

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, August 19, 2016

Winder South #3

Surface

Job Date: Saturday, August 13, 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 #3** 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.

26 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 #: 3749843		Quote #:		Sales Order #: 0903476188					
Customer: EXTRACTION OIL & GAS -				Customer Rep: Todd Stephens							
Well Name: WINDER SOUTH			Well #: 3		API/UWI #: 05-123-43408-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO					
Legal Description: SE NE-9-6N-67W-2306FNL-488FEL											
Contractor: White Mtn				Rig/Platform Name/Num: White MTN 272							
Job BOM: 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB71271					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	1553	
Open Hole Section			13.5				0	15581	0	1553	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625	1	weatherford	1555		Top Plug	9.625	1	weatherford		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625	1	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	weatherford		
Fluid Data											
Stage/Plug #: 1											
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
1	Fresh Water	Fresh Water/Red Dye			10	bbl	8.33			4	
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	SwiftCem	SWIFTCEM (TM) SYSTEM			175bbl	565sack	13.5	1.74		6	9.19
9.19 Gal		FRESH WATER									

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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/mi n	Total Mix Fluid Gal
3	Displacement	Drill Water Displacement	0	bbl	8.90			8	
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/m3 XXXX			Disp. Temperature:## °F °C				
Plug Bumped?Yes/No		Bump Pressure:#### psi MPa			Floats Held?Yes/No				
Cement Returns:## bbl m3		Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C				
Comment									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	8/13/2016	16:00:00	USER				crew called out to 9.625 surface pipe, 1 red tiger, 2 660 job trailers loaded with 565sks of swiftcem cmt.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/13/2016	18:00:00	USER				meeting with all HES personnel to discuss route of travel, safety/hazards associated with driving to location.
Event	3	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	8/13/2016	19:30:00	USER				met with Extraction company rep Todd Stephens and went over job numbers, water needed for job and iron placement for job in hand.
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	8/13/2016	19:33:00	USER				water 77, sul <200, chlo 0, iron 0, ph 7, tp 1558, sj 44ft, fc 1514, 13.5" oh, 9.625 j55 36# casing, 18cnt, 8.6ppg wf, weatherford floats, top plug only, hes plug container and manifold
Event	5	Standby - Other - see comments	Standby - Other - see comments	8/13/2016	19:35:00	USER				HES went into wait mode to be able to spot in equipment due to big rig moving onto the same location
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/13/2016	20:05:00	USER				meeting with all HES personnel to discuss safety/hazards associated with rigging up
Event	7	Rig-Up Equipment	Rig-Up Equipment	8/13/2016	20:10:00	USER				
Event	8	Casing on Bottom	Casing on Bottom	8/13/2016	21:00:00	USER	20.00	8.19	1.10	rig landed and started circulating
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/13/2016	21:30:00	USER	20.00	8.31	0.00	meeting with all personnel on location to discuss safety/hazards and job procedures associated with job in hand. all personnel signed a jsa
Event	10	Start Job	Start Job	8/13/2016	21:41:00	COM5	22.00	8.30	0.00	
Event	11	Pump Water	Fill Lines FW (red dye)	8/13/2016	21:41:59	USER	36.00	8.32	0.10	fill lines with 2BBL's of fw at 2BPM top pressure of 42psi.
Event	12	Test Lines	Test Lines	8/13/2016	21:43:24	USER	50.00	8.30	0.00	
Event	13	Pump Water	Fill Lines	8/13/2016	21:50:00	USER	31.00	8.32	1.10	pumped an additional .5bbl
Event	14	Test Lines	Test Lines	8/13/2016	21:51:03	USER	1554.00	8.34	0.00	test kick-outs, test 5th gear stall and high pressure of

