

## APPLICATION TO DRILL

### ESTORIL PRODUCING CORPORATION

Hoffman Federal No. 5  
1980' FWL & 660' FNL  
Section 12, T-4S, R-23E  
Chaves County, New Mexico

The following answers are provided for your consideration in response to your outline under Section II of Bulletin NTL-6:

1. Location: 1980' FWL & 660' FNL, Section 12, T-4S, R-23E, Chaves County, New Mexico.
2. Elevation Above Sea Level: 4065.0'
3. Geologic Name of Surface Formation: Alluvium
4. Drilling Tools and Associated Equipment: Conventional rotary drilling tools using mud for the circulation medium.
5. Proposed Drilling Depth: 5000' +or-
6. Estimated Geological Marker Tops: San Andres 585'; Glorietta 1562'; Abo 3368'; Wolfcamp 3878'; Pennsylvanian 4090'; Granite Wash 4790'.
7. Mineral Bearing Formation: Gas bearing at 3560'.
8. Casing Program: (A) Surface Casing: 10 3/4", 32.75# new casing. (B) \*Intermediate Casing: 7 5/8", 24.0# new casing. (C) Production Casing: 4 1/2", 10.5# new casing.
9. Setting Depth for Casing and Cement of Same: (A) 10 3/4" casing set at 900'. Cement will be circulated to surface using 500 sacks of Class 'C' cement plus 3% CaCl. (B) \*7 5/8" casing set at 1600' +or-. Cement will be circulated to surface using 300 sacks of Class 'C' cement. \*This string of casing will be run only if there are problems encountered in this section of the hole. (C) 4 1/2" casing set at 5000' +or-. Cement will be brought up to cover the Abo section, using 700 sacks of Pacesetter 'C', 1# Perma Check/sk, 1/4# Cello Seal/sk, 2% KCl, followed by 200 sacks of 50-50 Pozmix, .6% CF-9, .3% TF-4, 3% KCl.
10. Pressure Control Equipment: After surface casing is set, blowout preventers will be installed. They will be Cameron 10" 900 series BOP with 3400 psi working pressure with 4 1/2" pipe rams. The blowout preventers will be tested to 1000psi after they are installed.
11. Proposed Circulation Medium: Surface Hole to 900': Spud mud containing the following properties- viscosity 32-35 with a mud weight of 9.5 lb. per gallon. 900-1600: Drill out under surface casing