

## Plugging Procedure

McCartney Engineering, LLC - HSR-Fulenwider #4-10 - NWNW 10-T2S-R66W 6PM - Adams County, CO

API 05-001-09283  
KB: 5180' GL: 5190'  
8 5/8" 24# csg 1621'  
4 1/2" 11.6# csg @ 8437'  
Perforations: 8291' – 8332'

Procedure for the HSR-Fulenwider #4-10 is as follows:

1. Blow down well, kill with water.
2. RU BOP.
3. Pull tubing.
4. PU CIBP with tubing, TIH to **8050'**.
5. Set CIBP at 8050' (241' above perforations).
6. Fill hole with water (**115 BBLs**), pressure test to **300 psi** for 15 min.
7. RU cementers, place **60 sks** on top of CIBP through tubing.
8. Pull and lay down tubing standing back **23** stands in derrick (approximately 1450')
9. Fill hole with water.
10. Perforate @ **1671'** KB, establish circulation (**50 bbls** for full displacement).
11. Pump **50 sks** balanced plug, minimum of 50' into surface casing.
12. WOC, tag plug (must be **1571'** or shallower).
13. Perforate at **500'**.
14. Cement down 4 1/2" csg through perforations @ 500' until cement reaches surface in annulus (approximately **150 sks**).
15. RD cementers, clean hoses & equipment.
16. Flush flow line with water.
17. Top off cement in 4 1/2" casing if necessary.
18. Rig down, move out rig.
19. Cut off casing strings at 4', weld on cap with weep hole.
20. Flush flow line with water, cut off flow line and cap at well site and battery.
21. Properly abandon flowlines at battery and associated gas flow line.
22. Clean up location.

Water Requirements: About **280 bbls**, 65 bbls for cementing operations, 115 – 150 bbls for filling hole, circulating.