

Roth 4-7
40.594716 / -104.028090
05-123-14509

Roth 4-7 Procedure

1. Survey and locate plugged wellbore. Set a stake and record as-drilled GPS coordinates.
2. Excavate around wellbore to expose the top of the surface casing.
3. Cut existing cap off wellbore. Weld a slip collar to 8-5/8" casing and necessary length of casing to reach ground level. Weld another 8-5/8" slip collar.
4. MIRU workover rig.
5. Install wellhead and BOP. Test BOP.
6. PU and RIH with 6-1/4" tricone bit, 10 3-1/2" drill collars, and 2-7/8", 6.5#, L80, EUE workstring.
7. Drill out 1st surface cement plug and circulate hole clean.
8. Continue drilling or RIH to top of 2nd surface casing plug. Record depth of plug.
9. Pressure test surface casing to 250 psi. If surface casing fails pressure test, contact engineer and hunt holes.
10. After pressure test of surface casing, drill out surface casing plug. If pressure is encountered below surface casing plug, circulate hole with mud or kill fluid until well is dead or blown down.
11. POOH and LD 6-1/4" tricone bit.
12. PU and RIH with mule shoe and 2-7/8" L80 tubing down to 6825'.
13. RU cement crew, pressure test lines to 4,500 psi, and spot plug from 6825'-6675' with class G cement (50 sks) to cover the D Sand formation.
14. POOH and spot plug from 6144'-5844' with class G cement (100 sks) to cover the Niobrara formation.
 - a. **FROM THIS POINT MOVING FORWARD:** Must wait a sufficient time on all subsequent plugs to confirm static conditions. If at any time after placing this plug there is evidence of pressure or of fluid migration, contact engineer before continuing operations.
15. POOH to surface casing. Wait 4 hours and tag TOC. Record tag depth. If tag is deeper than 5944', contact engineer.
16. POOH and spot plug from 1644'-1467' with class G cement (50 sks) to cover the Pierre formation.
17. POOH to surface casing. Wait 4 hours and tag TOC. Record tag depth. If tag is deeper than 1517', contact engineer.
18. POOH and spot plug from 423' to surface with class G cement (142 sks).
19. POOH and wait 4 hours. Tag TOC if not set at surface. Record tag depth. If tag is deeper than 209', contact engineer.
20. RDMO. Top off cement after rig has moved, if necessary.
21. After surface plug has set, cut casing to 5' below ground level and weld on a plate to seal the well.
22. Inscribe the well's legal location, well name and number, and API number on the plate as shown:

860' FNL, 790' FWL, NW/NW Sec 7, T7N, R59W
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23. Photograph welded name plate and send to engineer before proceeding.
24. After confirmation from engineer is received, backfill hole and reclaim surface to original conditions.
25. Cover up the well and remediate the disturbed area.

Roth 4-7 Cement Plug Table

CEMENT PLUG TABLE													
Plug Number	Plug Status	Plug Location	Formation	Plug Bottom Depth	Plug Top Depth	Cement Class	Yield (ft ³ /sk)	Number of Sacks		Must Be Tagged?	Maximum Tag Depth	New Sks Required	New Sks Required w/ (10% SF)
1	New	Open Hole	D Sand	6825'	6675'	G	1.15	50		No	N/A	342	376
2	New	Open Hole	Niobrara	6144'	5844'	G	1.15	100		Yes	5944'		
3	New	Open Hole	Pierre	1617'	1467'	G	1.15	50		Yes	1517'		
4.1	New	Open Hole	Fresh Water	423'	259'	G	1.15	53	142	Possibly	209'		
4.2	New	Casing	Fresh Water	259'	Surface	G	1.15	89					