

## HALLIBURTON

## Cementing Job Summary

*The Road to Excellence Starts with Safety*

Sold To #: 375989		Ship To #: 3892948		Quote #: 0022489066		Sales Order #: 0905133090				
Customer: CONFLUENCE DJ LLC-EBUS				Customer Rep: Justin Gale						
Well Name: DESHA		Well #: 4-15-1		API/UWI #: 05-123-47343-00						
Field: WATTENBERG		City (SAP): LOCHBUIE		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-33-1N-65W-635FSL-450FWL										
Contractor:				Rig/Platform Name/Num:						
Job BOM: 7526 7526										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Kendall Broom - H194727						
<b>Job</b>										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		9785ft		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		9.625	8.921	36			0	1560		
Casing		5.5	4.778	20			0	9785		
Open Hole Section			8.5				1560	9830		
<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		HES	
Float Shoe	5.5					Bottom Plug	5.5	1	HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		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	OBM		219	bbl	9.5					
Stage/Plug #: 2										
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	10.5 lb/gal Tuned Spacer III	Tuned Spacer III	160	bbl	10.5	6.26				

last updated on 9/19/2018 10:24:44 AM

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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	TergoVis	CMT PKG TERGOVIS I	300	bbl	10.6	3.63			
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
4	ElastiCem	ELASTICEM (TM) SYSTEM	1005	sack	14.4	1.7		8	7.3
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
5	MMCR ahead of plug	MMCR ahead of plug	3	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
6	MMCR Displacement	MMCR Displacement	30	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
7	Displacement	Displacement	189	bbl	8.34				
0.30 lbm/bbl		BE-3S, 50 LB BOX (101382962)							
0.02 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe	Amount	ft	Reason					Shoe Joint	
Mix Water:pH	7	Mix Water Chloride:	0 ppm	Mix Water Temperature:			77 °F °C		
Comment									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate <i>(bbl/min)</i>	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	9/12/2018	11:00:00	USER				Called crew out to be on location at 1400
Event	2	Depart Shop for Location	Depart Shop for Location	9/12/2018	14:00:00	USER				Held a safety meeting before leaving for location
Event	3	Arrive At Loc	Arrive At Loc	9/12/2018	14:20:00	USER				Arrive at location and met with the company man
Event	4	Rig-up Lines	Rig-up Lines	9/12/2018	14:30:00	USER				Held a hazard hunt before spotting in trucks and rigging up
Event	5	Safety Meeting	Safety Meeting	9/12/2018	16:00:00	USER	0.90	8.31	3.00	Held a safety meeting with the rig to discuss the operation and safety
Event	6	Start Job	Start Job	9/12/2018	16:29:38	COM5	0.00	8.32	2.00	
Event	7	Test Lines	Test Lines	9/12/2018	16:39:34	COM5	0.00	8.58	3121.00	Tested our lines to 8000 psi
Event	8	Test Lines	Test Lines	9/12/2018	16:52:47	COM5	0.00	8.58	54.00	Tested wire line plug
Event	9	Pump Well Fluid	Pump Spacer 1	9/12/2018	17:44:52	COM5	5.60	8.75	3464.00	Pumped down the plug 112 bbls. Pumped 220 bbls obm to circulate out the water.
Event	10	Shutdown	Shutdown	9/12/2018	18:40:02	COM5	0.00	9.23	2886.00	
Event	11	Set Tool	Set Tool	9/12/2018	19:00:00	USER	0.00	9.16	3082.00	
Event	12	End Job	End Job	9/12/2018	20:23:49	COM5	0.00	9.02	-6.00	
Event	13	Depart Location for Shop	Depart Location for Shop	9/12/2018	21:00:00	USER				
Event	14	Safety Meeting - Pre Job	Safety Meeting - Pre Job	9/13/2018	08:00:00	USER	0.00	9.23	1.00	Held a safety meeting with all parties to discuss the operation and safety
Event	15	Start Job	Start Job	9/13/2018	08:24:36	COM5	0.00	9.20	1.00	
Event	16	Test Lines	Test Lines	9/13/2018	08:26:49	COM5	0.00	9.21	554.00	Test wire line to 8000 psi

