

# HALLIBURTON

iCem<sup>®</sup> Service

## **CONFLUENCE DJ LLC-EBUS**

Ft. Lupton District, COLORADO

Date: Tuesday, March 03, 2020

## **SILVERTON 5-6-1L Surface**

Job Date: Tuesday, March 03, 2020

Sincerely,

**SAM CARPENTER**

## Legal Notice

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### Disclaimer:

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Silverton 5-6-1L 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 20 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 #: 3917478	Quote #:	Sales Order #: 0906356854
Customer: CONFLUENCE DJ LLC-EBUS		Customer Rep: JOSH	
Well Name: SILVERTON		Well #: 5-6-1L	API/UWI #: 05-123-48436-00
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description: SW NW-4-4N-63W-2709FNL-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**

<b>Formation Name</b>			
<b>Formation Depth (MD)</b>	<b>Top</b>		<b>Bottom</b>
<b>Form Type</b>			<b>BHST</b>
<b>Job depth MD</b>	1580'		<b>Job Depth TVD</b> 1580'
<b>Water Depth</b>			<b>Wk Ht Above Floor</b> 4'
<b>Perforation Depth (MD)</b>	<b>From</b>		<b>To</b>

**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	1580'	0	
Open Hole Section			13.5				0	1590'		

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1580	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625			1536	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 ft <sup>3</sup> /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		<b>FRESH WATER</b>								

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		<b>FRESH WATER</b>							

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		<b>FRESH WATER</b>							

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 7.5	Mix Water Chloride:	500 ppm	Mix Water Temperature:	62 °F
Cement Temperature:	## °F °C	Plug Displaced by:	8.34 lb/gal Water	Disp. Temperature:	## °F °C
Plug Bumped?	Yes	Bump Pressure:	511 psi	Floats Held?	Yes
Cement Returns:	20 bbl	Returns Density:	## lb/gal kg/m3	Returns Temperature:	## °F °C

**Comment**

JOB PERFORMED AS DESIGNED. NO ACCIDENT, INJURY OR SPILL. PRESSURE TESTED HES LINES. PUMPED 40 BBL MUD FLUSH WITH RED DYE AND D-AIR. PUMPED 106 BBL 12.5# SWIFTCEM. PUMPED 61 BBL 13.5# SWIFTCEM. SLURRY WEIGHTS VERIFIED WITH PRESSURIZED MUD BALANCE AND VOLUMES VERIFIED WITH MIX WATER GALLONS. DROPPED TOP PLUG. PUMPED 119 BBL WATER DISPLACEMENT WASHING UP ON TOP OF THE PLUG. 40 BBL SPACER TO SURFACE. 20 BBL CEMENT TO SURFACE. BUMPED PLUG AT 3BPM WITH 511 PSI. TOOK TO 1098 PSI AND HELD FOR A FEW MINUTES. FLOATS HELD WITH 1 BBL BACK.

TOP OF TAIL – 925'

TOP OF LEAD – SURFACE WITH 20 BBL BACK

TOP OF SPACER – SURFACE WITH ALL 40 BBL BACK

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	3/3/2020	06:30:00	USER					CREW CALLED OUT. ON LOCATION TIME 1500. NEED TO PICK UP TRUCKS FROM ANOTHER LOCATION BEFORE THE JOB
Event	2	Depart Shop for Location	Depart Shop for Location	3/3/2020	12:00:00	USER					CREW HAS CHECKED EQUIPMENT AND VERIFIED MATERIALS FOR THE JOB. CREW HAS JOURNEY MANAGEMENT SAFETY MEETING DISCUSSING ROUTE, CONVOY ORDER, FOLLOWING DISTANCE, CONSTRUCTION, FUEL STOP, COMMUNICATION AND DEPART FOR LOCATION
Event	3	Arrive At Loc	Arrive At Loc	3/3/2020	14:15:00	USER					CREW ARRIVES ON LOCATION. RIG POOH DRILL PIPE, 120'. CREW ASSESSES LOCATION FOR HAZARDS AND EQUIPMENT LAYOUT, CHECKS IN WITH CUSTOMER REP AND SPOT EQUIPMENT
Event	4	Casing on Bottom	Casing on Bottom	3/3/2020	16:40:00	USER	4.00	0.04	0.00	0.20	CASING ON BOTTOM. RIG CREW BEGINS CIRCULATION. HES CREW FINISHES RIGGING UP
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	3/3/2020	17:05:00	USER	1.00	8.38	0.00	14.20	CREW, RIG CREW AND CUSTOMER REP HAVE PRE

