

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, August 19, 2016

Winder South #4

Surface

Job Date: Sunday, August 14, 2016

Sincerely,
Lauren Roberts

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Winder South #4** 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.

36 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]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3749895		Quote #:		Sales Order #: 0903476805				
Customer: EXTRACTION OIL & GAS -				Customer Rep: Todd Stephens						
Well Name: WINDER SOUTH		Well #: 4		API/UWI #: 05-123-43400-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO				
Legal Description: SE NE-9-6N-67W-2306FNL-468FEL										
Contractor: White Mountain Drilling				Rig/Platform Name/Num: White Mountain 272						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Brandon Parker						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1558ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor		4				
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	1558	0	1558
Open Hole Section			13.5				0	1558	0	1558
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625		weatherford	1558		Top Plug	9.625	1	weatherford	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625		weatherford	1514		SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625	18	Top-co	
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	Fresh Water	Fresh Water	10	bbl	8.33			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	SwiftCem	SWIFTCM (TM) SYSTEM	175bbl	565sack	13.5	1.74		7	9.19	
9.19 Gal		FRESH WATER								

last updated on 8/14/2016 3:57:46 PM

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(v. 4.2.393)

Created: Friday, August 19, 2016

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Cementing Job Summary

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	Displacement	Drill Water Displacement	117	bbl	8.80			8																										
<table border="1"> <tr> <td>Cement Left In Pipe</td> <td>Amount</td> <td>44 ft</td> <td>Reason</td> <td>Shoe Joint</td> </tr> <tr> <td>Mix Water: pH ##</td> <td>Mix Water Chloride: ## ppm</td> <td>Mix Water Temperature: ## °F °C</td> <td colspan="2"></td> </tr> <tr> <td>Cement Temperature: ## °F °C</td> <td>Plug Displaced by: ## lb/gal kg/m³ XXXX</td> <td>Disp. Temperature: ## °F °C</td> <td colspan="2"></td> </tr> <tr> <td>Plug Bumped? Yes/No</td> <td>Bump Pressure: #### psi MPa</td> <td>Floats Held? Yes/No</td> <td colspan="2"></td> </tr> <tr> <td>Cement Returns: ## bbl m³</td> <td>Returns Density: ## lb/gal kg/m³</td> <td>Returns Temperature: ## °F °C</td> <td colspan="2"></td> </tr> </table>										Cement Left In Pipe	Amount	44 ft	Reason	Shoe Joint	Mix Water: pH ##	Mix Water Chloride: ## ppm	Mix Water Temperature: ## °F °C			Cement Temperature: ## °F °C	Plug Displaced by: ## lb/gal kg/m ³ XXXX	Disp. Temperature: ## °F °C			Plug Bumped? Yes/No	Bump Pressure: #### psi MPa	Floats Held? Yes/No			Cement Returns: ## bbl m ³	Returns Density: ## lb/gal kg/m ³	Returns Temperature: ## °F °C		
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Comment																																		

