

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

Date: Wednesday, June 28, 2017

### **Longmeadow 2-1-13 Surface**

Job Date: Friday, June 16, 2017

Sincerely,

**Julia Nichols**

## Legal Notice

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Table of Contents

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1.0    Cementing Job Summary ..... 4

    1.1    Executive Summary .....4

2.0    Real-Time Job Summary ..... 7

    2.1    Job Event Log .....7

3.0    Attachments..... 8

    3.1    Custom Results – Job Chart with Events .....8

    3.2    Custom Results – Job Chart without Events.....9

## 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 **Longmeadow 2-1-13** 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.

**Approximately 29 barrels of cement were 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]**

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## Cementing Job Summary

*The Road to Excellence Starts with Safety*

Sold To #: 389404		Ship To #: 3708585		Quote #:		Sales Order #: 0904107606				
Customer: EXTRACTION OIL & GAS				Customer Rep: Kalyn Holgate and Larry Siegel						
Well Name: CS-LONGMEADOW		Well #: 2-1-13		API/UWI #: 05-123-42475-00						
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD		State: COLORADO						
Legal Description: SW SE-38-8N-88W-338FSL-1824FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 341						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Brad Hinkle						
<b>Job</b>										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type				BHST						
Job depth MD		1585ft			Job Depth TVD	1585ft				
Water Depth				Wk Ht Above Floor						
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	1585		1585
Open Hole Section			13.5				0	1595		1595
<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	HES	
Float Shoe	9.625	1		1585		Bottom Plug	9.625		HES	
Float Collar	9.625	1		1540		SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625		HES	
<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	Spacer	Red Dye Water	10	bbl	8.34			3		
<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	Primary Cement	SWIFTCM	550	sack	13.5	1.74		7	9.2	

last updated on 6/28/2017 12:43:09 PM

Page 1 of 2

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(v. 4.4.18)

Created: Wednesday, June 28, 2017

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*Cementing Job Summary*

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Displacement	Fresh Water	119	bbl	8.34			8		
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint		
Mix Water:		pH 6	Mix Water Chloride:			0 ppm		Mix Water Temperature:		85 °F
Cement Temperature:		85 °F	Plug Displaced by:			## lb/gal kg/m3 XXXX		Disp. Temperature:		## °F °C
Plug Bumped?		Yes	Bump Pressure:			830 psi		Floats Held?		Yes
Cement Returns:		## bbl m3	Returns Density:			## lb/gal kg/m3		Returns Temperature:		## °F °C
Comment 29 bbls Cement to surface.										

