTH

5050'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

80

20. ROTARY OR CABLE TOOLS

Rotary

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

3968.0 GR

WHILE DRILLING AND TESTING."

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#	420'	250 sx. Circulate
7-7/8"	4-1/2"	10.5#	5050'	1000 sx. Circulate

Drill 12-1/4" hole to 420' using fresh water and native mud. Ran 8-5/8" casing, cement & circulate to surface with 250 sx. Class C Plus 2% Ca. Cl. WOC 12 hours test to 1500# for 30 minutes. Drill 7-7/8" hole to total depth, 5050', mud program as follows:

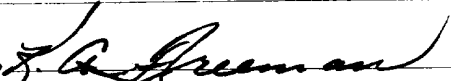
- 0-420' Fresh water and native mud.
- 420-4900' Drill out with fresh water, mix 1 sx paper for every 100' drilled, maintain viscosity @ 31-33 sec. /10000 c.c.; at 1000' add 25 barrels crude oil, each day there add 3 to 5 barrels of oil per day to the mud system. Use defoamer only as needed to maintain pump pressure.
- 4900-5050' at 4900' mix starch to lower water loss to 10-15 cc/30 minutes, maintain viscosity @ 36-37 sec./1000 cc.

Open hole logs will be run; logs will be Sidewall Neutron and Gamma-Ray Caliper log, Run 4-1/2", 10.5# K-55 (New) casing to 5050'. Cement with 1000 sx. Class C salt saturated cement. Wait on cement 24 hrs. Attached are BOP requirements, csg. schematic & rig layout.

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



TITLE Petroleum Engineer

DATE April 3, 1978

(This space for Federal or State use)

PERMIT NO.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL DATE

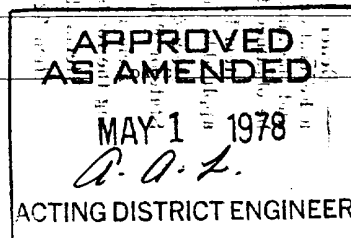
APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

Unless otherwise specified, this permit has
Commenced 8-1-78
Expires 8-1-78

*See Instructions On Reverse Side



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.

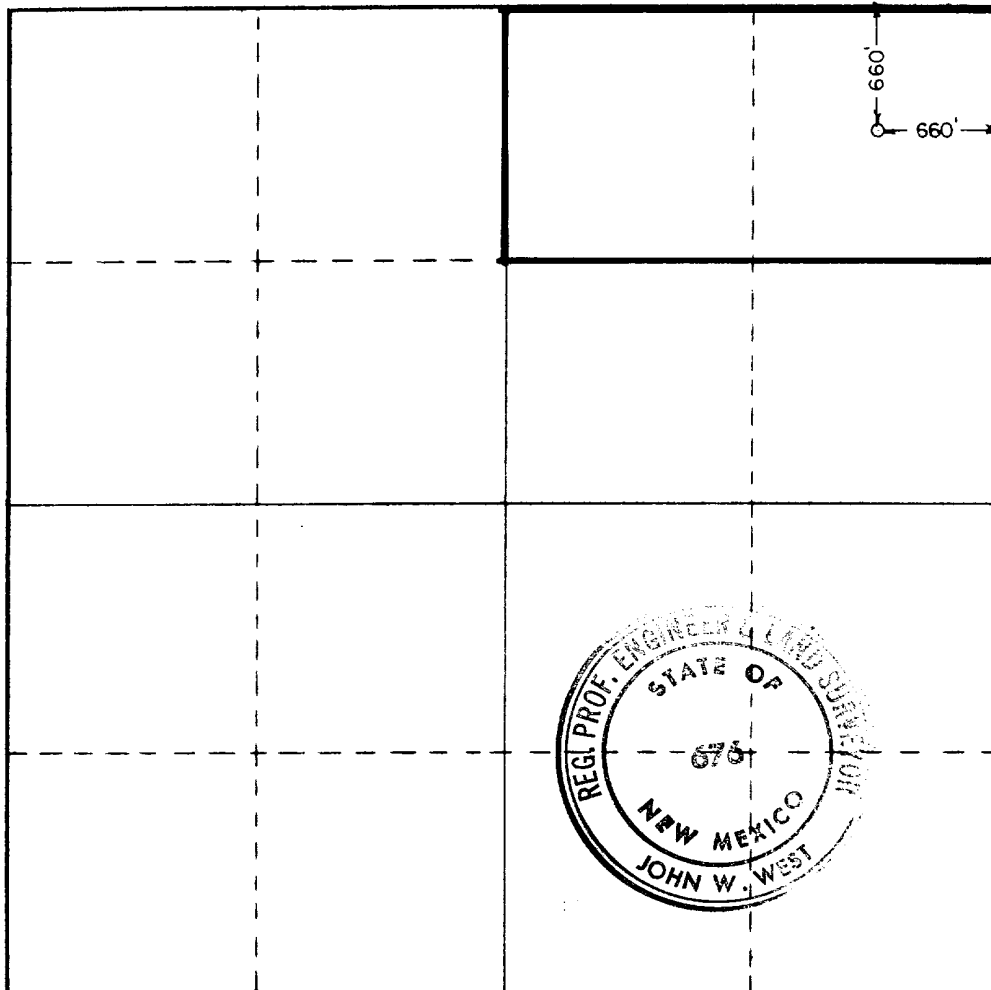
Operator Tahoe Oil & Cattle Co.			Lease T.P. Fed.		Well No. 2
Unit Letter A	Section 22	Township 9 South	Range 37 East	County Lea	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the East line					
Ground Level Elev. 3968.0	Producing Formation		Pool UNDESIGNATED	Dedicated Acreage: 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.

