

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Tuesday, April 10, 2018

Boomerang 12N-6B-M Production

Job Date: Saturday, March 10, 2018

Sincerely,

Bryce Hinsch

Legal Notice

Disclaimer:

All information in this report is provided subject to the terms and conditions which govern the services provided by Halliburton. Halliburton personnel use their best efforts in gathering information and their best judgment in interpreting it, but any interpretation, research, analysis or recommendation furnished by Halliburton are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and empirical relationships and assumptions are not infallible, and with respect to which professionals in the industry may differ. iCem 3D Displacement results are used to understand how fluids intermix during a cement job. Simulation and 3D displacement results are not intended as and should not be used as a replacement for bond logs in determining top of cement. Current 3D model calculations are known to model more volume than the input volume for standard cases due to known calculation improvements required. For rotational cases, the modeled volume will be impacted by the same calculations impacting the standard cases, as well as additional constraints imposed to make the calculation time required operationally feasible. Therefore, until further notice, 3D displacement results should not be used for replacement of a bond log, or used as an identifier of top of cement. HALLIBURTON IS UNABLE TO GUARANTEE THE ACCURACY OF ANY CHART INTERPRETATION, RESEARCH ANALYSIS, OR JOB RECOMMENDATION and any interpretation or recommendation is not for use of or reliance upon by any third party. The customer has full responsibility for any of its decisions which are based on the information provided in this report.

Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	7
2.1	Job Event Log	7
3.0	Attachments.....	9
3.1	SRC Energy Boomerang 12N-6B-M Production Job Chart.....	9

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Boomerang 12N-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 40 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 #: 3823567	Quote #:	Sales Order #: 0904695064
Customer: SRC ENERGY INC-EBUS		Customer Rep: Buddy Davis	
Well Name: BOOMERANG	Well #: 12N-6B-M	API/UWI #: 05-123-45399-00	
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NW-5-5N-66W-1392FNL-2327FWL			
Contractor: Precision		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Bradley Hinkle	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	15644ft	Job Depth TVD	6874ft
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	1833	0	1833
Casing		5.5	4.778	20	BTC	P-110	0	15644	0	15644
Open Hole Section			8.5				1833	15655	1833	15655

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	Weatherford
Float Shoe	5.5		Weatherford	15644	Bottom Plug	5.5	1	Weatherford
WSS	5.5		Weatherford	15490	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	Spacer	Tuned Spacer III	40	bbl	11.5	3.8		4		

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	LEAD	ELASTICEM	988	sack	13.2	1.57		7.8	7.54	
3	TAIL	NeoCem	1072	sack	13.2	2.04		7.8	9.77	
4	MMCR Displacement	MMCR Displacement	40	bbl	8.34			10		
5	Displacement	Biocide and Cla-web Water	304	bbl	8.33			8		
Cement Left In Pipe										
Amount		154 ft			Reason			Wet Shoe by Design		
Mix Water: pH 7		Mix Water Chloride: 0 ppm			Mix Water Temperature: 59 °F					
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m3 XXXX			Disp. Temperature: ## °F °C					
Plug Bumped? Yes		Bump Pressure: 1290 psi			Floats Held? Yes					
Cement Returns: 40 bbl		Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C					
Comment 40 bbls Tuned Spacer and 40 bbls cement to surface. Estimated top of tail cement at 5460 feet.										