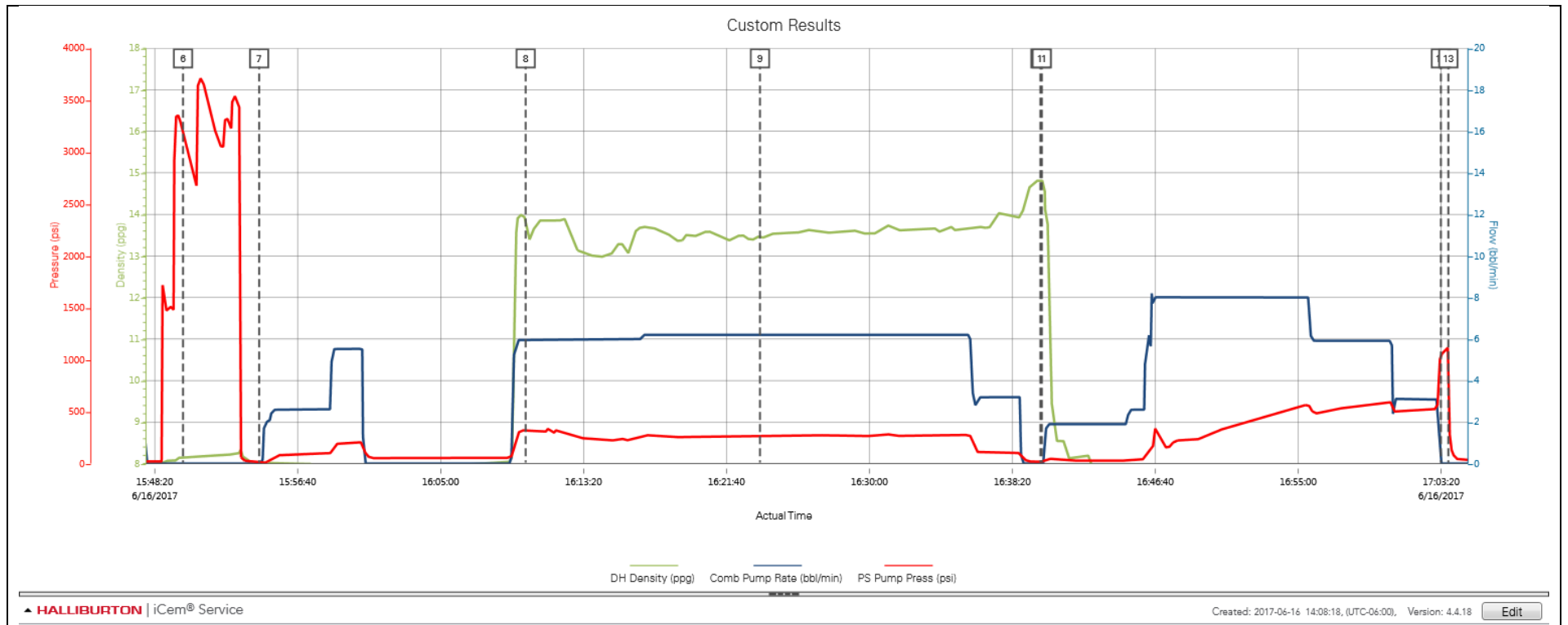
## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	6/16/2017	07:00:00	USER				Crew called for an on location of 1200. Crew was Bradley Hinkle, Thomas Haas, Justin Toler, Luis Ramirez, Niklaus Kornafels and Knoell Coombs.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	6/16/2017	10:30:00	USER				Pre-journey safety meeting.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	6/16/2017	11:30:00	USER				Sign in, perform a site assessment and pre rig-up safety meeting.
Event	4	Safety Meeting - Pre Job	Safety Meeting - Pre Job	6/16/2017	15:30:00	USER	8.44	0.00	-11.00	Pre-job safety meeting with all personnel on location.
Event	5	Start Job	Start Job	6/16/2017	15:46:04	COM4	8.00	0.00	-10.00	
Event	6	Test Lines	Test Lines	6/16/2017	15:49:59	COM4	8.14	0.00	3171.00	Pressure test lines with a 500 PSI kick-out test.
Event	7	Pump Spacer 1	Pump Spacer 1	6/16/2017	15:54:25	COM4	0.16	0.00	7.00	Pump 20 bbls red-dye water.
Event	8	Pump Cement	Pump Cement	6/16/2017	16:09:58	COM4	13.81	6.00	309.00	Pump 170 bbls (550 sacks) SwiftCem mixed at 13.5 ppg. Density verified by pressurized scales. Initially recirc and downhole were all over. Scaled cement consistently until both micromotion's were reading correctly.
Event	9	Check Weight	Check Weight	6/16/2017	16:23:37	COM4	13.46	6.20	259.00	Cement weighed at 13.4 ppg.
Event	10	Drop Top Plug	Drop Top Plug	6/16/2017	16:39:58	COM4	14.82	0.00	18.00	Top plug preloaded and witnessed by customer.
Event	11	Pump Displacement	Pump Displacement	6/16/2017	16:40:03	COM4	14.81	0.00	18.00	Pump 119 bbls fresh water. Good returns throughout. 29 bbls cement to surface.
Event	12	Bump Plug	Bump Plug	6/16/2017	17:03:19	COM4	7.82	0.00	1035.00	Bump plug at 630 PSI and brought pressure 500 PSI over.
Event	13	Check Floats	Check Floats	6/16/2017	17:03:45	USER	7.82	0.00	1113.00	Floats held. Half bbl back.
Event	14	End Job	End Job	6/16/2017	17:06:04	COM4	7.86	0.00	28.00	

## 3.0 Attachments

### 3.1 Custom Results – Job Chart with Events





3.2 Custom Results – Job Chart without Events