Event	17	Pump Well Fluid	Other	9/13/2018	09:04:16	COM5	1.70	9.17	595.00	Pumped 219 bbls. Pumped down wire line
Event	18	Pressure Up Well	Pressure up well	9/13/2018	09:58:00	COM5	0.00	7.54	321.00	Set Plug. Pressured up to 5000 psi. Then bled off to 2300 psi.
Event	19	Pump Well Fluid	Other	9/13/2018	10:36:56	COM5	0.00	7.57	284.00	Pumped 20 bbls well fluid
Event	20	End Job	End Job	9/13/2018	10:58:43	COM5	0.00	7.53	11.00	Completed pumping for wire line
Event	21	Start Job	Start Job	9/13/2018	13:12:25	COM5				
Event	22	Test Lines	Test Lines	9/13/2018	13:15:28	COM5	0.00	8.51	5638.00	Tested lines to 5765 psi
Event	23	Pump Spacer 1	Pump Spacer 1	9/13/2018	13:21:50	COM5	0.00	8.37	1.00	Started pumping spacer and the truck kicked out. The wing on the bop was closed. Retested bop at 5960 psi.
Event	24	Pump Spacer 1	Pump Spacer 1	9/13/2018	13:32:10	COM5	0.00	8.10	300.00	Restarted the Tuned Spacer. Pumped 160 bbl 10.5#, 6.26 Yield, 40.7 gal/sks. Pumped at 4bpm and 480 psi. Musol and dual spacer were added on the fly.
Event	25	Pump Spacer 2	Pump Spacer 2	9/13/2018	14:10:50	COM5	3.90	10.57	46.00	Pumped 300 bbl Tergo Vis, 10.6#, 3.63 yield, 22.2 gal/sks. pumped at 8 bpm and 122 psi.
Event	26	Other	Other	9/13/2018	14:36:44	COM5	1.30	9.75	-7.00	Shut down for water
Event	27	Pump Cement	Pump Cement	9/13/2018	14:50:18	COM5				Pumped 304 bbl Elasticem. 1005 sks, 14.4#, 1.7 yield, 7.32gal/sks. Pumped at 8bpm and 535 psi. Got spacer back at 235 bbl away.
Event	28	Check Weight	Check Weight	9/13/2018	14:57:58	COM5	8.20	14.42	456.00	Verified weight with the pressurized scale
Event	29	Check Weight	Check Weight	9/13/2018	15:06:43	COM5				Verified weight with the pressurized scale
Event	30	Check Weight	Check Weight	9/13/2018	15:16:00	COM5				Verified weight with the pressurized scale
Event	31	Shutdown	Shutdown	9/13/2018	15:33:25	COM5				Shut down and washed up cement head and lines
Event	32	Drop Top Plug	Drop Top Plug	9/13/2018	15:43:36	COM5				Dropped plug witnessed by the company man
Event	33	Pump Displacement	Pump Displacement	9/13/2018	15:43:39	COM5	0.00	7.35	-20.00	Pumped 3 bbls water ahead of the plug with MMCR
Event	34	Pump Displacement	Pump Displacement	9/13/2018	15:45:20	COM5				Pumped 217 bbls plus 2 water displacement. 1st 30bbls had MMCR and the balance had Biocide and cla-web. Pumped at 8-6 bpm and 2000 psi. Shut down at 219 bbl
Event	35	Rig Down Lines	Rig Down Lines	9/13/2018	16:30:00	USER	2.90	8.14	2387.00	Held a safety meeting before rigging down lines

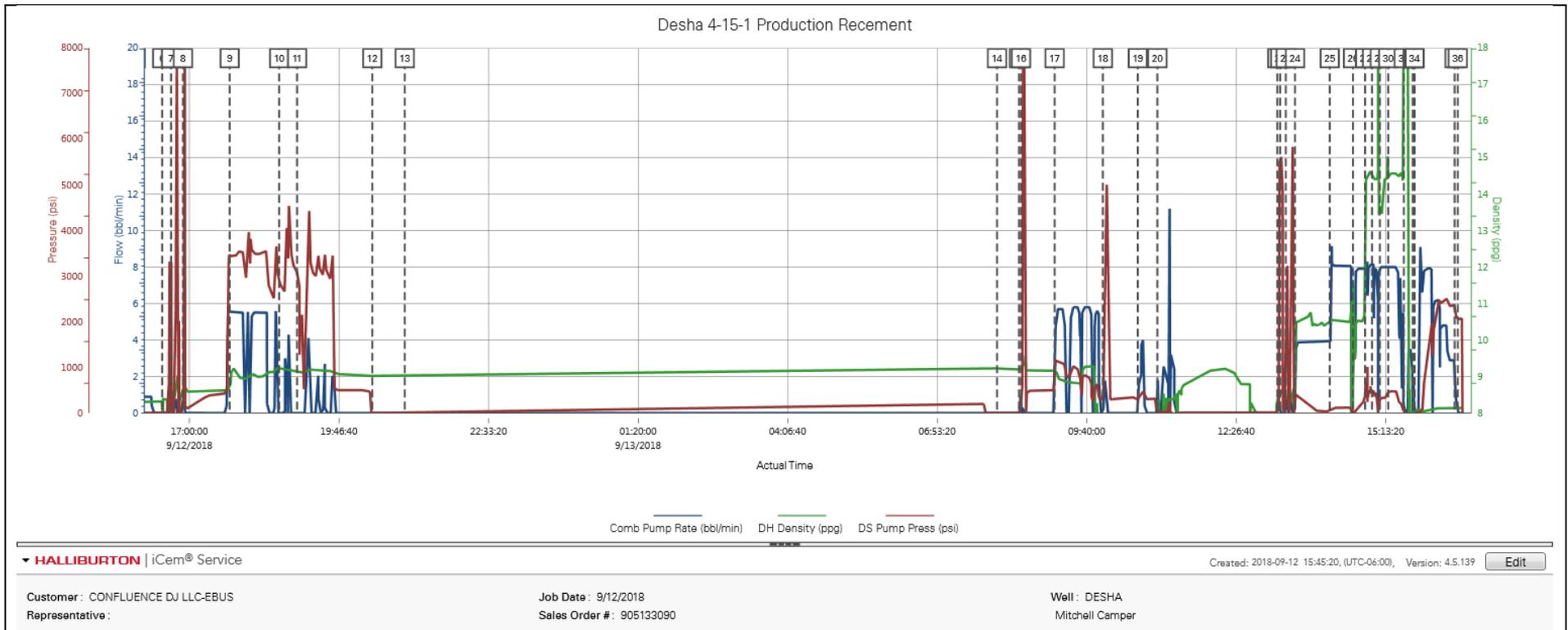
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Event	36	End Job	End Job	9/13/2018	16:33:35	COM5	
Event	37	Depart Location	Depart Location	9/13/2018	17:30:00	USER	Held a safety huddle before leaving location

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3.0 Attachments

3.1 Desha 4-15-1 Production – Job Chart with Events



### 3.2 Desha 4-15-1 Production – Pump Wireline



### 3.3 Desha 4-15-1 Production – Pump Cement

