

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3630418		Quote #: 0022202383		Sales Order #: 0903418148				
Customer: NOBLE ENERGY INC - EBUS				Customer Rep: Johnny Sanchez						
Well Name: HESTON			Well #: LD06-620		API/UWI #: 05-123-40816-00					
Field: WILDCAT		City (SAP): RAYMER		County/Parish: WELD		State: COLORADO				
Legal Description: SE SE-5-9N-58W-877FSL-330FEL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 517						
Job BOM: 7529										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB81755				Srcv Supervisor: Vaughn Oteri						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type										
BHST										
Job depth MD		5800ft		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	0		
Drill Pipe		5	4.276	19.5			0	5170		
Open Hole Section			8.5				5800	16261		
Tubing		2.875	2.441	6.4			5170	5800		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	2.875					Top Plug	2.875		HES	
Float Shoe	2.875					Bottom Plug	2.875		HES	
Float Collar	2.875					SSR plug set	2.875		HES	
Insert Float	2.875					Plug Container	2.875		HES	
Stage Tool	2.875					Centralizers	2.875		HES	
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	11 lb/gal Tuned Spacer III	Tuned Spacer III	20	bbl	11	4.72	30.3			
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	

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2	GraniteCem	GRANITECEM (TM) SYSTEM	295	sack	17.5	0.92		3	3.17
3.29 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft³/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	OBM		74.5	bbl	10.5				
Cement Left In Pipe	Amount	ft	Reason				Shoe Joint		
Fluid Data									
Stage/Plug #: 2									
Cement Left In Pipe	Amount	ft	Reason				Shoe Joint		
Comment									

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)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	7/10/2016	08:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	7/10/2016	15:00:00	USER				Requested on location ASAP. Arrived on location and met with company rep to discuss job process and concerns -- advised that they were at 2200 feet with drill pipe and were going to 5800 feet
Event	3	Other	Other	7/10/2016	15:01:00	USER				Set Depth 5800 with 630 feet of 2.875 tubing @6.5# per foot and drill pipe 5169 feet
Event	4	Start Job	Start Job	7/10/2016	18:53:59	COM4				Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Other	Other	7/10/2016	19:17:31	COM4				Primed pumps and lines with fresh water
Event	6	Test Lines	Test Lines	7/10/2016	19:19:52	COM4	4408.00	8.34	0.00	Pressure tested pumps and lines with fresh water 4914psi
Event	7	Check Weight	Check weight	7/10/2016	19:42:04	COM4				Mixed up spacer and confirmed weight of 11ppg on scales
Event	8	Check Weight	Check weight	7/10/2016	19:43:56	COM4				Confirm weight on scales
Event	9	Pump Spacer 1	Pump Spacer 1	7/10/2016	19:45:44	COM4	103.00	11.01	1.70	Pumped 15bbl of 11.0ppg Tuned spacer III at 2.0bpm 114psi
Event	10	Pump Cement	Pump Cement	7/10/2016	19:59:38	COM4	140.00	17.06	2.00	Pumped 48bbl of 17.5ppg GraniteCem with a yield of 0.92 ft3/sk and water requirement of 3.17 gal/sk at 2.0bpm 160psi
Event	11	Pump Spacer 2	Pump Spacer 2	7/10/2016	20:26:22	COM4	37.00	10.34	2.00	Pumped 5bbl of 11.0ppg Tuned spacer III at 2.0bpm 40psi
Event	12	Pump Displacement	Pump Displacement	7/10/2016	20:28:55	COM4	46.00	9.45	2.00	Pumped 74.5bbl of 9.9ppg Oil Based Mud to displace cement
Event	13	Shutdown	Shutdown	7/10/2016	20:47:28	COM4				Shut down so that rig can pull out of plug 30 feet per min and rig will reverse circulate well