

HALLIBURTON

iCem[®] Service

SRC ENERGY INC-EBUS

Date: Sunday, November 12, 2017

Ag 5N-31A-L Production

Job Date: Thursday, October 12, 2017

Sincerely,

Justin Lansdale

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 5N-31A-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.

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 #: 3801267	Quote #:	Sales Order #: 0904356012
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep: Tony & Lovell	
Well Name: AG	Well #: 5N-31A-L	API/UWI #: 05-123-44878-00	
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-32-6N-66W-1008FNL-572FEL			
Contractor:		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srcv Supervisor: Bryan Kraft	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	16140ft	Job Depth TVD	6741ft
Water Depth		Wk Ht Above Floor	4ft
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	1771	0	1771
Casing		5.5	4.778	20		P-110	0	16140	0	6741
Open Hole Section			8.5				1771	16160	1771	6741

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	5.5	1	WF
Float Shoe	5.5	1	WF	16140	Bottom Plug	5.5	1	WF
Float Collar	5.5	1	WF	16028	SSR plug set			
Insert Float					Plug Container	5.5	1	HES
Stage Tool					Centralizers			

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	23.8	3	1407	
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	Lead Cement	ELASTICEM (TM) SYSTEM	972	sack	13.2	1.57	7.54	8	7329	
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	Tail Cement	NeoCem TM	1150	sack	13.2	2.04	9.75	8	11236	
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	Displacement	MMCR, CLA-WEB, & BIOCIDE FRESH WATER	356	bbl	8.33			10	14952	
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)								
Cement Left In Pipe	Amount	0 ft			Reason			Wet Shoe Joint		
Mix Water:	pH 6.0	Mix Water Chloride:	<300 ppm			Mix Water Temperature:	55 °F			
Cement Temperature:	N/A	Plug Displaced by:	8.3 lb/gal Fresh Water			Disp. Temperature:	55 °F			
Plug Bumped?	Yes	Bump Pressure:	2380 psi			Floats Held?	Yes			
Cement Returns:	60 bbl	Returns Density:	N/A			Returns Temperature:	N/A			
Comment: The plug bumped @ calculated displacement @ 2380 PSI, shutdown for 1 minute @ 3080 PSI. Opened the sleeve @ 4930 PSI and pumped 6 BBLS for a wet shoe. The floats held and received 2.5 BBLS back to the truck Cement returned to surface @ 296 BBLS into displacement. Total of 60 BBLS of cement returned to surface.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	10/12/2017	10:30:00	USER	CREW CALLED OUT AT 10:30 10/12/2017, REQUESTED ON LOCATION 16:00 10/12/2017. CREW PICKED UP CEMENT, CHEMICALS (20 GAL MUSOL A, 20 GAL DUAL SPACER B, 10 GAL D-AIR, 20 GAL CLAWEB, 5 GAL MICROMATRIX), 200 LBS OF SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 12644849/12649238, PUMP ELITE 12644845/11826999..
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/12/2017	13:45:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	10/12/2017	14:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	10/12/2017	15:00:00	USER	E
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/12/2017	15:10:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	10/12/2017	15:20:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/12/2017	18:10:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	10/12/2017	18:36:55	COM5	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	10/12/2017	18:40:02	COM5	PRESSURE TESTED IRON TO 4500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 487 PSI, 5TH GEAR STALL OUT @ 1493 PSI.

Event	10	Pump Spacer 1	Pump Tuned Spacer @ 11.5 ppg	10/12/2017	18:54:02	COM5	PUMP 40 BBLS OF TUNED SPACER @ 11.5 LB/GAL, 3.8 YIELD, 23.8 GAL/SKS, ADDED 20 GAL MUSOL A, 20 GAL DUAL SPACER B, 10 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	11	Drop Bottom Plug	Drop Bottom Plug	10/12/2017	19:04:57	USER	PLUG LEFT CONTAINER.
Event	12	Pump Lead Cement	Pump Lead Cement @ 13.2 ppg	10/12/2017	19:06:39	COM5	PUMP 972 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.57 YIELD, 7.54 GAL/SK, 272 BBLS, CALCULATED TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Tail Cement	Pump Tail Cement @ 13.2 ppg	10/12/2017	19:46:31	COM5	PUMP 1150 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.75 GAL/SK, 418 BBLS, CALCULATED TOT @ 5956', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	10/12/2017	20:42:29	COM5	SHUTDOWN TO WASH PUMPS AND LINES / DROP TOP PLUG.
Event	15	Clean Lines	Clean Lines	10/12/2017	20:44:00	COM5	CLEAN PUMPS AND LINES OF CEMENT.
Event	16	Drop Top Plug	Drop Top Plug	10/12/2017	20:50:40	COM5	DROP TOP PLUG, VERIFIED BY COMPANY MAN.
Event	17	Pump Displacement	Pump Fresh Water Displacement	10/12/2017	20:51:30	COM5	BEGIN CALCULATED DISPLACEMENT OF 356 BBLS WITH FRESH WATER. FIRST 10 BBLS WITH MICROMATRIX, CLA-WEB, AND BIOCID, REST OF DISPLACEMENT WITH CLA-WEB AND BIOCID.
Event	18	Cement Returns to Surface	Cement Returns to Surface	10/12/2017	21:23:47	USER	CEMENT RETURNS TO SURFACE @ 296 BBLS INTO DISPLACEMENT. TOTAL OF 60 BBLS CEMENT TO SURFACE.
Event	19	Bump Plug	Bump Plug	10/12/2017	21:35:44	USER	PLUG BUMPED AT CALCULATED DISPLACEMENT. PRESSURED 700 PSI OVER FINAL CIRCULATING PRESSURE OF 2380 PSI.
Event	20	Shutdown	Shutdown	10/12/2017	21:36:14	USER	SHUTDOWN FOR 1 MINUTE.
Event	21	Pressure Up	Pressure Up	10/12/2017	21:37:14	USER	PRESSURE UP TO SHIFT SLEEVE.

Event	22	Other	Sleeve Opened	10/12/2017	21:38:43	USER	SLEEVE OPENED @ 4930 PSI.
Event	23	Pump Displacement	Pump Wet Shoe	10/12/2017	21:38:50	USER	PUMP 6 BBLS FRESH WATER FOR WET SHOE.
Event	24	Check Floats	Check Floats	10/12/2017	21:42:09	USER	RELEASED PRESSURE, FLOATS HELD, 2.5 BBLS BACK.
Event	25	End Job	End Job	10/12/2017	21:43:17	COM5	STOP RECORDING JOB DATA.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/12/2017	21:45:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	27	Rig-Down Completed	Rig-Down Completed	10/12/2017	23:00:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/12/2017	23:15:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	29	Crew Leave Location	Crew Leave Location	10/12/2017	23:30:00	USER	THANK YOU FOR USING HALLIBURTON - BRYAN KRAFT AND CREW.

3.0 Attachments

3.1 Job Chart



