BETTIS, BOYLE & STOVALL BIG EDDY UNIT #114 2080' FNL & 660' FEL Section 21, T-21-S, R-29-E Eddy County, New Mexico

SUMMARY

Drilling, Drill Stem Tests, Casing, and Cementing Program

- 1. Drill 17 1/2" hole to 400'.
- Cement 13 3/8", 54.5#, K-55 casing with 400 sx Class "C". Run Texas Pattern guide shoe with insert float valve in top of shoe joint. Weld first two joints of casing. Use one wooden plug to displace cement.
- 3. Release pressure immediately, nipple up, and install BOP's. Test casing to 600 psi after 18 hours and drill out cement.
- 4. Drill 11" hole to 3300'.
- 5. Cement 8 5/8", 28# & 32#, K-55 casing with 300 sx Class "C" Thickset fellowed by 900 sx Lite. Run guide shoe and insert float on bottom joint, and 4-8 centralizers. Weld first two joints of casing. Use one wooden plug to displace cement.
- 6. Release pressure, nipple up, and install BOP's. Test casing to 1500 psi for 30 minutes after WOC 18 hours and drill out cement after 24 hours.
- 7. Drill 7 7/8" hole to TD at 13,300'±. A fresh water mud system will be used to 3300'. Drill out intermediate with 9.3#/gal cut brine increasing weight to 10#/gal by 9900'. See attached Mud Program for details. Pit levelers and flowline sensors will be utilized on the pits. Drill stem tests are anticipated in the following zones: Wolfcamp 10,200'; Strawn 11,400'; Atoka-Morrow 12,000-13,300'. DST flow periods and shut-in time will be determined on location. A mud logging unit will be on location at 3300'±.
- 8. Run 4 1/2", 11.60# & 13.50#, N-80 casing and cement with 550 sx Class "H". Use guide shoe and float collar, and 15-20 centralizers where necessary. Use top and bottom rubber plugs, displace cement with clean, fresh water treated with 2% KCL and non-emulsifying agent.
- 9. Perforations and stimulation to be determined after completion.