

HALLIBURTON

iCem[®] Service

CONFLUENCE DJ LLC-EBUS

Ft. Lupton District, COLORADO

SILVERTON 5-3-4L

Job Date: Thursday, March 05, 2020

Sincerely,

Andrew McIntosh

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 **Silverton 5-3-4L** cement **Surface** 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 40 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 #: 375989		Ship To #: 3917417		Quote #:		Sales Order #: 0906356855					
Customer: CONFLUENCE DJ LLC-EBUS				Customer Rep: BRYAN							
Well Name: SILVERTON			Well #: 5-3-4L		API/UWI #: 05-123-48441-00						
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD		State: COLORADO					
Legal Description: NW SW-4-4N-63W-2648FSL-255FWL											
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 122							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA/H171328				Srvc Supervisor: Lance Carpenter							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1578		Job Depth TVD		1578					
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			0	1578	0		
Open Hole Section			13.5				0	1588			
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1578		Top Plug	9.625	1	HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625			1534		SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625		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	Mud Flush III (Powder)	Mud Flush III			40	bbl	8.4			8	
42 gal/bbl		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
2	12.5# SwiftCem	SWIFTCEM (TM) SYSTEM	275	sack	12.5	2.16		8	12.28
12.28 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	13.5# SwiftCem	SWIFTCEM (TM) SYSTEM	195	sack	13.5	1.74		8	9.16
9.16 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	Displacement fluid		119	bbl	8.3			8	
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		500 ppm		Mix Water Temperature:		52 °F
Cement Temperature:		## °F °C	Plug Displaced by:		8.34 lb/gal Water		Disp. Temperature:		## °F °C
Plug Bumped?		Yes	Bump Pressure:		488 psi		Floats Held?		Yes
Cement Returns:		21 bbl	Returns Density:		## lb/gal kg/m3		Returns Temperature:		## °F °C
Comment <p>JOB PERFORMED AS DESIGNED. NO ACCIDENT, INJURY OR SPILL. SLURRY VOLUME VERIFIED WITH MIX WATER GALLONS AND DENSITY VERIFIED WITH PRESSURIZED MUD BALANCE. PUMPED 40 BBL MUD FLUSH WITH RED DYE AND D-AIR. PUMPED 106 BBL LEAD. PUMPED 61 BBL TAIL. DROPPED TOP PLUG. PUMPED 119 BBL WATER DISPLACEMENT WASHING UP ON TOP OF THE PLUG. 40 BBL SPACER TO SURFACE. 21 BBL CEMENT TO SURFACE. BUMPED PLUG AT 3 BPM WITH 488 PSI. TOOK TO 1030 PSI AND HELD FOR A FEW MINUTES. FLOATS HELD WITH 1 BBL BACK.</p> <p>TOP OF TAIL – 933'</p> <p>TOP OF LEAD – SURFACE WITH 21 BBL BACK</p> <p>TOP OF SPACER – ALL 40 BBL TO SURFACE</p>									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	3/5/2020	05:00:00	USER					CREW CALLED OUT. ON LOCATION 1100. CREW ON LOCATION FROM PREVIOUS JOB
Event	2	Casing on Bottom	Casing on Bottom	3/5/2020	13:00:00	USER	-1.00	8.40	0.00	16.50	CASING ON BOTTOM. RIG BEGINS CIRCULATION
Event	3	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/5/2020	13:35:00	USER	2.00	8.40	0.00	16.50	CREW, RIG CREW AND CUSTOMER REP HAVE PRE JOB SAFETY MEETING DISCUSSING MUSTER AREAS, EMERGENCY PROCEEDURES, STOP WORK AUTHORITY, RED ZONES, PINCH POINTS, TUGGER OPERATIONS, LINE OF FIRE, HAND PLACEMENT, COMMUNICATION AND THE JOB PROCEEDURE
Event	4	Check Floats	Start Job	3/5/2020	13:51:51	COM4	5.00	8.34	0.00	0.00	START JOB
Event	5	Test Lines	Test Lines	3/5/2020	14:02:26	COM4	2505.00	8.27	0.00	3.60	FILL LINES WITH 3 BBL WATER. PRESSURE TEST HES LINES TO 2500 PSI. HELD FOR A FEW MINUTES, TEST GOOD
Event	6	Pump Spacer 1	Pump Spacer 1	3/5/2020	14:05:57	COM4	4.00	8.23	3.00	0.60	PUMP 40 BBL MUD FLUSH SPACER WITH RED DYE AND D-AIR

Event	7	Pump Lead Cement	Pump Lead Cement	3/5/2020	14:19:57	COM4	31.00	8.32	3.00	42.70	PUMP 106 BBL SWIFTCCEM LEAD 12.5# 2.16 YIELD 12.28 GAL 275 SACKS
Event	8	Pump Tail Cement	Pump Tail Cement	3/5/2020	14:34:43	COM4	181.00	12.53	7.00	0.10	PUMP 61 BBL SWIFTCCEM TAIL 13.5# 1.74 YIELD 9.16 GAL 195 SACKS
Event	9	Shutdown	Shutdown	3/5/2020	14:44:36	USER	117.00	13.25	5.00	66.60	SHUTDOWN
Event	10	Drop Top Plug	Drop Top Plug	3/5/2020	14:47:57	COM4	-7.00	-0.19	0.00	67.10	DROP TOP PLUG
Event	11	Pump Displacement	Pump Displacement	3/5/2020	14:48:45	COM4	-5.00	-0.19	0.00	67.10	PUMP 119 BBL WATER DISPLACEMENT WASHING UP ON TOP OF THE PLUG
Event	12	Bump Plug	Bump Plug	3/5/2020	15:07:26	COM4	1036.00	8.26	0.00	121.60	40 BBL SPACER TO SURFACE. 21 BBL CEMENT TO SURFACE. BUMPED PLUG AT 3 BPM WITH 488 PSI. TOOK TO 1030 PSI AND HELD FOR A FEW MINUTES
Event	13	Check Floats	Check Floats	3/5/2020	15:09:41	USER	806.00	8.27	0.00	121.60	FLOATS HELD WITH 1 BBL BACK
Event	14	End Job	End Job	3/5/2020	15:16:30	COM4	0.00	8.29	9.70	127.10	END JOB
Event	15	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	3/5/2020	15:20:00	USER	-8.00	8.28	9.70	159.80	CREW HAS PRE RIG DOWN SAFETY MEETING DISCUSSING RIG OPERATIONS, TEAM LIFTING, PINCH POINTS, SLIPS TRIPS FALLS, LINE OF FIRE, COMMUNICATION AND BEGIN RIGGING DOWN
Event	16	Depart Location	Depart Location	3/5/2020	17:30:00	USER					CREW IS RIGGED DOWN AND READY TO DEPART AFTER HAVING JOURNEY MANAGEMENT SAFETY MEETING DISCUSSING ROUTE, CONVOY ORDER, FOLLOWING DISTANCE, HOURS OF SERVICE,

COMMUNICATION AND
DEPART FROM LOCATION

3.0 Attachments

3.1 CONFLUENCE SILVERTON 5-3-4L SURFACE-Custom Results.png

