



## Recommended Procedure

## Plug and Abandonment

<b>Operator:</b>	Energy Search Company		
<b>Well name:</b>	Smith Ginther #1		
<b>Legal:</b>	NENW, Section 20, Township 1 South, Range 67 West		
<b>Location:</b>	Adams County, Colorado		
<b>GPS:</b>	39.955735, -104.915072		
<b>API:</b>	05-001-07287		
<b>Surface:</b>	8-5/8" 24# at 222'	<b>Hole size:</b> 12-1/4"	<b>TOC:</b> Surface
<b>Production:</b>	4-1/2" 10.5# at 5,370'	<b>Hole size:</b> 7-7/8"	<b>TOC:</b> 4,360' (Calculated)
<b>Perforations:</b>	5,234' – 5,260'; (Sussex)		
<b>TD:</b>	5,370'		

**\*Procedure based off of completion reports and well history, NOT a final procedure\***

**\*Fox Hills data off of adjacent wells\***

1. Conduct pre-job safety meeting and complete daily JSA
2. Prior to MIRU, check rig anchors for certifications, and record initial shut in pressures for tubing/casing.
3. Blow down well/kill if necessary
4. Dig out around wellhead and check and record surface casing pressure  
(If present call Jack McCartney #303-830-7208 and Craig Owen #970-646-3933 for orders)
5. Attempt to pump down surface casing to verify that there is no cement at surface casing shoe  
(If unable to pump down surface casing call Jack McCartney and Craig Owen for orders)
6. MIRU P&A equipment, NDWH, NUBOP
7. TOH with production equipment standing back 1,560' to derrick.
8. RU wireline, PU 4-1/2", 10.5#, 10K, CIBP, TIH and set at 5,184' (50' above topmost Sussex perf), TOH
9. TIH and CDB 2 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement on top, TOH, RD wireline  
(2 sxs is 25' in 4-1/2", TOC: 5,159')
10. Pressure test casing to 500 psi for 5 minutes  
(If test fails call Craig Owen for orders)

Note: If casing pressure test fails (step 10) additional steps/services required by the COGCC/BLM are not included in this bid and will be billed per our 2016 Time and Material Price Schedule.

11. RU casing equipment, un-land casing, Stretch and determine free-point
12. RU wireline, TIH and cut casing at 1,510' (50' below estimated bottom of Fox Hills), TOH, RD wireline
13. TOH and LD casing, RD casing equipment
14. TIH to 1,560' (50' inside casing stub), Establish circulation to surface
15. Pump 75 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover stub and bottom of Fox Hills  
(4 sxs is 50' in 4-1/2", 71 sxs is 241' in 7-7/8", TOC: 1,269', Bottom of Fox Hills is 1,460')
16. TOH and WOC 4 hours, TIH and tag TOC at 1,360' or shallower  
(If TOC is below 1,360' call Jack McCartney and Craig Owen for orders)
17. TOH to 650' (50' below bottom of Lower Arapahoe), Establish circulation to surface
18. Pump 50 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to cover bottom of Lower Arapahoe  
(50 sxs is 170' in 7-7/8", TOC: 480', Bottom of Lower Arapahoe is 600')
19. TOH and WOC 4 hours, TIH and tag TOC at 550' or shallower  
(If TOC is below 540' call Jack McCartney and Craig Owen for orders)
20. TOH and LD to 272' (50' below surface casing shoe), Establish circulation to surface
21. Circulate 84 sxs of 15.8# class G neat 1.15 cu.ft./sack yield cement to surface
22. TOH and LD tubing, RDMO, Dig out and cut off wellhead, Verify cement at surface, Top off if necessary
23. Weld on cap with ID plate, backfill, clean location, P&A complete