

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3919184		Quote #:		Sales Order #: 0906306408				
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: Tim Simkins						
Well Name: VOGLER STATE			Well #: D33-779		API/UWI #: 05-123-48574-00					
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD		State: COLORADO				
Legal Description: SW SW-21-3N-64W-1065FSL-973FWL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321						
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB31357				Srv Supervisor: Mitchell Camper						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		17498ft		Job Depth TVD		6886				
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	0	9.625	8.921	36			0	1938	0	1938
Casing	0	5.5	4.892	17			0	17498	0	6886
Open Hole Section			8.5				1945	17450	1938	6886
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
						Top Plug	5.5	1	HES	
Float Shoe	5.5	1	HES	17498		Bottom Plug	5.5	2	HES	
Float Collar	5.5	1	HES	17450.5						
						Centralizers	5.5	194	HES	
Fluid Data										
Stage/Plug #: 1										

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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	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	120	bbl	11.5	3.87	24.42	8	4251
1 lbm/bbl		FE-2, 2000 LB BAG - (1005549)							
3.50 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)							
3.50 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)							
145.2420 lbm/bbl		BARITE, BULK (100003681)							
0.10 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							

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	ElastiCem	ELASTICEM (TM) SYSTEM	140	sack	13.2	1.65	8.4	8	1176
0.35 %		SCR-100, 1200 LB BAG - (1126328)							
8.40 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	ElastiCem w/ SCBL	ELASTICEM (TM) SYSTEM	429	sack	13.2	1.67	8.04	8	3955
0.31 %		SCR-100, 1200 LB BAG - (1126328)							
8.04 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	NeoCem NT1	NeoCem TM	1180	sack	13.2	2.04	9.79	8	11552
0.09 %		SCR-100, 1200 LB BAG - (1126328)							
0.09 %		FE-2, 2000 LB BAG - (1005549)							
9.79 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
5	MMCR Displacement	MMCR Displacement	20	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							

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
6	Displacement	Displacement	385	bbl	8.33				

Cementing Job Summary

Cement Left In Pipe	Amount	47 ft	Reason Shoe Track	Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	<300 ppm	Mix Water Temperature:	70°F
Cement Temperature:		Plug Displaced by:	8.33lb/gal Fw	Disp. Temperature:	65 °F
Plug Bumped?	Yes	Bump Pressure:	2060 psi	Floats Held?	Yes
Cement Returns:	na	Returns Density:		Returns Temperature:	
Comment Plug bumped at calculated displacement, final circulating pressure of 2060 psi, 5 min casing test at 2640 psi, floats held, 5.0 bbl back to the truck. 7 bbl of spacer to surface.					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	2/21/2020	12:00:00	USER	CREW CALLED OUT AT 12:00 2/21/2020, REQUESTED ON LOCATION 20:00 2/21/2020. CREW PICKED UP CEMENT, CHEMICALS (40 GAL D-AIR, 10 GAL MMCR, 3 LBS BE-3), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 11670365/10867521, BULK 660: 11592295/10679720, PUMP ELITE: 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/21/2020	16:00:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	2/21/2020	17:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	2/21/2020	19:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1934', CASING: 5.5" 17# @ 17498', 47' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6886', 10.0 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	2/21/2020	19:10:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/21/2020	19:30:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Safety Meeting - Pre Job	Pre-Convoy Safety Meeting	2/21/2020	23:00:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	2/22/2020	00:41:35	COM6	START JOB DATA RECORDING
Event	9	Test Lines	Test Lines	2/22/2020	00:44:07	COM6	KICKOUTS SET @ 500 PSI, KICKED OUT @ 640PSI, 5TH GEAR STALL OUT @ 1822 PSI. PRESSURE TESTED IRON TO 4540 PSI.
Event	10	Drop Bottom Plug	Drop Bottom Plug	2/22/2020	00:47:09	USER	PLUG WAS LOADED DIRECTLY INTO THE LANDING JOINT, VERIFIED BY COMPANY MAN
Event	11	Test Lines	Test Lines	2/22/2020	00:49:16	USER	PRESSURE TESTED I-BOP TO 1500 PSI
Event	12	Pump Spacer 1	Pump Spacer 1	2/22/2020	00:50:50	COM6	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 20 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	2/22/2020	01:08:07	COM6	SHUTDOWN TO DROP 2ND BOTTOM PLUG

Event	14	Drop Bottom Plug	Drop Bottom Plug	2/22/2020	01:08:28	COM6	PLUG WAS LOADED DIRECTLY INTO THE LANDING JOINT, VERIFIED BY COMPANY MAN
Event	15	Pump Cement	Pump Cement	2/22/2020	01:13:41	COM6	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.65 YIELD, 8.39 GAL/SK, 41BBLS, CALCULATED TOC @ 2425', DENSITY VERIFIED BY PRESSURIZED MUD SCALES. ADDED 5 GAL OF DAIR.
Event	16	Pump Lead Cement	Pump Lead Cement	2/22/2020	01:19:36	COM6	PUMP 492 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 YIELD, 8.04 GAL/SK, 146BBLS, CALCULATED TOL @ 3430', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	2/22/2020	01:38:26	COM6	PUMP 1180 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 429 BBLS, CALCULATED TOT @ 7008, DENSITY VERIFIED BY PRESSURIZED MUD SCALES
Event	18	Shutdown	Shutdown	2/22/2020	02:32:10	COM6	SHUTDOWN TO DROP TOP PLUG AND CLEAN PUMPS AND LINES AND BLOW DOWN.
Event	19	Drop Top Plug	Drop Top Plug	2/22/2020	02:45:11	COM6	TOP PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN
Event	20	Pump Displacement	Pump Displacement	2/22/2020	02:45:15	COM6	BEGIN CALCULATED DISPLACEMENT 405 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, 6 LBS OF BE-3 THROUGH OUT
Event	21	Bump Plug	Bump Plug	2/22/2020	03:29:39	COM6	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2060 PSI. 7 BBL OF SPACER TO SURFACE.
Event	22	Other	Casing Test	2/22/2020	03:29:51	USER	5 MIN CASING TEST AT 2640 PSI.
Event	23	Check Floats	Check Floats	2/22/2020	03:35:21	USER	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, 5.0 BBL BACK TO SURFACE.
Event	24	End Job	End Job	2/22/2020	03:37:18	COM6	END JOB DATA RECORDING.
Event	25	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	2/22/2020	03:40:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	26	Rig-Down Completed	Rig-Down Completed	2/22/2020	04:30:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/22/2020	05:00:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	28	Crew Leave Location	Crew Leave Location	2/22/2020	05:20:00	USER	THANK YOU FOR USING HALLIBURTON - MITCHELL CAMPER AND CREW.

3.0 Attachments

3.1 Job Chart

