

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3918990		<b>Quote #:</b>		<b>Sales Order #:</b> 0906615300				
<b>Customer:</b> NOBLE ENERGY INC-EBUS				<b>Customer Rep:</b>						
<b>Well Name:</b> GUTTERSEN			<b>Well #:</b> YY06-775		<b>API/UWI #:</b> 05-123-48642-00					
<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-2540FWL										
<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> Nicholas Peterson						
<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>		17,465'		<b>Job Depth TVD</b>		5'				
<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	1931	0	1931
Casing	0	5.5	4.892	17			0	17465	0	6726
Open Hole Section			8.5				1931	17480	1931	6726
<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	1		17465		<b>Top Plug</b>	5.5	1	HES	
<b>Float Collar</b>	5.5	1		17416.7		<b>Bottom Plug</b>	5.5	2	HES	
						<b>Centralizers</b>	5.5	192	Summit	

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	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	120	bbl	11.5	3.87	24.46	6	4,256
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	1,176
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	506	sack	13.2	1.67	8.03	8	4,063
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	1154	sack	13.2	2.04	9.79	8	11,297
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	404	bbl	8.33			10	
Cement Left In Pipe	Amount	47 ft			Reason			Shoe Joint	
Mix Water:	pH 7.0	Mix Water Chloride:	200 ppm		Mix Water Temperature:		70 °F		
Cement Temperature:		Plug Displaced by:	8.33 lb/gal		Disp. Temperature:		70 °F		
Plug Bumped?	Yes	Bump Pressure:	2,200 psi		Floats Held?		Yes		
Cement Returns:		Returns Density:	11.5 lb/gal		Returns Temperature:				
<b>Comment:</b> Pumped 120 bbls Spacer, 42 bbls Cap Cement, 150 bbls Lead Cement, 420 bbls Tail Cement. Washed pumps and lines with 16 bbls Fresh water, Pumped 404 bbls Displacement with MMCR first 20 bbls remainder of displacement with treated water.									

## 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)	Water Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	7/23/2020	12:00:00	USER						CREW CALLED OUT AT 12:00, REQUESTED ON LOCATION 18:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 11764054, 10866493, PUMP 11645460 STAGED ON LOCATION.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/23/2020	16:30:00	USER						CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	7/23/2020	16:45:00	USER						STARTED JOURNEY MANAGEMENT.
Event	4	Crew Leave Location	Arrive At Loc	7/23/2020	18:00:00	USER						END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,931', 5.5" CASING: 17 LB/FT TOTAL 17,464.7', TD 17,480', OH 8.5", SHOE TRAC 48', TVD- 6,726', HALLIBURTON FLOATS, 192 SUMMIT CENTRALIZERS.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/23/2020	18:15:00	USER						HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH

										LOCATION, RIG UP, AND WEATHER.	
Event	6	Rig-Up Equipment	Rig-Up Equipment	7/23/2020	18:30:00	USER				CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.	
Event	7	Rig-Up Completed	Rig-Up Completed	7/23/2020	19:00:00	USER				RIG UP COMPLETE WAITED ON RIG TO FINISH CIRCULATING.	
Event	8	Safety Meeting - Pre Job	Safety Meeting - Pre Job	7/23/2020	20:30:00	USER				SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.	
Event	9	Start Job	Start Job	7/23/2020	20:55:29	COM5				BEGIN RECORDING JOB DATA.	
Event	10	Drop Bottom Plug	Drop Bottom Plug	7/23/2020	20:56:42	USER	8.33	0.00	105.00	BOTTOM PLUG LOADED INTO CASING BY JIM TURNER.	
Event	11	Test Lines	Test Lines	7/23/2020	20:57:06	COM5				PRESSURE TESTED IRON TO 4,700 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1245 PSI, 5TH GEAR STALL OUT @ 1,982 PSI.	
Event	12	Test Lines	Test Lines	7/23/2020	21:04:14	USER				TESTED RIGS STANDPIPE AND IBOP TO 2,000 PSI.	
Event	13	Pump Spacer 1	Pump Spacer 1	7/23/2020	21:06:45	COM5	11.35	8.00	366.00	120.00	PUMP 120 BBLS OF TUNED PRIME @ 11.5 LB/GAL, 3.87 FT3/SK, 24.46 GAL/SK. INJECTED 30 GALLONS D-AIR ON THE FLY, DRY SURFACTANTS MIXED IN WITH BLEND. DENSITY

VERIFIED BY PRESSURIZED  
 MUD SCALES. PUMP RATE  
 8.5 BBLs/MIN @ 385 PSI.

