

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Wednesday, February 07, 2018

Boomerang 33C-6-M Production

Job Date: Tuesday, January 30, 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 **Boomerang 33C-6-M** 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 35 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 #: 359915		Ship To #: 3823648		Quote #:		Sales Order #: 0904602052					
Customer: SRC ENERGY INC-EBUS				Customer Rep: Lovel Young							
Well Name: BOOMERANG			Well #: 33C-6-M			API/UWI #: 05-123-45397-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: NE NW-5-5N-88W-1436FNL-2327FWL											
Contractor: Precision				Rig/Platform Name/Num: Precision 462							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307					Srvc Supervisor: Bryan Kraft						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type											
BHST											
Job depth MD		15675ft			Job Depth TVD		7070ft				
Water Depth											
Wk Ht Above Floor 4ft											
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	1807		1807	
Casing		5.5	4.778	20		P-110	0	15675	0	7070	
Open Hole Section			8.5				1807	15684	1807	7070	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe						Top Plug	5.5	1	WF		
Float Shoe	5.5	1	WF	15675		Bottom Plug	5.5	1	WF		
Float Collar	5.5	1	WF	15580		SSR plug set					
Insert Float						Plug Container	5.5	1	HES		
Stage Tool						Centralizers					
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	Spacer	TUNED SPACER III	40	bbl	11.5	3.8	23.8	4	1407		
		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)									

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Cementing Job Summary

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	Lead Cement	ELASTICEM (TM) SYSTEM	1025	sack	13.2	1.57	7.54	8	7729
	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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Tail Cement	NeoCem TM	1083	sack	13.2	2.04	9.75	8	10559
	9.77 Gal	FRESH WATER							
	0.08 %	SCR-100 (100003749)							
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
4	Displacement	FRESH WATER	345	bbl	8.33			8	14490
	0.1250 gal/bbl	MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
	0.50 gal/bbl	CLA-WEB - BULK (101985043)							
Cement Left In Pipe		Amount	0 ft			Reason			Wet Shoe Joint
Mix Water:	pH 7	Mix Water Chloride:	<300 ppm			Mix Water Temperature:			80 °F
Cement Temperature:	N/A	Plug Displaced by:	8.3 lb/gal Fresh Water			Disp. Temperature:			80 °F
Plug Bumped?	Yes	Bump Pressure:	2500 psi			Floats Held?			Yes
Cement Returns:	35 bbl	Returns Density:	N/A			Returns Temperature:			N/A
Comment: The plug bumped @ calculated displacement @ 2500 PSI, shutdown for 1 minute @ 3150 PSI. The sleeve opened @ 5150 PSI and pumped a 6 BBL wet shoe. The floats held and received 2.5 BBLS back to the truck. Cement returned to surface @ 310 BBLS into displacement. Total of 35 BBLS cement returned to surface.									

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>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	1/30/2018	13:00:00	USER				CREW CALLED OUT AT 13:00 1/30/2018, REQUESTED ON LOCATION 19:30 1/30/2018. CREW PICKED UP CEMENT, CHEMICALS (20 GAL MUSOL A, 20 GAL DUAL SPACER B, 10 GAL D-AIR, 20 GAL CLA-WEB, 5 GAL MICROMATRIX), 200 LBS OF SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 10025030, 10784082, PUMP ELITE 11897034/11645460..
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/30/2018	16:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	1/30/2018	17:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	1/30/2018	18:00:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" @ 1807', CASING: 20# 5.5" P110 @ 15675', 115' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 7070', 10.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/30/2018	18:10:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/30/2018	18:20:00	USER				CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/30/2018	21:00:00	USER	8.73	0.00	4.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	1/30/2018	21:09:07	COM6	0.52	0.00	-4.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	1/30/2018	21:13:13	COM6	8.77	0.00	5059.00	PRESSURE TESTED IRON TO 5000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1060 PSI, 5TH GEAR STALL OUT @ 1910 PSI.
Event	10	Pump Spacer 1	Pump Tuned Spacer @ 11.5 ppg	1/30/2018	21:18:26	COM6	12.04	4.30	246.00	PUMP 40 BBLS OF TUNED SPACER @ 11.5 LB/GAL, 3.8 YIELD, 23.8 GAL/SKS, ADDED 20 GAL MUSOL A, 20 GAL DUAL

