

## APPLICATION TO DRILL

ARCH PETROLEUM, INC.  
 C.E. LaMUNYON # 75  
 UNIT "N" SECTION 22  
 T23S-R37E LEA 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 <sup>1050'</sup> 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of Class "C" cement + additives, circulate cement to Surface.
8 5/8"	Intermedicate	Set 3000' of 8 5/8" 32 & 24# J-55 ST&C casing. Cement with 1200 Sx. of Class "C" cement + additives, circulate cement to surface.
5 1/2"	Production	Set 9800' of 5 1/2" 17# N-80 & J-55 LT&C casing as follows: 2800' of 5 1/2" 17# N-80 LT&C, 6000' of 5 1/2" 17# J-55 LT&C, 1000' of 5 1/2" 17# N-80 LT&C. Cement in two stages with DV tool at 5500'±. Cement with 1150 Sx. of Class "H" cement + additives, estimate top of cement 2500' from 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. The B.O.P. unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. The B.O.P. will be nipped up on 13 3/8" casing and will be operated at least once each 24 hour period while drilling and blind rams will be operated when out of hole on trips. 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 System
40-500' <sup>1050'</sup> 1050'	8.6-8.8	30-36	NC	Fresh water spud mud add paper if necessary to control seepage.
<sup>1050'</sup> 500-3000'	10.5-10.8	32-38	NC	Brine water add paper to control seepage and use high viscosity sweeps to Clean hole.
3000-8600'	8.6-8.8	32-38	NC	Fresh water add Gel for viscosity and paper to control seepage
8600-9800-	8.6-8.8	32-40	10 cc or less	Fresh water Dris-Pac System.

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 the viscosity and/or water loss may have to be adjusted to meet these needs.