HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS

Date: Saturday, January 07, 2017

TC COUNTRY CLUB WEST C3-9-11 SURFACE

Job Date: Saturday, December 03, 2016

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 C3-9-11** 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 25 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 #: 369404	**Ship To #:** 3754104	**Quote #:** 0022243245	**Sales Order #:** 0903697743
Customer: EXTRACTION OIL & GAS		**Customer Rep:** Hans Carey	
Well Name: TC COUNTRY CLUB WEST	**Well #:** C3-9-11		**API/UWI #:** 05-123-43510-00
Field: WATTENBERG	**City (SAP):** GREELEY	**County/Parish:** WELD	**State:** COLORADO
Legal Description: SE NE-8-5N-66W-2510FNL-1194FEL			
Contractor: PATTERSON-UTI ENERGY		**Rig/Platform Name/Num:** PATTERSON 341	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		**Srvc Supervisor:** Bradley Hinkle	

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type			**BHST**		
Job depth MD	1583ft		**Job Depth TVD**	1583ft	
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			0	1583		0
Open Hole Section			13.5				0	1600		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	HES
Float Shoe	9.625	1		1583		Bottom Plug	9.625		HES
Float Collar	9.625	1		1540		SSR plug set	9.625		HES
Insert Float	9.625					Plug Container	9.625		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	Water with dye	Water with dye	10	bbl	8.34			4	

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	SWIFTCEM (TM) SYSTEM	525	sack	13.5	1.74	9.2	8	4830

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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	Fresh Water	115	bbl	8.33				

Cement Left In Pipe	**Amount**	43 ft	**Reason**		Shoe Joint
Mix Water:	pH 6	**Mix Water Chloride:**	00 ppm	**Mix Water Temperature:**	50 °F °C
Cement Temperature:	## °F °C	**Plug Displaced by:**	## lb/gal kg/m3 XXXX	**Disp. Temperature:**	## °F °C
Plug Bumped?	Yes	**Bump Pressure:**	500 psi MPa	**Floats Held?**	Yes
Cement Returns:	## bbl m3	**Returns Density:**	## lb/gal kg/m3	**Returns Temperature:**	## °F °C

Comment 25 bbls cement to surface.

