

State 28-16 – Bradenhead Procedure

- 1 A directional survey of this well has already been completed.
- 2 Last casing pressure test was to 6,000 psi on 11/26/2009.
- 3 Call Wattenberg IOC (970-506-5980) at least 24 hrs prior to rig move. If not already completed, request that they catch and remove plunger, isolate production equipment and remove any automation equipment prior to the rig showing up. Install perimeter fence as needed.
- 4 MIRU Slick line. Fish plunger if necessary and tag PBMD (Should be 8518').
- 5 Prepare location for base beam rig.
- 6 Spot 25 jts of 2-3/8" 4.7# J-55 8RD EUE tbg.
- 7 Spot 84 jts of 1-1/4" 2.33# J-55 IJ tbg.
- 8 Notify mud company to have 10.0 ppg mud on standby.
- 9 Check wellhead for flanged-style connections and 5,000 psi rating. If wellhead is not rated to 5,000 psi or does not have flanged-style connections, install one that does prior to completing the job.
- 10 MIRU WO rig. Kill well with fresh water with biocide. ND wellhead, NU BOP.
- 11 Run two 2" lines from starting head to return tanks.
- 12 PU 8-10' landing joint with TIW safety valve on top and screw into the tbg hanger. Back out the lock down pins and pull up on the tbg string to break any possible sand bridges. Do not exceed 80% of tubing tensile strength, or 57,384-lb.
- 13 Unseat tbg hanger and LD tbg hanger and landing joint. Install rubber wiper in stripping head.
- 14 MIRU EMI equipment. TOOH with 2-3/8" tbg. EMI tbg while TOOH. Lay down joints with wall loss or penetrations >35%. Replace joints as necessary. Keep yellow and blue band tubing. Note joint number and depth of tubing leak(s) on production equipment failure report in OpenWells. Clearly mark all junk (red band) tubing sent to yard.
- 15 TIH 2-3/8" tbg with 4.5" RBP (4.5" 11.6# I-80). Set RBP at +/- 7890' (Collars at 7865' and 7908'). Spot 2 sx sand on top of RBP. TOOH with 2-3/8", SB tbg.
- 16 Pressure test RBP to 2,000 psi for 15 minutes. (Pressure test to make sure plug is set correctly)
- 17 ND BOP, un-land 4-1/2" csg, RU dual-entry flange, NU BOP. Stretch calcs show that with a 50,000-lb pull weight there should be 24" of stretch. If casing cannot be safely un-landed, contact engineering for further support.
- 18 PU and TIH with 84 jts 1-1/4" 2.33# IJ tbg to 2500'.
- 19 Circulate 175 bbls with rig pump (Circulate at least 1.5x annular volume from 2500') with a 10.0 ppg mud sweep at the end. This well showed 306 psi final pressure on last FM17 test
- 20 TOOH 34 jts 1-1/4" tbg to 1500'.
- 21 ND BOP, MIRU cement company.

No Stips
No HZ development
NPV \$355M
Bradenhead
FH – 1500'-893'

- 22 Commence pumping cement job consisting of 5 bbls fresh water, 20 bbls sodium metasilicate, 5 bbls fresh water and 34 bbl (145 sx) of Type III with ¼ lb/sk cello-flake mixed at 14.8 ppg and 1.33 cuft/sk blended for a 3 hr pump time (Cement from 1500' to 893').
- 23 Break lines, clean up with fresh water, RMDO cement company.
- 24 ND BOP, ND dual entry flange, re-land 4-1/2" csg and NU BOP. Leave well shut in minimum of 24 hours.
- 25 MIRU wire line and run CCL-GR-CBL-VDL from 1600' to 0'. If Fox Hill plug is not above 893', contact engineering for further instructions. Email logs to engineering and DJVendors@anadarko.com. RDMO wire line.
- 26 TIH with 2 3/8" tbg and retrieving head and tag sand above RBP at +/- 7180'. Circulate sand off RBP. Latch onto RBP and release RBP. TOOH standing back all 2 3/8" tbg and LD RBP.
- 27 PU and TIH with 2-3/8" notched collar, 2-3/8" XN, 2-3/8" 4.7# J-55 tbg. Clean out as necessary. Land 2-3/8" tbg @ +/- 8317' (1 jt above top Codell perf).
- 28 ND BOP, NU master valve.
- 29 Install 7 1/16" x 5,000 psi tubing head adaptor with new 5,000 psi master valve threaded 2 3/8" connection. Make sure all wellhead valves are rated to 5,000 psi.
- 30 Install 2 3/8" pup joint above the master valve. Pressure test the tubing head from below the tubing head through the master valve to 5,000 psi with hydro tester. NU 5k wellhead.
- 31 RMDO WO rig. Return well to production team.
- 32 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.

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