HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS

Date: Saturday, December 17, 2016

TC Aims C4-9-11 Surface

Job Date: Sunday, December 04, 2016

Sincerely,

Julia Nichols

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **TC Aims C4-9-11** 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 25 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 #: 369404	**Ship To #:** 3762926	**Quote #:**	**Sales Order #:** 0903697438
Customer: EXTRACTION OIL & GAS		**Customer Rep:** Larry Siegel	
Well Name: TC AIMS	**Well #:** C4-9-11		**API/UWI #:** 05-123-43743-00
Field: WATTENBERG	**City (SAP):** GREELEY	**County/Parish:** WELD	**State:** COLORADO
Legal Description: SE NE-8-5N-66W-2558FNL-1193FEL			
Contractor: PATTERSON-UTI ENERGY		**Rig/Platform Name/Num:** PATTERSON 341	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		**Srvc Supervisor:** Nathaniel Moore	

Job

Job depth MD	1600ft	**Job Depth TVD**	1600

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
Open Hole Section			13.5				0	1600		
Casing		9.625	8.921	36			0	1583		

Tools and Accessories

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			1583		Bottom Plug	9.625		HES

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	Water with dye	Water with dye	10	bbl	8.34				

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	SWIFTCEM (TM) SYSTEM	525	sack	13.5	1.74		5	9.2
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
9.18 Gal		FRESH WATER							

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	Displacement	Displacement	119	bbl	8.34				

25 bbl cement to surface

last updated on 12/17/2016 11:14:06 AM

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2.0 Real-Time Job Summary

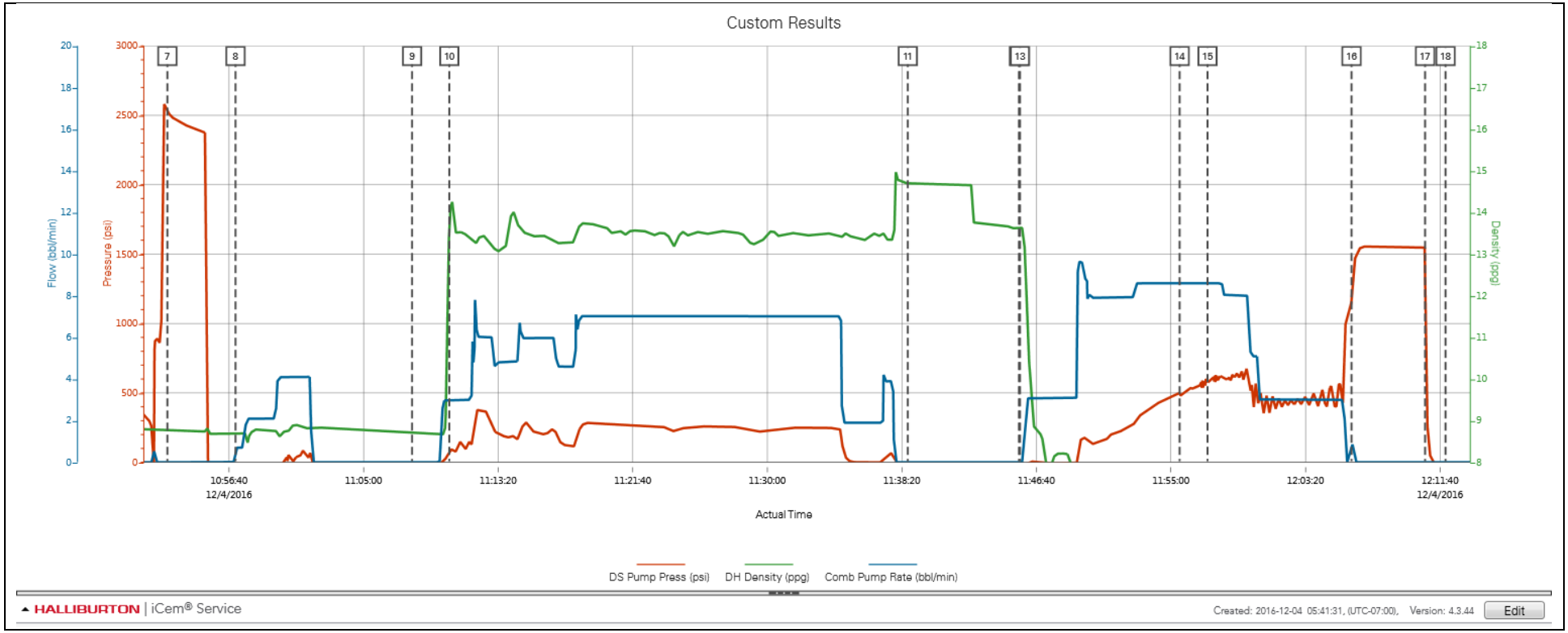
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	12/4/2016	00:30:00	USER				OL time 0530. Verify equipment and materials
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	12/4/2016	03:00:00	USER				
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/4/2016	04:00:00	USER				Spot in and rig up equipment. Rig pulling drill pipe
Event	4	Other	Meet with Customer rep	12/4/2016	08:30:00	USER				TD 1600' 13.5" open hole. TP 1583' 9.625" 36# J-55. 43' Shoe
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/4/2016	10:30:00	USER				Discuss job procedure. Rig established circulation
Event	6	Start Job	Start Job	12/4/2016	10:48:00	COM1				Fill lines 3 bbl water
Event	7	Test Lines	Test Lines	12/4/2016	10:52:51	COM1	2528.00	8.79	0.00	500 psi kickout test and 2500 psi pressure test
Event	8	Pump Spacer 1	Pump Spacer 1	12/4/2016	10:57:04	COM1				10 bbl dyed water
Event	9	Check Weight	Check Weight	12/4/2016	11:08:00	USER				13.5 ppg verified with pressurized scales
Event	10	Pump Lead Cement	Pump Lead Cement	12/4/2016	11:10:19	COM1	98.00	13.74	3.00	525sks/162 bbl 13.5 ppg 1.74 ft3/sk 9.2 gal/sk
Event	11	Shutdown	Shutdown	12/4/2016	11:38:42	COM1				Washup on top of plug
Event	12	Drop Top Plug	Drop Top Plug	12/4/2016	11:45:35	COM1				Witnessed by company rep
Event	13	Pump Displacement	Pump Displacement	12/4/2016	11:45:39	COM1	-34.00	13.64	0.00	119 bbl water displacement
Event	14	Other	Spacer to surface	12/4/2016	11:55:32	COM1	505.00	7.90	8.60	70 bbl into displacement
Event	15	Other	Cement to surface	12/4/2016	11:57:16	COM1	572.00	7.90	8.60	80 bbl into displacement. 25 bbl cement back
Event	16	Bump Plug	Bump Plug	12/4/2016	12:06:11	COM1	1165.00	7.89	0.80	500 psi final circulating pressure. Pressured up to 1500 psi for 5 minute casing test
Event	17	Other	Check floats	12/4/2016	12:10:44	USER	1548.00	7.86	0.00	0.5 bbl back. Floats held
Event	18	Pre-Rig Down Safety	Pre-Rig Down Safety	12/4/2016	12:12:00	USER				

		Meeting	Meeting						
Event	19	End Job	End Job	12/4/2016	12:25:00	COM1	-43.00	7.76	0.00
Event	20	Depart Location Safety Meeting	Depart Location Safety Meeting	12/4/2016	13:30:00	USER			

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events