

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Thursday, February 08, 2018

COYOTE TRAILS 34S-20-14C SURFACE

Job Date: Sunday, February 04, 2018

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 **COYOTE TRAILS 34S-20-14C** 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 42 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 [Fort Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 389404	Ship To #: 3843033	Quote #:	Sales Order #: 0904613743							
Customer: EXTRACTION OIL & GAS -		Customer Rep: KALYN HOLGATE								
Well Name: COYOTE TRAILS	Well #: 34S-20-14C	API/UWI #: 05-123-45984-00								
Field: WATTENBERG	City (SAP): ERIE	County/Parish: WELD	State: COLORADO							
Legal Description: SW SE-28-1N-88W-1145FSL-2067FEL										
Contractor: Patterson 901		Rig/Platform Name/Num: Patterson 901								
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Bryce Muir								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	1626ft	Job Depth TVD								
Water Depth		Wk Ht Above Floor	3 FT							
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	1626	0	0
Open Hole Section			13.5				0	1650	0	0
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	1	TOPCO	1626	Bottom Plug	9.625				
Float Collar	9.625	1	TOPCO	1585	SSR plug set	9.625				
Insert Float	9.625				Plug Container	9.625	1	HES		
Stage Tool	9.625				Centralizers	9.625				
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	Red Dye Spacer	Red Dye Spacer	10	bbl	8.33					
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	SwiftCem	SWIFTCEM (TM) SYSTEM	560	sack	13.5	1.74		5	9.2	
9.20 Gal		FRESH WATER								

last updated on 2/8/2018 9:33:53 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
3	Fresh Water	Fresh Water	122	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment: WE ARRIVED ON LOCATION AT 2000 HOURS ON 02/04/2018. WE SPOTTED IN OUR EQUIPMENT AND RIGGED UP OUR IRON. WE WAITED ON LOCATION UNTIL THE CASING WAS RAN. AFTER THE CASING WAS LANDED WE RIGGED UP THE PLUG CONTAINER AND LOADED THE PLUG. WE HELD A SAFETY MEETING BEFORE WE STARTED THE JOB. WE TESTED OUR IRON AND THEN PUMPED FRESH WATER TO BREAK CIRCULATION. IT TOOK 5 BBLS TO BREAK CIRCULATION. WE THEN PUMPED 10 BBLS DYED SPACER FOLLOWED BY 174 BBLS OF CEMENT. TOP PLUG WAS DROPPED BY BRYCE MUIR AND WITNESSED BY COMPANY REP. WE PUMPED 122 BBLS OF DISPLACEMENT. WE GOT 10 BBLS DYE SPACER TO SURFACE FOLLOWED BY 42 BBLS OF GOOD CEMENT. WE LANDED THE PLUG AT 122 BBLS DISPLACEMENT PUMPED. WE LANDED THE PLUG AT 598 PSI AND PRESSURED UP TO 1018 PSI. HELD FOR ONE MINUTE AND CHECKED FLOATS. FLOATS HELD AND WE GOT 1 BBL BACK TO THE RED TIGER.									

