## Drilling, Casing, and Cementing Program

- 1. Drill 17-1/2" hole to 400 ± To Protect Fresh Water Sands.
- 2. Run 13 3/8", 48# & 54.5# K-55 casing & cement with 500 sx. Class "C" with 2% CaCl and 1/4 #/sack flocele. Run Texas Pattern Guide Shoe with a float collar and centralizers.
- 3. Nipple up and install BOP's. Test casing to 1000 psi after 18 hours and drill out cement.
- 4. Drill 12-1/4" hole to 2150' thru Yates. Anticipated lost circulation zone at 800' to 2000' with possibility of dry drilling.
- 5. Run & Cement 8-5/8" 32# K-55 casing with 1000 sxs Class "C"/poz 65/35 with 2% Gel, 2% CaCl, and 1/4 #/sk flocele. Tail in with 200 sxs. Class "C" containing 2% CaCl. Run guide shoe and float collar 2 joints above shoe. Run centralizers at the shoe and float collar and curry 4th, joint from the shoe to surface.
- 6. Nipple up and install BOP's. Test casing to 1000' psi for 30 minutes after WOC 18 hours and drill out cement.
- 7. Drill 7-7/8" hole to TD at 8600±. A fresh water mud system will be used to 8000'. At that point the system will be mudded up to 8.6 to 9.0 #/gal to condition the hole for logging. Run Formation Density-Compensated Neutron Gamma Ray Log, Dual Induction-Laterlog, and Microlaterolog.
- 8. Run 5-1/2", 15.5# & 17# K-55 casing and cement with 1000 sx. 65/35 Pozmix Class "H", containing 4% gel, 10% salt, and .5% friction reducer. Tail in with 350 sks, Class H with 10% salt. Use guide shoe and float collar, and 12-15 centralizers where necessary. Use top and bottom rubber plugs, displace cement with clean, fresh water treated with 2% KCL.
- 9. Perforations, acid job, and additional stimulation to be determined after completion.