

BERNIE 4-17 (HSR)

- 1 Call foreman or lead operator at least 24 hr prior to rig move. Request 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. Pull bumper spring, tag bottom. Gyro survey completed 12/31/2013. RDMO slickline services.
- 3 Notify IOC when rig mobilizes to location to generate workorder for flowline removal and one call for line locates.
- 4 Prepare location for base beam equipped rig.
- 5 MIRU, kill as necessary using clean fresh water with biocide and circulate. ND WH. NU BOP. Unseat landing jt, LD.
- 6 Notify cementers to be on call. Provide volumes (30 sx class G w/ 20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 mixed at 15.8 ppg and 1.38 cuft/sk (inside 4.5")); 470 sx class "G", w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (9"+20% Caliper Log in file); 150 sx Type III CaCl₂ cement mixed at 14.0 ppg and 1.53 cf/sx (100' inside 4.5" casing (no excess), 115' in 12.25" open hole (20% excess), & 295' inside 8-5/8" casing (no excess))).
- 7 TOOH 2-3/8" production tubing. Stand back.
- 8 MIRU WL. RIH gauge ring for 4.5" 11.6#/ft csg to 6800'.
- 9 RIH w/ WL and set CIBP at 6790'. PT Casing to 1000 psi. RD WL.
- 10 RIH w/ 2-3/8" tubing while hydrotesting to 3000 psi.
- 11 RU cement services. Pump 30 sx class G w/ 20% silica flour, 0.4% CD-32, 0.4% ASA-301 and R-3 mixed at 15.8 ppg and 1.38 cuft/sk (inside 4.5") to place balanced plug.
- 12 PUH 10 stands. Circulate 90 BBL water containing biocide to clear tubing.
- 13 Place 9.0 ppg mud containing biocide from 6330' to 4655' (~27 bbl).
- 14 TOOH & Stand Back 3610' tubing; LD remainder. WOC 4 hours.
- 15 RUWL. PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 4655' and 3780'. RD WL.
- 16 RIH and set CICR with 2-3/8" tubing at 3610'. Initiate circulation through CICR using water containing biocide. Note rate and pressure.
- 17 RU cement services. Pump 20 bbl Sodium Metasilicate immediately preceding cement.
- 18 Pump 470 sx class "G", w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (9"+20% Caliper Log in file) to place suicide squeeze between perfs. Underdisplace by 3 bbls, unstring from retainer and dump remaining 3 bbls on top of CICR.
- 19 PUH 3 stands. Circulate 50 BBL water containing biocide to clear tubing.

- 20 Place 9.0 ppg mud containing biocide from 3850' to 940' (~43 bbl).
- 21 TOOH & Stand Back 940' tubing; LD remainder. WOC 4 hours.
- 22 RU WL. Crack coupling or shoot off casing at or below 840'. RDMO WL. Circulate hole using 20 BBL water containing biocide to remove any gas.
- 23 NDBOP, NDTH.
- 24 Install BOP on casing head with 4-1/2" pipe rams.
- 25 TOOH with 4-1/2" casing, LD.
- 26 TIH with 2-3/8" tubing to 940'.
- 27 RU cementers. Spot 150 sx Type III CaCl₂ cement mixed at 14.0 ppg and 1.53 cf/sx (100' inside 4.5" casing (no excess), 115' in 12.25" open hole (20% excess), & 295' inside 8-5/8" casing (no excess)).
- 28 Circulate 10 bbls water containing biocide to clear tubing.
- 29 TOOH. WOC 4 hrs. Tag cement. Top needs to be above 525'; Assuming TOC above 525' → proceed.
- 30 MIRU WL. RIH 8-5/8" CIBP to 100'. Set, PT to 1000 psi for 15 min. If tests, RDMO WL and WO rig.
- 31 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.
- 32 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 33 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 34 Welder cut 8 5/8" casing minimum 5' below ground level.
- 35 MIRU ready cement mixer. Use 4500psi compressive strength cement, (NO gravel) fill stubout.
- 36 Weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number
- 37 Properly abandon flowlines per Rule 1103.
- 38 Back fill hole with fill. Clean location, level.
- 39 Submit Form 6 to COGCC ensuring to provide "As performed" WBD identifying operations completed.