

# APPLICATION TO DRILL

W.A. & E.R. HUDSON, INC.  
 PUCKETT "B" # 12-1  
 UNIT "D" SECTION 12  
 T17S-R31E EDDY CO. NM

## 9. Cementing and Setting Depth:

|         |              |  |
|---------|--------------|--|
| 20"     | Conductor    | Set 40' Of 20" conductor and cement to surface with Redi-mix.  |
| 13 3/8" | Surface      | Set 625' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of cement. (300 Sx. of Halco Light + additives, tail in with 200 Sx. of Class "C" cement + 2% CaCl,) circulate cement to surface.  |
| 8 5/8"  | Intermediate | Set 4500' of 8 5/8" 24&32# J-55 ST&C casing. Cement with 1100 Sx. of Class "C" Halco Light + additives, tail in with 500 Sx. of Class "C" + additives, circulate cement to surface.  |
| 5 1/2"  | Production   | Set 12,500' of 5 1/2" casing as follows: 2300' of 5 1/2" 17# S-95 LT&C, 9000' of 5 1/2" 17# N-80 LT&C, 1200' of 5 1/2" 17# Buttress LT&C. Cement with 600 Sx. of Class "H" Halco Light, tail in with 400 Sx. of Class "H" 50/50 POZ. Bring cement up to 200' above upper most pay, estimate top of cement 7000'. |

10. Pressure Control Equipment: Exhibit "E". A 1500 Series 5000 PSI working pressure B.O.P. consisting of a double ran type preventor with a bag type annular preventor. BOP will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nipped up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

## 11. Proposed Mud Circulating System:

| Depth       | Mud Wt.   | Visc. | Fluid Loss    | Type Mud  |
|-------------|-----------|-------|---------------|---|
| 40-625      | 8.4-8.8   | 29-36 | NC            | Fresh water spud mud, use paper to control seepage & high viscosity sweeps to clean hole. |
| 625-4500'   | 10.1-10.4 | 29-34 | NC            | Brine water use paper to control seepage, use high viscosity sweeps to clean hole.        |
| 4500-10800' | 10.2-10.4 | 29-34 | NC            | Same as above using Soda-ash to control pH.   |
| 10800-12500 | 10.2-10.4 | .3038 | 10 cc or less | Same as above use starch to control water loss.   |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, unexpected kicks. In order to run DST'S, open hole logs, and casing the viscosity and water loss may have to be adjusted to meet these needs.