

DRILLING, CASING AND CEMENTING PROGRAM

- 1) Drill 12 1/4" hole to approximately 1300' or to firm formation with fresh mud, with a viscosity of 30 seconds per quart and a water loss less than 10 cc per 30 seconds. Maintain pump pressure less than 800 psi to prevent excessive hole enlargement.
- 2) Circulate hole clean with 2 hole volumes of mud.
- 3) Run 8 5/8" casing with a centralizer on the first collar and one on each third collar from the bottom. Use a Texas patterned guide shoe with an aluminum baffle float. Land the casing with the collar eighteen inches below the surface.
- 4) Cement the casing in place with 540 sacks Class "C" + 4% gel + 2% Calcium Chloride and 1/4# per sack cellophane, plus 150 sacks class "C" with 2% Calcium Chloride and 1/4# per sack cellophane. Displace the cement to the float. Shut in.
- 5) Wait on cement 24 hours before drilling out (12 hours with pressure on pipe). Test pressure control equipment to 1000 psi for 30 minutes before drilling through the casing shoe.
- 6) Drill 7 7/8" hole with brine at native conditions to a depth of 2700'.
- 7) At 2700' depth raise the mud viscosity to 37 seconds per quart and reduce water loss to less than 10 cc per 30 seconds.
- 8) Drill to TD of 3500'.
- 9) Circulate hole for 4 hours with mud at designed conditions.
- 10) Pull out of the hole, lay down drill string.
- 11) Run 5 1/2" casing with guide shoe, float collar, latchdown wiper plug baffle and 15 centralizers, one on each collar from the first collar up.
- 12) Cement with 300 sacks Pacesetter Lite "C" cement + 5 % salt, with 1/4# cellophane plus 290 sacks POZ 50/50 class "C" with 5/10% CF-2 and 5% salt plus 1/4# per sack cellophane. Displace plug with fresh water, release pressure and leave shut in.

NOTE: Rotate 5 1/2" casing during cementing.