Event	14	Check Weight	Check Weight	7/23/2020	21:09:39	COM5	11.57	4.60	324.00	11.30	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Drop Bottom Plug	Drop Bottom Plug	7/23/2020	21:25:20	COM5	11.28	0.00	75.00	125.80	BOTTOM PLUG LOADED INTO CASING BY JIM TURNER.
Event	16	Pump Cap Cement	Pump Cap Cement	7/23/2020	21:28:36	COM5	13.29	8.5	561.00	41.14	PUMPED 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.65 FT3/SK, 8.4 GAL/SK. 41.14 BBLs, HOC CALCULATED @ 1,008.33', TOC CALCULATED @ 2,533.42'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8.5 BBLs/MIN 562 PSI.
Event	17	Check Weight	Check Weight	7/23/2020	21:30:20	COM5	13.34	3.90	241.00	6.20	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Pump Lead Cement	Pump Lead Cement	7/23/2020	21:34:42	COM5	13.22	8.50	681.00	150.50	PUMPED 506 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 FT3/SK, 8.03 GAL/SK. 150.50 BBLs, HOL CALCULATED @ 3,688.72', TOL CALCULATED @ 3,541.76'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8.5 BBLs/MIN 681 PSI.
Event	19	Check Weight	Check Weight	7/23/2020	21:37:16	COM5	13.27	8.50	563.00	21.80	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	20	Pump Tail Cement	Pump Tail Cement	7/23/2020	21:53:15	COM5	13.17	8.80	603.00	419.28		PUMP 1154 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 FT3/SK, 9.79 GAL/SK, 419.28 BBLS. HOT CALCULATED @ 10,249.51', TOT CALCULATED @ 7,230.49'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8.5 BBLS/MIN @ 807 PSI.
Event	21	Other	Other	7/23/2020	22:03:09	USER	13.30	8.80	804.00	87.10	53.14	LOST DATA CONNECTION FROM PUMP TRUCK.
Event	22	Other	Other	7/23/2020	22:21:42	USER	13.23	8.80	931.00	250.30	154.24	RESUME DATA CONNECTION.
Event	23	Check Weight	Check Weight	7/23/2020	22:27:14	COM5	13.26	8.80	757.00	298.80	184.26	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	24	Shutdown	Shutdown	7/23/2020	22:45:26	COM5						SHUTDOWN TO WASH PUMPS AND LINES PRIOR TO DISPLACEMENT.
Event	25	Clean Lines	Clean Lines	7/23/2020	22:47:34	USER	13.32	0.00	72.00			WASH UP MIX TUB, PUMPS AND LINES WITH 16 BBLS FRESH WATER UNTIL FLOW AT TANK WAS CLEAN.
Event	26	Drop Top Plug	Drop Top Plug	7/23/2020	22:53:33	COM5	8.25	0.00	48.00			TOP PLUG LOADED INTO CASING BY JIM TURNER.
Event	27	Pump Displacement	Pump Displacement	7/23/2020	22:53:35	COM5	8,33	10.50	2700	404		BEGIN CALCULATED DISPLACEMENT OF 405 BBLS WITH FRESH WATER. PUMPED THE FIRST 20 BBLS WITH MMCR, PUMPED REMAINDER WITH TREATED WATER. PUMP RATE 10 BBLS/MIN @ 2,700 PSI. SPACER TO SURFACE @ 403 BBLS AWAY, 2 BBLS SPACER TO SURFACE.

Event	28	Displ Reached Cement	Displ Reached Cement	7/23/2020	22:59:31	USER	8.33	10.00	1116.00	36.10	CAUGHT CEMENT @ 36 BBLS INTO DISPLACEMENT.
Event	29	Bump Plug	Bump Plug	7/23/2020	23:40:46	COM5					PLUG BUMPED AT CALCULATED DISPLACEMENT. 2,170 PSI PRESSURED 500 PSI OVER BUMP.
Event	30	Check Floats	Check Floats	7/23/2020	23:46:03	USER					RELEASED PRESSURE, FLOATS HELD WITH 5 BBLS BACK.
Event	31	End Job	End Job	7/23/2020	23:48:06	COM5					STOP RECORDING JOB DATA.
Event	32	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	7/23/2020	23:55:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION, RIGGING DOWN IRON AND HOSES.
Event	33	Rig-Down Equipment	Rig-Down Equipment	7/24/2020	00:15:00	USER					RIGGED DOWN BULK AND MIXING EQUIPMENT.
Event	34	Rig-Down Completed	Rig-Down Completed	7/24/2020	01:15:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	35	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/24/2020	01:45:00	USER					CREW DISCUSSED ROUTES, HAZARDS AND COMMUNICATION WITH CREW.
Event	36	Crew Leave Location	Crew Leave Location	7/24/2020	02:00:00	USER					THANK YOU FOR USING HALLIBURTON – NICK PETERSON AND CREW.

## 3.0 Attachments

### 3.1 Job Chart

