Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42 R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-26392

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT AGREEMENT NAME:

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

8. FARM OR LEASE NAME: Reed Federal

2. NAME OF OPERATOR: Texas Pacific Oil Company, Inc.

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: 1700 One Main Place - Dallas, Texas 75250

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: Unit L, 2310' FSL & 800' FWL
At proposed prod. zone:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 4-T22S-R33E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 25 miles west of Eunice, New Mexico

12. COUNTY OR PARISH: Lea — 13. STATE: New Mexico

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
800'	560	40
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	5000'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3664' GR

22. APPROX. DATE WORK WILL START*: Upon Approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48#	40'	To surface
12-1/4"	8-5/8"	24#	1160'	600 sx. Class "C". Circulate.
7-7/8"	5-1/2"	14#	5000'	Class "C". Cmt volume to be calculated from open-hole porosity log caliper.

See Attachments

1. Development Plan for Surface Use
   - A. Exhibit "A"
   - B. Exhibit "B"
2. Drilling Procedure
   - A. Casing Program
   - B. Cementing Program
   - C. Mud and Logging Program
   - D. Formation Tops
3. BOP Schematic
4. Well location and Acreage Dedication Plat (Form C-102)
5. Tank Battery Plat

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 W. J. Mattlock TITLE Drlg. Admin. Supv. DATE April 28, 1977

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

ATTACHMENT TO FORM 9-331C

1. Geologic name of surface formation at well site is Quaternary Alluvium undifferentiated.

2. The estimated depths of fresh water is 100' to 200'. Oil, gas or salt are anticipated at a depth of 4600'.

3. New casing will be run in well.

4. See attached.

5. No abnormal pressures, temperatures or Hydrogen Sulfide are anticipated.

6. The drilling of this well will commence upon approval of Permit and location of a drilling rig. The drilling is expected to last approximately 14 days.

2 5 1977

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	Lease	Well No.
Texas Pacific Oil Company	Reed - Federal	1

Unit Letter	Section	Township	Range	County
L	4	T-22-S	R-33-E	Lea County, Texas

Actual Footage Location of Well:
2310 feet from the South line and 800 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3664	~~Capitan Reef~~ Delaware	Wildcat	40 Acres

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

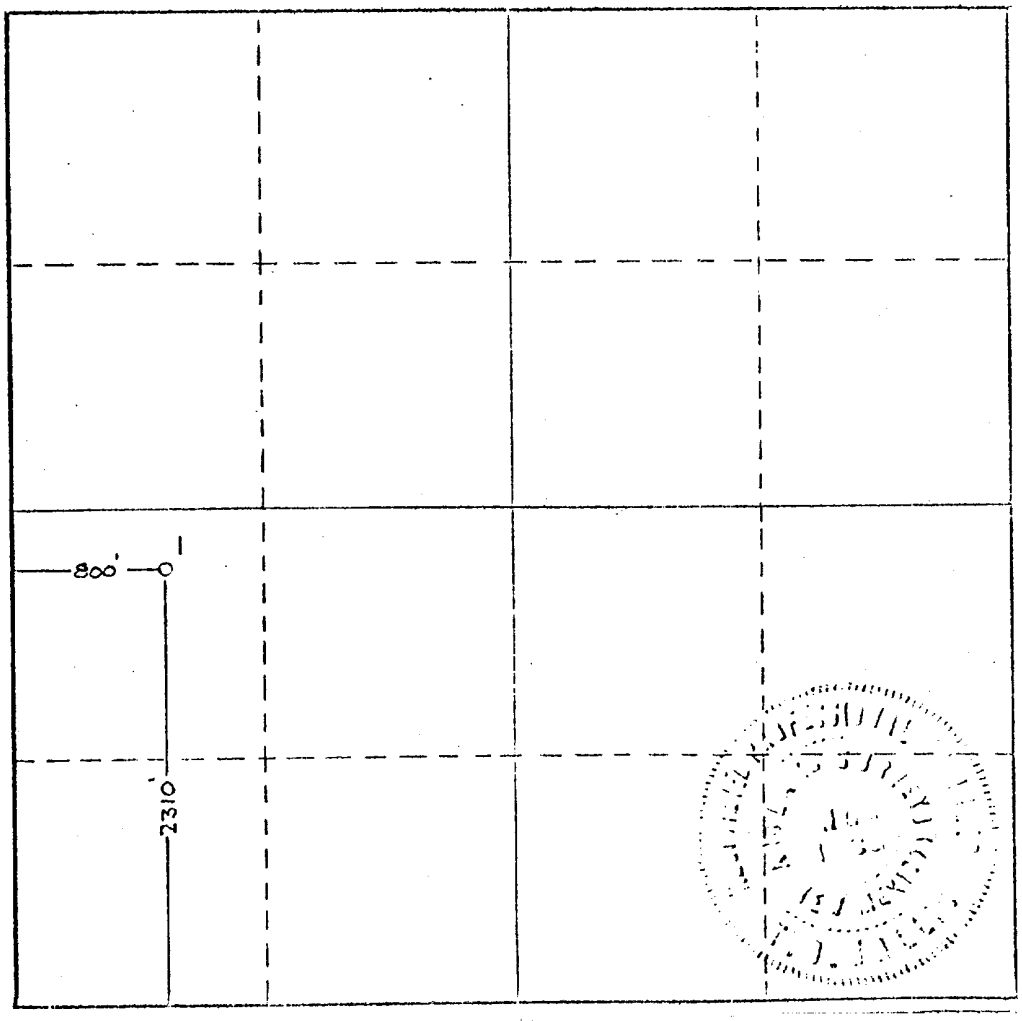
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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

Position
Drilling Admin Supv.

