

HALLIBURTON

iCem[®] Service

SYNERGY RESOURCES CORPORATION

United States of America, CO

Date: Tuesday, October 24, 2017

Ag 31C-31-L Production

Job Date: Sunday, September 24, 2017

Sincerely,

Bryce Hinsch

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 31C-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.

Approximately 100 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 #: 3801264	Quote #:	Sales Order #: 0904312055
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep:	
Well Name: AG	Well #: 31C-31-L	API/UWI #: 05-123-44881-00	
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-32-6N-66W-965FNL-531FEL			
Contractor: Synergy		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Robert Davis	

Job

Formation Name				
Formation Depth (MD)	Top	1762	Bottom	18600
Form Type	BHST			
Job depth MD	18454ft	Job Depth TVD	7041	
Water Depth		Wk Ht Above Floor	4	
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	1759	0	1759
Casing		5.5	4.778	20		P-110	0	18440	0	6848
Open Hole Section			8.5				1759	18454	1759	6848

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			18440	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	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		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)								
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	1010	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	1375	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			8		
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	369	bbl	8.33			8		
Cement Left In Pipe	Amount	106 ft			Reason			Shoe Joint		
Mix Water:	pH 7	Mix Water Chloride: 200 ppm			Mix Water Temperature:			60 °F °C		
Cement Temperature:	## °F °C	Plug Displaced by: 8.33lb/gal kg/m3 XXXX			Disp. Temperature:			## °F °C		
Plug Bumped?	Yes	Bump Pressure: #### psi MPa			Floats Held?			NO		
Cement Returns:	## bbl m3	Returns Density: ## lb/gal kg/m3			Returns Temperature:			## °F °C		
Comment BUMPED PLUG @ CALCULATED DISPLACEMENT @ 2600 PSI TOOK TO 3300 PSI FLOATS DID NOT HOLD, SHUT IN WELL										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	9/24/2017	05:00:00	USER				CALLED OUT FROM FT. LUPTON COLORADO
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	9/24/2017	07:00:00	USER				LEAVE YARD AFTER SAFTEY MEETING
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	9/24/2017	08:30:00	USER				ARRIVED ON LOCATION AND TALKED TO COMPANY MAN ABOUT JOB FIGURES AND THE SPOTTING OF OUR EQUIPMENT
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	9/24/2017	08:40:00	USER				ASSESSED LOCATION AN TOOK WATER SAMPLE
Event	5	Rig-Up Equipment	Rig-Up Equipment	9/24/2017	08:45:00	USER				SPOTTED EQUIPMENT AND RIGGED UP TO FLOOR RIG IS RUNNING CASING
Event	6	Other	Other	9/24/2017	08:50:00	USER				Water test=pH: _7___, Cl: _150___, temp 60___degrees Tannin-Lignin:_NEG.____; Sulfate: _200___
Event	7	Other	Other	9/24/2017	09:00:00	USER				Rig Circulation: ___ bbls Circulation Rate: ___ bbl/min Mud Density 10.5 ___ lb/gal Mud YP/PV: _____
Event	8	Other	Other	9/24/2017	09:15:00	USER				Spacer: _40___ bbl TOS ___0___ Lead Cement: _282___ bbl, _1010___ sks, TOC ___0___ Tail Cement:

										__511__ bbl, __1375__ sks, TOC_6084____ Displacement: __409__ bblCMT left in Pipe__1____ Reason____SHOE__
Event	9	Other	Other	9/24/2017	09:30:00	USER				TD: __18600__ , TP __18584__ , SJ: __51____, OH: __8.5__ , Casing: Size/Weight/Grade: __5.5/20#/P110____ , Previous Casing Shoe: __1762____
Event	10	Rig-Up Completed	Rig-Up Completed	9/24/2017	10:15:00	USER	0.00	0.00	-171.00	RIG UP COMPLETE SAFETY MEETING WITH RIG HANDS AND HALLIBURTON ABOUT THE DANGERS OF OUR EQUIPMENT AND WENT OVER JOB FIGURES. READY TO TEST LINES
Event	11	Start Job	Start Job	9/24/2017	10:48:31	COM4	0.00	0.00	4.00	
Event	12	Test Lines	Test Lines	9/24/2017	11:11:23	COM4	0.00	8.14	80.00	FLOOD LINES WITH 2 BBLS OF WATER, LOW TEST TO 500 PSI, HIGH TEST TO 6000 PSI
Event	13	Pump Spacer 1	Pump Spacer 1	9/24/2017	11:11:26	COM4	0.00	8.14	84.00	TUNED SPACER WITH SURFACTANTS, 40 BBLS @ 11.5 PPG, PUMPED @ 6 BPM @ 650 PSI, TOS-0
Event	14	Drop Bottom Plug	Drop Bottom Plug	9/24/2017	11:18:20	COM4	1.30	11.55	152.00	WEATHERFORD BOTTOM PLUG
Event	15	Pump Lead Cement	Pump Lead Cement	9/24/2017	11:18:24	COM4	1.30	11.55	151.00	ELASTICEM, 1010 SKS @ 13.2 PPG, YEILD @ 1.57, GAL/SK @ 7.53, 1585.7 FT3, 282 BBLS, 180 BBLS OF WATER TO MIX, PUMPED @ 8 BPM @ 420 PSI, HOL-6084

										FT, TOL-0
Event	16	Pump Tail Cement	Pump Tail Cement	9/24/2017	12:00:38	COM4	8.00	13.40	412.00	NEOCEM, 1375 SKS @ 13.2PPG, YEILD @ 2.09, GAL/SK @ 10.08, 2873.75 FT3, 511 BBLS, 330 BBLS OF WATER TO MIX, PUMPED @ 8 BPM @ 520 PSI, HOT-12500 FT, TOT-6084 FT
Event	17	Clean Lines	Clean Lines	9/24/2017	13:14:36	COM4	5.90	8.32	211.00	
Event	18	Drop Top Plug	Drop Top Plug	9/24/2017	13:16:00	COM4	0.00	8.34	25.00	WEATHERFORD TOP PLUG
Event	19	Pump Displacement	Pump Displacement	9/24/2017	13:16:02	COM4	0.00	8.32	21.00	409 BBLS, FIRST 20 BBLS MMCR WATER, THE REST CLAYWEB WATER, PUMPED @ 8 BPM @ 2900 PSI FOR THE FIRST 250 BBLS, THE SLOWED DOWN TO 7 BMP PERCUSTOMER @ 2700 PSI, 40 BBLS OF SPACER AND 100 BBLS OF CEMENT RETURNS TO SURFACE
Event	20	Other	Other	9/24/2017	14:11:09	COM4	4.00	8.41	2369.00	SLOWED RATE LAST 20 BBLS TO 4 BPM @ 2300 PSI
Event	21	Bump Plug	Bump Plug	9/24/2017	14:13:09	COM4	0.00	8.43	3047.00	BUMPED PLUG 500 OVER BUMPED @ 2600 PSI TOOK TO 3300 PSI THEN HELD BUT PRESSURE BLEED OFF
Event	22	Other	Other	9/24/2017	14:14:39	COM4	1.50	8.40	2057.00	PUMP 6 BBLS WET SHOE @ 3 BPM @ 2950 PSI, THE CHECK FLOATS GOT 9 BBLS BACK THE SHUT BACK IN, FLOATS DID NOT HOLD
Event	23	Other	Other	9/24/2017	14:22:11	COM4	1.50	8.37	1567.00	PUMP THE 9 BBLS BACK INTO THE WELL AND SHUT IN WELL
Event	24	End Job	End Job	9/24/2017	14:30:09	COM4				

Event	25	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	9/24/2017	14:45:00	USER	SAFETY MEETING OVER RIGGING DOWN
Event	26	Rig-Down Equipment	Rig-Down Equipment	9/24/2017	15:00:00	USER	RIG DOWN EQUIPMENT AND HOSES
Event	27	Rig-Down Completed	Rig-Down Completed	9/24/2017	16:00:00	USER	RIG DOWN COMPLETE
Event	28	Safety Meeting - Departing Location	Safety Meeting - Departing Location	9/24/2017	16:15:00	USER	SAFETY MEETING OVER DEPARTURE AND JOURNEY HOME
Event	29	Depart Location for Home	Depart Location for Home	9/24/2017	16:30:00	USER	LEAVE LOCATION

3.0 Attachments

3.1 Synergy Ag 31C-31-L Production Job Chart

