Attachment - C-103

Gulf Oil Corporation - F. W. Kutter "C" No. 1-H, 18-19-37

In the process of dual completing subject well in the Monument Oil and the Eumont Gas Pools, a casing leak was discovered. Repaired 7" casing leak as follows:

- 1. Pulled tubing. Ran steel line measurement to 4026' (TD). Ran Gamma Ray Neutron survey with collar locator.
- 2. Ran tubing with 7" retrievable bridge plug met at 3850'. Set parent packer at 1897', 1500', 1001', and 502'. Pressure tested each setting with 500# for 30 minutes. No drop in pressure.
- 3. Ran 7" gauge ring and junk basket. Set 7" Baker production packer at 3800'. Perforated 7" casing from 3476-3524' and 3536-3600' with 4, 1/2" JHpf. Ran tubing.
- 4. Opened circulating valve at 3760. Swabbed and well kicked off. Gas volume 1,204,200 cu ft.
- 5. Washed perforations from 3476-3524' and 3536-3600' with 1000 gallons mud acid.
- 6. Swabbed and well kicked off. Gas volume 1,420,000 cu ft. Closed well in. 9-5/8" annular pressure 250#. Blew to 0# in 18 minutes. Made small amount of gas. Blew 2-3/8" tubing and 7" casing to air. Equalized at 50# in 2 hours.
- 7. Pulled Subing. Reran with 7" Baker retrievable bridge plug set at 3435', parent packer at 3399'. Pressured below parent packer with 700#. Dropped 150# in 8 minutes. Raised bridge plug to 3430', parent packer at 3401'. Pressured below parent packer with 700#. Pressure dropped 75# in 10 minutes. Set bridge plug at 3399', parent packer at 3368'. Pressured below packer with 700#. Dropped 25# in 15 minutes.
- 8. Found bottom hole between 2212-2242', top hole between 1508-1538'.
- 9. Dumped 18 gallons Calseal. Filled up from 3800-37901.
- 10. Ran Howco cement retainer set at 3385'. Pumped 101 sacks cement thru perforations 3476-3600'. Squeezed with 3000#. Backwashed approximately 40 sacks cement. Pulled tubing and retainer.
- 11. Perforated 7" casing at 2255' with 2, 1/2" Jet Holes. Could not break circulation.
- 12. Ran 6-1/4" bit on tubing to top cement at 2169'. Pressured 7" with 1000# for 30 minutes. No drop in pressure. Drilled cement and retainer from 2169-3530'. Tested 7" with 1025#. Pressure dropped 400# in 10 minutes. Drilled cement out to 3570'.
- 13. Ran tubing with HRC tool. Found top leak at 548, bottom leak between 1508-1538.
- 14. Perforated 7" casing at 1550' with 2, 1/2" JH. Ran tubing with Howco DM retainer set at 1478'. Cemented below retainer with 589 sacks cement. Maximum pressure 1100#. Circulated 5 sacks cement. WOC.
- 15. Tested 7" casing with 800# for 30 minutes. No drop. Drilled cement and retainer from 1443-1610'. Drilled Calseal from 3790-3798'. Drilled and pushed production packer to 4026'. Returned well to production.