

HALLIBURTON

iCem[®] Service

PDC ENERGY EBUS

Date: Wednesday, October 25, 2017

High Plains 25N-301 Production

Job Date: Thursday, September 14, 2017

Sincerely,

Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **High Plains 25N-301** cement **production** 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 45 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 #: 304535		Ship To #: 3806233		Quote #:		Sales Order #: 0904294206					
Customer: PDC ENERGY-EBUS				Customer Rep: Shane Paris							
Well Name: HIGH PLAINS			Well #: 25N-301		API/UWI #: 05-123-44972-00						
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD		State: COLORADO					
Legal Description: NW NW-25-5N-65W-1114FNL-747FWL											
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 158							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA/H139013				Srv Supervisor: Aaron Smith							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		12979ft		Job Depth TVD		6839					
Water Depth				Wk Ht Above Floor		3					
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	
Casing		9.625	8.921	36			0	1655		1655	
Casing		5.5	4.778	20			0	12976		6839	
Open Hole Section			8.5				1655	12979	1655	6839	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5					Top Plug	5.5	1	KLX		
Float Shoe	5.5	1	KLX	12976		Bottom Plug	5.5		HES		
Float Collar	5.5	1	KLX	12960		SSR plug set	5.5		HES		
Wet Shoe Sub	5.5	1	KLX	12943		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/min	Total Mix Fluid Gal
1	Mud Flush III (Powder)	Mud Flush III			50	bbl	8.4				
42 gal/bbl		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
2	12.0 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	12	3.16			
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	ElastiCem Cap	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		5	7.52
7.52 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
4	13.2# ElastiCem	ELASTICEM (TM) SYSTEM	2039	sack	13.2	1.57		6	7.53
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
5	Displacement fluid		287.4	bbl	8.33				
Cement Left In Pipe		Amount	33 ft		Reason			Shoe Joint	
Comment 45 bbls cement to surface, plus the 5 bbl wet shoe.									