Name *J. A. Freeman*
 Position **PETROLEUM ENGINEER**
 Company **TAHOE OIL & CATTLE CO.**
 Date **4-7-78**

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.

4/5/78

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

John W. West
 Certificate No. **John W. West 676**
Ronald J. Eidson 3239

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

100-100000

RECEIVED
U.S. DEPT. OF JUSTICE
JUL 10 1978

100-100000

SURFACE PLAN OF DEVELOPMENT- T. P. FEDERAL NO.
660' FNL & 660' FEL
Section 22, T-9S, R-37-E
Lea County, New Mexico

This plan is submitted with Application for Permit to Drill the above described well. This plan describes the well location, proposed construction, access road to be built and rehabilitating the surface after completion of the operation. The surface will be restored to a condition acceptable to the surface owner. The surface is presently in grass, or soil bank. The surface owner, O. L. Watson, Jr., 1306 8th Street, Levelland, Texas 79336, telephone number 806/894-4042.

1. EXISTING ROADS

- (A) This well will be drilled 660' FNL & 660' FEL in Section 22, Township 9 South, Range 37 East. Exhibit "A" shows the location in relation to New Mexico State Highway 508 and Highway 125.
- (B) Exhibit "B" shows the existing roads in the area and are color coded blue.

2. PLANNED ACCESS ROAD

- (A) The new road required will be 12 feet wide 1/2 mile long. This new road is labeled and color coded red on Exhibit "B". The center line of the proposed new road from the beginning to the wellsite, has been staked and flagged with the stakes being visible from any one to the next.
- (B) Surfacing material will consist of six inches of caliche. The caliche will be obtained from the caliche pit approximately 1-1/2 miles to the northwest or located 660' FWL & 300' FNL Section 21, Township 9 South, Range 37 East. The caliche for the road will be compacted, watered, graded with a maximum 3 percent grade. No turnouts, culverts, cuts, fills, gates or cattleguards are required.

3. EXISTING WELL LOCATIONS

They are shown on Exhibit "A" and "B".

4. TANK BATTERY AND FLOWLINES

The No. 2 well will be connected to the existing tank battery located in Section 22 on the well location pad of the T. P. Federal No. 1. The flowline will be buried and be directly south to Well No. 1. This is shown on Exhibit "C". The center line of the proposed new flow line has been staked and flagged.

5. WATER SUPPLY

Water for drilling will be purchased from Kenneth Tank Service, Crossroads, New Mexico, telephone No. 505/675-3366. By trucking the water, it will not cause any additional surface disturbance.

