



**HH 9108**

**NE/SW - Section 11 – T2S – R104W  
1352 FSL and 1840 FWL  
Lease # C-26940  
API # 05-103-09269**

**Rio Blanco County, Colorado**

**P&A Procedure**

**July 20, 2016**

Engineer: Tanner Messer  
Completions Coordinator: Ryan Tompkins  
Production Manager: Tina Johnson

API Number:	05-103-09269	
Spud Date:	08/24/1986	
Elevation:	6,659'	
TD:	7,150' MD	
PBTD:	7,018' (est.)	
Surface Casing:	8-5/8" OD, 24 lb/ft, K55, set @ 792' TOC: Surface	
Surface Casing Properties:	ID:	8.097"
	Drift ID:	7.972"
	Collapse:	1,370 psig
	Burst:	2,950 psig
	Capacity:	.0637 BBL/ft
Production Casing	4-1/2" OD, 11.6 lb/ft, K55 set @ 7,136', DV Tool @ 2732' TOC: 5,476' and DV Tool cmt from 2732' to surface	
Production Casing Properties	ID:	4.000"
	Drift ID:	3.875"
	Collapse:	4,960 psig
	Burst:	5,350 psig
	Capacity:	.0155 BBL/ft
Tubing:	2 3/8" OD, 4.7 lb/ft, J55.	EOT @ 6,961'
Perfs.	Perf Interval:	6,756'-6,960'

**Objective**

Plug and abandon the HH 9108.

**Background**

The HH 9108 is a vertical well that was drilled in August 1986. It was completed in the Dakota formation. This well was shut in during August 2014 due to being uneconomic to produce.

**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 Wellview. 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 into the 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. Notify the BLM office and COGCC at least 48 hours before plugging operations commence. Ensure that proper ground disturbance forms have been completed and one call for utility identification has been done and proper paper work is on location.
2. 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.
3. MIRU workover unit.
4. ND wellhead, NU BOP.
5. TOH with 2 3/8" tubing, EOT set @ 6,961'.
6. RU wireline & RIH w/ 4 1/2" gauge ring. ROH w/ gauge ring. PU 4 1/2" CIBP and RIH w/ CIBP to 6,706', 50' above the top perf @ 6,756'. Set CIBP & ROH w/ wireline.
7. Test casing to 500 psi.
8. Dump bail 6 sxs of Class G neat cement (15.8lb/gal, 1.15 Cu.Ft./sx) on top of CIBP @ 6,706'. Estimated TOC @ 6,631' (~75' Cement cap).
9. RU wireline. RIH and set 4 1/2" CIBP @ 842' (50' below surface shoe). ROH w/ wireline.
10. Dump bail 8 sxs of Class G neat cement (15.8lb/gal, 1.15 Cu.Ft./sx) on top of CIBP @ 842'. Estimated TOC @ 742' (~100' Cement cap).
11. TIH w/ tubing and spot 75' of Class G neat cement to surface (~6 sxs).
12. RDMO workover unit and ND BOP.
13. Dig out & cut off wellhead 4' below ground level, top off with cement if needed.
14. Weld information plate to casing stub with 1/4" weep hole, take GPS readings of well information plate for regulatory agencies.
15. Back fill hole & release equipment.
16. RDMO.

# Plug Volume Calculations

Cement above CIBP @ 6,706' & Surface Plug

Capacity

Casing/Tubing/Pipe
Hole
Drill Collars

**Outside Diameter (O.D):**  in

**Grade:**

**Weight:**  lb/ft Get Wt

**Inside Diameter (I.D):**  in Get ID

**Length:**  ft

I.D. in.	Gallons/Foot	Feet/Gallon	Barrels/Foot	Feet/Barrel	Cubic Feet/Foot	Feet/Cubic Foot
4.0000	6528	1.5319	.0155	64.3384	.0873	11.4592

Total Length Feet	Gallons	Barrels	Cubic Feet	Liters	Cubic Meters
75	48.96	1.17	6.54	185.33	.19

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Cement above CIBP @ 842'

