

# HALLIBURTON

iCem® Service

## CONFLUENCE DJ LLC-EBUS

### Canal 22-1-3L

Production Casing

Job Date: Thursday, September 09, 2021

Sincerely,

**Mike Loughran**

## Legal Notice

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### Disclaimer:

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## Table of Contents

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1.0	Cementing Job Summary .....	4
1.1	Executive Summary .....	4
2.0	Real-Time Job Summary .....	7
2.1	Job Event Log .....	7
3.0	Attachments.....	9
3.1	Job Chart.....	9

## 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 Canal 22-1-3L production casing. 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 30 bbl. of spacer 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*

<b>Sold To #:</b> 375989		<b>Ship To #:</b> 9082340		<b>Quote #:</b>		<b>Sales Order #:</b> 0907367976				
<b>Customer:</b> CONFLUENCE DJ LLC-EBUS				<b>Customer Rep:</b> Gary Doke						
<b>Well Name:</b> CANAL			<b>Well #:</b> 22-1-3L			<b>API/UWI #:</b>				
<b>Field:</b>		<b>City (SAP):</b> HUDSON		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO			
<b>Legal Description:</b>										
<b>Contractor:</b> ENSIGN DRLG				<b>Rig/Platform Name/Num:</b> ENSIGN 161						
<b>Job BOM:</b> 7523										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HB41307				<b>Srvc Supervisor:</b> Michael Loughran						
<b>Job</b>										
<b>Job depth MD</b>		18197ft			<b>Job Depth TVD</b>					
<b>Well Data</b>										
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	2701		
Casing		5.5	4.778	20		P-110	0	18197		
Open Hole Section			8.5				2650	18208		
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5			18197		Top Plug	5.5	1		
Float Collar	5.5			18149		Bottom Plug	5.5	2	HES	
						Plug Container	5.5	1	HES	
						Centralizers	5.5	330	HES	

Fluid Data										
Stage #: 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 Prime Cement Spacer	190	bbl	12	3.26		6	6544	
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	Cement	ElastiCem™ Cement	2120	sack	14.4	1.7	7.26	8	15391	
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	Displacement	Fresh Water with MMCR	30	bbl	8.34			9	1260	
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	Treated Fresh Water	369	bbl	8.34			8	15498	
<b>Cement Left In Pipe</b>										
<b>Amount</b>		47.63 ft			<b>Reason</b>			Shoe Joint		
<b>Mix Water:</b>		pH 6		<b>Mix Water Chloride:</b>		LESS 200 ppm		<b>Mix Water Temperature:</b>		76°F
<b>Plug Bumped?</b>		Yes		<b>Plug Displaced by:</b>		8.33 lb/gal Treated Water		<b>Disp. Temperature:</b>		76°F
<b>Cement Returns:</b>		0 bbl.		<b>Bump Pressure:</b>		2931 PSI		<b>Floats Held?</b>		Yes
<b>Comment:</b> PUMPED 190 BBL. TUNED PRIME SPACER 12 PPG AND 2120 SACKS OR 641.87 BBL. 14.4 PPG ELASTICEM. FINAL CIRCULATING PRESSURE OF 2931 PSI AT 4 BPM. BUMP PLUG AND BROUGHT PRESSURE TO 3500 PSI. RELEASE PRESSURE, FLOATS HOLD. 5 BBL. BACK TO PUMP TRUCK. APPROX 30 BBL. SPACER TO SURFACE. ESTIMATED TOC=3400'.										

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Seq. No.	Activity	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (gpm)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Check Floats	9/8/2021	12:00:00					CREW CALLED OUT AT 1200 hrs. 9/8/2021. Requested on location 1800 hrs. 9/8/2021
2	Pre-Convoy Safety Meeting	9/8/2021	17:15:00					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
3	Crew Leave Yard	9/8/2021	17:30:00					Crew leaves yard
4	Arrive At Loc	9/8/2021	18:00:00					MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 2701", 5.5" CASING: 20 LB/FT P-110 TOTAL 18196.85', 8.5" HOLE, TD 18208", F/C 18149.22, TVD- 7300". PUMP FRESH WATER DISPLACEMENT. Water test 76 degrees, PH 6, Chlorides less 200 ppm
5	Pre-Rig Up Safety Meeting	9/8/2021	18:10:00					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
6	Rig-Up Equipment	9/8/2021	18:20:00					CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
7	Pre-Job Safety Meeting	9/8/2021	20:00:00	8.27	0.0	4.03	0.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
8	Start Job	9/8/2021	20:27:26	8.28	0.0	9.16	11.85	Begin recording data. RIG CIRCULATES 13 BPM/1700 PSI, Rig pumps 50 bbl. D822
9	Pressure Test	9/8/2021	20:55:30	8.37	4.2	1225.97	1.97	PRESSURE TEST HES LINES 5000 PSI
10	Drop Bottom Plug	9/8/2021	21:00:18	8.29	0.0	12.11	1.98	BOTTOM PLUG VERIFIED BY GARY/JOHNNY
11	Pump Spacer 1	9/8/2021	21:00:58	8.30	0.0	11.37	0.00	190 BBLS TUNED PRIME SPACER 12 PPG, 3.26 YIELD, 20.12 GAL/SACK. D-AIR ON FLY
12	Shutdown	9/8/2021	21:33:58	11.45	35.0	34.50	191.28	SHUTDOWN
13	Drop Bottom Plug	9/8/2021	21:41:19	0.08	0.0	8.35	192.23	BOTTOM PLUG VERIFIED BY GARY/JOHNNY
14	Pump Tail Cement	9/8/2021	21:41:27	0.08	0.0	8.57	0.00	2120 SACKS SBM CEM, 641.87 BBLS. 14.4 PPG, 1.7 YIELD, 7.26 GAL/SACK. USED 110 GALLONS D-AIR TOTAL JOB
15	Shutdown	9/8/2021	23:05:30	0.29	0.0	74.85	647.01	SHUTDOWN/WASH PUMPS AND LINES

16	Drop Top Plug	9/8/2021	23:19:38	8.16	0.0	7.88	0.00	TOP PLUG VERIFIED BY GARY/JOHNNY
17	Pump Displacement	9/8/2021	23:20:51	8.17	0.0	1.73	0.00	399 BBLS BY STRAP. FRESH WATER DISPLACEMENT. FIRST 30 BBLS HAS 15 GALLONS MICRO MATRIX RETARDER. 10 GALLONS CLA-WEB AND 3 LBS BE-3 THROUGHOUT. SEE SPACER AT 370 BBLS INTO DISPLACEMENT. APPROX 30 BBLS SPACER TO SURFACE. ESTIMATED TOC=3400'
18	Bump Plug	9/9/2021	00:17:32	8.40	0.0	3342.61	0.00	FCP 2931 PSI/4 BPM. BUMP PRESSURE 3500 PSI
19	Check Floats	9/9/2021	00:22:00	8.26	0.0	1493.23	0.00	RELEASE PRESSURE, FLOATS HOLD. 5 BBL BACK TO PUMP TRUCK.
20	End Job	9/9/2021	00:22:51	8.14	0.0	18.94	0.00	STOP RECORDING DATA. HES FLUSHES STACK WITH 40 BBLS WATER
21	Pre-Rig Down Safety Meeting	9/9/2021	00:45:00					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
22	Rig-Down Equipment	9/9/2021	00:50:00					RIG DOWN BULK AND MIXING EQUIPMENT
23	Rig-Down Completed	9/9/2021	02:00:00					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
24	Crew Leave Location	9/9/2021	03:00:00					THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

3.0 Attachments

3.1 Job Chart

