

APPLICATION TO DRILL

UNIT PETROLEUM COMPANY
 GOURLEY FEDERAL # 3
 UNIT "H" SECTION 28
 T22S-R28E EDDY CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 400' of 13 3/8" 48# H-40 ST&C casing. Cement with 365 Sx. of Class "C" cement + 2% CaCl, 1/4# Flocele/Sx. Circulate cement to surface.
9 5/8"	Intermediate	Set 2650' of 9 5/8" 36# J-55 ST&C casing. Cement with 580 Sx. of Class "C" cement + additives, 2% CaCl, + 1/4# Flocele/Sx. Circulate cement to surface.
7 5/8"	Intermediate	Set 11,100' of 7 5/8" casing as follows: 2700' of 29.7# 7 5/8" HCP-110 LT&C, 8400' of 26.4# HCP-110 LT&C casing. Cement with 200 Sx. of Class "H" + additives.
4 1/2"	Liner	Set 1950' 4 1/2" Liner from 12,750' back to 10,800'. 4 1/2" 11.6# HCP-110 LT&C Liner. Cement with 310 Sx. of Class "H" Premium Plus cement + additives.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a ¹⁵⁰⁰~~900~~ Series ⁵⁰⁰⁰~~3000~~ PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 9 5/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-400'	8.4-8.8	29-32	NC	Fresh water use paper to control seepage.
400-2650'	10.0-10.2	29-34	NC	Cut brine add paper to control seepage and high visc. sweeps to clean hole.
2650-11,100'	10.0-10.2	29-36	25cc or less	Same as above use Gel for viscosity control & Polymer for water loss control.
11,100-12,750'	10.0-11.0	38-42	10 cc or less	Cut Brine, Dris-pac system for water loss control Gel for viscosity, use high viscosity sweeps to clean hole.

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