

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Sunday, August 20, 2017

MLD 3 Surface

Job Date: Thursday, August 10, 2017

Sincerely,

Julia Nichols

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. Accordingly, HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0 Cementing Job Summary 4

 1.1 Executive Summary4

2.0 Real-Time Job Summary 7

 2.1 Job Event Log7

3.0 Attachments..... 9

 3.1 Custom Results – Job Chart with Events9

 3.2 Custom Results – Job Chart without Events.....10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **MLD #3** 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 30 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]

HALLIBURTON

*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 389404		Ship To #: 3800436		Quote #:		Sales Order #: 0904219832				
Customer: EXTRACTION OIL & GAS -				Customer Rep: Shawn McIntyre						
Well Name: MLD		Well #: 3		API/UWI #: 05-123-44813-00						
Field: WATTENBERG		City (SAP): MEAD		County/Parish: WELD		State: COLORADO				
Legal Description: NW NW-22-4N-68W-805FNL-744FWL										
Contractor: UNKNOWN				Rig/Platform Name/Num: WORKOVER RIG						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Luke Kosakewich						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1564ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor						
Perforation Depth (MD)		From		To						
Well Data										
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	9.625	8.921	36	8 RD	J-55	0	1564	0	0
Open Hole Section			13.5				0	1564	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	9.625	1	HES	
Float Shoe	9.625			1564		Bottom Plug				
Float Collar	9.625			1521		SSR plug set				
Insert Float						Plug Container	9.625	1	HES	
Stage Tool						Centralizers				
Fluid Data										
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	Red Dye Spacer	Red Dye Spacer	10	bbl	8.33			4		
Stage/Plug #: 2										
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	SwiftCem	SWIFTCM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2	

HALLIBURTON

Cementing Job Summary

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	Fresh Water	Fresh Water	117	bbl	8.33			10	
Cement Left In Pipe		Amount	43 ft		Reason			Shoe Joint	
Comment Got 30 bbls. back to surface. Full returns throughout the job. Floats held. Got 0.5 bbls. of fluid back to the truck.									