Company
Texas Pacific Oil Co., Inc.

Date
April 28, 1977

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
4-21-77

Registered Professional Engineer and/or Land Surveyor
J O Wallis

Certificate No.

TEXAS PACIFIC OIL COMPANY

DRILLING PROCEDURE TP-105-B

DATE: August 31, 1976

DISTRICT/AREA: Midland - West

AFE NO.: 71452

LEASE NAME AND WELL NUMBER: Reed Federal No. 1

FIELD: Wildcat

LOCATION: 2310' FSL & 800' FWL Section 4-22S-33E

COUNTY/PARISH: Lea County

STATE: New Mexico

[illegible]: List on drilling report each lost circulation [illegible]nt of mud lost. List on Company reports all mud, chemicals, lost circulation material and oil used in drilling mud each tour. Strap drill pipe on first trip under surface and before logging, testing, or coring. Tool pusher will be responsible to obtain and to check all tallies on tubular goods received at well, as well as check accuracy on delivery tickets of other material delivered to well.

SUPERINTENDENT'S SIGNATURE

ENGR. APPROVAL

GEOL. APPROVAL

CASING PROGRAM

STRING	SIZE	LENGTH OF SECTION	WEIGHT	GRADE	THREAD	HOLE SIZE	ALLOWED CEMENT TIME-HRS
Conductor Pipe	13-3/8"	40'	48#	H40	STC 8RD	17-1/2"	-----
Surface Casing (set into anhydrite pick-ed by Geol)	8-5/8"	1160'	24#	K55	STC 8RD	12-1/4"	24
Production Casing	5-1/2"	5000'	14#	K55	STC 8RD	7-7/8"	-----

All csg to be RGE 3.

Sandblast 5-1/2" Production csg across prospective pays.

CEMENT PROGRAM

Conductor Pipe - Cmt w/Redi-mix.

Surf csg - 600 sx Class "C" w/2% $CACL_2$, 14.8 PPG, 1.32 ft^3/sk

Cmt must circ.

Prod Csg - _____ sx Class "C" w/6 lbs/sk salt, 15.0 PPG, 1.35 ft^3/sk.

Cmt volume will be calc'd from open-hole porosity log caliper.

MUD PROGRAM

DEPTH	TYPE	MUD WEIGHT	VISCOSITY	PH	WATER LOSS
-0-' - 1160'	FW Spud Mud if req'd	8.4 +	-------	---	----------
1160' - 4300'	Saturated Brine Wtr	10.0 +	-------	---	----------
4300' - TD	Use Nitrates for tracer material Add Salt Gel & Starch as req'd	10.0 +	32 - 36	11	8 - 10

DEVIATION FROM VERTICAL: NOT TO EXCEED 3 DEGREES PER 1000 FT; NOT TO EXCEED 3 DEGREES AT ~~TOTAL~~ ANY DEPTH

EXPECTED FORMATION TOPS

DESCRIPTION	DEPTH	SUB SEA
Top Rustler	1150	+ 2500
Base - Salt	3550	+ 100
Top - Capitan Lime	4400	- 750
Top - Pay	4600	- 950
Top - Delaware Sand	4800	- 1150
Surface elevation = 3650		

LOGGING, CORING & TESTING PROGRAM

CNL - Density with Gamma, DLL

Surface - TD

2 - DST's

TOTAL CONTRACT DEPTH: 5,000'

MUD SUPPLIER:

MECHANICAL RATE OF PENETRATION DEVICE REQUIRED: YES X; NO

SAMPLE PROCEDURE

10' samples surface to TD

10' drilling time surface to TD

EQUIPMENT OR SERVICES MAY BE INSTALLED AT FOLLOWING:

EQUIPMENT	DEPTH
Communications	Surface
BOP Equipment	Surface
Geolograph	Surface
2-Man Mud Log Unit	Surface cs

UNUSUAL PROBLEMS AND/OR REMARKS

Multi-Point Surface Use and Operating Plan
Texas Pacific Oil Company, Inc.
Reed Federal Well No. 1
2310' FSL & 800' FWL Sec. 4, T-22-S, R-33-E
Lea County, New Mexico

1. Existing Roads:

Exhibit "A" is a portion of the Hat Mesa Quadrangle Topographic Map showing the location of the proposed well as staked. Directions to location: from intersection of Highways #176 and Loop 18 in Eunice, New Mexico, go west on Highway 176 20.1 miles, turn left thru cattleguard on to a well traveled pasture road. Go 3.8 miles, passing one cattleguard to El Paso Pipeline road, turn right and go 5.5 miles, passing one cattleguard. Turn left on ranch road 1.4 miles to three-road fork. Turn left (ESE) and go 1.0 miles on ranch track. The proposed lease road begins here, proceeding 800' NNE to the proposed location of Reed Federal #1. The new proposed road is staked and flagged.

