

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

AG 5C-31-L Production

Job Date: Sunday, October 01, 2017

Sincerely,

Fort Lupton District Cement

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 5C-31-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.

20 bbls of cement 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 #: 3801225		Quote #:		Sales Order #: 0904326537					
Customer: SYNERGY RESOURCES CORPORATION				Customer Rep: Buddy Davsi and Steve Wilson							
Well Name: AG			Well #: 5C-31-L		API/UWI #: 05-123-44873-00						
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: NE NE-32-6N-66W-994FNL-558FEL											
Contractor: Synergy				Rig/Platform Name/Num: Precision 462							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307				Srv Supervisor: Nicholas Roles							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		18614ft		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		9.625	8.921	36	LTC	J-55	0	1783	0	1783	
Casing		5.5	4.778	20		P-110	0	18614	0	7040	
Open Hole Section			8.5				1783	18626	1783	7040	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5					Top Plug	5.5		HES		
Float Shoe	5.5			18614		Bottom Plug	5.5		HES		
Float Collar	5.5					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	Tuned Spacer III	Tuned Spacer III			40	bbl	11.5	3.8		5	
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)							
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	1009	sack	13.2	1.57		8	7.52
7.52 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 Tail	NeoCem TM	1373	sack	13.2	2.09		8	10.08
0.30 %		SCR-100 (100003749)							
10.08 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	MMCR Displacement	MMCR Displacement	40	bbl	8.34			10	
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/min	Total Mix Fluid Gal
5	Cla Web Displacement	Cla Web Displacement	372	bbl	8.33			8	
Cement Left In Pipe		Amount	0 ft		Reason			Wet Shoe	
Comment Got 20bbls cement to surface. Estimated TOT-6089'									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	10/1/2017	00:30:00	USER				Called out by Service Coordinator for O/L at 0430
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	10/1/2017	03:00:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/1/2017	03:15:00	USER				Journey Management prior to departure
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	10/1/2017	04:15:00	USER				Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/1/2017	04:30:00	USER				Discussed rigging up hazards and procedure according to HMS.
Event	6	Other	Other	10/1/2017	05:00:00	USER				Water test- PH-6, Chlor-0, Temp-65. Cement temp-70.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/1/2017	07:00:00	USER	8.33	0.00	-278.00	Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority.
Event	8	Start Job	Start Job	10/1/2017	08:02:07	COM4	8.32	0.00	1.00	TD-18626', TP-18614' 5.5" 20#, FC-18563', TVD-7040', OH-8.5", SURF-1783' 9.625" 36#, MUD-10.6#
Event	9	Test Lines	Test Lines	10/1/2017	08:06:35	COM4	8.37	0.00	254.00	Pumped 5bbls fresh water

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(v. 4.4.18)

										to fill lines, closed manifold and performed 500psi k/o function test, proceeded to perform 5th gear stall at 1470psi, continued to bring pressure up to 5500psi. Pressure stabilized and held with no leaks
Event	10	Pump Spacer 1	Pump Spacer 1	10/1/2017	08:14:13	COM4	8.34	0.00	19.00	Pumped 40bbls 11.5# 3.75y 23.5g/s Tuned Spacer III with 20g Musol A, 20g Dual Spacer B and 10g D-Air at 5bpm 420psi.
Event	11	Pump Lead Cement	Pump Lead Cement	10/1/2017	08:30:36	COM4	11.29	0.00	171.00	Pumped 1009sks or 282bbls 13.2# 1.57y 7.52g/s Elasticem at 8bpm 510psi.
Event	12	Drop Bottom Plug	Drop Bottom Plug	10/1/2017	08:31:07	COM4	11.29	3.00	451.00	Dropped by HES supervisor, witnessed by company man.
Event	13	Check Weight	Check weight	10/1/2017	08:35:20	COM4	13.29	5.10	496.00	Weight verified with pressurized mud scales.
Event	14	Check Weight	Check weight	10/1/2017	08:48:17	COM4	13.31	7.90	504.00	Weight verified with pressurized mud scales.
Event	15	Pump Tail Cement	Pump Tail Cement	10/1/2017	09:11:43	COM4	13.38	6.30	209.00	Pumped 1373sks or 511bbls 13.2# 2.09y 10.08g/s Neocem at 8bpm 580psi.
Event	16	Check Weight	Check weight	10/1/2017	09:16:22	COM4	13.16	8.00	545.00	Weight verified with pressurized mud scales.
Event	17	Check Weight	Check weight	10/1/2017	09:55:48	COM4	13.20	8.10	627.00	Weight verified with pressurized mud scales.
Event	18	Shutdown	Shutdown	10/1/2017	10:19:14	USER	29.46	0.00	24.00	Shutdown, pumped 5bbls fresh water through pumps and lines to wash up.
Event	19	Drop Top Plug	Drop Top Plug	10/1/2017	10:29:45	COM4	8.26	0.00	2.00	Dropped by HES supervisor, witnessed by company man.

Event	20	Pump Displacement	Pump Displacement	10/1/2017	10:29:51	COM4	8.26	0.00	2.00	Pumped 412bbls fresh water with 5g MMCR in first 40bbls, 20g clayweb and 20g biocide throughout.
Event	21	Bump Plug	Bump Plug	10/1/2017	11:27:09	COM4	8.29	0.00	3153.00	Slowed down to 3bpm at 385bbls away, final circulating pressure- 2410psi, bump pressure- 3100psi.
Event	22	Pressure Up Well	Pressure Up Well	10/1/2017	11:38:10	USER	8.34	1.80	4896.00	Pumped fresh water to shear at 5200psi, continued to pump 5bbls fresh water at 3bpm 2100psi.
Event	23	Check Floats	Check Floats	10/1/2017	11:41:36	USER	8.24	0.00	1895.00	Released pressure and got 2.5bbls back to pump. Floats held.
Event	24	End Job	End Job	10/1/2017	11:43:17	COM4	7.82	0.00	13.00	Got 20bbls cement to surface. Estimated TOT- 6089'
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/1/2017	11:50:00	USER	8.25	2.70	47.00	Discussed rigging down hazards and procedure according to HMS.
Event	26	Depart Location Safety Meeting	Depart Location Safety Meeting	10/1/2017	13:45:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	27	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/1/2017	14:00:00	USER				Pre journey management prior to departure.

3.0 Job Chart

3.1 Job Chart

