

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

AD FED DOUBLE CLUTCH 20W-25-8 SURFACE

Sincerely,
Meghan Jacobs

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 **AD FED Double Clutch 20W-25-8** 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 10 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 #: 3809261		Quote #:		Sales Order #: 0905632528				
Customer: EXTRACTION OIL & GAS -					Customer Rep: Justin Humphries					
Well Name: AD FED DOUBLE CLUTCH			Well #: 20W-25-8			API/UWI #: 05-123-45035-00				
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD			State: COLORADO			
Legal Description: NW SW-21-5N-65W-2068FSL-369FWL										
Contractor:				Rig/Platform Name/Num: CARTEL 15						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Clifton Keck						
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		1577ft			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	1577		
Casing		9.625	8.921	36			0	1577		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625	1	HES	1577		Top Plug	9.625	1	HES	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625	1	HES	1536		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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	SwiftCem	SWIFTCEM (TM) SYSTEM	515	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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	Fresh Water	Fresh Water	119	bbl	8.33			8.5		
Cement Left In Pipe		Amount	41 ft			Reason		Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride: 500 ppm			Mix Water Temperature:		56 °F		
Plug Bumped?		Yes	Bump Pressure: 1000 psi			Floats Held?		Yes		
Comment : BUMPED PLUG ON CALCULATED DISPLACEMENT, PRESSURE BLEED OFF, PRESSURED UP 5 TIMES TOTAL, PUMPED HALF OF SHOE TRACK, PRESSURE STABILIZED AT 400 PSI, BLED BACK 0.5 BBL, FLOATS HELD, 10 BBL OF CEMENT TO SURFACE										

2.0 Real-Time Job Summary

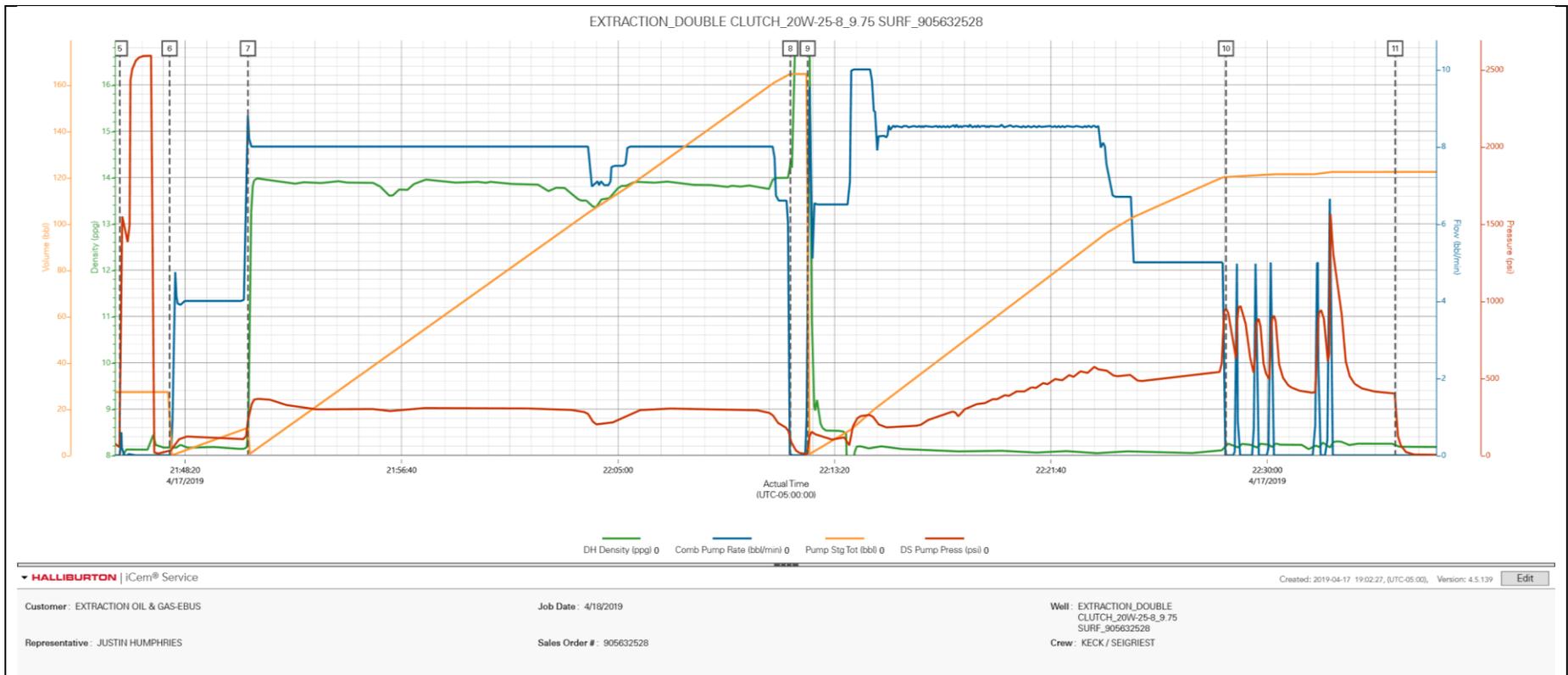
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Arrive At Loc	Arrive At Loc	4/17/2019	13:00:00	USER					ON LOCATION TIME WAS SET TO 15:30, CM SIGNED WOC, TESTED WATER, GOT NUMBERS, ASSESSED LOCATION FOR HAZARDS, RIG CREW WAS LAYING DOWN DRILL PIPE
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/17/2019	19:45:00	USER	1.23	0.10	4.70	-10.00	HELD SAFETY MEETING AND DISCUSSED HAZARDS ASSOCIATED WITH SPOTTING TRUCKS AND RIGGING UP HES EQUIPMENT
Event	3	Rig-Up Equipment	Rig-Up Equipment	4/17/2019	20:00:00	USER	2.16	0.10	6.50	-8.00	RIGGED UP ALL HES EQUIPMENT TO BE AS READY AS POSSIBLE.
Event	4	Safety Meeting - Pre Job	Safety Meeting - Pre Job	4/17/2019	21:30:00	USER	7.89	0.00	25.10	0.00	DISCUSSED HAZARDS ASSOCIATED WITH PRESSURE TEST, MIXING CMT, RUNNING BULK EQUIPMENT, AND ALL JOB RESPONSIBILITIES ASSOCIATED
Event	5	Test Lines	Test Lines	4/17/2019	21:45:49	COM5	7.95	0.00	27.30	51.00	TESTED KICKOUTS TO 500 PSI AND LINES TO 2500 PSI
Event	6	Pump Spacer 1	Pump Spacer 1	4/17/2019	21:47:44	COM5	8.18	0.00	27.30	31.00	RED DYE, 10 BBL, 8.33 PPG, 4 BPM, 120 PSI