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>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	3/10/2018	10:00:00	USER					Crew called for an on location of 1400. Crew was Bradley Hinkle, Kendall Broom, Sylvester Biscette and Jason Barnes.
Event	2	Depart Shop for Location	Depart Shop for Location	3/10/2018	13:30:00	USER					Pre-journey safety meeting.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	3/10/2018	14:30:00	USER					Sign in, perform a site assessment and pre-rig up safety meeting.
Event	4	Safety Meeting	Safety Meeting	3/10/2018	16:15:00	USER					Pre-job safety meeting with all personnel on location.
Event	5	Start Job	Start Job	3/10/2018	16:53:57	COM4	8.66	0.00	7.00	10.60	
Event	6	Test Lines	Test Lines	3/10/2018	16:56:55	USER	8.62	0.00	136.00	12.60	Pressure test lines with a 500 psi electronic kick-out test.
Event	7	Pump Spacer 1	Pump Spacer 1	3/10/2018	17:09:52	COM4	8.61	0.00	28.00	0.00	Pump 40 bbls Tuned Spacer mixed at 11.5 ppg (3.8 cuft/sk, 23.8 gal/sk). Density verified by pressurized scales.
Event	8	Drop Bottom Plug	Drop Bottom Plug	3/10/2018	17:24:56	COM4	11.70	0.00	86.00	41.00	Bottom plug preloaded. Witnessed by customer.
Event	9	Pump Lead Cement	Pump Lead Cement	3/10/2018	17:27:34	COM4	11.70	0.80	147.00	0.20	Pump 276 bbls (988 sacks, 1.57 cuft/sk, 7.54 gal/sk) ElastiCem mixed at 13.2 ppg. Density verified by pressurized scales.

Event	10	Check Weight	Check weight	3/10/2018	17:38:20	COM4	13.19	7.00	493.00	70.10	Cement weighed 13.2 ppg.
Event	11	Check Weight	Check weight	3/10/2018	17:55:34	COM4	13.17	7.70	413.00	200.70	Cement weighed 13.2 ppg.
Event	12	Pump Tail Cement	Pump Tail Cement	3/10/2018	18:07:35	COM4	13.13	7.80	423.00	294.00	Pump 389 bbls (1072 sacks, 2.04 cuft/sk, 9.77 gal/sk) NeoCem mixed at 13.2 ppg. Density verified by pressurized scales.
Event	13	Check Weight	Check weight	3/10/2018	18:09:42	COM4	13.24	7.80	582.00	16.50	Cement weighed at 13.2 ppg.
Event	14	Shutdown	Shutdown	3/10/2018	19:02:36	COM4	12.83	0.00	79.00	409.10	Wash pumps and lines until clean.
Event	15	Drop Top Plug	Drop Top Plug	3/10/2018	19:14:24	COM4	8.38	0.00	10.00	429.30	Top plug loaded. Witnessed by customer.
Event	16	Pump Displacement	Pump Displacement	3/10/2018	19:15:07	COM4	8.38	0.00	10.00	0.00	Pump 344 bbls fresh water (first 40 bbls with MMCR) with Cla-Web and Biocide added throughout. Good returns throughout displacing. 40 bbls Tuned Spacer and 40 bbls cement to surface. Estimated top of tail cement at 5460 feet.
Event	17	Bump Plug	Bump Plug	3/10/2018	20:01:22	COM4	8.50	3.00	2518.00	353.90	Bump plug at 2290 psi and increase 500 psi over. Hold for 5 minutes.
Event	18	Pressure Up Well	Pressure Up Well	3/10/2018	20:07:43	COM4	8.56	2.00	3490.00	356.60	Pressure up to burst at 5060 psi and pump 6 bbl wet shoe at 4.5 bbls/ minute.
Event	19	Check Floats	Check Floats	3/10/2018	20:10:06	USER	8.47	0.00	1580.00	362.60	Floats held. 2.5 bbls back.
Event	20	End Job	End Job	3/10/2018	20:11:30	COM4	8.44	0.00	3.00	362.60	
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/10/2018	20:15:00	USER	8.00	1.10	19.00	378.20	Pre-rig down safety meeting.
Event	22	Depart Location for Service Center or Other	Depart Location for Service Center or Other	3/10/2018	21:20:00	USER					Pre-journey safety meeting.

3.0 Attachments

3.1 SRC Energy Boomerang 12N-6B-M Production Job Chart

