

FREAUFF 43-4

- 1 Call foreman or lead operator at least 24 hr prior to rig move. Request that they catch and remove the plunger, isolate production equipment and remove any automation prior to rig showing up. Install perimeter fence as needed.
- 2 Provide notice of MIRU to COGCC field inspector as specified in approved Form 6.
- 3 Gyro run Oct 2013
- 4 Notify IOC when rig mobilizes to location to generate workorder for flowline removal and one call for line locates.
- 5 Prepare location for base beam equipped rig.
- 6 MIRU, circulate to remove gas and kill well as necessary using clean fresh water with biocide. ND WH. NU BOP. Unseat landing jt, LD.
- 7 TOOH 2-1/16" production tubing. Stand back.
- 8 MIRU WL. RIH gauge ring for 3-1/2" 7.7 #/ft casing to 7000'.
- 9 RIH CIBP, set at 6990' (correlate depth from Brandex CBL dated 8/15/1994). POOH. Pressure test CIBP to 1000 psi for 15 minutes. If pressure test passes, RDMO wireline.
- 10 TIH with open ended 2-1/16" tubing to just above CIBP while hydrotesting to a min of 3000 psi.
- 11 RU cement services.
- 12 Spot 30 sx "G" w/ 20% silica flour, 0.4% CD32, 0.4% ASA-301 and R-3 15.8ppg 1.38 cf/sk (In pipe only) from 6990' to 6183'.
- 13 PUH to 6000'. Tubing volume at 6000' approximately 18 bbls. Circulate and load hole with 9 ppg drilling mud and biocide to clear tbg. POOH. WOC 4 hrs.
- 14 RUWL. PU and RIH with two 1' perf guns, each 3 spf, 0.50" EHD, 6.0" penetration, 120 deg phasing, 3 shot total perf guns and CCL. Correlate to Brandex CBL dated 8/15/1994 and perf casing at 4610'. PUH and perf casing at 3770' (400' above top of Sussex).
- 15 POOH with CCL and perf guns and RDMO WL.
- 16 RIH with 3-1/2" packer and 2-1/16" tubing, set packer at 3800' in 3-1/2" casing. Establish circulation with fresh water and biocide through squeeze holes at 4610' and 3770'.
- 17 RU cement services. Pump 20 bbl Sodium Metasilicate ahead of cement. Pump 370 sx "G" w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 cement with 1.15 cuft/sk yield (Cement in open hole based on caliper. 9" hole with 20% excess).

- 18 Release packer. PUH to 3500' with 3-1/2" packer and 2-1/16" tubing and circulate with drilling mud and biocide until no cement returns to surface. **IF workstring is cemented in place, RU WL, free point and jet cut tubing.** POOH and LD packer. WOC 4 hours.
 - 19 RIH with 2-1/16" tbg and tag cement. TOC in csg needs to be above 3700'.
 - 20 RU WL. Crack coupling or shoot off casing at 840'. RDMO WL. Circulate hole using drilling mud with biocide to remove any gas.
 - 21 NDBOP, NDTH.
 - 22 NU BOP on casing head, install 3-1/2" pipe rams
 - 23 TOOH with 3-1/2" casing, LD.
 - 24 TIH into csg stub with 2-1/16" tbg to 940'.
 - 25 Pump 180 sx Type III cement with 1.53 cuft/sk yield.
 - 26 PUH to 100'. Circulate tubing clean with drilling mud with biocide.
 - 27 TOOH. WOC 4 hrs or overnight.
 - 28 TIH and tag. If cement is below 255', discuss with production engineer.
 - 29 RU Wireline services. RIH 8-5/8" CIBP to 100'. Set, pressure test to 1000 psi for 15 min. If plug holds, RDMO WL and RDMO WO rig.
 - 30 Supervisor submit paper copies of all invoices, logs, and reports to Frantz, Sabrina.
 - 31 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
 - 32 Excavate hole around surface casing enough to allow welder to cut 8-5/8" casing minimum 5' below ground level.
 - 33 Welder cut 8-5/8" casing minimum 5' below ground level.
 - 34 MIRU redimix. Use 4500 psi compressive strength cement, (NO gravel) fill stubout.
 - 35 Weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 ¼ description) and API number
 - 36 Properly abandon flowlines per Rule 1103.
 - 37 Back fill hole with fill. Clean location, level.
- Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.