

03-21-88 Fluid level at 1100' with about 600' clean oil on top. Made 13 swab runs recovering 71 additional barrels frac load, oil and formation water. Average oil cut 15%. Kill tubing with produced water. Unset packer reverse backside fluid out recovering some Williamson oil to tank. TOOH with tubing and packer. TIH with tubing, packer and RBP. Set RBP at 5120', set packer at 5058' pressure test RBP with 2200 psi held okay. Reset packer at 4933', pressure test Amy perfs with 500 psi, bled off in approx. 30 seconds to 150 psi. Reset packer at 4681', pressure test annulus to 2000 psi held okay. Loading frac tanks and sand master for Williamson frac tomorrow. SIFN.

Daily cost: \$1685.00

Cumulative cost: \$209,984.00

03-22-88 0 psi tubing head pressure, mix KCl and gel in frac tanks. Halliburton fracture treated the Williamson Sand 4872-89' as follows: 12,000 gallons pad, ramped 0-4#/gal 20/40 Sd in 11,000 gal, ramped 5-6#/gal 20/40 Sd in 11,000 gal, and 6#/gal 12/20 in 11,000 gal. Flushed to perfs with 31.6 Bbl. All pad and sand carrying fluid 40#/1000 gal cross linked gelled water. Total job volume 45,000 gal with 158,000 pounds of sand. Average injection rate 15 BPM. Average pressure 1450 psi, maximum pressure 2880 psi, ISIP 530 psi, 5 min SIP 520 psi, 10 min SIP 490 psi, 15 min SIP 480 psi. Tagged frac fluid with 14 millicuries Scandium. Ran GR and Temperature after frac surveys showing the majority of the fluid entry into the Lower Williamson perforations with some fluid entering Amy perforations (4992-97') and channel between zones. SI pressure after four hours 450 psi. SIFN - 1135 BLTR.

Daily cost: \$25,986.00

Cumulative cost: \$235,970.00

03-23-88 500 psi tubing head pressure, opened well to swab tank on 32/64" choke, flowed 1000 BW, 174 BO in 24 hour. Oil cut at report time 45%. FTP at report time 110 psi, increased choke to 40/64". 309 BLTR.

Daily cost: \$1222.00

Cumulative cost: \$237,192.00

03-24-88 Flowed 233 BO, 482 BW in last 24 hours. 90 psi FTP.

Daily cost: \$600.00

Cumulative cost: \$237,792.00