2. Planned Access Roads:

The new road will be 12' wide, 800' in length and will be constructed of compacted caliche 6" in depth and sloped from the center to each side with not more than a drop of 6 inches. The new road is labeled and color coded on Exhibit "A". There will be no major cuts or fills required.

3. Locations of existing wells:

There are no existing wells within a two mile radius.

4. Locations of existing and/or proposed facilities:

See Exhibit "B" and attached Tank Battery plat. In the event production is established, a pad 75' x 50' will be constructed on south side of drilling pad of compacted caliche 6" in depth.

5. Location and type of water supply:
Fresh water will be secured for drilling from City of Eunice, New Mexico. Water for drilling will be purchased from local supplier and trucked to the well site over existing and proposed roads.

6. Source of construction material:

Caliche for the pad and road will be obtained from an existing pit in the SE/4, NE/4, Section 27, T-21-S, R-33-E. The land is owned by Merchants Livestock, et al.

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.

   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 the trash pits is shown in Exhibit "B".

8. Ancillary facilities:

   A. None required.

9. Well site layout:

   A. Exhibit "B" shows the relative locations and dimensions of the well pad, mud pit and trash pit.

   B. The reserve pit will be plastic lined.

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

10. Plans for restoration of the surface:

   A. After completion of drilling and completion operations, all equipment and material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk to leave 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, surface restoration will be in accordance with the agreement with the surface owner, and in accordance with the Bureau of Land Management specifications.

11. Other information:

A. Topography - land surface is reasonably level and consists of sand over hard sand-clay lease.

B. Vegetation consists of approximately 95% broomweeds, 5% native grass, and scattered mesquite trees. Wild life is typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove, quail, deer and antelope.

C. There are no rivers, streams, lakes or ponds in the area.

D. The nearest occupied dwelling is a ranch house approximately 7 miles NNE of well site.

E. Impact on the environment will be kept to a minimum.

12. Lessee's or operator's representative:

Office phone: 214-741-5933 and 915-684-5584

A. Aaron Ellison - drilling foreman

B. Delmer Jones - drilling superintendent, home-214-361-8001

C. Tom Frizzell - geologist - home, 915-694-7944

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 Texas Pacific Oil Company, Inc., and its contractors and subcontractors in conformity with this plan and terms and conditions under which it is approved.

