

Miller Estate 8-14K BradenHead Procedure

- 1 Gyro run on 3/14/2013.
- 2 Call Foreman or Lead Operator at least 24 hr 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.
- 3 MIRU slickline. Fish plunger from lubricator. RIH and pull the bumper spring and standing valve if necessary. RIH and tag bottom. Report findings. PBTD (should be at 7456'). RDMO slickline
- 4 Prepare location for base beam rig.
- 5 Spot a minimum of 1510' of 1.66", J-55, 10rd IJ work string for annular cement job.
- 6 MIRU WO rig and auxiliary equipment. Check pressures. Rig up 2" line from the casing head annulus to work tank. Kill well with fresh water. ND tree and adapter flange, NU BOP's.
- 7 PU landing joint. TIW valve on top and screw into the tbg hanger. Back out the lock down pins and pull up on tbg string to break any possible sand bridges, unseat landing joint and lay down.
- 8 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. Note joint number and depth of tubing leak(s) on production equipment failure report in Open Wells. Clearly mark all junk (red band) tubing sent to yard.
- 9 RIH and set RBP @ +/- 7040' (collars located 7012' and 7055'). Pressure test RBP to 1000 psi for 15 minutes. Spot 2 sx of sand on top of RBP and POOH.
- 10 Bleed off pressure. ND BOP's, ND tbg head. Unland 4-1/2" 11.6# csg. NU dual entry flange, NU BOP.
- 11 PU 1.66" 2.3#/ft J-55 10rd IJ tubing, and TIH outside 4-1/2" casing in open hole to ~1410'. Circulate with the rig pump while TIH to clean up the annulus. Use two sweeps of Alcomer 74L while TIH and a final sweep at 1410'. Make sure no pressure is present on bradenhead before moving on to the next step. If gas is detected, contact engineering to discuss plan moving forward.
- 12 Contact Ed Asuchak (min of 24hrs. in advance) to bring out 20bbls of 10.0ppg mud. Pump 20bbls of mud at 1410'. Leave 1.66" tbg full of mud to avoid wet trip and PUH to 1210' to place cement in annulus.
- 13 MIRU cementers. Pump cement job consisting 5 bbl fresh water, 20 bbl sodium metasilicate and 5 bbl fresh water, followed with 305 cu ft/ 230 sx of Type III cement with ¼ lb/sk cello-flake mixed at 14.8 ppg and 1.33 cf/sk blended for a 3 hr pump time (cement from 1210' to 410', assuming 8.5" hole, adding 40%).
- 14 TOOH with 1.66" tbg and LD.
- 15 RMDO cement company.
- 16 ND BOP, ND double entry flange, re-land 4-1/2" csg. NU BOP.
- 17 Leave well SI for minimum of 24 hours.

Single stage Bradenhead over Fox Hills

TOC: 6295'

No HZ's

Crop – Winter Wheat

Gyro run 3/14/2013

- 18 MIRU WL and run CCL-GR-CBL-VDL from 6100' to surface. If Fox Hills plug is not above 410', contact engineering for further instructions. Email logs to daniel.notary@anadarko.com and DJVendors@anadarko.com. RDMO WL.
- 19 If tbg head is not as described, ND BOP. Install new GE 5000 psi 4-1/2" bottom threaded tbg head with 7-1/16" flanged top, 7-1/16" flanged 5000 psi tbg head adaptor with 2-3/8" studded top, 2-3/8" flanged 5000 psi master valve, flanged 5000 psi 2-3/8" plunger lubricator (side outlets threaded). All valves, fittings, plugs on well head need to be rated for 5000 psi. NU BOP.
- 20 TIH with 2-3/8" tbg and retrieving head to tag sand above RBP at +/- 7040'. Circulate sand off RBP, latch onto RBP and TOOH. SB tbg, LD RBP.
- 21 PU and TIH with 2-3/8" NC, 2-3/8" XN, and 235 jts of 2-3/8" tbg. If necessary, drop down with extra jts and circulate/bail as needed to cleanout sand across Codell perfs. Land end of tbg at +/- 7363' (~1 jt above top Codell Perfs).
- 22 ND BOP, NU WH.
- 23 GE should pressure test tbg head through test port on side of tbg head adaptor flange to 5000 psi and hold for 15 mins.
- 24 RMDO WO rig. Return well to production team.
- 25 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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