2.0 Real-Time Job Summary

2.1 Job Event Log

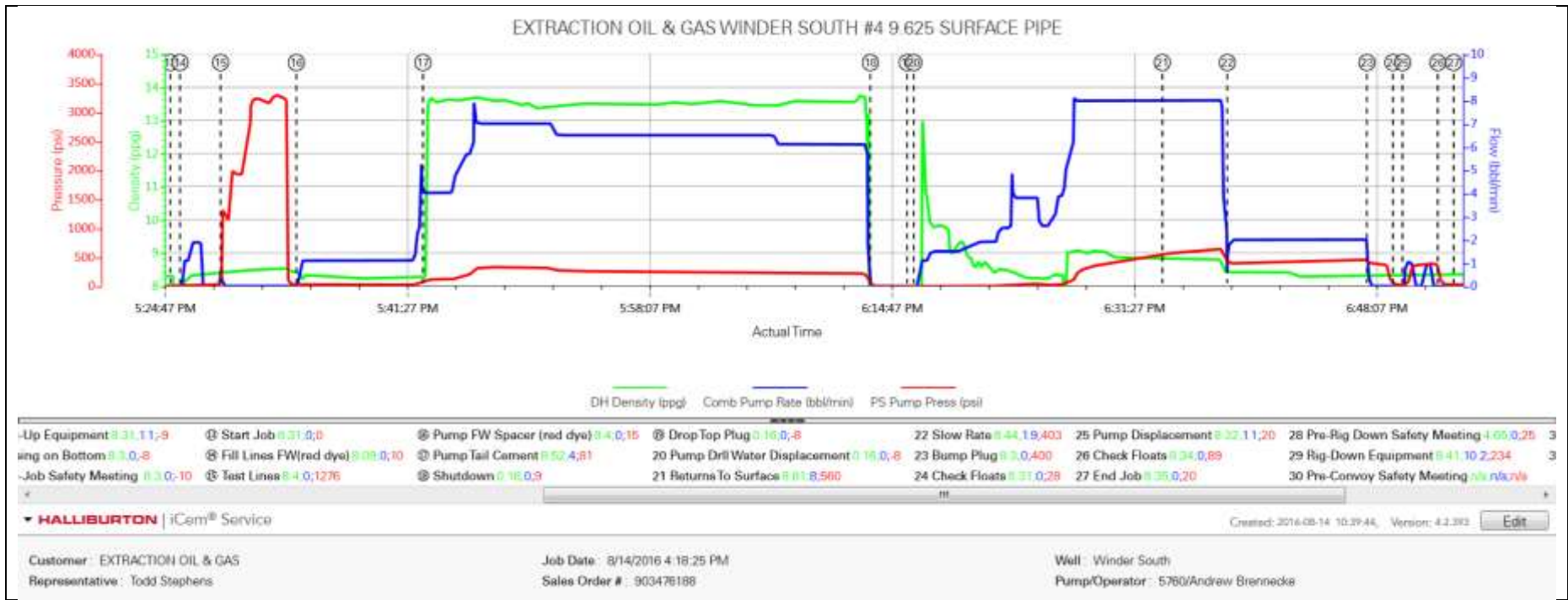
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Call Out	Call Out	8/14/2016	10:00:00	USER				crew called out to 9.625 surface pipe, 1 red tiger, 2 660 trailers loaded with 565 sks of swiftcem cmt.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/14/2016	12:45:00	USER				meeting with all HES personnel to discuss route of travel, safety/hazards associated with driving to location.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	8/14/2016	13:00:00	USER				
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	8/14/2016	14:00:00	USER				met with Extraction company rep Todd Stephens and went over job numbers, water sources and iron placement for job in hand
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	8/14/2016	14:02:00	USER				water temp 73, ph 6, sul<200, chlo 0, iron 0, tp 1558, sj 44, fc 1514, 13.5"oh, 9.625 j55 36# casing, wf 8.8ppg, 18 cnt, weatherford floats, top-co cent, top plug only
Event	6	Standby - Other - see comments	Standby - Other - see comments	8/14/2016	14:05:00	USER				wait to spot in HES equipment due to tight location with a rig move going on at the same time
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/14/2016	14:35:00	USER				meeting with all HES personnel to discuss safety/hazards associated with rigging up equipment. all personnel signed jsa
Event	8	Rig-Up Equipment	Rig-Up Equipment	8/14/2016	14:45:00	USER				
Event	9	Standby - Other - see comments	Standby - Other - see comments	8/14/2016	15:30:00	USER				wait for rig to land casing
Event	10	Rig-Up Equipment	Rig-Up Equipment	8/14/2016	16:35:00	USER	8.31	1.10	-9.00	HES finished rigging up iron to rig floor
Event	11	Casing on Bottom	Casing on Bottom	8/14/2016	17:00:00	USER	8.30	0.00	-8.00	rig landed casing and started circulating
Event	12	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/14/2016	17:15:00	USER	8.30	0.00	-10.00	meeting with all personnel on location to discuss safety/hazards associated with job in hand and also covered job procedures.

