

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGIC SURVEY

COPY TO O. C. G.

LEASE DESIGNATION AND SERIAL NO.

LM 7951

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. UNIT AGREEMENT NAME	
2. NAME OF OPERATOR TENNECO OIL COMPANY		8. FARM OR LEASE NAME Leonard Brothers	
3. ADDRESS OF OPERATOR 720 South Colorado Blvd, Denver, CO 80222		9. WELL NO 26	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 660' FWL and 660' FNL At proposed prod. zone		10. FIELD DESIGNATION Leonard Queen South	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* See point 1: B7& C of Surface Use Plan		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 13, T26S, R37E.	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)		12. COUNTY OR PARISH Lea	
16. NO. OF ACRES IN LEASE 2560		13. STATE New Mexico	
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		20. ROTARY OR CABLE TOOLS Rotary	
18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. + 3600'		21. APPROX. DATE WORK WILL START* June 15, 1978	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3010' K.B.			

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#	+3600'	Suff. to circulate back into surface casing.

- The geologic name of the surface formation is Ogallala Lime.

33-Estimated Formation Tops:

Salt +1045'
Base Salt +2415'
Yates +2575'
Rhodes Marker +2845'
Queen(Main Pay) +3345'
Penrose +3445'

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RECEIVED
MAY 30 1978.

U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

- Set and cement 8-5/8" OD, 24#, K-55 surface casing to +500', with sufficient cement to circulate 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. Casinghead will be a 10" 900 Series with 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 line 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.

- 0-+500' Spud Mud. 500'-3300' Low solids, viscosity as needed to clean hole. 3300'-T.D. get water, viscosity as needed to log hole, water loss 8-12cc. 10 lb. brine water will be used.

- Auxillary 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. Logs: DLL-Micro-SFL-GR, CNL-FDC-GR caliper, run GR to surface, run all other logs 100' into salt.

- No abnormal temperatures or pressures are anticipated.

0- Anticipated starting date will depend upon rig availability, approximately June 15, 1978. The drilling of this well will take approximately 10 days. The gas is not dedicated to El Paso Natural Gas Company.

1- 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.

"APPROVAL TO FLARE GRANTED
WHILE DRILLING AND TESTING."

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 <u>D. D. Meyer</u> TITLE <u>Div. Production Manager</u> DATE <u>5-24-78</u>	
(This space for Federal or State office use)	
PERMIT NO. _____	APPROVAL DATE _____
APPROVED BY _____	TITLE _____
CONDITIONS OF APPROVAL, IF ANY:	
APPROVED AS AMENDED JUN 20 1978 G. A. L. ACTING DISTRICT ENGINEER	