

# encana™



## **Trail Ridge 3-19**

**NW NE Section 19, T5S, R96W**

**Fee Surface and Minerals**

**API # 05-045-06997**

**Lat. 39.604584 / -108.207915**

**Garfield County, Colorado**

**P&A Procedure**

**June 27, 2013**

Engineer: Thomas Joyce

Production Group Lead: Jerry Dietz

North Piceance Team Lead: Jacob Shumway

Attachments:

Attachment 1 – Wellbore diagram

API Number: 05-045-06997  
 Spud Date: August 12, 1995  
 GL Elevation: 8,422 ft  
 KB Elevation: 8,432 ft  
 TD: 10,136 ft  
 PBDT: 10,049 ft. w/ a CIBP 9,815 ft.

Conductor: 16" conductor Set @ 128'

Conductor Properties: ID: 15.250  
 Drift ID: 15.062  
 Collapse: 630  
 Burst: 1640  
 Capacity: .2259 BBLs/ ft.  
 Capacity 9.625 X 16" .1359 BBLs / ft.

**Cement was circulated to surface.**

Surface Casing: 9 5/8" OD, 36 lb/ft, J-55, set at 3,448 ft.

Surface Casing Properties: ID: 8.921"  
 Drift ID: 8.765"  
 Collapse: 2,020 psig  
 Burst: 3,520 psig  
 Joint Yield Strength: 394,000 lb  
 Capacity: 0.0773 BBL/ft  
 Capacity 9 5/8" x 4 1/2": .0576 BBL/ft

**Cement was circulated to surface.**

Production Casing: 4 1/2" OD, 11.6 lb/ft, J-55, set at 10,136 ft.

Production Casing Properties: ID: 4.000"  
 Drift ID: 3.875"  
 Collapse: 6,350 psig  
 Burst: 7,780 psig  
 Capacity: 0.0155 BBL/ft

Tubing: 2 3/8" OD, 4.7 lb/ft, N-80, set at 7,012 ft.

Tubing properties: ID: 1.995"  
 Drift ID: 1.901"  
 Coupling OD: 3.063"  
 Collapse: 15,280 psig  
 Burst: 14,970 psig  
 Joint Yield Strength: 135,400 lb  
 Capacity: 0.00387 BBL/ft  
 Capacity 2 3/8" tubing x 4 1/2" casing: 0.0178 BBL/ft

Perfs: 7719' to 9990'

**Objective**

Plug and abandon the Trail Ridge 3-19.

**Background**

The Trail Ridge 3-19 was drilled in August 1995. It was completed in the Mesaverde, and produced intermittently for the next 10 years. A stipulation on our lease with Chevron required that the wells not be shut in for more than 48 months in total. As this well has been shut in for more than that amount, Chevron requires that we plug and abandon this well. We are contractually obligated to comply.

**Safety**

Safety meetings are to be held with all service company personnel prior to each job. Wellsite supervisor must notify contractors as to known hazards of which the contractors may be unaware. Well site supervisor must ensure that all workers are aware of their responsibilities and duties under the EH&S guidelines. All safety meetings will be recorded on the EnCana daily completion reports in Well View. Wellsite supervisor is responsible to ensure that all utility one calls and ground disturbance forms are completed and on location for safety review. All JSA, Ground disturbance forms and Utility one call paper work is to be turned in to Parachute safety department at the completion of the job.

**Regulations**

All verbal notifications and approval from government regulatory agencies will be recorded on the EnCana daily report. The name of the individual contacted and the subject matter of approval or notification will be recorded.

## **Plug & Abandon Procedure**

1. Hold a pre-job safety meeting. Discuss all aspects of the procedure with any involved personnel. Identify and address any safety concerns before the job begins.
2. MIRU pulling unit.
3. ND wellhead, NU BOP.
4. Load hole.
5. TOH with tubing. LD any bad joints.
6. TIH with tubing to CIBP at 9,815 ft.
7. Pump 170 sacks (34 BBL) cement on CIBP. This should put us @ least 50 feet above the top perfs @ 7,719'
8. Short TOH with tubing. Make sure to clear TOC. WOC and tag to ensure that cement covered all perfs. Estimated TOC @ 7,628'.
9. TOH w/ tubing.
10. RU wireline and RIH with CIBP and set at 3,498 ft. , 50 feet below the Surface casing shoe. ROH w/ wireline and pick up perf gun, RIH and shoot perfs @ 3,498'. ROH w/ wireline.
11. TIH with tubing and pump 30 sacks (6 BBL) cement on top of CIBP at 3,498 ft.
12. TOH with tubing.
13. RIH with CIBP and shoot perfs @ 178 feet, 50 feet below conductor shoe. Records indicate that cement was circulated to surface on the conductor and surface casing. Test perf holes to 300 lbs, but do not exceed so we don't risk cement damage to previous casing jobs. Establish circulation in the 4 1/2" X 9 5/8" annular.
14. TIH w/ tubing to 178'.
15. Pump 65 sacks (13 BBL) cement to surface.
16. TOH w/ tubing.
17. Dig down and cut off wellhead 4 feet below ground level. Ensure that all cement in the annular spaces and 4 1/2" casing are topped off to surface. Weld information plate to casing stub, take GPS readings of well information plate for regulatory agencies and back fill hole.
18. RDMO workover rig.