

Miller 22-24

- 1 Level location for base beam equipped rig.
- 2 Call Foreman or Field Coordinator before rig up to catch plunger, isolate production equipment, and ask if replacement parts/equipment are requested. Operations need to hook up the Bradenhead pressure a bleed off the pressure before the rig gets on location.
- 3 Check and report surface casing pressure. If surface casing is not accessible at ground level, re-plumb so valve is at ground level.
- 4 Spot a minimum of 10 jts of 2-3/8", 4.7#, J-55, EUE tbg for replacement and 160 jts 1-1/4", 2-33#/ft, J-55, 10rd IJ for annular cement job.
- 5 MIRU WO rig. Kill well, as necessary, with freshwater and biocide. ND wellhead. NU BOP.
- 6 MIRU slickline. Fish plunger if necessary and tag for PBTD (should be at 7294'). RDMO slickline.
- 7 PUH with tubing string to break any possible sand bridges, unseat landing joint and lay down. Do not exceed a tensile stress of 57,384 lbs.
- 8 MIRU "EMI". TOOH with 2-3/8" tubing. EMI tubing while TOOH. Lay down joints with wall loss or penetrations >35%. Replace joints as necessary. **Keep yellow & blue band tubing. Note joint number and depth of tubing leak(s) on PRODUCTION EQUIPMENT FAILURE REPORT IN OPEN WELLS.
- 9 TIH with 2-3/8" tbg and 4.5" RBP and packer (4.5" csg 11.6# I-80). Set RBP @ +/- 3700', (collars are at 3676' and 3718+'). Pressure test the RBP and casing to 2000 psi. Circulate 2 sx of sand on top of RBP and trip out of the hole with Packer.
- 10 ND BOP's and nipple up tubing head adapter with new 5000 psi master valve with 2-3/8" 8RD screwed connection. Make sure that all casing valves are good to 5000 psi and if not change out with new casing valves.
- 11 Pressure test casing and tubing head to 5000 psi using hydrotester for 15 min.
- 12 If pressure test unsuccessful, call Evans office for alternate procedures.
- 13 ND wellhead. Un-land 4 1/2" casing string. NU double entry flange.
- 14 PU 1-1/4" 2.3#/ft J-55 10rd IJ tubing, and TIH outside 4-1/2" casing and open hole to 2590'. Circulate with freshwater and biocide to clean up annulus while TIH.
- 15 Rig up cement truck and pump 250 Bbls of drilling mud followed with freshwater spacer and cement job consisting of 20 Bbls Sodium Metasilicate and then 450 sx 15.8 ppg neat Class G cement with 1/4 #/sx cello-flake. The cement to be retarded for 125 degree Fahrenheit for six hour pump time. (Attempt to cement from 2590 to 956).
- 16 TOH with 41 stands and stand back in derrick to end of tubing at +-608' and reverse circulate 2 times the tubing volume or until the water cleans up
- 17 Trip out of the hole with tubing and shut in overnight.
- 18 Rig down cementing company.
- 19 Land 4-1/2" casing. ND double entry flange and crossover. NU wellhead. SDFN to WOC.
- 20 MIRU wireline services.
- 21 PU and RIH with CCL-GR-CBL-VDL. Run from 2700' to surface, or the top of cement. RDMO wireline. If the cement is not above 956 then contact Engineer.
- 22 ND TBG head adapter and master valve. NU BOP

- 23 PU and TIH with 2-3/8" tbg and retrieving head. Circulate sand off RBP at @ +/-3700'.
TOOH standing back tubing.
 - 24 Bail if the need be.
 - 25 TIH 2-3/8" NC, 2-3/8" SN, and 2-3/8" 6.5# J-55 EUE 8rd tubing. Land tubing at +/-
7497' or 1 joint above the top Codell perforation (7527-7540).
 - 26 ND BOPE. NU WH. Ensure all valves on TBG head are rated to 5000 psi and ensure
new TBG head has a new R-46 ring gasket installed. Install a 2' double XX nipple
above the master valve.
 - 27 MIRU hydrotester and test through master valve to 5000 psi for 15 min.
 - 28 RDMO hydrotester.
 - 29 RDMO WO Rig
 - 30 Broach tubing to seating nipple. RDMO WO Rig.
 - 31 Clean location and swab well back to production, if necessary. Notify Foreman/Field
Coordinator of finished work and turn well over to production team.
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