

Page 6

While pumping Flo-chek, final displacement rate 1/2 barrel per minute at 2000#. Final shut in pressure 1700#. Stung out of retainer, left 1 1/2 barrels cement on top of retainer. Pulled out of hole. Finished squeezing at 9:30 A.M. 2-2-79.

2-3-79

Waiting on cement from squeeze.

2-4-79

Finished waiting on cement 24 hours. Went in hole with 7 7/8" bit. Tagged up on cement on top of retainer at 1675'. Drilled out retainer at 1685'. Continued drilling cement from 1685-1930'. Fell out of cement. Circulated hole clean and shut pumps off to check water flow. Had small water flow. Pressured up to 1000 psi. Bled off 100 psi in 2 minutes. Bled off another 100 psi in 4 minutes. Present operation, waiting on orders.

2-5-79

Pulled out of hole with bit. Went in hole with Howco packer set at 1780'. Attempted to establish pump in rate. Got rate of less than 1/4 barrel per minute at 2000 psi. Unset and pulled out of hole with packer. Went in hole with 4 1/2" drill pipe, open ended set at 1935'. Rigged up Howco, spotted 50 sacks Class "C" cement with 3% CFR-2, 2% CaCl<sub>2</sub>, 3#/sack salt from 1935-1745'. Pulled out of hole with drill pipe, closed blind rams. Pressured up on casing to 2000 psi and Bradenhead squeezed bad casing from 1865-1905'. Got approximately 1 3/4 barrels cement in formation and cement locked up to 2250 psi and did not bleed any pressure off after 10 minutes. Present operation: waiting on cement.

2-6-79

Finished waiting on cement. Went in hole with bit. Tagged cement at 1774'. Drilled cement, fell out of cement at 1920'. Shut pump down to check for waterflow, had small waterflow. Pulled out of hole. Went in hole with Howco cement retainer set at 1804'. Rigged up Howco. Spotted 500 gallons 15% acid to retainer. Stung into retainer, put acid away at 2900 psi (rate - TSTM). When acid hit, formation broke, put rest of acid away at 3 barrels per minute, 1900 psi. Stung out of retainer, spot cement down to retainer and stung into retainer. Mixed and pumped 1000 sacks Class "C" cement with 2% CaCl<sub>2</sub>. Average pressure 1100-1300 psi at 2 1/2 barrels per minute pump rate. Displaced cement with 24 barrels fresh water. Pressure while displacing 1600 psi. Final shut in pressure 1350 psi. Present operation: waiting on cement.

2-7-79

Finished waiting on cement. Went in hole with bit. Tagged cement at 1774'. Drilled cement and retainer at 1804'. Continued drilling cement. fell out cement at 1915'. Circulated hole clean. Shut pump off and checked for water flow. Had pencil size flow back. Present operation: going in hole to clean out stringers.