4/28/77
Date

Delmer D. Jones
Delmer Jones
Drilling Superintendent

TEXAS PACIFIC OIL COMPANY

CLASS I SYSTEM

2000 psi WORKING PRESSURE PREVENTER STACK

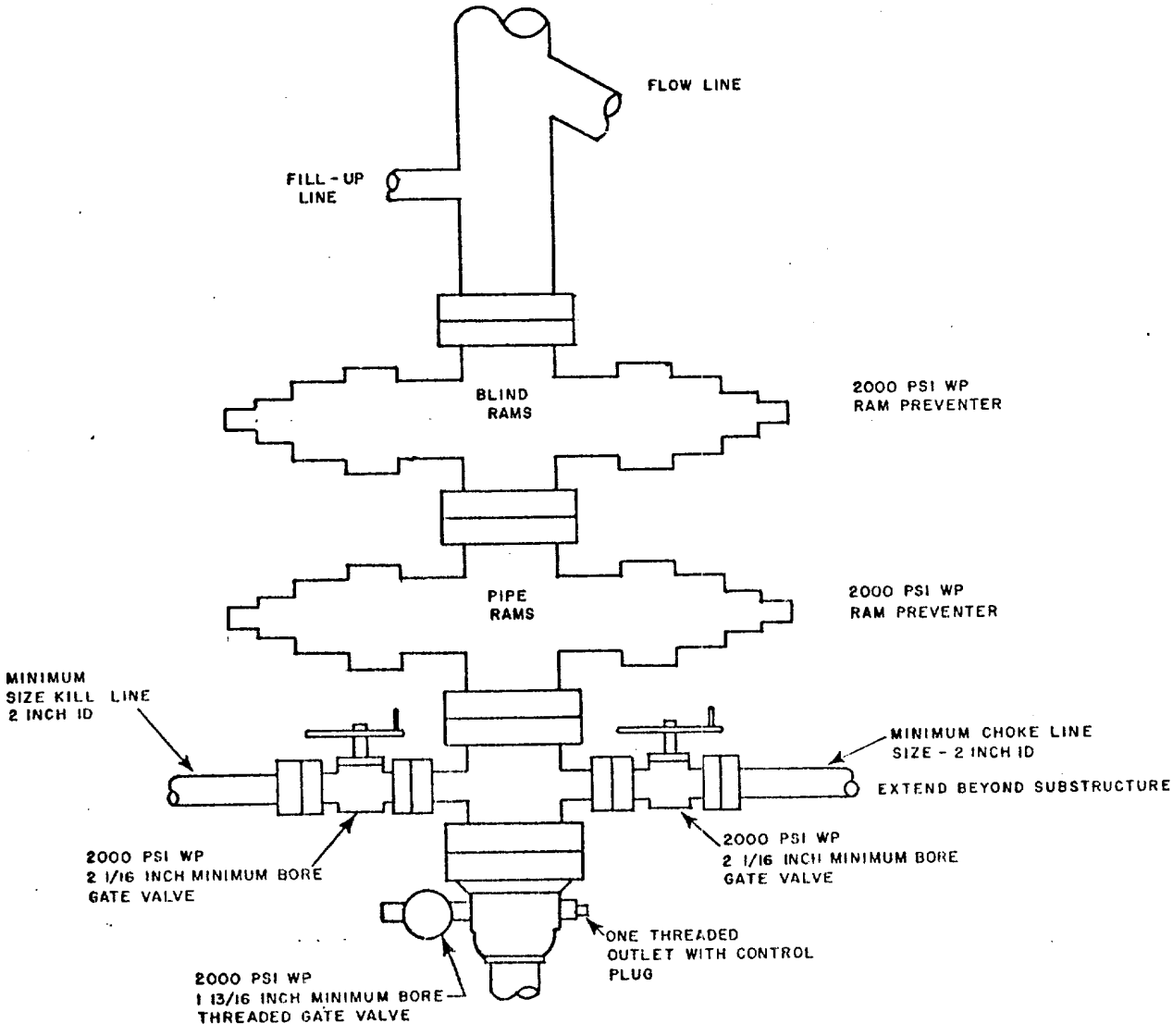


FIGURE 4.81-2

4.81 - Class I
2000 PSI Working Pressure
Mandatory Minimum Requirements

1. Blowout Preventer Stack

a. The BOP stack shall either consist of at least one bag type preventer, one ram type preventer with a set of blind rams, and a drilling spool, as shown in Figure 4.81-1, or at least two ram type preventers and a drilling spool, as shown in Figure 4.81-2.

b. The bag preventer must be capable of complete closure with or without drill pipe in the hole. (Hydril or Shaffer types only)

c. Only ram type preventers manufactured by Cameron Iron Works or Shaffer Tool Company are acceptable.

d. A set of pipe rams and blind rams are to be installed in the two ram preventers as is shown in Figure 4.81-2.

e. All preventers must be hydraulically operated.

f. All components of the stack must have a working pressure of not less than 2000 psi.

g. All preventers, drilling spools and adapter flanges must have a bore of sufficient size to permit passage of the largest casing hanger, casing, wear bushing, bit, stabilizer, test plug, or packer that may be used beneath the stack.

h. Where two sets of rams are used, two single preventers rather than one double unit are preferred. Double preventers are acceptable with the approval of the Regional Operations Superintendent.

i. The drilling spool shall have two side outlets, each having a minimum ID of two inches.

j. All drilling spools used in this stack shall be of forged steel construction and should have either open faced flange or bolted ring clamp connections top and bottom. Should dimensional limitations of the ring substructure absolutely preclude the use of these end connections, studded connections would then be permitted with the approval of the Regional Operations Superintendent.

k. The fill-up line shall not be connected to any side outlet connection in the stack below the top preventer.

l. Replacement parts for the BOP's must be obtained from the original manufacturer.

m. The stack should be securely anchored to the rig substructure or some other positive support to reduce vibrations and permit some amount of alignment straightening.

n. When a wear bushing is required, only the lock-in type is acceptable.

2. Kill and Choke Lines, Valves, Choke Manifold and Chokes

a. Kill and choke lines are to be completely and properly connected on all BOP installations.

b. The minimum acceptable arrangement of equipment is shown in Figure 4.81-3.

c. Kill and choke lines are to be connected to side outlets on the drilling spool.

d. The kill and choke lines may be connected to side outlets on the preventer body with the approval of the Regional Operations Superintendent.

Note: Minimum ID for side outlets on the preventer body is the same as that required on drilling spool side outlets.

e. Choke and kill lines are not to be connected to the permanent well head outlets except in cases of extreme emergency.

f. Connections on the kill line, choke lines and choke manifold may be threaded, flanged, bolted ring clamp, or welded.

g. The minimum ID of the kill and choke lines is 2 inches.

h. All components of the kill line, choke line and choke manifold, including all ells, tees, bull plugs, needle valves, pressure gauges, etc. must have a minimum working pressure of 2000 psi.

i. All valves on the preventer stack, kill line, choke line or choke manifold used to control the flow of fluids must be full opening gate valves having a minimum bore of 2-1/16 inch and an API minimum working pressure of 2000 psi.

j. Each valve must be equipped with a handwheel.

k. Choke and kill lines must be of seamless steel pipe having a minimum working pressure of 2000 psi, based on 80% of the API minimum internal yield pressure rating.

l. The kill line shall not be used as a full-up line.

m. The choke line between the preventers and the choke manifold must be as straight as possible with no abrupt bends. If turns are unavoidable, tees with bull plugs or long radius bends (greater than 4 ft. radius) shall be used.

n. All choke lines, both upstream and downstream of the manifold, are to be firmly anchored.

o. Steel hoses may be used for the kill line, provided a 2000 psi check valve be installed just outside the 2 inch gate valve on the drilling spool outlet.

p. Steel hoses (Chicksans) are not to be used in any part of the choke line or manifold.

q. The choke manifold must be located outside the rig substructure.

r. The kill line may be connected either to the rig's high pressure mud pump or extended to a location outside the substructure where it could be connected to a high pressure pump truck.

