

DEPARTMENT OF THE INTERIOR

GEOLOG SURVEY

21 12 2260  
U. LEASE DENOMINATION AND SERIAL NO.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

**A. TYPE OF WORK**  
 DRILL       DEEPEN       PLUG BACK

**B. TYPE OF WELL**  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

**2. NAME OF OPERATOR**  
 TENNECO OIL COMPANY

**3. ADDRESS OF OPERATOR**  
 1860 Lincoln St., Suite 1200, Denver, Colorado 80295

**4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)**  
 At surface  
 660'FNL and 1980'FEL, Unit B  
 At proposed prod. zone

**14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\***  
 See Point 1:b of Surface Use Plan

**15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit loc. if any)**  
 240

**16. NO. OF ACRES IN LEASE**  
 240

**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.**  
 +4000

**19. PROPOSED DEPTH**  
 +4000

**20. ROTARY OR CABLE TOOLS**  
 Rotary

**21. ELEVATIONS (Show whether DF, L/T, GR, etc.)**  
 2984.2'GL

**22. APPROX. DATE WORK WILL START\***  
 7-25-77

**5. FARM OR LEASE NAME**  
 Leonard Bros. A

**6. IF INDIAN, ALLOTTEE OR TRUST NAME**

**7. UNIT AGREEMENT NAME**

**8. WELL NO.**

**9. FIELD AND FOOT, OR WILDCAT**  
 Leonard Queen, South

**10. SEC., T., R., M., OR BLK. AND SURVEY OR AREA**  
 Sec 23 1/2, T26S, R37E

**11. COUNTY OR PARISH**  
 Lea

**12. STATE**  
 New Mexico

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#	+ 500'	Suff. to circulate to surface.
7-7/8"	5-1/2"	15.5#	+4000'	Suff. to circulate back up into surface casing.

- The geologic name of this surface formation is the Ogallala Lime (Miocene).
- Formation Tops (Estimated)
 

Salado	SEE ATTACHED FOR	± 1150	' Salt
Yates	CONDITIONS OF APPROVAL	± 2615	' Possible oil or gas producer
7 Rivers		± 2840	' Possible oil or gas producer
Queen		± 3455	' Oil and gas
Penrose		± 3545	' Oil and gas
- Run 8-5/8" OD, K-55 new casing to +500' and circulate cement to surface. Run 5 1/2" OD, 15.5#, K-55 new casing to T. D. and cement with a sufficient amount to circulate up into surface casing in two stages. Casinghead will be a 10" 900 series w/a 3000 psi rating.
- Blowout preventors: Hydraulic, double ram, 10". One set of rams will be provided for each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2" with variable choke. BOP's will be installed, tested and in working order before drilling below surface casing and shall be maintained ready for use until drilling operations are completed. BOP's, drills, and tests will be recorded in the drillers logs.
- We will use; spud mud = 0-+500'. (8.5 - 9.0 lb. per gallon to +500' to have 9.0 - 10.0 lb. per gallon)
- Auxiliary Equipment
  - Kelly cock will be in use at all times.
  - Stabbing valve to fit drill pipe will be present on floor at all times.
  - Mud monitoring will be visual, no abnormal pressures are anticipated in this area.
  - Floats at bits.
  - Drill string safety valve (s) to fit all pipe in the drill string will be maintained on the rig floor while drilling operations are in progress.
- This well will be pump tested after recovery of any load oil or water. No cores will be taken. DLL-GR, CNL-FDC-GR caliper, and BHC Sonic logs will be taken. Any other evaluation that may be necessary during the drilling of this well will be conducted as needed.
- No abnormal pressures or temperatures are anticipated. See point #5 for blowout prevention equipment.
- The drilling of this well will take approximately eight days. The gas is not dedicated to any purchaser as of this date.
- Your office (Telephone 505/393-3612) will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.

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 prevention program, if any.

