

HALLIBURTON

iCem[®] Service

ADVANCED EXTRACTION TECHNOLOGIES

Date: Friday, February 19, 2016

EXTRACTION JOHNSON TRUST #5 Production

Job Date: Friday, January 29, 2016

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Johnson Trust #5** 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.

17 barrels of cement 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 #: 3699355	Quote #:	Sales Order #: 0903080827							
Customer: EXTRACTION OIL & GAS		Customer Rep:								
Well Name: JOHNSON TRUST	Well #: 5	API/UWI #: 05-123-42321-00								
Field: WATTENBERG	City (SAP): LONGMONT	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-13-2N-68W-2153FSL-389FWL										
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor: Joseph Fantasia								
Job										
Formation Name										
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		9.625	8.921	36			0	1576		
Casing		5.5	4.778	20			0	12329		
Open Hole Section			7.875				1576	12330		
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /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	3.74		6		
	36.09 gal/bbl	FRESH WATER								
	0.24 gal/bbl	MUSOL(R) A, BULK (100003696)								
	0.24 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
	149.34 lbm/bbl	BARITE, BULK (100003681)								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	ElastiCem	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.6		8	7.68	
	7.68 Gal	FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	ElastiCem	ELASTICEM (TM) SYSTEM	1390	sack	13.2	1.6		8	7.69	
	7.69 Gal	FRESH WATER								

last updated on 1/29/2016 11:07:47 AM

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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/min	Total Mix Fluid Gal
5	Displacement	WATER	272	bbl	8.33			8	
Cement Left In Pipe		Amount	4 ft		Reason			Shoe Joint	
Comment APPROX 17 BBLs CEMENT TO SURFACE									

