

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Wednesday, November 08, 2017

AG 32N-31C-L PRODUCTION

Job Date: Friday, October 20, 2017

Sincerely,
Julia Nichols

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **AG 32N-31C-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 75 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 #: 3801312		Quote #:		Sales Order #: 0904369127					
Customer: SYNERGY RESOURCES CORPORATION				Customer Rep: Lovel Young							
Well Name: AG			Well #: 32N-31C-L			API/UWI #: 05-123-44879-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD			State: COLORADO				
Legal Description: NE NE-32-8N-86W-1037FNL-599FEL											
Contractor:				Rig/Platform Name/Num: Precision 462							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307					Srvc Supervisor: Steven Markovich						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type				BHST							
Job depth MD		18620ft			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		8.625	8.921	36	LTC	J-55	0	1710	0	1710	
Casing		5.5	4.778	20		P-110	0	18620	0	6924	
Open Hole Section			8.5				1710	18640	0	6924	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			18620		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		
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	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.8		6			
35.10 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)									
147.42 lbm/bbl		BARITE, BULK (100003681)									

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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 Lead	ELASTICEM (TM) SYSTEM	1012	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/mi n	Total Mix Fluid Gal
3	NeoCem Tail	NeoCem TM	1406	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/mi n	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	20	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	Cla Web Displacement	Cla Web Displacement	389	bbl	8.33				
Cement Left In Pipe	Amount	110 ft			Reason			Shoe Joint	
Mix Water: pH	##	Mix Water Chloride:	## ppm		Mix Water Temperature: ## °F °C				
Cement Temperature:	## °F °C	Plug Displaced by:	## lb/gal kg/m3 XXXX		Disp. Temperature: ## °F °C				
Plug Bumped?	Yes/No	Bump Pressure:	#### psi MPa		Floats Held? Yes/No				
Cement Returns:	## bbl m3	Returns Density:	## lb/gal kg/m3		Returns Temperature: ## °F °C				
Comment Spacer to surface at 285bbbls away cement to surface at 325bbbls away bringing 75bbbls of cement to surface. Estimated top of tail cement 6012'									

