

## Houston B 6-16 – Dual Stage Annular Fill

- 1 Well requires dual stage annular fill in preparation for HZ fracs.
- 2 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.
- 3 If unable to catch plunger, MIRU SL. Fish plunger and tag fill. Otherwise, use rig to tag fill with tbg. Record tag depth in Open Wells. RD SL.
- 4 Prepare location for base beam rig.
- 5 Spot **25** jts of 2-3/8" 4.7# J-55 8RD EUE tbg.
- 6 Spot **4930'** of 1-1/4" 2.33# J-55 10rd IJ tbg.
- 7 MIRU WO rig. Kill well with fresh water and biocide. ND WH, NU BOP.
- 8 PU tbg to break any possible sand bridges. Do not exceed 80% of tubing tensile strength, or 57,384 lb. LD landing jt.
- 9 Unseat tbg hanger. Install rubber wiper in stripping head.
- 10 MIRU EMI equipment. TOOH with 2-3/8" production tbg. EMI tbg while TOOH. Lay down jts with wall loss or penetrations >35%. Replace jts as necessary. Keep yellow and blue band tbg. Note jt number and depth of tubing leak(s) on production equipment failure report in OpenWells. Clearly mark all junk (red band) tbg sent to yard.
- 11 PU and TIH with 2-3/8" tbg with 4.5" RBP (4.5" 11.6#). Set RBP at +/- **6770'** (Collars at **6748'** and **6790'**). Spot 2 sx sand on top of RBP. TOOH. Stand back tbg.
- 12 Pressure test RBP to 1000 psi for 15 minutes. If pressure test passes, proceed.
- 13 ND BOP, ND tbg head. Unland 4-1/2" 11.6# csg (Do not exceed 130,000-lb pull weight). NU double entry flange, NU BOP.
- 14 PU and TIH with **4930'** of 1-1/4" tbg outside 4-1/2" csg. Make 2 sweeps with Alcomer 74L while TIH.
- 15 Circulate and condition hole with ~**450** bbls of water with rig pump (1.5x annular volume from **4930', 9"OH**), or until well is completely dead. Make one final sweep with Alcomer 74L. Spot **20** bbls of 10 ppg drilling mud.
- 16 TOOH with **7** jts 1-1/4" tbg to **4730'**.
- 17 MIRU **Sanjel**. Commence pumping cement job consisting 5 bbl fresh water, 20 bbl sodium metasilicate and 5 bbl fresh water, followed with **360 sx** of 1:1 Poz:G cement with ¼ lb/sk cello-flake, 0.6% CFL-2 + 0.5% CFR + 0.6% SMS + 0.2% SPC-2 + 0.4% LTR mixed at 14.6 ppg and 1.12 cf/sk (cement from **4730'** to **3720'** based on **9" OH w/ 20% excess**).
- 18 PUH with 1-1/4" tbg to +/- **1000'** and re-establish circulation.
- 19 Commence pumping cement job consisting 10 bbl fresh water, **130 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 **1000'** to **600'**, based on **9"OH w/ 40% excess**). RDMO cementers.
- 20 TOOH with 1-1/4" tbg and LD.
- 21 ND BOP, ND double entry flange, re-land 4-1/2" csg. NU BOP.
- 22 Leave well SI for minimum of 24 hours.

- 23 MIRU WL and run CCL-GR-CBL-VDL from 5650' to surface. If SHSX plug is not above 3725' or Fox Hills plug is not above 613', contact engineering for further instructions. Email logs to engineering and [DJVendors@anadarko.com](mailto:DJVendors@anadarko.com). RDMO WL.
- 24 If tbg head is not as described, ND BOP. Install new 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 2-1/16" studded top, 2-1/16" 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.
- 25 TIH with 2-3/8" tbg and retrieving head to tag sand above RBP at +/- 6770'. Circulate sand off RBP, latch onto RBP and TOOH. SB tbg, LD RBP.
- 26 PU and TIH with 2-3/8" NC, 2-3/8" XN, and 222 jts 2-3/8" tbg. Land end of tbg at +/- 7020'.
- 27 ND BOP, NU WH.
- 28 GE should pressure test tbg head through test port on side of tbg head adaptor flange to 5000 psi and hold for 15 mins.
- 29 RMDO WO rig. Return well to production team.
- 30 Clean location and swab well back to production. Notify field foreman/field coordinator of finished work and turn well back over to production team.