Capacity

Casing/Tubing/Pipe
Hole
Drill Collars

**Outside Diameter (O.D):**  in

**Grade:**

**Weight:**  lb/ft Get Wt

**Inside Diameter (I.D):**  in Get ID

**Length:**  ft

I.D. in.	Gallons/Foot	Feet/Gallon	Barrels/Foot	Feet/Barrel	Cubic Feet/Foot	Feet/Cubic Foot
4.0000	6528	1.5319	.0155	64.3384	.0873	11.4592

Total Length Feet	Gallons	Barrels	Cubic Feet	Liters	Cubic Meters
100	65.28	1.55	8.73	247.11	25

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**EXISTING WELLBORE DIAGRAM**

1352' FSL & 1840' FWL

Operator: Encana Oil & Gas (USA) Inc.  
 Well Name: HH 9108  
 Lease Number: 45211  
 Location: NESW Sec. 11-T2S-R104W  
 Field: Hell's Hole Canyon  
 County, State: Rio Blanco County, CO  
 API Number: 05-103-09269-0000  
 Diagram Date: 06/29/2016

**Conductor Csg:**  
 16" set at 45'

**Surface Csg:**  
 8-5/8" 24#, K-55 set at 792'  
 Cmt w/ 580 sx Class H

DV Tool at 2732'  
 Cmt w/ 340 sx Light

TOC 5476'

2-3/8" J-55 tbg at 6961'

**Production Csg:**  
 4-1/2" 11.6 #, K-55 set at 7136'  
 Cmt w/ 465 sx Class H

KB 6676.6  
 GL 6659'

**Well History**

Spud Date: 08/24/1986  
 Date TD Reached: 09/11/1986  
 Completion Date: 09/24/1986  
 Current Tbg Set: 07/01/2013

12-1/4" hole to 795'

7-7/8" hole

Dakota  
 140, .385" perms from  
 6756' - 6960'

Baker Model DB Pkr @ 7018' (Pushed from 6940' 8/24/04)

TD 7150'

**PROPOSED WELLBORE DIAGRAM**

1352' FSL & 1840' FWL

Operator:	Encana Oil & Gas (USA) Inc.
Well Name:	HH 9108
Lease Number:	45211
Location:	NESW Sec. 11-T2S-R104W
Field:	Hell's Hole Canyon
County, State:	Rio Blanco County, CO
API Number:	05-103-09269-0000
Diagram Date:	06/29/2016

KB 6676.6  
GL 6659' **Well History**

Spud Date:	08/24/1986
Date TD Reached:	09/11/1986
Completion Date:	09/24/1986
Current Tbg Set:	07/01/2013

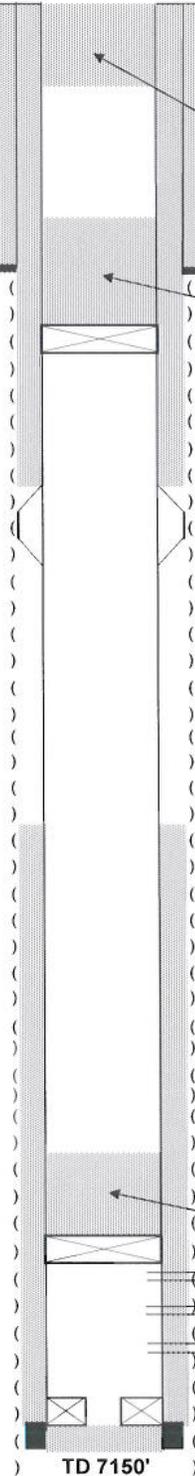
**Conductor Csg:**  
16" set at 45'

**Surface Csg:**  
8-5/8" 24#, K-55 set at 792'  
Cmt w/ 580 sx Class H

DV Tool at 2732'  
Cmt w/ 340 sx Light

TOC 5476'

**Production Csg:**  
4-1/2" 11.6 #, K-55 set at 7136'  
Cmt w/ 465 sx Class H



75' of Class G Neat cement to Surface (~6 sxs)

12-1/4" hole to 795'

8 sxs Class G Neat cement to ~742'  
CIBP set @ 842'

7-7/8" hole

6 sxs Class G Neat cement to ~6,631'  
CIBP set @ 6,706'

Dakota  
140, 385" perms from  
6756' - 6960'

Baker Model DB Pkr @ 7018' (Pushed from 6940' 8/24/04)

TD 7150'