2.0 Real-Time Job Summary

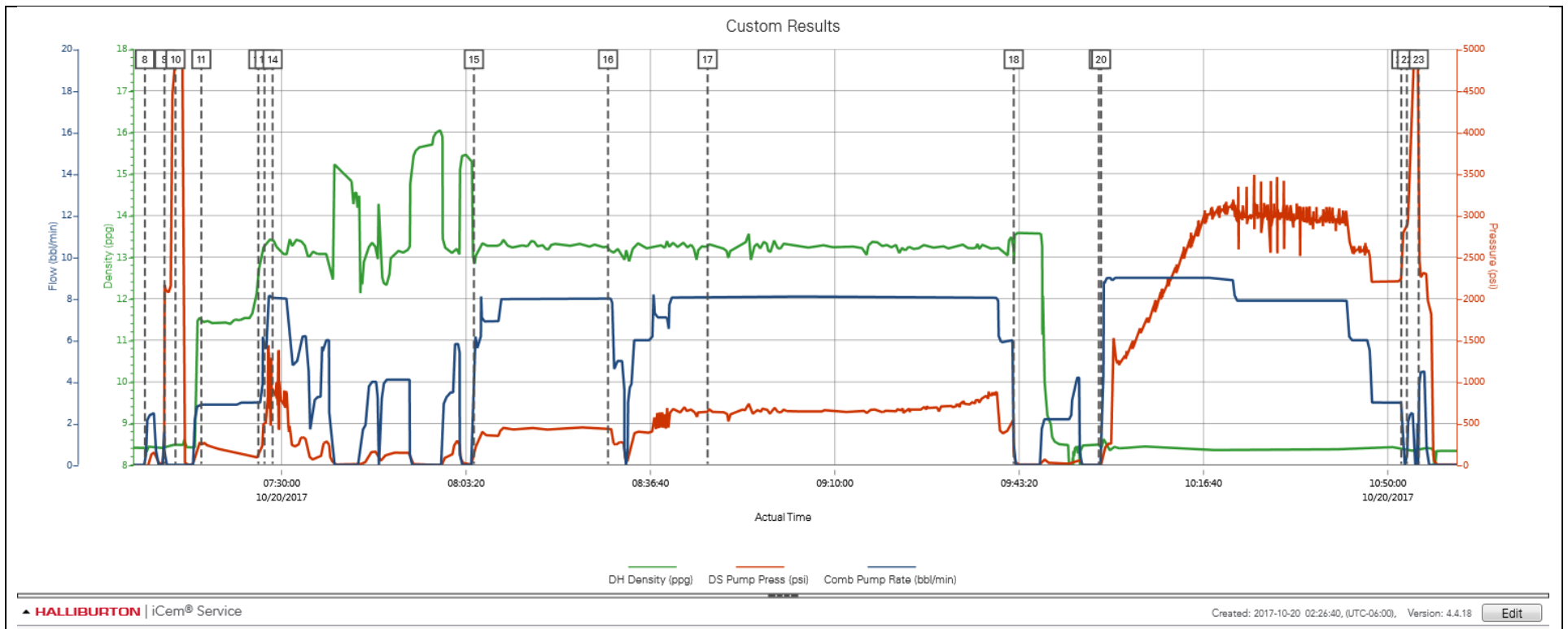
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	10/19/2017	01:00:00	USER				Arrived on location at 01:00, rig still running casing approx 2200'
Event	2	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	10/19/2017	01:10:00	USER				JSA and Hazard hunt with HES crew.
Event	3	Rig-Up Equipment	Rig-Up Equipment	10/19/2017	01:30:00	USER				Rigged up HES lines and equipment.
Event	4	Call Out	Call Out	10/19/2017	22:00:00	USER				Job Called out 22:00 with and on location time of 03:00
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/20/2017	06:30:00	USER	8.37	-5.00	0.00	JSA with HES and rig crew on job procedure.
Event	6	Start Job	Start Job	10/20/2017	06:57:53	COM4	8.43	-9.00	0.00	TD 18640' TP 18620" WSS 18510' 5 1/2" 20# production casing, 8 1/2" open hole, 1710' 9 5/8 36# surface casing
Event	7	Check Weight	Check weight	10/20/2017	06:59:21	COM4	8.43	-9.00	0.00	Weight verified by pressurized scales.
Event	8	Other	Other	10/20/2017	07:05:14	COM4	8.41	-9.00	0.00	Fill lines.
Event	9	Test Lines	Test Lines	10/20/2017	07:08:47	COM4	8.38	2178.00	0.00	Set kick outs to 500psi and do a kick out test, then bring up pressure to 5000psi and hold
Event	10	Test Lines	Test Lines	10/20/2017	07:10:47	COM4	8.49	4865.00	0.00	
Event	11	Pump Spacer 1	Pump Spacer 1	10/20/2017	07:15:27	COM4	11.43	262.00	2.90	Pump 40bbls of 11.5ppg 3.8yield Tuned Spacer. Added 20 gallons of Musol A and Dual SPacer B on the fly. Pumped at 3bbl/min 185psi.
Event	12	Pump Lead Cement	Pump Lead Cement	10/20/2017	07:25:45	COM4	12.53	100.00	3.00	Pump 282.97bbls (1012sks) of 13.2ppg 1.57yield Lead cement. Pumped at 8bbl/min 449psi
Event	13	Drop Bottom Plug	Drop Bottom Plug	10/20/2017	07:26:52	COM4	13.30	495.00	5.60	Plug pre loaded into HES head. Plug drop witnessed by company rep.
Event	14	Check Weight	Check weight	10/20/2017	07:28:20	COM4	13.42	913.00	8.00	Weight verified by pressurized scales.
Event	15	Check Weight	Check weight	10/20/2017	08:04:44	COM4	12.86	95.00	4.00	Weight verified by pressurized scales.

Event	16	Pump Tail Cement	Pump Tail Cement	10/20/2017	08:28:59	COM4	13.21	432.00	8.00	Pump 210.82bbbls (1406sks) of 13.2ppg 2.04yield Tail cement. Pumped at 8bbbl/min 650psi
Event	17	Check Weight	Check weight	10/20/2017	08:46:59	COM4	13.32	647.00	8.10	Weight verified by pressurized scales.
Event	18	Shutdown	Shutdown	10/20/2017	09:42:20	COM4	13.18	190.00	0.00	Shutdown and clean pumps and lines
Event	19	Drop Top Plug	Drop Top Plug	10/20/2017	09:57:42	COM4	8.49	-1.00	0.00	Plug pre loaded into HES head. Plug drop witnessed by company rep.
Event	20	Pump Displacement	Pump Displacement	10/20/2017	09:58:08	COM4	8.43	3.00	0.00	Pump 409bbbls. First 20bbs with MMCR then 389bbbs with biocide and clay web. Pumped at 9bbbl/min and slowed rate with pressure increase. Spacer to surface at 285bbbls away, cement to surface at 325bbbls away brining 75bbs to surface.
Event	21	Bump Plug	Bump Plug	10/20/2017	10:52:25	COM4	8.43	2284.00	3.00	Bumped plug at 405bbbls away, final lifting pressure was 2284psi. Took pressure 500psi over and held.
Event	22	Other	Other	10/20/2017	10:53:25	COM4	8.38	2853.00	0.00	Kicked in pumps to burst west shoe sub. Sub shifted at 4990psi.
Event	23	Other	Other	10/20/2017	10:55:33	COM4	8.36	3042.00	0.10	Brought rate up to 4.5bbbl/min and pumped a 6bbbl wet shoe.
Event	24	End Job	End Job	10/20/2017	11:29:18	COM4				Thank you Steve Markovich and crew.

3.0 Attachments

3.1 CUSTOM RESULTS – JOB CHART WITH EVENTS



3.2 CUSTOM RESULTS – JOB CHART WITHOUT EVENTS

