

HALLIBURTON

iCem[®] Service

SYNERGY RESOURCES CORP-EBUS

Date: Thursday, August 03, 2017

Leffler 1C-23-L Production

Job Date: Tuesday, August 01, 2017

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Leffler 1C-23-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 17.5 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 [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3800299	Quote #:	Sales Order #: 0904192147							
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep: Tim Jones								
Well Name: LEFFLER	Well #: 1C-23-L	API/UWI #: 05-123-44833-00								
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO							
Legal Description: SE NE-21-6N-66W-1881FNL-275FEL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 562								
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	17855ft	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	17855	0	7169
Open Hole Section			8.5				1783	17858	1783	7169
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			17634		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/min	Total Mix Fluid Gal
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	1028	sack	13.2	1.57		6	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	NeoCem TM	1259	sack	13.2	2.09		4	10.08
10.08 Gal		FRESH WATER							
0.30 %		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	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/min	Total Mix Fluid Gal
5	Cla Web Displacement	Cla Web Displacement	373	bbl	8.33				
0.0549 gal/bbl		CLA-WEB - TOTE (101985045)							
Comment Spacer to surface at 336bbbls away, cement to surface at 376 bringing 17.5bbbls of cement to surface. Estimated top of Tail cement 11582'									

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	7/31/2017	14:30:00	USER				Job called out at 2:30 with an on location time of 9:00 pm. On location at 8:15 pm rig was still running casing. approx 2800'
Event	2	Start Job	Start Job	8/1/2017	03:10:19	COM4	8.41	53.00	0.00	TD 17858' TP 17855' FC 17807.08' 5 1/2" 20# csg 8 1/2" oph 1783' 9 5/8" 36#surfcsg. Estimated top of Tail cement 11582'
Event	3	Test Lines	Test Lines	8/1/2017	03:21:13	COM4	8.42	4767.00	0.00	Perform 500psi kick out test, then bring up to 4500psi and hold for 3 mins
Event	4	Pump Spacer 1	Pump Spacer 1	8/1/2017	03:24:48	COM4	11.27	100.00	3.00	Pump 40bbls of 11.5ppg 3.8yield Tuned Spacer. Added 20 gallons of both Musol A and Dual surf B on the fly. Pumped at 4bbl/min 140psi
Event	5	Pump Lead Cement	Pump Lead Cement	8/1/2017	03:36:16	COM4	11.62	109.00	5.60	Pump 287.45bbls (1028sks) of 13.2ppg 1.57yield Lead Cement. Pumped at 8bbl/min 407psi.
Event	6	Check Weight	Check Weight	8/1/2017	03:37:45	COM4	13.24	401.00	8.00	Weight verified by pressurized scales.
Event	7	Check Weight	Check Weight	8/1/2017	03:39:27	COM4	13.18	552.00	8.00	Weight verified by pressurized scales.
Event	8	Check Weight	Check Weight	8/1/2017	03:40:31	COM4	13.14	559.00	8.00	Weight verified by pressurized scales.
Event	9	Pump Tail Cement	Pump Tail Cement	8/1/2017	04:12:27	COM4	13.08	395.00	8.00	Pump 468.64bbls (1259sks) of 13.2ppg 2.09yield Tail Cement. Pumped at 8bbl/min 368psi
Event	10	Check Weight	Check Weight	8/1/2017	04:17:56	COM4	13.23	345.00	6.10	Weight verified by pressurized scales.
Event	11	Shutdown	Shutdown	8/1/2017	05:15:40	COM4	13.14	169.00	0.00	Shutdown and clean pumps and lines
Event	12	Drop Top Plug	Drop Top Plug	8/1/2017	05:24:56	COM4	8.30	53.00	0.00	Plug pre loaded in HES head, Company rep verified plug drop.
Event	13	Pump Displacement	Pump Displacement	8/1/2017	05:26:20	COM4	8.32	49.00	0.00	Pump 393.5bbls. First 20bbls with MMCR then 373.5bbls with Clayweb and biocide added. Pumped at 10bbls/min and slowed down with pressure increase. Spacer to surface

at 336bbbls away. Cement to surface at 376bbbls away
bringing 17.5bbbls to surface.

