

(10. Cont.)

Casing will be run with float shoe, differential fill-up collar and sufficient reciprocating scratchers and centralizers to cover productive interval.

11. Cement w/sufficient 50-50 Pozmix "B" cement w/0.4% NR-4 to cover all zones of interest. 2 sz of line in 10 bbl. water ahead of cement. Add 2 sz sodium Bichromate to mud system prior to running casing. Tail in with 5 1/4 sz Latex (Howco) or 12 bbls. cement (Dowell) - to cover 300 feet of bottom section. Top of latex to be 150 feet above pay zone.
12. If floats hold, land casing as cemented, WOC 8 hrs., run temperature survey. (Well may be completed with rig over hole).

DRILLING FLUIDS PROGRAM:

1. Surface Hole - 0 to 850'. Spud mud. Add gel and lime as needed to clear hole. Use fiber for loss of circulation as needed.
2. Intermediate Hole - 850' to 4200'. Saturated brine water. Add water to maintain viscosity at 33 to 34 sec. Pretreat system w/fiber (6 to 8 pounds per bbl.) at 3000'. If hole gives trouble, lower water loss to 20 cc to run casing.

NOTE: If severe loss of circulation is encountered below 3000', hole will be "dry drilled" to intermediate point or air equipment may be installed. Drilling should not be stopped to combat loss of circulation. Casing may be set to a minimum depth of loss of circulation. Casing may be set to a minimum depth of 4200'.

3. Below Intermediate:

4200' to 11,100': Clear water treated with surfactant. Some treatment w/paper may be required to reduce losses.

NOTE: This interval may be drilled with gas. Hole must be mudded up by 11,100'.

11,100' to TD: Use low-solids, CSC system with the following properties:

Weight: 9.6 to 9.8  
Viscosity: 38-42  
Water Loss: 20-25

Add chemicals and barite as required to maintain good hole conditions to total depth.

DRILLING TIME:

1. A recorder with torque, hook load, pump pressure, and rate of penetration will be required.
2. Record 10' drilling time from Kelly measurements from <sup>SURFACE</sup> 20,000' to TD on company forms.

DRILL PIPE MEASUREMENTS:

1. Strain strap drill pipe at all casing points, coring points, and td, and approximately every 1000' below 5000'.