

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

Legal Notice

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Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	9
2.1	Job Event Log	9
3.0	Attachments.....	12
3.1	PDC Energy High Plains 25N-301 Production Job Chart	12

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		Srvc 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				
3	ElastiCem Cap	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		5	7.52	
7.52 Gal		FRESH WATER								
4	13.2# ElastiCem	ELASTICEM (TM) SYSTEM	2039	sack	13.2	1.57		6	7.53	
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.										