5. SOURCE OF CONSTRUCTION MATERIALS

Caliche for surfacing the road and the well pad will be obtained from existing pit in the NW/4 NW/4 Section 21, Township 9 South, Range 37 East. The pit is on land owned by Mr. W. E. Bilbrey. Location of the pit is shown on Exhibit "B".

7. 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.
- (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 pertaining to disposal of human waste will be complied with.
- (E). Trash, garbage, and junk will be buried in the burn pit and covered with a minimum of 24 inches of dirt.

8. ANCILLARY FACILITIES

None required

9. WELLSITE LAYOUT

Exhibit "D" shows the location and dimensions of well pad, mud pits, reserve pit, burn pit, and location of major rig components. The reserve pit will be plastic lined. The pad and pit area has been staked and flagged.

10. RESTORATION OF THE SURFACE

Have contacted the surface owner and discussed building location and access road. Surface will be restored to a condition acceptable to surface owner. The area is presently in grass.

11. MISCELLANEOUS INFORMATION

- (A) Topography - Land is flat, elevation is 3967' see Exhibit "B" Topographic Map.
- (B) Soil - Is a deep fine sand underlain by caliche and is in grass.
- (C) Ponds and Streams - None in the area.
- (D) Archeological, Historical & Cultural Sites - None observed in the area.
- (E) Surface Ownership - O. L. Waison, 1306 8th St., Levelland, Texas 79336.

12. OPERATOR'S PERSONNEL:

The field representatives responsible for assuring compliance with the approved surface use and operations plan are as follows:

Jim Kirkendoll
P. O. Box 1641
Eunice, New Mexico 88231
Office Phone 505/394-2027
Home Phone 505/394-2230

K.A. Freeman
206 North Main 79701
Midland, Texas 79701
Office Phone 915/683-8009
Home Phone 915/683-3774

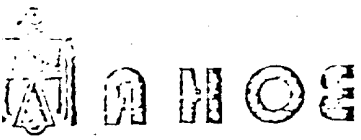
13. CERTIFICATION

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 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 Tahoe Oil & Cattle Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

A handwritten signature in cursive script, reading "K. A. Freeman", is written over a horizontal line.

K. A. FREEMAN
PETROLEUM ENGINEER

4-7-'78
DATE



OIL & CATTLE CO.

PHONE: 915-683-8009 • P. O. BOX 7032 • MIDLAND, TEXAS 79701

April 3, 1978

T. P. Federal No. 2

660' FNL & 660' FEL, Section 22, Township 9 South, Range 37 East, Lea Co., New Mexico

ATTACHMENT TO FROM 9-331C (ADDITIONAL INFORMATION)

1. The surface formation is of Quaternary age.

2. Estimated formation tops:

Rustler Anhydrite	2275'
Yates Sand	2885'
San Andres	4190'
San Andres Pi	4770'
San Andres Slaughter	4925'

3. Fresh water is anticipated at 200' or less. Yates Sand may or may not have brackish water at 2885'.
San Andres (Slaughter Pay) 4925' to 5000' is expected to have oil, gas and mineralized water.

4. Production Casing will be new and is described under No. 23, Form 9-331-C K-55 Grade.

5. Series 900 (3000# service pressure rating) Rucker Shaffer LWP Double Blowout Preventer with hydraulic operation.

A. Surface Hole:

1. 1 set blind rams
2. 1 set drill pipe rams

After 8-5/8" 24# casing has been set and cemented, rams will be tested to 2000# prior to drilling out cement.

B. 7-7/8" Hole:

1. 1 set of blind rams tested to 2000#.
2. 1 set of drill pipe rams tested to 2000#.

*This is an old field area and no abnormal pressure is expected at this depth. San Andres Slaughter zone bottom hole pressure is anticipated at 1385 PSIG.

6. The circulating system will consist of the rig mud pumps and mud pits. The mud system will consist of salt gel (viscosity 31-33 sec/1000 cc), starch will be added at 4900' to lower the water loss to 10-15 cc/30 min. and viscosity at 36-37 sec/1000 cc. Mud weight will be 9.8 to 10.0#/gallon.

