

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3919021		<b>Quote #:</b>		<b>Sales Order #:</b> 0906622165					
<b>Customer:</b> NOBLE ENERGY INC-EBUS				<b>Customer Rep:</b> CHARLES CULVER							
<b>Well Name:</b> GUTTERSEN			<b>Well #:</b> YY06-785			<b>API/UWI #:</b> 05-123-48640-00					
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> KEENESBURG		<b>County/Parish:</b> WELD			<b>State:</b> COLORADO				
<b>Legal Description:</b> SESW-30-3N-63W-601FSL-2502FWL											
<b>Contractor:</b> H & P DRLG					<b>Rig/Platform Name/Num:</b> H & P 517						
<b>Job BOM:</b> 7523 7523											
<b>Well Type:</b> HORIZONTAL OIL											
<b>Sales Person:</b> HALAMERICA\HX41066					<b>Srvc Supervisor:</b> Michael Loughran						
<b>Job</b>											
<b>Formation Name</b>											
<b>Formation Depth (MD)</b>		<b>Top</b>			<b>Bottom</b>						
<b>Form Type</b>					<b>BHST</b>		220 degF				
<b>Job depth MD</b>		15263.63ft			<b>Job Depth TVD</b>						
<b>Water Depth</b>					<b>Wk Ht Above Floor</b>						
<b>Perforation Depth (MD)</b>		<b>From</b>			<b>To</b>						
<b>Well Data</b>											
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>	
Casing		9.625	8.921	36			0	1930	0	1930	
Casing		5.5	4.892	17			0	15263.63	0	6731	
Open Hole Section			8.5				1930	17514	1930	6731	
<b>Tools and Accessories</b>											
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>		
<b>Float Shoe</b>	5.5			15263.63		<b>Top Plug</b>	5.5	1	HES		
<b>Float Collar</b>	5.5			15215.4		<b>Bottom Plug</b>	5.5	2	HES		
<b>Fluid Data</b>											
<b>Stage/Plug #: 1</b>											
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>			<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>
1	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			120	bbl	11.5	3.87		6	
	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)									
	145.0780 lbm/bbl	BARITE, BULK (100003681)									
	0.333330 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		9	8.4	
0.38 %		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	536	sack	13.2	1.67		9	8.03	
0.30 %		SCR-100, 1200 LB BAG - (1126328)								
8.03 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	885	sack	13.2	2.025		9	9.79	
0.07 %		SCR-100, 1200 LB BAG - (1126328)								
0.07 %		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	Displacement	Displacement	353	bbl	8.33			10		
Cement Left In Pipe		<b>Amount</b>	48.23 ft		<b>Reason</b>			<b>Shoe Joint</b>		
<b>Mix Water:</b>		pH 7	<b>Mix Water Chloride:</b>		LESS 200 ppm		<b>Mix Water Temperature:</b>			70 °F
<b>Cement Temperature:</b>			<b>Plug Displaced by:</b>		8.33 lb/gal		<b>Disp. Temperature:</b>			
<b>Plug Bumped?</b>		Yes	<b>Bump Pressure:</b>		2200 psi		<b>Floats Held?</b>			Yes
<b>Cement Returns:</b>			<b>Returns Density:</b>				<b>Returns Temperature:</b>			
<b>Comment</b> SPACER/OBM INTERFACE TO SURFACE 4.5 BBLS BACK TO PUMP TRUCK										

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	7/27/2020	15:30:00	USER					CREW CALLED OUT AT 1530 HRS. REQUESTED ON LOCATION 2100 HRS.
Event	2	Crew Leave Yard	Crew Leave Yard	7/27/2020	19:00:00	USER					CREW LEAVES YARD
Event	3	Arrive At Loc	Arrive At Loc	7/27/2020	20:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1930', 5.5" CASING: 17 LB/FT TOTAL 15263.63', 8.5" HOLE, TD 17514', 48.23' SHOE TRAC, TVD- 6731'. RIG WAS NOT ABLE TO REACH PLANNED CASING DEPTH. MADE CALL TO KEERAN TO NOTIFY OF THE CHANGE. VERIFIED MY CALCULATIONS WITH RYAN ON NEW TAIL SACK AMOUNT. VERIFIED WITH JIM TURNER THAT ORIGINAL JOB DESIGN TOPS WOULD PREVAIL

Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/28/2020	01:40:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	5	Rig-Up Equipment	Rig-Up Equipment	7/28/2020	01:45:00	USER					CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/28/2020	02:20:00	USER					SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	7	Start Job	Start Job	7/28/2020	03:26:54	COM6	8.52	0.00	24.00	20.00	BEGIN RECORDING DATA
Event	8	Test Lines	Test Lines	7/28/2020	03:44:24	COM6	8.78	0.00	111.00	3.30	TEST HES LINES AND STOP TO 4500 PSI. TEST RIG VALVE TO 2000 PSI
Event	9	Drop Bottom Plug	Drop Bottom Plug	7/28/2020	03:51:34	COM6	8.75	0.00	55.00	3.80	BOTTOM PLUG VERIFIED BY JIM
Event	10	Pump Spacer 1	Pump Spacer 1	7/28/2020	03:52:14	COM6	8.77	0.00	29.00	0.00	120 BBL TUNED PRIME SPACER. 11.5 PPG, 3.87 YIELD, 24.46 GAL/SACK
Event	11	Drop Bottom Plug	Drop Bottom Plug	7/28/2020	04:14:59	COM6	11.36	0.00	97.00	124.80	BOTTOM PLUG VERIFIED BY JIM
Event	12	Pump Lead Cement	Pump Lead Cement	7/28/2020	04:18:07	COM6	11.58	0.00	64.00	0.00	140 SACKS ELASTICEM CAP CEMENT. 41.14 BBL. 13.2 PPG, 1.65 YIELD, 8.38 GAL/SACKCALCULATED TOP OF CAP CEMENT 2500'

Event	13	Pump Cement	Pump Cement	7/28/2020	04:26:00	COM6	13.33	6.90	407.00	46.40	536 SACKS ELASTICEM LEAD 2 CEMENT. 159.42 BBL. 13.2 PPG, 1.67 YIELD, 8.03 GAL/SACK. CALCULATED TOP OF LEAD 2 CEMENT 3508'
Event	14	Pump Tail Cement	Pump Tail Cement	7/28/2020	04:45:21	COM6	13.09	8.70	513.00	164.90	885 SACKS NEO CEM TAIL CEMENT. 321.54 BBL. 13.2 PPG, 2.04 YIELD, 9.79 GAL/SACK. CALCULATED TOP OF TAIL CEMENT 7416'
Event	15	Shutdown	Shutdown	7/28/2020	05:25:31	COM6	13.30	0.00	157.00	341.70	SHUTDOWN
Event	16	Clean Lines	Clean Lines	7/28/2020	05:25:47	COM6	13.29	0.00	96.00	0.00	CLEAN PUMPS AND LINES
Event	17	Shutdown	Shutdown	7/28/2020	05:37:26	USER	8.11	0.00	77.00	45.90	SHUTDOWN
Event	18	Drop Top Plug	Drop Top Plug	7/28/2020	05:38:35	COM6	8.12	0.00	48.00	0.00	TOP PLUG VERIFIED BY JIM
Event	19	Pump Displacement	Pump Displacement	7/28/2020	05:38:59	COM6	8.12	0.00	48.00	0.00	353 BBL TREATED WATER DISPLACEMENT. FIRST 20 BBL HAS 10 GALLONS MICRO MATRIX RETARDER.
Event	20	Bump Plug	Bump Plug	7/28/2020	06:18:33	COM6	8.21	0.00	2716.00	356.10	FINAL CIRCULATING PRESSURE AT 4 BPM WAS 2200 PSI. BUMP PRESSURE 2700 PSI. GOOD SPACER/OBM INTERFACE TO SURFACE.
Event	21	Other	Other	7/28/2020	06:24:09	COM6	8.14	0.00	129.00	356.10	RELEASE PRESSURE/CHECK FLOATS - FLOATS HOLD/4.5 BBL BACK TO PUMP TRUCK
Event	22	End Job	End Job	7/28/2020	06:25:47	COM6	8.16	0.00	22.00	356.10	STOP RECORDING DATA

Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/28/2020	06:26:00	USER	8.16	0.00	22.00	356.10	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	24	Rig-Down Equipment	Rig-Down Equipment	7/28/2020	06:30:00	USER					RIG DOWN BULK AND MIXING EQUIPMENT
Event	25	Rig-Down Completed	Rig-Down Completed	7/28/2020	08:00:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	26	Crew Leave Location	Crew Leave Location	7/28/2020	09:00:00	USER					THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

3.0 Attachments

3.1 Job Chart

