

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3697143		Quote #:		Sales Order #: 0903210665				
Customer: NOBLE ENERGY INC - EBUS				Customer Rep:						
Well Name: WELLS RANCH		Well #: AA22-625		API/UWI #: 05-123-42269-00						
Field: WATTENBERG	City (SAP): GILL	County/Parish: WELD		State: COLORADO						
Legal Description: SW SW-22-6N-63W-1008FSL-80FWL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HB61755				Srvc Supervisor: Joseph Fantasia						
Job										
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	1871	0	1871
Open Hole Section			13.5				0	1881	0	1881
Tools and Accessories										
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 W/ Red Dye	Fresh Water W/ Red Dye	50	bbl	8.33			7		
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	SWIFTCM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2	
9.20 Gal		FRESH WATER								
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	SwiftCem	SWIFTCM (TM) SYSTEM	75	sack	14.2	1.53		8	7.65	
7.65 Gal		FRESH WATER								
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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4	Oil Based Mud Displacement	Oil Based Mud Displacement	141	bbl	9			7	
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	TOP OUT	G CEMENT	50	sack	15.8	1.15	6	1/2	9.2
9.20 Gal		FRESH WATER							
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Comment APPROX 20 BBLS CEMENT TO SURFACE PRIOR TO TOP OUT. TOP OUT REQUIRED 4.3 BBLS CEMENT.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Combined Pump Rate (bbl/min)	Downhole Density (ppg)	Pass-Side Pump Pressure (psi)	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/1/2016	21:00:00	USER				ARRIVE AT LOCATION @ 2100. RIG GETTING READY TO RUN CASING. HELD SITE ASSESSMENT AND PRE RIG UP SAFETY MEETING WITH CREW PRIOR TO RIGGING UP EQUIPMENT.
Event	2	Start Job	Start Job	4/2/2016	01:05:52	COM5				HELD PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO STARTING JOB.
Event	3	Test Lines	Test Lines	4/2/2016	01:09:28	COM5	0.00	8.35	3097.00	PRESSURE TEST LINES TO 3000 PSI.
Event	4	Pump Spacer 1	Pump Spacer 1	4/2/2016	01:11:58	COM5	5.00	8.35	69.00	PUMP 50 BBLS FRESH WATER WITH 2 LBS RED DYE ADDED TO THE SECOND 10 BBLS.
Event	5	Pump Lead Cement	Pump Lead Cement	4/2/2016	01:20:14	COM5	1.90	13.42	57.00	PUMP 170 BBLS (550 SKS) SWIFTCEM MIXED AT 13.5 PPG. DENSITY VERIFIED BY SCALE.
Event	6	Pump Tail Cement	Pump Tail Cement	4/2/2016	01:45:33	COM5	5.90	14.25	109.00	PUMP 20 BBLS (75 SKS) SWIFTCEM MIXED AT 14.2 PPG. DENSITY VERIFIED BY SCALE.
Event	7	Shutdown	Shutdown	4/2/2016	01:49:41	USER	0.00	13.84	30.00	
Event	8	Drop Top Plug	Drop Top Plug	4/2/2016	01:51:39	USER	0.00	13.84	-2.00	TOP PLUG PRELOADED AND DROPPED DURING SHUTDOWN.
Event	9	Pump Displacement	Pump Displacement	4/2/2016	01:56:42	COM5	7.60	11.22	129.00	DISPLACE USING 141.2 BBLS OIL BASED MUD. GOOD RETURNS THROUGHOUT. APPROX 20 BBLS CEMENT TO SURFACE.
Event	10	Bump Plug	Bump Plug	4/2/2016	02:24:53	USER	2.00	9.64	480.00	PLUG LANDED AT 470 PSI. PRESSURE BROUGHT TO 800 PSI AND HELD 1 MIN.
Event	11	Pressure Test	Pressure Test	4/2/2016	02:26:44	USER	0.00	9.63	1002.00	BROUGHT PRESSURE TO 1000 PSI AND HELD 15 MIN FOR CASING PRESSURE TEST.
Event	12	Check Floats	Check Floats	4/2/2016	02:40:31	USER	0.00	9.57	1030.00	FLOATS HELD 1 BBL BACK TO TRUCK.
Event	13	End Job	End Job	4/2/2016	02:46:42	USER	0.00	0.24	10.00	HELD PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN EQUIPMENT. WHEN CEMENT WAS CHECKED IT HAD FALLEN APPROX 15 FT. 50 SKS TOP OUT WAS ORDERED.