3. Blowout Preventer Control System

a. The automatic accumulator shall be capable of delivering a volume of fluid equal to the amount required to operate all hydraulic components of the well control system without depleting the accumulator pressure below a value of 200 psi above the precharge pressure or 1000 psi, whichever is the greater value (see Figure 1 in the appendix).

b. The accumulator unit shall be equipped with sufficient pumps to completely recharge the accumulator in ten minutes or less after having operated all hydraulic devices.

c. The rig shall have available sufficient air capacity or electrical power to properly power the accumulator recharging pumps. Natural gas is not to be used to power the air driven pumps.

d. Accumulator controls shall consist of one control valve for each hydraulic device. Each control shall be properly labeled with the name of the respective function and must have the open and closed positions clearly marked.

e. A pressure regulator valve for controlling the closing pressure on the bag type preventer will be required if this type of preventer is in use.

f. Two complete sets of controls, one on the accumulator and one remote set, will be required.

g. The accumulator unit shall be located at ground level not less than 50 feet from the well bore. The remote set of controls shall be on the rig floor near the driller's position.

h. All 4-way valves that are connected to a hydraulic device must be kept in either the open or closed position. The control handle should not be in the neutral position.

i. All hydraulic lines between the accumulator and the BOP stack must be of seamless steel pipe or steel hose having an inside diameter of not less than 0.70 inch and an API minimum internal yield pressure rating of at least 4000 psi.

j. Pressure gauges showing the accumulator pressure, the pressure on the 4-way valve manifold, the operating pressure on the bag type preventer, and the air supply pressure must be installed on both the accumulator unit and remote station, and be in good working condition.

k. All valves between the accumulator bottles and the 4-way valve manifold must be kept in the open position.

l. Only hydraulic oil or a suitable water soluable oil may be used as the liquid phase in the accumulator.

m. An inert gas such as nitrogen should be used as the gas phase in the accumulator bottles. Do not use air or oxygen.

4. Drill String BOP Equipment

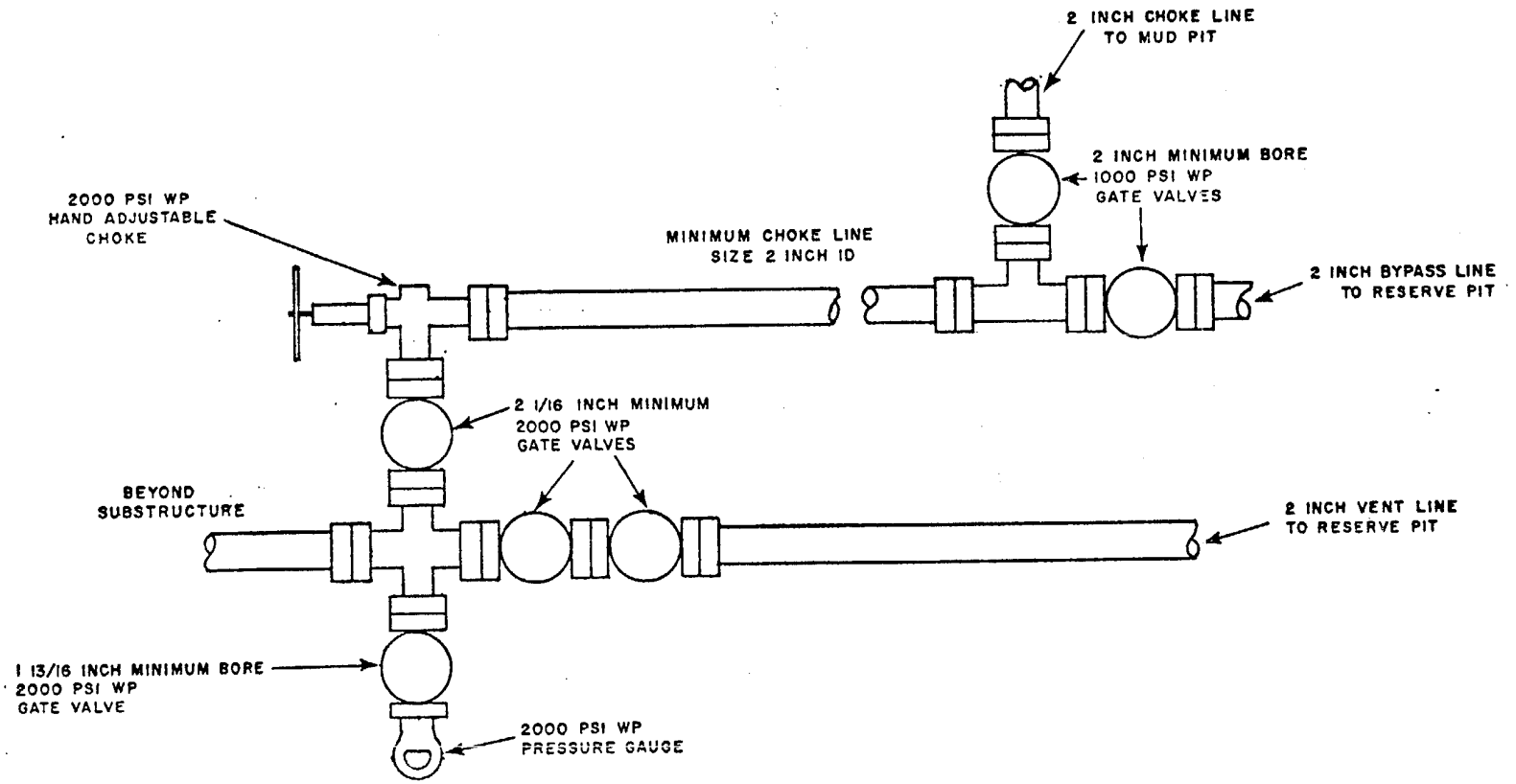
a. Drill string blowout prevention equipment shall include one inside blowout preventer (Gray float valve or equivalent) with releasing tool and one full opening kelly valve (Hydril or equivalent) with operating tool for each size and type of drill pipe tool joint being used in the drill string.