7. Auxiliary equipment will consist of the following:

A. Drill Pipe sub

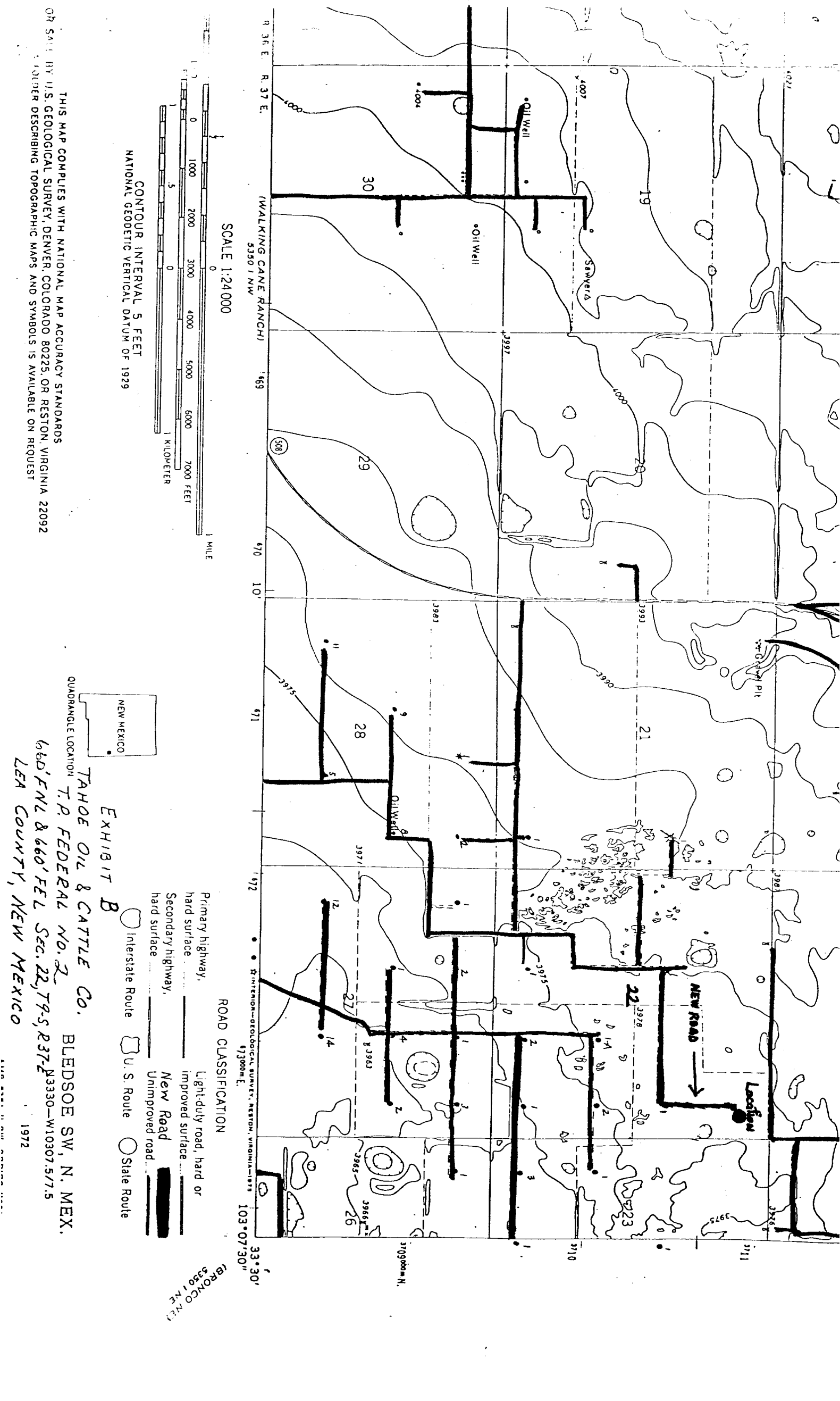
B. Full opening valve tested to 3000#.