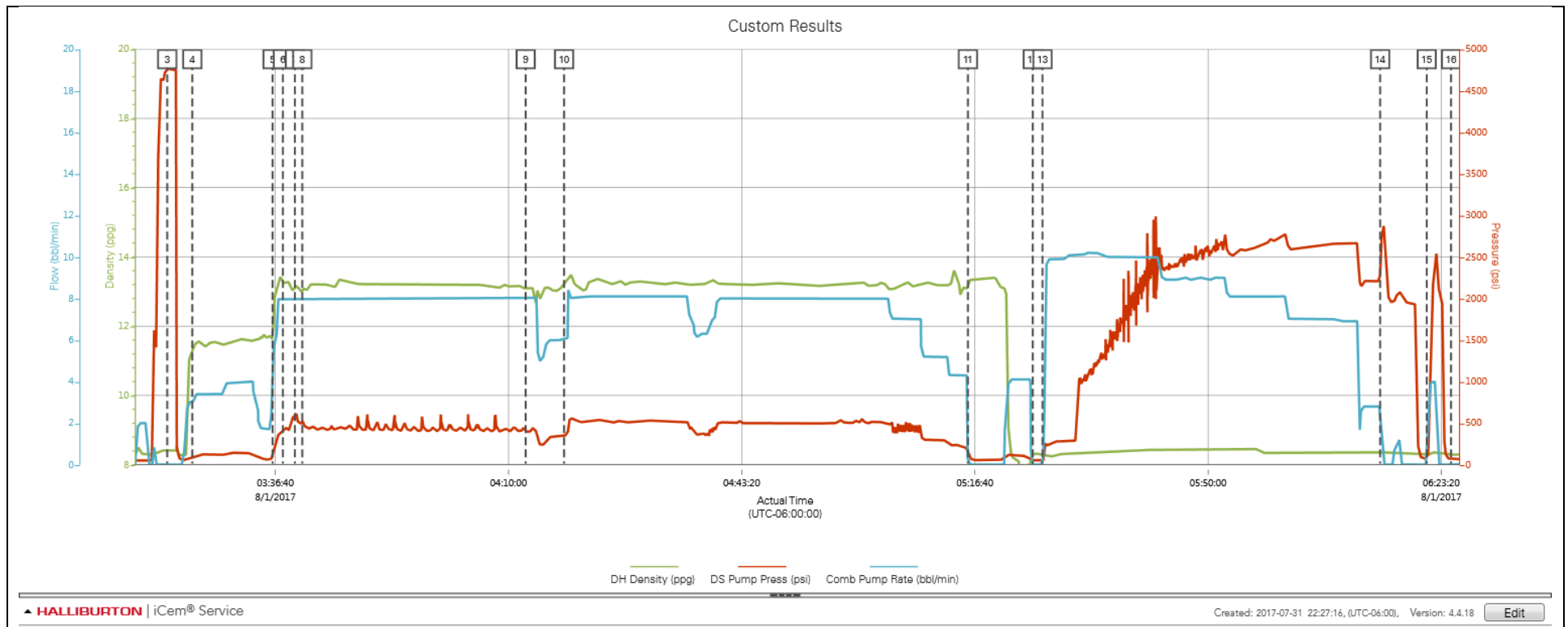
Bumped plug at 393 away. Final lifting pressure was 2276
took it 500psi over to 2889psi and held. While holding
pressure slowly started to fall off and at 2862psi pressure
fell off. Kicked pump on and pumped a bbl to see if we
didn't latch the plug and we had flow. Shut down and
checked floats. after 2 1/2bbbls back floats held.

Kicked pumps on and pumped 5bbbls for a total of 6bbl wet
shoe.

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

