RECOMPLETION PROCEDURE FIELDS 3

DEC. 30, 1992 (ORIGINAL VERSION)

- 1. Record TP, SICP, and SIBHP.
- 2. MIRUSU.
- 3. Blow down well.
- 4. Install BOP.
- 5 TOH with 2 3/8" tubing.
- 6. TIH with CIBP and set at 7400'. Cap with 5 sacks of cement.
- 7. Pressure test casing to 3500 psi.
- 8. Make a scraper run inside the 4 1/2" liner to 7400'.
- 9. Run a GR/CCL/CBL from 5000' to surface while holding 1000 psi, and determine TOC for both the 4 1/2" liner and the 7" casing. Relay CBL info to Paul Edwards in Denver, and verify whether squeeze work will be necessary prior to the second MV fracture treatment.
- 10. Swab fluid level down to 4800'.
- 11. Correlate the GR/CCL/CBL with Gearhart's Induction/GR Log dated 11/25/80. TIH with 3 3/8" casing gun and perforate the following MV intervals with 2 JSPF, 90 deg. phasing and 15 g charges.

PERFORATE

- 12. Fracture stimulate these perfs according to the attached Frac Schedule 'A'.
- 13. TIH with RBP and set at 5000'. Cap with 5 sacks of sand.
- 14. TIH with 3 3/8" casing gun and perforate 4 squeeze holes at ????'. The depth of the squeeze perfs will depend on the results of the CBL from step 8, check with Paul Edwards.
- 15. TIH with retainer and set 500' above the squeeze perfs.
- 16. Establish circulation between squeeze perfs and liner top. Using a dye calculate annular volume behind liner.
- 17. Pump 200% of calculated annular volume of cement through retainer.
- 18. TOH with tubing. WOC.
- 19. Drill out retainer and cement to RBP at 5000'.
- 20. Run a CBL from 5000' to 3436'. Determine TOC, contact Paul Edwards if TOC is not above 4600'.
- 21. Swab fluid level down to 4000'.
- 22. TIH with 3 3/8" casing gun and perforate the following MV intervals with 2 JSPF, 90 deg. phasing, and 15 g charges.

PERFORATE

4712′	-	17′	4886′	-	92 '	4921′	-	23′
4720′	-	25′	4898'	-	4911'	4927'	-	39'
4810'	-	31'	4915'	-	18′	4942'	-	61'

- 23. Fracture stimulate these upper perfs according to the attached Frac Schedule 'B'.
- 24. Open well slowly 4 hours after the frac. Flow back overnight.
- 25. Clean out with N2 to RBP and TOH with same.
- 26. Clean out sand to PBTD (7400') with N2.
- 27. TIH with RBP and set at 3400' inside 7" casing, cap with 5 sacks of sand.
- 28. Perforate 2 squeeze holes within 100' of the TOC in the 7" casing.

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- 29. Conduct cement squeezes until cement is brought to surface. Run CBLs, shoot additional squeeze perfs, and contact Paul Edwards as necessary.
- 30. TOH with RBP set at 3400'.
- 31. Land tubing at 5450' with a seating nipple one joint off of bottom and continue to flow back load until well is capable of producing against 350 psi.
- 32. Tie well back into surface equipment and turn over to production.