

EMSU #352  
Eunice Monument Grayburg / San Andres Field  
Lea County, New Mexico  
March 11, 1996

Workover Procedure - Acidize Stimulate

1. MIRU PU. POH w/ rods & pump. Install BOP. GIH, tag for fill & POH w/ prod. tbg.
2. If significant fill is indicated on TD check (i.e., above 3880 +/-), RU Rev Unit. GIH w/ bit, DC's, etc. on tbg. C/O to +/- 3930'. **(Catch samples and analyze for composition)** RD Rev Unit. POH w/ tbg, DC's & bit.
3. GIH w/ seating nipple, trtg pkr & tubing unloader on tbg. Set pkr @ 3700' +/- (below old Eumont gas perms but above csg shoe). Drop standing valve and seat in SN. RU BJ Services. Pick up on tubing to set tbg unloader in circ. position. Pickle tubing with 300 gals 15% NEA acid\*\*. Flush to bottom of tbg w/ water. Pump pickle acid at approximately 1/2 BPM. Load backside and circulate pickle acid out of tbg (at 1/2 BPM when catch pressure on backside). Repickle tubing if iron counts are above +/- 2000 ppm on "last in" acid. Slack off on tbg to set tbg unloader in closed position. Fish standing valve. Acidize interval (3720' - 3930') w/ 3500 gal Resisol II+ [viscosified aromatic solvent (20% by vol.) and acid (80% by vol.)] in 5 stages at rate of 2-3 BPM and max. trtg press of 1250 psig STP, while monitoring backside, as follows:
  - A. Pump 700 gal Resisol II+\*.
  - B. Drop 400# Trimix salt in 10 bbls. gelled Brine water
  - C. Repeat step A & B three times. Vary block size depending on response encountered in previous salt block.
  - D. Pump 700 gal Resisol II+\*.
  - E. Flush to top perf / open hole with water.
4. RD Trtg Co. Shut well in a minimum of 2 - 3 hours after treatment.
5. Flow/swab back acid residue until well cleans up. POH w/ pkr & tbg.
6. GIH w/ prod tbg. ND BOP. GIH w/ pump & rods. Hang well on. RD PU.
7. Test well & report results to Midland office.

\* BJ's Resisol II+ system to contain the following:

- 200 gal / 1000 gal Toluene
- 800 gal / 1000 15% HCL
- 20 gal / 1000 Emulsifier BXXAE660
- 3 gal / 1000 FERROTROL-270 (anti-sludge iron control to 5000 ppm)
- 1 gal / 1000 FERROTROL-271 (iron control activator)
- 0.75 gal / 1000 Inflo-150 Surface Tension Reducer
- 1 gal / 1000 CI-23 Corrosion Inhibitor

\*\* Pickle acid to contain: 1 gal / 1000 gallons CI-23 Corrosion Inhibitor & 300 gallons 15% HCL

Prepared by: Jimmy Dolan Petroleum Engineer