

# HALLIBURTON

iCem<sup>®</sup> Service

## **SRC ENERGY INC-EBUS**

Date: Tuesday, November 21, 2017

## **Falken 9N-9C-L Production**

Job Date: Monday, October 09, 2017

Sincerely,

**Bryce Hinsch**

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Falken 9N-9C-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 80 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]**

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## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3815828	Quote #:	Sales Order #: 0904347290							
Customer: SRC ENERGY INC-EBUS		Customer Rep: TODD								
Well Name: FALKEN	Well #: 9N-9C-L	API/UWI #: 05-123-45122-00								
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO							
Legal Description: NE SE-11-6N-66W-1874FSL-276FEL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 562								
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: David Hahn								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	18875ft	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	1815	0	1815
Casing		5.5	4.778	20		P-110	0	18894	0	0
Open Hole Section			8.5				1815	18909	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5			18894	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	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		6		
147.42 lbm/bbl		BARITE, BULK (100003681)								
36.09 gal/bbl		FRESH WATER								
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								

Not updated as 10/20/2016 11:00 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/mi n	Total Mix Fluid Gal
2	ElastiCem	ELASTICEM (TM) SYSTEM	1025	sack	13.2	1.57		6	7.52
0.4250 %		SCR-742, 50 LB BAG (102027729)							
7.52 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	NeoCem	NeoCem TM	1401	sack	13.2	2.09		4	10.08
10.08 Gal		FRESH WATER							
0.30 %		SCR-100 (100003749)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	10	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Water	Water	407	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment									

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## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	10/9/2017	00:00:00	USER				CALLED OUT FROM EL ERNO OKLAHOMA
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/9/2017	03:00:00	USER				LEAVE YARD AFTER SAFTEY MEETING
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	10/9/2017	05:00:00	USER				ARRIVED ON LOCATION AND TALKED TO COMPANY MAN ABOUT JOB FIGURES AND THE SPOTTING OF OUR EQUIPMENT
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/9/2017	05:15:00	USER				ASSESSED LOCATION AN TOOK WATER SAMPLE
Event	5	Rig-Up Equipment	Rig-Up Equipment	10/9/2017	05:30:00	USER				SPOTTED EQUIPMENT AND RIGGED UP TO FLOOR RIG IS RUNNING CASING
Event	6	Other	Other	10/9/2017	06:00:00	USER				Water test=pH: 7, Cl: 1200 , temp __55__degrees Tannin-Lignin: __NEG____; Sulfate: __NEG____
Event	7	Other	Other	10/9/2017	06:05:00	USER				TD: 18909_ , TP 18894_ , SJ: 109_ , OH:8.5_ , Casing: Size/Weight/Grade:5.5 20# P110_ , Previous Casing Shoe:1820_
Event	8	Other	Other	10/9/2017	06:15:00	USER				Spacer: 40 bbl TOS_ Lead Cement:286 bbl, 1025 sks, TOC:SURFACE_ Tail Cement: 521_ bbl, _1401 sks, TOC_ Displacement:417_ bbl CMT

										left in Pipe_ Reason_
Event	9	Rig-Down Completed	Rig-Down Completed	10/9/2017	06:56:42	USER	-8.00	0.00	0.00	RIG DOWN COMPLETE
Event	10	Rig-Up Completed	Rig-Up Completed	10/9/2017	09:00:00	USER	-8.00	0.00	0.00	RIG UP COMPLETE SAFETY MEETING WITH RIG HANDS AND HALLIBURTON ABOUT THE DANGERS OF OUR EQUIPMENT AND WENT OVER JOB FIGURES. READY TO TEST LINES
Event	11	Test Lines	Test Lines	10/9/2017	09:51:57	COM6	33.00	11.20	0.70	LOW TEST TO 500 PSI HIGH TEST TO 6000
Event	12	Pump Spacer 1	Pump Spacer 1	10/9/2017	09:52:00	COM6	26.00	11.25	0.70	40 BBL TUNED SPACER @ 11.5 PPG DROP BOTTOM WEATHERFORD PLUG AFTER SPACER
Event	13	Pump Lead Cement	Pump Lead Cement	10/9/2017	09:53:30	COM6	953.00	12.93	8.00	286 BBL LEAD CEMENT @ 13.2 PPG
Event	14	Pump Tail Cement	Pump Tail Cement	10/9/2017	10:28:43	COM6	576.00	13.33	8.00	521 BBL TAIL CEMENT @ 13.2 PPG
Event	15	Clean Lines	Clean Lines	10/9/2017	11:37:55	COM6	143.00	9.29	4.50	
Event	16	Drop Top Plug	Drop Top Plug	10/9/2017	11:41:39	COM6	18.00	8.18	0.00	DROP WEATHERFORD TOP PLUG
Event	17	Pump Displacement	Pump Displacement	10/9/2017	11:41:41	COM6				PUMP 417 BBL FRESH WATER DISPLACEMENT
Event	18	Bump Plug	Bump Plug	10/9/2017	12:43:35	COM6				BUMP PLUG @ 2300 TAKE TO 2960 PSI
Event	19	Other	Other	10/9/2017	12:47:11	COM6				CHECK FLOATS 2.5 BBL BACK
Event	20	Other	Other	10/9/2017	12:49:53	COM6				PRESSURE UP TO TO 5000 PSI BURST SLEEVE AND PUMP 6 BBL WET SHOE
Event	21	Other	Other	10/9/2017	12:52:53	COM6				FLOATS NOT HOLDING PUMP BACK 3 BBL AND



										SURGE THE LINE TO GET IT TO HOLD, DIDNT WORK PUMPED 4 BBL BACK IN WELL AND CLOSE IN HEAD, RIG WILL WOC 4-6 HRS
Event	22	End Job	End Job	10/9/2017	12:55:22	COM6				JOB WENT WELL ALL BLENDS MIXED WELL, 80 BBL CEMENT AND 40 BBL SPACER TO SURFACE.
Event	23	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	10/9/2017	13:15:00	USER	2.00	8.23	0.00	SAFETY MEETING OVER RIGGING DOWN
Event	24	Rig-Down Equipment	Rig-Down Equipment	10/9/2017	13:30:00	USER				RIG DOWN EQUIPMENT AND HOSES
Event	25	Safety Meeting - Departing Location	Safety Meeting - Departing Location	10/9/2017	14:30:00	USER				SAFETY MEETING OVER DEPARTURE AND JOURNEY HOME
Event	26	Depart Location for Home	Depart Location for Home	10/9/2017	14:45:00	USER				LEAVE LOCATION

3.0 Attachments

3.1 Synergy Falken 9N-9C-L Production Job Chart