Event	7	Pump Cement	Pump Cement	4/17/2019	21:50:45	COM5	8.31	8.80	11.90	222.00	SWIFTCEM, 515 SKS, 160 BBL, 13.5 PPG, 8 BPM, 300 PSI
Event	8	Drop Top Plug	Drop Top Plug	4/17/2019	22:11:38	COM5	14.33	0.00	164.70	108.00	HES TOP PLUG
Event	9	Pump Displacement	Pump Displacement	4/17/2019	22:12:18	COM5	34.01	2.80	164.80	8.00	119 BBL, 8.33 PPG, 8.5 BPM, 520 PSI
Event	10	Bump Plug	Bump Plug	4/17/2019	22:28:24	COM5	8.22	0.00	120.20	955.00	BUMPED PLUG ON CALCULATED, 500-1000 PSI, 10 BBL CMT TO SURFACE, PRESSURE BLED OFF, PRESSURED UP 5 TIMES IN TOTAL, PUMPED HALF OF SHOE TRACK, CM MADE PHONE CALL AND MADE DECISION TO CALL IT GOOD
Event	11	Other	Other	4/17/2019	22:34:55	COM5	8.26	0.00	122.40	400.00	CHECKED FLOATS, BLED BACK .5 BBL, FLOATS HELD
Event	12	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/17/2019	22:45:00	USER					DISCUSSED ALL HAZARDS ASSOCIATED WITH RIGGING DOWN HES EQUIPMENT
Event	13	Rig-Down Equipment	Rig-Down Equipment	4/17/2019	23:00:00	USER					
Event	14	Depart Location Safety Meeting	Depart Location Safety Meeting	4/17/2019	23:45:00	USER					DISCUSSED HAZARDS ASSOCIATED WITH LEAVING LOCATION AND BEST ROUTE TO TAKE
Event	15	Depart Location	Depart Location	4/17/2019	23:55:00	USER					

3.0 Attachments

3.1 EXTRACTION_DOUBLE CLUTCH_20W-25-8_9.75 SURF_905632528-Custom Results.png



4.0 Custom Graphs

4.1 Custom Graph

