



Plug to Abandon Procedure

Well Name: Horseshoe Canyon 3-28

Prepared By: _____

**Wayne P. Bankert
Reg. & Env. Manager**

Horseshoe Canyon 3-28
Workover Procedure

COMPLETIONS SUMMARY

WELL NAME: Horseshoe Canyon 3-28 (HSC 3-28)

API # 05-077-08656-00 **FED LEASE:** COC-013788

DESCRIPTION / OBJECTIVE: MIRU Service rig to Plug to Abandon wellbore.

WELL INFORMATION

Surface Location: NWNW Section 28, T9S, R97W
1094' FNL & 1315' FWL
Mesa County, CO

Bottom Hole Location: Same

TD (MD/TVD): 6326' MD/6326' TVD

PBTD (MD/TVD): 3002' MD/3002' TVD

Perforations 2634'-2902'

Casing Program Surface – 8 5/8" 24.0 lb/ft K-55 at 450' (TOC @ Surface)
Production - 5 1/2" 15.5 # K-55 at 3042' (TOC @ 2380' from CBL)

Tubing 2 3/8" 4.7 lb/ft J-55 at 2868'

Capacity: 2 3/8" Tubing – 0.00387 bbls/ft
5 1/2" Casing – 0.0238 bbls/ft
5 1/2" x 7 7/8" Hole- .0309 bbls/ft
8 5/8" x 5 1/2" Annulus – 0.0394 bbls/ft

Elevation: GL: 5400' KB: 5411'

Stratigraphy: Williams Fork: Surface

Current well status: Shut-in: Uneconomical

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DIRECTIONS:

Take DeBeque exit off I-70. Head south from DeBeque on 45 ½ Rd for approximately 6.7 miles to the intersection of 45 ½ Rd and Horse Canyon Road on the right. Turn right on Horse Canyon Rd and travel approximately 5.57 miles to the HSC 3-28 Location.

Alternate Route: From the intersection of Highway 65 and 45 ½ road in Plateau Canyon, travel North on 45 ½ Rd 4.4 mile to the intersection of Horse Canyon Road on the left. From there, follow instructions above.

PROCEDURE:

Plug to abandon:

1. Hold pre-job safety meeting with all personnel involved in each component of this operation.
2. MIRU Service rig to pull 2 3/8" 4.7 lb/ft J-55 grade production tubing.
3. R/U portable gas separator to start blowing well down.
4. Top kill well as necessary with water.
5. ND production tree and NU BOPE.
6. Release tubing hanger and POOH 95 jts (2947') 2 3/8" tubing. Visually inspect string to make sure it is adequate for plugging operations.

Plug 1:

7. MIRU Wireline.
8. RIH with PU 5 ½" CIBP and set at +/- 2600'.
9. RIH with tubing and tag CIBP.
10. Plug: MIRU Cement service company and spot 10 sks Class G cement mixed at 15.8 ppg (Yield 1.15 ft³/sk, Water 4.97 gal/sk) on top of CIBP.
11. TOOH and lay down tubing on float racking back +/- 2175'

Plug 2:

12. RIH with 3 3/8" perf gun and shoot 4 holes 90 degree phased at +/- 2175'.
13. Open Bradenhead Valve
14. Rig up to production casing and pump water to **establish circulation** between production casing and surface casing. If no circulation. Call Laramie Engineer. **Note: Due to proximity to original TOC, circulation may not be established.**
15. Plug: MIRU cement service company to pump 65 sks (20% Excess) Class G neat cement to fill 5 1/2" and 5 ½" x 7 7/8" annulus. Estimated TOC ~ 1935'-1975'.
16. Pull up and out of cement. WOC.
17. Tag and record cement top.

Plug 3:

18. RIH with 3 3/8" perf gun and shoot 4 holes 90 degree phased at 450'.
19. Open Bradenhead Valve
20. Rig up to production casing and pump water to **establish circulation** between production casing and surface casing.

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21. Plug: MIRU cement service company to pump 135 sks Class G neat cement to fill production casing and production casing/surface casing annulus
22. Cut off casing 3-4' below GL.
23. RDMO Cement service company.
24. RDMO Service rig.
25. Top off cement at surface if needed.
26. Install abandonment marker over SHL as per BLM regulations. The following minimum information shall be permanently placed on the marker with a plate beaded on by welding:
 - a. Operator name
 - b. Federal Lease Serial Number
 - c. Well name and number
 - d. API number
 - e. Location by ¼ ¼ Section, Township and Range.

CONTACTS:

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MAP TO HSC 3-28