8. Logging program in the open hole will consist of a Sidewall Neutron, Gamma Ray-Caliper log before running 4-1/2" casing. If open hole logs will not go to total depth, the 4-1/2" casing will be run. After casing is run and cemented at total depth a Gamma Ray, Neutron, Collar Log will be run.
9. No abnormal pressure, temperature or hydrogen sulfide gas is anticipated at this field development well.
10. Starting date is expected to be June 1, 1978 or upon approval by the U.S.G.S. and as soon thereafter as a drilling contractor can be obtained. The operation is expected to be completed in three weeks after spud date.
11. Cementing program:

Surface: Drill 12-1/4" hole to 420, run 8-5/8" 24#, K-55 used casing to 420', Cement to surface with 250 sx Class C plug 2% Ca.Cl.

Production: Run 4-1/2" 10.5# K-55 new casing to 5050'.

1. Either cement to surface with 800 sx Common + 12% gel + .4 HR-7 and 200 sx. Class C salt saturated cement.
2. Or cement with 200 sx Class C salt saturated cement as first stage, open DV tool to run below the Rustler and cement second stage, to surface with 200 sx Common + 12% gel + .4 HR-7



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
OF THE U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

NEW MEXICO
TAHOE OIL & CATTLE CO.
T.P. FEDERAL NO. 2
660' FNL & 660' FEL SEC. 22, 79-5, R37-E
LEA COUNTY, NEW MEXICO
BLEDSOE SW, N. MEX.
N3330-W10307.5/7.5
1972

(BRONCO NE)
5350 / NW
33°30'
103°07'30"

