

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

INTERCHANGE B N35-20-8C

Job Date: Saturday, March 30, 2019

Sincerely,

Alexandria Dionigi

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 **Interchange B N35-20-8C** 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 #: 369404	Ship To #: 3901325	Quote #:	Sales Order #: 0905578237
Customer: EXTRACTION OIL & GAS -		Customer Rep: JUSTIN	
Well Name: INTERCHANGE B	Well #: N35-20-8C	API/UWI #: 05-014-20776-00	
Field: WATTENBERG	City (SAP): BROOMFIELD	County/Parish: BROOMFIELD	State: COLORADO
Legal Description: NE SW-10-1S-68W-2505FSL-1672FWL			
Contractor:		Rig/Platform Name/Num: Cartel 41	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srcv Supervisor: Nicholas Ralston	

Well Data

Description	New / Used	Size	ID	Weight	Thread	Grade	Top MD	Bottom MD	Top TVD	Bottom TVD
Open Hole			13.5				0	1644		0
Casing		9.625	8.921	36			0	1644		0

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			5	

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	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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh Water	Fresh Water	121	bbl	8.33			8.5	

Cement Left In Pipe	Amount	Reason	Shoe Joint
	44		

Mix Water:		Mix Water Chloride:		Mix Water Temperature:	
Cement Temperature:		Plug Displaced by:	FRESH WATER	Disp. Temperature:	
Plug Bumped?	YES	Bump Pressure:	480-1126 PSI	Floats Held?	YES
Cement Returns:	20	Returns Density:		Returns Temperature:	
Comment					

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>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Start Job	Start Job	3/30/2019	08:30:49	COM5	8.32	0.00	4.00	23.30	START JOB
Event	2	Test Lines	Test Lines	3/30/2019	08:30:57	COM5	8.32	0.00	4.00	23.30	TEST LINES 500 PSI HIGH 2000 PSI BOTH TEST GOOD
Event	3	Pump Spacer 1	Pump Spacer 1	3/30/2019	08:35:27	COM5	8.31	0.00	1.00	23.30	PUMP 10 BBL FRESH WATER WITH RED DYE @ 5.5 BPM 500 PSI
Event	4	Pump Cement	Pump Cement	3/30/2019	08:39:11	COM5	8.30	0.00	2.00	23.30	PUMP 550 SKS 170 BBL TAIL CMT @ 13.5 PPG @ 8 BPM 294 PSI
Event	5	Drop Top Plug	Drop Top Plug	3/30/2019	09:04:45	COM5	8.31	0.00	1.00	23.30	
Event	6	Pump Displacement	Pump Displacement	3/30/2019	09:04:58	COM5	8.31	0.00	1.00	23.30	PUMP 124 BBL FRESH WATER @ 8.5 BPM 211 PSI
Event	7	Bump Plug	Bump Plug	3/30/2019	09:24:54	COM5	8.32	0.00	0.00	23.30	BUMP PLUG 480 PSI TOOK TO 1126 PSI HELD 1 MIN CHECK FLOATS 1/2 BBL BACK GOT 20 BBL CMT TO SURFACE
Event	8	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	3/30/2019	10:45:26	USER					DISCUSS RIG DOWN WITH CREW SO RIG CAN MOVE
Event	9	Standby Other	Standby Other	3/30/2019	10:45:27	USER					WAIT ON LOCATION FOR NEXT HOLE

3.0 Custom Graphs

3.1 Custom Graph

