

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Tuesday, April 10, 2018

Coyote Trails 34S-20-15N PRODUCTION

Job Date: Tuesday, March 20, 2018

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 **Coyote Trails 34S-20-15N** 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 2 barrels of spacer were returned to surface before returns were lost. Top plug did not bump.

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 #: 389404		Ship To #: 3843101		Quote #:		Sales Order #: 0904707533					
Customer: EXTRACTION OIL & GAS				Customer Rep: Larry Siegel							
Well Name: COYOTE TRAILS			Well #: 34S-20-15N			API/UWI #: 05-123-45987-00					
Field: WATTENBERG		City (SAP): ERIE		County/Parish: WELD		State: COLORADO					
Legal Description: SW SE-28-1N-88W-1145FSL-2049FEL											
Contractor:				Rig/Platform Name/Num: Patterson 901							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199					Srvc Supervisor: Steven Markovich						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST		230 degF				
Job depth MD		19488ft			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		J-55	0	1598	0	0	
Casing	0	5.5	4.778	20	BTC	P-110	0	19488	0	0	
Open Hole Section			8.5				1598	19495	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			19488		Top Plug	5.5		HES		
Float Shoe	5.5					Bottom Plug	5.5		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		
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	3.73		8			
149.34 lbm/bbl		BARITE, BULK (100003681)									
35 gal/bbl		FRESH WATER									
0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)									
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)									

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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
2	ElastiCem	ELASTICEM (TM) SYSTEM	3065	sack	13.2	1.57		5	7.53
0.65 %		SCR-100 (100003749)							
7.53 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	430	bbl	8.34				
<p>Comment Pump 430bbls of H2O. Pumped 8bbls/min to 140bbls away. Pumped 5bbl/min to 240bbls away. Pumped 4bbls/min to 290bbls away. Pumped 3bbls/min to 320bbls away. Flow continued to fade. At 380bbls away spacer came to surface then lost returns at 382bbls away. (2bbls of spacer to surface) Pump the rest of displacement at 2bbls/min. Pumped calculated displacement then shut down.(plug didnt land) Kicked in pumps to pump 5bbl wet shoe. Checked floats and after 3bbls back floats held. Company rep had us pump the 3bbls back in plus an additional 2bbls to see if we could land the plug. Opened release line to check floats and after 3 bbls back floats held. Estimated Top of Cement 1002'.</p>									

