

## **F Wilson 8**

API: 05-081-05543

### **Proposed plugging procedure**

1. Prior to job, notify Colorado Division of Water Resources of plugging operations and schedule for an inspector to be present on location with at least 48-hour notice.
2. Daily and prior to change in job objective, a JSA must be filled out and records kept.
  - All contractors on location must verify and sign-off on JSA that all equipment is in good working order and no leaks are present on any piece of equipment.
3. MIRU contract workover rig with pipe racks, catwalk, rig pump, rig tank and cement returns tank.
4. Move in and spot one 400 bbl tank and fill with fresh water.
5. Receive delivery of at least 2,200' of 2-3/8" tubing to be used as work string.
6. Lay flow lines from the wellhead to the rig pump and tanks.
7. Check and record tubing pressure and casing pressure. Bleed-off any pressures to rig tank.
8. Top kill well down tubing as needed for well control.
9. ND production tree. Install a 7-1/16" 5K psi hydraulically operated double gate BOP equipped with 2-7/8" pipe rams in the top gate and blind rams in the bottom gate. Function test both rams. Hook up a flow line from the BOP to the rig tank.
  - Tubing spool is a Hercules HHS 7" x 2-1/2" X 6R.
10. POOH laying down. Scan for NORM radiation and send to junk.
11. Change to 2-3/8" pipe rams.
12. MU a bit and scraper dressed for 7" 20# casing and cleanout casing to CIBP at 2,200'. POOH and break off bit and scraper.
13. If no CBL can be found, then move in wireline and run cement bond log to top perforation. Send log for processing.
14. MU packer dressed for 7" 20# casing.
  - RIH and test CIBP to 1,100 psi.
  - Hold pressure for 15 minutes.
  - Release pressure, and un-set packer.
  - Pull packer above the perforations.
15. Re-set the packer at +/- 1,670'.
  - Load the tubing with fresh water.

- Establish injectivity into the formation using 5-10 bbls of water at a rate of 1 BPM.
16. POOH standing back tubing on derrick and lay down packer.

#### Plug 1 (Squeeze Wasatch Perforations) & Spacer 1

17. MU to WL a cast iron cement retainer (CICR), RIH and set it at 1,685' (50' above perforations).
18. RIH with 2-7/8" work string and sting into retainer.
19. Load the backside and ensure that communication does exist with the tubing. Pressure test backside to 500 psi.
- If casing will not test, notify engineering. Casing holes will be located after perforations have been squeezed.
20. Rig up cementers. Establish an injection rate and pressure through the CICR with at least the tubing volume.
- If no injection rate can be established, then contact Engineering.
21. Sting out of CICR. Mix 148 sacks ( $\pm$  30 bbl) of Class G cement and displace to end of tubing.
22. Sting into the retainer and squeeze the perforations with 136 sacks ( $\pm$  28 bbl) of cement below the CICR.
23. Sting out and slowly POOH to 1,590'. Reverse circulate out any remaining cement leaving 12 sacks ( $\pm$  2 bbl) on top of the retainer. Reverse circulate until clean returns at tank are observed.
24. Mix and spot 9 ppg Poz Gel from 1,590' to 1,140' ( $\pm$  18 bbl).
25. POOH laying down tubing to 1,140'.

#### Plug 2 (Balanced Plug Across TOC)

26. Lay a 120' balanced cement plug from 1,140' to 1,020' with 25 sacks ( $\pm$  5 bbl).
27. Mix and spot 9 ppg Poz Gel from 1,020' to 340' ( $\pm$  28 bbl).
28. POOH laying down to surface.

#### Plug 3 (Surface Casing Shoe and Surface Cap)

29. Rig up wireline and RIH with circulating gun loaded with 4 shot per foot at 0 degree phasing. Perforate casing @ 340' (62' below surface casing shoe). POOH with WL and RD.
30. Shut blind rams and attempt to circulate down the 7" casing and up 10-3/4" annulus. If circulation is established, then circulate 1.5 times the hole volume or until clean returns.
- 7" casing volume @ 340' is 14 bbl.
  - 7" x 10-3/4" annular volume @ 340' is 17 bbl.
  - Hole volume @ 340' is 31 bbl.
31. Mix and pump 195 sacks ( $\pm$  40 bbl) of Class G cement to surface. If no cement to surface, then continue to mix and pump cement until cement is returned to surface.
32. Once cement to surface, shut down pumps, isolate well and BO lines.
33. PU and RIH with pups to 6' below GL and reverse out cement for casing cut.

34. MU internal casing cutter and RIH 4' below GL. Hook up to swivel. Engage cutter and cut 7" casing.
35. Once cut, POOH and BO tools.
36. Nipple down the BOP. Remove the tubing spool and casing valves.
37. Rig down and move off all rig and rental equipment.
38. Excavate around wellhead and remove cellar ring. May be necessary to breakout cement to expose casing below spool.
39. Cut off casing head 4' below ground level.
40. As needed, top off cement in exposed casing strings.
41. Install a regulation dry hole marker on casing stub. Note the GPS coordinates of the wellbore location for future reference.
42. Backfill around the dry hole marker.
43. Reclaim location per Federal and State requirements.