

RE-ENTER AND PLUG AND ABANDONMENT PROCEDURE

Brethawer Jake B 1

Step	Description of Work
1	Locate and expose 8 5/8" casing stub. Extend stub to surface and install 8 5/8"x 11" SOW, 3M casing head with 3000 psi ball valves in both outlets. Prepare location for workover rig. Install perimeter fence as needed.
2	Provide notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.).
3	MIRU workover rig. NU 9" 3000 psi BOP stack on casing head. PT BOP and csg head per approved Form 2. Function test BOPE. NU rotating head on BOP. Hook up return line to shale shaker on flat tank
4	PU 7 7/8" mill tooth bit, necessary drill collars and drill pipe/work string (WS). Drill through existing cement plugs at surface (10 sk) and at the base of surface casing (100 sk plug ~485' to ~590') using fresh water with biocide.
5	Once surface cement plugs are drilled, Displace hole with drilling mud and continue washing down to cement plug at ~4040'
6	TOH with WS and bit. RIH with WS open-ended to top of cement plug at ~ 4040'. Circulate and condition hole for additional cement plug.
7	Run gyro survey from ~4040' to surface. Forward results to Evans Engineering.
8	RU Cementers. Spot cement plug consisting of 200 sx "G" w/0.25pps cello flake, 0.4 % CD-32, 0.4% ASA-301 and CaCl ₂ as deemed necessary. POOH to ~3000' and circulate clean. WOC per cement company recommendation. Plug size is based on 13" hole plus 20% excess. Coverage from 4040' to 3840'
9	Tag top of plug at ~3840'. LD WS to place end of WS at ~780'. Spot cement plug consisting of 270 sx Type III w/0.25pps cello flake and CaCl ₂ as deemed necessary, mixed at 1.53 cf per sack, 14.0 ppg. POH and WOC per cementing company recommendation. Plug size is based on 13" hole with 20% excess covering 780' to base of surface casing at 537' plus capacity of surface casing to 337'.
10	Tag top of plug at ~337'. POOH and LD WS.
11	RU wireline. Run and set CIBP in the 8 5/8", 24# surface casing at 100'. PT CIBP and surface casing to 1000 psi for 15 minutes. Assuming successful test, RD wireline.
12	RDMO workover rig.
13	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hrs of completion of the job.
14	Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.

- 15 Excavate hole around surface casing of sufficient size to allow welder to cut off 8 5/8" casing at least 5' Below ground level (depending on land owner requirements).
- 16 Fill sfc casing with 4500 psi compressive strength redi-mix cement (sand and cement only - no gravel)
- 17 Spot weld steel marker plate on top of sfc casing stub. Marker shall be labeled with well name, well number, legal location (1/4 1/4 descriptor) and API number.
- 18 Back fill hole with native material. Reclaim location to landowner specifications
- 19 Submit Form 6 to COGCC. Provide "As plugged" wellbore diagram identifying the specific plugging completed.