

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Thursday, March 15, 2018

Falken 34C-9-L Production

Job Date: Thursday, January 25, 2018

Sincerely,
Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Falken 34C-9-L 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 30 bbls 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]

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3815827	Quote #:	Sales Order #: 0904581587
Customer: SRC ENERGY INC-EBUS		Customer Rep: Kent Priddy	
Well Name: FALKEN		Well #: 34C-9-L	API/UWI #: 05-123-45125-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE SE-11-6N-66W-1754FSL-276FEL			
Contractor: Precision		Rig/Platform Name/Num: Precision 562	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Nicholas Roles	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	19292ft	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		9.625	8.921	36	LTC	J-55	0	1812		
Casing		5.5	4.778	20		P-110	0	19292	0	7280
Open Hole Section			8.5				1812	19309	1812	7280

Tools and Accessories

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			19292	Bottom Plug	5.5		HES
Float Collar	5.5				SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	1	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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.8		5		
		147.42 lbm/bbl	BARITE, BULK (100003681)							
		35.10 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)								
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 LEAD	ELASTICEM (TM) SYSTEM	1058	sack	13.2	1.57		7	7.54	
0.15 %		FE-2 (100001615)								
0.30 %		SCR-100 (100003749)								
7.54 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	NeoCem	NeoCem TM	1432	sack	13.2	2.04		8	9.77	
9.77 Gal		FRESH WATER								
0.08 %		SCR-100 (100003749)								
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	MMCR Displacement	MMCR Displacement	20	bbbl	8.34			10		
0.1250 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)								
0.50 gal/bbl		CLA-WEB - TOTE (101985045)								
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	Water	Water	405	bbbl	8.33			10		
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe		
Comment Got 30bbbls cement to surface, Estimated TOT-6178'										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density <i>(ppg)</i>	Combined Pump Rate <i>(bbl/min)</i>	Driv-Side Pump Pressure <i>(psi)</i>	Water Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	1/24/2018	18:00:00	USER					Called out by Service Coordinator for O/L at 2300
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	1/24/2018	21:45:00	USER					Journey Management prior to departure
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	1/24/2018	22:00:00	USER					Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	1/24/2018	23:00:00	USER					Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/24/2018	23:15:00	USER					Discussed rigging up hazards and procedure according to HMS.
Event	6	Other	Other	1/24/2018	23:30:00	USER					Water test- PH-6, Chlor-0, Temp-65. Cement temp-70.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/25/2018	04:15:00	USER					Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority.
Event	8	Start Job	Start Job	1/25/2018	04:15:01	USER					TD-19309', TP-19292' 5.5" 20#, WS Sub-19180', TVD-7280', OH-8.5", SURF-1812' 9.625" 36#, MUD-8.8#
Event	9	Test Lines	Test Lines	1/25/2018	04:56:31	RTD	9.38	0.00	22.66	5.4	Pumped 5bbls fresh water

											Import	to fill lines, closed manifold and performed 500psi k/o function test, proceeded to perform 5th gear stall at 1452psi, continued to bring pressure up to 6000psi. Pressure stabilized and held with no leaks
Event	10	Pump Spacer 1	Pump Spacer 1*	1/25/2018	05:07:13	RTD Import	9.21	0.72	9.46	0.0	Pumped 40bbls 11.5# 3.8y 23.8g/s Tuned Spacer III with 20g Musol A, 20g Dual Spacer B and 10g D-Air at 4bpm 225psi.	
Event	11	Drop Bottom Plug	Drop Bottom Plug	1/25/2018	05:16:35	RTD Import	11.65	0.00	47.19	32.2	Dropped by HES supervisor, witnessed by company man.	
Event	12	Pump Lead Cement	Pump Lead Cement*	1/25/2018	05:16:42	RTD Import	11.65	0.00	48.14	32.2	Pumped 1058sks or 296bbls 13.2# 1.57y 7.54g/s Elasticem at 8bpm 400psi.	
Event	13	Mud Cup Sample	Mud Cup Sample Pulled	1/25/2018	05:27:50	RTD Import	13.24	7.66	710.41	24.1	Weight verified with pressurized mud scales.	
Event	14	Mud Cup Sample	Mud Cup Sample Pulled	1/25/2018	06:11:03	RTD Import	13.04	6.57	176.44	177.6	Weight verified with pressurized mud scales.	
Event	15	Pump Tail Cement	Pump Tail Cement*	1/25/2018	06:12:09	RTD Import	13.21	6.52	343.42	182.7	Pumped 1432sks or 520bbls 13.2# 2.04y 9.77g/s Neocem at 8bpm 475psi.	
Event	16	Mud Cup Sample	Mud Cup Sample Pulled	1/25/2018	06:12:30	RTD Import	13.18	7.34	353.80	1.6	Weight verified with pressurized mud scales.	
Event	17	Mud Cup Sample	Mud Cup Sample Pulled	1/25/2018	06:35:58	RTD Import	13.22	7.04	740.60	102.5	Weight verified with pressurized mud scales.	
Event	18	Shutdown	Shutdown	1/25/2018	07:26:26	RTD Import	13.32	0.00	14.17	317.7	Pumped 5bbls fresh water to clean through pumps and lines.	
Event	19	Drop Top Plug	Drop Top Plug	1/25/2018	07:35:39	RTD Import	8.16	0.00	14.17	331.6	Dropped by HES supervisor, witnessed by company man.	

Event	20	Pump Displacement	Pump Displacement*	1/25/2018	07:35:42	RTD Import	8.15	0.00	12.29	0.0	Pumped 425bbls fresh water with 5g MMCR in first 20bbls, 20g clayweb and 3# biocide throughout.
Event	21	Bump Plug	Bump Plug	1/25/2018	08:32:17	RTD Import	8.47	0.00	2926.49	416.7	Slowed down to 3bpm at 400bbls away, final circulating pressure- 2175psi, bump pressure- 2800psi.
Event	22	Pressure Up Well	Pressure Up Well	1/25/2018	08:36:56	RTD Import	8.44	0.00	2946.30	416.7	Pumped fresh water to sheer at 5011psi, continued to pump 6bbls fresh water at 3bpm 2250psi.
Event	23	Check Floats	Check Floats	1/25/2018	08:42:34	USER	8.42	0.00	1976.47	416.7	Released pressure and got 2.5bbls back to pump. Floats held.
Event	24	End Job	End Job	1/25/2018	08:42:35	USER	8.42	0.00	1971.75	416.7	Got 30bbls cement to surface, Estimated TOT- 6178'
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/25/2018	08:45:00	USER					Discussed rigging down hazards and procedure according to HMS.
Event	26	Depart Location Safety Meeting	Depart Location Safety Meeting	1/25/2018	09:45:00	USER					Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	1/25/2018	10:00:00	USER					Pre journey management prior to departure.

3.0 Attachments

3.1 Precision 562 Falken 34C-9-L-Custom Results.png



