

Sold To #: 345242		Ship To #: 3697168		Quote #:		Sales Order #: 0903242958					
Customer: NOBLE ENERGY INC - EBUS				Customer Rep: JW Irwin							
Well Name: WELLS RANCH			Well #: AA22-612		API/UWI #: 05-123-42264-00						
Field: WATTENBERG		City (SAP): GILL		County/Parish: WELD		State: COLORADO					
Legal Description: SW SW-22-6N-63W-933FSL-77FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321							
Job BOM: 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB61755				Srv Supervisor: Nathaniel Moore							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1917ft		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	1911	0	0	
Open Hole Section			13.5				0	1917	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625					Top Plug	9.625	1	HES		
Float Shoe	9.625			1911		Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		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	Fresh Water W/ Red Dye	Fresh Water W/ Red Dye			50	bbl	8.33				

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	SWIFTCЕМ (TM) SYSTEM	550	sack	13.5	1.74			9.2
9.20 Gal		FRESH WATER							
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
3	SwiftCem	SWIFTCЕМ (TM) SYSTEM	75	sack	14.2	1.53			7.65
7.65 Gal		FRESH WATER							
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
4	Oil Based Mud Displacement	Oil Based Mud Displacement	144	bbl	9				
Cement Left In Pipe		Amount	43 ft		Reason			Shoe Joint	

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	4/13/2016	19:30:00	USER				OL time 0130. Verify equipment and materials. Verify trailer numbers and contents of bulk equipment
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	4/13/2016	22:00:00	USER				Journey management conducted with crew
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/14/2016	00:00:00	USER				Rig still running casing. Discuss spotting equipment and wait until they reach bottom.
Event	4	Other	Meet with customer rep	4/14/2016	00:15:00	USER				TD 1917' 13.5" open hole. SJ 43'. TP 1911' 9.625" 36 # J-55. Mud weight 9.2 ppg. Oil base mud weight 9.5 ppg. Verify materials and sampling procedure with company rep: JW Irwin. Water tested PH 7 Chlorides 0 Sulfates <200 Temp 60 degrees
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/14/2016	02:00:00	USER				Casing on bottom. Rig up equipment
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/14/2016	03:30:00	USER				Safety meeting with HES and third party crew members to discuss job procedure and contingencies.
Event	7	Start Job	Start Job	4/14/2016	04:09:18	COM1				Fill lines with 3 bbl water
Event	8	Test Lines	Test Lines	4/14/2016	04:14:15	COM1	2561.00	8.46	0.00	Test lines to 2593 psi with low pressure kickout function test
Event	9	Pump Spacer 1	Pump Spacer with dye	4/14/2016	04:16:21	COM1	14.00	8.42	0.00	50 bbl water with 2 lbs red dye in second 10
Event	10	Check Weight	Check weight Lead	4/14/2016	04:33:55	COM1	33.00	8.30	0.00	Verify with pressurized scales 13.4 ppg. Accurate with recirc.
Event	11	Pump Lead Cement	Pump Lead Cement 170 bbl	4/14/2016	04:36:28	COM1	177.00	13.41	5.90	550 sks/170 bbl 13.5 ppg 1.74 ft3/sk 9.2 gal/sk
Event	12	Check Weight	Check weight lead	4/14/2016	04:46:55	COM1	243.00	13.43	7.50	13.5 ppg. on truck 1
Event	13	Check Weight	Check weight lead	4/14/2016	04:56:03	COM1	248.00	13.46	7.50	13.5 ppg.

Event	14	Pump Tail Cement	Pump Tail Cement 20 bbl	4/14/2016	05:02:06	COM1	57.00	13.83	3.00	75 sks/20 bbl 14.2 ppg 1.53 ft3/sk 7.65 gal/sk
Event	15	Check Weight	Check weight Tail	4/14/2016	05:04:31	COM1	128.00	14.15	4.70	14.2 ppg
Event	16	Shutdown	Shutdown	4/14/2016	05:08:34	COM1	47.00	14.21	0.30	
Event	17	Clean Lines	Clean Lines	4/14/2016	05:13:59	COM1	-4.00	0.36	0.00	Blow lines back to cement tank with rig air
Event	18	Clean Lines	Clean Lines	4/14/2016	05:20:27	COM1	-5.00	-0.48	0.00	Wash pumps and lines to cement tank
Event	19	Drop Top Plug	Drop Top Plug	4/14/2016	05:20:31	COM1	-4.00	-0.48	0.00	Plug drop verified by company rep
Event	20	Pump Displacement	Pump Displacement	4/14/2016	05:21:54	COM1	178.00	9.57	8.00	144.4 bbl of 9.5 ppg Oil Based Mud
Event	21	Other	Spacer to surface	4/14/2016	05:32:07	COM1	194.00	9.76	5.40	70 bbl into displacement dyed water to surface
Event	22	Other	Cement to surface	4/14/2016	05:42:03	COM1	504.00	9.74	5.70	120 bbl into displacement cement to surface. 22 bbl total.
Event	23	Bump Plug	Bump Plug	4/14/2016	05:49:13	COM1	871.00	9.71	0.00	485 psi final lift pressure. Pressured up to 868 psi.
Event	24	Pressure Up Well	Pressure Up Well	4/14/2016	05:50:48	COM1	1008.00	9.70	0.00	Pressure test casing to 1000 psi for 15 minutes
Event	25	Other	Check floats	4/14/2016	06:02:31	COM1	505.00	9.61	0.00	0.5 bbl back
Event	26	End Job	End Job	4/14/2016	06:03:18	COM1				
Event	27	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/14/2016	06:05:00	USER				Safety meeting with HES crew to discuss rig down procedure.
Event	28	Depart Location Safety Meeting	Depart Location Safety Meeting	4/14/2016	08:00:00	USER				Journey management conducted with crew