

Summary of Re-entry and Re-plugging Operations (Government Doty 1)

1. Survey and locate plugged wellbore. Set a stake and record as-drilled GPS coordinates.
2. Excavate to original 8-5/8" casing. Cut original P&A marker off at 8-5/8" casing. Weld 8-5/8" slip collar, sufficient 8-5/8" casing to reach ground level, and 8-5/8" slip collar. Weld slip collar on the 4-1/2" casing and bring to surface; land in 8-5/8" by 4-1/2" head.
3. MIRU workover rig. NU wellhead and 5k BOP. Test BOP.
4. PU and RIH with 3-7/8" tricone bit, 10 2-7/8" drill collars, and 2-3/8", 6.5#, L80, EUE workstring. Drill out surface cement plug and circulate hole clean.
5. Continue drilling or RIH to top of surface casing plug. Record depth of plug. Pressure test surface casing to 250 psi. If surface casing fails pressure test, contact engineer.
6. 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.
7. Continue drilling or RIH, cleaning out with drilling mud or water to existing plug at +/-6790'. Record plug depth and TOOH. LD bit and 2-7/8" workstring. If no plug is tagged by 6820', TOOH.
8. PU and RIH with mule shoe and 2-3/8" L80 tubing. RU cement crew, pressure test lines to 4,500 psi, shoot holes in casing and pump cement through a retainer, squeezing cement into the annulus and setting a plug from 6790'-5930', 135 sks 15.8 ppg Class G neat cement. Cover the NIO formation.
9. POOH, shoot holes in casing and pump cement through a retainer, squeezing cement into the annulus and setting a plug from 4660'-4460', 65 sks 15.8 ppg Class G neat cement. Covering the Shannon formation.
10. POOH, shoot holes in casing and pump cement through a retainer, squeezing cement into the annulus and setting a plug from 4075'-3875', 65 sks 15.8 ppg Class G neat cement. Covering the Sussex formation.
11. POOH, shoot holes in casing and pump cement through a retainer, squeezing cement into the annulus and setting a plug from 1600'-1500', 32 sks 15.8 ppg Class G neat cement. Covering the Upper Pierre formation.
12. POOH, shoot holes in casing and pump cement, squeezing cement into the annulus and circulating from 520'-surface', 169 sks 15.8 ppg Class G neat cement. Covering the Fox Hills formation and Surface.
13. Once surface plug has set, cut casing to 5' below ground level and weld on a plate to seal the well. Inscribe the company name, well's legal location, and well name and number on the plate, as shown below.
14. Backfill hole and reclaim surface to original conditions.