2.0 Real-Time Job Summary

2.1 Job Event Log

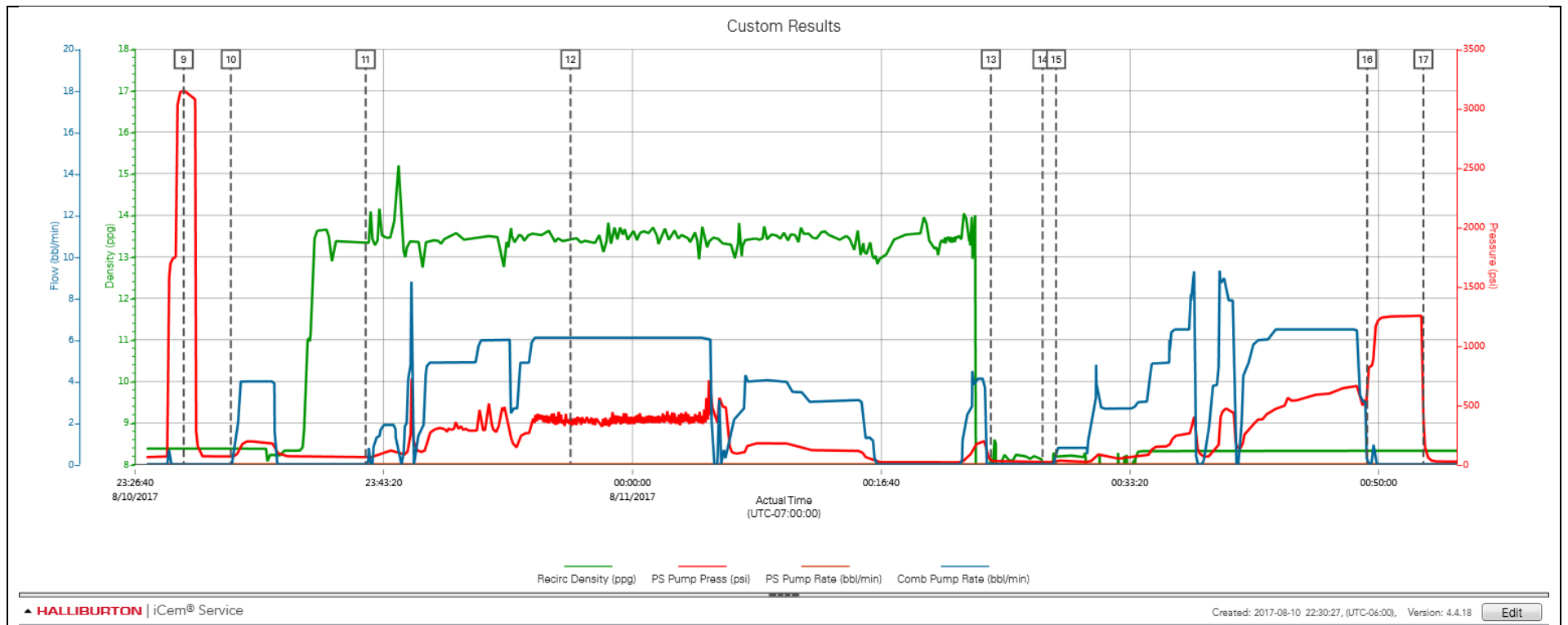
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Recirc Density (ppg)	Comments
Event	1	Call Out	Call Out	8/10/2017	12:00:00	USER				Crew was called out at 12:00 for an on location time of 19:00.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/10/2017	18:00:00	USER				Held pre journey safety meeting and JSA.
Event	3	Depart Shop for Location	Depart Shop for Location	8/10/2017	18:05:00	USER				Started journey management with dispatch and left the yard.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	8/10/2017	18:45:00	USER				
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/10/2017	19:00:00	USER				Held pre rig up safety meeting and JSA.
Event	6	Rig-Up Equipment	Rig-Up Equipment	8/10/2017	19:10:00	USER				Rigged up all lines, hoses, and equipment for the job.
Event	7	Safety Meeting	Safety Meeting	8/10/2017	23:00:00	USER				Held a safety meeting with all personnel on location.
Event	8	Start Job	Start Job	8/10/2017	23:17:02	COM4				Pumped 3 bbls. of fresh water to fill lines
Event	9	Test Lines	Test Lines	8/10/2017	23:29:55	COM4	0.00	3154.00	8.38	Pressure tested lines to 2,500 psi. with a 500 psi. electronic kick out test.
Event	10	Pump Spacer 1	Pump Spacer 1	8/10/2017	23:33:05	COM4	0.00	63.00	8.38	Pumped 10 bbls. of fresh water with red dye.
Event	11	Pump Cement	Pump Cement	8/10/2017	23:42:07	COM4	0.00	60.00	13.35	Pumped 170 bbls. of SwiftCem (550 sks.) mixed at 13.5 ppg. Density was verified by pressurized scales.
Event	12	Check Weight	Check weight	8/10/2017	23:55:51	COM4	6.10	397.00	13.50	Cement weighed up at 13.5 ppg.
Event	13	Shutdown	Shutdown	8/11/2017	00:24:01	COM4	0.00	34.00	7.60	Washed up on top of the plug.
Event	14	Drop Top Plug	Drop Top Plug	8/11/2017	00:27:29	COM4	0.00	20.00	8.16	Dropped the top plug witnessed by the customer.
Event	15	Pump Displacement	Pump Displacement	8/11/2017	00:28:23	COM4	0.80	26.00	8.16	Pumped 117 bbls. of fresh water to displace. Got 30 bbls. of cement back to surface.
Event	16	Bump Plug	Bump Plug	8/11/2017	00:49:14	COM4	0.00	803.00	8.33	Bumped the plug 500 psi. over 600 psi. at 3 bpm. Finale

pressure was 1,200 psi.

Event	17	Check Floats	Check Floats	8/11/2017	00:53:00	USER	0.00	403.00	8.33	Bled off pressure to check floats. Floats held. Got 0.5 bbl. back to the truck.
Event	18	End Job	End Job	8/11/2017	00:57:05	COM4	0.00	23.00	8.33	Washed pumps and lines until clean.
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/13/2017	02:22:39	USER				Held pre rig down safety meeting and JSA.
Event	20	Rig-Down Equipment	Rig-Down Equipment	8/13/2017	02:23:02	USER				Rigged down all lines and equipment.
Event	21	Depart Location Safety Meeting	Depart Location Safety Meeting	8/13/2017	02:23:25	USER				Held pre journey safety meeting and JSA.
Event	22	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	8/13/2017	02:23:55	USER				Started journey management with dispatch and left location.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