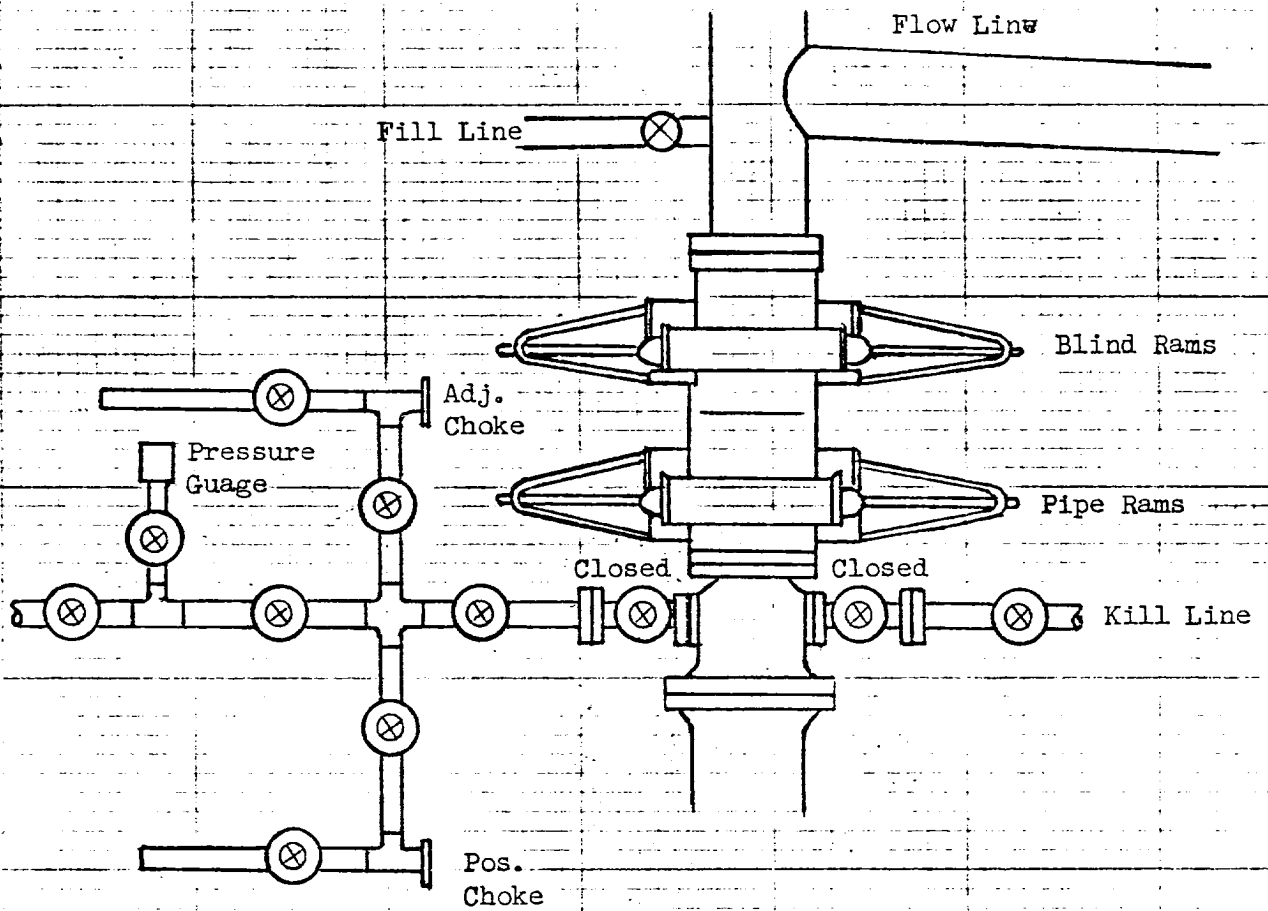
SIGNED A.A. Myers TITLE Div. Production Manager

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

APPROVAL TO FLARE GRANTED WHILE DRILLING AND TESTING.

APPROVED AS AMENDED  
 MAY 24 1977  
 BERNARD MOROZ  
 ACTING DISTRICT ENGINEER



All valves 2"

All BOPs, flanges, spools, valves, & lines must be series 900 or 3000 psi working press.

Choke manifold must be at ground level and extended out from under substructure.

TENNECO OIL COMPANY

REQUIRED MINIMUM BLOWOUT PREVENTOR

HOOKUP

Denver, Colorado.

W. N. HOBS, JR.  
OIL CONSERVATION COMPANY

RECEIVED  
MAY 1 1977

APR 28 1977