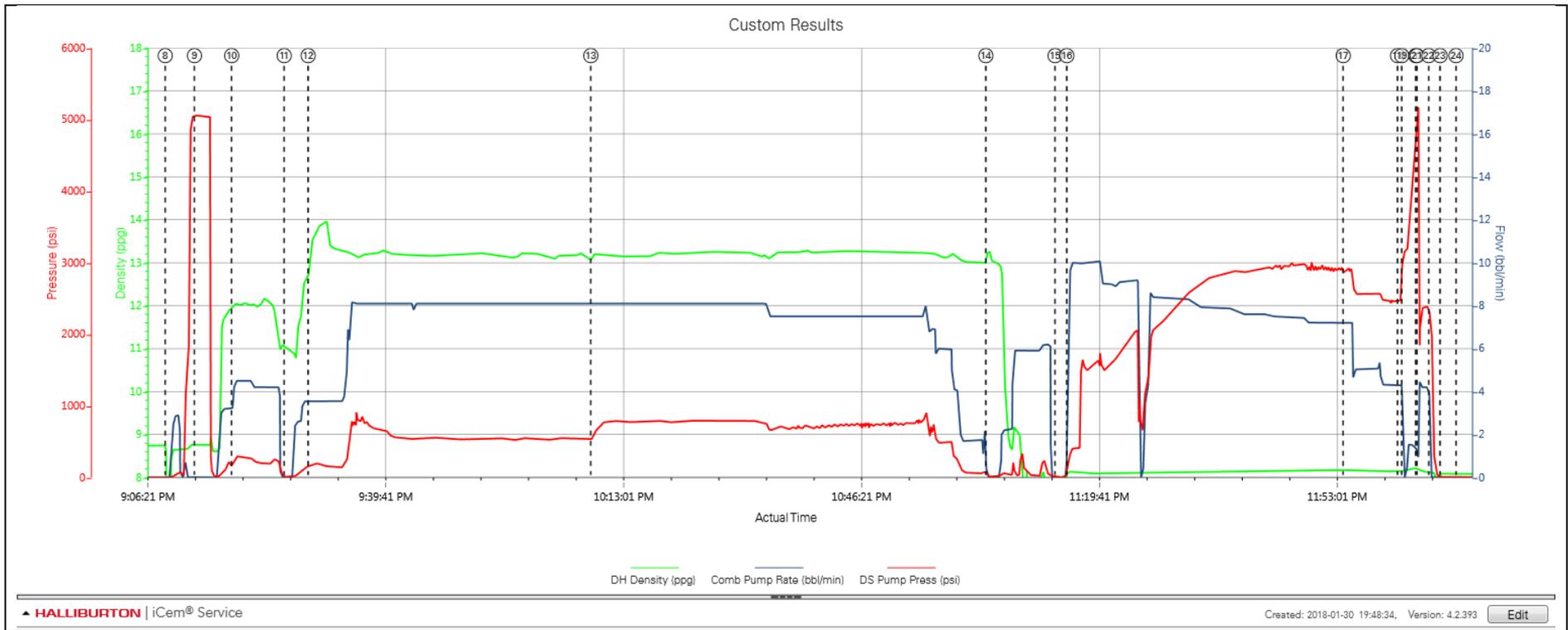
SPACER B, 10 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	11	Drop Bottom Plug	Drop Bottom Plug	1/30/2018	21:25:48	USER	11.01	0.00	6.00	PLUG LEFT CONTAINER.
Event	12	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	1/30/2018	21:29:09	COM6	13.31	3.50	160.00	PUMP 1025 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.54 GAL/SK, 287 BBLs, CALCULATED TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Tail Cement	Pump Tail Cement @ 13.2 ppg	1/30/2018	22:08:45	COM6	13.21	8.10	586.00	PUMP 1083 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.75 GAL/SK, 394 BBLs, CALCULATED TOT @ 5871', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	1/30/2018	23:04:07	COM6	13.26	0.00	15.00	SHUTDOWN TO WASH PUMPS AND LINES / DROP TOP PLUG.
Event	15	Drop Top Plug	Drop Top Plug	1/30/2018	23:13:49	COM6	-0.26	0.00	13.00	DROP TOP PLUG, VERIFIED BY COMPANY MAN.
Event	16	Pump Displacement	Pump Fresh Water Displacement	1/30/2018	23:15:27	COM6	8.15	8.80	274.00	BEGIN CALCULATED DISPLACEMENT OF 345 BBLs WITH FRESH WATER. FIRST 10 BBLs WITH 5 GAL MICROMATRIX, CLA-WEB, AND BE-3, REST OF DISPLACEMENT WITH 20 GAL CLA-WEB AND 3 LBS BE-3.
Event	17	Cement Returns to Surface	Cement Returns to Surface	1/30/2018	23:54:11	USER	8.17	7.20	2928.00	CEMENT RETURNS TO SURFACE @ 310 BBLs INTO DISPLACEMENT. TOTAL OF 35 BBLs CEMENT TO SURFACE.
Event	18	Bump Plug	Bump Plug	1/31/2018	00:01:48	COM6	8.14	4.30	2478.00	PLUG BUMPED AT CALCULATED DISPLACEMENT. FINAL CIRCULATING PRESSURE OF 2500 PSI.
Event	19	Shutdown	Shutdown	1/31/2018	00:02:23	USER	8.17	0.00	3147.00	SHUTDOWN FOR 1 MINUTE @ 3150 PSI
Event	20	Other	Open Sleeve	1/31/2018	00:04:20	USER	8.23	0.90	5137.00	SLEEVE OPENED @ 5150 PSI.
Event	21	Pump Displacement	Pump Wet Shoe	1/31/2018	00:04:31	USER	8.13	4.60	3723.00	PUMP 6 BBLs FRESH WATER FOR WET SHOE.
Event	22	Check Floats	Check Floats	1/31/2018	00:06:10	USER	8.12	0.00	2054.00	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLs BACK.
Event	23	End Job	End Job	1/31/2018	00:07:45	COM6				STOP RECORDING JOB DATA.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/31/2018	00:10:00	USER	8.08	0.00	5.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	1/31/2018	01:30:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	26	Pre-Convoy Safety	Pre-Convoy Safety	1/31/2018	01:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION

		Meeting	Meeting					WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	1/31/2018	02:00:00	USER		THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

