- 1 MIRU pulling unit.
- Install 7-1/16", 5M psig hydraulic BOP w/2-7/5" pipe rams on top and blind rams on bottom. Install (2) 2-1/16", 5M psig gate valves on BOP outlets below blind rams. Pressure test BOPE to 3500 psig against test plug.
- 3. Release 2-7/8" x 5-1/2" Model PLS packer. POOH laying down 2-7/8" tubing. Kill well if necessary with 2% KCl water.
- 4. Rig up wireline company and lubricator. Test lubricator to 1000 psig. RIH with CCL and 5-1/2", 20# E-Z Drill CIBP. Correlate and set CIBP at 10,620'. RD wireline company.
- 5. Pick up 2-3/8" tubing string. Trip in open-ended. Spot tubing tail at 10,304'. Load hole and test casing and CIBP to 2500 psig. If necessary, depending on condition of tubing to be used, rig up stimulation company to pickle tubing w/ 750 gal 15% HCl acid containing 1 gal/1000 Inhibitor (HAI-85) and 2 gal/1000 Penetrating agent (PEN-88). Displace acid with 2% KCl water. Reverse circulate hole clean. Spot 500 gal 7% KCl containing 1 gal/1000 SSO-21M (surfactant), 4 gal/1000 LoSurf-300 (surfactant), and 10 gal/1000 Cla-Sta XP (clay stabilizer) at the bottom of the hole and up across the interval to be perforated.
- 6. Pull tubing up to approximately 8000'. Rig up to swab fluid level down. Fluid top should be at approximately 7800' from surface. POOH with tubing.
 - 7. Rig up hydrotesters. Pick up and RIH with TCP equipment on 2-3/8" tubing (see attachment for configuration) for underbalanced perforating. Test tubing to 9000 psig. Rig up wireline unit to run GR with collar locator. Adjust depth to locate guns on depth using RA collar. Correlate to Compensated Neutron/Litho-Density Log Measurements. Locate perforating guns across Atoka interval from 10,292'-10,304' w/ 6 SPF, 60° phasing. Total shots-72. Note: 3-3/8" x 4-1/8" propellant sleeve to be run on gun. (Attach propellant to sleeve using retaining rings).
 - 8. Set the packer. Drop vent tube to open differential vent and relieve hydrostatic pressure below the packer. Monitor casing pressures for signs that the packer is not holding.
- 9. ND BOP, NU wellhead. Install tree, test hanger to 5000 psig. Rig up to swab fluid level down or add 2% KCl in the tubing as needed. Fluid top should be 2500' above the packer to act as a tamp (at approximately 7800' from surface).
- 10. Pressure casing to 2500 psig. Install pop off valves to be set at 2800 psig. Drop firing bar to activate perforating gun.
- 11. Rig up to flow back well. Open well on a 10/64ths choke. Flow back Atoka slowly. If necessary, swab test perforations. Continue testing to determine productivity of this zone. Prior to continuing with the completion of other zones, it may be necessary to perform a pressure build up and/or a fracture stimulation.