

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3894372	Quote #:	Sales Order #: 0905890289
Customer: NOBLE ENERGY INC-EBUS		Customer Rep:	
Well Name: SLW RANCH STATE		Well #: BB07-615	API/UWI #: 05-123-47405-00
Field: WATTENBERG	City (SAP): GILL	County/Parish: WELD	State: COLORADO
Legal Description: 7-5N-63W-1666FSL-60FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 517	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA/HB31357		Srvc Supervisor: Thomas Haas	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST 230 degF
Job depth MD	17045ft		Job Depth TVD 6623
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	1925	0	1925
Casing	0	5.5	4.892	17			0	17045	0	6623
Open Hole Section			8.5				1925	17059	1925	6623

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	17045	Bottom Plug	5.5	2	HES
Float Collar	5.5	1	HES	16997				
					Plug Container	5.5	1	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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	120	bbl	11.5	3.76	23.2	7	4157	
34.70 gal/bbl		FRESH WATER								
0.60 gal/bbl		MUSOL(R) A, 5 GAL PAIL (100064220)								

1 lbm/bbl		FE-2 (100001615)							
0.60 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
149.40 lbm/bbl		BARITE, BULK (100003681)							
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	1.71	8.31	7.5	1163
8.31 Gal		FRESH WATER							
0.90 %		SCR-100 (100003749)							
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	473	sack	13.2	1.71	8.32	7.5	3935
0.60 %		SCR-100 (100003749)							
8.32 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	1109	sack	13.2	2.08	10.18	8	11289
0.14 %		FE-2 (100001615)							
10.18 Gal		FRESH WATER							
0.14 %		SCR-100 (100003749)							
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	Displacement Fluid	Displacement Fluid	20	bbl	8.33				
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	373	bbl	8.33				
Cement Left In Pipe	Amount	48 ft			Reason			Shoe Joint	
					SHOE TRACK				

Mix Water:	pH 7	Mix Water Chloride:	<300 ppm	Mix Water Temperature:	74 °F
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal F.W.	Disp. Temperature:	71 °F
Plug Bumped?	Yes	Bump Pressure:	1700 psi	Floats Held?	Yes
Cement Returns:	N/A	Returns Density:		Returns Temperature:	N/A
Comment Plug bumped at calculated displacement, final circulating of pressure of 1700 psi, floats held, released pressure back to the truck, 4.5 bbl back, interface 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	8/13/2019	00:00:00	USER	CREW CALLED OUT AT 00:00 8/13/2019, REQUESTED ON LOCATION 06:00 8/13/2019. CREW PICKED UP CEMENT, CHEMICALS (70 GAL MUSOL A, 70 GAL DUAL SPACER B, 10 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 12644881/10897881, BULK 660: 10897881/11689672 , PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/13/2019	03:45:00	USER	DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	8/13/2019	04:00:00	USER	STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	8/13/2019	05:00:00	USER	END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1925', CASING: 5.5" 17# @ 17045', 48' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6623', 9.6 PPG WELL FLUID, FRESH WATER DISPLACEMENT.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/13/2019	05:10:00	USER	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	8/13/2019	05:15:00	USER	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	8/13/2019	11:00:00	USER	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	8/13/2019	11:32:00	USER	START JOB DATA RECORDING. COMPUTER DID NOT CAPTURE PRESSURE TEST, RTD CAPTURE IS ATTACHED.
Event	9	Drop Bottom Plug	Drop Bottom Plug	8/13/2019	11:33:00	USER	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	10	Pressure Test	Pressure Test	8/13/2019	11:34:00	USER	PRESSURE TESTED IRON TO 4500I. KICKOUTS SET @ 500 PSI, KICKED OUT @ 800 PSI, 5TH GEAR STALL OUT @ 2200 PSI. IBOP TESTED TO 2400 PSI.
Event	11	Pump Spacer	Pump Spacer	8/13/2019	11:46:00	USER	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 70 GAL MUSOL A, 70 GAL DUAL SPACER B, 10 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Shutdown	Shutdown	8/13/2019	12:11:38	COM4	SHUTDOWN TO DROP BOTTOM PLUG #2.

Event	13	Drop Bottom Plug	Drop Bottom Plug	8/13/2019	12:11:44	COM4	PLUG LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	14	Pump Cap Cement	Pump Cap Cement	8/13/2019	12:16:44	COM4	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.71 YIELD, 8.31 GAL/SK, 42.6 BBLS, CALCULATED TOC @ 2427', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Pump Lead Cement	Pump Lead Cement	8/13/2019	12:26:17	COM4	PUMP 473 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.71 YIELD, 8.32 GAL/SK, 144.1 BBLS, CALCULATED TOL @ 3471', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Tail Cement	Pump Tail Cement	8/13/2019	12:43:58	COM4	PUMP 1109 SKS OF NEOCEM @ 13.2 LB/GAL, 2.08 YIELD, 10.18 GAL/SK, 410.8 BBLS, CALCULATED TOT @ 7003', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Shutdown	Shutdown	8/13/2019	13:37:25	COM4	SHUTDOWN TO DROP TOP PLUG, AND CLEAN PUMPS/LINES.
Event	19	Drop Top Plug	Drop Top Plug	8/13/2019	13:46:53	COM4	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	20	Pump Displacement	Pump Displacement	8/13/2019	13:46:54	COM4	BEGIN CALCULATED DISPLACEMENT 394 BBL FRESH WATER. 10 GAL MMCR IN FIRST

20 BBL, 20 GAL BIOCIDES TROUGH OUT THE REST.

PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 1700 PSI. INTERFACE RETURNED TO SURFACE.

5 MIN CASING TEST AT 2300 PSI.

RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 4.5 BBL BACK TO THE TRUCK.

END JOB DATA RECORDING.

DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.

ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.

DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

Event	21	Bump Plug	Bump Plug	8/13/2019	14:32:11	COM4	20 BBL, 20 GAL BIOCIDES TROUGH OUT THE REST.
Event	22	Other	Casing Test	8/13/2019	14:32:40	USER	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 1700 PSI. INTERFACE RETURNED TO SURFACE.
Event	23	Check Floats	Check Floats	8/13/2019	14:37:31	USER	5 MIN CASING TEST AT 2300 PSI.
Event	24	End Job	End Job	8/13/2019	14:40:01	COM4	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 4.5 BBL BACK TO THE TRUCK.
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/13/2019	14:45:00	USER	END JOB DATA RECORDING.
Event	26	Rig-Down Completed	Rig-Down Completed	8/13/2019	16:00:00	USER	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/13/2019	16:20:00	USER	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
	28	Crew Leave Location	Crew Leave Location	8/13/2019	16:30:00	USER	DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
							THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Job Chart