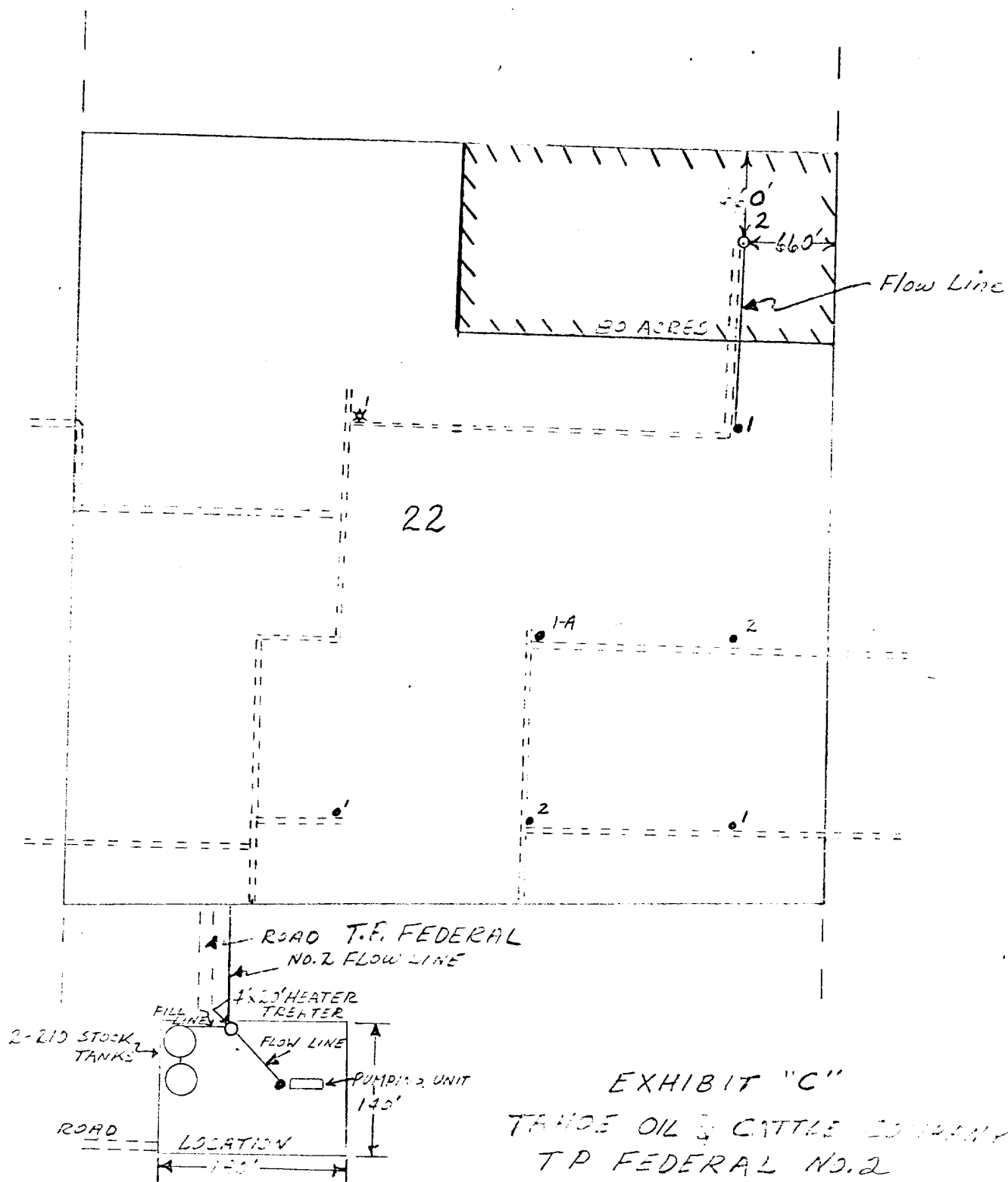


EXHIBIT "C"
 TAHOE OIL & CATTLE COMPANY
 T P FEDERAL NO. 2
 660' FNL & 100' EL SEC. 20, T9-S, R37-E
 LEA COUNTY, NEW MEXICO

