

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, June 09, 2017

TC Country Club West 4-9-11 Production

Job Date: Saturday, May 06, 2017

Sincerely,

Julia Nichols

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 **TC Country Club West 4-9-11** 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 53 barrels 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]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 389404	Ship To #: 3754152	Quote #:	Sales Order #: 0904009350
Customer: EXTRACTION OIL & GAS		Customer Rep: Kaylen Holgate	
Well Name: TC COUNTRY CLUB WEST	Well #: 4-9-11	API/UWI #: 05-123-43505-00	
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: SE NE-8-5N-66W-2494FNL-1194FEL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 341	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Vaughn Oteri	
Job			
Formation Name			
Formation Depth (MD)	Top	Bottom	
Form Type		BHST	
Job depth MD	20200ft	Job Depth TVD	
Water Depth		Wk Ht Above Floor	
Perforation Depth (MD)	From	To	
Well Data			
Description	New / Used	Size in	ID in
Casing		9.625	8.921
Casing		5.5	4.67
Open Hole Section			8.5
Tools and Accessories			
Type	Size in	Qty	Make
Guide Shoe	5.5		
Float Shoe	5.5		20186
Float Collar	5.5		20181
Insert Float	5.5		
Stage Tool	5.5		
Fluid Data			
Stage/Plug #: 1			
Fluid #	Stage Type	Fluid Name	Qty
1	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50
Fluid #			
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	3175

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Cementing Job Summary

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	Displacement	425	bbl	8.33			8	
Cement Left In Pipe		Amount	5 ft		Reason			Shoe Joint	
Comment 53bbls of cement back to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	5/6/2017	04:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	5/6/2017	09:00:00	USER				Arrived on location met with company rep to discuss job process and concerns
Event	3	Other	Other	5/6/2017	09:01:01	USER				TD-20200 TP-20186 FC-20181 Surf-1587 Mud-10.0ppg Casing 5.5 23#
Event	4	Start Job	Start Job	5/6/2017	11:37:13	COM4	0.00	8.42	0.00	Held pre job safety meeting with all hands on location to dicuss job process and safety
Event	5	Test Lines	Test Lines	5/6/2017	11:56:58	COM4	4577.00	8.52	0.00	Test pump and lines to 4672psi, no leaks, held good
Event	6	Pump Spacer 1	Pump Spacer 1	5/6/2017	11:58:11	COM4	13.00	8.40	0.00	Pump 11.5ppg Tuned Spacer III at 4bpm, 301psi. 50bbls
Event	7	Pump Lead Cement	Pump Lead Cement	5/6/2017	12:11:05	COM4	206.00	13.23	5.60	Pump 3175sks or 887bbls y-1.57/ gps-7.53 of Elasticem at 8bpm, 537psi
Event	8	Other	Other	5/6/2017	14:09:37	COM4	149.00	10.08	5.40	Pump 7bbls of MMCR water for wet shoe
Event	9	Shutdown	Shutdown	5/6/2017	14:10:50	COM4	3.00	8.12	0.00	
Event	10	Clean Lines	Clean Lines	5/6/2017	14:11:42	COM4	-11.00	8.30	0.00	Wash pump and lines with fresh water
Event	11	Drop Top Plug	Drop Top Plug	5/6/2017	14:11:45	COM4	-10.00	8.31	0.00	KLX tool hand released plug witnessed by company rep and HES supervisor
Event	12	Pump Displacement	Pump Displacement	5/6/2017	14:18:05	COM4	-2.00	6.88	0.00	Pumped 425bbls of fresh water to displace cement
Event	13	Bump Plug	Bump Plug	5/6/2017	15:06:11	COM4	2954.00	8.36	0.00	Bump plug 500psi over final pump pressure
Event	14	End Job	End Job	5/6/2017	15:22:41	COM4	0.00	8.27	0.00	53bbls of cement back to surface

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart with Events

