

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Thursday, March 15, 2018

Boomerang 13N-6B-M Production

Job Date: Saturday, January 20, 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 **Boomerang 13N-6B-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 42 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 #: 3823647	Quote #:	Sales Order #: 0904579910
Customer: SRC ENERGY INC-EBUS		Customer Rep: BUDDY DAVIS	
Well Name: BOOMERANG		Well #: 13N-6B-M	API/UWI #: 05-123-45391-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NW-5-5N-66W-1451FNL-2327FWL			
Contractor: Precision		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Bryce Muir	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	15534ft	Job Depth TVD	6912 FT
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		9.625	8.921	36	LTC	J-55	0	1802		1802
Casing		5.5	4.778	20		P-110	0	15534	0	0
Open Hole Section			8.5				1802	15553	0	6912

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	WF
Float Shoe	5.5	1	WF	15534	Bottom Plug	5.5	1	WF
Float Collar	5.5	1	WF	15423	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5	232	WF

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)							
		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	1014	sack	13.2	1.57		6	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	1109	sack	13.2	2.04		4	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	bbl	8.34				
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	322	bbl	8.33				

Cement Left In Pipe	Amount	PUMPED 6 BBL WET SHOE	Reason	Shoe Joint
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Comment: WE ARRIVED ON LOCATION AND SPOTTED IN EQUIPMENT AND BEGAN TO RIG UP OUR IRON. RIG CREW WAS RUNNING CASING. AFTER ALL CASING WAS RAN WE RIGGED UP OUR PLUG CONTAINER AND MANIFOLD SO THE RIG COULD CIRCULATED THE WELL. AFTER THE RIG FINISHED CIRCULATING WE HELD A SAFETY MEETING AND THEN STARTED OUR CEMENT JOB. WE PUMPED THE MATERIALS AND QUANTITIES STATED IN THE ABOVE TABLE. AFTER LANDING THE PLUG AND PUMPING A 6 BBL WET SHOE. WE SHUTDOWN TO CHECK FLOATS. THE FLOATS DID NOT HOLD. WE PUMPED THE 2 ½ BBLs THAT WE GOT BACK TO THE RCM BACK INTO THE WELL. WE THEN SHUT THE WELL IN WITH 2200 PSI ON THE CASING TO HOLD FOR 6 HOURS. WE HELD A SAFETY MEETING AND RIGGING DOWN OUR EQUIPMENT. JOB WAS COMPLETELY SAFELY BY BRYCE MUIR AND CREW.

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)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	1/20/2018	10:00:00	USER					CREW CALLED OUT TO PERFORM PRODUCTION JOB FOR SYNERGY ENERGY.
Event	2	Other	Other	1/20/2018	11:00:00	USER					LOAD UP ALL REQUIRED EQUIPMENT AND MATERIALS NEEDED TO COMPLETE JOB. DOWNLOAD ALL REQUIRED PAPERWORK.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/20/2018	14:15:00	USER					DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS TO LOCATION. DISCUSSED ROUTE OF TRAVEL, CONVOY ORDER, AND PLACES TO PULL OVER IF NEEDED.
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	1/20/2018	14:30:00	USER					
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	1/20/2018	15:30:00	USER					
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	1/20/2018	15:40:00	USER					ASSESS LOCATION TO IDENTIFY POTENTIAL HAZARDS. DISCUSS THE BEST WAY TO SPOT PUMPING EQUIPMENT. SPOT EQUIPMENT.
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/20/2018	15:50:00	USER					DISCUSS HAZARDS ASSOCIATED WITH RIGGING UP AND PACKING IRON AND HOSES ON LOCATION.

DISCUSS SLIPS, TRIPS, FALLS,
PINCH POINTS, AND LINE OF
FIRES.

