

Attachment - C-103

Gulf Oil Corporation - Harry Leonard A No. 24K, 22-21-36

Plugged back, acid treated and repaired 5-1/2" casing leak as follows:

1. Pulled rods, pump and tubing.
2. Ran Gamma Ray Neutron survey.
3. Ran tubing with bit. Cleaned out from 3869-3890' (TD).
4. Dumped 44 gallons Hydromite in 3 stages. Filled from 3890' to 3869'.
5. Treated open hole formation from 3787-3869' with 2500 gallons 15% NE acid.
6. Reran tubing, rods and pump. Pumped 10 bbls oil, 48 bbls water in 24 hours.
7. Pulled rods, pump and tubing. Set 5-1/2" Baker wire line magnesium bridge plug at 3725' with 1 sack cement on top.
8. Ran HRC tool. Found leak in 5-1/2" casing at 839'.
9. Perforated 5-1/2" casing at 1515' with 2, 1/2" Jet Holes. Set Howco DM cement retainer at 1469'. Cemented thru perforations with 225 sacks 4% Gel cement. Circulated 12 sacks cement out 7-5/8" bradenhead. Cemented down 10-3/4" casing with 25 sacks 4% Gel and 77 sacks regular cement.
10. WOC.
11. Ran tubing with bit. Drilled cement from 890-985'. Tested 5-1/2" casing with 500# for 30 minutes. No drop in pressure. Drilled out cement and retainer. Tested with 500# for 30 minutes. No drop in pressure. Drilled out cement and bridge plug to 3869'. Pulled tubing and bit.
12. Reran tubing, rods and pump. Pumped 15 bbls oil, 40 bbls water in 24 hours.