2.0 Real-Time Job Summary

2.1 Job Event Log

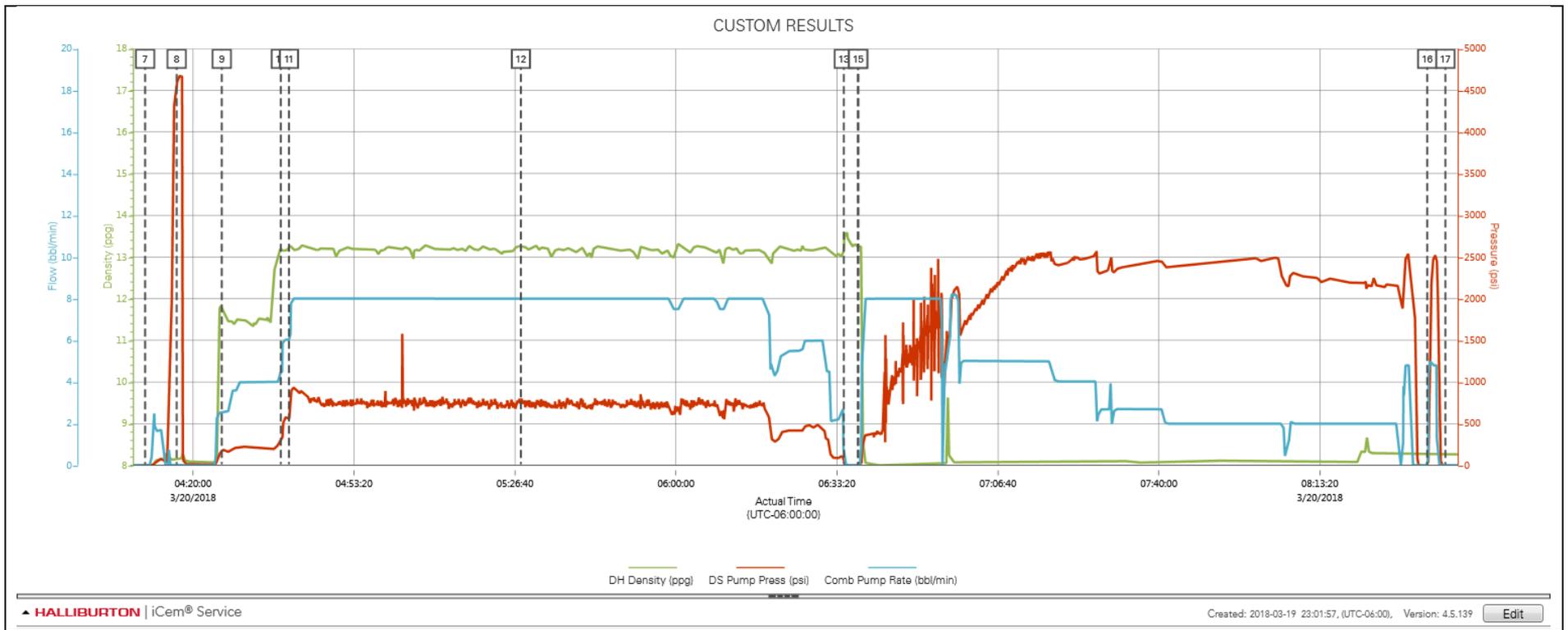
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	3/19/2018	16:00:00	USER				Job called out with an on location time of 22:00
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	3/19/2018	20:00:00	USER				JSA with HES crew on driving safety and route to rig.
Event	3	Arrive At Loc	Arrive At Loc	3/19/2018	20:30:00	USER				Arrived on location, rig still running casing. 10,000' to run.
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	3/19/2018	20:45:00	USER				JSA and hazard hunt with HES crew.
Event	5	Rig-Up Equipment	Rig-Up Equipment	3/19/2018	20:55:00	USER				Rigged up HES lines and equipment.
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/20/2018	03:45:00	USER	0.00	8.00	0.00	JSA with HES and rig crew on job safety and procedure.
Event	7	Start Job	Start Job	3/20/2018	04:10:04	COM4	0.00	0.00	0.00	TD 19495' TP 19488' FC 19483' 5 1/2" 20# Production Casing, 8 1/2" open hole, 9 5/8" 36# Surface Casing at 1598', TVD 8167'
Event	8	Test Lines	Test Lines	3/20/2018	04:16:36	COM4	8.16	4469.00	0.00	Set kick outs to 500psi and check kick outs. Then bring pressure up to 4800psi.
Event	9	Pump Spacer 1	Pump Spacer 1	3/20/2018	04:25:57	COM4	11.74	197.00	2.60	Pump 50bbls of 11.5ppg 3.73yield Tuned Spacer. Added 25 gallons of Dual Spacer B and Musol A on the fly. Pumed at 4bbl/min 220psi.
Event	10	Pump Lead Cement	Pump Lead Cement	3/20/2018	04:38:09	COM4	13.12	306.00	4.50	Pump 857bbls (3065sks) of 13.2ppg 1.57yield Cement. Pumed at 8bbl/min 935psi.
Event	11	Check Weight	Check weight	3/20/2018	04:39:51	COM4	13.26	571.00	6.00	Weight verified by pressurized scales.
Event	12	Check Weight	Check weight	3/20/2018	05:27:53	COM4	13.23	756.00	8.00	Weight verified by pressurized scales.
Event	13	Shutdown	Shutdown	3/20/2018	06:34:45	COM4	13.19	77.00	0.00	Shutdown
Event	14	Drop Top Plug	Drop Top Plug	3/20/2018	06:37:41	COM4	13.29	-2.00	0.00	Plug loaded and dropped in front of company rep and tool hand.
Event	15	Pump Displacement	Pump Displacement	3/20/2018	06:37:44	COM4	13.23	-2.00	0.00	Pump 430bbls of H2O. Pumped 8bbls/min to 140bbls

away. Pumped 5bbl/min to 240bbls away. Pumped 4bbls/min to 290bbls away. Pumped 3bbls/min to 320bbls away. Flow continued to fade. At 380bbls away spacer came to surface then lost returns at 382bbls away. (2bbls of spacer to surface) Pump the rest of displacement at 2bbls/min. Pumped calculated displacement then shut down.(plug didnt land) Kicked in pumps to pump 5bbl wet shoe. Checked floats and after 3bbls back floats held.

Event	16	Other	Other	3/20/2018	08:35:34	USER	8.26	-14.00	0.00	Company rep had us pump the 3bbls back in plus an additional 2bbls to see if we could land the plug. Opened release line to check floats and after 3bbls back floats held.
Event	17	End Job	End Job	3/20/2018	08:39:19	COM4				Thank you Steve Markovich and crew.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

