

APPLICATION TO DRILL

ARCH PETROLEUM, INC.
C.E. LaMUNYON # 79 INJ.
UNIT "H" SECTION 21
T23S-R37E LEA CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 1100' of 8 5/8" 32# J-55 ST&C casing. Cement with 775 Sx. of Class "C" cement + 2% CaCl + 1/4# Flocele/Sx. Circulate cement to surface.
5 1/2"	Production	Set 5350' of 5 1/2" 17# J-55 ST&C casing. Cement in two stages, DV Tool at 4000'±. Cement 1st stage with 500 Sx. of Class "C" cement + additives, cement 2nd stage with 600 Sx. of Class "C" cement + additives, estimate top of cement 500' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 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 8 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-" 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
40-1100'	8.4-8.7	29-36	NC	Fresh water spud mud add paper to control seepage.
1100-5350'	10.1-10.3	29-38	NC	Brine water use -paper to control seepage and 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.