

# HALLIBURTON

iCem<sup>®</sup> Service

## EXTRACTION OIL & GAS

Date: Friday, April 08, 2016

### **BYBEE #4**

Surface

Job Date: Sunday, February 21, 2016

Sincerely,

**Lauren Roberts**

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Bybee #4** 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.

**34 bbl. of cement returned to surface.**

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 [Ft. Lupton]**

HALLIBURTON

## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3677738		Quote #:		Sales Order #: 0903139334				
Customer: EXTRACTION OIL & GAS -				Customer Rep: HUGH MCGRAW						
Well Name: BYBEE		Well #: 4		API/UWI #: 05-123-41801-00						
Field: WATTENBERG		City (SAP): FIRESTONE		County/Parish: WELD		State: COLORADO				
Legal Description: NE SE-14-2N-68W-2268FSL-1164FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 346						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB71271				Srvc Supervisor: Christopher Pickell						
<b>Job</b>										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1615ft		Job Depth TVD		1615ft				
Water Depth				Wk Ht Above Floor		4ft				
Perforation Depth (MD)		From		To						
<b>Well Data</b>										
Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	1597	0	1597
Open Hole Section			13.5				0	1615	0	1615
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625	1	KLX	
Float Shoe	9.625	1	KLX	1597		Bottom Plug	9.625			
Float Collar	9.625	1	KLX	1555		SSR plug set	9.625			
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625			
<b>Fluid Data</b>										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	30	bbl	8.33			8		
<b>Fluid Data</b>										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	SwiftCem	SWIFTCM (TM) SYSTEM	550	sack	13.5	1.74	9.2	8		
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	

last updated on 2/21/2016 10:16:37 PM

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## HALLIBURTON

## *Cementing Job Summary*

3	Fresh Water Displacement	Fresh Water Displacement	120.2	bbl	8.33			10-2.5	
Cement Left In Pipe		Amount	42 ft			Reason		Shoe Joint	
Comment All cement scaled within range. Returned all spacer and 34 bbl of cement to surface									

