

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3894453	Quote #: 0022618017	Sales Order #: 0905933354
Customer: NOBLE ENERGY INC-EBUS		Customer Rep: Jim Turner	
Well Name: SLW RANCH STATE		Well #: BB07-633	API/UWI #: 05-123-47401-00
Field: WATTENBERG	City (SAP): GILL	County/Parish: WELD	State: COLORADO
Legal Description: 7-5N-63W-1734FSL-60FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 517	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB31357		Srv Supervisor: Thomas Haas	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type		BHST	230 degF
Job depth MD	16800ft	Job Depth TVD	6770
Water Depth		Wk Ht Above Floor	6'
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	1961	0	1961
Casing	0	5.5	4.892	17			0	16800	0	6770
Open Hole Section			8.5				1961	16813	1961	6770

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	16800	Bottom Plug	5.5	2	HES
Float Collar	5.5	1	HES	16753				

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	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	120	bbl	11.5	3.84	24.2	8	4246
0.3330 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
3.50 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)							

3.50 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)							
146.37 lbm/bbl		BARITE, BULK (100003681)							
1 lbm/bbl		FE-2 (100001615)							
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	1.68	8.03	8	1124
8.03 Gal		FRESH WATER							
0.85 %		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	450	sack	13.2	1.68	8.04	5	3618
0.45 %		SCR-100 (100003749)							
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	1132	sack	13.2	2.04	9.79	5	11082
0.09 %		FE-2 (100001615)							
9.79 Gal		FRESH WATER							
0.09 %		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	Displacement	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	369	bbl	8.33				
Cement Left In Pipe		Amount	47 ft		Reason SHOE TRACK			Shoe Joint	

Mix Water:	pH 7	Mix Water Chloride:	<300 ppm	Mix Water Temperature:	63 °F
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal F.W.	Disp. Temperature:	63 °F
Plug Bumped?	Yes	Bump Pressure:	1975 psi	Floats Held?	Yes
Cement Returns:	N/A	Returns Density:	N/A	Returns Temperature:	N/A
Comment Plug bumped at calculated displacement, final circulating pressure of 1975 psi, 5 minute casing test at 2400 psi, floats held, 4.5 bbls back to the truck. Interface to surface.					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	8/28/2019	15:30:00	USER					CREW CALLED OUT AT 15:30 08/28/2019, REQUESTED ON LOCATION 21:30 08/28/2019. CREW PICKED UP CEMENT, CHEMICALS (40 GAL D-AIR, 10 GAL MMCR, 6 LBS BE-3), 100 LBS SUGAR, PLUG CONTAINER AND MANIFOLD FROM FORT LUPTON, CO. BULK 660: 10897853/10867098, BULK 660: 11670365/11764054, PUMP ELITE 11897034/11645460.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/28/2019	18:45:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	8/28/2019	19:00:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	8/28/2019	20:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1961', CASING: 5.5" 17# @ 16800', 47' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6770', 9.5 PPG WELL FLUID, FRESH WATER DISPLACEMENT.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	8/28/2019	21:30:00	USER						HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	8/28/2019	21:40:00	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	8/28/2019	23:00:00	USER						MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	8/29/2019	02:00:00	COM4	8.46	0.00	3.00	25.00		START JOB DATA RECORDING.
Event	9	Drop Bottom Plug	Drop Bottom Plug	8/29/2019	02:02:00	COM4	8.46	0.00	4.00	25.00		PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	10	Test Lines	Test Lines	8/29/2019	02:04:00	COM4	8.46	0.00	5.00	25.00		KICKOUTS SET @ 500 PSI, KICKED OUT @ 551PSI, 5TH GEAR STALL OUT @ 2150 PSI. PRESSURE TESTED IRON TO 4800, KICKED OUT @ 4800 AND LEVELED OUT AT 5000.
Event	11	Pressure Test	Pressure Test	8/29/2019	02:16:28	USER	8.69	0.80	112.00	4.70		PRESSURE TESTED I-BOP TO 2500 PSI TO VERIFY 4" VALVE WASN'T LEAKING.
Event	12	Pump Spacer 1	Pump Spacer 1	8/29/2019	02:20:25	COM4	11.87	2.70	142.00	2.00		PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 25 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	13	Shutdown	Shutdown	8/29/2019	02:37:30	COM4	11.52	0.00	94.00	121.40	SHUTDOWN TO DROP BOTTOM PLUG #2.
Event	14	Drop Bottom Plug	Drop Bottom Plug	8/29/2019	02:40:20	USER	11.47	0.00	43.00	121.40	PLUG LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	15	Pump Cap Cement	Pump Cap Cement	8/29/2019	02:40:58	COM4	11.47	0.00	42.00	121.40	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.03 GAL/SK, 41.89 BBLS, CALCULATED TOC @ 2419.6', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Pump Lead Cement	Pump Lead Cement	8/29/2019	02:45:57	COM4	12.96	8.50	555.00	39.20	PUMP 450 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.68 YIELD, 8.04 GAL/SK, 134.64 BBLS, CALCULATED TOL @ 3446.3', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	8/29/2019	03:02:02	COM4	13.01	8.50	626.00	0.10	PUMP 1132 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 411.28 BBLS, CALCULATED TOT @ 6746.3', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Shutdown	Shutdown	8/29/2019	03:54:50	COM4	13.27	0.00	150.00	430.10	SHUTDOWN TO CLEAN PUMPS/LINES, AND DROP TOP PLUG.
Event	19	Drop Top Plug	Drop Top Plug	8/29/2019	04:04:20	COM4	0.79	0.00	2.00	442.80	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.

Event	20	Pump Displacement	Pump Displacement	8/29/2019	04:04:24	COM4	0.95	0.00	2.00	0.00	BEGIN CALCULATED DISPLACEMENT 389 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, 20 GAL BIOCIDES TROUGH OUT THE REST.
Event	21	Bump Plug	Bump Plug	8/29/2019	04:49:27	COM4					PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 1975 PSI. INTERFACE RETURNED TO SURFACE.
Event	22	Other	Casing Test	8/29/2019	04:49:36	USER	8.14	0.00	2375.00	0.00	5 MINUTE CASING TEST AT 2400 PSI.
Event	23	End Job	End Job	8/29/2019	04:56:26	COM4	8.08	0.00	2.00	0.00	END JOB DATA RECORDING.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	8/29/2019	05:00:00	USER	8.05	0.00	-1.00	0.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	25	Rig-Down Completed	Rig-Down Completed	8/29/2019	06:00:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	8/29/2019	06:20:00	USER					DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	27	Crew Leave Location	Crew Leave Location	8/29/2019	06:30:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Noble Production SLW Ranch State BB07-633-Custom Results.png