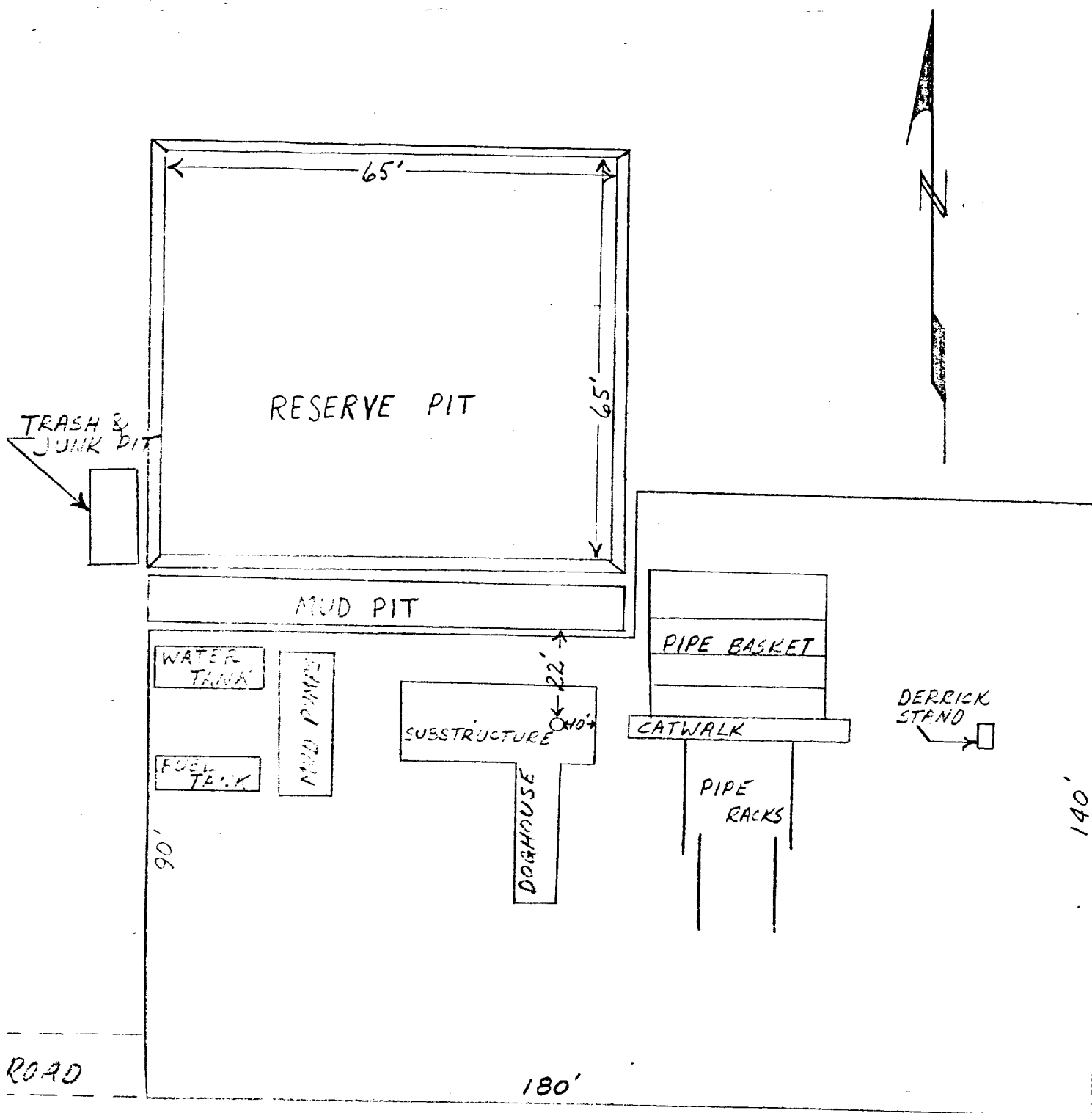


EXHIBIT "D"
RIG LAYOUT
TAHOE OIL & CATTLE CO.
T. P. FEDERAL NO. 2
LEA COUNTY, NEW MEX.

① Bell Nipple Fill UP & FLOW LINE

② 10³/₄" 900 Series Shaffer
Double Hydraulic BOP
by Contractor

③ 2"-5000# Hydraulic Gate
by Contractor

④ 2"-5000# Manual Gates
by Contractor

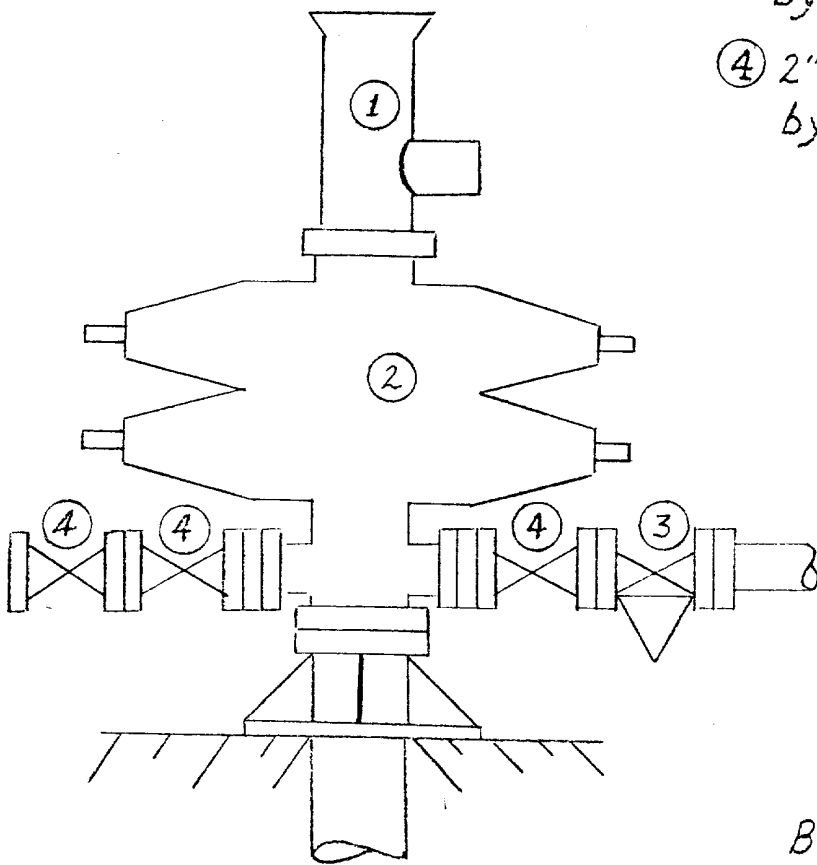


EXHIBIT "E"
BOP REQUIREMENTS
TAHOE OIL & CATTLE CO.
TP FEDERAL NO. 2
LEA COUNTY NEW MEXICO
SURFACE TO 4¹/₂" CSG. PT. (5050')

