

perforated bottom zone first and swabbed dry. Recovered 15 barrels water - fresh. Set RBP at 10,562' and RTTS at 10,530. Perforated top and middle zones. Dowell could not inject BDA acid at 5400#. Welex reperforated top two zones in same intervals - pumped in 500 gallons BDA acid. Breakdown pressure 5600 psi. Followed acid with oil. Began to swab back fluid. Pulled 5 swabs and shut-in until morning.

- Oct. 8, 1967 Had 300# on tubing at 7:00 A.M. Swabbed water and acid water. Small amount of gas. Fluid level 3,000' to 5,000'. Top two zones communicated and producing water.
Swab tested bottom zone by setting RBP at 10,605' and RTTS at 10,562' and swabbing. Swabbed down and produced small amount fresh water (17,000 PPM cl). Decided to squeeze top two zones before proceeding.
- Oct. 14, 1967 Halliburton squeezed all perforations with 100 sacks cement plus 75# of Halad #9. Bottom of RTTS set 10,470'. Pressured to 4800# and had a few breaks indicating injection into several perforations. After 20 minutes pressure seemed to hold. Approximately 68 sacks into formation and reversed out balance.
- Oct. 15, 1967 Dowell displaced water in 5-1/2" casing with oil. Welex perforated one shot each 6" from 10,567' thru 10,570'. Dowell spotted acid but could not break down at 6,000#. Welex ran back in to reperforate and reported packer set below perms. When they came out of hole found acid had crystallized part of line. Tubing blocked.
- Oct. 16, 1967 Dowell attempted to reverse out material blocking tubing. Reversed out acid but did not clear tubing so pulled tubing. Talley of tubing showed excess of 7' in permanent stretch in tubing. Hole now full of oil.
- Oct. 17, 1967 Went in 5-1/2" with Welex Super Dyna-Jet and perforated 7 shots - 2 per foot from 10,567' thru 10,570'.
Ran tubing with RTTS to 10,562' and spotted 500 gallons BDA acid. Set RTTS and pressured 1500# on annulus. Dowell injected 500 gallons BDA acid - maximum pressure 6,000 psi. Communication with upper zones. Swabbing water - some oil. At times appreciable amounts of new oil and then seems to drown out. Swabbing at rate of 25 to 30 barrels per hour.
It does not appear economical to pump well and handle the amount of water indicated on swab tests. The surging amounts of oil made it difficult to get an accurate oil-water ratio.
It may be practical to squeeze all perforations and sand jet perforations in lower zone and attempt to get it opened up with acid under low pressure.