Event	13	Start Job	Start Job	8/14/2016	17:25:19	COM5				
Event	14	Pump Water	Fill Lines FW(red dye)	8/14/2016	17:26:00	USER	8.09	0.00	11.00	pumped 3BBL's of FW at 2BPM top psi was 32
Event	15	Test Lines	Test Lines	8/14/2016	17:28:47	USER	8.40	0.00	1263.00	test kick-outs, 5th gear stall and test high pressure to 3238psi, pressure fell back, bumped psi a second time to get psi to hold
Event	16	Pump Spacer	Pump FW Spacer (red dye)	8/14/2016	17:34:00	USER	8.40	0.00	15.00	pumped the remaining 7BBL's of fw with red dye, pumped at 1BPM to bring tub up to weight, then took rate to 4BPM going into cmt. psi at 80psi
Event	17	Pump Tail Cement	Pump Tail Cement	8/14/2016	17:42:42	USER	8.52	4.00	82.00	pumped 175BBL's of Swiftcem cmt, 565 sks, 1.74 yield, 9.2 gal/sk, pumped at 6.5BPM and average pressure was 250. weighed cmt using high pressure mud scales, weight was confirmed by HES supervisor. wet and dry samples were left on location next to company man shack
Event	18	Shutdown	Shutdown	8/14/2016	18:13:28	USER	0.19	0.00	11.00	done pumping cmt
Event	19	Drop Top Plug	Drop Top Plug	8/14/2016	18:16:00	USER	0.16	0.00	-8.00	HES supervisor dropped top plug, witnessed by Todd Stephens with Extraction
Event	20	Pump Displacement	Pump Drill Water Displacement	8/14/2016	18:16:27	USER	0.16	0.00	-8.00	HES calculated 117BBL's of displacement, plug did not bump. pumped an additional 1BBL to land plug. plug did not bump at 118BBL's
Event	21	Returns To Surface	Returns To Surface	8/14/2016	18:33:33	USER	8.81	8.00	550.00	spacer to surface at 65BBL's away and good solid cmt back to surface at 81BBL's away, total of 36BBL's back to surface. calculated 36BBL's to surface on a true hole
Event	22	Slow Rate	Slow Rate	8/14/2016	18:38:01	USER	8.44	1.80	396.00	slow rate from 8 to 2BPM to land Weatherford top plug
Event	23	Bump Plug	Bump Plug	8/14/2016	18:47:37	USER	8.30	0.00	400.00	plug did not bump at calculated displacement of 117bbl's
Event	24	Check Floats	Check Floats	8/14/2016	18:49:24	USER	8.31	0.00	28.00	Weatherford floats held, .5BBL's back to the trk
Event	25	Pump Displacement	Pump Displacement	8/14/2016	18:50:04	USER	8.32	0.70	19.00	pumped an additional .5BBL to land plug, pumped a total of 118.5BBL's of displacement. pumped 1.5BBL's over, total shoe 3.4BBL's. allow half of shoe track over displace
Event	26	Check Floats	Check Floats	8/14/2016	18:52:29	USER	8.34	0.00	97.00	.5BBL back . floats held
Event	27	End Job	End Job	8/14/2016	18:53:35	COM5				
Event	28	Pre-Rig Down Safety	Pre-Rig Down Safety	8/14/2016	19:00:00	USER	4.59	0.00	25.00	meeting with all HES personnel to discuss safety/hazards

		Meeting	Meeting							associated with rigging down equipment. all personnel signed a jsa
Event	29	Rig-Down Equipment	Rig-Down Equipment	8/14/2016	19:05:00	USER	8.40	10.00	321.00	
Event	30	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/14/2016	20:00:00	USER				meeting with all HES personnel to discuss route of travel, safety/hazards associated with driving to service center.
Event	31	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	8/14/2016	20:05:00	USER				
Event	32	Other	Other	8/14/2016	20:06:00	USER				Thank You for Choosing Halliburton Cement. Parker and Crew (713)703-3283

3.0 Attachments

3.1 Case 1-Custom Results events .png



3.2 Case 1-Custom Results no events .png

