

#### **4-1/2" Liner Procedure**

1. MIRU workover rig
2. Drill out cement plugs to 4100'
3. Perforate squeeze holes in casing at 2250' & 1550'
4. Run 4100' of 4-1/2" 10.5# casing with slim collars
5. RU cementers, cement to surface with 100 sx cement. If cement does not circulate to surface squeeze cement down 4.5" x 5.5" annulus
6. Log CBL
7. Perforate and test Shawnee
8. Run 2-3/8" completion, return well to production