

RECOMPLETION SUMMARY
(January 1, 1990 thru March 1, 1990)

Pulled tubing (parted at seating nipple) and left packer in the hole. Spot 61 sxs of Class H cement w/.75% CF14 on top of packer. Drill out cement to 12,371'. Wash to 12,926'.

Spot 65 sxs Class "H" cement w/.75% CF14 on packer. Pull 9 stands and reverse out. Tag cement top @ 12,696'.

Ran CBL, GR, CCL from 10,500' to 9,200'. Set packer at 10,500' and pressure tested below packer to 1000 psi with good results. Test backside to 1000 psi and held OK. Swab down. Perf squeeze holes @ 9420' & 9555'. Set cement retainer @ 9520'. Could not establish communication between squeeze holes. Shot new squeeze hole @ 9470'. Establish communication between holes @ 9470' & 9555'. Squeeze through retainer w/30 sxs Class "H" w/0.75% CF14.

After WOC, drill out cement and retainer. Pressure test squeeze to 2300 psi. Would not hold. Establish rate of 1/2 BPM @ 2300 psi.

Swab well down. Perforate interval 9523-9538' w/4 JSPF. Set packer @ 9491' & run tracer survey. Tracer shows squeeze shot @ 9555' taking majority of fluid and channeling up to 9400'.

Set cement retainer @ 9487'. Sting into retainer and squeeze 30 sxs Class "H" cement. WOC.

Drill out cement and retainer. Pressure test squeeze. Hole taking 1-1/2 BPM @ 1900 psi. Trip in hole and set packer @ 9530' and pressure test to 2000 psi. Test OK. Set packer @ 9445'. Pump 1/2 BPM @ 1700 psi w/no returns. Set packer @ 9492', pump 3 BPM @ 1000 psi (good communication). Set packer @ 9492' and squeeze 30 sxs Class "H" w/.75% CF14. WOC.

Trip in hole to 11,130'. Did not tag cement. Pressure test and formation started taking 1/4 BPM @ 1900 psi. Pay zone isolated with good cement above and below.

Swab down to 9000'. Perforate the intervals 10,253-10,258', 10,150-10,158', 9572-9577', 9560-9568', 9476-9496' w/4 JSPF.

Set bridge plug @ 10,280'. Set packer @ 10,220'. Acidize the interval 10,253-10,258' w/750 gallons 15% NEFE acid. Reset bridge plug @ 10,195' and packer @ 10,125'. Acidize interval 10,150-10,158' w/500 gallons 15% NEFE acid.

Reset bridge plug @ 9600' and packer @ 9555'. Acidize interval 9560-9577' w/500 gallons 7.5% HCl acid. Had communication w/upper perms.

FEDERAL 11-20-34 NO. 1

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Pull packer to 9437' and swab back load. Reset bridge plug @ 10,314' and packer @ 10,125' and swab back load on lower two sets of perms.

Pull packer and bridge plug. Set new plug @ 9657'. Frac interval 9476-9577' w/29,820 gallons of 33 quality CO2 foam and 25,800# of 20/40 mesh Ottawa Sand.

Flow back frac. Pull bridge plug and packer. Run a tapered string of 2-7/8" to 2-3/8" tubing and land @ 10,130', seating nipple @ 10,099', tubing anchor @ 10,064'. Run 2" x 1-1/4" x 20' x 24' RHBC pump and 2' x 3/4" pony rod, 202 3/4" Grade D rods, 101 7/8" Grade D rods, 90 1" Grade D rods, 8 1" Grade KD rods, and 1 8' x 1", 1 6' x 1", and 1 2' x 1" pony rods. Put well on pump.

Work completed 3/01/90.

AM0:bjw
3/12/90

Well was not tested until 3-31-90 due to mechanical problems.

24 hour test on 3-31-90: 58 BO; 122 MCF; 24 BW.
60# TP: 60# CP: 2103 GOR.

ICT

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APR 18 1990

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