

Engineer: RYAN HOLLINSHEAD

Cell: 970-412-3130

PLUG and ABANDONMENT PROCEDURE

UPRC 19-15L

Step Description of Work

1. Provide 48 hour notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Notify Automation Removal Group at least 24 hours prior to rig move. Request they isolate production equipment, and remove any automation prior to rig MIRU.
2. MIRU Slickline. Gyro ran 3/24/2014. RIH tag bottom and record tag depth in OpenWells.
3. Prepare location for base beam equipped rig. Install perimeter fence as needed.
4. Check and record bradenhead pressure. If bradenhead valve is not accessible, re-plumb so that valve is above GL. Blow down bradenhead and re-check pressure the next day. Repeat until pressure stays at 0 psi.
5. MIRU WO rig. Spot a min 25 jts of 2-1/16" 3.25# J-55 IJ tbg. Load hole using clean fresh water with biocide to control well. ND WH. NU BOP. Unland tbg using unlanding joint, LD and release packer.
6. TOOH. SB all of 2-1/16" tbg. LD packer.
7. PU and RIH with a bit and scrapper (3-1/2" 7.7#) on 2-1/16" tbg to 7180'. TOOH and SB tbg. LD bit and scrapper.
8. RU Wireline. PU CIBP for 3-1/2" 7.7 lb/ft casing and RIH and set at 7160'. POOH. RD wireline.
9. RU hydrotesters. TIH with 2-1/16" tubing to CIBP at 7160' while hydrotesting in to 3000 psi. RD hydrotesters.
10. Establish circulation with clean fresh water with biocide and circulate all gas out of the hole. Pressure test CIBP to 1000 psi for 15 minutes.
11. RU Cementers. Pump Niobrara Balanced Plug: 20 sx (25 ft³) assumed at 15.8 ppg and 1.55 ft³/sk. The plug will cover 7160' - 6560'. Volume based on 591' in 3-1/2" casing w/ no excess. RD cementers.
12. Slowly pull out of the cement and PUH to 6160'. Reverse circulate tubing clean with fresh water to ensure no cement is left in the tubing.
13. PUH to 4500'. LD remainder.
14. Establish circulation with clean fresh water with biocide.
15. RU Cementers. Pump Sussex Balance Plug: 25 sxs (29 cf) 15.8 ppg & 1.18 cf/sk. Volume is based on 410' inside 3-1/2" production casing. The plug will cover from 4500' - 4090'. RD cementers.
16. Slowly pull out of the cement and PUH to 3500'. Reverse circulate to ensure no cement is left in the tbg. TOOH and SB 1000' tbg.
17. RU WL. RIH and cut 3-1/2" casing at 260'. RD WL.
18. Circulate with fresh water containing biocide to remove any gas.
19. Un-land casing using a casing spear, not a lifting sub. Max pull shall be 100,000#. If unable to unland, contact Engineering.
20. ND BOP. ND TH. Install BOP on casing head with 3-1/2" pipe rams.
21. TOOH and LD all 3-1/2" casing. Remove 3-1/2" pipe rams and install 2-1/16" pipe rams.
22. RIH with 2-1/16" tubing to 1000' and establish circulation.

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23. RU Cementers. Pump Stub Plug: 85 sxs (99 cf) 15.8 ppg and 1.16 cf/sk. Volume is based on 740' inside the 3.5" csg, and 160' in 8 5/8 surface casing. Cement will be from 1000' – 100'. RD cementers. Notify Engineering if circulation is ever lost during job.
24. Slowly pull out of the cement and PUH to 100' left in hole. Circulate using biocide treated fresh water to ensure no cement is left in the tubing. TOOH. LD all tbg.
25. RU WL. RIH 8-5/8" 24# CIBP to 80'. RDMO WL and WO rig.
26. Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hours of completion of the job.
27. Supervisor submit paper copies of all invoices, logs, and reports to Evans Engineering Specialist.
28. Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
29. Capping crew will set and secure night cap on 8 5/8" casing head, restrain the casing head, pressure test CIBP to 500 psi with hydrotest pump, then remove night cap and casing head restraints.
30. Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
31. Welder cut casing minimum 5' below ground level.
32. Fill casing to surface using 4500 psi compressive strength cement (NO gravel).
33. Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
34. Obtain GPS location data as per COGCC Rule 215 and send to rscDJVendors@anadarko.com.
35. Properly abandon flow lines per Rule 1103. File electronic Form 42 once abandonment is complete.
36. Back fill hole with fill. Clean location, and level.
37. Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.