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2.0 Real-Time Job Summary

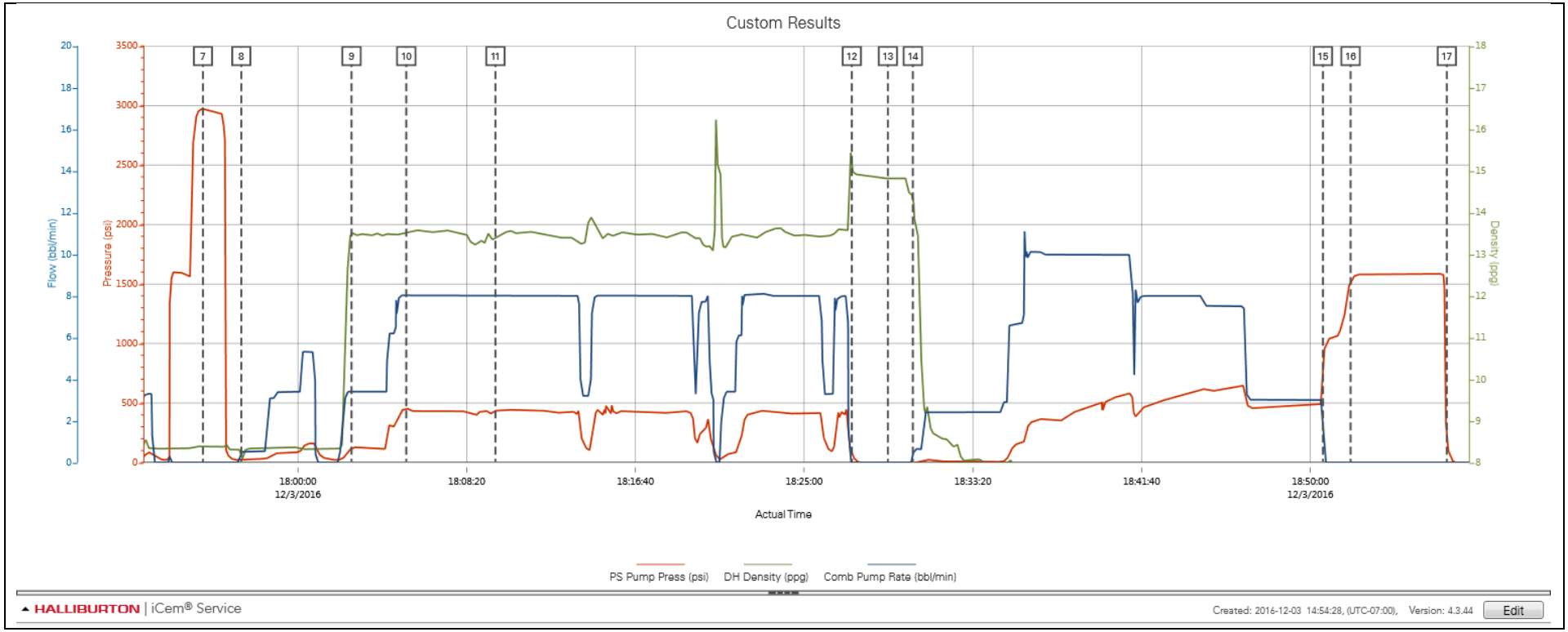
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	12/3/2016	08:30:00	USER				Crew called out for an on location of 1300. Crew was Bradley Hinkle, Luke Kosakewich, Rick Makgraf and David Smith (Crown).
Event	2	Depart Shop for Location	Depart Shop for Location	12/3/2016	12:15:00	USER				Pre-journey safety meeting.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	12/3/2016	13:00:00	USER				Perform a site assessment and pre rig up safety meeting. Rig pumping sweep prior to tripping pipe.
Event	4	Other	Check-in with Customer	12/3/2016	13:05:00	USER				TD: 1,600. TP: 1,583. FC: 1,543. 9.625" 36# casing inside a 13.5" OH.
Event	5	Start Job	Start Job	12/4/2016	17:46:17	COM5				
Event	6	Check Weight	Check weight	12/4/2016	17:50:49	COM5				Cement scaled at 13.6 ppg.
Event	7	Test Lines	Test Lines	12/4/2016	17:55:19	COM5	2974.00	8.38	0.00	Pressure test lines with a 500 PSI EKO test.
Event	8	Pump Spacer 1	Pump Spacer 1	12/4/2016	17:57:12	COM5	24.00	8.12	0.60	Pump 10 bbls red dye water.
Event	9	Pump Cement	Pump Cement	12/4/2016	18:02:39	COM5	120.00	13.58	3.40	Pump 163 bbls (525 sacks) SwiftCem (1.74 yield, 9.2 gal/sk) mixed at 13.5 ppg. Density verified by pressurized scales.
Event	10	Check Weight	Check weight	12/4/2016	18:05:21	COM5				
Event	11	Check Weight	Check weight	12/4/2016	18:09:45	COM5				
Event	12	Shutdown	Shutdown	12/4/2016	18:27:21	COM5				
Event	13	Drop Top Plug	Drop Top Plug	12/4/2016	18:29:08	COM5				Top plug loaded directly into casing.
Event	14	Pump Displacement	Pump Displacement	12/4/2016	18:30:22	COM5	-7.00	14.41	0.40	Pump 115 bbls fresh water. Good returns throughout. 25 bbls cement to surface.
Event	15	Bump Plug	Bump Plug	12/4/2016	18:50:37	USER	815.00	7.95	3.00	Bump plug at 500 PSI and increase pressure to 1000 PSI. Held until pressure leveled off.

Event	16	Pressure Up Well	Pressure Up Well	12/4/2016	18:51:59	COM5	1518.00	7.97	0.00	Increase pressure to 1500 PSI for a 5 minute casing test.
Event	17	Check Floats	Check Floats	12/4/2016	18:56:44	USER				Floats held. 1 bbl back.
Event	18	End Job	End Job	12/4/2016	19:09:27	COM5				

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events