Event	8	Rig-Up Equipment	Rig-Up Equipment	1/20/2018	16:00:00	USER						
Event	9	Rig-Up Equipment	Rig-Up Equipment	1/20/2018	17:15:00	USER						RIG UP PLUG CONTAINER, MANIFOLD, AND HOSES ON RIG FLOOR SO THE RIG COULD CIRCULATED.
Event	10	Other	Other	1/20/2018	17:30:00	USER						RIG CIRCULATED THE WELL. RIG PUMPED AT 9.5 BPM WITH A CIRCULATING PRESSURE OF 910 PSI.
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/20/2018	18:30:00	USER	-230.70	0.29	0.00	0.0		DISCUSS HES SAFETY AND JOB PROCEDURES WITH RIG CREW AND COMPANY MAN. IDENTIFY MUSTER AREAS, CLOSEST HOSPITALS, AND FIRST AID LOCATIONS. DISCUSSED JOB ORDER OF FLUID OPERATION AND QUANTITIES OF FLUIDS TO BE PUMPED.
Event	12	Rig-Up Equipment	Rig-Up Equipment	1/20/2018	19:00:00	USER	-227.70	8.88	0.00	30.3		RIG UP PUMPING LINES TO STAND PIPE AND MANIFOLD. GET READY TO FILL LINES.
Event	13	Start Job	Start Job	1/20/2018	19:00:24	COM6	-229.70	8.87	0.00	30.3		
Event	14	Other	Other	1/20/2018	19:12:00	USER	-14.70	8.86	0.00	30.3		PUMP 3 BBLS FRESH WATER TO FILL PUMPS AND LINES. PUMPED AT 3 BPM AT 290 PSI.
Event	15	Test Lines	Test Lines	1/20/2018	19:17:26	COM6	1143.30	9.07	0.00	33.7		CONDUCT PRESSURE TEST TO 500 PSI TO TEST RCM PRESSURE KICKOUTS. KICKOUTS FUNCTIONING PROPERLY. CONDUCTED OUR HIGH PRESSURE TEST

Event	ID	Description	Equipment	Date	Time	Code	Volume	Rate	Pressure	Flow	Notes
											TO 4800 PSI TO TEST PUMPS AND LINES.
Event	16	Pump Spacer 1	Pump Spacer 1	1/20/2018	19:22:35	COM6	14.30	8.97	0.00	0.0	PUMPED 40 BBLS OF TUNED SPACER. 11.5 #/GAL 3.8 CUFT/SK 23.8 GAL/SK. WE ADDED DUAL SPACER B AND MUSOLA THROUGHOUT THE 40 BBLS OF TUNED SPACER. PUMPED AT 4 BPM @ 400 PSI.
Event	17	Drop Bottom Plug	Drop Bottom Plug	1/20/2018	19:29:37	COM6	266.30	11.41	3.90	25.2	DROPPED 5.5" BOTTOM PLUG ON THE FLY. PLUG DROPPED BY BRYCE MUIR AND WITNESSED BY COMPANY MAN.
Event	18	Pump Lead Cement	Pump Lead Cement	1/20/2018	19:30:55	COM6	597.30	12.32	6.40	0.1	PUMPED 284 BBLS OF LEAD CEMENT. 1014 SACKS @ 13.2 #/GAL 1.57 CUFT/SK 7.54 GAL/SK. WE PUMPED LEAD CEMENT AT 8 BPM WITH A CIRCULATING PRESSURE OF 550 PSI. WE HAD GREAT WELL CIRCULATION.
Event	19	Check Weight	Check weight	1/20/2018	19:39:57	COM6	365.30	13.26	6.70	59.7	LEAD CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	20	Check Weight	Check weight	1/20/2018	19:47:14	COM6	390.30	13.23	7.80	92.7	LEAD CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	21	Pump Tail Cement	Pump Tail Cement	1/20/2018	20:12:16	COM6	521.30	13.14	8.00	293.7	PUMPED 403 BBLS OF TAIL CEMENT. 1109 SACKS @ 13.2 #/GAL 2.04 CUFT/SK 9.77 GAL/SK. WE PUMPED TAIL CEMENT AT 8 BPM WITH A CIRCULATING PRESSURE OF 585 PSI. WE