2.0 Real-Time Job Summary

2.1 Job Event Log

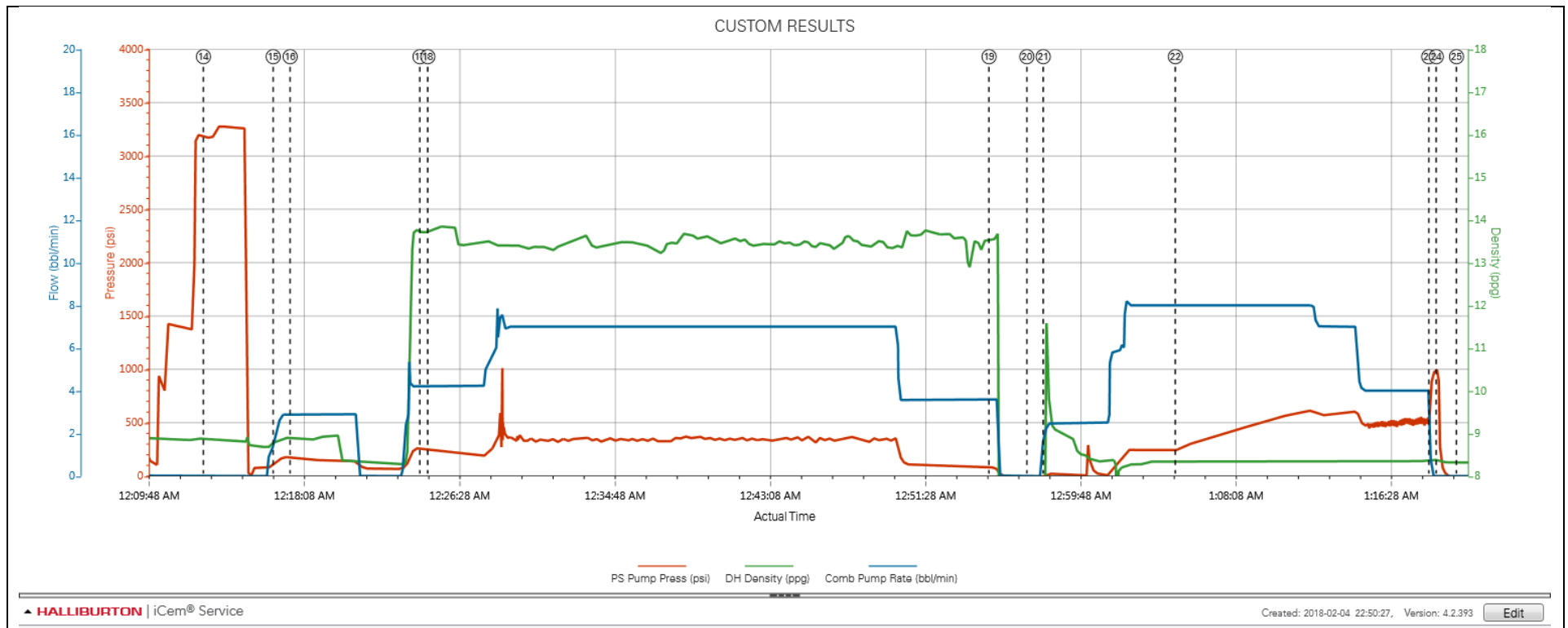
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	2/4/2018	12:00:00	USER				CREW CALLED OUT TO PERFORM SURFACE CASING JOB FOR EXTRACTION.
Event	2	Other	Other	2/4/2018	13:00:00	USER				LOAD UP ALL REQUIRED MATERIALS NEEDED TO COMPLETE JOB.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/4/2018	14:45:00	USER				DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS TO LOCATION. IDENTIFIED SAFEST ROUTE OF TRAVEL, CONVOY ORDER, AND PLACES TO STOP IF NEEDED.
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/4/2018	15:00:00	USER				
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	2/4/2018	16:00:00	USER				
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	2/4/2018	16:05:00	USER				ASSESS LOCATION TO IDENTIFY POTENTIAL HAZARDS AND THE BEST WAY TO SPOT PUMPING EQUIPMENT. SPOT EQUIPMENT.
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/4/2018	16:15:00	USER				DISCUSS HAZARDS ASSOCIATED WITH RIGGING UP AND PACKING IRON ON LOCATION.
Event	8	Rig-Up Equipment	Rig-Up Equipment	2/4/2018	16:30:00	USER				RIG UP IRON TO THE RED ZONE.
Event	9	Other	Other	2/4/2018	17:00:00	USER				WAIT FOR RIG TO FINISH RUNNING CASING.
Event	10	Rig-Up Equipment	Rig-Up Equipment	2/4/2018	23:35:00	USER	-13.70	0.00	0.00	PRE LOAD 9.625" TOP PLUG. PLUG LOADED BY BRYCE MUIR AND WITNESSED BY COMPANY MAN. RIG UP PLUG CONTAINER AND MANIFOLD.
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/4/2018	23:55:00	USER	-11.70	0.00	0.00	DISCUSS HES SAFETY AND JOB PROCEDURES WITH COMPANY MAN AND RIG CREW. IDENTIFY CLOSEST HOSPITALS, MUSTER AREAS, AND FIRST AID LOCATIONS. DISCUSSED JOB ORDER OF OPERATION.
Event	12	Start Job	Start Job	2/5/2018	00:07:05	COM6	31.30	8.33	0.00	