b. All drill string BOP equipment must be maintained in good working condition and stored in an orderly manner (in the open position) on the rig floor. Operating wrenches are to be hung in full view on or near the driller's console.

c. The OD of all above mentioned drill string BOP equipment must be of such a size to permit the passage of these tools into the hole.

d. All drill string BOP equipment must have a minimum working pressure of 2000 psi.

e. The kelly shall be equipped with an upper kelly cock having a minimum working pressure of 2000 psi.



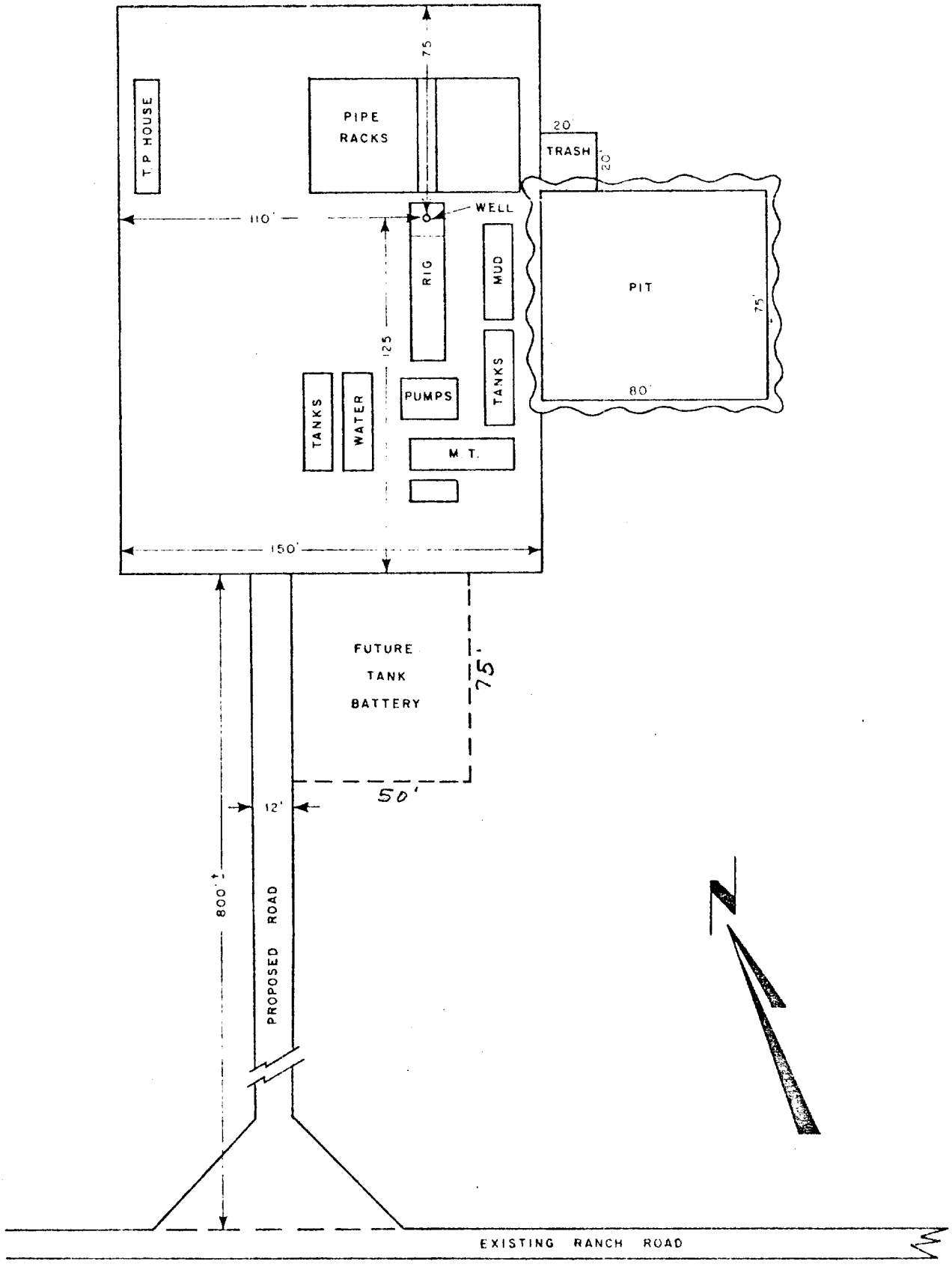
TEXAS PACIFIC OIL COMPANY
CLASS I SYSTEM
2000 PSI WORKING PRESSURE CHOKE MANIFOLD
MINIMUM REQUIREMENTS