2.0 Real-Time Job Summary

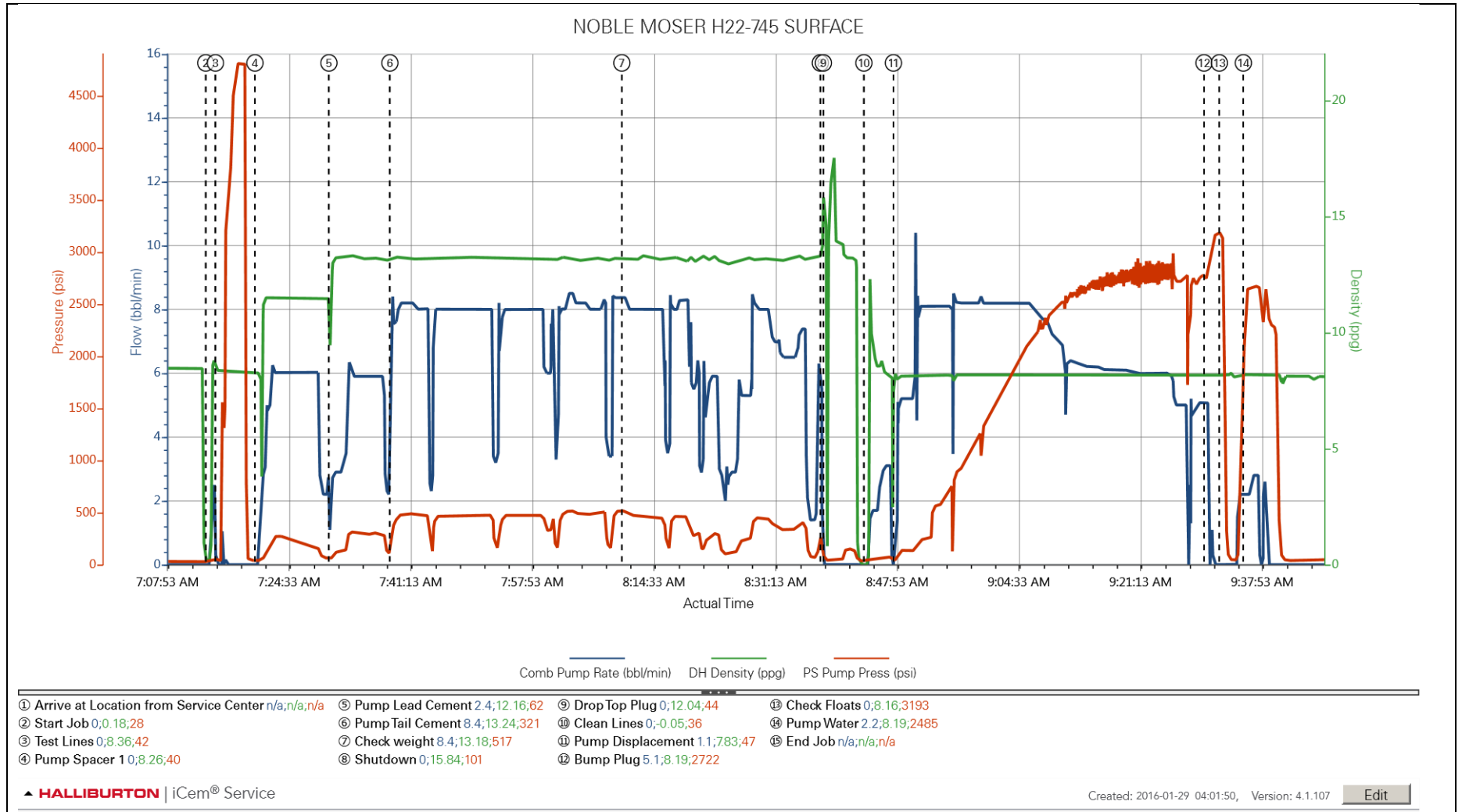
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	1/29/2016	03:30:00	USER				HELD SITE ASSESSMENT AND PRE RIG UP SAFETY MEETING PRIOR TO RIGGING UP EQUIPMENT. RIG HAD 32 JOINTS OF CASING LEFT TO RUN. WATER TEST: PH=7 TEMP=65F CHLORIDES=0. MUD WEIGHT 9.5 PPG.
Event	2	Start Job	Start Job	1/29/2016	07:13:26	COM5				RIG CIRCULATING AT 8 BBLS/MIN AND 1200 PSI. HELD PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO STARTING JOB.
Event	3	Test Lines	Test Lines	1/29/2016	07:14:46	COM5	0.00	8.36	42.00	PRESSURE TEST LINES TO 4900 PSI.
Event	4	Pump Spacer 1	Pump Spacer 1	1/29/2016	07:20:11	COM5	0.00	8.26	40.00	PUMP 50 BBLS TUNED SPACER MIXED AT 11.5 PPG. DENSITY VERIFIED BY SCALE. 12 GALLONS MUSOL A AND DUAL SPACER B ADDED TO SPACER. 5 GALLONS D-AIR ADDED TO COMBAT FOAMING.
Event	5	Pump Lead Cement	Pump Lead Cement	1/29/2016	07:30:19	COM5	2.40	12.16	62.00	PUMP 42 BBLS (150 SKS) ELASTICEM WITHOUT CBL MIXED AT 13.2 PPG. DENSITY VERIFIED BY SCALE.
Event	6	Pump Tail Cement	Pump Tail Cement	1/29/2016	07:38:40	COM5	8.40	13.24	321.00	PUMP 396 BBLS (1390 SKS) ELASTICEM WITH CBL MIXED AT 13.2 PPG. DENSITY VERIFIED BY SCALE.
Event	7	Check Weight	Check weight	1/29/2016	08:10:27	COM5	8.40	13.18	517.00	DENSITY VERIFIED BY SCALE.
Event	8	Shutdown	Shutdown	1/29/2016	08:37:39	COM5				
Event	9	Drop Top Plug	Drop Top Plug	1/29/2016	08:38:04	COM5				TOP PLUG WAS THRID PARTY. DROPPED THROUGH OUR PLUG CONTAINER DURING SHUTDOWN.
Event	10	Clean Lines	Clean Lines	1/29/2016	08:43:37	COM5				CLEAN LINES TO PIT.
Event	11	Pump Displacement	Pump Displacement	1/29/2016	08:47:40	COM5	1.10	7.83	47.00	DISPLACE USING 272 BBLS WATER. GOOD RETURNS THROUGHOUT. APPROX 50 BBLS SPACER AND 17 BBLS CEMENT TO SURFACE. PUMPS COULD NOT KEEP 8 BPM RATE ONCE PRESSURE REACHED 2500 PSI. RATE BEGIN TO FALL TOWARDS 7 BPM AT 160 BBLS AWAY AND AT 170 BBLS AWAY PUMPS WERE 6 BPM 2700 PSI.

Event	12	Bump Plug	Bump Plug	1/29/2016	09:30:14	USER	5.10	8.19	2722.00	PLUG LANDED AT 2735 PSI. PRESSURE BROUGHT TO 3100 PSI AND HELD 1 MIN.
Event	13	Check Floats	Check Floats	1/29/2016	09:32:20	USER				FLOATS HELD. 3 BBLS BACK TO TRUCK.
Event	14	Pump Water	Pump Water	1/29/2016	09:35:37	USER				PUMP 8 BBLS WATER TO FOR WET SHOE.
Event	15	End Job	End Job	1/29/2016	10:47:30	USER				HELD RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN EQUIPMENT.

3.0 Attachments

3.1 EXTRACTION JOHNSON TRUST #5-Custom Results.png



Custom Results

