



Plug & Abandon Procedure

Well: Horseshoe Canyon 2

Prepared by Dan Fouts

WELL INFORMATION:

Well Name: Horseshoe Canyon 2
API #: 05-077-08233-00

Pad: NA
County: Mesa
Field: Shire Gulch

Surface Location: 1504 FNL & 1739 FEL SWNE S29 T09S R97W
Surface GPS: 39.247571, -108.239138

Elevations: KB Elevation: 5391
KB Height: 09
GL Elevation: 5382

ETD: 3017 MD
PBSD: 3017 MD
TD: 3060 MD

Casing: Surface: 12.25" hole, 8.625" 24# @ 338, TOC @ surface (calc)
Production: 7.875" hole @ 3060, 4.5" 10.5# @ 3058, TOC @ 2020 (CBL)

Perforations & Plugs: 2545-2578 Cozzette
2757-2786 Corcoran

Tubing: Unknown

Reservoir Pressure: 1000 psi

Well Status: SI, last production October 2016

Directions: From I-70 De Beque exit:
45-1/2 Rd South 3.1 miles
Right / West .6 miles to lease road intersection
Left / Southwest 3.3 miles to lease road intersection
Left / South .1 miles to lease road intersection
Right / West 1.4 miles to well on left

Contacts:

Health & Safety Coordinator	Laura Lancaster	970 644 1259
Production Coordinator	Luke Cody	970 250 9519
Production Manager	Eric Lane	970 640 9172
Wellsite Consultant	Dan Hacking	970 778 1063
Wellsite Consultant	Troy Roehm	970 852 1806
Production Engineer	Dan Fouts	970 852 1170
Completions Manager	John Grubich	970 589 9496
Senior Regulatory Manager	Wayne Bankert	970 985 5383
Operations Manager	Chris Clark	970 462 8375

PRE-JOB PLANNING:

1. Contact Luke Cody to blow down well and prep location.

Note: All cement to be neat Class G @ 15.8 PPG, yield @ 1.15 CF/SK, water @ 5 GAL/SK unless otherwise specified.

PROCEDURE:

1. Hold pre-job safety meeting with all personnel involved in each operation.
2. MIRU service rig.
3. Kill well with lease water.
4. ND production tree.
5. NU and test Class III BOPE to 2500 psi for 10 minutes.
6. POOH standing back tubing.
7. MIRU DLD wireline unit.
8. DLD run gauge ring to 2525.
9. DLD wireline set 4-1/2" 5k CIBP @ 2500.
10. Load hole with lease water.
11. RIH open ended tubing to 2500.
12. MIRU cementers.
13. Place 8 sx (100 LF) cement plug inside 4-1/2" @ 2400-2500.
14. POOH standing back 400 ft of tubing. Lay down remainder.
15. DLD perforate 4 x 1/2" holes @ 388.
16. RIH open ended tubing to 388.
17. Establish circulation.
18. If circulation: Balance 111 sx (379 LF) cement plug inside and out 4-1/2" @ 9-388.
19. If no circulation:
 - a. Squeeze 22 sx (100 LF) cement through perms @ 388.
 - b. Place 8 sx (100 LF) inside 4-1/2" @ 288-388.
 - c. DLD perforate 4 x 1/2" holes @ 100.
 - d. Establish circulation.
 - e. Balance 27 sx (91 LF) cement plug inside and out 4-1/2" @ 9-100.
20. Cut off casing 3-4 feet below GL.
21. RDMO service rig.
22. Install abandonment marker over SHL as per COGCC regulations. The following minimum information shall be permanently placed on the marker with a plate beaded on by welding:
 - a. Operator name
 - b. Lease Number
 - c. Well name and number
 - d. API number
 - e. Location by 1/4 1/4 Section, Township and Range.