

# HALLIBURTON

iCem<sup>®</sup> Service

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

Date: Wednesday, January 03, 2018

## **MILKSHAKE 31W-20-9N PRODUCTION**

Job Date: Tuesday, December 26, 2017

Sincerely,  
**Julia Nichols**

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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 **Milkshake 31W-20-9N** cement **Production** 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 37 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 [Fort Lupton]**

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**Cementing Job Summary**

*The Road to Excellence Starts with Safety*

Sold To #: 369404		Ship To #: 3836782		Quote #:		Sales Order #: 0904526178					
Customer: EXTRACTION OIL & GAS				Customer Rep: Hans Cary							
Well Name: MILKSHAKE			Well #: 31W-20-9N		API/UWI #: 05-123-45819-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO					
Legal Description: SW SW-32-6N-67W-1167FSL-225FWL											
Contractor:				Rig/Platform Name/Num: Cyclone 37							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srcv Supervisor: Vitalijs Neverdasovs							
<b>Job</b>											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type				BHST							
Job depth MD		17144ft			Job Depth TVD						
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	0	8.625	8.921	38			0	1564	0	1564	
Casing	0	5.5	4.778	20			0	17124	0	7179	
Open Hole Section			8.5				1568	17144	1568	7179	
<b>Tools and Accessories</b>											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5					Top Plug	5.5	1	KLX		
Float Shoe	5.5			17124		Bottom Plug	5.5				
Float Collar	5.5			17119		SSR plug set	5.5				
Insert Float	5.5					Plug Container	5.5	!	HES		
Stage Tool	5.5					Centralizers	5.5				
<b>Fluid Data</b>											
Stage/Plug #: 1											
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
1	11.5 lb/gal Tuned Spacer III	Tuned Spacer III			50	bbl	11.5	3.73		5	
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
2	ElastiCem	ELASTICEM (TM) SYSTEM			2720	sack	13.2	1.57		7	7.53

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*Cementing Job Summary*

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Displacement	Displacement	379	bbl	8.33			8		
Cement Left In Pipe		Amount	5 ft		Reason			Shoe Joint		
Comment 37bbl of cement back to surface .										

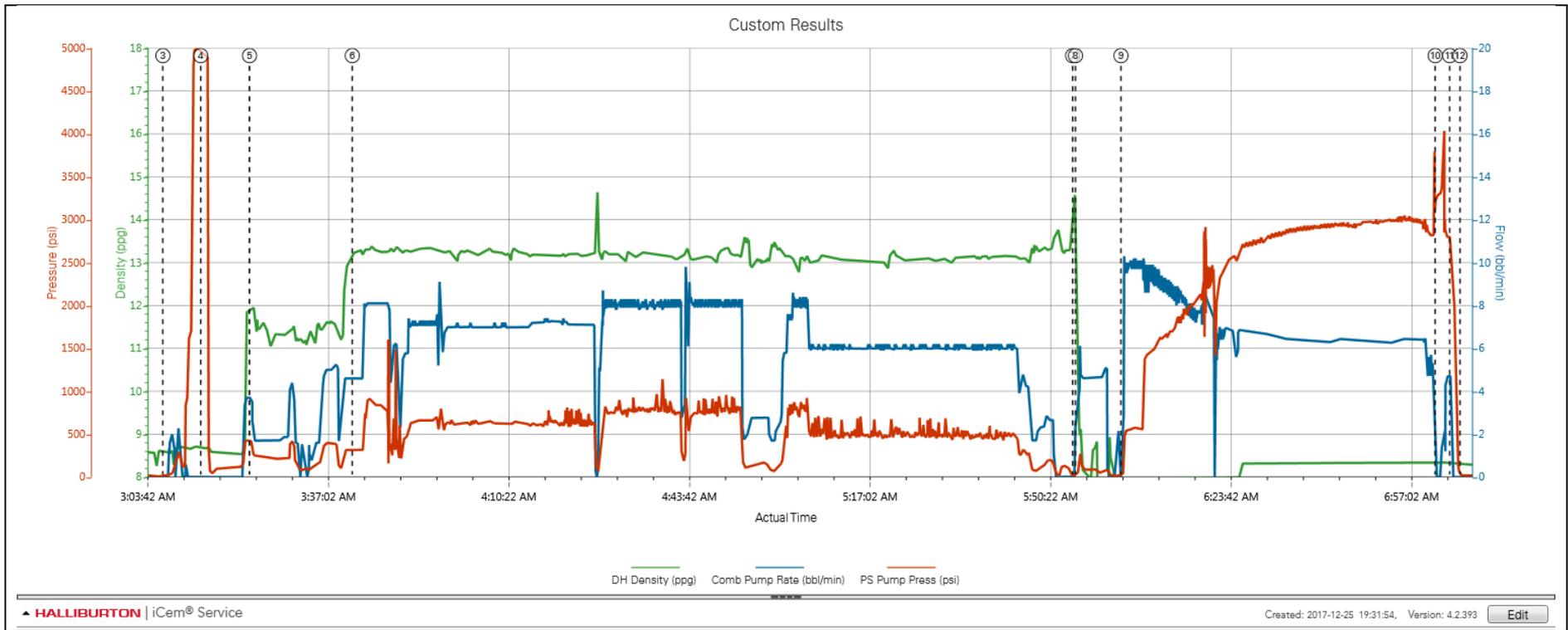
## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Comments
Event	1	Arrive at Rig	Arrive at Rig	12/25/2017	04:06:22	USER				Arrived on location met with company rep to discuss job process and concerns, advised that rig was running casing 1000 feet left to run
Event	2	Call Out	Call Out	12/25/2017	14:20:00	USER				Crew called out from ARC hub
Event	3	Start Job	Start Job	12/26/2017	03:06:56	COM4	8.60	0.00	20.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	4	Test Lines	Test Lines	12/26/2017	03:13:54	COM4	8.68	0.00	4931.00	Pressure tested pumps and lines with fresh water 4806 psi found no leaks and pressure held good
Event	5	Pump Spacer 1	Pump Spacer 1	12/26/2017	03:22:55	COM4	11.94	3.70	411.00	Mixed 50bbl of 11.5ppg Tuned spacer at 5.0bpm 382psi
Event	6	Pump Cement	Pump Cement	12/26/2017	03:41:53	USER	13.21	4.60	319.00	Mixed 2720sk or 760bbl of 13.2ppg Elasticem Y-1.57 G/sk-7.53 at 8.0bpm 551psi
Event	7	Shutdown	Shutdown	12/26/2017	05:54:53	USER	13.87	2.20	22.00	Shut down
Event	8	Clean Lines	Clean Lines	12/26/2017	05:55:25	USER	10.51	3.90	57.00	Wash pumps and lines with fresh water
Event	9	Pump Displacement	Pump Displacement	12/26/2017	06:03:49	USER	7.97	2.60	40.00	Pumped 379 bbl of fresh water lines to displace cement
Event	10	Bump Plug	Bump Plug	12/26/2017	07:01:50	COM4	8.33	0.00	3294.00	Bumped plug 500 psi over final pump pressure
Event	11	Other	Other	12/26/2017	07:04:30	COM4	8.31	0.00	2283.00	Released pressure back to pump truck to chack floats,floats held good 2.5 bbl back
Event	12	End Job	End Job	12/26/2017	07:06:24	COM4	8.31	0.00	15.00	37bbl of cement back to surface

## 3.0 Attachments

### 3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

