

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Monday, October 03, 2016

Winder South #7

Production

Job Date: Thursday, September 29, 2016

Sincerely,
Lauren Roberts

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Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	7
2.1	Job Event Log	7
3.0	Attachments.....	8
3.1	Case 1-Custom Results.png.....	8

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Winder South #7** 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.

50 bbl. of cement 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]

The Road to Excellence Starts with Safety

Sold To #: 369404	Ship To #: 3749889	Quote #:	Sales Order #: 0903566470
Customer: EXTRACTION OIL & GAS		Customer Rep: Jose Torres	
Well Name: WINDER SOUTH		Well #: 7	API/UWI #: 05-123-43401-00
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO
Legal Description: SE NE-9-6N-67W-2306FNL-408FEL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346	
Job BOM: 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	17155ft		Job Depth TVD
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	1561		0
Casing		5.5	4.778	20			0	17152	0	7230
Open Hole Section			7.875				1561	17155	0	7230

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			17152	Bottom Plug	5.5		
Float Collar	5.5			17146	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.74		5	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.572		8	7.48
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ElastiCem W/ Super CBL	ELASTICEM (TM) SYSTEM	2025	sack	13.2	1.57		8	7.49
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Displacement	Displacement	378	bbl	8.33			8	

Cement Left In Pipe				Amount	Reason	Shoe Joint
				5 ft		

Comment 50bbl 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	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	DS Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	9/29/2016	12:00:00	USER					Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	9/29/2016	18:00:00	USER					Requested on location at 2000 Arrived on location at 1800 met with company rep to discuss job process and concerns advised that they had a few hour of running casing but was safe for HES to rig up on back side of rig
Event	3	Other	Other	9/29/2016	18:01:00	USER					TD-17155 TP-17152 FC-17146 Surf-1561 Mud-9.3 TVD-7230 Casing 5.5 20#
Event	4	Start Job	Start Job	9/29/2016	23:59:49	COM4	3.00	8.46	0.00	0.00	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	9/30/2016	00:01:19	COM4	75.00	8.54	0.00	0.00	Pressure tested pumps and lines with fresh water 4257psi
Event	6	Pump Spacer 1	Pump Spacer 1	9/30/2016	00:06:03	COM4	7.00	8.51	0.00	0.00	Mixed 50bbl of 11.5ppg Tuned spacer III on Batch mixer at 4.0bpm 175psi
Event	7	Pump Lead Cement	Pump Lead Cement	9/30/2016	00:19:42	COM4	58.00	13.73	1.50	1.00	Mixed 2175sks or 608bbl of 13.2ppg Y-1.57 G/sk-7.49 ElastiCem at 8.0bpm 299psi
Event	8	Check Weight	Check weight	9/30/2016	00:37:37	COM4	105.00	13.16	2.00	2.00	Confirm weight on scales at 13.2ppg
Event	9	Shutdown	Shutdown	9/30/2016	02:14:13	USER	62.00	0.82	0.00	0.00	Shut down so that rig could blow lines clear with air
Event	10	Clean Lines	Clean Lines	9/30/2016	02:14:16	COM4	54.00	0.63	0.00	0.00	Washed pumps and lines with fresh water
Event	11	Drop Top Plug	Drop Top Plug	9/30/2016	02:14:20	COM4	40.00	0.48	0.00	0.00	KLX tool hand released plug witnessed by company rep and HES supervisor
Event	12	Pump Displacement	Pump Displacement	9/30/2016	02:25:18	COM4	1.00	8.44	0.00	0.00	Pumped 378bbl of fresh water to displace cement
Event	13	Other	Other	9/30/2016	03:14:41	COM4	2012.00	8.32	0.00	0.00	Released pressure back to pump truck to check floats - floats held well: 2.5bbl back
Event	14	End Job	End Job	9/30/2016	03:15:53	COM4	17.00	8.25	0.00	0.00	50bbl of cement back to surface

3.0 Attachments

3.1 Case 1-Custom Results.png

