

APPLICATION TO DRILL

Liberty Oil & Gas
Doris Federal No. 1
1980' FSL & 1980' FEL
Sec. 26, T20S, R28E
Eddy County, N.M.

NM-15873

The following items supplement Form 9-331C in accordance with instructions contained in NTL-6:

1. Geologic Name of Surface Formation: Aeolian
2. Drilling Tools and Associated Equipment: Conventional rotary drilling tools using mud for the circulation medium.
3. Proposed Drilling Depth: 5700'
4. Estimated Geological Marker Tops:

Rustler	189'	Queen	1440'
Salt	378'	Grayberg	1943'
Tansill	470'	San Andres	2574'
Yates	637'	Delaware	2700'
7 Rivers	1108'	Bone Springs	5136'
5. Mineral Bearing Formation: Oil bearing at 5378'.
6. Casing Program:

8 5/8" Casing - Set 350' of 8 5/8", 24#, ST&C casing. Cement to surface using 300 sx Class 'C' cement with 2% CaCl.

4 1/2" Casing - Set 4 1/2", 10.5#, ST&C casing to total depth. Cement to cover pay zone with 400 sx Class 'C' cement with 2% CaCl.
7. Pressure Control Equipment: Blowout preventer will consist of double-ram preventer rated to 3000 psi WP. BOP diagram is attached.
8. Proposed Circulation Medium:

0-350' Fresh water spud mud.

350-5400' Brine water: add paper if needed for seepage.

5400-TD. Salt mud; 32-34 viscosity; water loss 20 cc or less.