

APPLICATION TO DRILL

MARALO LLC.
GOLD RUSH "31" FEDERAL # 4
UNIT "G" SECTION 31
T23S-R30E EDDY CO. NM

9. Cementing & Setting Depth:

| | | |
|---------|--------------|---|
| 20" | Conductor | Set 40' of 20" conductor pipe and cement to surface with Redi-mix. |
| 13 3/8" | Surface | Set 650' of 13 3/8" J-55 54.5# ST&C casing. Cement with 750 Sx. of cement, 500 Sx. of Halco Light + additives, tail in with 250 Sx. of Class "C" Premium + 2% CaCl circulate cement to surface. |
| 8 5/8" | Intermediate | Set 3100' of 8 5/8" 32# J-55 ST&C casing. Cement with 925 Sx. of Halco Light + additives, tail in with 250 Sx. of Premium Plus Class "C" + additives circulate cement to surface. |
| 5 1/2" | Production | Set 7450' of 5 1/2" J-55 15.5# LT&C casing. Cement with 700 Sx of Halco Light + additives, tail in with 300 Sx. of Class "H" Modified + additives, circulate cement to surface. |

10. Pressure Control Equipment: Exhibit "E". A series 900 3000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP unit will be hydraulically operated. Exhibit "E-1" is a Choke manifold and closing unit. BOP will be nipped up on the 13 3/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. Flo 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. | Viscosity | Fluid Loss | Type Mud |
|------------|-----------|-----------|---------------|--|
| 40-650' | 8.4-8.7 | 30-34 | NC | Fresh water Spud mud add paper to control seepage. |
| 650-3100' | 10.0-10.3 | 30-36 | NC | Brine water add paper to control seepage and use high viscosity sweeps to clean hole |
| 3100-6900' | 8.4-8.9 | 29-36 | NC | Fresh water add paper to control seepage and high viscosity sweeps to clean hole. |
| 6900-7450' | 8.4-8.9 | 34-40 | 10 cc or less | Same as above add Gel for viscosity and starch for fluid loss control. |

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 in order to meet these needs.