Event	13	Other	Other	2/5/2018	00:08:00	USER	52.30	8.55	1.70	PUMP 3 BBLs FRESH WATER TO FILL PUMPS AND LINES.
Event	14	Test Lines	Test Lines	2/5/2018	00:12:50	COM6	3175.30	8.87	0.00	CONDUCT A LOW PRESSURE TEST TO 500 PSI TO TEST RED TIGER PRESSURE KICKOUTS. THEN WE CONDUCTED A HIGH PRESSURE TEST TO 3000 PSI TO TEST PUMP AND LINES.
Event	15	Pump Spacer 1	Pump Spacer 1	2/5/2018	00:16:35	COM6	124.30	8.83	1.90	PUMPED 5 BBLs OF FRESH WATER TO BREAK CIRCULATION. PUMPED AT 3 BPM @ 220 PSI.
Event	16	Pump Spacer 2	Pump Spacer 2	2/5/2018	00:17:29	COM6	173.30	8.90	2.90	PUMPED 10 BBLs OF DYED SPACER. PUMPED AT 3 BPM @ 220 PSI. WE HAD GOOD CIRCULATION.
Event	17	Pump Cement	Pump Cement	2/5/2018	00:24:27	COM6	257.30	13.70	4.20	PUMPED 174 BBLs OF PRIMARY CEMENT. 560 SACKS @ 13.5 #/GAL 1.74 CUFT/SK 9.2 GAL/SK. WE PUMPED CEMENT AT 7 BPM @ 370 PSI. WE HAD GOOD CIRCULATION.
Event	18	Check Weight	Check weight	2/5/2018	00:24:52	COM6	245.30	13.75	4.20	PRIMARY CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	19	Shutdown	Shutdown	2/5/2018	00:55:00	USER	81.30	13.55	3.60	
Event	20	Drop Top Plug	Drop Top Plug	2/5/2018	00:57:01	COM6	-7.70	0.14	0.00	DROP 9.625" TOP PLUG. PLUG DROPPED BY BRYCE MUIR AND WITNESSED BY COMPANY MAN.
Event	21	Pump Displacement	Pump Displacement	2/5/2018	00:57:54	COM6	12.30	11.08	2.20	WE PUMPED 122 BBLs OF FRESH WATER DISPLACEMENT. WE WASHED UP ON TOP OF THE PLUG WITH THE FIRST 10 BBLs OF DISPLACEMENT. WE PUMPED DISPLACEMENT AT 8 BPM AT 350 PSI. MONITORING RATE AT PRESSURE.
Event	22	Displ Reached Cmnt	Displ Reached Cmnt	2/5/2018	01:05:00	USER	249.30	8.35	8.00	THE PLUG REACHED CEMENT AT 36 BBLs OF DISPLACEMENT PUMPED. WE DYED SPACER TO SURFACE AT 70 BBLs PUMPED. AT 80 BBLs OF DISPLACEMENT PUMPED WE GOT GOOD CEMENT TO SURFACE. WE GOT 42 BBLs OF CEMENT TO SURFACE. WE SLOWED OUR RATE TO 3 BPM THE LAST 15 BBLs OF DISPLACEMENT TO LAND THE PLUG.
Event	23	Bump Plug	Bump Plug	2/5/2018	01:18:35	COM6	877.30	8.37	0.00	LANDED PLUG AT 122 BBLs PUMPED. WE LANDED THE PLUG AT 598 PSI AND PRESSURED UP TO 1018 PSI. WE HELD FOR LESS THAN 1 MINUTE.
Event	24	Check Floats	Check Floats	2/5/2018	01:19:00	USER	889.30	8.38	0.00	FLOATS HELD. AND WE GOT 1 BBLs BACK TO THE RED TIGER
Event	25	End Job	End Job	2/5/2018	01:20:05	COM6	-16.70	8.32	0.00	
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/5/2018	01:35:00	USER				DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN AND PACKING IRON ON LOCATION.

Event	27	Rig-Down Equipment	Rig-Down Equipment	2/5/2018	01:45:00	USER	
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/5/2018	02:20:00	USER	DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS BACK TO THE SERVICE CENTER. DISCUSSED ROUTE OF TRAVEL, CONVOY ORDER, AND PLACES TO STOP IF NEEDED.
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/5/2018	02:35:00	USER	JOB WAS COMPLETED SAFELY BY BRYCE MUIR AND CREW. THANK YOU FOR USING HALLIBURTON ENERGY SERVICES. STAY SAFE OUT HERE.

3.0 Attachments

3.1 CUSTOM RESULTS – JOB CHART WITH EVENTS



3.2 CUSTOM RESULTS – JOB CHART WITHOUT EVENTS

