

# HALLIBURTON

iCem<sup>®</sup> Service

## **BONANZA CREEK ENERGY**

**For: MARTIN CABELL**

Date: Monday, July 21, 2014

**PRONGHORN D-X-9HNB**

PRONGHORN

Case 1

Sincerely,

**AARON SMITH**

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## 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Pronghorn D-X-9HNB** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton [Brighton]

**Job Times**

	Date	Time	Time Zone
Called Out	7/20/14	1630	MST
On Location	7/20/14	2000	MST
Job Started	7/21/14	0155	MST
Job Completed	7/21/14	0307	MST
Departed Location	7/21/14	0345	MST

## 1.2 Cementing Job Summary

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## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 324725	Ship To #: 3471379	Quote #:	Sales Order #: 0901521654
Customer: BONANZA CREEK ENERGY		Customer Rep: MARTIN CABELL	
Well Name: PRONGHORN	Well #: D-X-9HNB	API/JWI #: 05-123-39286-00	
Field: WATTENBERG	City (SAP): MASTERS	County/Parish: WELD	State: COLORADO
Legal Description: SW SW-9-5N-61W-1273FSL-260FWL			
Contractor:		Rig/Platform Name/Num: Cade 22	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX46524		Srv Supervisor: Aaron Smith	
Job			
Formation Name			
Formation Depth (MD)	Top	Bottom	
Form Type		BHST	
Job depth MD	472ft	Job Depth TVD	
Water Depth		Wk Ht Above Floor	
Perforation Depth (MD)	From	To	
Well Data			
Description	New / Used	Size in	ID in
Casing	0	9.625	8.921
Open Hole Section			13.5
Tools and Accessories			
Type	Size in	Qty	Make
Guide Shoe	9.625		
Float Shoe	9.625	1	SSII
Float Collar	9.625	1	SSII
Insert Float	9.625		
Stage Tool	9.625		
Miscellaneous Materials			
Gelling Agt	Conc	Surfactant	Conc
Treatment Fld	Conc	Inhibitor	Conc
Fluid Data			
Stage/Plug #: 1			
Fluid #	Stage Type	Fluid Name	Qty
1	FRESH WATER	SPACER	24
FRESH WATER			
Fluid #	Stage Type	Fluid Name	Qty
2	Lead Cement	SWIFTCM (TM) SYSTEM	195

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*Cementing Job Summary*

9.23 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	32.5	bbl	8.33			6	
Cement Left In Pipe		Amount 42 ft			Reason		Shoe Joint		
Comment									

**1.3 Planned Pumping Schedule**

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- 1. Fill Lines with Water**
  - a. Density = 8.33 lb/gal
  - b. Volume = 2 bbls
- 2. Pressure Test Lines to 2500 psi**
- 3. Pump Water Spacer**
  - a. Density = 8.33 lb/gal
  - b. Volume = 24 bbl
- 4. Pump SwiftCem (Lead)**
  - a. Density = 13.5 lb/gal
  - b. Yield = 1.75 ft<sup>3</sup>/sk
  - c. Water Requirement = 9.23 gal/sk
  - d. Volume = 195 sks (60 bbls)
- 5. Drop Top Plug**
- 6. Start Displacement**
- 7. Pump Displacement Water**
  - a. Density = 8.33 lb/gal
  - b. Volume = 32.5 bbls
- 8. Land Plug – Anticipated Final Circulation Pressure 140 psi**

**Calculated Total Displacement = 32.5 bbls**

## 1.4 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comment
Event	1	Call Out	Call Out	7/20/2014	16:30:00	USER	CALLED OUT BY ARS FOR ON LOCATION @ 2200
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	7/20/2014	19:45:00	USER	JOURNEY MANAGEMENT MEETING WITH HES CREW PRIOR TO DEPARTURE
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	7/20/2014	20:00:00	USER	
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	7/20/2014	21:00:00	USER	WITH ALL EQUIPMENT AND MATERIALS
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/21/2014	00:30:00	USER	RIG-UP JSA WITH HES CREW
Event	6	Rig-Up Equipment	Rig-Up Equipment	7/21/2014	00:35:00	USER	
Event	7	Rig-Up Completed	Rig-Up Completed	7/21/2014	00:45:00	USER	
Event	8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/21/2014	01:30:00	USER	WITH CUSTOMER REP AND RIG CREW
Event	9	Start Job	Start Job	7/21/2014	01:55:00	USER	
Event	10	Test Lines	Test Lines	7/21/2014	01:56:00	USER	@ 2500 PSI
Event	11	Pump Spacer	Pump Spacer	7/21/2014	02:01:00	USER	24 BBLS FRESH WATER
Event	12	Pump Cement	Pump Cement	7/21/2014	02:12:00	USER	60 BBLS, 195 SKS @ 13.5 PPG, 1.75 YIELD, 9.23 GAL/SK
Event	13	Shutdown	Shutdown	7/21/2014	02:32:00	USER	
Event	14	Drop Top Plug	Drop Top Plug	7/21/2014	02:34:00	USER	PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER VERIFIED BY CUSTOMER REP
Event	15	Pump Displacement	Pump Displacement	7/21/2014	02:35:00	USER	32.5 BBLS FRESH WATER
Event	16	Cement Returns to Surface	Cement Returns to Surface	7/21/2014	02:46:00	USER	@ 18 BBLS DISPLACEMENT, 14.5 BBLS TO SURFACE
Event	17	Bump Plug	Bump Plug	7/21/2014	02:57:00	USER	@ 1000 OVER, FINAL CIRCULATING PRESSURE 140 PSI, FINAL BUMP 1170

							PSI
Event	18	Check Floats	Check Floats	7/21/2014	03:00:00	USER	.5 BBL BACK
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/21/2014	03:05:00	USER	RIG-DOWN JSA WITH HES CREW
Event	20	End Job	End Job	7/21/2014	03:07:00	USER	THANKS AARON SMITH AND CREW
Event	21	Rig-Down Equipment	Rig-Down Equipment	7/21/2014	03:20:55	USER	
Event	22	Rig-Down Completed	Rig-Down Completed	7/21/2014	03:30:00	USER	
Event	23	Depart Location Safety Meeting	Depart Location Safety Meeting	7/21/2014	03:35:00	USER	JOURNEY MANAGEMENT MEETING PRIOR TO DEPARTURE
Event	24	Depart Location	Depart Location	7/21/2014	03:45:00	USER	



## 2.0 Appendix

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Insert Planned Pump Schedule from Proposal or actual Job Procedure built for job