

CANTRELL RED V 1-13

- 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 MIRU slickline services and VES. Pull bumper spring, tag bottom and run gyro survey from 7400' to surface with stops every 100'. Forward gyro survey data to Sabrina Frantz and invoices to Sabrina Frantz. RDMO slickline services and VES.
- 3 Provide notice of MIRU to COGCC field inspector as specified in approved Form 6.
- 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, kill as necessary using clean fresh water with biocide and circulate. ND WH. NU BOP. Unseat landing jt, LD.
- 7 Notify cementers to be on call. Provide volumes (30 sx "G" w/20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time mixed at 15.8 ppg and 1.38 cf/sk (inside 3.5"), 50 sx class "G", 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (inside 3.5"); 230 sx Type III CaCl₂ cement mixed at 14.0 ppg and 1.53 cf/sx (7-7/8"+60%)).
- 8 TOOH 2 1/16" production tubing. Stand back.
- 9 MIRU WL.
- 10 RIH gauge ring for 3.5" 9.3#/ft csg to 7340'.
- 11 RIH CIBP, set at 7285'. PT CIBP to 1000 psi. RD WL
- 12 TIH to 7285'+/- tag CIBP hydrotesting tubing in to 3000 psi. Roll hole using water containing biocide.
- 13 RU cement services.
- 14 Spot 30 sx "G" w/20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 to achieve 2:30 pump time mixed at 15.8 ppg and 1.38 cf/sk on top of CIBP.
- 15 PUH 22 stands. Circulate 55 BBL water containing biocide to clear tubing.
- 16 Place 9.0 ppg mud containing biocide from 5921' to 5000' (~10BBL).
- 17 PUH to 5000'.
- 18 RU cement services.

- 19 Spot 50 sx class "G", 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cuft/sx.
- 20 PUH 28 stands. Circulate 30 BBL water containing biocide to clear tubing.
- 21 TOO. WOC 4 hrs.
- 22 TIH and tag. If cement is below 4250', discuss with production engineer.
- 23 Place 9.0 ppg mud containing biocide from tag to 1080' (~37BBL).
- 24 P&SB 1080' tbg. LD remainder.
- 25 RU WL. Crack coupling or shoot off casing at 980'. RDMO WL. Circulate hole using 95 BBL water containing biocide to remove any gas.
- 26 NDBOP, NDTH.
- 27 NU BOP on casing head, install 4-1/2" pipe rams.
- 28 TOO with 4-1/2" casing, LD.
- 29 TIH into csg stub using production tubing to 1080'.
- 30 Spot 230 SX Type III CaCl₂ cement mixed at 14.0 ppg and 1.53 cuft/sx.
- 31 PUH to 150'. Circulate 10 BBLs water containing biocide to clear tubing.
- 32 TOO. WOC 4 hrs.
- 33 TIH and tag. If cement is below 290', discuss with production engineer.
- 34 Fill casing with 9.0 ppg mud containing biocide from tag to 100'.
- 35 MIRU WL. RIH 8-5/8" CIBP to 100'. Set, PT to 1000 psi for 15 min. If tests, RDMO WL and WO rig.
- 36 Supervisor submit paper copies of all invoices, logs, and reports to Frantz, Sabrina.
- 37 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 38 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 39 Welder cut 8 5/8" casing minimum 5' below ground level.
- 40 MIRU ready cement mixer. Use 4500psi compressive strength cement, (NO gravel) fill stubout.
- 41 Weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number
- 42 Properly abandon flowlines per Rule 1103.

- 43 Back fill hole with fill. Clean location, level.
- 44 Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.