

# HALLIBURTON

iCem<sup>®</sup> Service

## **SRC ENERGY INC-EBUS**

United States of America, COLORADO

Date: Tuesday, May 08, 2018

## **Boomerang 25N-3A-L Production**

Job Date: Thursday, April 05, 2018

Sincerely,

**Bryce Hinsch**

## Legal Notice

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### Disclaimer:

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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 **Boomerang 25N-3A-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 7 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*

<b>Sold To #:</b> 359915		<b>Ship To #:</b> 3843207		<b>Quote #:</b>		<b>Sales Order #:</b> 0904755277				
<b>Customer:</b> SRC ENERGY INC-EBUS				<b>Customer Rep:</b> Buddy Davis						
<b>Well Name:</b> BOOMERANG			<b>Well #:</b> 25N-3A-L		<b>API/UWI #:</b> 05-123-46000-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> GREELEY		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> NE NW-5-5N-66W-1332FNL-2327FWL										
<b>Contractor:</b> Precision				<b>Rig/Platform Name/Num:</b> Precision 462						
<b>Job BOM:</b> 7523 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HB41307				<b>Srv Supervisor:</b> Steven Markovich						
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>						
<b>Form Type</b>				<b>BHST</b>						
<b>Job depth MD</b>		17577ft		<b>Job Depth TVD</b>						
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>						
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>						
<b>Well Data</b>										
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		9.625	8.921	36	LTC	J-55	0	1838		1838
Casing		5.5	4.778	20	BTC	P-110	0	17577	0	6986
Open Hole Section			8.5				1838	17577	1838	6986
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
Guide Shoe	5.5			17577		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		HES	
Stage Tool	5.5					Centralizers	5.5		HES	
<b>Fluid Data</b>										
<b>Stage/Plug #: 1</b>										
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
1	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.8		6		
35.10 gal/bbl		<b>FRESH WATER</b>								
0.50 gal/bbl		<b>MUSOL A, 330 GAL TOTE - (790828)</b>								
0.50 gal/bbl		<b>DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)</b>								

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	978	sack	13.2	1.57		6	7.54
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	106	sack	13.2	2.04		4	9.77
9.77 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
4	Water	Water	154	bbl	8.34				
0.2220 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
<b>Comment</b> Perfs were blown from 7096'-7100. Rig was able to gain circulation. Pumped spacer and lead cement as planned and then pumped 38.5bbbs(106sks) of tail cement. Projected top of cement was 6251' Displaced 154bbbs of H2O to leave 100' of tail cement above the perfs. Spacer to surface at 107bbbs away. Cement to surface at 147bbbs away bringing 7bbbs of cement to surface. After pumping 154bbbs shut down and closed in well with 1877psi on it.									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	4/4/2018	11:30:00	USER				Job called out with an on location time of 17:30
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/4/2018	15:30:00	USER				JSA with HES crew on driving safety and route to rig.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	4/4/2018	16:30:00	USER				Arrived on location, rig was still running casing.
Event	4	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	4/4/2018	16:40:00	USER				JSA and hazard hunt with HES crew.
Event	5	Rig-Up Equipment	Rig-Up Equipment	4/4/2018	16:45:00	USER				Rigged up HES lines and equipment.
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/4/2018	21:00:00	USER				JSA with HES and rig crew on job safety and procedure.
Event	7	Other	Other	4/4/2018	21:30:00	USER				Rig ran into issues and were unable to pump on well.
Event	8	Arrive at Location from Service Center	Arrive at Location from Service Center	4/5/2018	10:00:00	USER				Arrived on location to relieve Broom
Event	9	Other	Other	4/5/2018	10:10:00	USER				Spoke to company reps and they were going to rig up Wireline to go in and blow pers at or 7100'
Event	10	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/5/2018	15:00:00	USER				JSA with HES and rig crew on job safety and procedure.
Event	11	Start Job	Start Job	4/5/2018	15:32:15	COM4	8.40	13.00	0.00	TD 17630' TP 17618' WSS 17510' 5 1/2" 20#

										production casing, 8 1/2" open hole, 9 5/8" 36# surface casing set @ 1840', TVD 6976' Perfs blown @ 7096'-7100'
Event	12	Test Lines	Test Lines	4/5/2018	15:36:45	COM4	8.40	64.00	0.00	Set kick outs to 500psi and check kick outs, then bring pressure up to 4000psi and hold.
Event	13	Pump Spacer 1	Pump Spacer 1	4/5/2018	15:46:28	COM4	8.41	34.00	0.00	Pump 40bbbls of 11.5ppg 3.8yield Tuned Spacer. Added 20 gallons of Musol A and Dual Spacer B on the fly. Pumped at 4bbl/min 330psi.
Event	14	Drop Bottom Plug	Drop Bottom Plug	4/5/2018	15:47:17	USER	11.68	339.00	3.90	Plugs pre loaded into HES head. Plugs dropped and loaded in front of company rep.
Event	15	Pump Lead Cement	Pump Lead Cement	4/5/2018	15:58:06	COM4	11.30	30.00	0.00	Pump 273.5bbbls (978sks) of 132pg 1357yield Lead Cement. Pumped at 7.5bbl/min 570psi.
Event	16	Check Weight	Check weight	4/5/2018	15:59:36	COM4	13.23	767.00	7.90	Weight verified by pressurized scales.
Event	17	Pump Tail Cement	Pump Tail Cement	4/5/2018	16:35:40	COM4	13.15	603.00	7.50	Pump 38.5bbbls (106sks) of 13.2ppg 2.04yield Tail Cement. Pumped at 7.5bbl/min 893psi.
Event	18	Check Weight	Check weight	4/5/2018	16:39:03	COM4	13.20	893.00	7.50	Weight verified by pressurized scales.
Event	19	Shutdown	Shutdown	4/5/2018	16:42:22	COM4	12.86	63.00	0.00	Shutdown.
Event	20	Drop Top Plug	Drop Top Plug	4/5/2018	16:49:14	COM4	13.09	29.00	0.00	Plugs pre loaded into HES head. Plugs dropped and loaded in front of company rep.



Event	21	Pump Displacement	Pump Displacement	4/5/2018	16:49:19	COM4	13.09	29.00	0.00	Pump 154bbls of H2O. Pumped at 8bbls min and slowed rate with pressure increase. Slowed rate to 4bbls mins at 150bbls away. Spacer to surface at 107bbls away cement to surface @ 147bbls away bringing 7bbls of Cement to surface, Shut down at 154bbls away then shut in the well. Final shut in pressure was 1877psi.
Event	22	Other	Other	4/5/2018	17:14:51	USER	7.99	1876.00	0.00	Shut in well with 1877psi. Shut in for 8 hours then check for flow.
Event	23	End Job	End Job	4/5/2018	17:15:47	COM4	7.93	13.00	0.00	Thank you Steve Markovich and crew.

3.0 Attachments

3.1 SRC Boomerang 25N-3A-L Production Job Chart

