



## Recommended Procedure

## Plug and Abandonment

<b>Operator:</b>	HRM Resources, LLC		
<b>Well Name:</b>	Verla Small #2-17		
<b>Legal:</b>	NENE, Section 17, Township 2 South, Range 63 West		
<b>Location:</b>	Adams County, Colorado		
<b>GPS:</b>	39.88028, -104.4557		
<b>API:</b>	05-001-08924		
<b>Surface:</b>	8-5/8" 24# at 219'	<b>Hole size:</b> 12-1/4"	<b>TOC:</b> Surface
<b>Production:</b>	4-1/2" 10.5# at 7,720'	<b>Hole size:</b> 7-7/8"	<b>TOC:</b> 6,996' (CBL)
<b>Perforations:</b>	7,558' – 7,624' (J Sand)		
<b>TD:</b>	7,700'		

**\*Procedure is based off of wellbore information. This is not a final procedure\***

1. Conduct pre-job safety meeting and complete daily JSA
2. Prior to MIRU, check rig anchors and blow down well if necessary
3. Dig out around wellhead and check surface annulus for pressure  
(If present call Terry Pape #970-768-5700 and Craig Owen #970-646-3933 for orders)
4. MIRU P&A equipment, NDWH, NUBOP
5. TOH and tally 2-3/8" tubing (inspecting for damage), stand back
6. RU wireline, PU 4-1/2" 10.5# JC/GR, TIH to 7,508', TOH
7. PU 4-1/2" 10.5#, 10K, CIBP, TIH and set at 7,508', TOH
8. TIH and CDB 2 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement on top, TOH  
(2 sxs is 26' in 4-1/2", TOC: 7,483')
9. Load and pressure test casing to 500 psi. for 5 minutes  
(If pressure test fails, call Terry Pape and Craig Owen)

Note: If casing pressure test fails (step 9) additional steps/services required by the COGCC/BLM are not included in this bid and will be billed per our 2017 Time and Material Price Schedule.

10. TIH and perforate casing at 6,450', (300' above top of Niobrara), TOH
11. Establish IR into perforations (if no injection rate, perf at 6,250'), RD wireline
12. PU 4-1/2" 10.5#, 10K, CICR, TIH and set at 6,400', establish IR/circulation
13. Pump 50 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover Niobrara  
(41 sxs under CICR and 9 sxs on top of CICR)  
(4 sxs is 51' in 4-1/2" 37 sxs is 186' in 4-1/2" x 7-7/8", 9 sxs is 118' in 4-1/2", TOC: 6,941')
14. TOH, RU wireline, TIH and cut casing at 1,200', TOH, RD wireline
15. RU casing equipment, TOH and LD casing, RD casing equipment
16. TIH to 1,250' (50' inside casing stub/100' below Fox Hills)
17. Pump 50 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover DV/Laramie Fox Hills  
(4 sxs is 51' in 4-1/2", 46 sxs is 156' in 7-7/8", TOC: 1,044')
18. TOH and LD to 800', establish circulation to surface
19. Pump 50 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover Lower/Upper Arapahoe  
(50 sxs is 170' in 7-7/8", TOC: 630')
20. TOH and LD to 400', establish circulation to surface
21. Pump 122 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to surface covering Denver
22. TOH and LD tubing, RDMO, dig out and cut off wellhead, verify cement at surface, top off if necessary
23. Weld info plate onto casing, backfill pit, clean location, P&A complete