

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

AD Fed Dairy 20W-25-10 Surface

Sincerely,
Meghan Jacobs

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 **AD Fed Dairy 20W-25-10** 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 35 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 #: 369404		Ship To #: 3809249		Quote #:		Sales Order #: 0905633782				
Customer: EXTRACTION OIL & GAS -						Customer Rep: JUSTIN HUMPHRIES				
Well Name: AD FED DAIRY				Well #: 20W-25-10		API/UWI #: 05-123-45032-00				
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO				
Legal Description: NW SW-21-5N-65W-2020FSL-369FWL										
Contractor:				Rig/Platform Name/Num: Cartel 15						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Larry Seigriest						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1598ft		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
Open Hole Section			13.5				0	1598		
Casing		9.625	8.921	36			0	1598		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1598		Top Plug	9.625	1	HES	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625					SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625	4	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	Red Dye Spacer	Red Dye Spacer		10	bbl	8.33			4	

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
2	SwiftCem	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2
9.20 Gal		FRESH WATER							
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
3	Fresh Water	Fresh Water	121	bbl	8.33			8	
Cement Left In Pipe		Amount	ft	Reason				Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride: 500 ppm			Mix Water Temperature:		62 °F °C	
Plug Bumped?		Yes	Bump Pressure: 1100 psi			Floats Held?		Yes	
Comment: LANDED PLUG ON CALCULATED DISPLACEMENT, 500 PSI TO 1100 PSI, BLED BACK 1 BBL, FLOATS HELD, 35 BBL OF CEMENT TO SURFACE									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	DS Pump Press (psi)	Comments
Event	1	Arrive At Loc	Arrive At Loc	4/19/2019	12:00:00	USER					ON LOCATION TIME SET TO 12:00, RIG WAS LAYING DOWN DRILL PIPE, CM SIGNED WOC, TESTED WATER, GOT NUMBERS, ASSESSED LOCATION FOR HAZARDS
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/19/2019	14:45:00	USER					HELD SAFETY MEETING AND DISCUSSED HAZARDS ASSOCIATED WITH SPOTTING TRUCKS AND RIGGING UP HES EQUIPMENT
Event	3	Rig-Up Equipment	Rig-Up Equipment	4/19/2019	15:00:00	USER					RIGGED UP ALL HES EQUIPMENT TO BE AS READY AS POSSIBLE.
Event	4	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/19/2019	17:00:00	USER					DISCUSSED HAZARDS ASSOCIATED WITH PRESSURE TEST, MIXING CMT, RUNNING BULK EQUIPMENT, AND ALL JOB RESPONSIBILITIES ASSOCIATED
Event	5	Test Lines	Test Lines	4/19/2019	17:26:48	COM5	7.53	0.00	7.50	4.00	FILLED LINES, TESTED KICKOUTS TO 500 PSI, TESTED LINES TO 2500, GOOD TEST, BLED OFF PRESSURE
Event	6	Pump Spacer 1	Pump Spacer 1	4/19/2019	17:29:29	COM5	8.34	0.00	7.50	5.00	RED DYE WATER, 10 BBL, 8.33 PPG, 4 BPM, 100 PSI

Event	7	Pump Cement	Pump Cement	4/19/2019	17:32:30	COM5	8.33	4.00	11.50	59.00	SWIFTCM, 550 SACKS, 170 BBL, 13.5 PPG, 8 BPM, 290 PSI
Event	8	Drop Top Plug	Drop Top Plug	4/19/2019	17:55:48	COM5	14.72	0.00	176.60	90.00	HES TOP PLUG
Event	9	Pump Displacement	Pump Displacement	4/19/2019	17:56:20	COM5	16.61	0.00	0.00	5.00	121 BBL WATER, 8.33 PPG, 8 BPM, 450 PSI
Event	10	Bump Plug	Bump Plug	4/19/2019	18:13:03	COM5	8.40	0.00	122.90	1107.00	LANDED PLUG ON CALCULATED DISPLACEMENT, 500 PSI-1100 PSI, BLED BACK 1 BBL, FLOATS HELD, 35 BBL CEMENT TO SURFACE
Event	11	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/19/2019	18:30:00	USER					DISCUSSED ALL HAZARDS ASSOCIATED WITH RIGGING DOWN HES EQUIPMENT
Event	12	Rig-Down Equipment	Rig-Down Equipment	4/19/2019	18:40:00	USER					
Event	13	Depart Location Safety Meeting	Depart Location Safety Meeting	4/19/2019	19:30:00	USER					DISCUSSED HAZARDS ASSOCIATED WITH LEAVING LOCATION AND BEST ROUTE TO TAKE
Event	14	Depart Location	Depart Location	4/19/2019	20:00:00	USER					

3.0 Attachments

3.1 AD Fed Dairy 20W-25-10 Surface – Job Chart



