

API# 05-123-07350
Rig/ Sup Bohler/Eisenach
Job Type Re-entry P&A
AFE# 2022CO01-08, 2023CO46-52 Split



Month of July 2023
Location: NESE 35 10N59W 6 PM

Hallet #1 (N)

Well Info

- Surface: 8-5/8" 20# @ 120'. Cement: Surface VISU
- Production: 4-1/2" 10.5# @ 6,956'. Top: 1,000'. 7-7/8" OH
- KB: 09'. Last W/O 07/09/1974 (P&A)
- Using 20% excess cement for all open hole/behind pipe plugs

Procedure

**** Verdad will be using a closed-loop recirculating returns system consisting of shaker tank, mud tank, cuttings bin, and a utility tank to divert fluid to for solids to settle out, fluid for disposal, etc. ****

1. File Form 42 2 days prior for P&A ops, notify COGCC field engineer of ops commencing
2. Familiarize all personnel with allowed access to location and areas allowed to be disturbed
3. Secure permission to access area and identify prospective well locations via satellite and survey data
4. Verify well location and excavate well
5. Once permission to begin work is secure, excavate area around well to sufficient size for safe access of casing, verify casing size, cut off cap, weld on slip collar w/ wellhead and riser, set cellar ring and back-fill
6. MIRU WO rig and beam, BOP, accumulator, rig pump, shaker tank, rig tank, 9.5ppg water-based mud, pipe float, 3-1/8" collars, 2-3/8" EUE work string, power swivel
7. Rig up tubing tools, NU BHA and function test
8. Make up BHA consisting of: 2-3/8" EUE string, 2x 3-1/8" drill collars, float, and 7-7/8" roller-cone bit
9. RIH and drill out previous cement plug from estimated 0-15'
10. Wash or ream in 8-5/8" cased hole to 100'
11. Tag surface shoe cement plug and drill out plug and rock bridge from 100' to 120'
12. Wash or ream in 7-7/8" open hole to 1000'. Tag casing stub to confirm depth
13. Circulate and condition hole
14. TOOH to pick up dressing bit consisting of: 2-3/8" EUE string, 2x 3-1/8" drill collars, float, and 7-5/8" skirted mill bit
15. RIH to 1000' and dress off 2' top of casing
16. Circulate and condition hole. POOH w/ tubing and milling assembly
17. MU casing tools and run 5-1/2" 15.5# casing with full open overshoot with grapple and packoff set for 4-1/2" casing to 1000'
18. Stab onto casing stub with overshoot and work over casing. Engage overshoot and land casing
19. Make up BHA consisting of: 2-3/8" EUE string, float, 3-7/8" tricone mill and RIH to bottom of well @ 6745', tagging top of cement plug
20. Circulate and condition hole



API# 05-123-07350

Rig/ Sup Bohler/Eisenach

Job Type Re-entry P&A

AFE# 2022CO01-08, 2023CO46-52 Split

Month of July 2023

Location: NESE 35 10N59W 6 PM

21. MIRU cementers and pump 15 sks of Class G, 15.8 ppg, 1.15 yield cement from 6,745' – 6,595' to isolate the D Sand Formation. Displace and POOH through cement and release cementers and TOOH w/ tubing
22. RU WL, load hole and run CBL from deepest point to surface, this will determine where and if we need to annulus cement coverage
23. TIH w/ perforating guns and shoot 4 holes @ 6,040'. TOOH w/ perf guns. TIH w/ 4-1/2" 10.5# CICR and set @ 5,840' MD. TOOH w/ setting tool and RD WL
24. TIH w/ tbg and sting into CICR. Mix and pump 55 sks of Class G, 15.8 ppg, 1.15 yield cement into CICR. Pull out of CICR and leave 15 sks of Class G, 15.8 ppg, 1.15 yield cement on top of CICR. This will isolate the Niobrara Formation
25. Displace cement and POOH to 2,550', circulate and condition hole. POOH to surface
26. RU WL and TIH w/ perforating guns and shoot 4 holes @ 2,550'. TOOH w/ perf guns. TIH w/ 4-1/2" 10.5# CICR and set @ 2,500' MD. TOOH w/ setting tool and RD WL
27. TIH w/ tbg and sting into CICR. Mix and pump 55 sks of Class G, 15.8 ppg, 1.15 yield cement into CICR. Pull out of CICR and leave 15 sks of Class G, 15.8 ppg, 1.15 yield cement on top of CICR. This will isolate the Upper Pierre Formation
28. POOH to 1,050', circulate and condition hole
29. ND WH, unland casing and back off grapple and TOOH w/ 1,000' 5-1/2" 15.5# casing, NU WH
30. MU 4-3/4" Tricone mill, XO, string float, 2-3/8" EUE string and TIH to 605'
31. Prior to placing the Fox Hills Aquifer plug, verify that all fluid (liquid and gas) migration has been eliminated. If evidence of fluid migration or pressure remains, contact engineer to verify with the COGCC for an update to plugging orders
32. If no fluid migration, RU cementers and pump 75 sks of Class G, 15.8 ppg, 1.15 yield cement from 605' – 405' to isolate the Fox Hills Aquifer. Displace and POOH through cement and release cementers, POOH to surface
33. WOC 4 hours or otherwise advised by cementers and tag cement. If not tagged at or above 455', contact engineer. May require additional cement
34. POOH to 170', circulate and condition hole. RU cementers and pump cement until returns taken to surface, 60 sks of Class G, 15.8 ppg, 1.15 yield cement estimated. Once good returns taken, SD cement and POOH. Top off as necessary
35. RDMO cementers, rig, and supporting equipment. Tidy location and prep for reclamation
36. After 5 days, verify TOC is within 5' of surface. Top off if needed. Excavate cellar ring and wellhead, cut off casing 6' below ground level and weld on cap with full legal description welded onto plate. Back fill hole
37. Reclaim location
38. Submit Form 6 Subsequent and Form 42 for completion of COA