

HALLIBURTON

iCem® Service

VERDAD RESOURCES LLC-EBUS

Ft. Lupton District, Colorado

For: Tobin Williams

Date: Friday, February 17, 2023

Fawn

Weld

Verdad Fawn 2833-04H

Job Date: Saturday, February 18, 2023

Sincerely,

Nick Peterson

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Fawn 2833-04H Production**. 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 33 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 Rockies Cement Team

The Road to Excellence Starts with Safety

Sold To #: 380688	Ship To #: 9148532	Quote #:	Sales Order #: 0908427168
Customer: VERDAD RESOURCES LLC-EBUS		Customer Rep: Tobin Williams	
Well Name: FAWN 2833-04H,WELD		Well #: 9148532	API/UWI #: 05-123-51848-00
Field:	City (SAP): MEAD	County/Parish: WELD	State: COLORADO
Legal Description:			
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 464	
Job BOM: 7523 7523			
Well Type: OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Nick Peterson	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	18235ft Job Depth TVD
Water Depth	Wk Ht Above Floor
Perforation Depth (MD)	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	8.835	36			0	2361	0	2361
Casing	0	5.5	4.778	20			0	18235	0	7474
Open Hole Section			8.5				2361	18271	2361	7474

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	5.5					Top Plug	5.5	1	HES
Float Shoe	5.5	1	HES	18235		Bottom Plug	5.5	1	HES
Float Collar	5.5	1	HES	18185		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/mi n	Total Mix Fluid Gal
1	Tuned Prime Cement Spacer	TUNED PRIME CEMENT SPACER SYS	100	bbl	11.5	3.83	0	6	3544
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
2	ElastiCem	SBM CEM ELASTICEM™ SYS	1315	sack	13.2	1.6	7.68	8	10100
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	NeoCem™ Cement	NeoCem TM	1170	sack	13.2	2.03	9.72	8	11373
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	40	bbl	8.33	0	0	8	1680
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Treated Water	Treated Water	364	bbl	8.34	0	0	8.4	15288
Cement Left In Pipe	Amount	50 ft			Reason			Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	200 ppm		Mix Water Temperature:		58 °F		
Cement Temperature:		Plug Displaced by:	8.33 lb/gal		Disp. Temperature:				
Plug Bumped?	Yes	Bump Pressure:	2500 psi		Floats Held?		Yes		
Cement Returns:	33bbl	Returns Density:			Returns Temperature:				
Comment									

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Time	Comments
1	Call Out	05:30:00	CREW CALLED OUT FEBRUARY 17, 2023 AT 05:30, REQUESTED ON LOCATION 11:30. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11398319, BULK 660 11398321, PUMP 11323804, P/U 12992454 AND P/U 12913560.
2	Depart Yard Safety Meeting	10:00:00	CREW DISCUSSED ROUTES, HAZARDS AND COMMUNICATION WITH CREW.
3	Crew Leave Shop	10:30:00	STARTED JOURNEY MANAGEMENT.
4	Arrive at Location from Service Center	11:00:00	MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 2,361', 5.5" CASING: 20 LB/FT TOTAL 18,235', TD 18,271', 50' SHOE TRAC, TVD- 7,474', MW- 9.7 LB/GAL, MAX PRESSURE 3,200 PSI. RSI @ 18,121', AIR LOCK SUB @ 10,519', 194 RED-X CENTRALIZERS, HALLIBURTON FLOAT EQUIPMENT
5	Pre-Rig Up Safety Meeting	16:00:00	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
6	Rig-Up Equipment	16:30:00	CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
7	Rig-Up Completed	17:30:00	WAITED ON RIG TO FINISH CIRCULATING.
8	Pre-Job Safety Meeting	19:00:00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
9	Start Job	19:10:04	BEGIN RECORDING JOB DATA.
10	Test Lines	19:14:03	PRESSURE TESTED IRON TO 4,500 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1,380 PSI, 5TH GEAR STALL OUT @ 2,650 PSI.
11	Check Weight	19:22:40	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

12	Pump Spacer 1	19:25:08	PUMP 100 BBLS OF TUNED PRIME @ 11.5 LB/GAL, 3.83 FT3/SK, 24.17 GAL/SK. INJECTED 20 GALLONS D-AIR ON THE FLY, DRY SURFACTANTS MIXED IN WITH BLEND. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 7 BBLS/MIN @ 390 PSI.
13	Check Weight	19:33:05	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
14	Drop Bottom Plug	19:38:33	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
15	Pump Lead Cement	19:38:53	PUMPED 1315 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.59 FT3/SK, 7.68 GAL/SK. 372.4 BBLS, HOL CALCULATED @ 7,894', TOL CALCULATED @ SURFACE GETTING 33.5 BBLS BACK TO SURFACE. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 9 BBLS/MIN 412 PSI.
16	Check Weight	19:43:32	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
17	Check Weight	20:05:42	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
18	Pump Tail Cement	20:27:39	PUMP 1170 SKS OF NEOCEM @ 13.2 LB/GAL, 2.03 FT3/SK, 9.72 GAL/SK, 423 BBLS. HOT CALCULATED @ 10,341', TOT CALCULATED @ 7,894'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 9 BBLS/MIN @ 600 PSI.
19	Check Weight	20:32:32	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
20	Check Weight	20:58:14	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
21	Shutdown	21:20:30	CLEAN PUMPS AND LINES WITH 15 BBLS FRESH WATER.
22	Drop Top Plug	21:34:45	PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
23	Pump Displacement	21:35:40	BEGIN CALCULATED DISPLACEMENT OF 404 BBLS WITH FRESH WATER. PUMPED THE FIRST 40 BBLS WITH 20 GALS MCCR, PUMPED 364 BBLS WITH 20 GALS BELLACIDE AND 10 GALS MC-MX 820-6. PUMP RATE 9 BBLS/MIN @ 2,900 PSI. SPACER TO SURFACE @ 270 BBLS INTO DISPLACEMENT. SPACER INTERFACE WAS SEEN 220 BBLS INTO DISPLACEMENT AND OVERBOARDED @ 230. CEMENT TO SURFACE @ 370 BBLS AWAY, 33 BBLS CEMENT TO SURFACE.
24	Bump Plug	22:30:14	PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,473 PSI PRESSURED 500 PSI OVER BUMP.
25	Check Floats	22:34:06	RELEASED PRESSURE, FLOATS HELD, 4 BBLS BACK.
26	End Job	22:36:10	STOP RECORDING JOB DATA.
27	Safety Meeting - Pre Rig-Down	22:45:00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION SPECIFIC HAZARDS, PINCH POINTS RIGGING DOWN/RACKING UP IRON AND HOSES.

28	Rig-Down Equipment	23:00:00	RIG DOWN BULK AND MIXING EQUIPMENT.
29	Rig-Down Completed	00:00:00	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL AND LOCATION WAS CLEAN.
30	Depart Location Safety Meeting	00:15:00	CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
31	Crew Leave Location	00:30:00	THANK YOU FOR USING HALLIBURTON – NICK PETERSON AND CREW.

3.0 Attachments

3.1 Real Time iCem Job Chart

