

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3684185	Quote #:	Sales Order #: 0903039989							
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: GARY STAPLETON								
Well Name: WELLS RANCH	Well #: BB01-655	API/UWI #: 05-123-41971-00								
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO							
Legal Description: SW NW-5-5N-62W-2140FNL-455FWL										
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321								
Job BOM: 392189										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor: Christopher Pickell								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST	225 degF							
Job depth MD	6851ft	Job Depth TVD	6505ft							
Water Depth		Wk Ht Above Floor	4ft							
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		J-55	0	1883	0	1883
Casing		5.5	5.45	20		P-110	0	6830		6525
Open Hole Section			8.5				1883	6830	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5					Top Plug	5.5	1	Packers	
Float Shoe	5.5			16317 ft		Bottom Plug	5.5			
Float Collar	5.5					SSR plug set	5.5			
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5			6851		Centralizers	5.5		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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75	6	5		
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	

last updated on 1/16/2016 4:48:27 AM

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iCem® Service

(v. 4.2.393)

Created: Monday, January 25, 2016

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2	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75	6	5	
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	ElastiCem	ELASTICEM (TM) SYSTEM	607	sack	13.6	1.887		6	8.6
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
4	Displacement	Displacement	151	bbl	8.33				
Cement Left In Pipe		Amount	0 ft		Reason			Shoe Joint	
Comment Returned no cement or spacer, none had been calculated back. All cement and spacer scaled within range.									

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	1/15/2016	11:00:00	USER				Crew called out at 11:00 to be on location at 18:00. Crew was Chris Pickell, Nick Roles, Mitchell Camper, Richard Condon, Derek Trier
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	1/15/2016	15:30:00	USER				Safety meeting held for journey. Equipment double checked. Left the yard for H&P 321
Event	3	Arrive At Loc	Arrive At Location	1/15/2016	17:30:00	USER				Arrive on location 30 minutes early. Rig was landing casing on bottom
Event	4	Other	Well Data	1/15/2016	17:35:00	USER				Well TD was 16335'. TP 16317' 5.5" 20#. DV TOOL 6851'. OH 8 1/2". SURFACE 1883' 9 5/8" 36#. TVD 6505'. MUD WEIGHT 10.4 PPG.
Event	5	Other	Water Test	1/15/2016	17:40:00	USER				Temp 48 degrees. Ph 7. Iron 0. Chlorides 0. Sulfates <200. TH 215.
Event	6	Start Job	Start Job	1/16/2016	01:50:59	COM6				
Event	7	Test Lines	Test Lines	1/16/2016	01:53:51	COM6	8.75	0.00	141.00	Pressure tested lines to 5000 psi. Checked for visible leaks and pressure loss
Event	8	Pump Spacer 1	Pump Spacer 1	1/16/2016	01:57:21	COM6	8.67	0.00	30.00	Pump 40 bbl of Tuned Spacer 12.5 ppg 2.75 yield 16.7 gal/sk with surfactants added in
Event	9	Pump Spacer 2	Pump Spacer 2	1/16/2016	02:08:27	COM6	12.83	5.00	183.00	Pump 40 bbl of Tuned Spacer 12.5 ppg 2.75 yield 16.7 gal/sk with NO surfactants added in
Event	10	Pump Cement	Pump Cement	1/16/2016	02:15:37	COM6	13.54	0.00	6.00	Pump 204 bbl 607 sks of 13.6 ppg ElastiCem cement 1.89 yield 8.6 gal/sk
Event	11	Check Weight	Check weight	1/16/2016	02:20:32	COM6	13.57	6.10	324.00	Cement scaled at 13.6 ppg
Event	12	Check Weight	Check weight	1/16/2016	02:30:59	COM6	13.93	6.00	383.00	Cement scaled at 13.4 ppg
Event	13	Shutdown	Shutdown	1/16/2016	02:53:19	USER	13.69	0.00	81.00	Shutdown. Rig tied into our line on the rig floor and blew

air back through our line to the wash up tank

Event	14	Clean Lines	Clean Lines	1/16/2016	02:57:17	USER	0.46	0.00	-5.00	Wash pumps and lines to the pit
Event	15	Drop Top Plug	Drop Top Plug	1/16/2016	03:02:05	COM6	-0.13	0.00	-7.00	Drop closing plug for multiple stage cementer
Event	16	Pump Displacement	Pump Displacement	1/16/2016	03:02:47	COM6	-0.15	0.00	-6.00	Pump displacement using water. 10 gallons of MMCR added into the first 20 bbl of displacement
Event	17	Bump Plug	Bump Plug	1/16/2016	03:25:49	COM6	8.28	0.00	3945.00	Plug landed with 2000 psi shutting down with 4000 psi
Event	18	Release Casing Pressure	Release Casing Pressure	1/16/2016	03:28:09	USER	8.25	0.00	3979.00	Release casing pressure with 4000 psi. MSC did close
Event	19	Pressure Up Well	Pressure Up Well	1/16/2016	03:30:40	COM6	8.21	2.10	2844.00	Pressure up the well to 3000 psi for a 5 min casing test. Pressure was released after 5 minutes. No flow back to the truck
Event	20	End Job	End Job	1/16/2016	03:42:21	COM6	6.30	1.50	-11.00	No cement or spacer returned to surface
Event	21	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	1/16/2016	03:42:40	USER	7.41	2.00	-5.00	Safety meeting held for rig down. Rigged down all equipment
Event	22	Safety Meeting - Departing Location	Safety Meeting - Departing Location	1/16/2016	05:00:00	USER				Safety meeting held for journey. Left location for the yard