## 2.0 Real-Time Job Summary

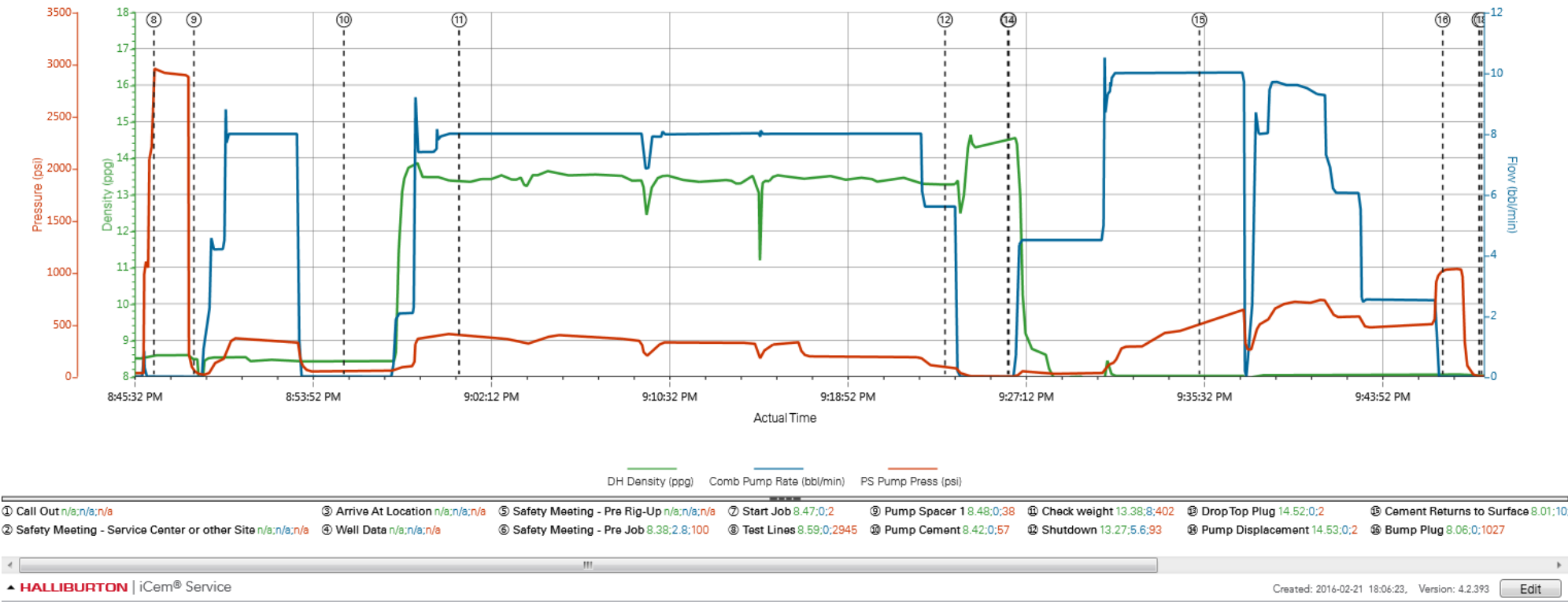
## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Call Out	Call Out	2/21/2016	13:30:00	USER				Crew called out at 13:30 to be on location at 18:30. Crew was Chris Pickell, Nick Roles, Mitchell Camper, Alvaro Perez
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	2/21/2016	16:30:00	USER				Safety meeting held for journey, equipment double checked. Left the yard for Patterson 346
Event	3	Arrive At Loc	Arrive At Location	2/21/2016	17:00:00	USER				Arrive on location 1.5 hours early. Rig had just began to run casing
Event	4	Other	Well Data	2/21/2016	17:05:00	USER				TD 1615' 13.5" OH. TP 1597' 9 5/8" 36# SJ 42' CASING. WF 9.2 PPG WBM.
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	2/21/2016	17:10:00	USER				Safety meeting held for rig up. Hazard hunt performed. Rig up planned and executed
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/21/2016	20:35:00	USER				Safety meeting held with rig crew to discuss job safety and procedure
Event	7	Start Job	Start Job	2/21/2016	20:43:33	COM6				
Event	8	Test Lines	Test Lines	2/21/2016	20:46:32	COM6	8.59	0.00	2945.00	Pressure test lines to 2500 psi. Checked for visible leaks and pressure loss
Event	9	Pump Spacer 1	Pump Spacer 1	2/21/2016	20:48:24	COM6	8.48	0.00	38.00	Pump 30 bbl of water spacer
Event	10	Pump Cement	Pump Cement	2/21/2016	20:55:25	COM6	8.42	0.00	57.00	Pump 550 sks 170.4 bbl of SwiftCem cement 13.5 ppg 1.74 yield 9.2 gal/sk
Event	11	Check Weight	Check weight	2/21/2016	21:00:48	COM6	13.38	8.00	402.00	Cement scaled at 13.5 ppg
Event	12	Shutdown	Shutdown	2/21/2016	21:23:31	USER	13.27	5.60	93.00	
Event	13	Drop Top Plug	Drop Top Plug	2/21/2016	21:26:27	COM6	14.52	0.00	2.00	Plug loaded in casing while shutdown
Event	14	Pump Displacement	Pump Displacement	2/21/2016	21:26:30	COM6	14.53	0.00	2.00	Pump displacement using water. Washed pumps and lines on top of the plug

Event	15	Cement Returns to Surface	Cement Returns to Surface	2/21/2016	21:35:25	USER	8.01	10.00	505.00	Cement to surface with 86 bbl away
Event	16	Bump Plug	Bump Plug	2/21/2016	21:46:47	COM6	8.06	0.00	1027.00	Plug landed at calculated 120 bbl with 500 psi shutting down with 1050 psi
Event	17	End Job	End Job	2/21/2016	21:48:29	COM6	8.02	0.00	3.00	Returned all spacer and 34 bbl of cement to surface
Event	18	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	2/21/2016	21:48:36	USER				Safety meeting held for rig down. Rigged down all equipment
Event	19	Safety Meeting - Departing Location	Safety Meeting - Departing Location	2/21/2016	22:30:00	USER				Safety meeting held for journey. Left location for the yard



EXTRACTION BYBEE #4 SURFACE



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