

## PLUG AND ABANDONMENT PROCEDURE

### SASAKI 1-18A

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.). Call Automation Removal Group at least 48 hours prior to rig move. Request they isolate production equipment and remove any automation prior to rig MIRU.
2. MIRU slickline. Pull bumper spring and tag bottom. Record tag depth in Open Wells.
3. Run gyro from 8100' to surface, making stops every 100'. RD slickline.
4. Prepare location for base beam equipped rig, install perimeter fence as needed.
5. 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.
6. Contact the On-Call Engineer to discuss bradenhead pressure upon rig-up to determine if additional action needs to be taken beyond what the procedure proposes.
7. Spot 15 jts of 2-3/8", 4.7 lb/ft, J-55 8RD EUE tubing
8. MIRU WO rig. Kill well as necessary using clean fresh water with biocide.
9. ND WH. NU BOP. Unland 2-3/8" tubing using unlanding joint and LD.
10. TOOH with 2-3/8" tubing and SB 7410' of tubing. LD remainder.
11. MIRU WL. PU gauge ring for 4-1/2", 11.6 lb/ft casing and RIH to 8090'. POOH.
12. PU CIBP for 4-1/2", 11.6 lb/ft casing and RIH and set at 8085' (collars located at 8067' and 8110'). POOH.
13. PU and RIH to dump bail 2 sx of cement on top of CIBP set at 8085'. POOH.
14. PU CIBP for 4-1/2", 11.6 lb/ft casing and RIH and set at 7410' (collars located at 7390' and 7432'). POOH.
15. RU hydrotesters. TIH with 2-3/8" tubing to 7410' while hydrotesting in to 3000 psi. RD hydrotesters.
16. Load hole and circulate out all gas.
17. Pressure test casing to 1000 psi for 15 minutes. **Monitor Bradenhead pressure during test. Contact the on-call engineer if the Bradenhead pressure is affected by the casing test.**
18. RU Cementers. Pump Niobrara Balanced Plug: 25 sx (35 ft<sup>3</sup>) assumed at 15.8 ppg and 1.53 ft<sup>3</sup>/sk. The plug will cover 7410'- 7010'. Volume based on 400' in 4-1/2" casing w/ no excess. RD cementers.
19. Slowly pull out of the cement and PUH to 6800'. Circulate tubing clean with fresh water to ensure no cement is left in the tubing.
20. PUH with 2-3/8" tubing to 4990'. LD remaining tubing.
21. RU Cementers. Pump Sussex Balance Plug: 40 sx (42.4 cu.ft.) assumed at 15.8 ppg & 1.18 ft<sup>3</sup>/sk. The plug will cover 4990'- 4505'. Volume based on 485' in 4-1/2" casing w/ no excess. RD cementers.
22. Slowly pull out of the cement and PUH to 4300'. Reverse circulate tubing clean with fresh water to ensure no cement is left in the tubing.
23. TOOH, SB 1565' of 2-3/8" tubing; LD remaining tubing.
24. RU WL with jet cutter. RIH and cut 4-1/2" casing at 1465'. RD WL.

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25. Circulate with clean fresh water with biocide to remove any gas.
26. ND BOP. ND TH. Un-land casing using a casing spear, not a lifting sub. Max pull shall be 100,000#. If unable to unland, contact Engineering.
27. Install BOP on casing head with 4-1/2" pipe rams.
28. TOOH and LD 1465' of 4-1/2" casing. Remove 4-1/2" pipe rams and install 2-3/8" pipe rams.
29. TIH with 2-3/8" tubing to 1565'.
30. Establish circulation with biocide treated water, get bottoms up twice (127 bbls).
31. RU cementers. Precede cement with 10 bbls (min) SAPP followed by a 20 bbl fresh water spacer.  
**Pump Stub Plug:** 310 sx (354.1 ft<sup>3</sup>) with Polyflake, assumed at 15.8 ppg & 1.16 cf/sk (100' in 4-1/2" production casing with no excess, 505' in 7.88" OH with 60% excess, and 200' in 8-5/8" surface casing). The estimated plug will cover 1565' – 760'. RD cementers.
32. Slowly pull out of cement and PUH to 500'. SB tbg. Circulate to ensure no cement is left in the tubing.
33. TOOH and LD remaining tubing.
34. WOC per cement company recommendation. RU WL. Tag cement. Cement top is estimated to be at or above 910' (50' above surface casing shoe located at 960'). Contact the on-call engineer with tag depth to determine appropriate coverage. TOOH. LD remaining tbg.
35. RIH 8-5/8", 24# CIBP to 80'. RDMO wireline and WO rig.
36. Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to [rscDJVendors@anadarko.com](mailto:rscDJVendors@anadarko.com) within 24 hours of completion of the job.
37. Supervisor submit paper copies of all invoices, logs, and reports to the engineering Specialist.
38. Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
39. 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.
40. Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
41. Welder cut casing minimum 5' below ground level.
42. Fill casing to surface using 4500 psi compressive strength cement (NO gravel).
43. Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
44. Obtain GPS location data as per COGCC Rule 215 and send to [rscDJVendors@anadarko.com](mailto:rscDJVendors@anadarko.com).
45. Properly abandon flow lines per Rule 1103. File electronic Form 42 once abandonment is complete.
46. Back fill hole with fill. Clean location, and level.
47. Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.