

ACID, SHOT FRACTURE, CEMENT SQUEEZE, FC.

<u>Depth Interval</u>	<u>Amount and Kind of Material Used</u>
12,865-12,874'	Spotted and displaced after perforating 250 gals 10% acetic. Perforated Chester with 1-.40" holes (10 holes). Treated perforations with 2000 gals 15% Spearhead acid and nitrogen.  Ran CIBP and set at 12,840'.
12,771-12,773'	Spotted 250 gals 10% acetic. Perforated Morrow with 2-.40" holes (5 holes). Pumped 2 barrels acid away. Treated perforations with 1000 gals 7 1/2% MS acid with nitrogen pad.  Lowered packer to CIBP at 12,840 and pulled up to 12,320'.
12,312-12,318'	Spotted 250 gals 15% MSA. Perforated Morrow with 1-.40" holes (7 holes). Displaced spot acid. Treated perforations (12312-12318' and 12771-12773') with 2000 gals 7 1/2% MS and nitrogen.  Set RBP at 12,410'.  Circulated 250 gals 10% acetic over perforations 12312-12318'. Displaced spot acid. Lowered packer below perforations 12312-12318' and retrieved BP at 12,410'.  Reset RBP at 10,207'.
10,086-10,097'	Spotted 250 gals 15% DS30. Perforated Wolfcamp with 2-.40" holes (24 holes). Displaced spot acid. Treated perforations with 2500 gals 15% DS30.  Retrieved BP at 10,207'.

Cement & Plugs

Capped CIBP at 12,840 with 35' cement. Set 5 1/2" OD CIBP at 12,280' and capped with 35' of cement. Set 5 1/2" OD CIBP at 10,060' and capped with 35' of cement.

35 sacks (150') Class C; set at 8090'; top at 7955'.  
70 sacks (240') Class C; set at 4970'; top at 4730'.  
45 sacks (150') Class C; set at 2062'; top at 1912'.  
10 sacks (35') Class C; set at surface.