Event	ID	Description	Activity	Date	Time	Code	Value 1	Value 2	Value 3	Value 4	Notes
											HAD GREAT CIRCULATION.
Event	22	Check Weight	Check weight	1/20/2018	20:14:39	COM6	680.30	13.17	8.00	19.2	TAIL CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	23	Check Weight	Check weight	1/20/2018	20:40:30	COM6	685.30	13.19	8.00	227.1	TAIL CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	24	Shutdown	Shutdown	1/20/2018	21:06:04	COM6	-4.70	13.41	0.00	407.0	WASH PUMPS AND LINES.
Event	25	Drop Top Plug	Drop Top Plug	1/20/2018	21:14:21	COM6	6.30	7.73	0.00	429.5	DROPPED 5.5" TOP PLUG. PLUG DROPPED BY BRYCE MUIR AND WITNESSED BY COMPANY MAN.
Event	26	Pump Displacement	Pump Displacement	1/20/2018	21:14:26	COM6	3.30	7.73	0.00	0.0	PUMPED 342 BBLS OF FRESH WATER DISPLACEMENT. THE FIRST 20 BBLS OF DISPLACEMENT WE ADDED MMCR. THE REMAINING 322 BBLS WE ADDED BE3 AND CLAY-WEB TO THE DISPLACEMENT. WE PUMPED DISPLACEMENT AT 10 BPM AND ADJUSTED RATE DOWN AS NEEDED.
Event	27	Displ Reached Cmnt	Displ Reached Cmnt	1/20/2018	21:15:30	USER	-7.70	7.73	0.00	0.0	DISPLACEMENT REACHED CEMENT AT 17 BBLS OF DISPLACEMENT PUMPED. WE HAD GREAT CIRCULATION. AT 260 BBLS OF DISPLACEMENT PUMPED WE GOT GOOD TUNED SPACER TO SURFACE. AT 300 BBLS PUMPED WE GOT GOOD CEMENT TO SURFACE. WE GOT 42 BBLS OF CEMENT TO SURFACE. CALCULATED TOP OF TAIL CEMENT IS APPROX. 5595

											FEET FROM SURFACE. LEAD IS AT SURFACE.
Event	28	Bump Plug	Bump Plug	1/20/2018	22:05:29	COM6	2653.30	7.81	2.00	345.3	LANDED PLUG AT CALCULATED DISPLACEMENT. WE LANDED THE PLUG AT 2350 PSI AND PRESSURED UP TO 2792 PSI.
Event	29	Other	Other	1/20/2018	22:06:14	COM6	2778.30	7.81	0.00	345.5	ENGAGED PUMPS TO RUPTURE DISC TO PUMP A 6 BBL WET SHOE. WE PRESSURED UP TO 4800 PSI AND THE DISC DIDN'T RUPTURE. WE BLED BACK PRESSUE TO 2500 PSI AND ENGAGED PUMPS TO TRY AGAIN. WE AGAIN PRESSURED UP TO 4800 PSI AND THE DISC DIDN'T RUPTURE. COMPANY MAN MADE A CALL. WE REPEATED THE SAME STEPS. THIS TIME THE DISC RUPTURED AT 5025 PSI AT 3 BPM.
Event	30	Other	Other	1/20/2018	22:20:06	COM6	2414.30	7.86	4.00	354.4	PUMPED AT 6 BBL WET SHOE AT 4 BPM @ 2455 PSI.
Event	31	Shutdown	Shutdown	1/20/2018	22:21:26	COM6	2305.30	7.82	0.00	359.6	
Event	32	Check Floats	Check Floats	1/20/2018	22:22:00	USER	2028.30	7.80	0.00	359.6	FLOATS DID NOT HOLD. WE GOT 2 1/2 BBLS BACK. THERE WAS A PRETTY GOOD STEADY STREAM. DISCUSSED WITH COMPANY MAN. WE BOTH AGREED THAT THE FLOATS WERE NOT HOLDING.
Event	33	Other	Other	1/20/2018	22:38:18	COM6	4.30	7.72	0.00	359.6	WE AGREED THAT WE WOULD PUMP THE 2 1/2

											BBLs BACK INTO THE WELL AND SHUT IN THE WELL AND WAIT 6 HOURS. PUMPED BACK INTO WELL.
Event	34	Shutdown	Shutdown	1/20/2018	22:39:00	USER	344.30	7.75	0.00	0.0	
Event	35	Shut In Well	Shut In Well	1/20/2018	22:40:00	USER	1899.30	7.82	0.00	0.0	SHUT THE WELL IN WITH 2200 PSI ON THE CASING.
Event	36	End Job	End Job	1/20/2018	22:42:11	COM6	-6.70	7.76	0.00	0.0	
Event	37	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/20/2018	23:00:00	USER					DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN AND PACKING IRON AND HOSES ON LOCATION.
Event	38	Rig-Down Equipment	Rig-Down Equipment	1/20/2018	23:20:00	USER					
Event	39	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/21/2018	00:30:00	USER					DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS BACK TO THE SERVICE CENTER. DISCUSSED SAFEST ROUTE OF TRAVEL, CONVOY ORDER, AND PLACES TO PULL OVER IF TOO TIRED TO DRIVE.
Event	40	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	1/21/2018	00:45:00	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 SRC Energy Boomerang 13N-6B-M Production Job Chart