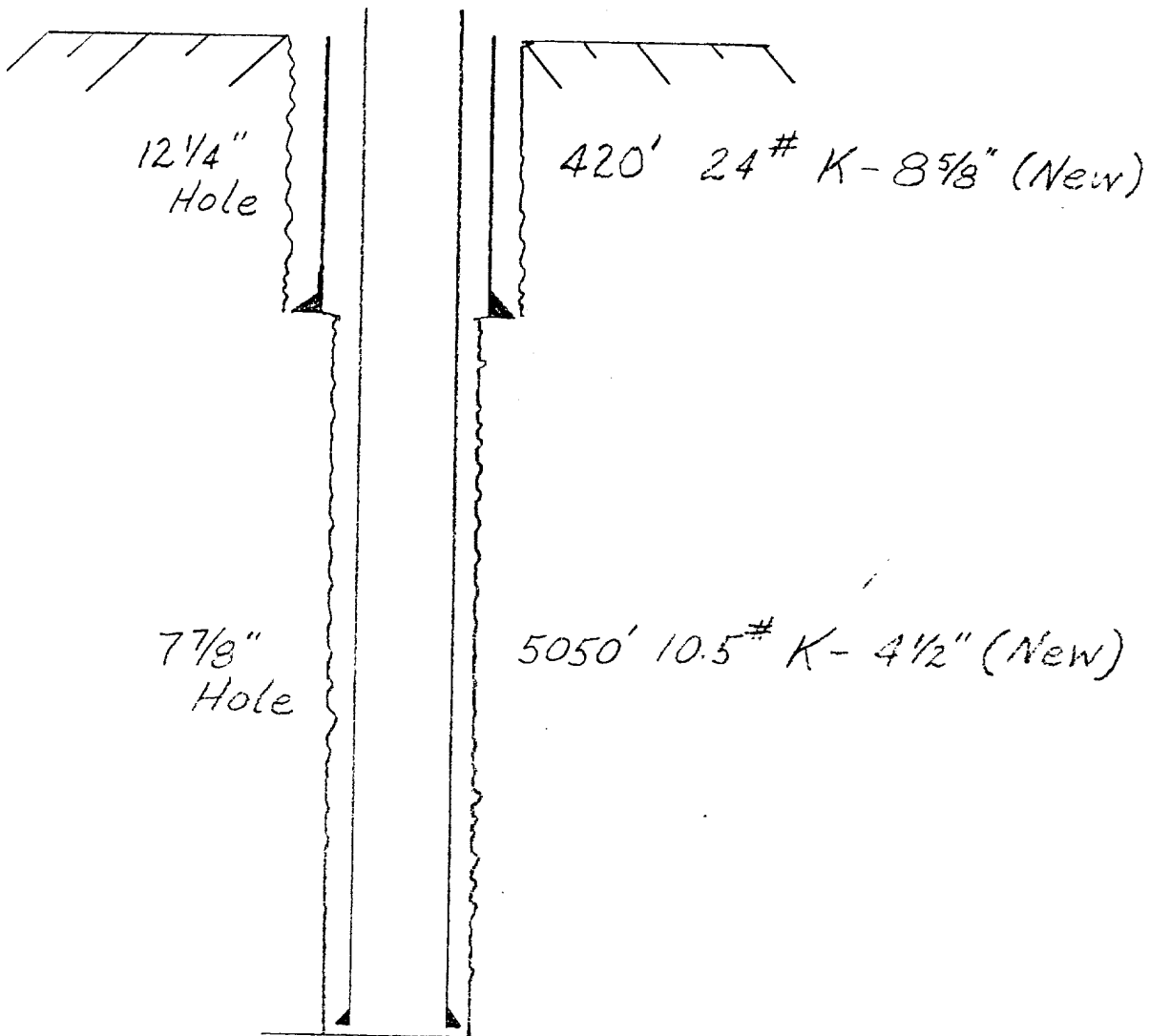


EXHIBIT "F"
CASING SCHEMATIC
TAHOE OIL & CATTLE CO.
TP FEDERAL NO. 2
LEA COUNTY NEW MEXICO

U. S. Geological Survey

HOBBS DISTRICT

Tahoe Oil & Cattle Co. No. 2 T. P. Federal NE 1/4 sec. 22-9S-37E Lea County, N.M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.