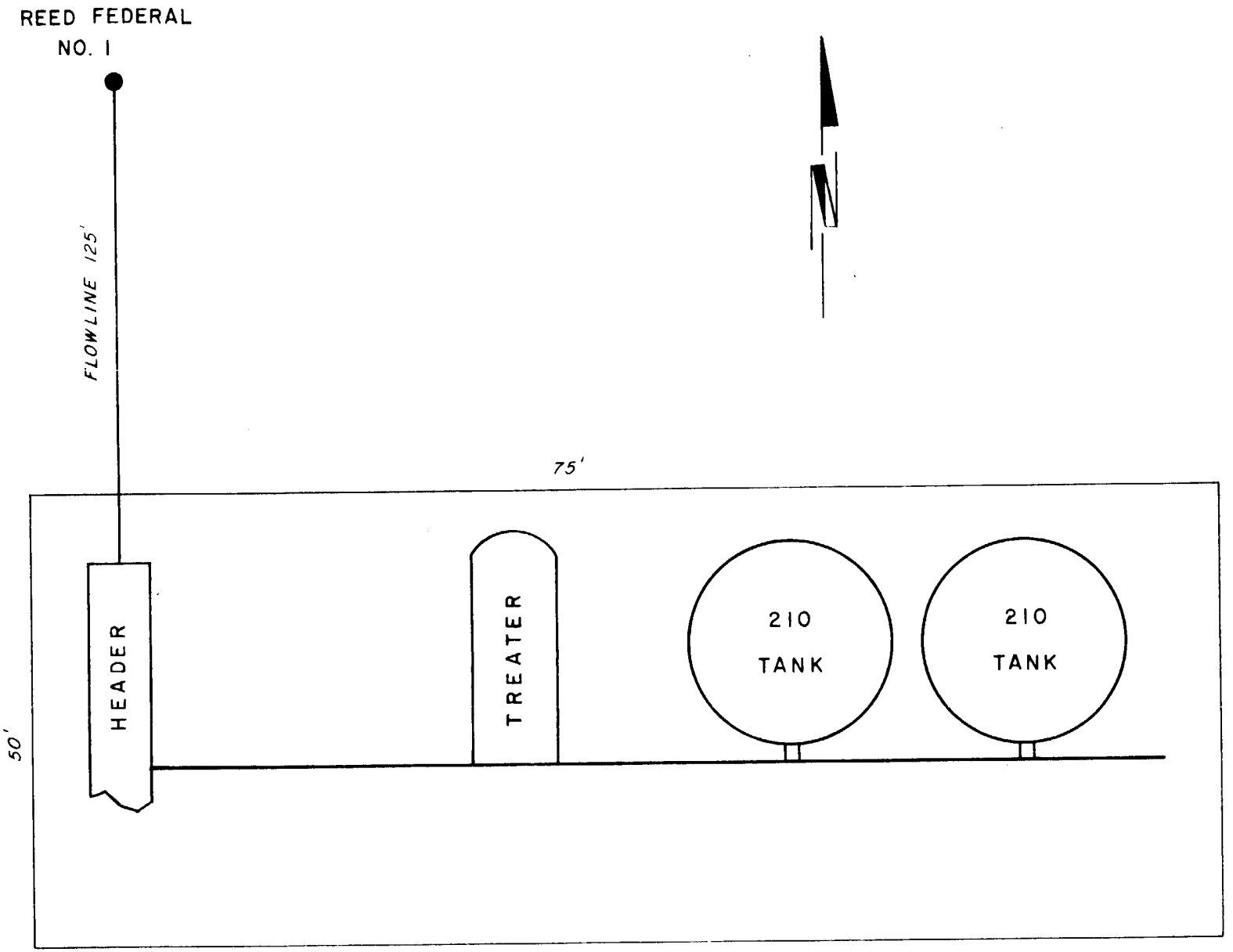
FIGURE 4.81-3

EXHIBIT "B"