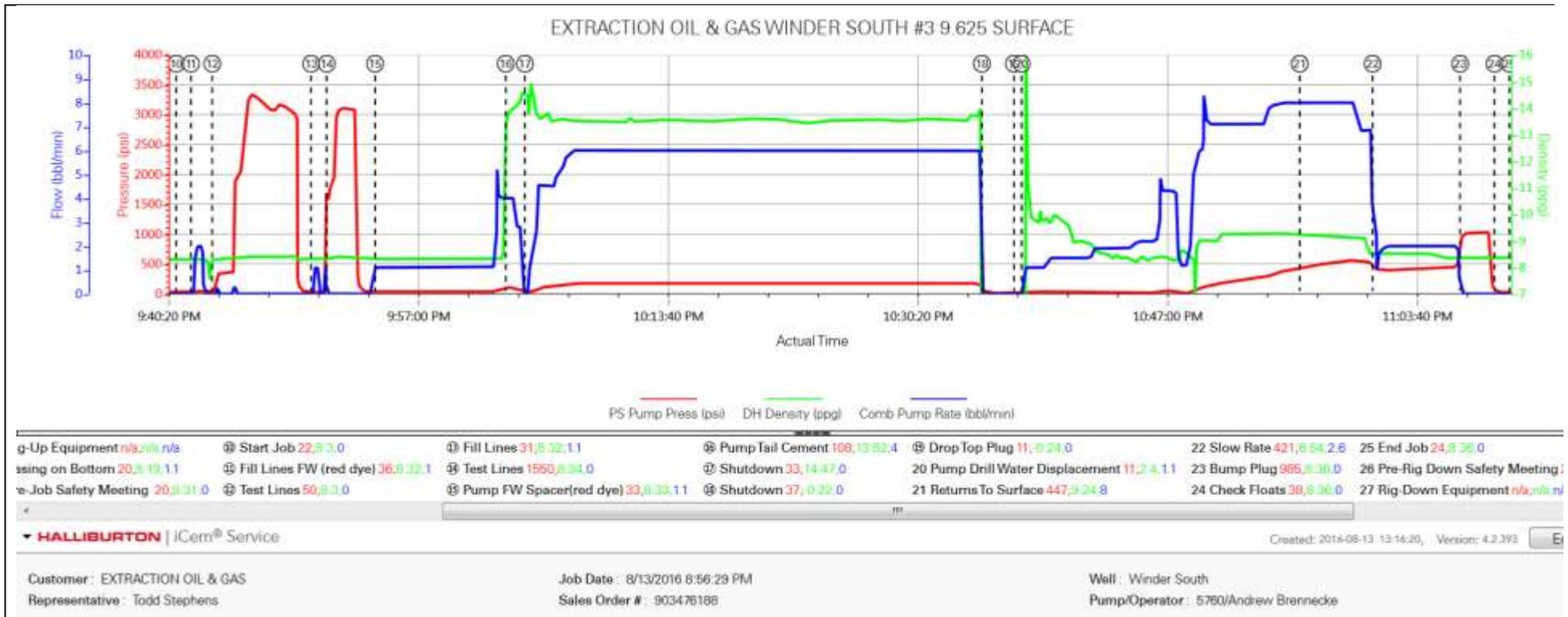
33452psi, pressure falling back to fast, bled psi off lines, pumped .5BBL's and closed manifold. second pressure test held great at 3000psi

Event	15	Pump Spacer	Pump FW Spacer(red dye)	8/13/2016	21:54:17	USER	33.00	8.33	1.10	pumped the remaining 7.5BBL's of fw with red dye, pumped at 1-4BPM, to bring cmt up to weight. psi at 4BPM was 100psi
Event	16	Pump Tail Cement	Pump Tail Cement	8/13/2016	22:03:00	USER	107.00	13.83	4.00	pumped 175BBL's of swiftcem cmt, 565sks, 1.74 yield, 9.2 gal/sk, pumped at 6BPM and average pressure was 175. weighed cmt using high pressure mud scales, weight was confirmed by operator and HES supervisor. wet and dry samples left on location
Event	17	Shutdown	Shutdown	8/13/2016	22:04:16	USER	33.00	14.47	0.00	shut down wasn't getting water from frac tank
Event	18	Shutdown	Shutdown	8/13/2016	22:34:47	USER	40.00	-0.22	0.00	done pumping cmt
Event	19	Drop Top Plug	Drop Top Plug	8/13/2016	22:36:55	USER	11.00	-0.24	0.00	drop top plug witnessed by HES supervisor and Todd Stephens with Extraction
Event	20	Pump Displacement	Pump Drill Water Displacement	8/13/2016	22:37:26	USER	11.00	0.84	1.10	pumped 117BBL's of drill water 8.9ppg. pumped 20bbl's fw ahead and 17fw behind . average pressure at 8BPM was 500psi
Event	21	Returns To Surface	Returns To Surface	8/13/2016	22:56:00	USER	437.00	9.25	8.00	fw to surface at 76BBL's and good solid cmt at 91BBL's away. 26bbls of cmt to surface, calculated 36bbls on a tru hole
Event	22	Slow Rate	Slow Rate	8/13/2016	23:00:51	USER	420.00	8.54	2.70	slow rate to 2BPM to land plug psi was 540 psi at 8BPM and fell to 420psi at 2BPM
Event	23	Bump Plug	Bump Plug	8/13/2016	23:06:42	USER	980.00	8.36	0.00	plug bumped at calculated 117BBL's, pressure at 450, kicked pumps out at 900 and pressure climbed to 1029 and held great
Event	24	Check Floats	Check Floats	8/13/2016	23:09:00	USER	40.00	8.36	0.00	weatherford floats held .75BBL back to the trk
Event	25	End Job	End Job	8/13/2016	23:10:00	COM5	24.00	8.36	0.00	
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/13/2016	23:12:00	USER	23.00	8.37	0.00	meeting with all HES personnel to discuss safety/hazards associated with rigging down
Event	27	Rig-Down Equipment	Rig-Down Equipment	8/13/2016	23:20:00	USER				
Event	28	Pre-Convoy Safety	Pre-Convoy Safety	8/14/2016	00:01:00	USER				meeting with all HES personnel to discuss safety/hazards

	Meeting	Meeting					
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	8/14/2016	00:15:00	USER	associated with driving back to the service center
Event	30	Other	Other	8/14/2016	00:16:00	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