JOB SAFETY MEETING  
 DISCUSSING MUSTER  
 AREAS, RED ZONES,  
 COMMUNICATION, STOP  
 WORK, LINE OF FIRE, PINCH  
 POINTS, TUGGER  
 OPERATIONS, EMERGENCY  
 PROCEDURES, ROLES AND  
 THE JOB PROCEEDURE

Event	6	Check Floats	Start Job	3/3/2020	17:23:52	COM4	-5.00	7.29	0.00	0.00	START JOB
Event	7	Test Lines	Test Lines	3/3/2020	17:28:45	COM4	2269.00	8.20	0.00	3.30	FILL LINES WITH 3 BBL WATER. PRESSURE TEST HES LINES TO 2500 PSI. TEST GOOD
Event	8	Pump Spacer 1	Pump Spacer 1	3/3/2020	17:33:05	COM4	-46.00	8.14	2.00	0.00	PUMP 40 BBL MUD FLUSH SPACER WITH D-AIR AND RED DYE
Event	9	Pump Lead Cement	Pump Lead Cement	3/3/2020	17:44:35	COM4	101.00	8.36	4.60	46.80	PUMP 106 BBL SWIFTCEM LEAD 12.5# 2.16 YIELD 12.28 GAL 275 SACKS
Event	10	Pump Tail Cement	Pump Tail Cement	3/3/2020	18:01:17	COM4	187.00	12.49	6.10	103.50	PUMP 61 BBL SWIFTCEM TAIL 13.5# 1.74 YIELD 9.16 GAL 195 SACKS
Event	11	Shutdown	Shutdown	3/3/2020	18:10:56	USER	304.00	14.07	6.60	62.20	SHUTDOWN
Event	12	Drop Top Plug	Drop Top Plug	3/3/2020	18:14:59	COM4	52.00	0.44	0.00	62.40	DROP TOP PLUG
Event	13	Pump Displacement	Pump Displacement	3/3/2020	18:15:34	COM4	52.00	0.46	0.00	0.00	PUMP 119 BBL WATER DISPLACEMENT WASHING UP ON TOP OF THE PLUG
Event	14	Bump Plug	Bump Plug	3/3/2020	18:36:46	COM4	1063.00	8.39	0.00	120.80	BUMP PLUG. FINAL CIRCULATING PRESSURE 511 PSI AT 3BPM. TOOK TO 1098 PSI AND HELD FOR A FEW MINUTES
Event	15	Check Floats	Check Floats	3/3/2020	18:37:51	USER	1129.00	8.39	0.00	120.80	CHECK FLOATS. FLOATS HELD WITH 1 BBL BACK. 20

BBL CEMENT TO SURFACE.  
 ALL 40 BBL SPACER TO  
 SURFACE

Event	16	End Job	End Job	3/3/2020	18:41:30	COM4	47.00	8.38	0.00	120.80	END JOB
Event	17	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	3/3/2020	18:45:00	USER	42.00	8.44	9.70	149.70	CREW HAS PRE RIG DOWN SAFETY MEETING DISCUSSING RIG OPERATIONS, TEAM LIFTING, LINE OF FIRE, COMMUNICATION, PINCH POINTS AND BEGIN RIGGING DOWN
Event	18	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	3/3/2020	20:30:00	USER					CREW IS RIGGED DOWN AND READY TO DEPART

3.0 Attachments

3.1 CONFLUENCE SILVERTON 5-6-1L SURFACE-Custom Results.png