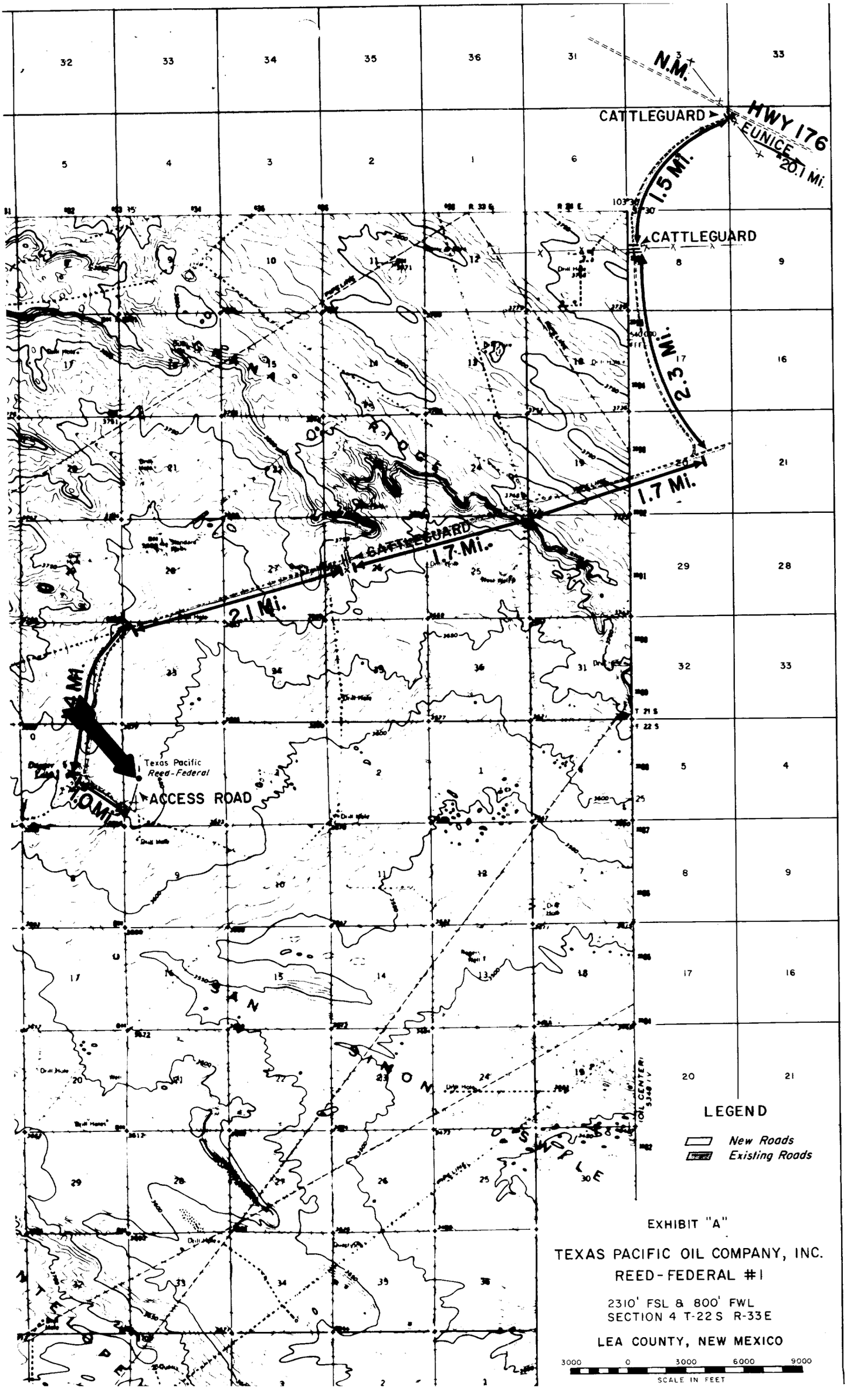
TEXAS PACIFIC OIL COMPANY, INC.

REED-FEDERAL #1





TANK BATTERY
REED FEDERAL WELL NO. 1


N.M.
CATTLEGUARD
HWY 176
EUNICE
20.1 Mi.
1.5 Mi.
CATTLEGUARD
2.3 Mi.
1.7 Mi.
CATTLEGUARD
1.7 Mi.
2.1 Mi.
.4 Mi.
.10 Mi.
Texas Pacific
Reed-Federal
ACCESS ROAD
LEGEND
New Roads
Existing Roads
EXHIBIT "A"
TEXAS PACIFIC OIL COMPANY, INC.
REED-FEDERAL #1
2310' FSL & 800' FWL
SECTION 4 T-22 S R-33E
LEA COUNTY, NEW MEXICO
3000 0 3000 6000 9000
SCALE IN FEET

U. S. Geological Survey

HOBBS DISTRICT

Texas Pacific Oil Company
No. 1 Reed Federal
NW¼SW¼ sec. 4-22S-33E
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. The 5½" production string is to be cemented from TD to the surface with salt saturated cement.

7. A Gamma Ray-Sonic log is to be run in the uncased hole from below base of salt to surface at a speed not to exceed 30 ft/min.

8. All pits found to contain toxic liquids will be fenced and covered with a fine mesh netting for the protection of wildlife as directed by the responsible BLM representative.

9. In the event the oil or gas test results in a dry hole, the drill pad and access road will be ripped in accordance with "BLM Roswell Districts' Ripping Recommendations for Caliche or Compacted Drill Pads and Access Roads" (3109).

10. All structures and pipelines above ground, not subject to applicable conservation and safety requirements, should be painted a non-glare, non-reflective, non-chalking color that simulates the natural colors of the site. The Federal Standard Number to be used is Fed. Stand. 595, Color 30318.