

HALLIBURTON

iCem[®] Service

VERDAD OIL & GAS CORP

Date: Saturday, June 03, 2017

Homestead 15 Surface

Job Date: Thursday, June 01, 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 **Homestead 15** 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 24 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 [Ft. Lupton]

Sold To #: 306259		Ship To #: 3796400		Quote #:		Sales Order #: 0904068975				
Customer: VERDAD OIL & GAS CORP				Customer Rep: Andy Boshard						
Well Name: HOMESTEAD			Well #: 15		API/UWI #: 05-123-44638-00					
Field: WATTENBERG		City (SAP): IONE		County/Parish: WELD		State: COLORADO				
Legal Description: NE SE-34-1N-66W-2445FSL-1080FEL										
Contractor: ADVANCED ENERGY				Rig/Platform Name/Num: ADVANCED 10						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srcv Supervisor: Bradley Hinkle						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1734ft		Job Depth TVD		1734ft				
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
Casing		9.625	8.921	36	LTC	J-55	0	1734		0
Open Hole Section			13.5				0	1753		0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625	1		
Float Shoe	9.625	1		1734		Bottom Plug	9.625	1		
Float Collar	9.625	1		1692		SSR plug set	9.625			HES
Insert Float	9.625					Plug Container	9.625	1		HES
Stage Tool	9.625					Centralizers	9.625			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	1 st Spacer	Fresh Water	10	bbl	8.33			3		
Fluid Data										
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	2nd Spacer	Red Dye Water	10	bbl	8.33			3		

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	Primary Cement	SWIFTCCEM	780	sack	13.5	1.76		4.5	8.83
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	Displacement	Fresh Water	131	bbl	8.33			4.5	
Cement Left In Pipe		Amount	40 ft		Reason			Shoe Joint	
Mix Water:		pH 6.5	Mix Water Chloride:		0 ppm		Mix Water Temperature:		71 °F
Cement Temperature:		85 °F	Plug Displaced by:		## lb/gal kg/m3 XXXX		Disp. Temperature:		## °F °C
Plug Bumped?		Yes	Bump Pressure:		576 psi		Floats Held?		Yes
Cement Returns:		24 bbl	Returns Density:		## lb/gal kg/m3		Returns Temperature:		## °F °C
Comment 24 bbls 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)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/31/2017	14:00:00	USER				Crew called for an on location of 1900. Crew was Bradley Hinkle, Todd Porter, Nick Cummins, Grant Amsberry, Jim Krichmar and Collan Fitzpatrick.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	5/31/2017	17:00:00	USER				Pre-journey safety meeting.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	5/31/2017	17:15:00	USER				Sign in, perform a site assessment and pre rig-up safety meeting.
Event	4	Other	Check-in With Customer	5/31/2017	17:20:00	USER				Check-in and get job numbers. TD: 1753. TP: 1733.87. FC: 1692. 9.625" 36# casing inside a 13.5" OH.
Event	5	Safety Meeting - Pre Job	Safety Meeting - Pre Job	5/31/2017	19:30:00	USER	8.32	0.00	28.00	Pre-job safety meeting with all personnel on location.
Event	6	Start Job	Start Job	5/31/2017	20:47:35	COM4	8.49	0.00	0.00	
Event	7	Test Lines	Test Lines	5/31/2017	20:49:37	COM4	8.24	0.00	24.00	Pressure test lines with a 500 PSI electronic kick-out test.
Event	8	Pump Spacer 1	Pump Spacer 1	5/31/2017	20:52:55	COM4	8.29	0.00	20.00	Pump 10 bbls Fresh Water.
Event	9	Drop Bottom Plug	Drop Bottom Plug	5/31/2017	20:55:38	COM4	8.25	3.00	77.00	Bottom plug preloaded and witnessed by customer.
Event	10	Pump Spacer 2	Pump Spacer 2	5/31/2017	20:56:49	COM4	8.25	3.00	83.00	Pump 10 bbls Red Dye water.

Event	11	Pump Cement	Pump Cement	5/31/2017	21:02:59	COM4	8.21	0.00	10.00	Pump 245 bbls (780 sacks) SwiftCem mixed at 13.5 ppg. Density verified by pressurized scales.
Event	12	Check Weight	Check Weight	5/31/2017	21:27:50	COM4	13.43	4.50	73.00	Cement weighed at 13.4 ppg.
Event	13	Drop Top Plug	Drop Top Plug	5/31/2017	22:04:23	COM4	25.52	0.00	7.00	Top plug preloaded and witnessed by customer.
Event	14	Shutdown	Shutdown	5/31/2017	22:06:08	COM4	-0.01	0.00	2.00	
Event	15	Pump Displacement	Pump Displacement	5/31/2017	22:06:26	COM4	-0.05	0.00	2.00	Pump 131 bbls fresh water. Good returns throughout. 24 bbls cement to surface.
Event	16	Bump Plug	Bump Plug	5/31/2017	22:49:30	COM4	8.30	2.00	563.00	Bump plug at 576 PSI and increase pressure to 1050 PSI. Held for 3 minutes.
Event	17	Check Floats	Check Floats	5/31/2017	22:52:46	USER	8.32	0.00	1006.00	Floats held. Half bbl back.
Event	18	End Job	End Job	5/31/2017	22:53:26	COM4				
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/31/2017	22:55:00	USER	8.29	0.00	3.00	Pre-rig down safety meeting.
Event	20	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	5/31/2017	23:45:00	USER				Pre-journey safety meeting.

3.0 Attachments

3.1 Verdad Homestead 15 Surface Job Chart

