

**Citation Oil & Gas Corp
Weco-Ted 11-3 1
Longhorn Gulch Field
Cheyenne County, CO**

Current Information

Total Depth: 5,218'
Plug Back Total Depth: **5,165'**
Surface Casing: 8 5/8" 24 # @ 687' 450 SX CMT
Production Casing: 5 1/2" 15.5# 250 SX CMT
Completion: *Morrow Perfs 5,070'-80'*
Suspected Problem: Uneconomic P&A

Plug and Abandon Procedure

All Calculations Use Class A Cement

Yielding 1.15 Cu.Ft/SX

Check with Chosen Cement Company to Confirm Correct Volumes

1. MIRU SU
2. PU Free Point tool, TIH Free point TBG, Report info back to Engineer, TOH w/ Free Point tool, RD MO Free Point
3. MIRU Cement TRK
4. Pump 300 gal. 15% HCL, followed by 1/2 bbl spacer followed by 40 sx CMT. or Vol CMT to fill CSG, CSG-TBG annulus and TBG to depth where TBG is hung at. *Whichever vol. is greater*
5. SI. W.O.C to cure
6. PU TIH w/ TBG cutting tool, Cut TBG 5' above free point. TOH w/ cutting tool
7. MIRU CMT TRK, PU TBG ~10', Pump 60 sx CMT plug or vol. CMT to fill casing from TBG stuck point to 4,300' *Whichever Vol. is greater.*
8. TOH w/ TBG, MIRU WL, TIH w/ Perf Gun Perf intervals: **2,144'-45', 1,660'-61' & 750'-51'** w/ **4 SPF 90 Phasing Angle Perf Gun**, TOH w/ spent guns
9. Open Bradenhead
10. PU TBG & 5 1/2" PKR, TIH to **2,120'**, set PKR & **SQZ 40sx CMT Behind Pipe**, Release PKR **Spot 10 sx CMT across Perfs.** TOH to 1,640'

11. Set PKR at **1,640'** & **SQZ 40sx CMT Behind Pipe**, Release PKR **Spot 10 sx CMT across Perfs.** TOH to 725'
12. Set PKR at **725'** & **SQZ 115sx CMT Behind Pipe to Surf.**, Release PKR **Spot 80 sx CMT to Surf.**
 - a. **If not able to SQZ 115 sx CMT to Surf**, Hook on to 5 ½" CSG and **pump 115sx down backside.**
13. RDMO CMT TRK
14. SI well and WOC to Cure.
15. ND cementing valves and cut off wellhead. Fill 5.5" casing with cement as necessary. Install P&A marker to comply with regulations. RDMO and restore location.