

Federal "M" - CONTINUED

- 7-20-73 Changed gears at 4600 lb with 1.9 BPM inj rate. Acidized on form at 5400 1.9 rate; press incr to 5600. Flowed down to 1.6 BPM, press incr to 5800 (thruout job - not immed). Shut in 5 minute press decr to 5550 with noticeable break. Form broke to atnos for approx 8 minutes. Well died. Ran swb and found 25' fluid in hole; could not get any fluid to surf; checked fluid level at 1 minute intervals - same. 5800 ISDP, 5 minute ISDP 5500, 60,000 SCF nitrogen. Avg rate 1.8 BPM inj rate. 12 hr. SITP vac, FL 6100', cont to test, Prep to re-acidize.
- 7-21-73 Ran swb, found FL at 6100'. P 25,000 standard cf of nitrogen. Pumped 500 gals mixture 18% (6% hydrofluoric and 12% hydrochloric) acid. Started 7½% acid; form broke gradually at 5600, went to 5000# in 8 minutes; Inj rate 2.1 BPM to 2.3 BPM in 8 minutes. Pumped 3000 gals 7½% MS acid at 5000# with 2.3 BPM inj rate - form breaking gradually. Flushed with 2% KCL wtr. Shut in ISDP 3700, 5 minute ISDP 3500. Inj rate on treating fluid 2.8 (4.0 with nitrogen); Inj rate on flush 2.3 (3.2 with nitrogen); Avg inj rate 2.5 (3.5 with nitrogen). Flowed back approx 24 bbls fluid; well died. Swb, found fluid at 600'. Swbd 48 bbls; tbg dry. 600 Tubing Press, FL 4000' from surf. Swbd dry - swbd 36 bbls; tbg dry.
- 7-24-73 TP 500#, bled off in approx 3 minutes; small flare til press bled off. FL 4000' from surf.
- 7-25-73 FL 2200' from surf, TP 150. Swbd dry in 3 runs;

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